

INSTABUS KNX/EIB TECHNICAL MANUAL

INFORM, PLAN, EXECUTE



This manual is designed to be a technical aid to electrical planning and installation. It supplements the latest issue of the master catalogue.

The manual provides advice and information based on our best current knowledge. No legal liability can be accepted for errors or omissions. Any illustrations given, including circuit and connection diagrams, are presented without guarantee, in particular in terms of product colour, size, equipment specification and features. Some of the products are protected by industrial property rights.

We reserve the right to make technical and formal changes to our products for the sake of technical development.

All products cited in this Manual subject to CE regulations carry the CE mark on their packaging label. Almost all product listed are KNX/EIB certified.

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PRODUCT OVERVIEWS

The two following product overviews (see also the one starting page 8) contain all of the Berker instabus KNX/EIB products currently available.

This overview is subdivided by category:

- System components
- Sensors
- Actuators
- Logic modules
- Visual representations
- Other components

The sequence within the individual categories is in turn subdivided into technical subgroups. The “Sensors” section, for example, includes the subgroups: Push-buttons, binary inputs, time switches, analogue inputs and other sensors.

Within the subgroups, the DIN rail mounted devices are generally listed first. Then come the built-in devices, followed by the flush and surface mounted devices.



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PRODUCT OVERVIEW BY CATEGORY

Category	Device	RMD	BI	FM	SM	Other
System components						
Power supply	Power supply 320 mA.....	Page 36	■			
	Power supply 640 mA.....	Page 38	■			
	Power supply 640 mA uninterruptible.....	Page 40	■			
	Choke	Page 44	■			
Coupler	Coupler	Page 46	■			
	IP-Router	Page 50	■			
Bus coupling unit	Bus coupling unit.....	Page 52	■			
	Bus coupling unit/Protective cover.....	Page 54		■		■
	Bus coupling unit plus/Protective cover.....	Page 56		■		■
Data interface	Data interface	Page 58	■			
	Data interface	Page 60		■		
	USB Data interface	Page 62	■			
	USB Data interface	Page 64		■		
Other	Data rail with connector.....	Page 66				■
	Data rail cover.....	Page 66				■
	Connection terminal.....	Page 66				■
Sensors						
Push-buttons	Push-button BCU 1gang	Page 70		■		
	Push-button BCU 2gang	Page 72		■		
	Group push-button BCU 1gang.....	Page 74		■		
	Group push-button BCU 2gang.....	Page 76		■		
	Push-button 1gang	Page 78		■		
	Push-button 1gang with labelling field	Page 80		■		
	B.IQ Push-button 1gang standard.....	Page 82		■		
	Push-button 1gang with labelling field and bus coupling unit (new).....	Page 84		■		
	Glass sensor 1gang (new).....	Page 86		■		
	Adapter for KNX/EIB and relay (new).....	Page 88		■		
	Push-button 1gang comfort.....	Page 90		■		
	Push-button 1gang with labelling field	Page 92		■		
	B.IQ Push-button 1gang comfort	Page 94		■		
	Push-button 1gang comfort with labelling field and bus coupling unit (new) ..	Page 96		■		
	Push-button 2gang	Page 98		■		
	Push-button 2gang with labelling field	Page 102		■		
	B.IQ Push-button 2gang standard.....	Page 104		■		
	Push-button 2gang with labelling field and bus coupling unit (new).....	Page 108		■		
	Glass sensor 2gang (new).....	Page 110		■		
	KNX/EIB adapter 2 x 8gang (new)	Page 112		■		
	Push-button 2gang comfort.....	Page 114		■		
	Push-button 2gang with labelling field	Page 116		■		
	B.IQ Push-button 2gang comfort	Page 118		■		
	Push-button 2gang comfort with labelling field and bus coupling unit (new) ..	Page 120		■		
	Push-button 3gang with labelling field	Page 122		■		
	B.IQ Tastsensor 3gang standard	Page 124		■		
	Push-button 3gang with labelling field (new)	Page 126		■		
	Glass sensor 3gang (new).....	Page 128		■		
	Push-button 3gang comfort with labelling field	Page 130		■		
	B.IQ Push-button 3gang comfort	Page 132		■		
	Push-button 3gang with labelling field and bus coupling unit (new).....	Page 134		■		
	Push-button 4gang	Page 136		■		
	Push-button 4gang with labelling field	Page 138		■		
	B.IQ Push-button 4gang standard.....	Page 140		■		
	Push-button 4gang with labelling field and bus coupling unit (new).....	Page 142		■		
	Glass sensor 4gang (new).....	Page 144		■		
	Push-button 4gang comfort.....	Page 146		■		
	Push-button 4gang comfort with labelling field	Page 148		■		
	B.IQ Push-button 4gang comfort	Page 150		■		
	Push-button 4gang comfort with labelling field and bus coupling unit (new) ..	Page 152		■		
Push-button 2gang with room thermostat and display.....	Page 154		■			
Push-button 2gang with labelling fields, with room thermostat, display and bus coupling unit (new).....	Page 156		■			
Glass sensor 2gang with room thermostat (new).....	Page 158		■			
Push-button 3gang with room thermostat and display.....	Page 160		■			

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Category	Device	RMD	BI	FM	SM	Other	
Sensors (Continued)	B.IQ push-button 3gang with room thermostat and display.....	Page 162		■			
	B.IQ IR push-button 3gang with room thermostat and display	Page 164		■			
	Push-button 3gang with labelling fields, with room thermostat, display and bus coupling unit (new).....	Page 166			■		
	Glass sensor 3gang with room thermostat (new).....	Page 168			■		
	B.IQ push-button 4gang with room thermostat and display.....	Page 170			■		
	B.IQ IR push-button 4gang with room thermostat and display	Page 172			■		
	Push-button 5gang with room thermostat and display.....	Page 174			■		
	B.IQ push-button 5gang with room thermostat and display.....	Page 176			■		
	B.IQ IR push-button 5gang with room thermostat and display	Page 178			■		
	Push-button 5gang with labelling fields, with room thermostat, display and bus coupling unit (new).....	Page 180			■		
	Light scene push-button comfort	Page 182			■		
	Light scene push-button 8gang comfort	Page 184			■		
	B.IQ Light scene push-button comfort	Page 186			■		
	Push-button BCU 1gang AQUATEC	Page 188				■	
	Group push-button BCU 1gang AQUATEC	Page 190				■	
	Push-button BCU 2gang AQUATEC	Page 192				■	
	Group push-button BCU 2gang AQUATEC	Page 194				■	
	Physical sensors	Controller sensor 180	Page 196		■		
		Controller sensor 180 comfort with slide switch.....	Page 198		■		
Presence detector standard		Page 202			■		
Presence detector comfort		Page 206			■		
Room thermostat with button interface		Page 210			■		
Object room thermostat with button interface.....		Page 214			■		
Brightness sensor 3gang		Page 216	■				
Brightness sensor 1gang		Page 218		■			
Brightness and temperature sensor (new)	Page 220				■		
Binary inputs	Binary input 4gang 230 V AC	Page 222	■				
	Binary input 6gang 24 V AC/DC	Page 224	■				
	Binary input 8gang 230 V AC	Page 226	■				
	Universal interface 2gang comfort	Page 228			■		
	Universal interface 4gang comfort	Page 232			■		
	Universal interface 8gang comfort	Page 236			■		
Time switches	Week timer 2gang	Page 238	■				
	Year timer switch 4gang	Page 240	■				
	Year timer switch 4gang DCF	Page 242	■				
	DCF receiver	Page 242				■	
	Programming set for OBELISK	Page 242				■	
	OBELISK memory card.....	Page 242				■	
	Time transmitter	Page 246	■				
Analogue inputs	Analogue input 4gang.....	Page 248	■				
	Analogue input module 4gang.....	Page 250	■				
	Weather station (new)	Page 252				■	
	Weather station 4gang comfort	Page 254	■				
	Power supply 24 V.....	Page 256	■				
	Combi weather sensor.....	Page 258				■	
	Wind sensor	Page 260				■	
	Mast adapter.....	Page 260				■	
	Rain sensor.....	Page 262				■	
	Brightness sensor	Page 264				■	
	Temperature sensor	Page 266				■	
Twilight sensor	Page 268				■		
Other	Sensor insert	Page 270		■			
	Radio receiver.....	Page 272			■		

PRODUCT OVERVIEW BY CATEGORY

Category	Device	RMD	BI	FM	SM	Other
Products						
Actuators						
Switch actuators	Switch actuator 2gang 16 A (new).....	Page 276	■			
	Switch actuator 4gang 16 A	Page 278	■			
	Switch actuator 6gang 16 A	Page 280	■			
	Switch actuator 8gang 16 A	Page 282	■			
	Switch actuator 4gang 16 A C load, current detection	Page 284	■			
	Switch actuator 8gang 16 A C load, current detection	Page 286	■			
	Switch actuator/shutter actuator 8/4gang 16 A NO manual	Page 288	■			
	Switch actuator/shutter actuator 16/48gang 16 A NO manual	Page 292	■			
	Switch actuator 1gang 16 A	Page 296			■	
	Switch actuator 2gang 6 A	Page 300			■	
Dim actuators	Universal dim actuator 1gang 50–500 W/VA	Page 302	■			
	Universal dim actuator 2gang 300 W/VA	Page 304	■			
	Universal dim actuator 4gang 20–210 W/VA	Page 306	■			
	Universal dim actuator 1gang 210 W/VA	Page 308			■	
Control units	Control unit 3gang 1-10 V 16 A	Page 312	■			
Shutter actuators	Shutter actuator 4gang 6 A 24 V DC manual.....	Page 314	■			
	Shutter actuator 4gang 230 V AC/2gang 12–48 V DC manual.....	Page 316	■			
	Blind actuator 4gang 6 A 230 V manual	Page 320	■			
	Shutter actuator 8gang 230 V AC/4gang 12-48 V DC manual (new).....	Page 322	■			
	Shutter actuator 1gang 3 A (new).....	Page 324			■	
Other	Room actuator 4/2gang 16 A NO manual (new).....	Page 328	■			
	Fan coil actuator 2gang 10 A NO manual (new)	Page 332	■			
	Window interface 1/1gang (new)	Page 336			■	
	Analogue actuator 2gang.....	Page 340	■			
	Analogue actuator module 4gang.....	Page 342	■			
	Valve drive.....	Page 344				■
	Programming magnet	Page 344				■
	Heating actuator 6gang Triac 230 V AC.....	Page 346	■			
	Heating actuator 1gang 230 V AC (new)	Page 350			■	
	Heating actuator 6gang Triac 24 V AC	Page 354		■		
	Heating actuator 12gang Triac 24 V AC	Page 356		■		
	Valve drive 24	Page 358				■
	Valve adapter	Page 358				■
	Valve drive 230 V	Page 360				■
	Valve adapter	Page 360				■
Logic modules	Logic controller	Page 364	■			
	Function module.....	Page 368	■			
	Tool software for function module full version	Page 368				■
	Tool software for function module demo version.....	Page 368				■
	Mini function module	Page 370	■			
Visual representations						
Displays	Info display	Page 374			■	
	Mini tableau MT 701 Plus	Page 376			■	
Signalling and operating panels	Berker Master Control (new).....	Page 378			■	
Other components	IP control (new).....	Page 384	■			
	DALI gateway.....	Page 388	■			
	Bluetooth gateway	Page 390			■	
	IR gateway	Page 392			■	
	Alarm central unit	Page 394				■
	Tele-control/Handset (new).....	Page 398				■
Training/Service	Software and Data.....	Page 419				■

This overview allows you to access our product range quickly and easily by

■ order numbers

For the sake of conciseness, the individual order numbers of every design variant are not listed. The differences in the article number are indicated by the placeholder “xx”, so for example the 1gang push-button is listed under order number 7516 10 xx.

The complete article numbers of the design variants, please see the corresponding product pages.



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PRODUCT OVERVIEW BY ORDER NUMBERS

Products	Order number	Device	Page	RMD	BI	FM	SM	Other
		110x	Intermediate ring	Page 270			■	
	1681 xx	Glass sensor 1gang (new)	P	■				
	1682 xx	Glass sensor 2gang (new)	Page 110			■		
	1683 xx	Glass sensor 3gang (new)	Page 128			■		
	1684 xx	Glass sensor 4gang (new)	Page 144			■		
	1870	Wall box 2gang for Glass sensor (new)	Page 86			■		
	2766	Radio hand-held transmitter comfort	Page 272					■
	2769	Radio hand-held transmitter minii	Page 272					■
	7500 00 04	Data rail cover	Page 66					■
	7500 00 05	Connection terminal	Page 66					■
	7500 00 07	Protective cover	Page 54			■		■
	7500 00 08	Data rail with connector	Page 66					■
	7501 00 02	Choke	Page 44	■				
	7501 00 09	Power supply 320 mA	Page 36	■				
	7501 00 10	Power supply 640 mA	Page 38	■				
	7501 00 12	USB data interface	Page 62	■				
	7501 00 13	Data interface	Page 58	■				
	7501 00 15	Power supply 640 mA uninterruptible (new)	Page 40	■				
	7501 00 16	IP router (new)	Page 50	■				
	7502 00 01	Bus coupling unit	Page 52	■				
	7502 00 01	Logic controller	Page 364	■				
	7504 00 01	Bus coupling unit	Page 54			■		
	7504 00 03	Bus coupling unit plus	Page 56			■		
	7504 00 04	USB data interface	Page 64			■		
	7506 00 xx	Data interface	Page 60			■		
	7514 10 00	Push-button BCU 1gang	Page 70			■		
	7514 11 00	Group push-button BCU 1gang	Page 74			■		
	7514 12 29	Push-button 1gang with labelling field and bus coupling unit (new)	Page 84			■		
	7514 13 29	Push-button 1gang comfort with labelling field and bus coupling unit (new)	Page 96			■		
	7514 20 00	Push-button BCU 2gang	Page 72			■		
	7514 21 00	Group push-button BCU 2gang	Page 76			■		
	7514 22 29	Push-button 2gang with labelling field and bus coupling unit (new)	Page 108			■		
	7514 23 29	Push-button 2gang comfort with labelling field and bus coupling unit (new)	Page 120			■		
	7514 32 29	Push-button 3gang with labelling field and bus coupling unit (new)	Page 126			■		
	7514 33 29	Push-button 3gang comfort with labelling field and bus coupling unit (new)	Page 134			■		
	7514 42 29	Push-button 4gang with labelling field and bus coupling unit (new)	Page 142			■		
	7514 43 29	Push-button 4gang comfort with labelling field and bus coupling unit (new)	Page 152			■		
	7516 10 xx	Push-button 1gang with labelling field	Page 78			■		
	7516 10 9x	B.IQ Push-button 1gang standard	Page 82			■		
	7516 11 xx	Push-button 1gang	Page 78			■		
	7516 13 xx	Push-button 1gang with labelling field	Page 80			■		
	7516 15 xx	B.IQ Push-button 1gang comfort	Page 94			■		
	7516 16 xx	Push-button 1gang comfort	Page 90			■		
	7516 17 xx	Push-button 1gang comfort with labelling field	Page 92			■		
	7516 20 xx	Push-button 2gang with labelling field	Page 98			■		
	7516 20 9x	B.IQ Push-button 2gang standard	Page 104			■		
	7516 21 xx	Push-button 2gang	Page 98			■		
	7516 23 xx	Push-button 2gang with labelling field	Page 102			■		
	7516 25 xx	B.IQ Push-button 2gang comfort	Page 118			■		
	7516 26 xx	Push-button 2gang comfort	Page 114			■		
	7516 27 xx	Push-button 2gang comfort with labelling field	Page 116			■		
	7516 30 xx	B.IQ Push-button 3gang standard	Page 124			■		
	7516 33 xx	Push-button 3gang with labelling field	Page 122			■		
	7516 35 xx	B.IQ Push-button 3gang comfort	Page 132			■		
	7516 37 xx	Push-button 3gang comfort with labelling field	Page 130			■		
	7516 40 xx	Push-button 4gang with labelling field	Page 136			■		
	7516 40 9x	B.IQ Push-button 4gang standard	Page 140			■		
	7516 41 xx	Push-button 4gang	Page 136			■		
	7516 43 xx	Push-button 4gang with labelling field	Page 138			■		
	7516 45 xx	B.IQ Push-button 4gang comfort	Page 150			■		
	7516 46 xx	Push-button 4gang comfort	Page 146			■		
	7516 47 xx	Push-button 4gang comfort with labelling field	Page 148			■		
	7516 86 xx	B.IQ Light scene push-button comfort	Page 186			■		
	7516 87 xx	Light scene push-button comfort	Page 182			■		

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Order number	Device		RMD	BI	FM	SM	Other
7516 88 xx.....	Light scene push-button 8gang comfort	Page 184			■		
7519 10 00.....	Push-button BCU 1gang AQUATEC	Page 188				■	
7519 11 00.....	Group push-button BCU 1gang AQUATEC	Page 190				■	
7519 20 00.....	Push-button BCU 2gang AQUATEC	Page 192				■	
7519 21 00.....	Group push-button BCU 2gang AQUATEC	Page 194				■	
7521 20 06.....	Week timer 2gang	Page 238	■				
7521 30 06.....	Brightness sensor 3gang	Page 216	■				
7521 40 06.....	Year timer switch 4gang DCF	Page 242	■				
7521 40 07.....	Year timer switch 4gang	Page 240	■				
7521 40 08.....	Binary input 4gang 230 V AC.....	Page 222	■				
7521 60 01.....	Binary input 6gang 24 V AC/DC	Page 224	■				
7521 80 01.....	Binary input 8gang 230 V AC.....	Page 226	■				
7526 11 xx.....	Controller sensor 180 (type 1.10 m).....	Page 196			■		
7526 12 xx.....	Controller sensor 180 (type 2.20 m).....	Page 196			■		
7526 15 12.....	Controller sensor 180 comfort with slide switch (type 1.10 m).....	Page 198			■		
7526 16 12.....	Controller sensor 180 comfort with slide switch (type 2.20 m).....	Page 198			■		
7526 20 01.....	Presence detector standard	Page 202				■	
7526 40 01.....	Presence detector comfort	Page 206				■	
7531 00 02.....	Switch actuator/shutter actuator 16/8gang 16 A NO manual.....	Page 292	■				
7531 10 07.....	Universal dim actuator 1gang 500 W/VA	Page 302	■				
7531 20 07.....	Universal dim actuator 2gang 300 W/VA	Page 304	■				
7531 20 08.....	Switch actuator 2gang 16 A (new).....	Page 276	■				
7531 20 12.....	Fan coil actuator 2gang 10 A (new)	Page 332	■				
7531 30 05.....	Control unit 3gang 1-10 V 16 A	Page 312	■				
7531 40 11.....	Shutter actuator 4gang 6 A 24 V DC manual.....	Page 314	■				
7531 40 13.....	Blind actuator 4gang 6 A 230 V manual	Page 320	■				
7531 40 15.....	Switch actuator 4gang 16 A	Page 278	■				
7531 40 16.....	Switch actuator 4gang 16 A C load, current detection.....	Page 284	■				
7531 40 17.....	Universal dim actuator 4gang 20-210 W/VA.....	Page 306	■				
7531 40 18.....	Shutter actuator 4gang 230 V AC/2gang 12-48 V DC manual.....	Page 316	■				
7531 40 19.....	Room actuator 4/2gang 16 A (new).....	Page 328	■				
7531 60 02.....	Switch actuator 6gang 6 A	Page 280	■				
7531 60 03.....	Heating actuator 6gang Triac 230 V AC.....	Page 346	■				
7531 80 03.....	Switch actuator/shutter actuator 8/4gang 16 A NO manual.....	Page 288	■				
7531 80 04.....	Switch actuator 8gang 16 A	Page 282	■				
7531 80 05.....	Switch actuator 8gang 16 A C load, current detection.....	Page 286	■				
7531 80 08.....	Shutter actuator 8gang 230 V AC/4gang 12-48 V DC manual (new)	Page 322	■				
7533 00 01.....	Heating actuator 12gang Triac 24 V AC.....	Page 356		■			
7533 60 01.....	Heating actuator 6gang Triac 24 V AC.....	Page 354		■			
7534 10 01.....	Switch actuator 1gang 16 A	Page 296			■		
7534 10 03.....	Universal dim actuator 1gang 210 W/VA	Page 308			■		
7534 10 04.....	Shutter actuator 1gang 3 A (new).....	Page 324			■		
7534 10 05.....	Heating actuator 1gang 230 V AC (new).....	Page 350			■		
7534 10 06.....	Window interface 1/1gang (new)	Page 336			■		
7534 20 01.....	Switch actuator 2gang 6 A NO	Page 300			■		
7541 40 03.....	Weather station 4gang comfort	Page 254	■				
7541 40 04.....	Analogue input 4gang	Page 248	■				
7542 40 04.....	Analogue input module 4gang	Page 248	■				
7543 10 01.....	Brightness sensor 1gang	Page 218		■			
7544 11 xx.....	Object room thermostat with button interface.....	Page 210		■			
7544 12 xx.....	Room thermostat with button interface	Page 214		■			
7549 00 01.....	Weather station (new)	Page 252				■	
7549 20 02.....	Brightness and temperature sensor (new)	Page 220				■	
7550 00 02.....	Valve drive.....	Page 344					■
7551 40 01.....	Analogue actuator 4gang.....	Page 340	■				
7552 40 01.....	Analogue actuator module 4gang.....	Page 340	■				
7563 00 04.....	Radio receiver.....	Page 272				■	
7564 20 01.....	Universal interface 2gang comfort.....	Page 228			■		
7564 20 3x.....	Glass sensor 2gang with room thermostat (new).....	Page 158			■		
7564 30 3x.....	Glass sensor 3gang with room thermostat (new).....	Page 168			■		
7564 40 01.....	Universal interface 4gang comfort.....	Page 232			■		
7564 80 01.....	Universal interface 8gang comfort.....	Page 236			■		
7566 01 xx.....	Bluetooth gateway.....	Page 390			■		

PRODUCT OVERVIEW BY ORDER NUMBERS

Products

Order number	Device	Page	RMD	BI	FM	SM	Other
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7566 27 xx	Push-button 2gang with room thermostat and display	Page 154			■		
7566 27 29	Push-button 2gang with labelling fields, with room thermostat, display and bus coupling unit (new)	Page 156			■		
7566 35 xx	B.IQ push-button 3gang with room thermostat and display	Page 162			■		
7566 36 xx	B.IQ IR push-button 3gang with room thermostat and display	Page 164			■		
7566 37 xx	Push-button 3gang with room thermostat and display	Page 160			■		
7566 37 29	Push-button 3gang with labelling fields, with room thermostat, display and bus coupling unit (new)	Page 166			■		
7566 45 xx	B.IQ push-button 4gang with room thermostat and display	Page 170			■		
7566 46 xx	B.IQ IR push-button 4gang with room thermostat and display	Page 172			■		
7566 55 xx	B.IQ push-button 5gang with room thermostat and display	Page 176			■		
7566 56 xx	B.IQ IR push-button 5gang with room thermostat and display	Page 178			■		
7566 57 xx	Push-button 5gang with room thermostat and display	Page 174			■		
7566 57 29	Push-button 5gang with labelling fields, with room thermostat, display and bus coupling unit (new)	Page 180			■		
7570 00 11	Tool software for function module full version	Page 368					■
7571 00 03	DALI gateway	Page 388					
7571 00 04	IP control (new)	Page 384	■				
7572 00 10	Function module	Page 368	■				
7572 00 11	Mini function module	Page 370	■				
7573 00 10	Alarm central unit	Page 394				■	
7573 00 11	Tele-control (new)	Page 398				■	
7574 00 09	Mini tableau MT 701 Plus	Page 376			■		
7574 00 1x	Berker Master Control (new)	Page 378			■		
7586 00 xx	Info display	Page 374			■		
7590 00 09	Handset black	Page 398					■
7590 00 17	Tool software for function module demo version	Page 368					■
7590 00 19	Programming magnet	Page 344					■
7590 00 21	Flush-mounted housing	Page 376	■				
7590 00 31	KNX/EIB adapter 2 x 8gang	Page 112	■				
7590 00 32	Adapter for KNX/EIB and relay	Page 88	■				
7590 00 46	Mast adapter	Page 260					■
7590 00 47	DCF receiver	Page 242				■	
7590 00 48	Programming set for OBELISK	Page 240					■
7590 00 49	OBELISK memory card	Page 240					■
7590 00 50	Wind sensor	Page 260				■	
7590 00 52	Rain sensor	Page 262				■	
7590 00 53	Brightness sensor	Page 264				■	
7590 00 54	Temperature sensor	Page 266				■	
7590 00 55	Twilight sensor	Page 268				■	
7590 00 57	Combi weather sensor	Page 254				■	
7590 00 66	Basic cable set	Page 40					■
7590 00 67	Extension cable set	Page 40					■
7590 00 68	Lead battery 12 V	Page 40					■
7590 00 7x	Valve adapter	Page 358					■
7590 00 80	Labelling field clear transparent	Page 82			■		
7590 00 81	Labelling field clear transparent	Page 140			■		
7590 00 82	Labelling field clear transparent	Page 176			■		
7591 00 01	Power supply 24 V AC	Page 256	■				
7591 00 02	Time transmitter	Page 246	■				
7591 00 76	Valve drive 230 V	Page 360					■
7591 00 77	Valve drive 24 V	Page 354					■
7594 00 0x	Frame	Page 376			■		
7594 01 0x	Frame (new)	Page 378			■		
7594 04 xx	Central plate	Page 270			■		
7594 10 01	Sensor insert	Page 270			■		
7596 00 xx	Labelling field with cover plate	Page 79			■		
7599 10 00	Rocker grey AQUATEC	Page 188				■	
7599 11 00	Rocker with lens AQUATEC	Page 188				■	
7599 12 00	Rocker with imprinted symbol AQUATEC	Page 190				■	
7599 13 00	Rocker with labelling field AQUATEC	Page 188				■	
7599 20 00	Rockers grey AQUATEC	Page 192				■	
7599 21 00	Rockers with imprinted symbol arrow AQUATEC	Page 192				■	
7599 22 00	Rockers with imprinted symbol arrows AQUATEC	Page 194				■	
9200 01	Emergency power storage battery	Page 394					■

Product example without design variants

12 Technical data

Supply	via bus line	21-32 V DC
Auxiliary voltage	24 V AC ± 10 %	SELV
Current input		max. 250 mA
Inputs	Sensor inputs	4
	Current	0-20 mA, 4-20 mA
	Voltage	0-1 V, 0-10 V
	Input resistance	Voltage measurement approx. 18 Ω/cm Current measurement approx. 100 Ω/cm
Outputs	Supply outputs	2
	Rated voltage	24 V AC ± 10 %
	Maximum current	100 mA DC total
Behaviour in the event of power failure	Bus voltage failure	no communication with KNX/EIB, no supply for the sensors
	Supply voltage failure	no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage	no communication with KNX/EIB, no supply for the sensors
	Supply voltage	no communication with KNX/EIB
	Bus and supply voltage	Transmission of the measurement and limit values as per initialisation parameters of the application
Operation and display elements	Programming key	Red
	Programming LED	Red/green
	Status LED	
Connections	KNX/EIB inputs	Connecting terminal 0.5-4 mm ² single/fine stranded without conductor sleeve, 0.5-2.5 mm ² finely stranded with conductor sleeve 6-pin system plug for analogue input module
Protection	Module connection	
	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)		4 modules

11 Information

The analogue input 4gang is designed as a top hat rail mounted device and is used to acquire and forward up to four analogue sensor signals. The analogue input can evaluate both voltage and current signals. The current inputs with the measurement range 4-20mA can be monitored for wire break.

Sensor signals are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters and blinds, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e.g. via KNX/EIB devices such as information display or MT 701 plus or MT 701 ct. Operation of the analogue input requires a 24 V auxiliary voltage. External analogue sensors are supplied with voltage via the short-circuit and overload protected outputs.

The lateral interface can be used to connect an analogue input module for another 4 sensors, which are likewise adjusted via the software of the basic unit.

10 Order data

Device colour	7541 40 04	Accessories	
Light grey		Analogue input module	7542 40 04
		Power supply 24 V AC	7591 00 01

9

Applications

Analogue input 4gang V2 800A01

Analogue inputs

- Connectable sensor type can be adjusted for the integral analogue inputs: 0-1 V; 0-10 V; 0-20 mA; 4-20 mA
- Transmission behaviour for measured values adjustable
- 1 or 2-byte can be chosen as transmission format
- Two limit values with hysteresis can be set per input
- Two external limit values per input can be selected for adjustment via EIB devices in ongoing operation
- Wire break monitoring can be set for 4-20 mA sensors
- Transmission of an alarm bit can be set

Modules

- One analogue input module with four additional inputs can be selected: Programming options are the same as the basic unit

Objects

50

Group addresses/assignments

max. 200 each

6

Notes

Terminals

+US: Supply for external sensors

GND: Reference potential for +US and inputs

E1...E4: Measured value inputs

AC 24 V: External supply voltage

Key

- Analogue input module connection
- Bus connection
- Programming button
- Programming LED
- Status LED
- Active sensor

4

Information

- Four freely adjustable sensor inputs
- Four additional sensor inputs possible using analogue input module
- Conversion of analogue measurement data into 1-byte and 2-byte values (EIS 5/6)
- System interface for connection of an analogue input module
- 24 V DC output for supplying connected sensors

5

Analogue input 4gang

7

Order data

8

248

Product example with design variants

15 Technical data

Supply	via bus line	21-32 V DC
Controls and displays	Button with rocker mounting	
	Programming button	Red
	Programming LED	Red
	Status LED	Terminal
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitting in wall boxes	□ 60 mm, 40 mm deep □ 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)		71 x 71 x 32 mm

14 Information

The push-button BCU 1gang is executed as a flush-mounted device. It consists of a bus coupling unit, a micro push-button with associated evaluation electronics and a status LED, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (1gang, with lens, with labelling).

13 Order data

Design	Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker K.1/K.5	Rocker Berker ARSYS	Rocker Shatter-proof IP 44
- with support ring...	7514 10 00				
White	1620 02	White, glossy	1620 89 82	White	1405 00 02
- with lens	1621 12	- with lens	1621 89 82	- with lens	1416 00 01
- with labelling	1626 02	- with labelling	1626 89 82	- with labelling	1426 00 02
Polar white	1620 09	Polar white, glossy	1620 89 89	Polar white	1405 00 09
- with lens	1621 19	- with lens	1621 89 89	- with lens	1416 00 09
- with labelling	1626 09	- with labelling	1626 89 89	- with labelling	1426 00 09
		Aluminium, matt	1620 14 04	Light bronze, metal	1404 00 01
		- with lens	1621 14 04	- with lens	1416 00 01
		- with labelling	1626 14 04	- with labelling	1426 00 01
		Aluminium, matt	1405 70 24	Stainless steel	1404 00 04
		- with lens	1405 70 24	- with lens	1416 00 04
		- with labelling	1426 70 24	- with labelling	1426 00 04

6

Applications

Switching 105601

- Switching functions: ON or OFF or TOGGLE
- LED as status indicator, continuous ON or continuous OFF

Objects

1

Group addresses/assignments

maximum of 3 each

7

Order data

Rocker Berker K.1/K.5	1405 70 04	Rocker Berker ARSYS	1405 00 02	Rocker Shatter-proof IP 44	1550
- with lens	1415 70 04	- with lens	1415 00 02	- with lens	1553
- with labelling	1426 70 04	- with labelling	1426 00 02	- with labelling	1629
		Polar white	1405 00 09	Polar white	1550 09
		- with lens	1415 00 09	- with lens	1553 09
		- with labelling	1426 00 09	- with labelling	1629 09
		Light bronze, metal	1404 00 01		
		- with lens	1416 00 01		
		- with labelling	1426 00 01		
		Stainless steel	1404 00 04		
		- with lens	1416 00 04		
		- with labelling	1426 00 04		

5

Information

- Status LED to indicate operating states or as orientation light
- Switching of a function group

6

Analogue input 4gang

7

70

8

71

Double-page layout

Product descriptions are always laid out across a double page. On the left, two typical examples are illustrated. The blue item numbers are pointers which allow you to access key information such as technical data, applications, combination options, order numbers and suchlike quickly and easily.

1 Device category

The device category is indicated at the top right as a quick reference guide – in this case “Sensors”.

2 Applications

Any applications linked to the device are presented here with their name, features, number of objects, group addresses and assignments. If you would like more detailed information, e.g. about the objects, it is available on the Internet under “www.berker.com”.

3 Notes

Depending on the device, this segment will give details of special features, such as for installation. There will also usually be a specimen schematic connection diagram, with a key to the connections, controls and displays, electrical consumers, etc. shown.

4 Product illustration

The core element of the page layout is the full-width blue “viewing window” (shown here in dark grey for the sake of clarity). It contains the product descriptions (see **9** and **11**) and the product illustration, which is always presented on the right-hand side within the viewing window.

IMPORTANT

Product illustrations are **generally shown in halftones**. For more colour and shape details, refer to our master catalogue.

5 Product name

The product name is important for communication between the various technical specialists. For ordering purposes, however, only the order number is unique.

6 ETS icon

The ETS icon provides quick classification of the device, and can be inserted into block diagrams, planning sketches, etc.

7 ETS search path

The relevant “device path” is entered here for planning/installation using the ETS2 software package.

8 Number of pages

Quick access to the product descriptions by way of the table of contents on pages 4–11.

9 Key features

This segment gives a bullet-pointed listing of the key features of the product concerned. It is supplemented by the features information (also white-bulleted) listed in the “viewing window” (see **11**).

10 Ordering data

In this example there is only one version of the device. For planning purposes, this segment provides you with details of the order number as well as the product colour.

11 Information

This segment provides supplementary information on the key features listing, including details such as the device type, area of application, functionality and combination options.

12 Technical data

This segment presents all the key technical specifications for power supply, inputs and outputs, controls and displays, protection and ambient temperature range.

13 Accessories

In many catalogues the accessories are listed on separate pages. For the sake of clarity, wherever possible the accessories are specified directly together with the product concerned. This example shows the rockers which can be combined with the push-button BCU 2gang.

14 Complex ordering data

The information given is generally the same as under item **10**. Our range of design lines is listed apart from BERKER S.1 up to MODUL 2. Where the product in question has different design versions (such as different-acting types of monitor sensors), the relevant ordering data for the variants is also listed directly here. Thus, in the example here the ordering data includes “shatter-proof IP 44 rockers”.

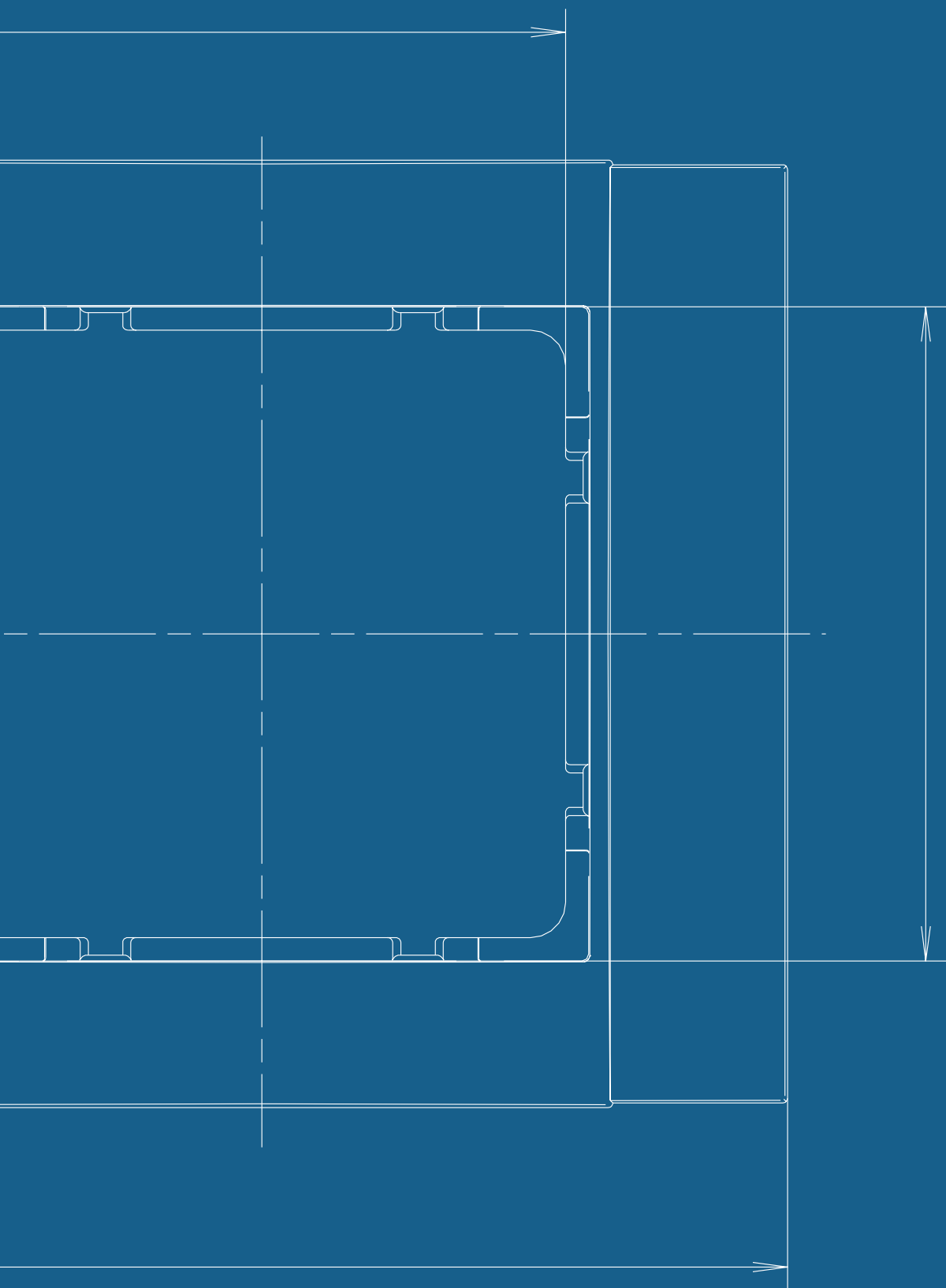
15 (where appropriate containing the following indication)

“continued on next double page ►”

The double-page product description is laid out as follows:

- technical data always at the top left
- applications always at the top right

The descriptions of some devices are so lengthy that they require an additional double page. In such cases the continuation of the “Technical data” will not, as when reading normally, follow on at the right, but will resume on the next double page. The same applies to the application descriptions, though they are always to be found at the top right.



B.

Berker the right way.

Corporate philosophy	16–17
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Systems
information

System
components

Sensors

Actuators

Logic modules

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components

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GENERAL INFORMATION

Berker sets standards in design and functionality. With design concepts tailored to the needs of individual comfort. This means that you can combine all of the colour and material variants within these series with the flush-mounted inserts in the manner of a modular system. This gives you maximum flexibility and rigorously integrated design for all applications.

From simple socket outlets to innovative control sections – the modular system from Berker offers complete options for modern, flexible electrical installations. Thus it is possible to exchange the surfaces later – even after many years.

Berker switch systems – safe, future-proof and quality “Made in Germany”.

1919.

The Berker brothers establish a specialist factory for electrical appliances in Schalksmühle, Germany. Success is not long in coming. After only two years' production, the small operation reaches its capacity limits. Reason enough, as early as 1921, to open a second production facility in Ottfingen.

Concentrated investments in building, assembly and production facilities help the company to become a leading vendor of switches and system within just a few years.

BERKER TODAY.

Our headquarters is still in Schalksmühle, Germany, where the company was founded.

At its Ottfingen plant, Berker has state-of-the-art manufacturing facilities for switches and systems, a central warehouse, and a KNX/EIB training and information centre.



Berker the right way.

Berker sets standards in design and functionality. This is attested by the innovative instabus KNX/EIB concepts, which rely on a very high degree of technology and combination options.



In order to achieve our goals, we work closely with the Konnex (KNX) umbrella organisation and with the best designers and developers. Our slogan for the 21st century: "Berker – the right way." Our future-oriented corporate philosophy is matched by our state-of-the-art production processes.

Concentrated investment has built the company rapidly into a leading supplier in its field. Advanced computer-aided methods are applied to develop and design state-of-the-art products that correspond to the latest technical advances such as instabus KNX/EIB technology.



The focus is on the quality and safety of the finished products. Berker was one of the first companies to install a quality management system to DIN ISO 9001, meeting all the requirements for certification.

The quality of Berker's products very soon became known not only in Germany, but also in the rest of Europe and overseas. Holdings in other electrical and electronics engineering companies also permit Berker to benefit from cross-product technology transfer and open up new opportunities on the market.

Whether in residential buildings, congress centres, museums, or even in mobile homes – Berker products are in use all over the world.

We will be pleased to make our know-how available to you too.

BERKER SWITCH RANGES

All Berker flush-mounted standard and area programs are modular in design.

This means they can combine all the colour and material variants within the various ranges according to individual needs.

And of course you can also interchange surfaces within the Berker special ranges.

MODUL 2

The standard program combines highly flexible design options with optimum value for money: A classic range matching any interior design style, specially suited to rented apartment blocks and public buildings as well as private living space.

Berker S.1

The Berker S.1 standard range sets new standards in many respects.

The modern design with its simple elegance is suitable for a wide variety of ambiances and intended uses.

Using the same rockers and inserts in the ranges Berker S.1, B.1, B.3 and B.7 GLAS means that warehousing requirements are minimised. Its modular concept, ergonomic design and square shape guarantee efficient handling.



Berker B.1, B.3 and B.7 GLAS

The pure brilliance of the B. switch series lends your room a timeless elegance. Thanks to the successful symbiosis of shape, material and colour, the switch ranges B.1, B.3 and B.7 are perfectly designed to meet your requirements.

The gentle metallic gleam of the Berker B.3 in real aluminium is truly impressive, and the clear design of the Berker B.7 GLASS fits in perfectly with the most diverse interior styles.



Berker the right way.

Berker Q.1

With its unmistakable features, the new Berker Q.1 will inspire and excite all those who are searching for switches with a wide range of applications. It features a unique velvety surface made of polar white plastic. Its pleasing shape and soft, rounded contours are like love at first sight.

Berker K.1 and K.5

Sharp edges and square corners. Linear balance, while renouncing all other design attributes: those are the salient design features of the Berker K.1 range. With its new interpretation of timeless design sensibilities, the Berker K.1 gives your interior spaces a clear, linear, timeless character. Clear contours. Consistent design. A cultivated exterior—the Berker K.5 is recommended for anyone who values fine forms and the highest quality materials in stainless steel, all in equal measure.

ARSYS

Perfect interior design originates in the detail. Carefully selected materials and colour shades create the foundation for harmonious design of living and working spaces. The program ARSYS offers you a wide variety of materials, elegant forms and colours, from classic white to shimmering matt stainless steel – a byword for timeless design.

B.IQ

B.IQ is a minimalist design through and through. A frameless switch with a large contact area and a striking indicator light in the centre are perfectly enhanced by the high quality materials: glass, brushed stainless steel and plastic in polar white.



Berker Q.1



Berker K.1



Berker ARSYS



B.IQ



TS Sensor

TS SENSOR

A smooth glass surface conceals the innovative technology - push-buttons that perform functions at a gentle touch, and a display in “dark design” for the room temperature control. The Berker TS Sensor – the ideal solution for especially sophisticated requirements.

CONVENTIONAL ELECTRICAL INSTALLATION

The electrical installation field faces ever increasing demands. For example, information and data relating to the individual subsystems (heating/lighting/window blinds) within an overall facility increasingly needs to be exchanged and modified according to specific requirements.

This is especially true of office blocks, warehousing and factory facilities of all kinds, and hotels and leisure facilities, in which conventional installation needs to be supplemented by the whole raft of modern-day state-of-the-art communications technology. And complex new demands are arising in the residential building sector too. As a result, conventional electrical installation is becoming more and more technically complicated, costly and complex.

The greater demands are increasingly difficult to meet on any commercially viable basis using conventional installation techniques.

Consequently, it makes sense right from the planning phase to consider alternative techniques such as the instabus KNX/EIB system technology, which makes all the necessary connections, allows for unproblematic modifications as and when required, and is oriented to future needs.

HISTORY OF INSTABUS KNX/EIB

At the end of the 1980s Berker together with other leading electrical engineering companies formed an instabus development group. The outcome, in 1990, was the EIBA – the European Installation Bus Association.

All newly developed KNX/EIB products are developed, tested and monitored by Konnex (KNX) in compliance with the applicable standards. If a product meets all the relevant standards, it is awarded Konnex (KNX) certification. This ensures that all KNX/EIB components are able to communicate with each other and have the same system design.

INNOVATIVE BUILDING SYSTEM TECHNOLOGY

The European Installation Bus – KNX/EIB – is a standardised installation system providing automated control of technical functions in commercial, public and residential buildings. KNX/EIB benefits personal safety and protects property, ensures efficient use of energy and enhances comfort. The system also considerably reduces the time and cost involved in installation. All subsystems can be integrated over the bus, from the lighting to the alarm system, from the central heating to the window blind management system. KNX/EIB is even capable of operating specific appliances such as ovens, washing machines and irons. In terms of products the consumer has a full spectrum of choice, because over a hundred leading manufacturers offer KNX/EIB-compatible appliances. Thus the number of private and public clients deciding in favour of installing KNX/EIB is increasing by several thousand each year.

KNX/EIB is suitable for installation in detached homes and apartment blocks, offices and other business premises, as well as in light commercial and industrial buildings, hotels, banks, schools, hospitals and a range of other public and commercial buildings. It can be used to



Berker the right way.

control the heating, air conditioning, ventilation, lighting, window blinds and shutters, as well as to monitor and report technical building services functions, for load management, alarm signalling, remote control and remote monitoring purposes.

Whether in a bank tower in London, a hotel in Amsterdam or a private apartment block in Düsseldorf – KNX/EIB provides efficient management of private, public and commercial buildings on a worldwide scale, substantially cutting the cost of use of any property based on timed and presence-sensitive operation of appliances and systems. Oriented towards people's personal sense of well-being, the KNX/EIB system technology also increases productivity. It adapts the climate control of interior spaces to the weather, and creates a constant, comfortable atmosphere within the building. And installing KNX/EIB is worthwhile not least for safety reasons too. At minimal material cost, the risk of fire is significantly reduced relative to a conventional installation.

USER-FRIENDLY – COST-SAVING

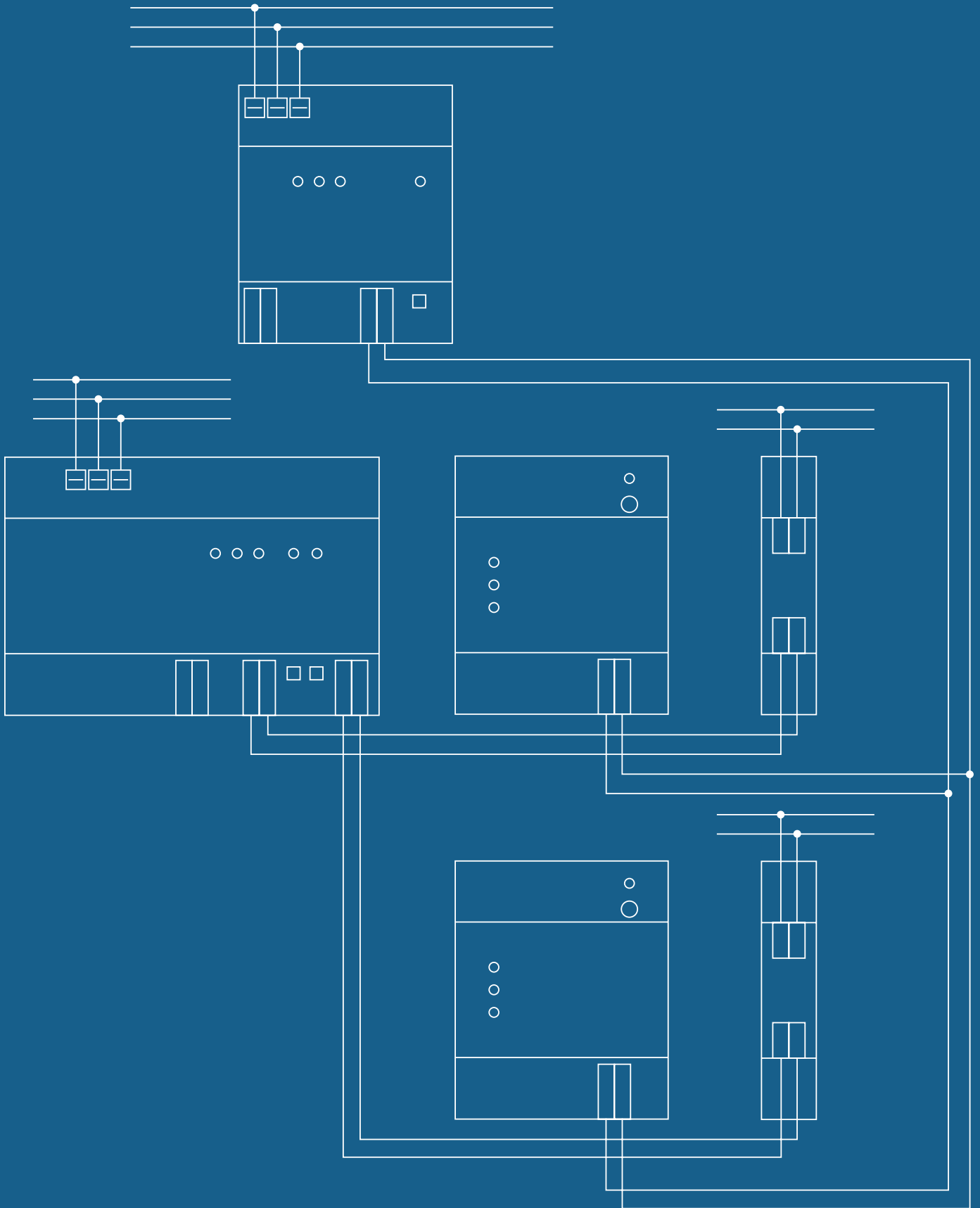
The KNX/EIB building system can be tailored precisely to the needs of the specific users, and responds to users' requirements in terms of ease of use. All of the building services functions of a KNX/EIB system are coordinated with each other and with the ambient conditions. Thus the lighting, heating and air conditioning are adapted to the actual current demands without the need for any reduction in comfort. Load management and efficient use of energy result in substantial savings in terms of operating cost. Subsequent changes of use and conversions can be carried out more quickly and cost-effectively. Investments in KNX/EIB are amortized within just a few years.

TIME-SAVING – SAFE – FLEXIBLE

The time commitment and expense of planning and installation is reduced. This is made possible by software support in the planning and commissioning of KNX/EIB systems. And there is much less wiring too. The power cables are routed only to the electrical loads, and not to the sensors (push-buttons, switches, thermostats, etc.). The reduced wiring complexity also means less fire risk. Changes of use as commonly occur in modern office and business environments place high demands on the electrical installation, but are no problem for KNX/EIB. With no additional installation work, functions can be modified by readdressing and parameter resetting (with software support) of the KNX/EIB components.

MODULAR – UPGRADABLE – COMPATIBLE

The modular, decentralized design of the KNX/EIB building system prevents any malfunctions which may occur from interfering with the functioning of the overall system. Additions, renovations and extensions can be connected to the existing KNX/EIB installations at any time, even between buildings. KNX/EIB systems can be connected via interfaces to building control and automation systems and so perform additional functions.



B.

Berker the right way.

Example: Office/Home	24–25
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Systems
information

SYSTEM INFORMATION

System
components

The idea of being able to control every conceivable electrical appliance and system in the building from virtually any centralized location, or indeed from decentralized multiple locations, has long occupied the minds of electrical engineers.

This desire for a user-friendly building system was the trigger which led to the establishment of the European Installation Bus as the standard for intelligent building control in modern installation engineering.

Sensors

The instabus KNX/EIB meets all the requirements placed on such a system: Simple installation and commissioning, flexibility, cost-effectiveness, high operational safety, comfort and user-friendliness

Actuators

This section presents a brief introduction to the instabus KNX/EIB system.

Logic modules



Visual repre-
sentations

Other
components

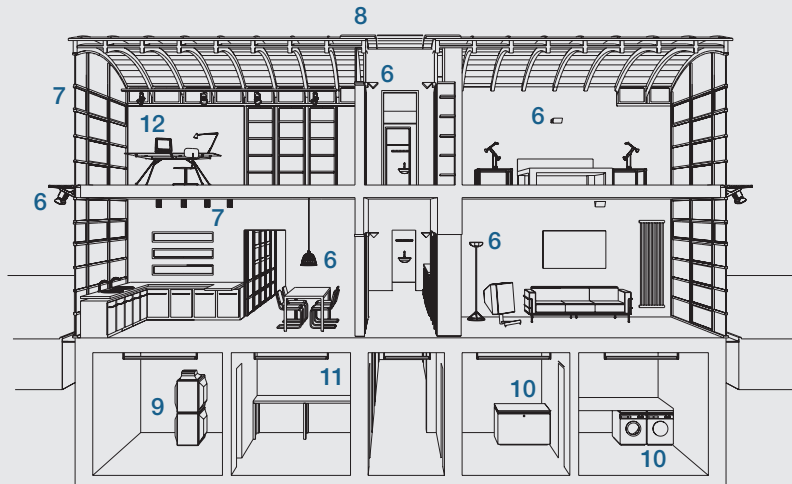
Dim. drawings
Glossary

Training
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“Office”



“Home”



“Office”

In today's world, the commercial use of a building essentially depends on factors such as flexibility, transparency, functionality and energy management.

A state-of-the-art electrical installation using the Berker instabus KNX/EIB system provides the ideal basis for integration of the overall building systems.

1 Lighting

Ambient light sensitive lighting control; constant light regulation at the workplace; needs-based lighting (light scenes, monitors)

2 Sun shade/blinds/shutters

Automatic light/sun shading; safety functions to prevent destruction by wind, rain and frost

3 Heating/air conditioning/ventilation

Energy saving based on needs-oriented room-by-room control; comfort/standby/night modes; timed temperature profiling; heating and cooling with a thermostat; controlled air supply and venting; incorporation of boiler control

4 Security

Fault signalling; surveillance devices; fire alarms

5 General functions

Presentation/visualisation of building functions on panel and PC; metre, consumption and operating hours data acquisition; centralised control of building functions; maximum building transparency; timer-controlled building functions;

communication; remote visualisation and surveillance; remote maintenance; transmission of operating states and alarms

“Home”

Demands for security, comfort and well-being in the private residential environment are rising continuously. Of increasing importance in this regard is the cost-effective overall use of the building. All these demands can be met with a state-of-the-art electrical wiring installation. The Berker instabus KNX/EIB installation bus system provides the ideal basis.

6 Lighting

Store and retrieve lighting moods/light scenes at the press of a button; operate/dim lights individually, in groups and centrally; needs-based lighting (monitors); reduction in number of control elements; switchable sockets for portable devices

7 Sun shade/blinds/shutters

Automatic sun shade function; timed window blind functions

8 Weather device

Protection of awnings and blinds against destruction by wind, rain and frost; automatic closure of skylight windows in event of rain; display of weather data (wind speed, rain, temperature and brightness)

9 Heating

Well-being based on differing temperature zones around the house; energy saving based on needs-oriented room-by-room control; timed temperature profiling; incorporation of boiler control and circulation pump

10 Security

Processing of fault signals (power failure/heating malfunction/freezer/washing machine etc.); presence simulation by automatic lighting and window blind control; motion-sensitive exterior lighting; monitoring of opening of windows, doors and gates; interior surveillance (monitors); fire alarm systems; telephone forwarding of fault and alarm signals; telephone status polling; panic button with custom functioning; integrated closure systems

11 Alarm central unit

Monitoring of opening of windows, doors and gates; interior space monitoring (controllers); fire alarm systems; raising the alarm; communicating faults and alarms by telephone; responding to telephoned status enquiries; integrated closing systems; linking alarm and installation functions

12 General functions

Timed operation (lighting/heating/window blinds); wireless remote control of in-house functions; group and centralised functions; centralised display and operator control units; absence mode (“sleeping house”)

Communication

Telephone status polling/fault signalling

Remote maintenance

INSTABUS KNX/EIB BASICS

instabus KNX/EIB is a standardized, decentralized bus system. Devices can interchange information directly over the bus – that is, without going via a central control unit. All the devices on the bus have equal rights status (multi-master mode).

The key components of an instabus KNX/EIB installation are the two-wire bus cable and the bus-compatible devices, such as system devices (e.g. power supply units, couplers, interfaces), sensors (e.g. push-buttons, binary inputs) and actuators (e.g. switch actuators, valve drives, etc.). Data is exchanged between sensors (transmitter) and actuators (receiver/converter) over the bus cable in the form of data telegrams.

Communication and power supply to the device electronics is carried over the bus cable, which is connected to each device. In contrast to the sensors, the actuators usually require an additional supply voltage (230 V) to control the consumers. The bus cable and the mains power connection are reliably isolated from each other.

The bus coupling units of the respective sensors/actuators (devices) perform other core functions in the instabus KNX/EIB system in addition to receiving and sending data: they store the physical address, the group addresses and the applications “management”. The applications are grouped in the Berker product database.

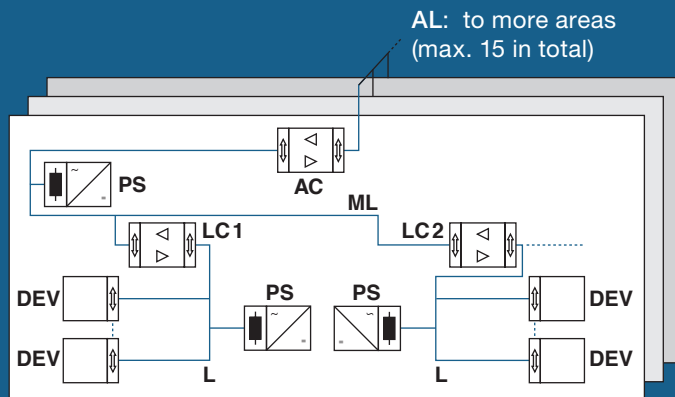
This information is loaded to the bus coupling unit via a PC with a serial or USB interface and the bus. Configuration and commissioning is carried out using the EIB tool software ETS2 or ETS3.

Continued on next double page ►

Information

The diagram shows a schematic example segment of an instabus KNX/EIB system.

- AC = Area coupler
- AL = Area line
- ML = Main line
- L = Line
- LC = Line coupler
- PS = Power supply
- DEV = Device (sensor/actuator)



System



Couplers (sample illustration for system devices)

- Programming by means of programming button and LED
- Connection of lines and areas (connecting terminals)
- Reduction of telegram traffic on bus through filter functions when used as a line or area coupler
- Amplification of lines and assignment of independent line segments

Sensors



Push-button 4gang comfort (sample illustration for sensors)

- Bus coupling unit required
- Program-specific information processing
- Device-specific features such as light scene retrieval
- Reception and forwarding of information such as switching commands and measurement variables to the actuators
- User module with application (software) determines the device function, e.g. of a push-button

Actuators



Switch actuator 4gang (sample illustration for actuators)

- Bus coupling unit
- In some cases mains voltage (230 V) required
- Telegram-specific information processing
- Device-specific features such as local operation, potentiometer, etc.
- Reception of information sent by sensors
- Conversion of the commands into actions, e.g. switching, dimming, etc.

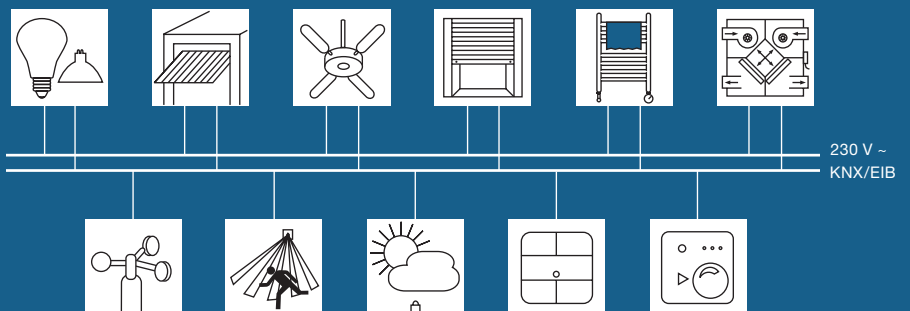
The diagram shows examples of various device types of an instabus KNX/EIB line.

Actuators

- Lighting
- Drives
- Shutters/blinds
- Heating/air conditioning/ventilation

Sensors

- Wind, motion, light
- Push-button
- Controller



INSTABUS KNX/EIB TOPOLOGY

The instabus KNX/EIB is divided into hierarchical segments. The smallest unit is the [line](#). A line comprises a maximum of 256 bus devices (DEV) and at least one power supply unit (PS) with choke. By means of [line couplers](#) (LC) interconnected via a main line, up to 15 lines can be coupled. The result of this is an [area](#).

14 additional areas are available to upgrade an instabus KNX/EIB system. An area line interconnects all 15 areas by means of [area couplers](#) (AC). The main and area lines also require a power supply unit with choke.

The line-and-area structuring means that the data transfer of a line or area does not influence the data flow of other lines or areas. A line coupler filters the data flow by ignoring telegrams from other lines/areas which do not address any devices within its own line. This also permits independent communication within multiple lines. The same also applies to the area couplers.

When all lines and areas are in use, over 61,000 devices can be connected to the instabus KNX/EIB system.

INSTABUS KNX/EIB ADDRESSING

With such a multiplicity of devices, two conditions in particular need to be met:

- Security of data transfer
- Unique and complex addressability of the individual devices

The bus voltage is 21–32 V DC. The data transfer rate is 9.6 kBit/s, so terminators are not required. To avoid telegram collisions, the [CSMA/CA procedure](#) is applied.

In addressing, a distinction is made between the [physical address](#) and the group address. The physical address reflects the name of the bus device and has the following format: “area.line.device” (e. g. 2.5.11). The physical address is used in programming and diagnosis.

The [group address](#) indicates the relationship between the devices on the bus. The group address is divided into a maximum of 15 main groups each with a maximum of 2048 subgroups. It is maintained in the format: “main group/subgroup” (e. g. 1/955) or “main group/secondary group/subgroup” (e. g. 1/3/125). Usually the group address is used to control the individual instabus KNX/EIB devices.

Cable selection/exterior

Only bus cables of which the cores are encased in a common sheath may be used. The bus cables must be rated for at least the same test voltage between the conductor and the cable surface as applies to power lines.

The following cable types are usable (see also KNX/EIB technical data):

- YCYM 2x2x0.8
- or
- J-Y(St)Y 2x2x0.8

Type YCYM may only be used in exterior applications if the cable is protected against the effects of heat (direct sunlight, etc.).

Otherwise type J-Y(St)Y should be chosen.

If an instabus KNX/EIB connection between two buildings is required, the KNX/EIB bus cable can be used provided it is laid in a conduit. Water build-up in the conduit must be avoided.

Cables/wiring

The instabus KNX/EIB devices are interconnected in parallel via one wire pair (black/red) of the four-core bus cable, by way of terminals.

Use of the free wire pair on the KNX/EIB cable for additional applications is subject to the following conditions:

- Safety/protective extra low voltage (SELV/PELV) only
- Max. 2.5 mA continuous current
- Overcurrent protection required
- Voice transmission permitted; not as public telephone line (FTZ 731 TR 1)
- Unique marking of instabus KNX/EIB cables

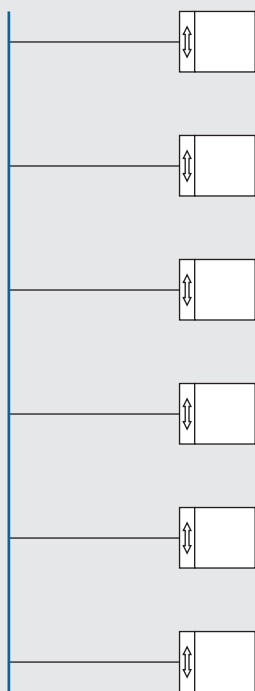
We recommend marking the selected application clearly on all cable ends.

Use of the free wire pair within a line must be uniform. If the two unconnected cables (normally yellow/white) are used as an additional KNX/EIB bus line, then the yellow cable should be used as bus voltage + and the white cable as bus voltage -.

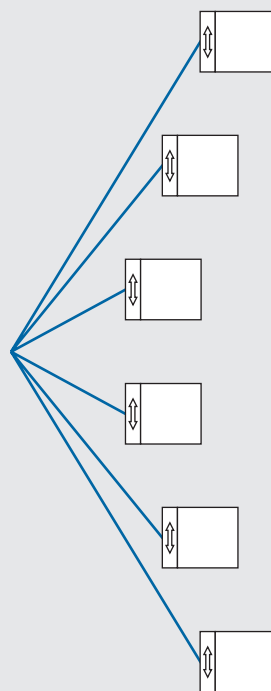
Unused wire pairs and filler wire should be rolled up or tied back. Free wires and the filler must never be allowed to touch live parts or earth.

Structures

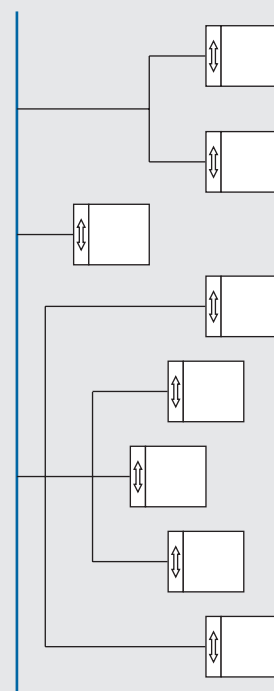
Within a line, the wiring options can be chosen from the following structures and combined at will. A loop structure is not permitted.



Line structure



Star structure



Tree structure

Functions	Display, dimming, management, signalling, measurement, closed-loop control, switching, open-loop control, monitoring	
Transmission technique	Serial telegram transfer 2-wire mode	Time multiplex Symmetrical transfer
Transfer rate	9600 bit/s	
Interference immunity	to prEN 50082-2 DIN VDE 0845 part 1	Tested 2kV surge voltage DIN EN 50082 part 2
Protection	Safety extra low voltage (SELV)	to DIN VDE 0100 T410
Power supply	230 V AC/24 DC	Short-circuit-proof
Rated system voltage	24 V DC	
Current consumption	per device	max. 6.25 mA (150 mW)
Number of devices with	640 mA power supply	max. 100
Devices per line	max. 255 (additional power supply units and couplers required as line amplifiers)	
Lines per area	max. 15 plus main line	
Line interconnection	via area/line coupler	
Areas	max. 15	
Bus cable	YCYM 2x2x0.8	to EIBA guideline, DIN VDE 0207 and 0815 J-Y(St)Y 2x2x0.8 to DIN VDE 0815
	Wire cores	Red (+KNX/EIB) and black (-KNX/EIB) Yellow and white (each free)
Wiring	Surface/flush mounted	In duct
	In conduit together with NYM with no clearance	to flat webbed building wire min. 10 mm clearance
Cable length	max. 1000 m	
Clearance	from device to power supply between two devices between two power supply units with integ. choke	max. 350 m max. 700 m min. 200 m
System configurations	Line, star and tree configurations	Combinable at will – no loops
Component designs	RMD, built-in, flush-mounted, surface-mounted	and duct
Bus management	decentralized Access method	Devices equal status CSMA/CA
Addressing	Physical address Group address	Continuous by collective function assignment

E DIN VDE 31000 part 10	General principles for safe design of technical products	
VDE 1000 part 10	Requirements for electrical engineering personnel	
DIN VDE 0100	Construction of power systems with rated voltages up to 1000 V	
- T200	General terms	
- T410	Protective measures	Protection against electric shock
- T420	Protective measures	Protection against overheating
- T430	Protective measures	Protection of cables and wires
- T510	Selection/construction of electrical equipment	General points
- T510	Selection/construction of electrical equipment	Cables, wires, busbars
- T610	Initial testing	
- T725	Auxiliary circuits	
DIN VDE 0105 part 1	Operation of power systems	General specifications
DIN VDE 0106	Protection against electric shock	
- T1	Classification of electrical and electronic equipment	
- T100	Arrangement of operating elements close to live parts	
- T101	Basic requirements for safe isolation in electrical equipment	
DIN VDE 0110 part 2	Insulation coordination for electrical equipment in low-voltage systems	
DIN VDE 0160	Electronic equipment of power systems	
DIN VDE 0185 part 1	VDE directive for lightning protection systems	
DIN VDE 0470 part 1	Test devices and test methods	
EN 60529	Classes of protection by chassis	IP code
DIN VDE 0472 part 508	Dielectric strength of power cables and insulated power lines	
DIN VDE 0604 part 1	Electrical wiring ducts for walls and ceilings	
DIN VDE 0605	Electrical installation conduits and accessories	

Flush-mounted devices

A Berker instabus KNX/EIB device is usually structured as follows:

- a. Bus coupling unit
 - b. 2-pin terminal
 - c. User module
 - d. Frame in Berker design
 - e. Application program
- a. For switch socket mounting the bus coupling unit has a support ring with screw fitting. The bus coupling unit contains the micro-processor, other electronic modules and the system software. The integral 10-pin physical external interface (female) is used to connect the user module. The programming button with LED is used to program the physical address.
- b. The terminal has a unique marking for connection of the two-wire bus cable. It is not supplied with the respective device.
- c. The function of a device is determined by the user module with

the associated application. A resistor is integrated into each user module, by which the bus coupler is able to identify the type of user module. The connection to the bus coupler is made via the 10-pin male connector.

- d. The user module is usually cased in a Berker design frame.
- e. The wide range of combination options of the user program and user module is specified in the Berker product database, and is administered and implemented using the ETS software package. Programming is carried out on a PC, including:
 - Functions such as dimming, etc.
 - Functional linking via group addresses
 - Parameters such as LED functions

NOTE

The individual components cited above must originate from one manufacturer, in order to ensure fault-free functioning of the device.

DIN rail mounted devices

Berker instabus KNX/EIB devices mounted on DIN rails are available in the following variants:

- f. Devices with pressure contacts
 - g. Device with no dedicated bus coupler
 - h. Devices with bus termination
- f. These devices are snapped onto the DIN rail with an “integral” data rail. The pressure contacts on the back of the device contact on the data rail. The connection to the bus cable is made by a data rail connector.
- g. These devices are likewise snapped onto the DIN rail, but have no pressure contacts and no dedicated bus coupler. The connection to the bus cable is made indirectly, by way of the side mounted connector strip of a device of category f. or h.
- h. These devices are likewise snapped onto the DIN rail and are connected to the bus cable by a clip-on terminal.

KNX/EIB TOOL SOFTWARE

Project design of a KNX/EIB system requires KNX/EIB tool software (ETS). ETS is used to create data records. These must then be loaded into each bus device. Each data record consists of the application, the function parameters, the physical address and the assigned group addresses. An application can only be loaded into a bus device if the bus device and the application program are from the same manufacturer. The applications are held in the manufacturer-specific product database.

ETS 2

ETS 2 is a non-proprietary software tool for practical project design, commissioning and maintenance of KNX/EIB installations. A key feature of ETS 2 is its user-friendly physical external interface: using a simple drag-and-drop method, you can pick products from a database and place them in the desired location in the building, set their parameters, link bus devices functionally and check all the functions. When an KNX/EIB installation has been successfully commissioned, ETS 2 can also be used to create the project documentation. ETS 2 runs with Windows 3.1x, Windows 3.1x, Windows 95, Windows 98, Windows 2000, Windows NT and Windows XP.

ETS 3

From April 2004 onwards, ETS 3 is available with the following program versions:

ETS 3 TESTER

The learning software ETS 3 tester (demo) offers you a simple introduction to the instabus KNX/EIB system via the ETS starter. Using select products for the “Lighting” and “Shutter” applications, you can learn how to work with the KNX/EIB system and practice what you learn. However, it is not possible to commission the products.

ETS 3 STARTER

A new software package which facilitates minor KNX/EIB/KNX installations with light control, shading technology and single room control applications with minimum effort on your part. This makes it considerably easier for newcomers and companies which only perform KNX/EIB installations occasionally to familiarise themselves with building automation, step by step. The ETS 3 Starter software package can be used for 30 days without a licence. It then switches to tester mode if the electronic key to be purchased from EIBA has not been activated. You can learn even more when using the software.

ETS 3 PROFESSIONAL

This is a further development of the ETS 2 with a new core, a new physical external interface and a series of new, very welcome functions:

- Optimised, individually adjustable user interface
- Parameter view in the form of a clearly-arranged tree structure
- Device programming via RS 232 interface and USB
- Downloading several devices simultaneously and using a common interface for all of them saves time
- Optimised, practical telegram drawing and analysis possible
- Convenient standard Windows functions such as “Undo” and “Recreate”

A project which was started with ETS 3 Starter can be continued at any time with ETS 3 Professional. The software can run with Windows 98, Windows 2000, Windows NT, Windows XP and Windows Vista.

The following listing represents only an extract from the extensive library of materials relating to instabus KNX/EIB.

Further references are given in the works cited and on the Internet, at "www.knx.com" for example.

EIB / KNX Grundlagen Gebäudesystemtechnik

Karlheinz Frank
4th Edition, January 2009
Verlag Technik/Huss Medi
Berlin
ISBN: 334101540X

EIB/KNX-Anlagen planen, installieren und visualisieren

Rainer Scherg
3rd Edition, April 2008
Vogel-Verlag
Würzburg
ISBN: 3834331252

EIB/KNX-Projekte bewerben, ausschreiben, kalkulieren und bewerten

Rainer Scherg
October 2007
Vogel-Verlag
Würzburg
ISBN: 3834330582

KNX/EIB für die Gebäudesystemtechnik in Wohn- und Zweckbau

Kriesel, Helm, Sokollik
5th Edition, May 2009
Hüthig-Verlag
Heidelberg
ISBN: 3810102806

Installationsbus KNX/EIB Twisted Pair

Robert Beiter
2004
Hüthig-Verlag
Heidelberg
ISBN: 3810101850

Gebäudesystemtechnik mit dem Europäischen Installationsbus (EIB/KNX)

Herbert Bernstein
2006
Vde-Verlag
Frankfurt/M.
ISBN: 3800729156

Das Praxisbuch für ETS 3 Starter und ETS 3 Professional

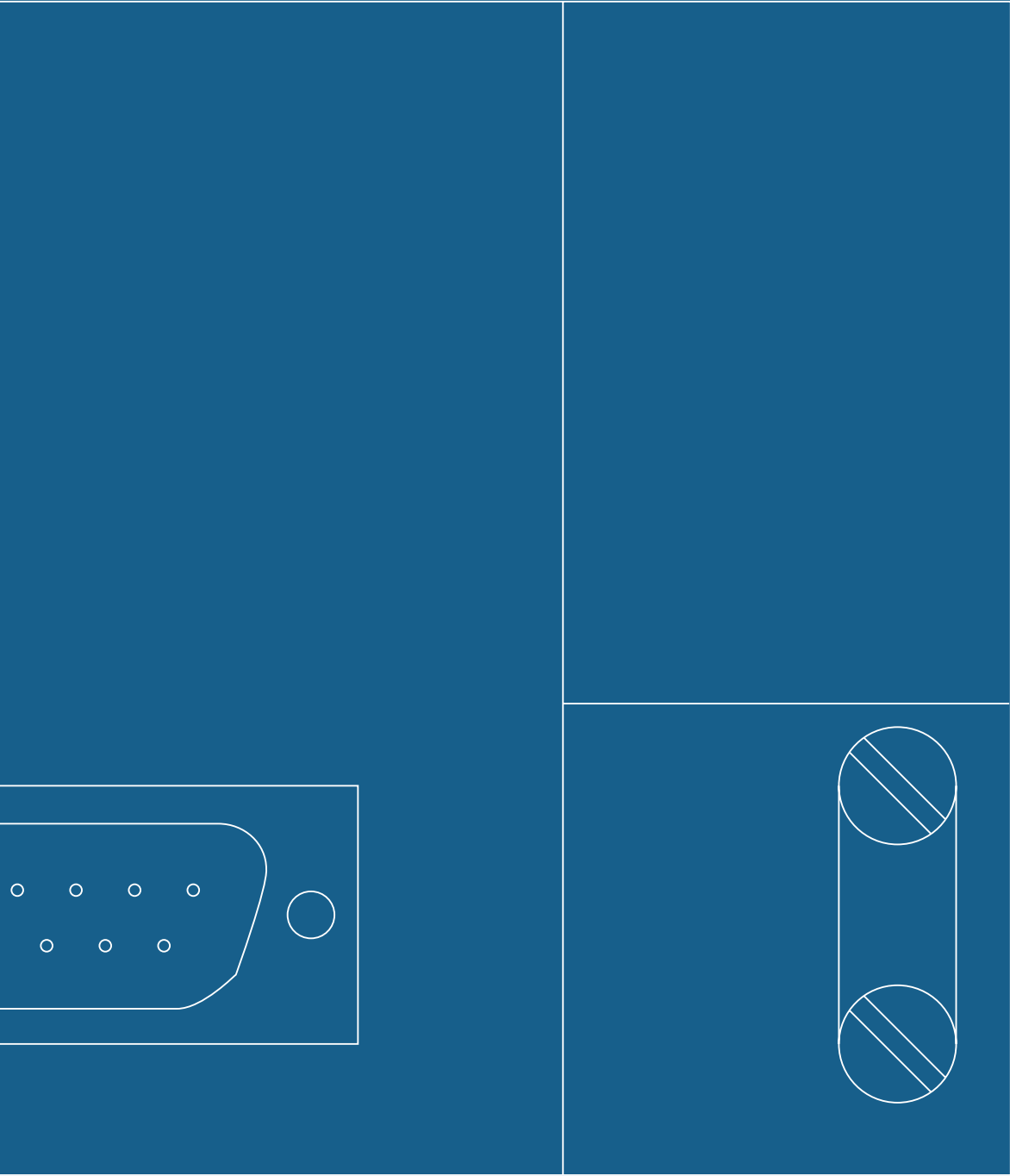
Will Meyer
4th Edition, March 2009
Huethig + Pflaum
Heidelberg
ISBN: 3810102806

Handbuch Gebäudesystemtechnik Grundlagen

ZVEI (German electrical and electronics engineering industry association), ZVEH (German electricians' association)
5th Edition, 2006
WFE, Frankfurt/M.
Order through WFE
Fax: +49-(0)69/247747-49

Handbuch Gebäudesystemtechnik Anwendungen

ZVEI (German electrical and electronics engineering industry association), ZVEH (German electricians' association)
2002
WFE, Frankfurt/M.
Order through WFE
Fax: +49-(0)69/247747-49



B.

Berker the right way.

Power supply	36–45
Coupler	46–51
Bus coupling unit	52–57
Data interface	58–65
Other	66–67

System components

Sensors

SYSTEM COMPONENTS

System components are devices on the instabus KNX/EIB bus which perform higher-level, non-application-specific functions. They provide the necessary current flow, transport the bus telegrams, and generally make the instabus KNX/EIB functional.

Actuators

High quality guarantees functional reliability and ensures interference-free communication between the devices on the bus.

Logic modules



Visual representations

Other components

Dim. drawings
Glossary

Training
Service

Technical data

Supply	Rated voltage	161 to 264 V AC, 50/60 Hz 176 to 270 V DC Operation on the two outer leads of a 110 V supply
	Power loss Mains buffering	Typically < 5 W in normal operation min. 100 ms
Output "BUS"	Rated SELV	28 to 31 V DC
	Cable length	max. 350 m (to last bus device) max. 700 m (between two bus devices) max. 1000 m (overall length of bus line)
Output "30 V DC"	Rated SELV	28 to 31 V DC
Rated current	all outputs together split any way	max. 320 mA sustained short circuit-proof
Bus devices	max. 32	max. 10 mA per device
Controls and displays	Slide switch	Reset
	Green LED	Normal operation
	Red LED	Overload
	Yellow LED	Overvoltage
	Red LED	Reset
Connections	Supply	Screw terminals: 0.2–4 and 2 x 0.2–2.5 mm ² single core 0.75–4 mm ² fine wire without end cap sleeve 0.5–2.5 mm ² fine wire with end cap sleeve
	Outputs	Terminals
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	in wall cabinet/control cabinet	horizontal
	when mounted in a distributor box general	any no minimum clearances
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

Information

The 320 mA power supply is executed as a top hat rail mounted device. It generates and monitors the instabus KNX/EIB system voltage and thereby provides power for up to max. 32 bus devices. The devices can be connected to the "BUS" output without additional chokes.

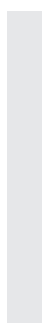
In addition the power supply provides a DC output without choke. This can be used to power a further line (e.g. a main line) using a separately installed choke. Alternatively this output can be used to power further functional devices.

The load can be split in any way between the outputs, but the overall rated current of 320 mA must not be exceeded! Outputs share a common overload/short circuit protection.

Pressing the reset switch integral to the device for at least 20 seconds briefly switches off the bus line and thus triggers a reset of all bus devices. The four LEDs on the front of the device give information about the operating status of the power supply.

Order data

Device colour
Light grey 7501 00 09



Notes

Installation

The power supply should be installed only in a distribution box or in a control cabinet on a 35 mm top hat rail. Sufficient ventilation must be provided to ensure that the permissible operating temperature range is not exceeded.

For correct operation it is essential that the earth terminal is connected. The power supply can be fed by a back-up mains supply to VDE 108. Check that the mains supply is in accordance with the technical data sheet!

The power supply does not provide a rear contact to a data rail. If power for data rails is required, additional data rail connectors must be fitted.

Short circuit

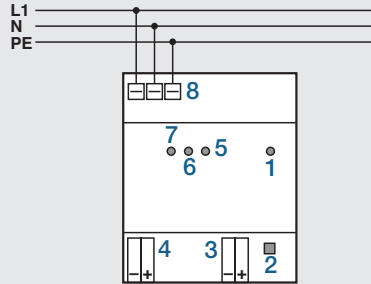
In the event of a short circuit at any one output, all outputs will be switched off!

Reset

The reset switch briefly switches off the respective line only, and triggers a reset of all bus devices.

LED displays

In the event of excessive bus voltage (> 31 V DC) the yellow LED will light.

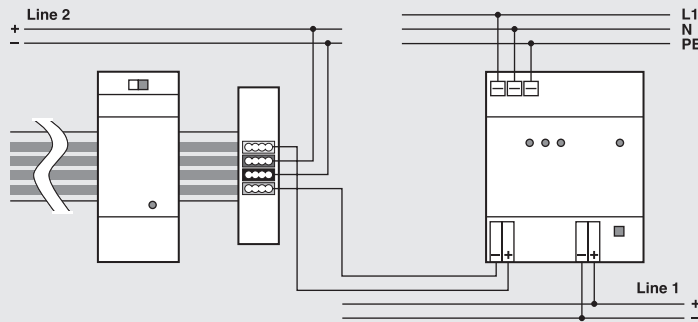


In the event of overload, short circuit, too many devices on the bus line/excessive loading on an output without a choke, the red "overload" LED will light.

Key

- 1. Reset LED
- 2. Slide switch for reset
- 3. BUS terminal
- 4. 30V DC output
- 5. Overvoltage LED
- 6. Overload LED
- 7. Normal operation LED
- 8. 230 V connection

Connection example for 2 lines with additional connector and choke



- Generation and monitoring of the KNX/EIB system voltage
- Connections by KNX/EIB terminals
- KNX/EIB devices can be connected without additional chokes
- Provision of an additional output (without choke)
- Load can be split any way between the two outputs
- Slide switch (bus line reset)
- Separate LEDs for operation, overload, overvoltage, reset



Power supply 320 mA



ETS search path: Berker >> System components >> Power supply >>

Technical data

Supply	Rated voltage	161 to 264 V AC, 50/60 Hz 176 to 270 V DC Operation on the two outer leads of a 110 V supply
	Power loss Mains buffering	Typically < 5 W in normal operation min. 100 ms
Output "BUS 1" and "BUS 2"	Rated SELV	28 to 31 V DC
	Cable length	max. 350 m (to last bus device) max. 700 m (between two bus devices) max. 1000 m (overall length of bus line)
Output "30 V DC"	Rated SELV	28 to 31 V DC
Rated current	all outputs together split any way	max. 640 mA sustained short circuit-proof
Bus devices	max. 64	max. 10 mA per device
Controls and displays	2 Slide switch	Reset "Bus 1" and "Bus 2"
	Green LED	Normal operation
	Red LED	Overload
	Yellow LED	Overvoltage
	Red LED	Reset
Connections	Supply	Screw terminals: 0.2–4 and 2 x 0.2–2.5 mm ² single core 0.75–4 mm ² fine wire without end cap sleeve 0.5–2.5 mm ² fine wire with end cap sleeve
	Outputs	Terminals
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	in wall cabinet/control cabinet	horizontal
	when mounted in a distributor box general	any no minimum clearances
Dimensions (WxHxD)	126 x 90 x 64 mm	7 modules

Information

The power supply unit is executed as a top hat rail mounted device. It generates and monitors the instabus KNX/EIB system voltage and thereby provides power for up to max. 64 bus devices. The devices can be connected without additional chokes to the two "BUS" outputs.

In addition the power supply provides a DC power output without a choke. This can be used to power a further line (e.g. a main line) using a separately installed choke. Alternatively this output can be used to power further functional devices.

The load can be split in any way between the outputs, but the overall rated current of 640 mA must not be exceeded! The outputs share a common overload/short circuit protection.

Pressing either of the reset switches integral to the device for at least 20 seconds briefly switches off the respective bus line and triggers a reset of all bus devices. The five LEDs on the front of the device give information about the operating status of the power supply.

Order data

Device colour	
Light grey	7501 00 10

Notes

Installation

The power supply should be installed only in a distribution box or in a control cabinet on a 35 mm top hat rail. Sufficient ventilation must be provided to ensure that the permissible operating temperature range is not exceeded.

For correct operation it is essential that the earth terminal is connected. The power supply can be fed by a back-up mains supply to VDE 108. Check that the mains power supply is in accordance with the technical data sheet!

The power supply does not provide a rear contact to a data rail. If power for data rails is required, additional data rail connectors must be fitted.

Short circuit

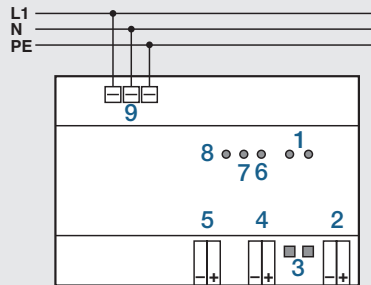
In the event of a short circuit at only one output, all outputs will be switched off!

Reset

The reset switch briefly switches off the connected lines and triggers a reset of all bus devices.

LED displays

In the event of excessive bus voltage (> 31 V DC) the yellow LED will light.

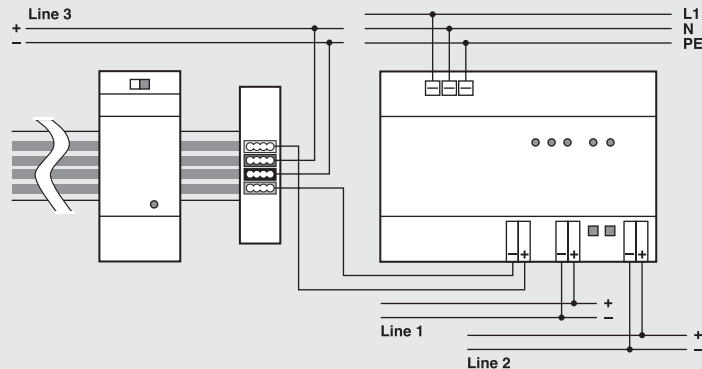


In the event of overload, short circuit, too many participants on the bus line/excessive loading on the output without choke, the red “overload” LED will light.

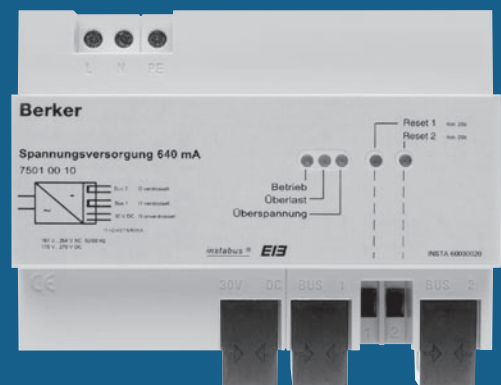
Key

1. Two reset LEDs
2. BUS 2 terminal
3. Slide switch for reset
4. BUS 1 terminal
5. 30V DC output
6. Overvoltage LED
7. Overload LED
8. Normal operation LED
9. 230 V connection

Connection example for 3 lines with additional connector and choke



- Generation and monitoring of the KNX/EIB system voltage
- Connection using KNX/EIB terminals
- Support for two bus lines “BUS 1” and “BUS 2”
- KNX/EIB devices can be connected without additional chokes
- Provision of an additional output (without choke)
- Load can be split any way between the three outputs
- Independent slide switch for resetting each bus line
- Separate LEDs for operation, overload, overvoltage, reset



Power supply 640 mA



ETS search path: Berker >> System components >> Power supply >>

Technical data

Supply	Rated voltage	195 – 255 V AC, 45/65 Hz
	Power consumption	max. 50 VA
	Energy dissipation	max. 10 W
Bus output "30 V DC"	Rated voltage SELV	28 – 31 V DC (integral choke)
	Rated current	max. 640 mA, sustained short-circuit proof
	Sustained short-circuit current	max. 1.4 A
	Cable length	max. 350 m (to the last bus device) max. 700 m (between two bus devices) max. 1000 m (bus line as a whole)
Bus devices	max. 64	max. 10 mA per device
Lead battery	Rated voltage	12 V DC
	Number	max. 2 of the same type, parallel
	Capacity	preferably 12 Ah (1 Ah, 7 Ah, 17 Ah possible)
Rated charging current	Total battery capacity > 5 Ah	650 mA
	Total battery capacity < 5 Ah	150 mA
Backup power	With one battery connected	1 x battery 12 V / 12 Ah: approx. 5.5 hours
	without battery	2 x batteries 12 V / 12 Ah: approx. 11 hours 200 ms
Operation and display elements	Reset button and reset LED	LED lights up for the duration of the reset
	LED "230 V OK", green	Mains voltage is present
	LED "Battery OK", green	Battery connected and ready for operation
	LED "Operation", green	Bus voltage switched on
	LED "Overload", red	Illuminated: overload and short-circuit Flashing: overvoltage
Connections	Mains voltage, change-over contact connection, battery and temperature sensor connection	Screw terminals: 0.2–4 mm ² single-stranded 0.2–2.5 mm ² finely stranded Connecting terminal
	Output	
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation or storage/transport	-5 to +45 °C / -25 to +70 °C
Mounting	on DIN rail 35 mm, EN 50022	
Dimensions (W x H x D)	144 x 90 x 66 mm	8 modules

Information

The uninterruptible power supply is designed as a rail mounted device. It generates and monitors the KNX/EIB system voltage. Up to 64 bus devices are provided with a failsafe supply directly via the integral throttle, making this power supply especially suitable for KNX/EIB safety systems. The bus output is protected against overload, short-circuit and overvoltage.

In order to back up the KNX/EIB voltage in the event of a mains failure it is possible to connect a 12 V DC lead battery via a pre-assembled cable set. A second battery of the same type can be added to increase the backup power time. When mains voltage is available the batteries are charged with temperature control via the uninterruptible power supply.

A potential-free change-over contact can indicate mains failure, battery failure, overvoltage, overload and short-circuit via a connected signal generator. 5 different LEDs on the front of the device provide information on the operating state of a connected power supply.

Order data

Device colour		Accessories	
Light grey	7501 00 15	Lead battery 12 V....	7590 00 68
		Basic cable set.....	7590 00 66
		Extension cable set..	7590 00 67

Backup power time

The backup power time in the event of a mains failure depends on the total capacity of the connected batteries and the utilisation of the KNX/EIB line. In the case of full line utilisation, fully charged batteries 12 VDC/ 12 Ah batteries in as new condition provide the following backup power times:

- 1 x battery approx. 5.5 hours
- 2 x batteries approx. 11 hours

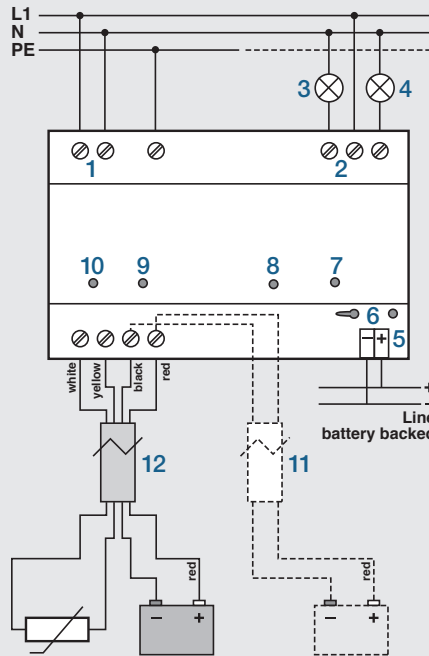
Mounting

Mount the power supply only in distribution boxes or in control cabinets on a 35 mm DIN rail. Do not exceed the permissible operating temperature range. Ensure adequate ventilation.

Reset

Pressing the reset button disconnects the bus line from voltage, thus resetting the connected bus devices to their initial state. The

reset is always 20 seconds. The red reset LED is lit up for this time.



Connecting the lead batteries with the corresponding cable sets

Legend

1. L1, 230 V connection
2. Connection of potential-free change-over contact
3. Signal lamp Normal operation (optional)
4. Signal lamp Fault (optional)
5. Connecting terminal 30 V DC (bus)
6. Reset button and reset LED
7. LED Overload
8. LED Operation
9. LED Battery
10. LED Mains voltage
11. Connection of additional battery with extension cable set (optional)
12. Connection of lead battery with basic cable set (including temperature sensor)

continued on next double page ►

- KNX/EIB devices can be connected without additional throttle
- Bus connection via KNX/EIB connecting terminal
- Backup power for a KNX/EIB bus line up to 11 hours
- Up to 2 batteries can be connected
- Pre-assembled cable sets for connecting the batteries
- Potential-free change-over contact for fault messages
- 5 different LEDs for indicating the operating state



Power supply 640 mA uninterrupted



ETS search path: Berker >> System Units >> Power Supply >>

Lead battery 12 V		
Rated voltage	12 V DC	
Capacity	12 Ah	
Weight	4.2 kg	
Service life	5 years	
Ambient temperature range	Operation	-20 to +50 °C
	Storage/transport	-20 to +50 °C
Dimensions (W x H x D)	94 x 151 x 98 mm	
Basic cable set		
Dimensions	Wire cross-section	0.75 mm ²
	Cable length	2 m
Battery connection	red/black	Conductor sleeves on the power supply end Faston sockets and pole shoes on the battery end
Fuse connection	yellow/white	Conductor sleeves
Safety fuse	Class	Exchangeable fuse with in-line fuse holder with bayonet lock
	Type	5 x 20 mm, slow-acting, "T 6,3 H 250 V", Breaking capacity 1,500 A
Extension cable set		
Dimensions	Wire cross-section	0.75 mm ²
	Cable length	2 m
Battery connection	red/black	Conductor sleeves on the power supply end Faston sockets and pole shoes on the battery end
Safety fuse	Class	Exchangeable fuse with in-line fuse holder with bayonet lock
	Type	5 x 20 mm, slow-acting, "T 6,3 H 250 V", Breaking capacity 1,500 A

The 12 V DC lead battery is optimised for connection to the 640 mA uninterruptible power supply in order to back up the KNX/EIB voltage. When mains voltage is switched on the battery is charged with temperature control via the uninterruptible power supply.

A pre-assembled 4-core cable set is available for trouble-free connection.

To increase the backup power time in the event of a mains failure, a second lead battery can be connected via a 2-core pre-assembled cable set.



Lead battery

Battery connection

The lead batteries may only be connected to the uninterruptible power supply using the pre-assembled cable sets! The basic cable set is always required as soon as a battery is connected to the power supply. When a second battery is connected, the extension cable set must be used. It is only permitted to connect a maximum of 2 batteries of the same type in parallel to the uninterruptible power supply!

The maximum charging time of the battery when connected to the 640 mA uninterruptible power supply is:

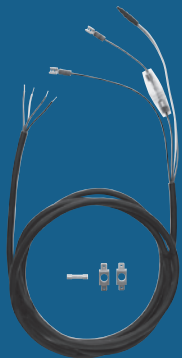
- 1 x battery: approx. 28 hours
- 2 x batteries: approx. 56 hours

Because of their service life the batteries should be exchanged about every 4 years in order to ensure maximum backup power time in the event of a mains failure.

Temperature sensor

If a battery is connected to the uninterruptible power supply, then the temperature sensor must always be connected! Only the sensor integrated into the basic cable set may be used!

The temperature sensor should have the best possible thermal contact with the battery connected to the basic cable set. Ideally the sensor is fastened to the battery using adhesive tape.



Basic cable set



Extension cable set



Power supply 640 mA uninter- ruptible

Technical data

Supply	Rated SELV	28 V DC (+2 V/-0 V)
	Rated current	0.5 A
Controls and displays	Slide switch	Reset, isolate
	Reset LED	Red
Inputs/outputs	KNX/EIB	Pressure contact on data rail
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 55 mm	2 modules

Information

The choke is executed as a top hat rail mounted device, and isolates the instabus KNX/EIB line from the power supply.

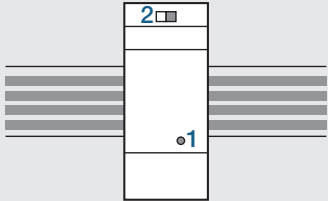
The choke prevents the KNX/EIB data telegrams from shorting through the power supply. Operating the integral slide switch isolates and shorts the bus line. The associated LED is lit red during isolation/shorting.

Switching the choke back on triggers a re-initialization of the connected devices (the duration of the initialization process varies according to device).

Order data

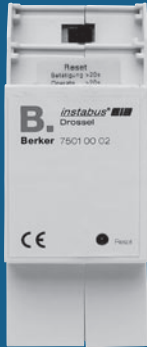
Device colour	
Light grey	7501 00 02

Notes



- Key**
- 1. Reset LED
 - 2. Slide switch for reset

- Isolation of lines from power supply
- Termination
- Slide switch (reset/isolate)
- LED for reset



Choke



ETS search path: Berker >> System components
>> Choke >>

Technical data

Supply	via bus line	21–32 V DC (from the higher-ranking line)
Power consumption	- higher-ranking line - lower-ranking line	120–200 mW 160–260 mW
Current consumption	- higher-ranking line - lower-ranking line	approx. 6 mA approx. 8 mA
Behaviour in the event of power failure	higher-ranking line lower-ranking line	no function, all LEDs off full function on higher-ranking line
Behaviour in the event of power restore		after an initialisation phase (approx. 1 s) and LED test the coupler is ready for operation
Controls and displays	Programming button Programming LED Operation LED Data transfer LED (higher-ranking line) Data transfer LED (lower-ranking line)	red green yellow yellow
Connections	Bus - higher-ranking line - lower-ranking line	terminal terminal
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	- 5 to +45 °C - 25 to +70 °C
Assembly	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	36 x 90 x 60 mm	2 modules

Information

The area/line coupler establishes the data link between two instabus KNX/EIB lines and ensures electrical isolation between the lines.

The function of the device is specified by the physical address and the chosen application:

Line coupler: connection of a lower-ranking line (subline) to a higher-ranking line (main line), optionally with or without filter function.

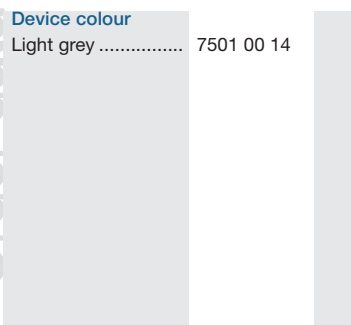
Area coupler: connection of a lower-ranking line (main line) to a higher-ranking line (area line), optionally with or without filter function. The coupler is physically assigned to the lower-ranking line.

Line amplifier: in this function, KNX/EIB telegrams are prepared and repeated on one line; there is no filter function. It is possible to divide a line into up to four independent segments (max. three parallel configured line amplifiers per line).

A separate power supply is required for each line (area line/main line/line) and line segment.

Order data

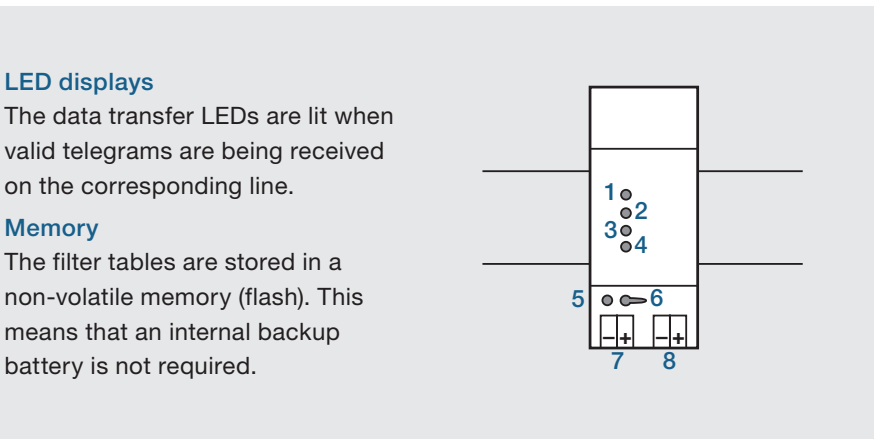
Device colour
Light grey 7501 00 14



Applications

Coupler/Amplifier 900F01	
Coupler	<ul style="list-style-type: none"> ■ Used as line or area coupler depending on how physical address has been allocated ■ Reduction in bus load thanks to filter function (filter table) ■ Forwarding of group telegrams (line > main line, main line > line) can be programmed ■ Repetition of telegrams when transmission errors occur can be programmed ■ Telegram confirmation programmable
Amplifier	<ul style="list-style-type: none"> ■ Can expand line to a max. of 4 line segments with up to 64 devices each ■ Repetition of telegrams when transmission errors occur can be programmed
Objects	-
Group addresses/assignments	-

Notes



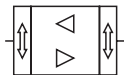
Key

1. Operation LED
2. Data transfer LED, upper-ranking line
3. Data transfer LED, lower-ranking line
4. Group communication LED
5. Programming LED
6. Programming button
7. Connecting terminal (upper/higher-level line)
8. Connecting terminal (lower/lower-level line)

- Functions as line or area coupler
- Used as line amplifier
- Data link between two KNX/EIB lines with electrical isolation
- LED displays for operation, group communication data traffic and programming
- Filter functions in order to reduce the bus load



Coupler



ETS search path: Berker >> System components >> Line couplers >>

Notes

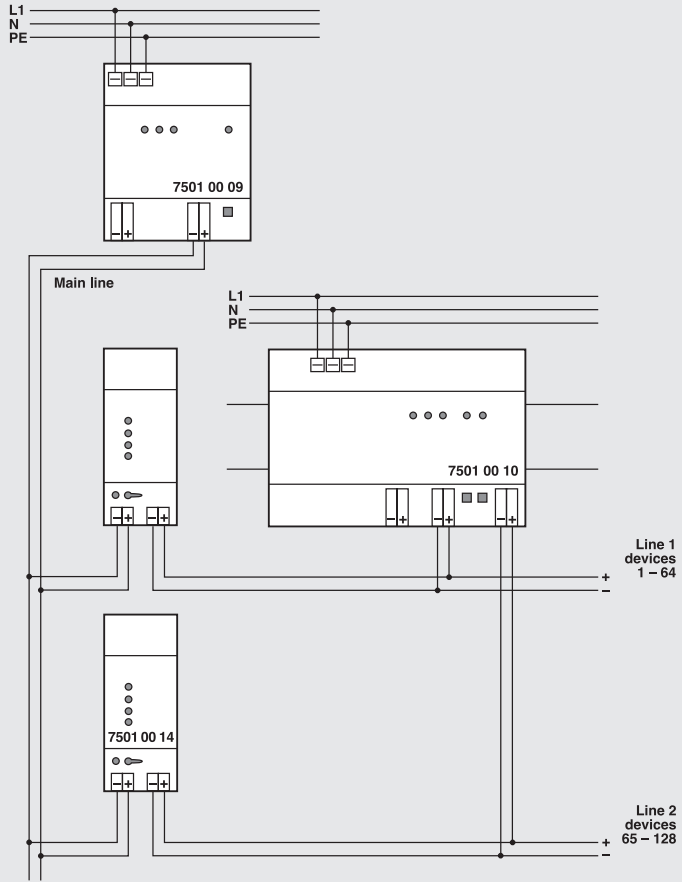
Installation

Main and area lines have the same properties as normal lines. As such, they require separate power supplies.

In terms of installation, the couplers are assigned to the lower-ranking lines.

It is advisable to install line couplers on a top hat rail along with the power supply or choke.

Sample connection:
coupler as line coupler



Information

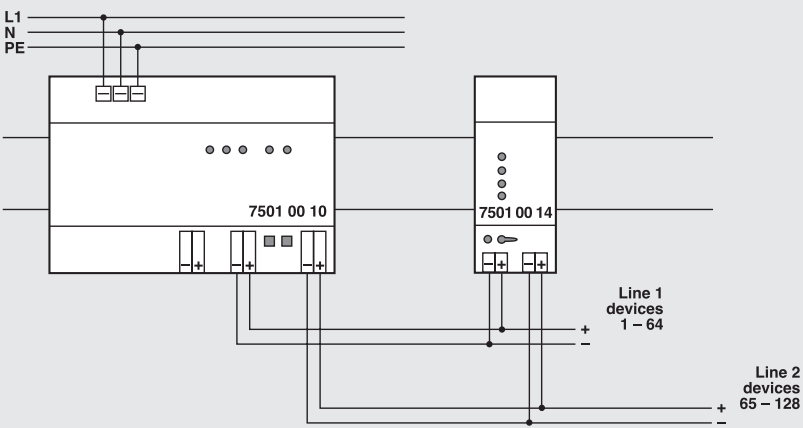
Notes

Programming

The device can be programmed via the higher-ranking or lower-ranking line (physical address, parameters).

The device can also be commissioned from any line in the KNX/EIB installation. If this coupler is used, the physical address of the data interface used is no longer relevant.

Sample connection: coupler as line amplifier



Coupler

Technical data

Supply	Auxiliary voltage	24 V (12–30 V) AC/DC SELV
	Power consumption	max. 800 mW at 30 V DC
	Current consumption	max. 27 mA at 30 V DC
	Bus voltage	21–30 V DC SELV (via KNX/EIB bus line)
	Power consumption	typ. 290 mW at 29 V DC
	Current consumption	typ. 10 mA at 29 V DC
Network	Ethernet connection	10BaseT (10 Mbit/s)
	Internet protocols	ARP, ICMP, IGMP, UDP/IP, DHCP
	KNXnet/IP (KNX system specification)	Core, Routing, Tunneling, Device Management
Behaviour in the event of voltage failure/return	Bus voltage failure	Internal saving and reporting via KNXnet/IP adjustable
	Bus voltage return	Cancellation of the KNXnet/IP report
Operation and display element	programming button	
	Programming LED	red
	Operation LED "Run"	green
	Data reception LED bus "Line"	yellow
	Connection LED IP network "LK"	green
	IP reception LED "RX"	yellow
	IP transmission LED "TX"	red
Connections	KNX/EIB	Connecting terminal
	Auxiliary voltage supply	Connecting terminal
	Ethernet network/LAN	RJ45 jack
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	DIN rail 35 mm DIN EN 50 022	
Dimensions (W x H x D)	36 x 90 x 60 mm	2 modules

Information

The IP router is designed as a rail mounted device. It connects KNX/EIB lines via data networks using the Internet Protocol (IP). This is done using the KNXnet/IP standard, which means that not only can KNX/EIB telegrams be forwarded between lines, but at the same time the bus can be accessed from a PC or other data processing devices (e.g. visualisations).

The use of the existing data network for communication spanning more than one line allows:

- quick communication between KNX/EIB lines in the line/area coupler function
- expansion of a KNX/EIB system to include more than one building through the use of LANs and WANs
- direct forwarding of KNX/EIB data to each network user (not in bus monitor mode)
- KNX/EIB remote configuration from each network access point.

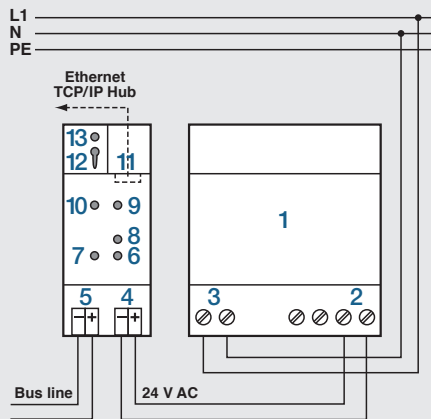
The IP router is supplied via a separate 24 V AC/DC power supply, which means that a bus voltage failure can be reported via the network.

Order data

Device colour		Accessories	
Light grey	7501 00 16	Power supply	
		24 V AC	7591 00 01

IP router 901001	<ul style="list-style-type: none"> ■ Failure signal of the KNX/EIB system via KNXnet/IP to connected applications ■ Freely selectable device name for easy recognition during configuration
Routing	<ul style="list-style-type: none"> ■ Filtering and forwarding of telegrams depending on the physical address and group address can be set for both communication directions (bus > IP, IP > bus)
IP configuration	<ul style="list-style-type: none"> ■ IP address assignment can be set to automatic (DHCP) or manual
Objects	-
Group addresses/assignments	-

ATTENTION!
 The externally connected low voltage power supply is connected to the device with the potential of the LAN. Thus there is no more insulation to earth (no SELV!) if the LAN shield is earthed. Use external power supply only for the IP router, and do not connect any other additional devices. Do not use any ENX/EIN power supply as an external power supply if a bus line is connected to it!



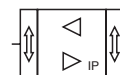
Legend

1. In example: power supply 24 V AC
2. Output 24 V AC
3. Connection 230 V AC
4. Auxiliary voltage connection 24 V AC
5. Bus connection
6. IP transmission LED "TX"
7. Data reception LED bus "Line"
8. IP reception LED "RX"
9. Connection LED IP network LED "LK"
10. Operation LED "Run"
11. Ethernet connection (RJ 45)
12. Programming button
13. Programming LED

- Connection of KNX/EIB lines via fast data networks
- Function as a line or area coupler
- Bus access via data processing devices, e.g. for visualisation
- LED status indication for operation, bus and IP reception, IP connection and IP transmission status
- Connection of bus and auxiliary voltage via connecting terminals



IP router



ETS search path: Berker >> System Units >> IP Router >>

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	Programming button	
	Programming LED	Red
Connections	Bus	Pressure contact on data rail
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Dimensions (WxHxD)	17.5 x 90 x 58 mm	1 module

Information

The bus coupling unit is executed as a top hat rail mounted device. It is the interface between the instabus KNX/EIB and the user modules in RMD module design.

Depending on the chosen application, output devices can be assigned to up to four channels.

This device can also be used as a logic controller with a wide variety of applications.

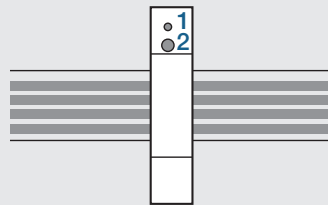
Order data

Device colour	
Light grey	7502 00 01

Applications

Switching LO, TF 201112 (only in conjunction with the switch actuator module)	■ Operate relay depending on an ON or OFF telegram
Objects	4
Group addresses/assignments	maximum of 8 each (common group address for multiple objects only at sending position)

Notes



- Key**
1. Programming LED
 2. Programming button

- Interface between instabus KNX/EIB and user modules
- Optionally four input or output channels
- Use as logic controller possible



Bus coupling unit



ETS search path: Berker >> System components >> Bus coupling unit >>

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	Programming button	
	Programming LED	Red
Connections	Bus	Terminal
	User module	2 x 5-pin female connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitted in wall boxes	dia. 58 mm
	Screw fixing	Claw fixing not possible!
	Insertion depth	23 mm
Dimensions (WxHxD)	75 x 75 x 23 mm	

Information

The bus coupling unit is executed as a flush-mounted device, and makes the connection between the instabus KNX/EIB and the user module.

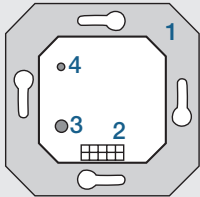
The user module may be a sensor or an actuator clipped onto the bus coupling unit. The KNX/EIB telegrams received from the line are evaluated and passed on as signals via the physical external interface (PEI) to the user module. In the opposite direction, signals from the user module are converted into KNX/EIB telegrams and sent onto the instabus.

By means of the programming button the physical address is transferred into the bus coupling unit.

Order data

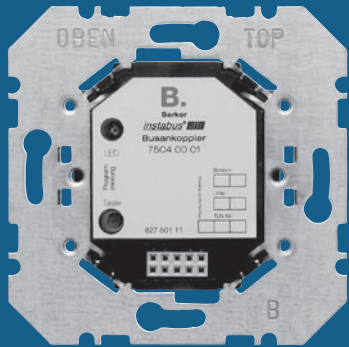
Design		Accessories	
with support ring	7504 00 01	Protective cover, grey	7500 00 07

Notes

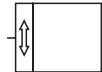


- Key**
- 1. Support ring
 - 2. Physical external interface (PEI)
 - 3. Programming button
 - 4. Programming LED

- Connection between instabus KNX/EIB and user modules
- Integral physical external interface
- LED to monitor programming



Bus coupling unit



ETS search path: Berker >> System components >> Bus coupling unit >>

Technical data

Supply	via bus line	21–32 V DC
Power consumption	without user module	max. 100 mW
Output power	Physical external interface	max. 150 mW
Controls and displays	Programming button	
	Programming LED	red
Connections	Bus	Terminal
	User module	2 x 5-pin female connectors
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	Installation in connector boxes	Ø 58 mm
	Screw fastening	Claw fixing not possible!
	Installation depth	23 mm
Dimensions (WxHxD)	71 x 71 x 23 mm	

Information

The flush-mounted bus coupling unit plus is designed as a flush-mounted device, and makes the connection between the instabus KNX/EIB and the user module.

Examples of user modules are push-buttons or display devices on the bus coupling unit. The KNX/EIB telegrams received from the line are evaluated and passed on as signals via the physical external interface (PEI) to the user module. In the opposite direction, signals from the user module are converted into KNX/EIB telegrams and sent onto the instabus.

By means of the programming button, the physical address is transferred into the bus coupling unit.

Order data

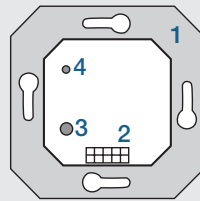
Design		Accessories	
with support ring	7504 00 03	Protective cover, grey.....	7500 00 07

Notes

IMPORTANT

Bus coupling unit for push-buttons with room thermostat and display
7566 x5 9x, Bluetooth gateway
7566 01 xx.

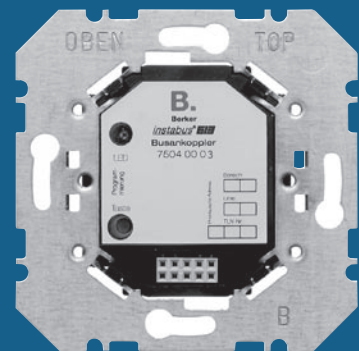
These devices have a higher current consumption and therefore require the flush-mounted bus coupling unit plus.



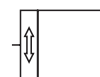
Key

- 1. Supporting ring
- 2. Physical external interface
- 3. Programming button
- 4. Programming LED

- Connection between instabus KNX/EIB and user modules
- Supports user modules with higher power consumption
- Integral physical external interface
- LED to monitor programming



Bus coupling unit plus



Technical data

Supply	via bus line	21–32 V DC
Input	PC interface - Transmission rate - Voltage - Current input - Max. cable length, RS-232	serial, RS-232 Typ. 9.6 kBaud 5–15 V SELV approx. 10 mA 15 m
Behaviour in the event of power failure/restore	Bus voltage failure Bus voltage restore	Communication stops Communication can be continued
Operation and display elements	Programming button Programming LED Operation LED (RUN) Communication LED	red green yellow
Connections	Bus Inputs	Terminal pins 9pole Sub-D socket
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	- 5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	
Dimensions (WxHxD)	36 x 90 x 65 mm	2 modules

Information

The data interface is designed as a rail mounted device. It makes possible the coupling of a PC via the RS-232 serial interface for addressing, programming and diagnosis of KNX/EIB components.

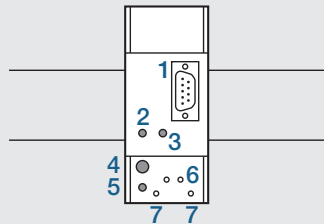
The PC is connected to the data interface via a 9pole Sub-D connector.

Order data

Device colour	
Light grey	7501 00 13

Notes

To connect a PC to the data interface, a 9pole RS-232 extension cable (wired up 1:1) must be used. If the PC has a 25pole RS-232 interface, then a suitable, fully wired-up adapter must be used. The length of the connecting cable should not exceed 15 m!



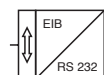
Key

- 1. PC interface (RS-232 female)
 - 2. Operation LED (RUN)
 - 3. Data communication LED (COM)
- Beneath a cover:
- 4. Programming button
 - 5. Programming LED
 - 6. Bus terminal pins
 - 7. Guide pins for cover

- Bus connection via connecting terminal
- Display of the status via operation and communication LED
- Push-on cover for reliable isolation of bus and mains voltage



Data interface



Technical data

Supply	via bus line	21–32 V DC
Inputs	PC port	serial, RS 232
	– Transfer rate	typ. 9.6 kBaud
	– Data level	to DIN 66259, part 1
	– Input level	6 V
	– Output level	3 V
Response to power failure/restore	Bus power failure only Only bus power restored	Communication aborts Communication restored
Controls and displays	Operation LED	Green
Connections	Bus coupling unit	AST: 2 x 5-pin male connectors
	Inputs	9-pin Sub D female connector
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45°C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The data interface is executed as a clip-on device in conjunction with a flush-mounted bus coupling unit. A 9-pin Sub-D connector permits connection of a PC to the instabus KNX/EIB.

This can be used for programming, parameter setting, addressing and diagnosis of the instabus devices.

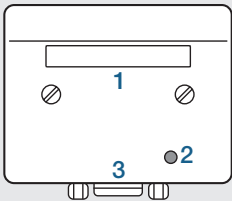
To prevent interference, an automatic R-type switch is integrated into the data interface. The bus coupler's physical external interface type switches depending on whether a PC is connected or not. A green LED indicates that the device is ready for operation.

A frame, the bus coupling and a connection terminal are still needed to complete the device.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		ARSYS	
White	7506 00 12	White, glossy.....	7506 00 52	White	7506 00 72	White	7506 00 42
Polar white	7506 00 19	Polar white, glossy..	7506 00 59	Polar white	7506 00 79	Polar white	7506 00 49
		Polar white, matt	7506 00 89	Anthracite, matt.....	7506 00 75	Light bronze, lacquered	7506 00 44
		Anthracite, matt.....	7506 00 85	Aluminium, matt	7506 00 74	Stainless steel, lacquered	7506 00 43
		Aluminium, matt	7506 00 83	Stainless steel, lacquered	7506 00 73		

Notes



- Key**
- 1. Labelling field
 - 2. Operation LED
 - 3. PC port

- Operation LED
- Connection of a PC for programming, parameter setting, etc.
- Label strip



Data interface



ETS search path: Berker >> Communication >> Serial >>

Technical data

Supply	via PC	USB port
Transmission	Transmission rate	typ. 9.6 kBaud
	Protocol	compatible with USB 1.1 and 2.0
	Cable length	max. 5 m
Connections	Bus	Terminal
	USB socket	Type B
Protection class	IP 20, EN 60529	
Protection class	II	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	36 x 90 x 63 mm	2 modules

Information

The data interface is designed as a top hat rail mounted device. It allows a PC to be connected so that instabus KNX/EIB components can be addressed, programmed and diagnosed with the ETS 3 or ETS starter software.

The power is supplied completely by the USB interface from the connected PC. The device is programmed locally only by the connected PC with the physical address and therefore does not have a programming button or a programming LED.

The USB data interface firmware can be updated by PC and is therefore compatible with coming standards.

Order data

Device colour	
Light grey	7501 00 12

Notes

Compatibility

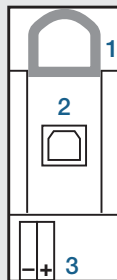
The USB data interface RMD is supported exclusively by ETS 3 (version 1.0 and higher) and the PC operating systems Windows 98, 98 SE, ME, Windows 2000, Windows XP and Windows Vista.

The USB connection should be made with a certified USB cable (1 x type B connector required) with a max. length of 5 m.

The power is supplied by the USB data interface of a connected PC. The instabus KNX/EIB no longer detects the USB interface if a USB cable is not connected.

IMPORTANT

If the USB cable is connected to the distributor on a permanent basis, insert the black slider (item 1) in order to ensure max. installation height in the distributor and to prevent contact with live parts.



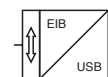
Key

- 1. Cable clamp
- 2. USB connection (type B)
- 3. Terminal

- Installation on top hat rail in the distribution box
- Connecting a PC via the USB data interface
- Connection via bus terminal
- Power supply via PC
- No bus coupling unit required
- With flash controller



USB data port



Technical data

Supply	via PC	USB port
Transmission	Transmission rate Protocol Cable length	typ. 9.6 kBaud compatible with USB 1.1 and 2.0 max. 5 m
Connections	Bus USB socket	Terminal Type B
Protection class	IP 20, EN 60529	
Protection class	II	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Assembly	Installation in connector boxes Screw fastening Installation depth	Ø 58 mm Claw fixing not possible! 34 mm
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 34 mm	

Information

The data interface allows a PC to be connected so that instabus KNX/EIB components can be addressed, programmed and diagnosed with the ETS 3 or ETS starter software.

The power is supplied completely by the flush-mounted USB interface from the connected PC. The device is programmed locally only by the connected PC with the physical address and therefore does not have a programming button or a programming LED.

The flush-mounted USB data interface firmware can be updated by PC and is therefore compatible with coming standards.

Order data

Device colour		MODUL 2	Berker S.1/B.1/B.3/ B.7 GLAS	Berker K.1/K.5
Light grey	7504 00 04	Centre plate	Centre plate	Centre plate
		- White.....	- White, glossy.....	- White.....
		- Polar white.....	- Polar white, glossy	- Polar white.....
			- Polar white, matt...	- Stainless steel.....
			1033 19 09	
			- Anthracite, matt	
			- Aluminium, matt	
		For TDO boxes in Austria: * = (68)		

Notes

Compatibility

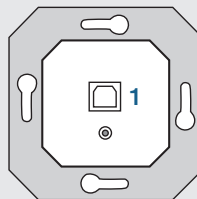
The USB data interface RMD is supported exclusively by the ETS 3 (version 1.0 and higher) and the PC operating systems Windows 98, 98 SE, ME, Windows 2000, Windows XP and Windows Vista.

The USB connection should be made with a certified USB cable (1 x type B connector required) with a max. length of 5 m.

The power is supplied by the USB data interface of a connected PC. The instabus KNX/EIB no longer detects the USB interface if a USB cable is not connected.

Covers

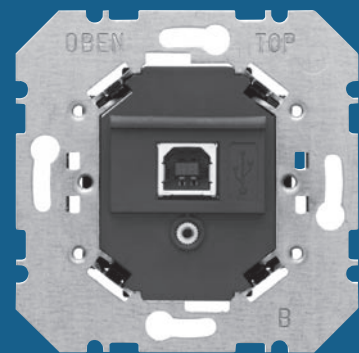
Centre plates or central plates and intermediate ring for TAE/TDO phone systems are used as a cover (see order data below).



Key

- 1. USB connection (type B)

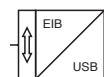
- Flush-mounted device for installation in a switch box
- Connecting a PC via the USB data interface
- Connection via bus terminal
- Power supply via PC
- No bus coupling unit required
- With flash controller



ARSYS

Centre plate	
- White.....	*1035 01 02
- Polar white.....	*1035 01 69
- Light bronze, metal	*1034 00 01
- Stainless steel.....	*1034 00 04
Centre plate with labelling field	
- White.....	*1035 00 02
- Polar white.....	*1035 00 69

USB data port



Technical data

Data rail with connector		
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	bonded-in
Mounting orientation	as desired	
Dimensions (WxHxD)	214 x 24 x 1.8 mm (for top hat rail 35 x 7.5 mm)	12 modules
Data rail cover		
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	Snap-on
Mounting orientation	any	
Dimensions (W)	240 mm	13.5 modules
Terminal		
Connections	Bus	2 x 4 clip-on terminals 0.6–0.8 mm
	Coding	Red/black = +/-
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to 45 °C
	Storage/transportation	-25 to 70 °C
Mounting	Clip on to connector pins of bus devices	
Mounting orientation	any	
Dimensions (WxHxD)	11.5 x 10 x 10.2 mm	

Information

The data rail creates a connection between the devices via the pressure contacts of the KNX/EIB rail mounted devices. They are bonded into the top hat rail.

The inner pair of the four contact paths carries the bus voltage, and the outer pair the supply voltage. At the end of the data rail is a 4pole bus terminal that is used to establish the connection to the data rail.

The data rail cover protects the data rails against dirt and interference voltage. It is divisible into a 0.5 modules.

The terminal connects the components to the bus (with polarity reversal protection), and serves as a tapping block. There are connection facilities for a maximum of 2 x 4 conductors.

Order data

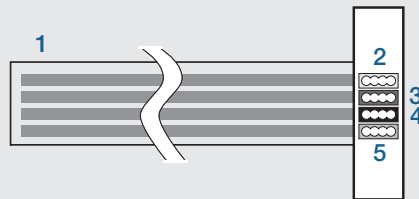
Data rail with connector for top hat rail 35 x 7.5 mm 12 modules	7500 00 08	Data rail cover Light grey	7500 00 04	Terminal Red/black.....	7500 00 05
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Notes

The configuration of the strip conductors is only correct if the connector is to the right during installation. The data rail must not be shortened. Empty areas of the top hat rail with a data rail inserted must be provided with a cover.

Connection to another line

The outer connector terminals (yellow and white) of the data rail are used to connect the non-choked 30 V DC voltage, e.g. to supply KNX/EIB lines via a separate choke.



Key

- 1. Data rail
- 2. 24 V DC (yellow)
- 3. KNX/EIB + (red)
- 4. KNX/EIB - (black)
- 5. 0 V (white)



Data rail with connector



Data rail cover



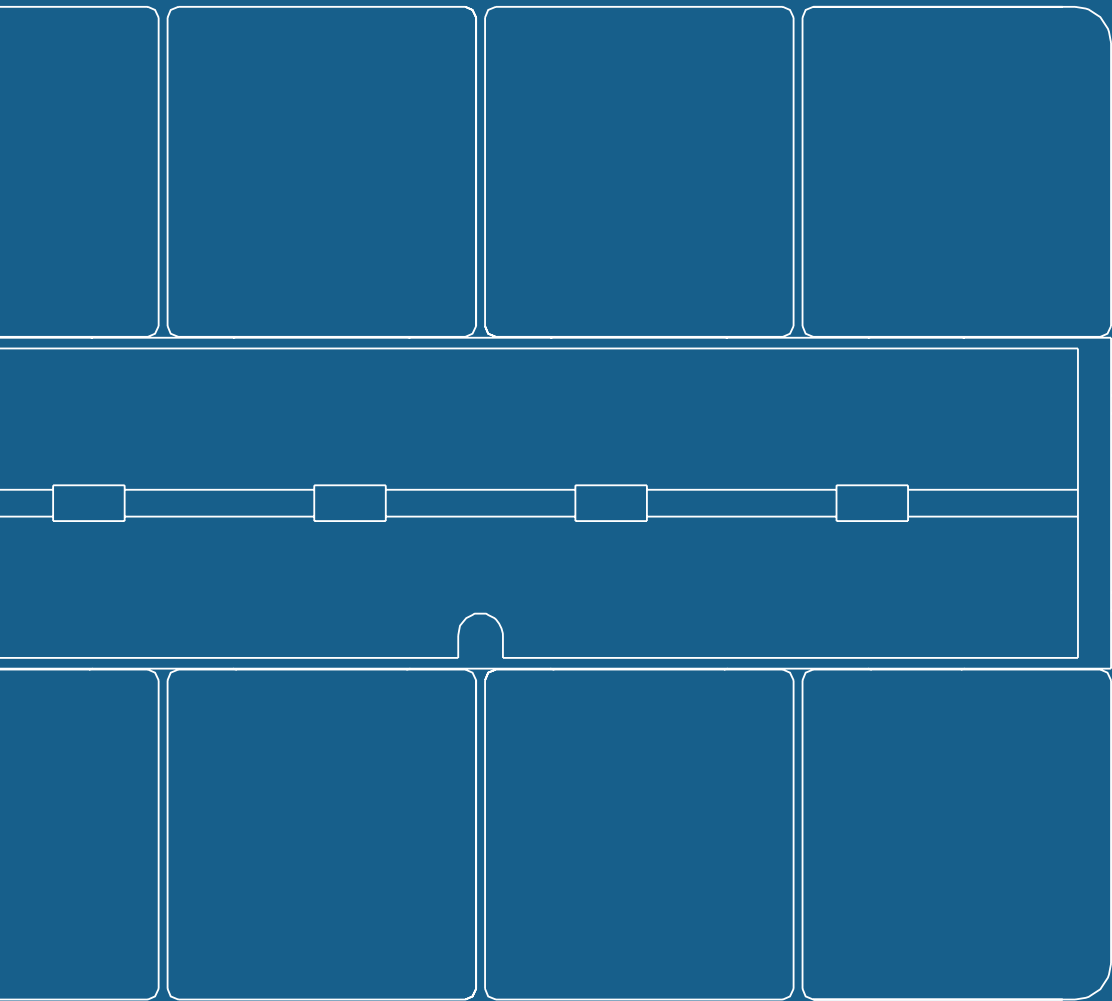
Terminal

Data rail with connector

Data rail cover

Terminal

ETS search path: Berker >> System accessory >>



B.

Berker the right way.

Push-buttons	72–195
Physical sensors	196–221
Binary inputs	222–237
Time switches	238–247
Analogue inputs	248–271
Other	270–273

Sensors

SENSORS

Sensors are a key element of the instabus KNX/EIB. They convert physical variables into electrical values, process them and send a telegram onto the bus as appropriate.

Actuators

Logic modules



Visual representations

Other components

Dim. drawings
Glossary

Training
Service

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	Button with rocker mounting	
	Programming button	
	Programming LED	Red
	Status LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitting in wall boxes	∅ 60 mm, 40 mm deep
		∅ 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

Information

The push-button BCU 1gang is executed as a flush-mounted device. It consists of a bus coupling unit, a micro push-button with associated evaluation electronics and a status LED, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (1gang, with lens, with labelling).

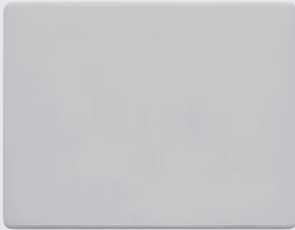
Order data

Design		Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker K.1/K.5	
- with support ring...	7514 10 00				
Rocker MODUL 2					
White	1620 02	White, glossy.....	1620 89 82	White	1405 70 02
- with lens.....	1621 12	- with lens.....	1621 89 82	- with lens.....	1415 70 02
- with labelling.....	1626 02	- with labelling.....	1626 89 82	- with labelling.....	1426 70 02
Polar white	1620 09	Polar white, glossy	1620 89 89	Polar white	1405 70 09
- with lens.....	1621 19	- with lens.....	1621 89 89	- with lens.....	1415 70 09
- with labelling.....	1626 09	- with labelling.....	1626 89 89	- with labelling.....	1426 70 09
		Polar white, matt	1620 19 09	Anthracite, matt.....	1405 70 06
		- with lens.....	1621 19 09	- with lens.....	1415 70 06
		- with labelling.....	1626 19 09	- with labelling.....	1426 70 06
				Aluminium, matt	1405 70 24
				- with lens.....	1415 70 24
				- with labelling.....	1426 70 24

Applications

Switching 105501	<ul style="list-style-type: none"> ■ Switching functions: ON or OFF or TOGGLE ■ LED as status indicator, continuous ON or continuous OFF
Objects	1
Group addresses/assignments	maximum of 3 each

Rockers



Rocker

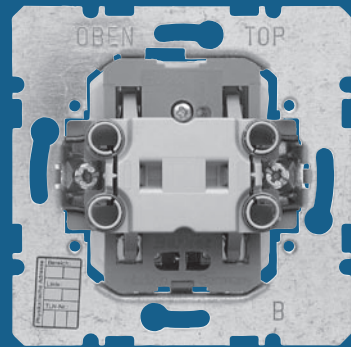


Rocker with lens



Rocker with labelling

- Status LED to indicate operating states or as orientation light
- Switching of a function group

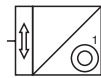


Rocker Berker K.1/K.5	
Stainless steel	1405 70 04
- with lens.....	1415 70 04
- with labelling	1426 70 04

Rocker Berker ARSYS	
White	1405 00 02
- with lens.....	1415 00 02
- with labelling	1426 00 02
Polar white	1405 00 69
- with lens.....	1415 00 69
- with labelling	1426 00 69
Light bronze, metal ...	1404 00 01
- with lens.....	1416 00 01
- with labelling	1436 00 01
Stainless steel	1404 00 04
- with lens.....	1416 00 04
- with labelling	1436 00 04

Rocker Shatter-proof IP 44	
White	1550
- with lens.....	1553
- with labelling	1629
Polar white	1550 09
- with lens.....	1553 09
- with labelling	1629 09

Push-button BCU 1gang



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	Button left	
	Button right	
	Programming button	
	Programming LED	Red
	2 status LEDs	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitting in wall boxes	∅ 60 mm, 40 mm deep
		∅ 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

Information

The push-button BCU 2gang is executed as a flush-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (2gang, with lens, with arrow symbol).

Order data

Design		Rockers Berker S.1/ B.1/B.3/B.7 GLAS	Rockers Berker S.1/ B.1/B.3/B.7 GLAS	Rockers Berker K.1/K.5	
- with support ring...	7514 20 00				
Rockers MODUL 2					
White	1623 02	White, glossy.....	1623 89 82	White	1435 70 02
- with lens.....	1627 02	- with lens.....	1627 89 82	- with lens.....	1437 70 02
- with labelling.....	1625 02	- with labelling.....	1625 89 82	- with arrow symbol..	1435 71 02
Polar white	1623 09	Polar white, glossy	1623 89 89	Polar white	1435 70 09
- with lens.....	1627 09	- with lens.....	1627 89 89	- with lens.....	1437 70 09
- with labelling.....	1625 09	- with labelling.....	1625 89 89	- with arrow symbol..	1435 71 09
		Polar white, matt	1623 19 09	Anthracite, matt.....	1435 70 06
		- with lens.....	1627 19 09	- with lens.....	1437 70 06
		- with labelling.....	1625 19 09	- with labelling.....	1435 71 06

Applications

Switching, dimming, shutter 105701	<ul style="list-style-type: none"> ■ Switching or dimming or shutter control ■ Switching function with toggle operation ■ Status LED with dedicated communication objects ■ Area dimming
Objects	4
Group addresses/assignments	maximum 4/maximum 5

Rockers



Rockers

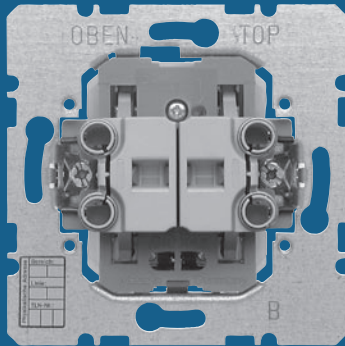


Rockers with red lenses



Rockers with arrow symbol

- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for one function group
- Switch up to two function groups

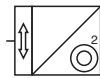


Rockers Berker K.1/K.5	
Aluminium, matt	1435 70 24
- with lens.....	1437 70 24
- with labelling	1435 71 24
Stainless steel	1435 70 04
- with arrow symbol..	1435 71 04

Rockers Berker ARSYS	
White	1435 00 02
- with lens.....	1437 00 02
- with arrow symbol ..	1435 01 02
Polar white	1435 00 69
- with lens.....	1437 00 69
- with arrow symbol ..	1435 01 69
Light bronze, metal ...	1434 00 01
- with arrow symbol ..	1434 01 01
Stainless steel	1434 00 04
- with arrow symbol ..	1434 01 04

Rockers Shatter-proof IP 44	
White	1552
- with arrow symbol ..	1552 22
Polar white	1552 09
- with arrow symbol..	1552 29

Push-button BCU 2gang



ETS search path: Berker >> Push-button >> Push-button 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	Upper button	
	Lower button	
	Programming button	
	Programming LED	Red
	Status LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fitting in wall boxes	∅ 60 mm, 40 mm deep
		∅ 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

Information

The group push-button BCU 1gang is executed as a flush-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and a status LED, as well as a mechanical mounting unit in the neutral mid position for rockers.

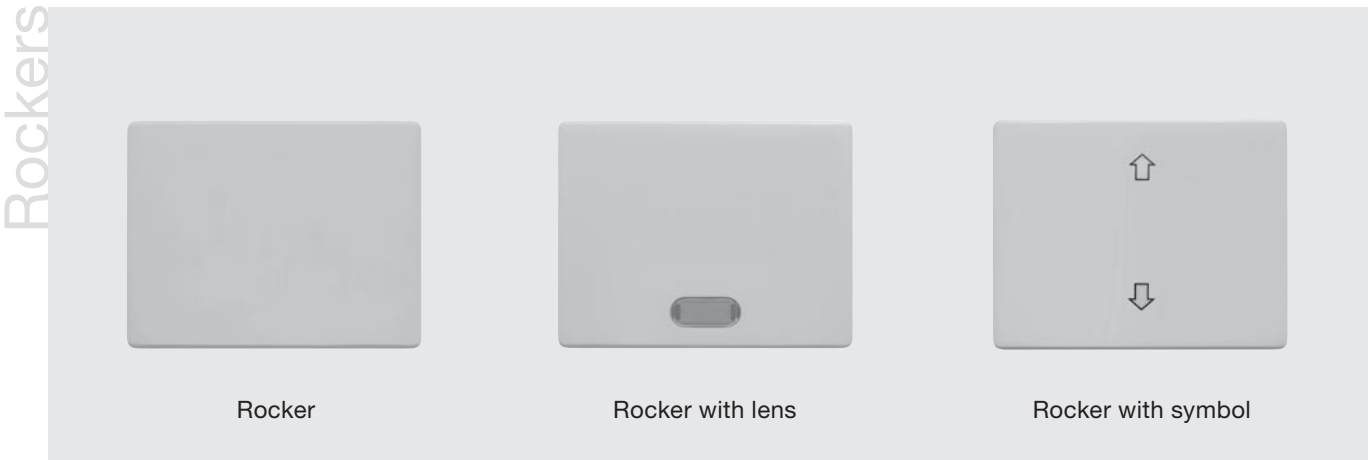
The rockers are not included. They can be ordered separately in differing designs according to the application (1gang, with lens, with symbol).

Order data

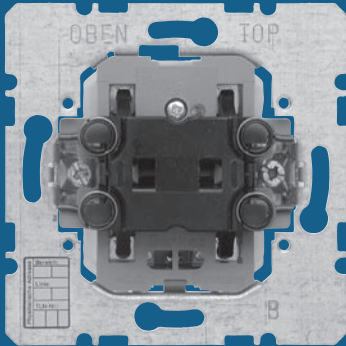
Design		Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker S.1/ B.1/B.3/B.7 GLAS	Rocker Berker K.1/K.5	
- with support ring...	7514 11 00				
Rocker MODUL 2					
White	1620 02	White, glossy.....	1620 89 82	White	1405 70 02
- with lens.....	1621 12	- with lens.....	1621 89 82	- with lens.....	1415 70 02
- with symbol.....	1620 22	- with symbol.....	1620 89 12	- with symbol.....	1405 71 02
Polar white	1620 09	Polar white, glossy	1620 89 89	Polar white	1405 70 09
- with lens.....	1621 19	- with lens.....	1621 89 89	- with lens.....	1415 70 09
- with symbol.....	1620 29	- with symbol.....	1620 89 19	- with symbol.....	1405 71 09
		Polar white, matt	1620 19 09	Anthracite, matt.....	1405 70 06
		- with lens.....	1621 19 09	- with lens.....	1415 70 06
		- with symbol.....	1620 19 19	- with symbol.....	1405 71 06

Applications

Switching, dimming, shutter 105601	<ul style="list-style-type: none"> ■ Switching or dimming or shutter control ■ Up to two switching options by toggle function
Objects	3
Group addresses/assignments	maximum of 4 each



- Status LED to indicate operating states or as orientation light
- Dimmer/shutter control for one function group
- Switch up to two function groups



Rocker Berker K.1/K.5		Rocker Berker ARSYS		Rocker Shatter-proof IP 44	
Aluminium, matt	1405 70 24	White	1405 00 02	White	1550
- with lens.....	1415 70 24	- with lens.....	1415 00 02	- with lens.....	1553
- with symbol.....	1405 71 24	- with symbol.....	1405 03 02	Polar white	1550 09
Stainless steel	1405 70 04	Polar white	1405 00 69	- with lens.....	1553 09
- with lens.....	1415 70 04	- with lens.....	1415 00 69		
- with symbol.....	1405 71 04	- with symbol.....	1405 03 69		
		Light bronze, metal ...	1404 00 01		
		- with lens.....	1416 00 01		
		- with symbol.....	1404 03 01		
		Stainless steel	1404 00 04		
		- with lens.....	1416 00 04		
			1404 03 04		

Group push-button BCU 1gang



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Controls and displays	2 buttons left (upper and lower) 2 buttons right (upper and lower) 2 status LEDs	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Fitting in wall boxes	∅ 60 mm, 40 mm deep ∅ 60 mm, 60 mm deep
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 32 mm	

Information

The group push-button BCU 2gang is executed as a flush-mounted device. It consists of a bus coupling unit, four micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (2gang, with lens, with symbol, with arrow symbol).

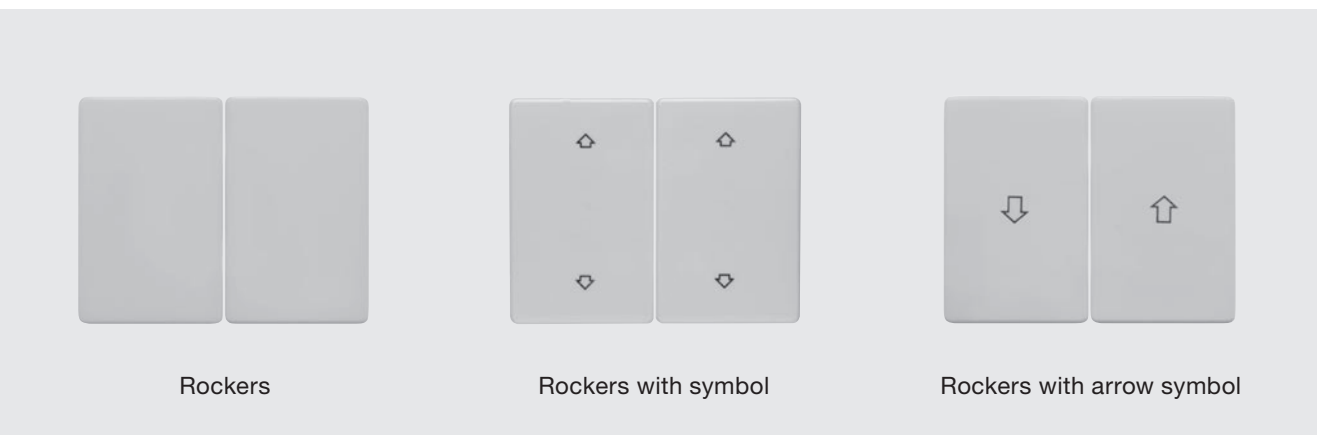
Order data

Design		Rockers Berker S.1/ B.1/B.3/B.7 GLAS	Rockers Berker S.1/ B.1/B.3/B.7 GLAS	Rockers Berker K.1/K.5	
- with support ring...	7514 21 00				
Rockers MODUL 2					
White	1623 02	White, glossy.....	1623 89 82	White	1435 70 02
- with symbol.....	1644 02	- with symbol.....	1644 89 82	- with symbol.....	1435 72 02
- with arrow symbol..	1625 02	- with arrow symbol..	1625 89 82	- with arrow symbol..	1435 71 02
Polar white	1623 09	Polar white, glossy..	1623 89 89	Polar white	1435 70 09
- with symbol.....	1644 09	- with symbol.....	1644 89 89	- with symbol.....	1435 72 09
- with arrow symbol..	1625 09	- with arrow symbol..	1625 89 89	- with arrow symbol..	1435 71 09
		Polar white, matt	1623 19 09	Anthracite, matt.....	1435 70 02
		- with symbol.....	1644 19 09	- with symbol.....	1435 72 02
		- with arrow symbol..	1625 19 09	- with arrow symbol..	1435 71 02

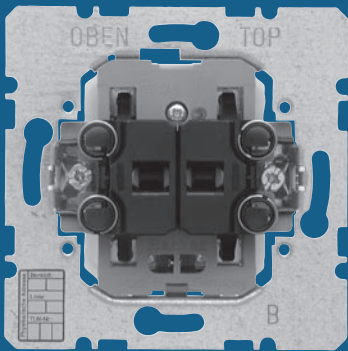
Applications

Switching, dimming, shutter 105801	<ul style="list-style-type: none"> ■ Switch and dimmer or ■ Switch and shutter control or ■ Dimmer and shutter control ■ Maximum of 4 switching options by toggle function
Objects	8
Group addresses/assignments	maximum of 8 each

Rockers



- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for two function groups
- Switch up to four function groups

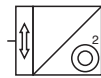


Rockers Berker K.1/K.5	
Aluminium, matt	1435 70 24
- with symbol.....	1435 72 24
- with arrow symbol..	1435 71 24
Stainless steel	1435 70 04
- with symbol.....	1435 72 04
- with arrow symbol..	1435 71 04

Rockers Berker ARSYS	
White	1435 00 02
- with symbol.....	1435 03 02
- with arrow symbol..	1435 01 02
Polar white	1435 00 69
- with symbol.....	1435 03 69
- with arrow symbol..	1435 01 69
Light bronze, metal ...	1434 00 01
- with symbol.....	1434 03 01
- with arrow symbol..	1434 01 01
Stainless steel	1434 00 04
- with symbol.....	1434 03 04
- with arrow symbol..	1434 01 04

Rockers Shatter-proof IP 44	
White	1552
- with arrow symbol..	1552 22
Polar white	1552 09
- with arrow symbol..	1552 29

Group push-button BCU 2gang



ETS search path: Berker >> Push-button >> Push-button 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper button	
	Lower button	
	Operation LED	Green
	Status LED	Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 1gang is a user module for clipping onto the flush-mounted bus coupling unit. It is supplied with or without labelling field (separate order number).

In the variant without labelling field the LEDs are not visible.

The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker ARSYS	
White.....	7516 11 12	Polar white, matt	7516 11 89	White	7516 11 42
- with labelling	7516 10 12	- with labelling	7516 10 89	- with labelling	7516 10 42
Polar white	7516 11 19	Anthracite, matt.....	7516 11 85	Polar white.....	7516 11 49
- with labelling	7516 10 19	- with labelling	7516 10 85	- with labelling	7516 10 49
		Aluminium, matt	7516 11 83	Light bronze, lacquered	7516 11 44
		- with labelling	7516 10 83	- with labelling	7516 10 44
				Stainless steel, lacquered	7516 11 43
				- with labelling	7516 10 43

Applications

Dimming 100C12	<ul style="list-style-type: none"> Status LED programmable Switch/dimmer function 	<ul style="list-style-type: none"> Operation LED programmable Area dimming programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Shutter 100D12	<ul style="list-style-type: none"> Step and move operation Number of step commands for variable jog mode 	<ul style="list-style-type: none"> Operation LED programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Switching 100912	<ul style="list-style-type: none"> LED for transmission monitoring in time function Switching commands customizable 	<ul style="list-style-type: none"> Operation LED programmable
Objects	1	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101B01	<ul style="list-style-type: none"> Two values to be sent to dim and/or analogue actuators and/or control units Passive or active extension of a light scene push-button 	
Objects	1	
Group addresses/assignments	maximum of 1 each	
Switching/pushing 103301	<ul style="list-style-type: none"> Status LED with separate object Switching commands customizable 	<ul style="list-style-type: none"> Operation LED programmable Toggle function for up to two group commands
Objects	3	
Group addresses/assignments	maximum of 13 each	

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operation LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



with labelling

Accessories	
Labelling field with cover plate	
MODUL 2	
White	7596 00 01
Polar white.....	7596 00 02
Berker S.1/B.1/B.3/ B.7 GLAS	
Polar white.....	7596 00 07
Aluminium.....	7596 00 09
Anthracite.....	7596 00 08

Berker ARSYS	
White	7596 00 03
Polar white.....	7596 00 06
Light bronze, lacquered	7596 00 05
Stainless steel, lacquered	7596 00 04

Push-button 1gang



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Left-hand button	Part of the rocker
	Right-hand button	Part of the rocker
	Operation LED	White
	2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 1gang is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

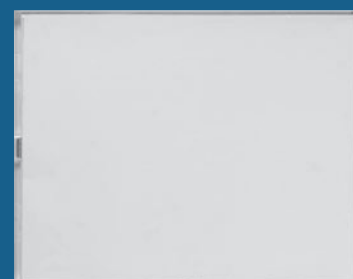
Order data

Berker S.1/B.1/B.3/ B.7 GLAS	for White and Polar	7516 13 80	Berker K.1/K.5	for White and Polar	7516 13 70
	white.....			white.....	
	for Anthracite and	7516 13 85		Anthracite.....	7516 13 75
	Aluminium.....			Aluminium.....	7516 13 74
			Stainless steel.....	7516 13 73	

Applications

Dimming 100C03	<ul style="list-style-type: none"> ■ Status LED adjustable ■ Switching/dimmer function 	<ul style="list-style-type: none"> ■ Operation LED adjustable ■ Area dimming adjustable
Objects	2	
Group addresses/assignments	maximum 10 each	
Shutter 100D03	<ul style="list-style-type: none"> ■ Step and move command ■ Number of step commands for variable jog mode 	<ul style="list-style-type: none"> ■ Operation LED adjustable
Objects	2	
Group addresses/assignments	maximum 10 each	
Switching 100903	<ul style="list-style-type: none"> ■ Operation LED adjustable ■ Status LED with time function for transmission monitoring 	<ul style="list-style-type: none"> ■ Switching commands freely adjustable
Objects	1	
Group addresses/assignments	maximum 10 each	
Value transmitter 101B03	<ul style="list-style-type: none"> ■ Two values for sending to dim and/or analogue actuators and/or control units ■ Passive or active extension unit of a light scene push-button 	
Objects	1	
Group addresses/assignments	maximum 1 each	
Switching/pushing 103303	<ul style="list-style-type: none"> ■ Status LED with separate object ■ Switching commands freely adjustable 	<ul style="list-style-type: none"> ■ Operation LED adjustable ■ Toggle function for up to two group commands
Objects	3	
Group addresses/assignments	maximum 13 each	

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operation LED
- Status LED for indicating switching states, etc.
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 1gang with labelling field



ETS search path: Berker >> Push-button >> Push-button, 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Button on left	Part of the rocker
	Button on right	Part of the rocker
	Operation LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 1gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

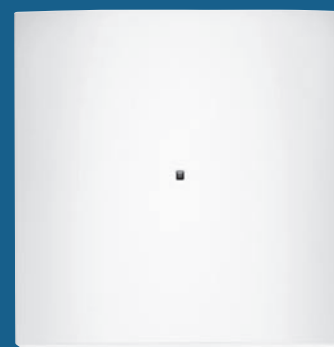
Order data

BERKER B.IQ		Accessories	
Polar white	7516 10 99	Labelling field	
Stainless steel	7516 10 93	clear transparent	7590 00 80
Glass, polar white....	7516 10 91		

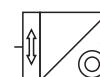
Applications

Dimming 100C03	<ul style="list-style-type: none"> ■ Status LED programmable ■ Switch/dimmer function 	<ul style="list-style-type: none"> ■ Operation LED programmable ■ Area dimming programmable
Objects	2	
Group addresses/assignments	maximum 10 each	
Shutter 100D03	<ul style="list-style-type: none"> ■ Step and move operation ■ Number of step commands for variable jog mode 	<ul style="list-style-type: none"> ■ Operation LED programmable
Objects	2	
Group addresses/assignments	maximum 10 each	
Switching 100903	<ul style="list-style-type: none"> ■ Operation LED programmable ■ Status LED with time function for transmission monitoring 	<ul style="list-style-type: none"> ■ Switching commands programmable
Objects	1	
Group addresses/assignments	maximum 10 each	
Value transmitter 101B03	<ul style="list-style-type: none"> ■ Two values to be sent to dimming and/or analogue actuators and/or control units ■ Passive or active extension of a light scene push-button 	
Objects	1	
Group addresses/assignments	maximum 1 each	
Switching/pushing 103303	<ul style="list-style-type: none"> ■ Status LED with separate object ■ Switching commands programmable 	<ul style="list-style-type: none"> ■ Operation LED programmable ■ Toggle function for up to two group commands
Objects	3	
Group addresses/assignments	maximum 13 each	

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operation LED
- Status LED for displaying switching statuses
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 1gang standard



ETS search paths:
Berker >> Push-button >> 1gang push-button >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Left push-button Right push-button Operation LED 2 status-LEDs	Part of the rocker Part of the rocker white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 1gang is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The application allows selection of the function. It is no longer necessary to load a separate application for the corresponding function.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety... 7514 12 29	Accessories Labelling field sheets..... 9498 29 01
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Applications

Standard 1gang 10C901	■ Function of the operation LED and the status LEDs adjustable
Standard 1gang 10C911 (for ETS 3 from version d)	■ Function of the device adjustable: switching, dimming, shutter, value transmitter or scene extension unit
Switching	■ Rockers or push-button function adjustable ■ Command when buttons are pressed adjustable (ON, OFF, TOGGLE)
Dimming	■ Command when pressing the left/right rocker adjustable (brighter, ON/darker, OFF) ■ Time between switching and dimming adjustable
Shutter	■ Command when pressing the left/right rocker adjustable (UP, DOWN) ■ Time between short and long-time command adjustable
Value transmitter	■ Value when the rocker is pressed adjustable per page (0 to 255/0 to 100 %)
Scene extension unit	■ Scene number when rocker is pressed adjustable per page ■ Mode of operation with/without memory function adjustable
Objects	2
Group addresses/assignments	maximum 100 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter 1-byte, e.g. for transmitting brightness values
- Light scene extension unit
- Operation LED
- Status LEDs for indicating switching states, etc.
- Integrated anti-dismantling protection



Push-button 1gang with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 1gang >>

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
	Power consumption	20 mA
Loading capacity	Switching voltage	max. 30 V DC
	Switching current (adapter 7590 00 32)	max. 10 mA
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Operation and display elements	1 x 2 sensor surfaces	left/right
	Operation LED	blue
	2 status LEDs	white
	2 jumpers on rear	Setting functions of the LEDs
Connections	Ribbon cable for adapter connection	26pole plug
Protection class	IP 21, EN 60 529	Safe for moist cleaning
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for anti-dismantling protection optional
Dimensions	Glass plate	160 x 86 x 4 mm
	Assembling height from wall	4.7 mm (seated on wall)
		10.7 mm (with adapter ring)
	Surface compensation	max. 20 mm

Information

The glass sensor is intended for flush-mounted installation in a 2gang wall box for glass sensor, and when connected to a universal interface performs the function of a push-button. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers, the LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor can be labelled at the factory. To have this done, you can use the Web Configurator at www.berker.com/ts-sensor – this generates a unique order number. The imprint is made on the rear, and is thus protected against dirt, wear and damage.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	1681 09	Wall box 2gang for glass sensor	1870
Glass, black.....	1681 05	Adapter for KNX/EIB and relay.....	7590 00 32
Glass, aluminium....	1681 07	Universal interface 2gang comfort.....	7564 20 01
with configured labelling	1691 0x ...	Universal interface 4gang comfort.....	7564 40 01

Connection

The glass sensor is connected to the adapter for KNX/EIB and relay or via the KNX/EIB adapter 2 x 8gang using a supplied ribbon cable. The adapter that is used is connected with the KNX/EIB via push-button interfaces.

The glass sensor requires a separate supply voltage. This is likewise connected to the adapter being used.

Mounting

Mounting is performed by snapping the glass sensor onto the wall box 2gang for glass sensor. Adapters and push-button interfaces can be housed conveniently in the wall box. The wall box must be taken into account in the planning!

LED function

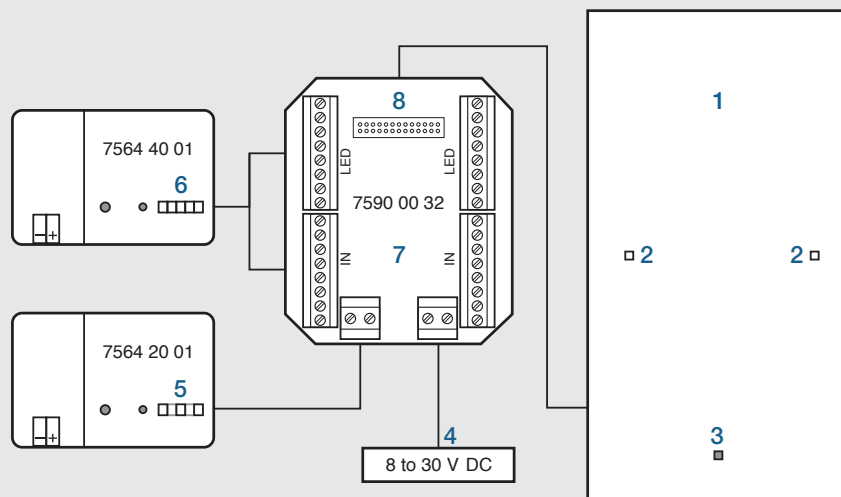
In the state at delivery the LEDs of the glass sensor have fixed functions assigned to them. If the LEDs are to be controlled via KNX/EIB,

jumpers on the rear of the glass sensor have to be adjusted. A separate universal interface 2gang comfort must be provided for activation of the blue operation LED.

Legend

- 1. Glass sensor
- 2. Status LEDs

- 3. Operation LED
- 4. Supply voltage
- 5. Universal interface for connecting the operation LED
- 6. Universal interface for connecting the sensor surfaces with the status LEDs
- 7. Adapter for KNX/EIB and relay
- 8. Ribbon cable connection



Connection overview for glass sensor 1gang with external activation of the operation and status LEDs

- Flat surface with capacitive sensor surfaces
- White status LED for indicating switching states, etc.
- Blue operation LED
- Operating mode of LED adjustable via jumper
- Bus connection via universal interfaces
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



Glass sensor, 1gang

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
Loading capacity	Switching voltage	max. 30 V DC
	Switching current max. 10 mA	
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Connections	Universal interfaces	Screw terminals: 0.14–0.5 mm ²
	Operation LED/voltage supply	Screw terminals: max. 1 mm ²
	Glass sensor (168x 0x)	26pole plug
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	in wall box (order no. 1870)	
Dimensions (W x H)	46 x 51 mm	

Information

The adapter for KNX/EIB and relay is intended for installation in a flush-mounted switch box, and establishes the connection between a glass sensor and interfaces of the building management systems.

8 channels are available for signal transmission and for activation of the status LEDs. Signal transmission is via optocouplers.

The adapter has separate screw terminals for connecting inputs, for activating the status LEDs of the glass sensor, for activating the operation LED, and for connecting the external power supply of the sensor.

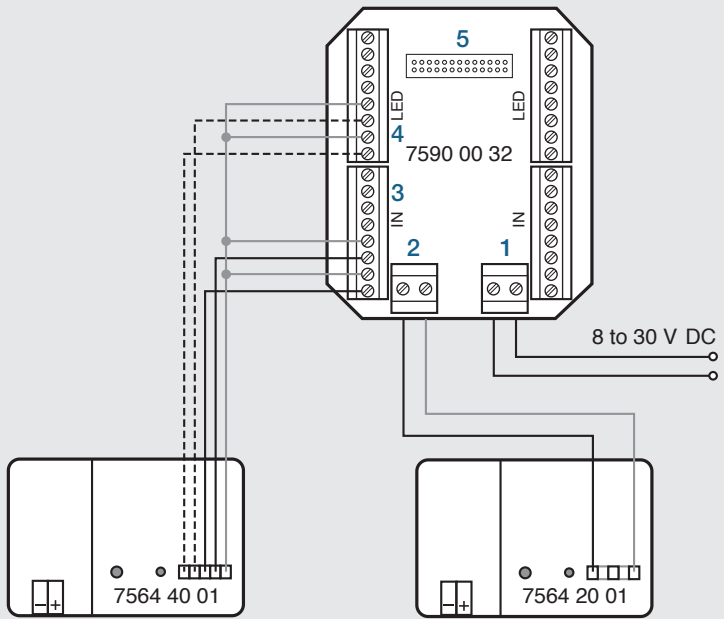
Order data

Device colour	
Green	7590 00 32

Information

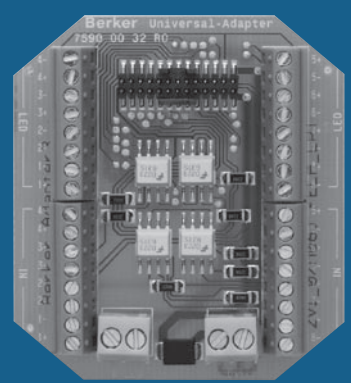
Connection
The adapter is connected to the glass sensor using the ribbon cable supplied with the sensor. The interfaces to the KNX/EIB are connected via screw terminals. Signal transmission is via optocouplers. Therefore during connection attention must be paid to the potentials. In each case the conductor with the higher potential must be connected to the + terminal of the numbered terminal space.

- Legend
1. Supply voltage connection
2. Operation LED connection
3. Inputs connections
4. Status LEDs connection
5. Glass sensor connection



Connection example, adapter and interfaces for the glass sensor 1gang

- Connection of the interfaces via screw terminals
■ Screw terminals separated according to functions



Adapter for KNX/EIB and relay

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper button	
	Lower button	
	Operation LED	Green
	2 status LEDs	Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 1gang comfort is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to 2 dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point
- Control of forced guidance (EIS 8)

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker ARSYS	
White	7516 16 12	Polar white, matt	7516 16 89	White	7516 16 42
Polar white	7516 16 19	Anthracite, matt	7516 16 85	Polar white	7516 16 49
		Aluminium, matt	7516 16 83	Light bronze, lacquered	7516 16 44
				Stainless steel, lacquered	7516 16 43

Applications

PB comfort 109302	<ul style="list-style-type: none"> ■ Two push-buttons can be adjusted separately ■ Operation LED adjustable ■ Inverse Status LED, flashing ■ Variable lighting duration of the status LED (length of actuation) ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Push-button function for moving shutters, one movement direction each ■ Switching function: Cyclic transmission possible ■ Shutter function via one push-button operation ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Start/stop function: Cyclic transmission by extension unit ■ Second operating level via object ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Positive operation function according to EIS 8 ■ Brightness value transmitter (50 lux steps) ■ Temperature value transmitter (1 °C steps)
	<ul style="list-style-type: none"> ■ Alarm message in the event of dismantling
Objects	6
Group addresses/assignments	maximum 25 each

- Assignment of one status LED to each of the two push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button lockable
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Accessories		Berker ARSYS	
Labelling field with cover plate		White	7596 00 03
MODUL 2		Polar white.....	7596 00 06
White	7596 00 01	Light bronze, lacquered	7596 00 05
Polar white.....	7596 00 02	Stainless steel, lacquered	7596 00 04
Berker S.1/B.1/B.3/B.7 GLAS			
Polar white.....	7596 00 07		
Aluminium.....	7596 00 09		
Anthracite.....	7596 00 08		

Push-button 1gang comfort



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Left-hand button	Part of the rocker
	Right-hand button	Part of the rocker
	Operation LED	White
	2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 1gang comfort is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide range of functions, depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

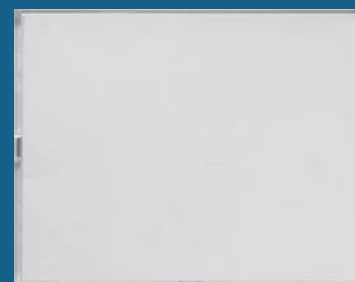
Order data

Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7516 17 80	Berker K.1/K.5 for White and Polar white	7516 17 70	
			Anthracite	7516 17 73
			Aluminium.....	7516 17 75
			Stainless steel.....	7516 17 74
for Anthracite and Aluminium	7516 17 85			

Applications

PB 1gang comfort 109302	<ul style="list-style-type: none"> ■ Two push-buttons can be adjusted separately ■ Operation LED adjustable ■ Inverse Status LED, flashing ■ Variable lighting duration of the status LED (length of actuation) ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission possible ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Start/stop function: Cyclic transmission by extension unit ■ Second operating level via object ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function according to EIS 8 ■ Brightness value transmitter (50 lux steps) ■ Temperature value transmitter (1 °C steps)
	<ul style="list-style-type: none"> ■ Alarm message in the event of dismantling
Objects	6
Group addresses/assignments	maximum 25 each

- Assignment of one status LED to each of the two push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 1gang comfort with labelling field



ETS search path: Berker >> Push-button >> Push-button, 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Button on left	Part of the rocker
	Button on right	Part of the rocker
	Operation LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 1gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming.

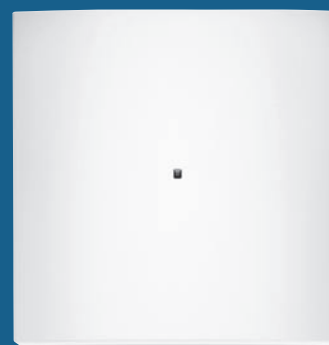
The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button). The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

BERKER B.IQ		Accessories	
Polar white	7516 15 99	Labelling field	
Stainless steel	7516 15 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 15 91		

Applications	B.IQ 1gang comfort 109301	<ul style="list-style-type: none"> ■ Two push-buttons programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Variable lighting duration of status LED (operation period) ■ Status LED for shutter function
		<ul style="list-style-type: none"> ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission possible ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Start/stop function: cyclic transmission by extension ■ Second user level via object ■ Control function
		<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function to EIS 8 ■ Brightness transmitter (50 lux steps) ■ Temperature transmitter (1 °C steps)
		<ul style="list-style-type: none"> ■ Alarm in case of dismantling
	Objects	6
Group addresses/assignments	maximum of 25 each	

- Assignment of one status LED to each of the two push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 1gang comfort



ETS search paths:
Berker >> Push-button >> 1gang push-button >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Left push-button Right push-button Operation LED 2 status-LEDs	Part of the rocker Part of the rocker white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 1gang comfort is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming. A separate function can be selected for each rocker/button.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety..	7514 13 29	Accessories Labelling field sheets.....	9498 29 01
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Comfort 1gang 10C101**Comfort 1gang 10C111** (for ETS 3 from version d)

- Function of the operation LED and the status LEDs adjustable
- Operation and status LEDs with separate communication objects
- LEDs can be used for status indication independently of the push-button functions
- Rockers or push-button function adjustable
- Functions of the rocker adjustable: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte or scene extension unit
- Function adjustable for each button: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte, scene extension unit or room thermostat extension unit
- 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte
- Evaluation and implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation
- Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing
- Time between short and long actuation, size of steps and stop telegram for dimming adjustable
- Time between short and long actuation and operation concept for shutter control adjustable
- Value range, adjustment by pressing a button, incl. size of steps for 1- and 2-byte value transmitter adjustable
- Saving of eight scenes with up to eight output channels with selection of the object type possible per channel
- Blocking of transmission and saving of the output values for each scene channel adjustable
- Retrieval and storing of up to 64 scenes as scene extension unit
- Selection and change-over of certain operating modes, setpoint shift and presence button function for controller extension unit adjustable
- Blocking of the rockers/push-buttons via object and behaviour in the event of a block and alternative function for blocked push-buttons adjustable
- Outputting of alarm messages through simultaneous flashing of all LEDs adjustable

Objects

29

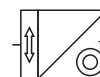
Group addresses/assignments

maximum 120 each

- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Adjustable status LEDs with numerous signalling modes and a separate communication object for each LED
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 1gang comfort with labelling field and bus coupling unit



ETS search paths: Berker >> push-button
>> push-button, 1gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	2 upper buttons 2 lower buttons Operation LED 2 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 2gang is a user module for clipping onto the flush-mounted bus coupling unit. In addition to a operation LED, the 2gang push-button has two status LEDs to indicate operating states. It is offered with or without labelling field (separate order number). In the variant without labelling field the LEDs are not visible. The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker ARSYS	
White	7516 21 12	Polar white, matt	7516 21 89	White	7516 21 42
- with labelling	7516 20 12	- with labelling	7516 20 89	- with labelling.....	7516 20 42
Polar white	7516 21 19	Anthracite, matt.....	7516 21 85	Polar white	7516 21 49
- with labelling	7516 20 19	- with labelling	7516 20 85	- with labelling.....	7516 20 49
		Aluminium, matt	7516 21 83	Light bronze, lacquered	7516 21 44
		- with labelling	7516 20 83	- with labelling.....	7516 20 44
				Stainless steel, lacquered	7516 21 43
				- with labelling.....	7516 20 43

Applications

Dimming 102A01	<ul style="list-style-type: none"> ■ Status LED programmable ■ Switching and dimming for two function groups 	<ul style="list-style-type: none"> ■ Operation LED programmable
Objects	4	
Group addresses/assignments	maximum of 6 each	
Shutter 102B01	<ul style="list-style-type: none"> ■ Control of two function groups of motorized drives ■ Operation LED programmable 	
Objects	4	
Group addresses/assignments	maximum of 8 each	
Switching, acknowledge 100A12	<ul style="list-style-type: none"> ■ Control of two function groups ■ Status LED programmable 	<ul style="list-style-type: none"> ■ Operation LED programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101C01	<ul style="list-style-type: none"> ■ Control of up to four values ■ Passive extension of light scenes 	<ul style="list-style-type: none"> ■ Operation LED and status LED programmable ■ Active extension of light scenes
Objects	1	
Group addresses/assignments	maximum of 1 each	
Switching/pushing 103401	<ul style="list-style-type: none"> ■ Switch up to four function groups by toggle function ■ Status LED programmable separately 	
Objects	6	
Group addresses/assignments	maximum of 11 each	

Continued on next double page ►

- Operation LED
- Two status LEDs to indicate operating states
- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Light scene extension
- Integral mechanical anti-dismantling protection



with labelling

Accessories	
Labelling field with cover plate	
MODUL 2	
White	7596 00 01
Polar white.....	7596 00 02
Berker S.1/B.1/B.3/ B.7 GLAS	
Polar white.....	7596 00 07
Aluminium.....	7596 00 09
Anthracite.....	7596 00 08

Berker ARSYS	
White	7596 00 03
Polar white.....	7596 00 06
Light bronze, lacquered	7596 00 05
Stainless steel, lacquered	7596 00 04

Push-button 2gang



ETS search path: Berker >> Push-button >> Push-button 2gang >>



Applications

Switching/dimming 103C01	<ul style="list-style-type: none"> ■ Switches/dims one function group each ■ Status or operation LED programmable ■ Touch function (ON, OFF, TOGGLE) for function group switching
Objects	4
Group addresses/assignments	maximum 7/maximum 8
Dimming/shutter 103A01	<ul style="list-style-type: none"> ■ Switching/dimming and control of motorized drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers customizable ■ Touch dimmer principle or area dimmer ■ Status or acknowledgement LED programmable in dimmer mode
Objects	4
Group addresses/assignments	maximum of 5 each
Switching/shutter 103B01	<ul style="list-style-type: none"> ■ Switching and control of motorized drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers customizable ■ Status or acknowledgement LED programmable in switch mode
Objects	4
Group addresses/assignments	maximum 9/maximum 11



with labelling

Push-button 2gang

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operation LED	White
	2 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Clip on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 2gang is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

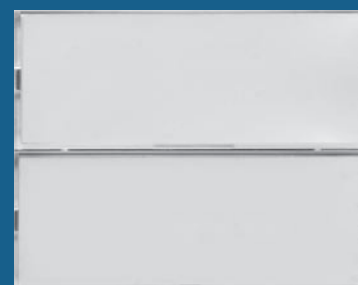
Order data

Berker S.1/B.1/B.3/ B.7 GLAS	for White and	7516 23 80	Berker K.1/K.5	for White and	7516 23 70	
	Polar white			Polar white		
	for Anthracite and	7516 23 85		Anthracite		7516 23 75
	Aluminium			Aluminium		7516 23 74
			Stainless steel	7516 23 73		

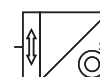
Applications

Dimming 102A03	<ul style="list-style-type: none"> ■ Status LED adjustable ■ Switching and dimming of two function groups 	<ul style="list-style-type: none"> ■ Operation LED adjustable
Objects	4	
Group addresses/assignments	maximum 6 each	
Shutter 102B03	<ul style="list-style-type: none"> ■ Control of two function groups of motor drives ■ Operation LED adjustable 	
Objects	4	
Group addresses/assignments	maximum 8 each	
Switching, acknowledge 100A03	<ul style="list-style-type: none"> ■ Control of two function groups ■ Status LED adjustable 	<ul style="list-style-type: none"> ■ Operation LED adjustable
Objects	2	
Group addresses/assignments	maximum 10 each	
Value transmitter 101C03	<ul style="list-style-type: none"> ■ Control of up to four values ■ Passive extension unit of a light scene 	<ul style="list-style-type: none"> ■ Operation LED and status LED adjustable ■ Active extension unit of a light scene
Objects	1	
Group addresses/assignments	maximum 1 each	
Switching/pushing 103403	<ul style="list-style-type: none"> ■ Switching of up to four function groups using change-over function ■ Status LED adjustable separately 	
Objects	6	
Group addresses/assignments	maximum 11 each	
Switching/dimming 103C03	<ul style="list-style-type: none"> ■ see page 107 	
Dimming/shutter 103A03	<ul style="list-style-type: none"> ■ see page 107 	
Switching/shutter 103B03	<ul style="list-style-type: none"> ■ see page 107 	

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operation LED
- Status LED for indicating switching states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 2gang with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker at top	Left/right push-button
	Rocker at bottom	Left/right push-button
	Operation LED	Blue
	2 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 2gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

BERKER B.IQ		Accessories	
Polar white	7516 20 99	Labelling field	
Stainless steel	7516 20 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 20 91		

Applications

Dimming 102A03	<ul style="list-style-type: none"> ■ Status LED programmable ■ Switching and dimming for two function groups 	<ul style="list-style-type: none"> ■ Operation LED programmable
Objects	4	
Group addresses/assignments	maximum of 6 each	
Shutter 102B03	<ul style="list-style-type: none"> ■ Controlling two function groups of motorised drives ■ Operation LED programmable 	
Objects	4	
Group addresses/assignments	maximum of 8 each	
Switching, acknowledge 100A03	<ul style="list-style-type: none"> ■ Controls two function groups ■ Status LED programmable 	<ul style="list-style-type: none"> ■ Operation LED programmable
Objects	2	
Group addresses/assignments	maximum of 10 each	
Value transmitter 101C03	<ul style="list-style-type: none"> ■ Controls two to four values ■ Passive extension set of a light scene 	<ul style="list-style-type: none"> ■ Operation LED and status LED programmable ■ Active extension set of a light scene
Objects	1	
Group addresses/assignments	maximum of 1 each	
Switching/pushing 103403	<ul style="list-style-type: none"> ■ Switch up to four function groups by toggle function ■ Status LED programmable separately 	
Objects	6	
Group addresses/assignments	maximum of 11 each	

Continued on next double page ►

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operation LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 2gang standard



ETS search paths:
Berker >> Push-button >> 2gang push-button >>
Berker >> Push-button >> B.IQ >>



Switching/dimming 103C03	<ul style="list-style-type: none"> ■ Switches/dims one function group each ■ Status or operation LED programmable ■ Touch function (ON, OFF, TOGGLE) for function group switching
Objects	4
Group addresses/assignments	maximum 7/maximum 8
Dimming/shutter 103A03	<ul style="list-style-type: none"> ■ Switches/dims and controls motorised drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers programmable ■ Touch dimmer principle or area dimmer ■ Status or acknowledgement LED programmable in dimmer mode
Objects	4
Group addresses/assignments	maximum of 5 each
Switching/shutter 103B03	<ul style="list-style-type: none"> ■ Switches and controls motorised drives ■ Step and move operation of shutter control programmable ■ Assignment of rockers programmable ■ Status or acknowledgement LED programmable in switch mode
Objects	4
Group addresses/assignments	maximum 9 /maximum 11



**B.IQ push-button
2gang standard**

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Upper rocker Lower rocker Operation LED 2 x 2 status LEDs	Left/right push-button Left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 2gang is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The application provides the option of selecting various functions for each rocker; it is no longer necessary to load a separate application for possible function combinations.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

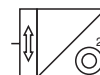
BERKER Q.1 Polar white, velvety... 7514 22 29	Accessories Labelling field sheets..... 9498 30 02
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Applications	Standard 2gang 10CA01	■ Function of the operation LED and the status LEDs adjustable
	Standard 2gang 10CA11 (for ETS 3 from version d)	■ Function adjustable per rocker: switching, dimming, shutter, value transmitter or scene extension unit
	Switching	■ Rockers or push-button function adjustable ■ Command when buttons are pressed adjustable (ON, OFF, TOGGLE)
	Dimming	■ Command when pressing the left/right rocker adjustable (brighter, ON/darker, OFF) ■ Time between switching and dimming adjustable
	Shutter	■ Command when pressing the left/right rocker adjustable (UP, DOWN) ■ Time between short and long-time command adjustable
	Value transmitter	■ Value when the rocker is pressed adjustable per page (0 to 255/0 to 100 %)
	Scene extension unit	■ Scene number when rocker is pressed adjustable per page ■ Mode of operation with/without memory function adjustable
	Objects	4
	Group addresses/assignments	maximum 100 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter 1-byte, e.g. for transmitting brightness values
- Light scene extension unit
- Combination of two functions
- Operation LED
- Status LEDs for indicating switching states, etc.
- Integrated anti-dismantling protection



Push-button 2gang with labelling field and bus coupling unit



ETS search paths: Berker >> push-button
>> push-button, 2gang >>

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
	Power consumption	26 mA
Loading capacity	Switching voltage	max. 30 V DC
	Switching current (adapter 7590 00 32)	max. 10 mA
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Operation and display elements	2 x 2 sensor surfaces	each left/right
	Operation LED	blue
	2 x 2 status LEDs	white
	2 jumpers on rear	Setting functions of the LEDs
Connections	Ribbon cable for adapter connection	26pole plug
Protection class	IP 21, EN 60 529	Safe for moist cleaning
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for optional anti-dismantling protection
Dimensions	Glass plate	160 x 86 x 4 mm
	Assembling height from wall	4.7 mm (seated on wall) 10.7 mm (with adapter ring)
	Surface compensation	max. 20 mm

Information

The glass sensor is intended for flush-mounted installation in a 2gang wall box for glass sensor, and when connected to a universal interface performs the function of a push-button. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers, the LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor can be labelled at the factory. To have this done, you can use the Web Configurator at www.berker.com/ts-sensor – this generates a unique order number. The imprint is made on the rear, and is thus protected against dirt, wear and damage.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	1682 09	Wall box 2gang for glass sensor	1870
Glass, black.....	1682 05	EIB adapter	
Glass, aluminium....	1682 07	2 x 8gang	7590 00 31
with configured labelling	1692 0x ..	Universal interface 2gang comfort.....	7564 20 01
		Universal interface 8gang comfort.....	7564 80 01

Connection

The glass sensor is connected to the KNX/EIB adapter 2 x 8gang using a supplied ribbon cable. The adapter that is used is connected with the KNX/EIB via a universal interface 8gang comfort. Only one half of the KNX/EIB adapter 2 x 8gang is used to connect the glass sensor 2gang. This is done by separating the adapter at a predetermined breaking point and adapting it for use with 2gang glass

sensors via dip switches on the adapter. The glass sensor requires a separate supply voltage. This is likewise connected to the adapter being used.

Mounting

Mounting is performed by snapping the glass sensor onto the wall box 2gang for glass sensor. Adapters and universal interfaces can be housed conveniently in the wall box. It is essential to take the wall box into account during planning.

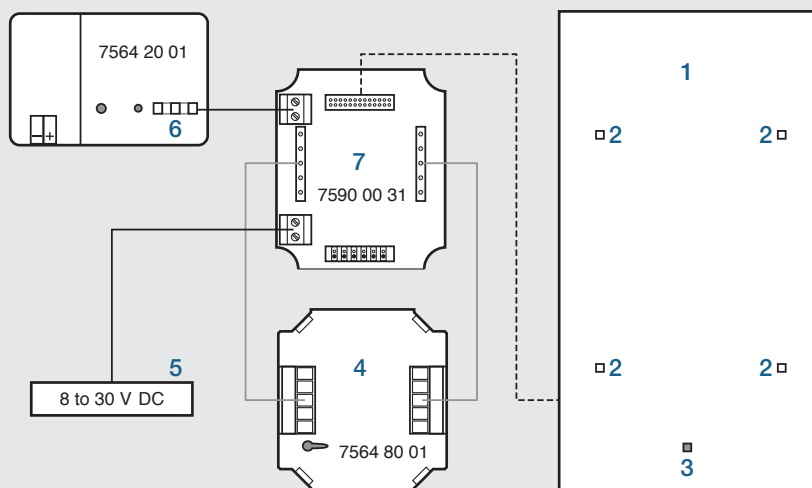
LED functions

In the state at delivery the LEDs of the glass sensor have fixed functions assigned to them. If the LEDs are to be controlled via KNX/EIB, jumpers on the rear of the glass sensor have to be adjusted. A separate universal interface 2gang comfort must be provided for control of the blue operation LED.

Legend

- 1. Glass sensor
- 2. Status LEDs
- 3. Operation LED
- 4. Universal interface 8gang for activating the sensor surfaces and status LEDs
- 5. Supply voltage
- 6. Universal interface for activating the operation LED
- 7. KNX/EIB adapter 2 x 8gang (separated at predetermined breaking point)

Connection types
 — via screw terminals
 — via plug-in contacts
 via ribbon cable



Connection overview with external activation of the operation and status LEDs

- Flat surface with capacitive sensor surfaces
- White status LED for indicating switching states, etc.
- Blue operation LED
- Operating mode of LED adjustable via jumper
- Bus connection via universal interfaces
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



Glass sensor, 2gang

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
Loading capacity	Switching voltage	max. 30 V DC
	Switching current	max. 1 mA
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Connections	Universal interfaces	Plug-in contacts
	Operation LED/voltage supply	Screw terminals: max. 1 mm ²
	Glass sensor (168x 0x)	26pole plug
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	in wall box (order no. 1870)	
Dimensions (W x H)	40 x 95 mm	approx. 40 x 48 mm separated at predetermined breaking point

Information

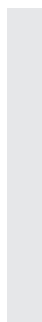
The KNX/EIB adapter 2 x 8gang is intended for installation in the wall box 2gang for glass sensor, and establishes the connection between a glass sensor and the universal interface 8gang comfort.

8 channels are available for signal transmission and for activation of the status LEDs. Signal transmission is via optocouplers. The adapter has plug-in contacts that are optimised for the screw terminals of the universal interface 8gang comfort. In addition, screw terminals are provided for activating the operation LED and for connecting the external power supply of the sensor.

If only one universal interface is being connected, the adapter can be broken in half at a predetermined breaking point.

Order data

Device colour
Green 7590 00 31

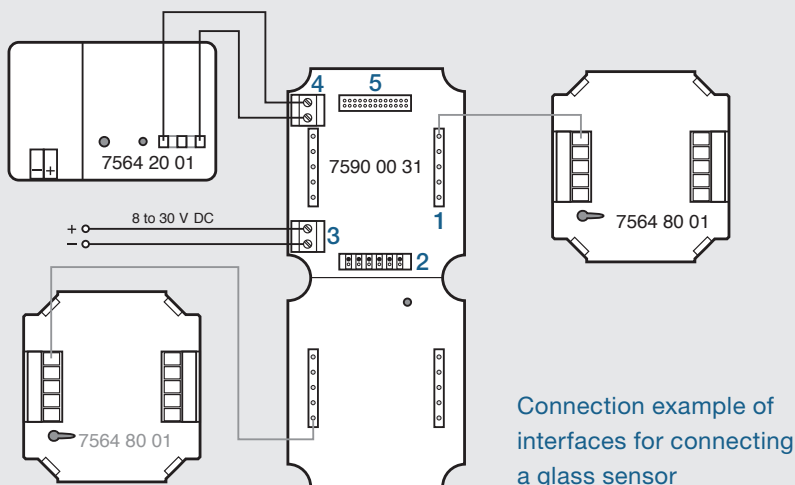


Information

Connection

The glass sensor is connected using a ribbon cable supplied with the glass sensor.

The universal interfaces 8gang comfort are connected via plug-in contacts. When connecting a glass sensor 1gang or 2gang, it is possible to save space by breaking off half of the adapter. This requires a different parameterisation of the interfaces. To adjust the adapter for this, switch over the dip switches next to the predetermined breaking point.



Connection example of interfaces for connecting a glass sensor

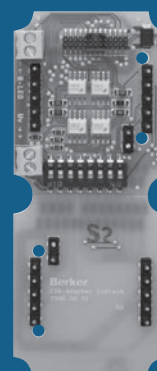
Connection types

- via screw terminals
- via plug-in contacts

Legend

- | | |
|---|------------------------------|
| 1. Plug-in contacts for universal interface 8gang comfort | 3. Supply voltage connection |
| 2. Dip switches for function selection | 4. Operation LED connection |
| | 5. Glass sensor connection |

- Connecting the interfaces via plug-in contacts
- Screw terminals for connecting the supply voltage and activating the operation LED
- Dip switches for configuration when broken in half



**KNX/EIB adapter
2 x 8gang**

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	2 upper buttons 2 lower buttons Operation LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 2gang comfort is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to four dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point
- Control of forced guidance (EIS 8)

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker ARSYS	
White	7516 26 12	Polar white, matt	7516 26 89	White	7516 26 42
Polar white	7516 26 19	Anthracite, matt	7516 26 85	Polar white	7516 26 49
		Aluminium, matt	7516 26 83	Light bronze, lacquered	7516 26 44
				Stainless steel, lacquered	7516 26 43

Applications

PB 2gang comfort 109202	<ul style="list-style-type: none"> ■ Four push-buttons programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Variable lighting duration of status LED (operation period) ■ Status LED for shutter control function
	<ul style="list-style-type: none"> ■ Touch function for shutter movement, one direction each ■ Switching function: Cyclic transmission possible ■ Shutter function via one push-button operation ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Start/stop function: Cyclic transmission by extension ■ Second user level via object and/or code input ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function to EIS 8 ■ Brightness value transmitter (50 lux steps) ■ Temperature value transmitter (1 °C steps) ■ Alarm in case of dismantling
Objects	10
Group addresses/assignments	maximum of 25 each

- Assignment of one status LED to each of the four push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition possible
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Accessories	
Labelling field with cover plate	
MODUL 2	
White	7596 00 01
Polar white.....	7596 00 02
Berker S.1/B.1/B.3/B.7 GLAS	
Polar white.....	7596 00 07
Aluminium.....	7596 00 09
Anthracite.....	7596 00 08

Berker ARSYS	
White	7596 00 03
Polar white.....	7596 00 06
Light bronze, lacquered	7596 00 05
Stainless steel, lacquered	7596 00 04

Push-button 2gang comfort



ETS search path: Berker >> Push-button >> Push-button 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operation LED	White
	2 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 2gang comfort is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

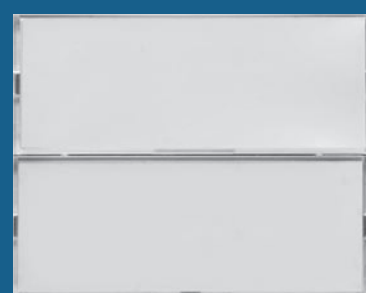
Order data

Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5	
for White and		for White and	
Polar white	7516 27 80	Polar white	7516 27 70
for Anthracite and		Anthracite	7516 27 75
Aluminium	7516 27 85	Aluminium.....	7516 27 74
		Stainless steel	7516 27 73

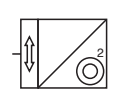
Applications

PB 2gang comfort 109202	<ul style="list-style-type: none"> ■ Four push-buttons can be adjusted separately ■ Operation LED adjustable ■ Inverse Status LED, flashing ■ Variable lighting duration of the status LED (length of actuation) ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission possible ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Start/stop function: Cyclic transmission by extension unit ■ Second operating level via object ■ Control function
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function according to EIS 8 ■ Brightness value transmitter (50 lux steps) ■ Temperature value transmitter (1 °C steps)
	<ul style="list-style-type: none"> ■ Alarm message in the event of dismantling
Objects	10
Group addresses/assignments	maximum 25 each

- Assignment of one status LED to each of the four push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition possible
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 2gang comfort with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker at top	Left/right push-button
	Rocker at bottom	Left/right push-button
	Operation LED	Blue
	2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 2gang comfort is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

BERKER B.IQ		Accessories	
Polar white	7516 25 99	Labelling field	
Stainless steel	7516 25 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 25 91		

Applications	B.IQ 2gang comfort 109201	<ul style="list-style-type: none"> ■ Four buttons, programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Variable lighting duration of status LED (operation period) ■ Status LED for shutter function
		<ul style="list-style-type: none"> ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission possible ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Start/stop function: cyclic transmission by extension ■ Second user level via object ■ Control function
		<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Forced guidance function to EIS 8 ■ Brightness transmitter (50 lux steps) ■ Temperature transmitter (1 °C steps)
		<ul style="list-style-type: none"> ■ Alarm in case of dismantling
	Objects	10
Group addresses/assignments	maximum of 25 each	

- Assignment of one status LED to each of the four push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition possible
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 2gang comfort



ETS search paths:
 Berker >> Push-button >> 2gang push-button >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Upper rocker Lower rocker Operation LED 2 x 2 status LEDs	Left/right push-button Left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 2gang comfort is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming. A separate function can be selected for each rocker/button.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety... 7514 23 29	Accessories Labelling field sheets..... 9498 30 02
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Comfort 2gang 10C201**Comfort 2gang 10C211** (for ETS 3 from version d)

- Function of the operation LED and the status LEDs adjustable
- Operation and status LEDs with separate communication objects
- LEDs can be used for status indication independently of the push-button functions
- Rockers or push-button function adjustable
- Functions of the rocker adjustable: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte or scene extension unit
- Function adjustable for each button: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte, scene extension unit or room thermostat extension unit
- 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte
- Evaluation and implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation
- Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing
- Time between short and long actuation, size of steps and stop telegram for dimming adjustable
- Time between short and long actuation and operation concept for shutter control adjustable
- Value range, adjustment by pressing a button, incl. size of steps for 1- and 2-byte value transmitter adjustable
- Saving of eight scenes with up to eight output channels with selection of the object type possible per channel
- Blocking of transmission and saving of the output values for each scene channel adjustable
- Retrieval and storing of up to 64 scenes as scene extension unit
- Selection and change-over of certain operating modes, setpoint shift and presence button function for controller extension unit adjustable
- Blocking of the rockers/push-buttons via object and behaviour in the event of a block and alternative function for blocked push-buttons adjustable
- Outputting of alarm messages through simultaneous flashing of all LEDs adjustable

Objects

35

Group addresses/assignments

maximum 120 each

- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Adjustable status LEDs with numerous signalling modes and a separate communication object for each LED
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 2gang comfort with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operation LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 3gang is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7516 33 80	Berker K.1/K.5 for White and Polar white	7516 33 70	
			Anthracite	7516 33 75
			Aluminium.....	7516 33 74
			Stainless steel	7516 33 73
for Anthracite and Aluminium	7516 33 85			

Applications

Dimming 107C01	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LEDs adjustable
Objects	6
Group addresses/assignments	maximum 12 each
Shutter 107B01	<ul style="list-style-type: none"> ■ Control of four function groups of motor drives ■ Switching time between long operating time (shutter control) and short operating time (lamella adjustment) adjustable ■ Operation LED adjustable
Objects	6
Group addresses/assignments	maximum 12 each
Switching, acknowledge 107A01	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable ■ Lighting duration of the status LEDs adjustable
Objects	3
Group addresses/assignments	maximum 10 each
Switching status 107901	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable
Objects	3
Group addresses/assignments	maximum 13 each
Value transmitter 107D01	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), e.g. as brightness values ■ Use as 8gang light scene extension unit with memory function ■ Operating and status LEDs adjustable
Objects	1
Group addresses/assignments	maximum 1 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operation LED
- Status LED for indicating operating states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 3gang with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 3gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower at bottom	Left/right push-button
	Operation LED	Blue
	3 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 3gang standard is a user module for bolting to a flush-mounted bus coupling unit.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

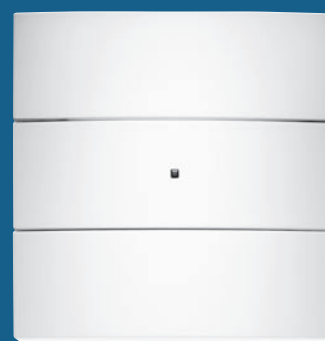
The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

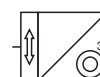
BERKER B.IQ		Accessories	
Polar white	7516 30 99	Labelling field	
Stainless steel	7516 30 93	Clear transparent.....	7590 00 80
Glass, polar white....	7516 30 91		

Applications	Dimming 107C01	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LED programmable
	Objects	6
	Group addresses/assignments	maximum of 12 each
	Shutter 107B01	<ul style="list-style-type: none"> ■ Controlling four function groups of motorised drives ■ Switching time programmable between move (shutter control) and step (lamella shutter adjustment) operation ■ Operation LED programmable
	Objects	6
	Group addresses/assignments	maximum of 12 each
Switching, acknowledge 107A01	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable ■ Variable lighting duration of status LED (operation period) 	
Objects	3	
Group addresses/assignments	maximum of 10 each	
Switching status 107901	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable 	
Objects	3	
Group addresses/assignments	maximum of 13 each	
Value transmitter 107D01	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), as brightness values for example ■ Usage as 8gang light scene extension with memory function ■ Operating and status LED programmable 	
Objects	1	
Group addresses/assignments	maximum of 1 each	

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operation LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang standard



ETS search paths:
Berker >> Push-button >> Push-button, 3gang >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Upper rocker Middle rocker Lower rocker Operation LED 3 x 2 status LEDs	Left/right push-button Left/right push-button Left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 3gang is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The application provides the option of selecting the function of the device; it is no longer necessary to load a separate application for the corresponding function.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

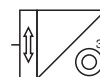
BERKER Q.1 Polar white, velvety... 7514 32 29	Accessories Labelling field sheets..... 9498 31 03	
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Applications	Standard 3gang 10CB01	■ Function of the operation LED and the status LEDs adjustable
	Standard 3gang 10CB11 (for ETS3 from version d)	■ Function of the device adjustable: switching, dimming, shutter, value transmitter or scene extension unit
	Switching	■ Rockers or push-button function adjustable ■ Command when buttons are pressed adjustable (ON, OFF, TOGGLE)
	Dimming	■ Command when pressing the left/right rocker adjustable (brighter, ON/darker, OFF) ■ Time between switching and dimming adjustable
	Shutter	■ Command when pressing the left/right rocker adjustable (UP, DOWN) ■ Time between short and long-time command adjustable
	Value transmitter	■ Value when the rocker is pressed adjustable per page (0 to 255/0 to 100 %)
	Scene extension unit	■ Scene number when rocker is pressed adjustable per page ■ Mode of operation with/without memory function adjustable
	Objects	6
Group addresses/assignments	maximum 100 each	

- Activation of switch, dimmer or shutter actuators
- Value transmitter 1-byte, e.g. for transmitting brightness values
- Light scene extension unit
- Operation LED
- Status LEDs for indicating switching states, etc.
- Integrated anti-dismantling protection



Push-button 3gang with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 3gang >>

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
	Power consumption	32 mA
Loading capacity	Switching voltage	max. 30 V DC
	Switching current (adapter 7590 00 32)	max. 10 mA
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Operation and display elements	3 x 2 sensor surfaces	each left/right
	Operation LED	blue
	3 x 2 status LEDs	white
	2 jumpers on rear	Setting functions of the LEDs
Connections	Ribbon cable for adapter connection	26pole plug
Protection class	IP 21, EN 60 529	Safe for moist cleaning
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for anti-dismantling protection optional
Dimensions	Glass plate	160 x 86 x 4 mm
	Assembling height from wall	4.7 mm (seated on wall) 10.7 mm (with adapter ring)
	Surface compensation	max. 20 mm

Information

The glass sensor is intended for flush-mounted installation in a 2gang wall box for glass sensor, and when connected to universal interfaces performs the function of a push-button. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers. The LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor can be labelled at the factory. To have this done, you can use the Web Configurator at www.berker.com/ts-sensor – this generates a unique order number. The imprint is made on the rear, and is thus protected against dirt, wear and damage.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	1683 09	Wall box 2gang for glass sensor	1870
Glass, black.....	1683 05	EIB adapter 2 x 8gang	7590 00 31
Glass, aluminium....	1683 07	Universal interface 2gang comfort.....	7564 20 01
with configured labelling	1693 0x ...	Universal interface 8gang comfort.....	7564 80 01

Connection

The glass sensor is connected to the KNX/EIB adapter 2 x 8gang using a supplied ribbon cable.

The adapter that is used is connected with the KNX/EIB via 2 universal interfaces 8gang comfort. The glass sensor requires a separate supply voltage. This is likewise connected to the adapter being used.

The corresponding connection diagram for 3gang and 4gang

glass sensors can be found on page 145. The description for the KNX/EIB adapter 2 x 8gang can be found on pages 112/113.

Mounting

Mounting is performed by snapping the glass sensor onto the wall box 2gang for glass sensor. Adapters and universal interfaces can be housed conveniently in the wall box. It is essential to take the wall box into account during planning.

LED function

In the state at delivery the LEDs of the glass sensor have fixed functions assigned to them. If the LEDs are to be controlled via KNX/EIB, jumpers on the rear of the glass sensor have to be adjusted. A separate universal interface 2gang comfort must be provided for activation of the blue operation LED.

- Flat surface with capacitive sensor surfaces
- White status LED for indicating switching states, etc.
- Blue operation LED
- Operating mode of LED adjustable via jumper
- Bus connection via universal interfaces
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



**Glass sensor,
3gang**

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operation LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 3gang comfort is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7516 37 80	Berker K.1/K.5 for White and Polar white	7516 37 70
			Anthracite.....
for Anthracite and Aluminium	7516 37 85	Aluminium	7516 37 74
			Stainless steel

Applications

PB 3gang comfort 109102	<ul style="list-style-type: none"> ■ Variable lighting duration of the status LED (length of actuation) ■ Six push-buttons separately adjustable ■ Operation LED adjustable ■ Inverse Status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: Cyclic transmission by extension unit ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Second operating level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness value transmitter (50 lux steps) ■ Forced guidance function according to EIS 8 ■ Temperature value transmitter (1 °C steps) ■ Alarm message in the event of dismantling
Objects	14
Group addresses/assignments	maximum 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the six push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button manually blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 3gang comfort with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 3gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Upper rocker	Left/right push-button
	Middle rocker	Left/right push-button
	Lower rocker	Left/right push-button
	Operation LED	Blue
	6 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 3gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

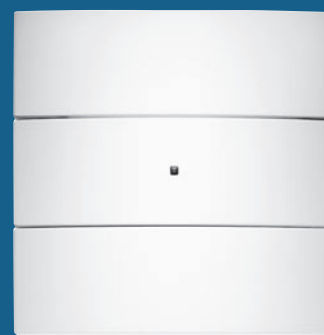
The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

Order data

BERKER B.IQ		Accessories	
Polar white	7516 35 99	Labelling field	
Stainless steel	7516 35 93	clear transparent	7590 00 80
Glass, polar white....	7516 35 91		

Applications	B.IQ 3gang comfort 109101	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Six buttons, programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
		<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
		<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50 lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1 °C steps) ■ Alarm in case of dismantling
	Objects	14
Group addresses/assignments	maximum of 25 each	

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the six push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang comfort



ETS search paths:
 Berker >> Push-button >> Push-button, 3gang >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	Upper rocker Middle rocker Lower rocker Operation LED 3 x 2 status LEDs	Left/right push-button Left/right push-button Left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 3gang comfort is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming. A separate function can be selected for each rocker/button.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety... 7514 33 29	Accessories Labelling field sheets..... 9498 31 03
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<p>Comfort 3gang 10C301</p> <p>Comfort 3gang 10C311 (for ETS 3 from version d)</p>	<ul style="list-style-type: none"> ■ Function of the operation LED and the status LEDs adjustable ■ Operation and status LEDs with separate communication objects ■ LEDs can be used for status indication independently of the push-button functions ■ Rockers or push-button function adjustable ■ Functions of the rocker adjustable: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte or scene extension unit ■ Function adjustable for each button: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte, scene extension unit or room thermostat extension unit ■ 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte ■ Evaluation and implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation ■ Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing ■ Time between short and long actuation, size of steps and stop telegram for dimming adjustable ■ Time between short and long actuation and operation concept for shutter control adjustable ■ Value range, adjustment by pressing a button, incl. size of steps for 1- and 2-byte value transmitter adjustable ■ Saving of eight scenes with up to eight output channels with selection of the object type possible per channel ■ Blocking of transmission and saving of the output values for each scene channel adjustable ■ Retrieval and storing of up to 64 scenes as scene extension unit ■ Selection and change-over of certain operating modes, setpoint shift and presence button function for controller extension unit adjustable ■ Blocking of the rockers/push-buttons via object and behaviour in the event of a block and alternative function for blocked push-buttons adjustable ■ Outputting of alarm messages through simultaneous flashing of all LEDs adjustable
Objects	41
Group addresses/assignments	maximum 120 each

- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Adjustable status LEDs with numerous signalling modes and a separate communication object for each LED
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 3gang comfort with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 3gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operation LED 4 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 4gang is a user module for clipping onto the flush-mounted bus coupling unit. It is offered with or without labelling field (separate order number). In the variant without labelling field the LEDs are not visible. The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2	Berker S.1/B.1/B.3/ B.7 GLAS	Berker ARSYS
White 7516 41 12	Polar white, matt 7516 41 89	White 7516 41 42
- with labelling 7516 40 12	- with labelling 7516 40 89	- with labelling 7516 40 42
Polar white 7516 41 19	Anthracite, matt 7516 41 85	Polar white 7516 41 49
- with labelling 7516 40 19	- with labelling 7516 40 85	- with labelling 7516 40 49
	Aluminium, matt 7516 41 83	Light bronze, lacquered 7516 41 44
	- with labelling 7516 40 83	- with labelling 7516 40 44
		Stainless steel, lacquered 7516 41 43
		- with labelling 7516 40 43

Applications	Dimming 201D01	<ul style="list-style-type: none"> ■ Switching and dimming for four function groups ■ Operating and status LEDs programmable
	Objects	8
	Group addresses/assignments	maximum of 12 each
	Shutter 102C01	<ul style="list-style-type: none"> ■ Operation LED programmable ■ Control of four function groups of motorized drives ■ Switching time programmable between move (shutter control) and step (louvered shutter adjustment) operation
	Objects	8
	Group addresses/assignments	maximum of 12 each
Switching 102F01	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs programmable ■ Variable lighting duration of status LED (operation period) 	
Objects	4	
Group addresses/assignments	maximum of 10 each	
Switching 102F01	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs programmable 	
Objects	4	
Group addresses/assignments	maximum of 13 each	
Value transmitter 101D01	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255) e. g. as brightness values ■ Usage as 8gang light scene extension with memory function ■ Operating and status LEDs programmable 	
Objects	1	
Group addresses/assignments	maximum of 1 each	

- Operation of switch, dim or shutter actuators
- Four status LEDs to indicate operating states
- Value transmitter for brightness values
- Value transmitter as light scene extension
- Integral mechanical anti-dismantling protection



with labelling

Accessories		
Labelling field with cover plate		
MODUL 2		
White	7596 00 01	
Polar white.....	7596 00 02	
Berker S.1/B.1/B.3/ B.7 GLAS		
Polar white.....	7596 00 07	
Aluminium.....	7596 00 09	
Anthracite.....	7596 00 08	
Berker ARSYS		
White	7596 00 03	
Polar white.....	7596 00 06	
Light bronze, lacquered	7596 00 05	
Stainless steel, lacquered	7596 00 04	

Push-button 4gang



ETS search path: Berker >> Push-button >> Push-button 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	White
	4 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 4gang is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

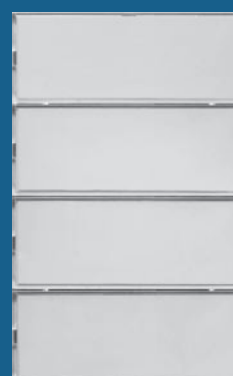
By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/ B.7 GLAS		
for White and Polar white	7516 43 80	
for Anthracite and Aluminium	7516 43 85	
Berker K.1/K.5		
for white and Polar white		7516 43 70
Anthracite		7516 43 75
Aluminium.....		7516 43 74
Stainless steel		7516 43 73

Applications	Dimming 102D03	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LEDs adjustable
	Objects	8
	Group addresses/assignments	maximum 12 each
	Shutter 102C03	<ul style="list-style-type: none"> ■ Operation LED adjustable ■ Control of four function groups of motor drives ■ Switching time between long operating time (shutter control) and short operating time (lamella adjustment) adjustable
	Objects	8
	Group addresses/assignments	maximum 12 each
	Switching confirmation 102F03	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable ■ Lighting duration of the status LED adjustable
	Objects	4
	Group addresses/assignments	maximum 10 each
	Switching status 102E03	<ul style="list-style-type: none"> ■ Control of four function groups ■ Operating and status LEDs adjustable
	Objects	4
	Group addresses/assignments	maximum 13 each
	Value transmitter 101D03	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), e. g. as brightness values ■ Use as 8gang light scene extension unit with memory function ■ Operating and status LEDs adjustable
	Objects	1
	Group addresses/assignments	maximum 1 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter for transmitting brightness values
- Operation LED
- Status LED for indicating operating states
- Light scene extension unit
- Integrated anti-dismantling protection



Push-button 4gang with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	Blue
	4 x 2 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 4gang standard is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. This then triggers functions depending on the application which has been loaded.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. Depending on the rocker, the push-button distinguishes between activation of the right and the left side (button).

The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

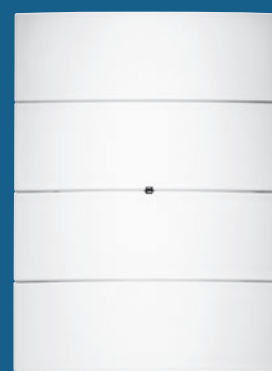
Order data

BERKER B.IQ		Accessories	
Polar white	7516 40 99	Labelling field	
Stainless steel	7516 40 93	clear transparent	7590 00 81
Glass, polar white....	7516 40 91		

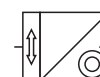
Applications

Dimming 201D03	<ul style="list-style-type: none"> ■ Switching and dimming of four function groups ■ Operating and status LED programmable
Objects	8
Group addresses/assignments	maximum of 12 each
Shutter 102C03	<ul style="list-style-type: none"> ■ Operation LED programmable ■ Controlling four function groups of motorised drives ■ Switching time programmable between move (shutter control) and step (lamella shutter adjustment) operation
Objects	8
Group addresses/assignments	maximum of 12 each
Switch confirmation 102F03	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable ■ Lighting duration of status LED programmable
Objects	4
Group addresses/assignments	maximum of 10 each
Switching status 102E03	<ul style="list-style-type: none"> ■ Controls four function groups ■ Operating and status LED programmable
Objects	4
Group addresses/assignments	maximum of 13 each
Value transmitter 101D03	<ul style="list-style-type: none"> ■ Sending of 8-bit values (0–255), as brightness values for example ■ Usage as 8gang light scene extension with memory function ■ Operating and status LED programmable
Objects	1
Group addresses/assignments	maximum of 1 each

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness values
- Operation LED
- Status LED to indicate object states
- Light scene extension
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang standard



ETS search paths:
Berker >> Push-button >> Push-button, 4gang >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	4 rockers Operation LED 4 x 2 status LEDs	each with left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 4gang is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB. The application provides the option of selecting the function of the device; it is no longer necessary to load a separate application for the corresponding function.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety... 7514 42 29	Accessories Labelling field sheets..... 9498 32 04	
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Applications

Standard 4gang 10CC01	<ul style="list-style-type: none"> ■ Function of the operation LED and the status LEDs adjustable
Standard 4gang 10CC11 (for ETS 3 from version d)	<ul style="list-style-type: none"> ■ Function of the device adjustable: switching, dimming, shutter, value transmitter or scene extension unit
Switching	<ul style="list-style-type: none"> ■ Rockers or push-button function adjustable ■ Command when buttons are pressed adjustable (ON, OFF, TOGGLE)
Dimming	<ul style="list-style-type: none"> ■ Command when pressing the left/right rocker adjustable (brighter, ON/darker, OFF) ■ Time between switching and dimming adjustable
Shutter	<ul style="list-style-type: none"> ■ Command when pressing the left/right rocker adjustable (UP, DOWN) ■ Time between short and long-time command adjustable
Value transmitter	<ul style="list-style-type: none"> ■ Value when the rocker is pressed adjustable per page (0 to 255/0 to 100 %)
Scene extension unit	<ul style="list-style-type: none"> ■ Scene number when rocker is pressed adjustable per page ■ Mode of operation with/without memory function adjustable
Objects	8
Group addresses/assignments	maximum 100 each

- Activation of switch, dimmer or shutter actuators
- Value transmitter 1-byte, e.g. for transmitting brightness values
- Light scene extension unit
- Operation LED
- Status LEDs for indicating switching states, etc.
- Integrated anti-dismantling protection



Push-button 4gang with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 4gang >>

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
	Power consumption	38 mA
Loading capacity	Switching voltage	max. 30 V DC
	Switching current (adapter 7590 00 32)	max. 10 mA
	LED input voltage	max. 5 V DC
	LED input current	max. 1 mA
Operation and display elements	4 x 2 sensor surfaces	each left/right
	Operation LED	blue
	4 x 2 status LEDs	white
	2 jumpers on rear	Setting functions of the LEDs
Connections	Ribbon cable for adapter connection	26pole plug
Protection class	IP 21, EN 60 529	Safe for moist cleaning
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for anti-dismantling protection optional
Dimensions	Glass plate	160 x 86 x 4 mm
	Assembling height from wall	4.7 mm (seated on wall) 10.7 mm (with adapter ring)
	Surface compensation	max. 20 mm

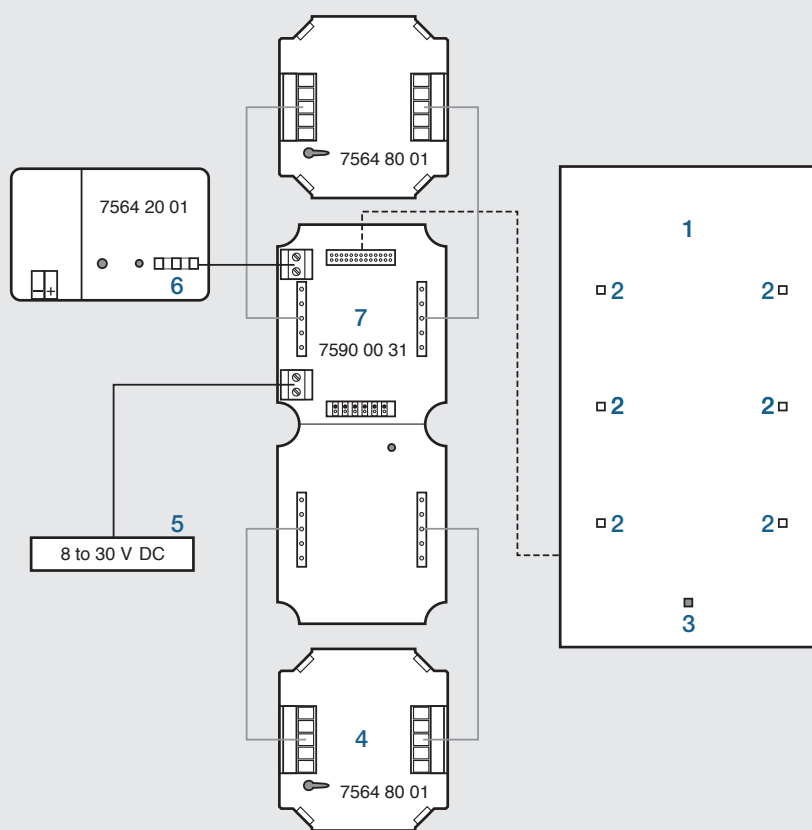
Information

The glass sensor is intended for flush-mounted installation in a 2gang wall box for glass sensor, and when connected to a universal interface performs the function of a push-button. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers. The LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor can be labelled at the factory. To have this done, you can use the Web Configurator at www.berker.com/ts-sensor; this generates a unique order number. The imprint is made on the rear, and is thus protected against dirt, wear and damage.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	1684 09	Wall box 2gang for glass sensor	1870
Glass, black.....	1684 05	EIB adapter 2 x 8gang	7590 00 31
Glass, aluminium....	1684 07	Universal interface 2gang comfort.....	7564 20 01
with configured labelling	1694 0x ...	Universal interface 8gang comfort.....	7564 80 01



Connection overview for glass sensor 3gang (4gang) with external activation of the operation and status-LEDs

Legend

- 1. Glass sensor
- 2. Status LEDs
- 3. Operation LED
- 4. Universal interface 8gang for activating the sensor surfaces and status LEDs
- 5. Supply voltage
- 6. Universal interface 2gang comfort for activating the operation LED
- 7. KNX/EIB adapter 2 x 8gang

Connection types

- via screw terminals
- via plug-in contacts
- via ribbon cable

Connection, mounting, LED function

Information on the connection, mounting and LED function of glass sensors 3gang and 4gang can be found on page 129.

The description for the KNX/EIB adapter 2 x 8gang can be found on pages 112/113.

- Flat surface with capacitive sensor surfaces
- White status LED for indicating switching states, etc.
- Blue operation LED
- Operating mode of LED adjustable via jumper
- Bus connection via universal interfaces
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



Glass sensor, 4gang

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons	
	4 lower buttons	
	Operation LED	Green
	8 status LEDs	Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button comfort 4gang is a user module for clipping onto the flush-mounted bus coupling unit. The device is completed by a cover frame, the bus coupling unit and a terminal.

- Operation of switch, dim or shutter actuators
- Value transmitter for brightness and/or temperature values or as a light scene extension
- Control of up to eight dimmer groups via the “one push-button” dimming operation
- Open value input, 1-byte and 2-byte floating point

Order data

MODUL 2		Berker		Berker ARSYS	
White	7516 46 12	S.1/B.1/B.3/B.7		White	7516 46 42
Polar white	7516 46 19	GLAS	7516 46 89	Polar white	7516 46 49
		Polar white	7516 46 85	Light bronze, lacquered	7516 46 44
		Anthracite, matt	7516 46 83	Stainless steel, lacquered	7516 46 43
		Aluminium, matt			

Applications

PB 4gang comfort 109002	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Eight push-buttons programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50 lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1 °C steps) ■ Alarm in case of dismantling
Objects	18
Group addresses/assignments	maximum of 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setup options: permanently ON/OFF, status indication, inverted status indication, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Accessories	
Labelling field with cover plate	
MODUL 2	
White	7596 00 01
Polar white.....	7596 00 02
Berker S.1/B.1/B.3/B.7 GLAS	
Polar white.....	7596 00 07
Aluminium.....	7596 00 09
Anthracite.....	7596 00 08

Berker ARSYS	
White	7596 00 03
Polar white.....	7596 00 06
Light bronze, lacquered	7596 00 05
Stainless steel, lacquered	7596 00 04

Push-button 4gang comfort



ETS search path: Berker >> Push-button >> Push-button 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	White
	4 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 4gang comfort is a user module for mounting on a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

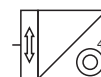
Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7516 47 80	Berker K.1/K.5 for White and Polar white	7516 47 70
			7516 47 75
for Anthracite and Aluminium	7516 47 85	Aluminium.....	7516 47 74
		Stainless steel	7516 47 73

PB 4gang comfort 109002	<ul style="list-style-type: none"> ■ Variable lighting duration of the status LED (length of actuation) ■ Eight push-buttons separately adjustable ■ Operation LED adjustable ■ Inverse Status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: Cyclic transmission by extension unit ■ Shutter function via one push-button operation ■ Switching function: Cyclic transmission ■ Dimmer via one push-button operation ■ Area dimming adjustable ■ Light scene extension unit ■ Second operating level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness value transmitter (50 lux steps) ■ Forced guidance function according to EIS 8 ■ Temperature value transmitter (1 °C steps) ■ Alarm message in the event of dismantling
Objects	18
Group addresses/assignments	maximum 25 each

- Control of positive operation (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setting options: Static ON/OFF, status, inverted status, indication of actuation, flashing operation
- Free configuration of each push-button
- Operation in two transposable operating levels
- Cyclic telegram repetition
- Push-button manually blockable
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Push-button 4gang comfort with labelling field



ETS search paths: Berker >> Push-button >> Push-button, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	Blue
	8 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 4gang comfort is a user module for bolting to a flush-mounted bus coupling unit. When pressed, the push-button sends telegrams to the instabus KNX/EIB. The instabus KNX/EIB can trigger various functions depending on the programming. The application allows different functions to be programmed to each button.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button distinguishes between activation of the right and left side of the rocker (button).

The operation LED is located in the centre while the status LEDs are located on the sides of the push-button. They can therefore light the optional labelling field, in addition to displaying switching statuses for example.

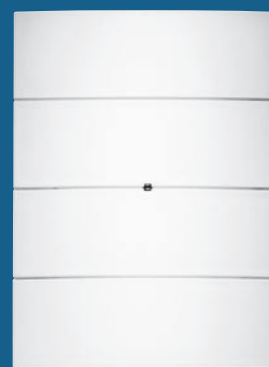
Order data

BERKER B.IQ		Accessories	
Polar white	7516 45 99	Labelling field	
Stainless steel	7516 45 93	clear transparent	7590 00 81
Glass, polar white....	7516 45 91		

Applications

B.IQ 4gang comfort 109001	<ul style="list-style-type: none"> ■ Variable lighting duration of status LED (operation period) ■ Eight push-buttons programmable separately ■ Operation LED programmable ■ Inverted status LED, flashing ■ Status LED for shutter function
	<ul style="list-style-type: none"> ■ Start/stop function: cyclic transmission by extension ■ Shutter function via single-surface operation ■ Switching function: cyclical transmission ■ Dimmer function via single-area operation ■ Area dimming programmable ■ Light scene extension ■ Second user level via object ■ Control function prepared
	<ul style="list-style-type: none"> ■ Value transmitter 1-byte ■ Value transmitter 2-byte ■ Brightness transmitter (50 lux steps) ■ Forced guidance function to EIS 8 ■ Temperature transmitter (1 °C steps) ■ Alarm in case of dismantling
Objects	18
Group addresses/assignments	maximum of 25 each

- Control of forced guidance (EIS 8)
- Assignment of one status LED to each of the eight push-buttons
- LED setting options: permanently ON/OFF, status, inverted status, operating indication, flash mode
- Free project design for each push-button
- Operation on two switchable user levels
- Cyclic telegram repetition
- Push-button manually lockable
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang comfort



ETS search paths:
 Berker >> Push-button >> Push-button, 4gang >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	4 rockers Operation LED 4 x 2 status LEDs	each with left/right push-button white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Dimensions	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button 4gang comfort is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning.

When pressed, the push-button sends telegrams to the instabus KNX/EIB; these can trigger a wide variety of functions depending on the programming. A separate function can be selected for each rocker/button.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

BERKER Q.1 Polar white, velvety... 7514 43 29	Accessories Labelling field sheets..... 9498 32 04
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Comfort 4gang 10C401**Comfort 4gang 10C411** (for ETS 3 from version d)

- Function of the operation LED and the status LEDs adjustable
- Operation and status LEDs with separate communication objects
- LEDs can be used for status indication independently of the push-button functions
- Rockers or push-button function adjustable
- Functions of the rocker adjustable: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte or scene extension unit
- Function adjustable for each button: switching, dimming, shutter, value transmitter 1-byte, value transmitter 2-byte, scene extension unit or room thermostat extension unit
- 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte
- Evaluation and implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation
- Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing
- Time between short and long actuation, size of steps and stop telegram for dimming adjustable
- Time between short and long actuation and operation concept for shutter control adjustable
- Value range, adjustment by pressing a button, incl. size of steps for 1- and 2-byte value transmitter adjustable
- Saving of eight scenes with up to eight output channels with selection of the object type possible per channel
- Blocking of transmission and saving of the output values for each scene channel adjustable
- Retrieval and storing of up to 64 scenes as scene extension unit
- Selection and change-over of certain operating modes, setpoint shift and presence button function for controller extension unit adjustable
- Blocking of the rockers/push-buttons via object and behaviour in the event of a block and alternative function for blocked push-buttons adjustable
- Outputting of alarm messages through simultaneous flashing of all LEDs adjustable

Objects

47

Group addresses/assignments

maximum 120 each

- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Adjustable status LEDs with numerous signalling modes and a separate communication object for each LED
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 4gang comfort with labelling field and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	2 rockers 2 push-buttons LC display Operation LED 2 x 2 status LEDs at side	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbols White Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 2gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7566 27 80	Berker K.1/K.5 for White and Polar white	7566 27 70
			Anthracite
for Anthracite and Aluminium	7566 27 85	Aluminium.....	7566 27 74
		Stainless steel	7566 27 73

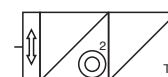
Multifunction RTR + display 16A201

Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 2gang with room thermostat and display



ETS search paths: Berker >> Push-button >> Push-button, 2gang >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	2 rockers 2 push-buttons LC display Operation LED 2 x 2 status LEDs	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbol display white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Mounting orientation	Display at top	
Dimensions (WxHxD)	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button room thermostat, display is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning. It combines the functions of a push-button, room thermostat and time switch. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated into the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

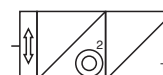
BERKER Q.1 Polar white, velvety... 7566 27 29	Accessories Labelling field sheets..... 9498 31 03
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Multifunction room thermostat + display 16A201	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 obj.) or rocker (1 obj. + 1 status obj.) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, TOGGLE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transm. EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints adjustable ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameters for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or therm. or operation of therm. blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions and temperatures or time in the display
- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 2gang with labelling fields, room thermostat, display and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 2gang >>

Technical data

Supply	Operating voltage	8–30 V DC via separate power supply
	Power consumption via bus line	max. 0.5 W
	Power consumption KNX/EIB	21 - 32 V DC typ. 150 mW
Operation and display elements	2 x 2 sensor surfaces	each left/right
	2 sensor surfaces	integrated into the display at left and right
	LED display	with symbol display
	Operation LED	blue
	2 x 2 status LEDs	white
Connections	KNX/EIB	Connection terminal
	Power supply	Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for anti-dismantling protection optional
Dimensions	Glass plate	160 x 86 x 4 mm
	Assembling height from wall	4.7 mm (seated on wall) 10.7 mm (with adapter ring)
	Surface compensation	max. 20 mm

Information

The glass sensor with room thermostat is intended for flush-mounted installation, and combines the functions of a push-button and a room thermostat. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers, the LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor room thermostat also has an LED display for indicating temperatures and thermostat functions. Two additional sensor surfaces are integrated into the display at the right and left which enable functions such as setpoint temperature and operating mode to be modified by the user with the aid of menus.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	7564 20 39	Wall box 2gang for glass sensor	1870
Glass, black.....	7564 20 35		
Glass, aluminium....	7564 20 34		
with configured labelling	7564 21 3x		

Glass sensor 2gang room thermostat 16B211

Push-button

- Function of the operation LED and the status LEDs adjustable, separate communication objects
- LEDs can be used for status indication independently of the push-button functions
- Rockers or push-button function for sensor function adjustable
- Rockers functions: switching, dimming, shutter, value transmitter 1-byte/2-byte, scene extension unit
- Push-button functions: switching, dimming, shutter, value transmitter 1-/2-byte, scene extension unit, thermostat extension unit
- 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte
- Evaluation, implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation
- Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing
- Time between short and long actuation, size of steps and stop telegram for dimming adjustable
- Time between short and long actuation and operation concept for shutter control adjustable
- Value range, adjustment by pressing a button for 1- and 2-byte value transmitter adjustable
- Saving of 8 scenes with up to 8 output channels with selection of the object type for each channel
- Retrieval and storing of up to 64 scenes as scene extension unit
- Selection and change-over of certain operating modes, setpoint shift and presence button function for thermostat extension unit adjustable
- Blocking of the rockers/push-buttons via object and behaviour in the event of a block adjustable
- Outputting of alarm messages through simultaneous flashing of all LEDs adjustable

Room thermostat

- Thermostat function for single room temperature control
- Function as thermostat ext. unit for other room therm., complete control/display at therm. ext. unit
- Room temperature measurement possible at the extension unit
- Temperature setpoints adjustable
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Indicator objects for heating and cooling
- Temperature detection via internal and/or external sensor (mean value formation for large rooms)
- Preset control parameters for common heating and cooling units
- Thermostat can be switched off (dewpoint operation) and/or therm. or operation of therm. blockable
- Valve protection function (valve is opened cyclically every 24 hours)
- Control modes continuous PI control, switched PI control (PWM)
- Operating mode switching (comfort, standby, night, frost/heat protection)
- Switching 2-point control (on/off) ■ Control variable objects invertible if required
- Object for controller status ■ Separate window contact object
- Presence button programmable to extend comfort

Objects

78

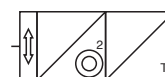
Group addresses/assignments

maximum 254/maximum 255

- Flat surface with capacitive sensor surfaces
- Functions of a push-button and room thermostat in a single device
- LED display with integrated sensor surfaces for menu-aided programming
- Indication of thermostat functions and temperatures or time in the display
- Free configuration of each push-button
- Saving, retrieval and setting of up to 8 light scenes
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



Glass sensor, 2gang with room thermostat



ETS search paths: Berker >> push-button >> push-button, 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	LC display	35 x 12.5 mm with symbols
	Operation LED	White
	3 x 2 status LEDs at side	Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 3gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate. By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/B.7 GLAS		Berker K.1/K.5 for White and	
for White and	7566 37 80	Polar white	7566 37 70
Polar white		Anthracite	7566 37 75
for Anthracite and	7566 37 85	Aluminium.....	7566 37 74
Aluminium		Stainless steel	7566 37 73

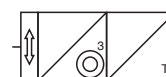
Multifunction RTR + display 16A301

Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 3gang with room thermostat and display



ETS search paths: Berker >> Push-button >> Push-button, 3gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers 2 buttons Graphic display Operation LED 6 lateral status LEDs	each with left/right push-button integrated on left and right of display 120 x 16 pixel black with characters lit up white Blue White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 3gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

Order data

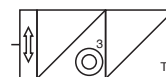
BERKER B.IQ		Accessories	
Polar white	7566 35 99	Labelling field	
Stainless steel	7566 35 93	clear transparent	7590 00 80
Glass, polar white....	7566 35 91		

Applications	B.IQ Multifunction RTR + display 161301	
	Push-button	<ul style="list-style-type: none"> ■ Operation concept programmable per rocker as 2 buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined display of the saved function as plaintext ■ Free assignment of the function to the buttons ■ Switching/pushing (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, single-surface operation ■ Shutter touch function (UP, DOWN, TOGGLE) and operating concept programmable ■ Value transmitter EIS 6 (1 Byte), light scene calling with or without memory function, value transmitter 2 Byte ■ Activation of the room thermostat or week time switch operation ■ Operating mode switchover for controller operation ■ Status LED per button and operation LED
	Room thermostat	<ul style="list-style-type: none"> ■ Controller function for individual room temperature control ■ Set point temperature values ■ Heating/cooling or heating and cooling operating modes ■ Basic and additional heating/cooling, or basic and additional heating and cooling operating modes ■ Reporting objects for heating and cooling ■ Temperature recording via internal and/or external sensor (formation of mean values for large rooms) ■ Pre-set control parameters for standard radiators and cooling ■ Disconnectable controller (dew point mode), or controller or controller operation lockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes: constant PI control, switching PI control (PWM) ■ Switching operating mode (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (On/Off) ■ Object for controller status ■ Manipulated variable objects invertable if necessary ■ Separate window contact object ■ Presence button comfort extension programmable
	Room temperature timer	<ul style="list-style-type: none"> ■ Time-based adjustment of the comfort, standby, and night operating modes ■ Week program with max. 28 switching times ■ Locking of the push-buttons via object
	Two week timers	<ul style="list-style-type: none"> ■ User-defined name for use in the display ■ Switching, value transmitter (1-byte), light scene extension function ■ Locking of the timers via object
	Display	■ Input object to display 14-byte message texts (EIS 15) in the display
	Objects	70
Group addresses/assignments	maximum 75/maximum 200	

- Functions of push-button, room thermostat, week timer and display unit in a single device
- Graphic display with integrated buttons for menu-navigated programming
- Alarm messages shown in the display
- Free project design for each push-button
- One status LED per button
- Push-button manually lockable
- Integral mechanical anti-dismantling protection



B.IQ push-button 3gang with room thermostat and display



ETS search paths:
Berker >> Push-button >> Push-button, 3gang >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	3 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	graphical display	120 x 16 pixels black with white lit characters
	Operation LED	Blue
	6 status LEDs at side	White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The IR push-button 3gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, week time switch and display unit. The IR push-button room thermostat has a graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field.

Order data

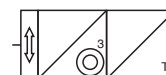
BERKER B.IQ		Accessories	
Polar white	7566 36 99	Labelling field	
Stainless steel	7566 36 93	clear transparent	7590 00 80
Glass, polar white....	7566 36 91	IR hand-held transmitter	2779

B.IQ multifunction RTR + display + IR 163301	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, week time switch and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 3gang with room thermostat and display



ETS search paths:
 Berker >> Push-button >> Push-button, 3gang >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	3 rockers 2 push-buttons LC display Operation LED 3 x 2 status LEDs	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbol display white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Mounting orientation	Display at top	
Dimensions (WxHxD)	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button room thermostat, display is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning. It combines the functions of a push-button, room thermostat and time switch. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated into the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

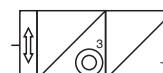
BERKER Q.1 Polar white, velvety... 7566 37 29	Accessories Labelling field sheets..... 9498 32 02
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Multifunction room thermostat + display 16A301	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, TOGGLE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints adjustable ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameters for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Control variable objects invertible if required ■ Object for controller status ■ Presence button programmable to extend comfort ■ Switching 2-point control (on/off) ■ Separate window contact object
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions and temperatures or time in the display
- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 3gang with labelling fields, room thermostat, display and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 3gang >>

Technical data

Supply	Operating voltage Power consumption via bus line Power consumption KNX	8–30 V DC via separate power supply max. 0.5 W 21 - 32 V DC typ. 150 mW
Operation and display elements	3 x 2 sensor surfaces 2 sensor surfaces LED display Operation LED 3 x 2 status-LEDs	each left/right integrated into the display at left and right with symbol display blue white
Connections	KNX/EIB Power supply	Connection terminal Connection terminal
Protection class	IP 20, EN 60 529	Safety class III
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	Snap onto wall box (order no. 1870)	Adapter ring for anti-dismantling protection optional
Dimensions	Glass plate Assembling height from wall Surface compensation	160 x 86 x 4 mm 4.7 mm (seated on wall) 10.7 mm (with adapter ring) max. 20 mm

Information

The glass sensor with room thermostat is intended for flush-mounted installation, and combines the functions of a push-button and a room thermostat. The glass sensor does not have any mechanical operating elements. Actuation is detected via capacitive sensor surfaces, and the LEDs are applied directly to the back of the glass plate, making the surface completely flat. Yet the glass sensor still provides the usual convenient operation. Pairs of operating surfaces can be joined logically into rockers, the LEDs next to the sensor surfaces can be controlled individually to indicate the status.

The glass sensor room thermostat also has an LED display for indicating temperatures and thermostat functions. Two additional sensor surfaces are integrated into the display at the right and left which enable functions such as setpoint temperature and operating mode to be modified by the user with the aid of menus.

Order data

BERKER TS Sensor		Accessories	
Glass, polar white....	7564 30 39	Wall box 2gang for glass sensor	1870
Glass, black.....	7564 30 35		
Glass, aluminium....	7564 30 34		
with configured labelling	7564 31 3x		

Glass sensor 3gang room thermostat 16B311

Push-button

- Function of the operation LED and the status LEDs adjustable, separate communication objects
- LEDs can be used for status indication independently of the push-button functions
- Rockers or push-button function for sensor function adjustable
- Rockers functions: switching, dimming, shutter, value transmitter 1-byte/2-byte, scene extension unit
- Push-button functions: switching, dimming, shutter, value transmitter 1-/2-byte, scene extension unit, thermostat extension unit
- 2-channel operation adjustable for each rocker/button for switching, value transmitter 1-byte and value transmitter 2-byte
- Evaluation, implementation of full-surface rockers actuation of dimming, shutter and 2-channel operation
- Switching commands ON, OFF, TOGGLE adjustable for each button for pressing and releasing
- Time between short and long actuation, size of steps and stop telegram for dimming adjustable
- Time between short and long actuation and operation concept for shutter control adjustable
- Value range, adjustment by pressing a button for 1- and 2-byte value transmitter adjustable
- Saving of 8 scenes with up to 8 output channels with selection of the object type for each channel
- Retrieval and storing of up to 64 scenes as scene extension unit
- Selection and change-over of certain operating modes, setpoint shift and presence button function for thermostat extension unit adjustable
- Blocking of the rockers/push-buttons via object and behaviour in the event of a block adjustable
- Outputting of alarm messages through simultaneous flashing of all LEDs adjustable

Room thermostat

- Thermostat function for single room temperature control
- Function as thermostat extension unit for other room thermostats, complete control/display at thermostat extension unit
- Room temperature measurement possible at the extension unit
- Temperature setpoints adjustable
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Indicator objects for heating and cooling
- Temperature detection via internal and/or external sensor (mean value formation for large rooms)
- Preset control parameters for common heating and cooling units
- Thermostat can be switched off (dewpoint operation) and/or therm. or operation of therm. blockable
- Valve protection function (valve is opened cyclically every 24 hours)
- Control modes continuous PI control, switched PI control (PWM)
- Operating mode switching (comfort, standby, night, frost/heat protection)
- Control variable objects invertible if required
- Object for controller status
- Presence button programmable to extend comfort
- Switching 2-point control (on/off)
- Separate window contact object

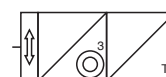
Objects; group addresses/assignments

84; maximum 254/maximum 255

- Flat surface with capacitive sensor surfaces
- Functions of a push-button and room thermostat in a single device
- LED display with integrated sensor surfaces for menu-aided programming
- Indication of thermostat functions and temperatures or time in the display
- Free configuration of each push-button
- Saving, retrieval and setting of up to 8 light scenes
- Optional anti-dismantling protection via adapter ring
- Optional customer-specific labelling



Glass sensor, 3gang with room thermostat



ETS search paths: Berker >> push-button >> push-button, 3gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	2 buttons	integrated on left and right of display
	Graphic display	120 x 16 pixel black with characters lit up white
	Operation LED	Blue
	8 lateral status LEDs	White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 4gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus. It combines the functions of push-button, room thermostat, weekly timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

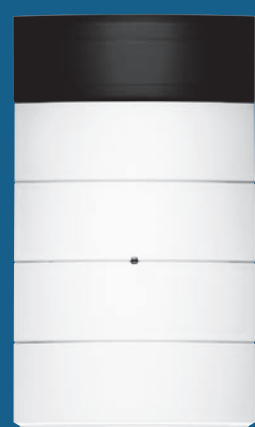
Order data

BERKER B.IQ		Accessories	
Polar white	7566 45 99	Labelling field	
Stainless steel	7566 45 93	clear transparent	7590 00 81
Glass, polar white....	7566 45 91		

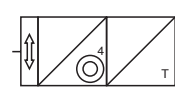
Applications

B.IQ Multifunction RTR + display 161401	
Push-button	<ul style="list-style-type: none"> ■ Operation concept programmable per rocker as 2 buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined display of the saved function as plaintext ■ Free assignment of the function to the buttons ■ Switching/pushing (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, single-surface operation ■ Shutter touch function (UP, DOWN, TOGGLE) and operating concept programmable ■ Value transmitter EIS 6 (1-byte), light scene calling with or without memory function, value transmitter 2-byte ■ Activation of the room thermostat or week time switch operation ■ Operating mode switchover for controller operation ■ Status LED per button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Controller function for individual room temperature control ■ Set point temperature values ■ Heating/cooling or heating and cooling operating modes ■ Basic and additional heating/cooling, or basic and additional heating and cooling operating modes ■ Reporting objects for heating and cooling ■ Temperature recording via internal and/or external sensor (formation of mean values for large rooms) ■ Pre-set control parameters for standard radiators and cooling ■ Disconnectable controller (dew point mode), or controller or controller operation lockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes: constant PI control, switching PI control (PWM) ■ Switching operating mode (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (On/Off) ■ Object for controller status ■ Manipulated variable objects invertable if necessary ■ Separate window contact object ■ Presence button comfort extension programmable
Room temperature timer	<ul style="list-style-type: none"> ■ Time-based adjustment of the comfort, standby, and night operating modes ■ Week program with max. 28 switching times ■ Locking of the push-buttons via object
Two week timers	<ul style="list-style-type: none"> ■ User-defined name for use in the display ■ Switching, value transmitter (1-byte), light scene extension function ■ Locking of the timers via object
Display	■ Input object to display 14-byte message texts (EIS 15) in the display
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of push-button, room thermostat, week timer and display unit in a single device
- Graphic display with integrated buttons for menu-navigated programming
- Alarm messages shown in the display
- Free project design for each push-button
- One status LED per button
- Push-button manually lockable
- Integral mechanical anti-dismantling protection



B.IQ push-button 4gang with room thermostat and display



ETS search paths:
Berker >> Push-button >> Push-button, 4gang >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	graphical display	120 x 16 pixels black with white lit characters
	Operation LED	Blue
	8 status LEDs at side	White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The IR push-button 4gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The IR push-button room thermostat has a graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

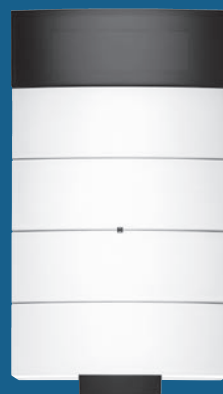
The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field together with the display of switching states, etc.

Order data

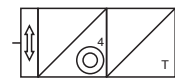
BERKER B.IQ		Accessories	
Polar white	7566 46 99	Labelling field	
Stainless steel	7566 46 93	clear transparent	7590 00 81
Glass, polar white....	7566 46 91	IR hand-held transmitter	2779

B.IQ multifunction RTR + display + IR 163401	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, week time switch and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 4gang with room thermostat and display



ETS search paths:
 Berker >> Push-button >> Push-button, 4gang >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	graphical display	35 x 12.5 mm with symbols
	Operation LED	White
	5 x 2 status LEDs at side	Red
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	Mount on bus coupling unit flush-mounted	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The push-button 5gang with room thermostat and display is a user module for mounting on the flush-mounted bus coupling unit, and combines the functions of a push-button, room thermostat and timer. The push-button room thermostat has an LC display for indicating temperatures and thermostat function. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

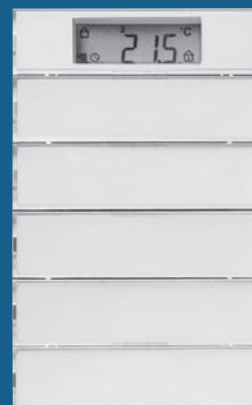
Order data

Berker S.1/B.1/B.3/ B.7 GLAS		
for White and Polar white	7566 57 80	
for Anthracite and Aluminium	7566 57 85	
Berker K.1/K.5		
for White and Polar white		7566 57 70
Anthracite		7566 57 75
Aluminium.....		7566 57 74
Stainless steel		7566 57 73

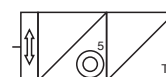
Multifunction RTR + display 16A501

Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 Telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Control variable objects invertible if required ■ Object for controller status ■ Separate window contact object ■ Presence button programmable to extend comfort
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions, temperatures and time in the display
- Free configuration of each push-button
- One status LED per push-button
- Push-button manually blockable
- Integrated anti-dismantling protection



Push-button 5gang with room thermostat and display



ETS search paths: Berker >> Push-button >> Push-button, 5gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers 2 buttons Graphic display Operation LED 10 lateral status LEDs	each with left/right push-button integrated on left and right of display 120 x 16 pixel black with characters lit up white Blue White
Connections	Bus coupling unit plus, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit plus	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The push-button 5gang with room thermostat and display is a user module for bolting to a flush-mounted bus coupling unit plus. It combines the functions of push-button, room thermostat, week timer and display unit. The push-button RTR possesses a graphic display with one symbol and two text lines. There are two additional buttons integrated on the left and right of the display. These allow the user not only to read off functions such as the set temperature, operating mode, timer etc. but also to influence their programming by means of menus.

The B.IQ has no frames. This means that large rockers are available to ensure ease of operation. The push-button RTR distinguishes between activation of the right and left side of the rocker. The button for each side of the rocker can be programmed separately.

The status LEDs are arranged on the side of the push-button RTR. This allows them to light up the optional labelling field by displaying switching statuses, for example.

Order data

BERKER B.IQ		Accessories	
Polar white	7566 55 99	Labelling field	
Stainless steel	7566 55 93	clear transparent	7590 00 82
Glass, Polar white ...	7566 55 91		

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	5 rockers	each with left/right push-button
	2 push-buttons	integrated into the display at left and right
	graphical display	120 x 16 pixels black with white lit characters
	Operation LED	Blue
	10 status LEDs at side	White
Connections	Bus coupling unit plus flush-mounted	AST: 2 x 5pole pin contact strip
IR code	RC 5	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	Display at top	
Dimensions (WxHxD)	see dimensional drawings	

Information

The IR push-button 5gang with room thermostat and display is a user module for bolting to the flush-mounted bus coupling unit plus and combines the functions of a push-button, room thermostat, weekly timer and display unit. The IR push-button room thermostat has a graphical display with one symbol line and two text lines. Two additional push-buttons are integrated in the display at the right and left so that functions such as setpoint temperature, operating mode, timers, etc. can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The B.IQ is designed without a frame, which means that large rockers are available for convenient operation. The IR push-button room thermostat distinguishes between actuation of the right-hand and left-hand sides of the rocker. Each of the corresponding push-buttons can be programmed separately. The function of each push-button can be triggered with an RC 5 IR remote control via an assigned remote control push-button.

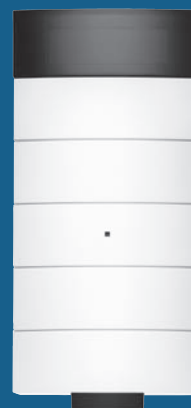
The status LEDs are arranged at the side of the IR push-button room thermostat so that they also illuminate the optional labelling field together with the display of switching states, etc.

Order data

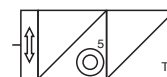
BERKER B.IQ		Accessories	
Polar white	7566 56 99	Labelling field	
Stainless steel	7566 56 93	clear transparent	7590 00 82
Glass, Polar white ...	7566 56 91	IR hand-held transmitter	2779

B.IQ multifunction RTR + display + IR 163501	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Push-button assistance for user-defined plain text display of the underlying function ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, CHANGE) and control concept adjustable ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Activation of operation of room temperature or week time switch ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, CHANGE, no function) ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension unit for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints ■ Operating modes heating/cooling or heating and cooling ■ Operating modes basic and additional heating/cooling or basic and additional heating and cooling ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameter for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switch-over (comfort, standby, night, frost/heat protection) ■ Switching 2-point control (on/off) ■ Object for controller status ■ Presence button programmable to extend comfort ■ Control variable objects invertible if required ■ Separate window contact object
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Two week time switches	<ul style="list-style-type: none"> ■ User-defined name for indication in display ■ Blocking of the time switches via object ■ Function switching, value transmitter (1-byte), light scene extension unit
Display	<ul style="list-style-type: none"> ■ Input object for indication of 14-byte message texts (EIS 15) in the display
IR	<ul style="list-style-type: none"> ■ Selection of the triggering device group of an IR remote control (RC 5) ■ Free assignment of supported remote control push-buttons to function keys of the push-button
Objects	70
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat, weekly timer and display unit in a single device
- Graphical display with integrated push-buttons for menu-aided programming
- Indication of alarm messages in the display
- Free configuration of each push-button
- One status LED per push-button
- Can be operated via IR remote control
- Push-button manually blockable
- Integrated anti-dismantling protection



B.IQ IR push-button 5gang with room thermostat and display



ETS search paths:
 Berker >> Push-button >> Push-button, 5gang >>
 Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line Power consumption KNX/EIB	21–32 V DC typ. 150 mW
Operation and display elements	5 rockers 2 push-buttons LC display Operation LED 5 x 2 status LEDs	each with left/right push-button integrated into the display at left and right 35 x 12.5 mm with symbol display white orange
Connections	KNX/EIB	Connection terminal
Protection class	IP 20, EN 60 529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	Built into flush-mounted box	Ø 60 mm
Mounting orientation	Display at top	
Dimensions (WxHxD)	Installation depth Assembling height from wall	approx. 23 mm approx. 13 mm

Information

The push-button room thermostat, display is designed as a monoblock, i.e. with integrated bus coupling unit. The device can be connected directly to the bus line for commissioning. It combines the functions of a push-button, room thermostat and time switch. The push-button room thermostat has an LC display for indicating temperatures and thermostat functions. Two additional push-buttons are integrated into the display at the right and left so that functions such as setpoint temperature, operating mode and room temperature timer can not only be read off, but so that their programming can be modified by the user with the aid of menus.

The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation. The push-button distinguishes between actuation of the right-hand and left-hand sides of the rocker (2 buttons). The cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

Order data

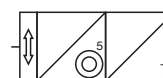
BERKER Q.1 Polar white, velvety... 7566 57 29	Accessories Labelling field sheets..... 9498 31 03
---	---

Multifunction room thermostat + display 16A501	
Push-button	<ul style="list-style-type: none"> ■ Control concept for each rocker adjustable as 2 push-buttons (2 objects) or rocker (1 object + 1 status object) ■ Free assignment of the function to the push-buttons ■ Switching/push-button (ON, OFF, TOGGLE, no function) ■ Dimming with stop telegram, telegram repetition, one push-button operation ■ Shutter push-button function (UP, DOWN, TOGGLE) and control concept adjustable ■ 8 independent internal scenes with operation of 8 objects can be set ■ Value transmitter EIS 6 (1-byte), light scene call with and without memory function, value transmitter 2-byte ■ Function "2 telegrams", sending of two different switching/value telegrams per press of the push-button ■ Operating mode switching for thermostat operation ■ Status LED per push-button and operation LED
Room thermostat	<ul style="list-style-type: none"> ■ Thermostat function for single room temperature control ■ Function as thermostat extension for other room thermostats, complete control/display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Temperature setpoints adjustable ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Indicator objects for heating and cooling ■ Temperature detection via internal and/or external sensor (mean value formation for large rooms) ■ Preset control parameters for common heating and cooling units ■ Thermostat can be switched off (dewpoint operation) and/or thermostat or operation of thermostat blockable ■ Valve protection function (valve is opened cyclically every 24 hours) ■ Control modes continuous PI control, switched PI control (PWM) ■ Operating mode switching (comfort, standby, night, frost/heat protection) ■ Control variable objects invertible if required ■ Object for controller status ■ Presence button programmable to extend comfort ■ Switching 2-point control (on/off) ■ Separate window contact object
Room temperature timer	<ul style="list-style-type: none"> ■ Time-dependent adjustment of the operating modes comfort, standby, night operation ■ Weekly program with up to 28 switching times ■ Blocking of the push-button via object
Objects	77
Group addresses/assignments	maximum 75/maximum 200

- Functions of a push-button, room thermostat and room temperature timer in a single device
- LC display with integrated push-buttons for menu-aided programming
- Indication of thermostat functions and temperatures or time in the display
- Free configuration of each push-button
- Assignment of one status LED to each of the two push-buttons
- Saving, retrieval and setting of up to 8 light scenes
- Push-button or individual rockers/buttons lockable
- Integrated anti-dismantling protection



Push-button 5gang with labelling fields, room thermostat, display and bus coupling unit



ETS search paths: Berker >> push-button >> push-button, 5gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 upper buttons 4 lower buttons Operation LED 8 status LEDs	Green Red
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The light scene push-button comfort is clipped onto the flush-mounted bus coupling unit. When a button is pressed it sends KNX/EIB telegrams which cause actuators to trigger corresponding functions. Depending on the loaded application, up to eight light scenes can be stored and retrieved, or four telegram sequences with a maximum of eight outputs can be generated.

Each button is assigned an LED with programmable functions.

The push-button has two user levels which can be manually set. On the first user level the light scenes can be stored and retrieved, on the second user level the equipment can be adjusted; no additional sensors are needed.

The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker ARSYS	
White	7516 87 12	Polar white, matt	7516 87 89	White	7516 87 42
Polar white	7516 87 19	Anthracite, matt	7516 87 85	Polar white	7516 87 49
		Aluminium, matt	7516 87 83	Light bronze, lacquered	7516 87 44
				Stainless steel, lacquered	7516 87 43

Applications

Light scene/dimming 106501	<ul style="list-style-type: none"> ■ Lockout function via object ■ Cascading of multiple light scene push-buttons ■ Variable setting of status LED operation periods ■ Second user level: Lamp setup ■ Transmission of time-offset telegrams ■ Dimmer function programmable ■ Outputs can be removed separately from light scenes ■ Dimmer function via single-area operation ■ Extension function
Objects	20
Group addresses/assignments	maximum of 22 each
Telegram sequence 106401	<ul style="list-style-type: none"> ■ Alarm function in case push-button pulled off ■ Four telegram sequences ■ Random mode ■ Endless mode ■ Eight outputs ■ Outputs lockable ■ Extension function
Objects	10
Group addresses/assignments	maximum of 10 each

- Operation of switch, dim or shutter actuators
- Operating and status LEDs to indicate operating states
- Retrieval and storage of up to eight different light scenes
- Value transmitter for brightness values
- Operation on two switchable user levels
- Alarm function in case of separation of push-button from bus coupling unit
- Integral mechanical anti-dismantling protection



Accessories		Berker ARSYS	
Labelling field with cover plate		White	7596 00 03
MODUL 2		Polar white.....	7596 00 06
White	7596 00 01	Light bronze, lacquered	7596 00 05
Polar white.....	7596 00 02	Stainless steel, lacquered	7596 00 04
Berker S.1/B.1/B.3/B.7 GLAS			
Polar white.....	7596 00 07		
Aluminium.....	7596 00 09		
Anthracite.....	7596 00 08		

Light scene push-button comfort



ETS search path: Berker >> Push-button >> Push-buttons general >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	White
	4 x 2 status LEDs at side	Red
Connections	Bus coupling unit flush-mounted	AST: 2 x 5pole pin contact strip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Mount on bus coupling unit flush-mounted	
Mounting orientation	as desired	
Dimensions (WxHxD)	see dimensional drawings	

Information

The light scene push-button 8gang comfort is a user module for mounting on a flush-mounted bus coupling unit.

When pressed, the light scene push-button sends telegrams to the instabus KNX/EIB; these trigger the functions corresponding to the application that is loaded. The new push-button generation is designed without a central web, which means that large rockers are available for convenient operation.

The push-button distinguishes between each actuation of the right-hand and left-hand sides of the rocker (2 buttons). The rocker cover is removable, the entire surface of the rocker is available for inserting a labelling plate.

By arranging the operation LED at the lower edge and the status LEDs on the side edges of the rocker, the entire rocker surface is kept open for labelling. The austere, minimalistic form is superbly suited to the series' form language.

Order data

Berker S.1/B.1/B.3/ B.7 GLAS for White and Polar white	7516 88 80	Berker K.1/K.5 for White and Polar white	7516 88 70	
			Anthracite	7516 88 75
			Aluminium	7516 88 74
			Stainless steel	7516 88 73
for Anthracite and Aluminium	7516 88 85			

Light scene/dimming 106501

- Object type switching or brightness value adjustable per output
- Blocking function via object
- Cascade operation of multiple light scene push-buttons
- Variable setting of the status LED with regard to the length of actuation
- Second operating level: Setting the lights to modify the light scene
- Sending of telegrams with time offset
- Dimmer adjustable
- Outputs can be removed separately from light scenes
- Dimmer via one push-button operation
- Extension unit function

Objects 20

Group addresses/assignments maximum 22 each

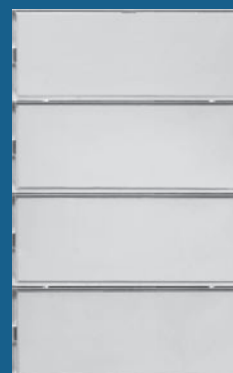
Telegram sequence 106401

- Alarm function in the push-button is disconnected
- Object types 1-bit, 1-byte, 2-byte possible
- Four telegram sequences
- Sequence and times adjustable per telegram sequence
- Random mode
- Continuous operation
- Maximum of eight outputs
- Outputs blockable using push-button code (on-the-spot operation)
- Extension unit function

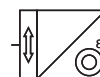
Objects 10

Group addresses/assignments maximum 10 each

- Activation of switch, dimmer or shutter actuators
- Operation LED and status LEDs for indicating operating states
- Calling up and saving up to eight different light scenes
- Value transmitter for transmitting brightness values with eight outputs each
- Operation in two transposable operating levels
- Alarm function if the push-button is separated from the bus coupling unit
- Integrated anti-dismantling protection



Light scene push-button 8gang comfort



ETS search paths: Berker >> Push-button >> Push-button, general >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	4 rockers	each with left/right push-button
	Operation LED	Blue
	8 lateral status LEDs	White
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Bolting to flush-mounted bus coupling unit	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensions diagrams	

Information

The B.IQ light scene push-button comfort is a user module for bolting to a flush-mounted bus coupling unit. When a button is pressed, it sends KNX/EIB telegrams which cause actuators to trigger corresponding functions. Depending on the application which has been loaded, up to eight light scenes can be stored and retrieved, or four telegram sequences with a maximum of eight outputs can be generated.

Each button is assigned an LED with programmable functions.

When the “Light scene/dimming” application is loaded, the push-button has two user levels which the operator can switch between manually. On the first user level the light scenes can be stored and retrieved; on the second user level the equipment can be adjusted; no additional sensors are needed.

Order data

BERKER B.IQ		Accessories	
Polar white	7516 86 99	Labelling field	
Stainless steel	7516 86 93	clear transparent	7590 00 81
Glass, polar white....	7516 86 91		

Light scene/dimming 106501

- Object type switching or brightness value per output programmable
- Lockout function via object
- Cascading of multiple light scene push-buttons
- Variable setting of status LED operation periods
- Second user level: programming of the lights for changing the light scene
- Transmission of time-offset telegrams
- Dimmer function programmable
- Outputs can be removed separately from light scenes
- Dimmer function via single-area operation
- Master function to control extensions

Objects 20

Group addresses/assignments maximum of 22 each

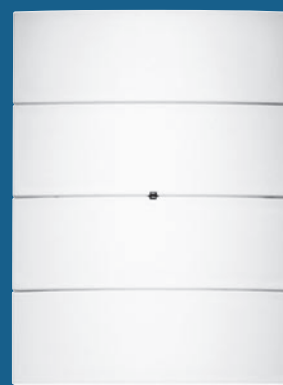
Telegram sequence 106401

- Alarm function when push-button is released
- Object types 1-bit, 1-byte, 2-byte possible
- Four telegram sequences
- Sequence and types programmable per telegram sequence
- Random mode
- Endless mode
- Maximum of eight outputs
- Outputs lockable via button code (local operation)
- Master function to control extensions

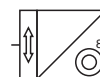
Objects 10

Group addresses/assignments maximum of 10 each

- Operation of switch, dim or shutter actuators
- Operating and status LEDs to indicate object states
- Retrieval and storage of up to eight different light scenes
- Value transmitter for transmitting brightness values with eight outputs each
- Operation on two switchable user levels
- Alarm function in case push-button is disconnected from bus coupling unit
- Integral mechanical anti-dismantling protection



B.IQ light scene push-button comfort



ETS search paths:
Berker >> Push-button >> Push-button, general >>
Berker >> Push-button >> B.IQ >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Rocker	
	Programming button	
	Programming LED	Red
	Status LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61.5 mm	see dimensional drawings

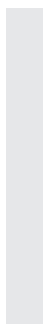
Information

The push-button BCU 1gang is executed as a surface-mounted device. It consists of a bus coupling unit, a micro push-button with associated evaluation electronics and a status LED, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with lens, with symbol, with labelling).

Order data

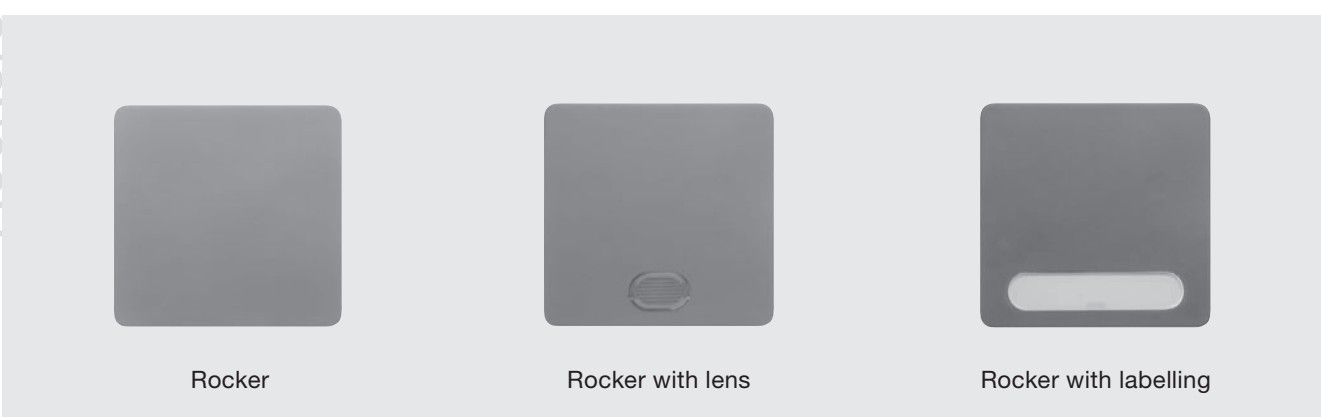
Device colour	
Light grey	7519 10 00
Rockers	
- Rocker.....	7599 10 00
- with lens.....	7599 11 00
- with labelling	7599 13 00



Applications

Switching 105501	<ul style="list-style-type: none"> ■ Switching functions ON or OFF or TOGGLE ■ LED as status indication, continuous ON or continuous OFF
Objects	1
Group addresses/assignments	maximum of 3 each

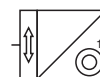
Rockers



- Protection IP 44 in AQUATEC surface-mounted housing
- Status LED to indicate operating states or as orientation light
- Switching of a function group



**Push-button BCU
1gang AQUATEC**



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

Supply	via bus line	24 V DC (+6 V/-4 V)
Operation and display elements	Upper button	
	Lower button	
	Programming button	
	Programming LED	Red
	Status LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61.5 mm	see dimensional drawings

Information

The group push-button BCU 1gang is executed as a surface-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and a status LED, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with lens, with symbol, with labelling).

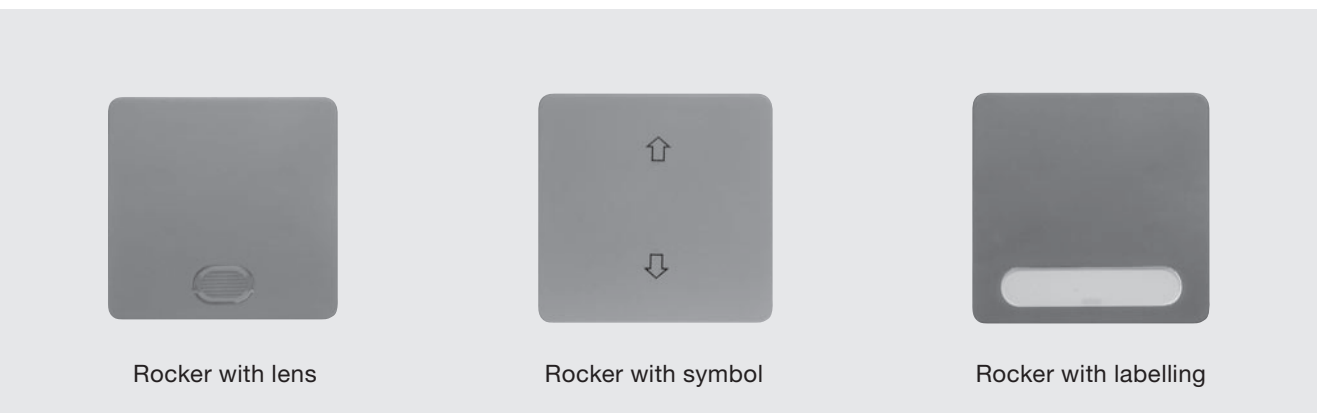
Order data

Device colour		
Light grey	7519 11 00	
Rockers		
- Rocker.....	7599 10 00	
- with lens.....	7599 11 00	
- with symbol.....	7599 12 00	
- with labelling	7599 13 00	

Applications

Switching, dimming, shutter 105601	<ul style="list-style-type: none"> ■ Switching functions for switching or dimming or shutter control ■ LED as status indication, continuous ON or continuous OFF ■ Maximum of two switching options by toggle function
Objects	3
Group addresses/assignments	maximum of 4 each

Rockers



Rocker with lens

Rocker with symbol

Rocker with labelling

- Protection IP 44 in AQUATEC surface-mounted housing
- Status LED to indicate operating states or as pilot lamp
- Dimmer/shutter control for a function group
- Switch up to two function groups



Rocker



**Group push-button
BCU 1gang
AQUATEC**



ETS search path: Berker >> Push-button >> Push-button 1gang >>

Technical data

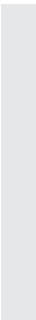
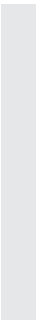
Supply	via bus line	21–32 V DC
Operation and display elements	Left button	
	Right button	
	Programming button	
	Programming LED	Red
	2 status LEDs	Red
Connections	KNX/EIB	Terminal
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61.5 mm	see dimensional drawings

Information

The push-button BCU 2gang is executed as a surface-mounted device. It consists of a bus coupling unit, two micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with arrow symbol).

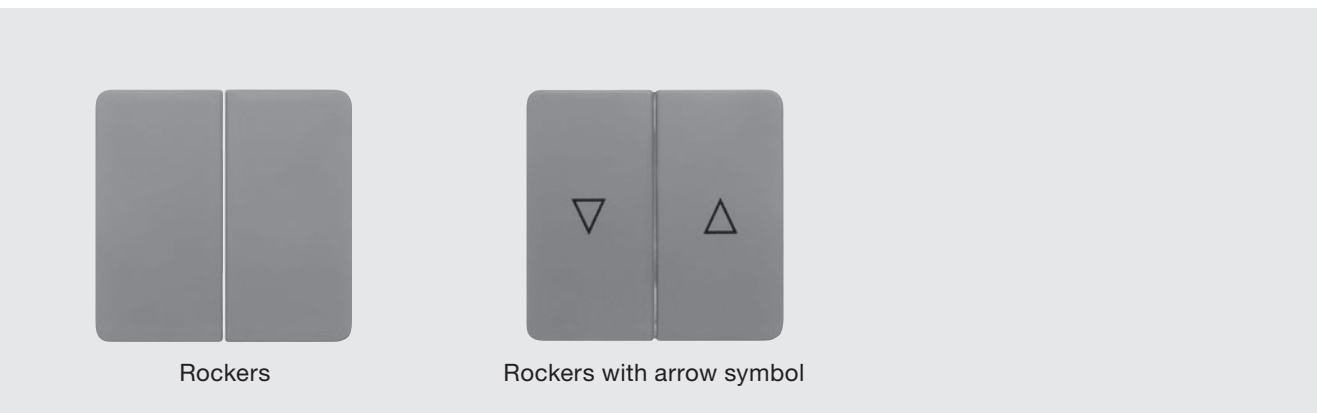
Order data

Device colour		
Light grey	7519 20 00	
Rockers		
- Rocker.....	7599 20 00	
- with arrow symbol..	7599 21 00	

Applications

Switching, dimming, shutter 105701	<ul style="list-style-type: none"> ■ Switching functions for switching or dimming or shutter control ■ Status LED with dedicated communication objects ■ Switching function with toggle ■ Area dimming
Objects	4
Group addresses/assignments	maximum 4/maximum 5

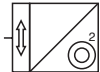
Rockers



- Protection IP 44 in AQUATEC surface-mounted housing
- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for a function group
- Switch up to two function groups



**Push-button BCU
2gang AQUATEC**



ETS search path: Berker >> Push-button >> Push-button 2gang >>

Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	2 left buttons (upper and lower) 2 right buttons (upper and lower) 2 status LEDs	Red
Connections	Terminal	
Protection	IP 44, to EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	Screws/plugs	
Mounting orientation	any	
Dimensions (WxHxD)	75 x 75 x 61.5 mm	see dimensional drawings

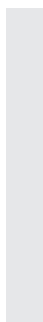
Information

The group push-button BCU 2gang is executed as a surface-mounted device. It consists of a bus coupling unit, four micro push-buttons with associated evaluation electronics and two status LEDs, as well as a mechanical mounting unit in the neutral mid position for rockers.

The rockers are not included. They can be ordered separately in differing designs according to the application (rocker, with arrow symbol, with symbols).

Order data

Device colour	
Light grey	7519 21 00
Rockers	
- Rocker.....	7599 20 00
- with arrow symbol..	7599 21 00
- with symbols	7599 22 00



Applications

Switching, dimming, shutter 105801	<ul style="list-style-type: none"> ■ Switching functions for switching and/or dimming and/or shutter control ■ LED as status indication, continuous ON or continuous OFF ■ Maximum of four switching options by toggle function
Objects	4
Group addresses/assignments	maximum of 8 each

Rockers



Rockers



Rockers with arrow symbol

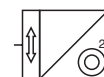


Rockers with symbols

- Protection IP 44 in AQUATEC surface-mounted housing
- Two status LEDs to indicate operating states or as orientation light
- Dimmer/shutter control for two function groups
- Switch up to four function groups



**Group push-button
BCU 2gang
AQUATEC**



ETS search path: Berker >> Push-button >> Push-button 2gang >>

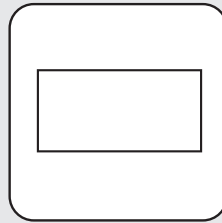
Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Rotary potentiometer	Sensitivity
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection range	180°	
Nominal detection range, lateral	at mounting height 1.10 m or 2.20 m	2 x 6 m
Nominal detection range, frontal	at mounting height 1.10 m or 2.20 m	10 m or 12 m
Number of switching segments (lens)	72	on 2 levels
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Notes



Device rear



Device front

Key

- 1. Sensitivity potentiometer
- 2. User interface
(PEI: 2 x 5-pin male connectors)

Information

The movement controller 180 is a user module for clipping onto the flush-mounted bus coupling unit. Heat movements in the detection range caused by people, animals or objects generate an KNX/EIB switching telegram dependent on the programmable values. If the detection is sustained, the transmission can be cyclically repeated. When detection ceases, a telegram can be sent with a delay of at least 10 seconds. An additional transmission delay can be programmed. A lockout function deactivates the movement controller dependent on an externally generated telegram with a corresponding group address. The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2	Berker S.1/B.1/B.3/ B.7 GLAS	Berker S.1/B.1/B.3/ B.7 GLAS	Berker K.1/K.5
White	White, glossy	Anthracite, matt	White
- Type 1.10 m	- Type 1.10 m	- Type 1.10 m	- Type 1.10 m
7526 11 12	7526 11 52	7526 11 85	7526 11 72
- Type 2.20 m	- Type 2.20 m	- Type 2.20 m	- Type 2.20 m
7526 12 12	7526 12 52	7526 12 85	7526 12 72
Polar white	Polar white, glossy	Aluminium, matt	Polar white
- Type 1.10 m	- Type 1.10 m	- Type 1.10 m	- Type 1.10 m
7526 11 19	7526 11 59	7526 11 83	7526 11 79
- Type 2.20 m	- Type 2.20 m	- Type 2.20 m	- Type 2.20 m
7526 12 19	7526 12 59	7526 12 83	7526 12 79
	Polar white, matt		Anthracite, matt
	- Type 1.10 m		- Type 1.10 m
	7526 11 89		7526 11 75
	- Type 2.20 m		- Type 2.20 m
	7526 12 89		7526 12 75
			Aluminium, matt
			- Type 1.10 m
			7526 11 74
			- Type 2.20 m
			7526 12 74

Applications	PIR single unit A00101	<ul style="list-style-type: none"> ■ Delay time and brightness threshold programmable ■ Transmission of switching telegrams 	<ul style="list-style-type: none"> ■ Lockout function
	Objects	2	
	Group addresses/assignments	maximum of 5 each	
	PIR master unit A00201 (where multiple monitor sensors in use)	<ul style="list-style-type: none"> ■ Delay time and brightness threshold programmable ■ Transmission of switching telegrams 	<ul style="list-style-type: none"> ■ Master function to control extensions ■ Lockout function
Objects	3		
Group addresses/assignments	maximum of 6 each		
PIR extension unit A00301	<ul style="list-style-type: none"> ■ Delay time and brightness threshold programmable ■ Transmission of switching telegrams 	<ul style="list-style-type: none"> ■ Extension function ■ Lockout function 	
Objects	3		
Group addresses/assignments	maximum of 6 each		

Notes

Mounting height
 If the adapter lens type 2.20 m is mounted lower, such as at 1.10 m, the scan range changes as shown (illustrations at extreme right).
 Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).

Type 1.10 m

Type 2.20 m

Type 2.20 at 1.10 m

- 180° detection range
- Limitation of detection range to 90° by clip-on cover
- Sensitivity setting by sensitivity potentiometer
- Extension mode for multiple operation



Berker K.1/K.5 Stainless steel, lacquered		Berker ARSYS White	
- Type 1.10 m	7526 11 73	- Type 1.10 m	7526 11 42
- Type 2.20 m	7526 12 73	- Type 2.20 m	7526 12 42
		Polar white	
		- Type 1.10 m	7526 11 49
		- Type 2.20 m	7526 12 49
		Light bronze, lacquered	
		- Type 1.10 m	7526 11 44
		- Type 2.20 m	7526 12 44
		Stainless steel, lacquered	
		- Type 1.10 m	7526 11 43
		- Type 2.20 m	7526 12 43

Movement controller 180



ETS search path: Berker >> Physical sensors >> Movement >>

Technical data

Supply	via bus line	24 V DC (+6 V/-4 V)
Operation and display elements	Rotary potentiometer	Sensitivity
	Rotary potentiometer	Switch OFF delay
	Rotary potentiometer	Brightness threshold
	Manual slide switch	ON/Auto/OFF
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection range	180°	
Nominal detection range, lateral	at mounting height 1.10 m or 2.20 m	2 x 6 m
Nominal detection range, frontal	at mounting height 1.10 m or 2.20 m	10 m or 12 m
Number of switching segments (lens)	72 on 2 levels	
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Clip onto bus coupling unit, flush-mounted	
Mounting orientation	any	
Dimensions (WxHxD)	see dimensional drawings	

Information

The movement controller 180 comfort is a user module for clipping onto the flush-mounted bus coupling unit. Heat movements in the detection range caused by people, animals or objects generate an KNX/EIB switching or value transmission telegram dependent on the programmable values. If the detection is sustained, the transmission can be cyclically repeated. When detection ceases, a telegram can be sent with a delay of at least 10 seconds. An additional transmission delay can be programmed.

A lockout function deactivates the movement controller dependent on an externally generated telegram with a corresponding group address.

The device is completed by a cover frame, the bus coupling unit and a terminal.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5	
White		White, glossy		Anthracite, matt		White	
- Type 1.10 m	7526 15 12	- Type 1.10 m	7526 15 52	- Type 1.10 m	7526 15 85	- Type 1.10 m	7526 15 72
- Type 2.20 m	7526 16 12	- Type 2.20 m	7526 16 52	- Type 2.20 m	7526 16 85	- Type 2.20 m	7526 16 72
Polar white		Polar white, glossy		Aluminium, matt		Polar white	
- Type 1.10 m	7526 15 19	- Type 1.10 m	7526 15 59	- Type 1.10 m	7526 15 83	- Type 1.10 m	7526 15 79
- Type 2.20 m	7526 16 19	- Type 2.20 m	7526 16 59	- Type 2.20 m	7526 16 83	- Type 2.20 m	7526 16 79
		Polar white, matt				Anthracite, matt	
		- Type 1.10 m	7526 15 89			- Type 1.10 m	7526 15 75
		- Type 2.20 m	7526 16 89			- Type 2.20 m	7526 16 75
						Aluminium, matt	
						- Type 1.10 m	7526 15 74
						- Type 2.20 m	7526 16 74

Applications

PIR comfort A00802

- Detection of heat movements depending on the preset brightness threshold
- Brightness threshold adjustable via potentiometer (see next page)
- Sensitivity adjustable via potentiometer based on walk test
- Telegram programmable at beginning and end of a detection or lockout
- Cyclic transmission during a detection possible
- Transmission of switch, value transmitter or light scene retrieval telegrams after detection of motion
- Various operating modes:
 - Lighting mode (telegram after first movement pulse)
 - Message mode (telegram after a programmable number of movement pulses)
- Toggle between lighting and message mode
- Telegram programmable on restoration of bus voltage
- Dismantling signal programmable following detachment of device from bus coupling unit
- Resetting the disassembly message after the device has been clipped on again

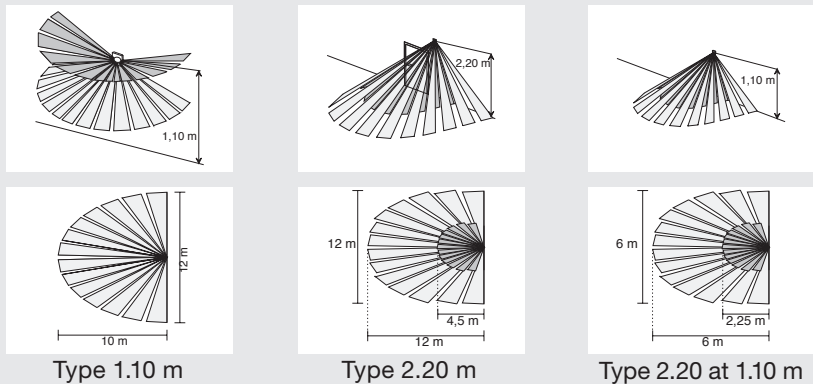
Objects	9
Group addresses/assignments	maximum of 28 each

Notes

Mounting height

If the adapter lens type 2.20 m is mounted lower, such as at 1.10 m, the scan range changes as shown (illustrations at extreme right).

Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).



Continued on next double page ►

- 180° detection range
- Limitation of detection range to 90° by clip-on cover
- Brightness threshold, delay time and sensitivity adjustable via potentiometer
- Non-light-sensitive message mode
- Manual operation by slide switch
- Continuous light ON or light OFF
- Switch/Value transmitter/Light scene retrieval modes selectable
- Extension mode for multiple devices



Berker K.1/K.5
Stainless steel, lacquered

- Type 1.10 m	7526 15 73
- Type 2.20 m	7526 16 73

Berker ARSYS

White	
- Type 1.10 m	7526 15 42
- Type 2.20 m	7526 16 42
Polar white	
- Type 1.10 m	7526 15 49
- Type 2.20 m	7526 16 49
Light bronze, lacquered	
- Type 1.10 m	7526 15 44
- Type 2.20 m	7526 16 44
Stainless steel, lacquered	
- Type 1.10 m	7526 15 43
- Type 2.20 m	7526 16 43

Movement controller 180 comfort



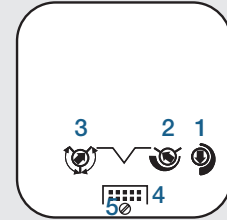
ETS search path: Berker >> Physical sensors >> Movement >>



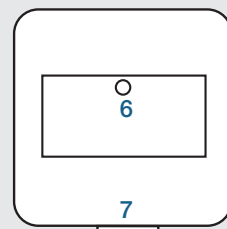
Notes

Key

1. Sensitivity potentiometer
Stepless range setting between 100 % and 20 %
2. Brightness threshold potentiometer
Fine adjustment of software-preset twilight level
3. Switch OFF delay potentiometer
Alteration of software-preset “additional transmission delay” by ± 50 %
(in extension mode this setting has no function)
4. Physical external interface (PEI: 2 x 5-pin male connectors)
5. Arrester screw for manual selection switch
Arresting of slide switch in AUTO position
6. Walk test LED
for walk test function and dismantling alarm
7. Manual slide switch
(in message/extension mode the manual selection switch has no function)



Device rear



Device front

Cover

Interference can be blocked by means of the supplied cover (90° masking of the left or right half of the scan field).



**Movement
controller 180
comfort**

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Behaviour on power failure/restore	Bus power failure	no function
	Bus power failure	---
	Bus and mains power failure	---
	Bus power restoration	Software-dependent (immunity time of approx. 40 s)
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Rotary potentiometer "sensitivity"	Range
	Rotary potentiometer "time"	Transmission delay
	Rotary potentiometer "lux"	Fine adjustment of brightness threshold
Connections	Bus coupling unit, flush-mounted	PEI: 2 x 5-pin male connectors
Detection area	360°	
	At mounting height 2.5 m	Table-top height (approx. 80 cm): Ø approx. 5 m Floor level: Ø approx. 8 m (Controller mode: Ø approx. 5 m)
Number of lenses/detection levels	80	6
	Switching segments (lens)	320
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to bus coupling unit, flush-mounted	
Mounting orientation	only ceiling-mounted!	free of vibration
	Minimum clearances	none
Dimensions (Ø and H)	103 mm	42 mm

Information

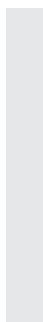
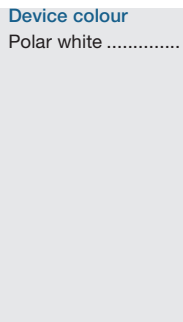
The presence detector standard automatically switches the interior lighting on when required, i.e. when the presence of a person is detected and the level of ambient brightness is less than the threshold.

The presence detector standard can be used as a single device and is mounted on to a flush-mounting bus coupling unit exclusively on the ceiling of the room. It monitors the floor area directly beneath it. The lens structure and the digital signal evaluation detect even the slightest movements.

Two operating modes are available for selection. Setting the operating mode and subsequently changing between operating modes is achieved exclusively by programming the devices in the ETS. In both operating modes there are available two output channels with freely selectable functions available of switching, dimmer value transmitter and light scene extension unit. The outputs can be parameterised independently of each other and locked out by externally generated telegrams.

Order data

Device colour
Polar white 7526 20 01



Presence standard A00E01

- Free assignment of the functions switching, dimmer value transmitter and light scene extension unit to the two outputs
- Operating mode selectable as either presence detector or ceiling monitor
- Effect of potentiometers for twilight level and additional transmission delay can be parameterised to a different output
- Trigger object for switching on the presence detector can be configured independently of a detection
- Blocking time after telegram transmission adjustable
- Twilight level (switch-on/switch-off brightness) configurable for each output
- Teach-in function (application of current brightness as twilight threshold)
- Cyclic transmission can be performed during a detection
- Additional telegram can be activated on re-triggering
- Telegram configurable at beginning and end of a detection
- Telegram configurable at beginning and end of lockout
- Configurable additional transmission delay (basis and factor)
- Correction factor for adjusting the switch-off brightness
- Behaviour on bus power restoration separately configurable for each output
- Disassembly message option on removal of the device from the flush-mounting bus coupling unit (1 bit/1 byte)

Objects	8
Group addresses/assignments	maximum of 30 each

Continued on next double page ►

- 360° Detection area
- Passive Infra-Red (PIR) sensor for movement detection depending on the twilight level setting
- Twilight level (switch-on/switch-off brightness) configurable
- Teach-in function (application of current brightness as twilight threshold)
- Three potentiometers for setting the response sensitivity and fine adjustment of parameterised values
- Setting the potentiometer without removing it (removable device cap)
- Operating mode selectable as either presence detector or ceiling controller
- Objects for switching, value transmitter or light scene retrieval
- Alarm object on removal of the device from the bus coupling unit (disassembly protection)



Presence detector standard



ETS search path: Berker >> Physical sensors >> Movement >>

**Mounting position/
installation**

Do not install the presence detector in the immediate vicinity of sources of heat such as lights.

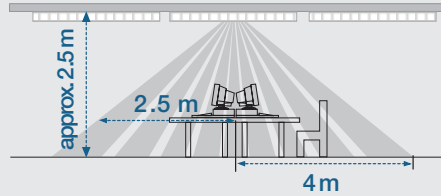
Air movements such as from open windows, fans, radiators, etc. can cause spurious triggering of the switch.

Reflecting/pale surfaces under the installation position will affect the evaluation.

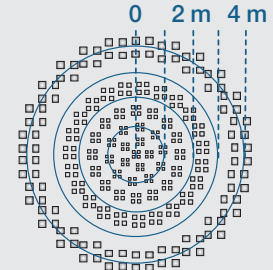
The brightness sensor should be placed on a wall facing away from the window, so as to avoid the effects of stray light.

If the devices are mounted significantly higher up, the sensitivity of the movement detection will be reduced.

Office situation (presence detector operating mode)

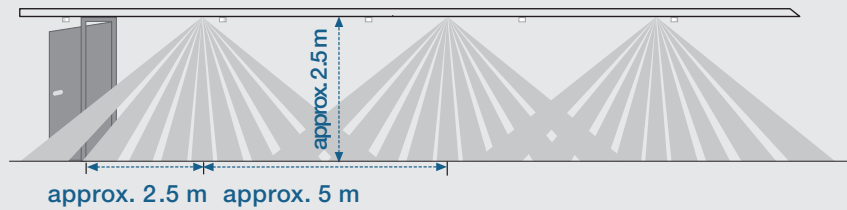


Detection cone at a workplace when mounted at 2.5 m height



Segmentation

Installation example in a corridor (operating mode = ceiling controller)

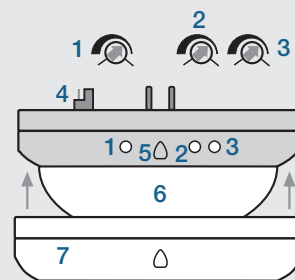


In a corridor, the detection area should be walked through primarily in a "radial" sense. The reliable detection area at ground level is still only approx. 5 m - the detection areas must overlap at that spacing!

Notes

Key

1. "Sensitivity" potentiometer
Stepless range setting between 100 % and 20 %
2. "Time" potentiometer
Adjustment of the additional transmission delay by ± 50 %
3. "Lux" potentiometer
Adjustment of the software-preset twilight level
4. Physical external interface (PEI: 2 x 5-pin male connector)
5. Brightness sensor
6. Lens system for movement detection
7. Removable device cap (allows access to the potentiometer)
8. Clip-on cover (clipped on when delivered)



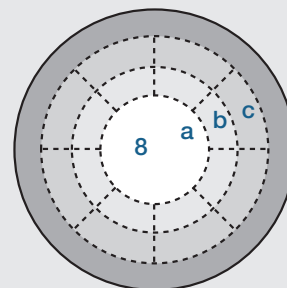
Side view

Clip-on cover/adjusting the detection area

Areas where detection is not required and sources of spurious detections can be excluded from coverage (using scissors to trim the cover along the indicated lines).

When the trimmed cover is used the diameter of the detection area at floor level changes as follows:

- Area **a** cut out: diameter approx. 2.20 m
- Areas **a** and **b** cut out: diameter approx. 4.00 m
- Areas **a**, **b** and **c** cut out: diameter approx. 6.00 m
- Clip-on cover fully removed: diameter approx. 8.00 m



Clip-on cover (plan view)



**Presence detector
standard**

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typically 150 mW
Behaviour on power failure/restore	Bus power failure	no function
	Bus power failure	---
	Bus and mains power failure	---
	Bus power restoration	Software-dependent (immunity time of approx. 40 s)
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Rotary potentiometer “sensitivity”	Range
	Rotary potentiometer “time”	Transmission delay
	Rotary potentiometer “lux”	Fine adjustment of brightness threshold
Connections	Bus coupling unit, flush-mounted Up	PEI: 2 x 5-pin male connectors
Detection area	360°	
	At mounting height 2.5 m	Table-top height (approx. 80 cm): Ø approx. 5 m Floor level: Ø approx. 8 m (Controller mode: Ø approx. 5 m)
Number of lenses/detection levels	80	6
	Switching segments (lens)	320
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to bus coupling unit, flush-mounted	
Mounting orientation	only ceiling-mounted!	free of vibration
	Minimum clearances	none
Dimensions (Ø and H)	103 mm	42 mm

Information

The presence detector comfort automatically switches the interior lighting on when required, i. e. when the presence of a person is detected and the level of ambient brightness is less than the threshold.

The presence detector comfort can be used as a master unit and as an extension unit and is mounted on to a flush-mounting bus coupling unit exclusively on the ceiling of the room. It monitors the floor area directly beneath it. The lens structure and the digital signal evaluation detect even the slightest movements.

The operating modes “presence detector”, “ceiling controller” and “message mode” are available for selection. Setting or changing the operating mode (without re-programming) is performed using software.

The selected operating modes each have two output channels with freely selectable functions available of switching, dimmer value transmitter and light scene extension unit. The outputs can be parameterised independently of each other and locked out by externally generated telegrams.

In addition, output 1 can be programmed as brightness transmitter or temperature value transmitter.

Order data

Device colour	
Polar white	7526 40 01

Presence comfort A00F01

- Free assignment of the functions switching, dimmer value transmitter, light scene extension unit and reporting to the four outputs
- Output 1 can be used either for the temperature function or for the brightness value transmitter
- Object for changing over between two pre-selected operating modes during operation
- Application type selectable as single device, master unit or extension unit
- Effect of potentiometers for twilight level and additional transmission delay can be parameterised to a different output
- Locking time after telegram triggering is configurable
- Telegram delay at beginning of a detection is configurable
- Twilight level (switch-on/switch-off brightness) and teach-in object can be configured independently for each output; in master unit operation the twilight level evaluation can be performed at the master unit or extension unit
- Teach-in function (application of current brightness as twilight threshold)
- Cyclic transmission can be performed during a detection
- Additional telegram can be activated on re-triggering
- Telegram configurable at beginning and end of a detection
- Telegram configurable at beginning and end of lockout
- Configurable additional transmission delay (basis and factor)
- Correction factor for adjusting the switch-off brightness
- Behaviour on bus power restoration separately configurable for each output
- Disassembly message option on removal of the device from the flush-mounting bus coupling unit (1-bit/1-byte)

Objects	12
Group addresses/assignments	maximum 20/maximum 21

Continued on next double page ►

- 360° Detection area
- Passive Infra-Red (PIR) sensor for movement detection depending on the twilight level setting
- Twilight level (switch-on/switch-off brightness) configurable
- Teach-in function (application of current brightness as twilight threshold)
- Three potentiometers for setting the response sensitivity and fine adjustment of parameterised values
- Setting the potentiometer without removing it (removable device cap)
- Operating mode selectable between “presence detector”, “ceiling controller”, “message mode”
- Objects for switching, value transmitter or light scene retrieval
- Alarm object on removal of the device from the bus coupling unit (disassembly protection)



Presence detector comfort



ETS search path: Berker >> Physical sensors >> Movement >>

**Mounting position/
installation**

Do not install the presence detector in the immediate vicinity of sources of heat e. g. lights.

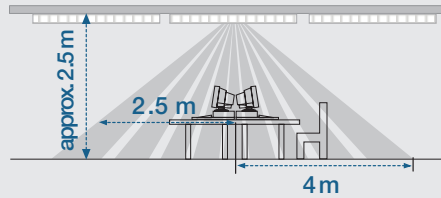
Air movements such as from open windows, fans, radiators, etc. can cause spurious triggering of the switch.

Reflecting/pale surfaces under the installation position will affect the evaluation.

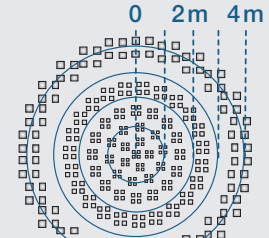
The brightness sensor should be placed on a wall facing away from the window, so as to avoid the effects of stray light.

If the devices are mounted significantly higher up, the sensitivity of the movement detection will be reduced.

Office situation (presence detector operating mode)

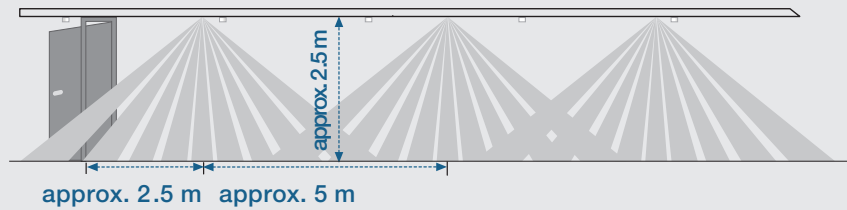


Detection cone at a workplace when mounted at 2.5 m height



Segmentation

Installation example in a corridor (operating mode = ceiling controller)

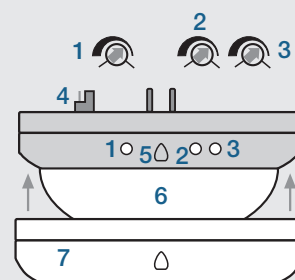


In a corridor, the detection area should be walked through primarily in a "radial" sense. The reliable detection area at ground level is still only approx. 5 m – the detection areas must overlap at that spacing!

Notes

Key

1. "Sensitivity" potentiometer
Stepless range setting between 100 % and 20 %
2. "Time" potentiometer
Adjusting the an additional transmission delay by ± 50 %
3. "Lux" potentiometer
Adjustment of software-preset twilight level
4. Physical external interface (PEI: 2 x 5-pin male connector)
5. Brightness sensor
6. Lens system for movement detection
7. Removable device cap (allows access to the potentiometer)
8. Clip-on cover (clipped on when delivered)



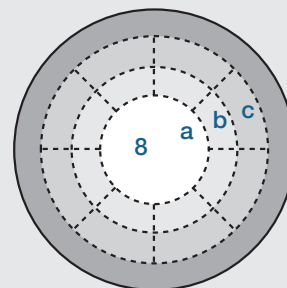
Side view

Clip-on cover/adjusting the detection area

Areas where detection is not required and sources of spurious detections can be excluded from coverage (using scissors to trim the cover along the indicated lines).

When the trimmed cover is used the diameter of the detection area at floor level changes as follows:

- Area **a** cut out: diameter approx. 2.20 m
- Areas **a** and **b** cut out: diameter approx. 4.00 m
- Areas **a**, **b** and **c** acut out: diameter approx. 6.00 m
- Clip-on cover fully removed: diameter approx. 8.00 m



Clip-on cover (plan view)



**Presence detector
comfort**

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Operation and display elements	Presence button	
	Setting knob	
	LED comfort operation	green
	LED standby operation	green
	LED night operation	green
	LED dewpoint (controller blocked)	red
	LED frost/heat protection	red
	LED operating mode cooling	blue
	LED operating mode heating	red
	LED energy demand	yellow
	Programming button	under the setting knob
Programming LED	red	
Connections	KNX/EIB	Connecting terminal
	Inputs/outputs	6pole screw terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-40 to +55 °C
Installation	e. g. deep flush-mounted box	Diameter 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	see dimensional drawings	

Information

The room thermostat with push-button interface is designed as a flush-mounted device with an integral bus coupling unit. Through the optional connection of potential-free switches and push-buttons the device makes it possible to operate all of the room functions in the door area in a cost-optimised manner.

The thermostat detects the room temperature and depending on the operating mode and the current setpoint sends a command value to the heating or cooling control on the instabus KNX/EIB. Five operating modes are available (comfort, standby, night, frost/heat protection and dewpoint operation). For the heating and cooling function, the control mode PI control (continuous or switching) or 2-point control (switching) can be selected; two-stage heating and cooling are likewise possible.

The integral push-button interface provides four independent binary inputs for control of lighting, blinds or as value transmitters. Two of these inputs can also be programmed as outputs and thus be used e. g. for activation of LED displays or electronic relays.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		Berker ARSYS	
White	7544 11 12	White, glossy.....	7544 11 52	White	7544 11 72	White	7544 11 42
Polar white	7544 11 19	Polar white, glossy..	7544 11 59	Polar white	7544 11 79	Polar white	7544 11 49
		Polar white, matt	7544 11 89	Anthracite, matt.....	7544 11 75	Light bronze, lacquered	7544 11 44
		Anthracite, matt.....	7544 11 85	Aluminium, matt	7544 11 74	Stainless steel, lacquered	7544 11 43
		Aluminium, matt	7544 11 83	Stainless steel, lacquered	7544 11 73		

Continuous controller with push-button interface 4gang 705C01**Continuous controller with push-button interface 4gang 705C11 (for ETS 3 from version d)**

- Temperature detection via internal or external sensor or mixed operation adjustable
- Temperature compensation for sensors and polling time of the external sensor and transmission behaviour adjustable for temperature values
- Operating modes comfort, standby, night, frost/heat protection mode and comfort extension can be activated through on-the-spot operation or object
- Objects for general controller status and per operating mode set
- Operating mode switch-over via value (1-byte) or switching (4 x 1-bit) adjustable
- Operating mode adjustable in preferred position or after reset
- Operating mode to extend comfort can be activated using presence button or presence object
- Presence button and setting knob can be programmed to have no functions
- Operating modes heating/cooling or heating and cooling, each with or without auxiliary step
- Continuous or switched PI control or two-point control can be set.
- Control variable objects invertible if required
- Valve protection function can be set (valve is opened cyclically every 24 hours)
- Temperature setpoints can be adjusted via software or bus (on the device)
- Setting range of the temperature setpoints to be specified via software
- Function as thermostat extension unit for other room thermostats, complete control and display at the thermostat extension unit
- Room temperature measurement possible at the extension unit
- Separate window contact object

Push-button interface**General**

- Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of four inputs
- Blocking object for blocking individual entries (polarity of the blocking object adjustable)
- Delay for bus voltage return and debounce time can be adjusted centrally
- Behaviour for bus voltage return and can be adjusted separately for each input
- Telegram rate limit can be set generally for all inputs
- Input four can also be set as an input for external temperature sensor or as a floor heating temperature limiter

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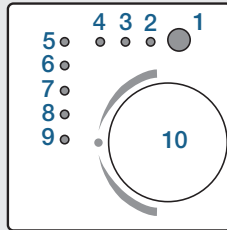
- Individual single room control
- With integral bus coupling unit
- Eight LEDs in various colours for indicating the operating mode and controller status
- Setpoint temperature adjustment via setting knob
- Presence button to extend comfort
- Programming button and programming LED accessible by pulling off the setting knob
- Integrated anti-dismantling protection



Room thermostat with push-button interface and integral bus coupling unit



ETS search path: Berker >> Heating, air conditioning, ventilation >> Controller >>



Key

1. Presence button
2. LED for night operation
3. LED for standby operation
4. LED for comfort operation
5. LED for energy demand
6. LED for operating mode heating
7. LED for operating mode cooling
8. LED for frost/heat protection
9. LED for dewpoint (controller blocked)
10. Setting knob (below which are the programming button and red LED)

Function switching	<ul style="list-style-type: none"> Two independent switching objects available for each input Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) Cyclic transmission of the switching objects can be set
Function dimming	<ul style="list-style-type: none"> One-push-button and two-push-button operation possible Time between dimming and switching and dimming increment adjustable Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> Command for rising edge (UP, DOWN, TOGGLE) and switching time between short and long-time operation adjustable Control concept adjustable Length of actuation for lamella adjustment adjustable
Functions value, temperature value, brightness value transmitter and light scene extension unit	<ul style="list-style-type: none"> Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable Value adjustment can be set using a long press on the push-button
Outputs	Output of any desired 1-bit command value of the controller or an external switching object adjustable
Objects	58
Group addresses/assignments	maximum 120 each



Room thermostat with push-button interface and integral bus coupling unit

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Operation and display elements	Programming button	under the cover
	Programming LED	red
Connections	KNX/EIB	Connecting terminal
	Inputs/outputs	6pole screw terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-40 to +55 °C
Installation	e. g. deep flush-mounted box	Diameter 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	see dimensional drawings	

Information

The object room thermostat with push-button interface is designed as a flush-mounted device with an integral bus coupling unit. The thermostat is designed without visible operation and display elements to prevent unauthorised adjustment and sabotage in public areas. Through the optional connection of potential-free switches and push-buttons it is possible to operate all of the room functions in the door area in a cost-optimised manner.

The thermostat detects the room temperature and depending on the operating mode and the current setpoint sends a command value to the heating or cooling control on the instabus KNX/EIB. Five operating modes are available (comfort, standby, night, frost/heat protection and dewpoint operation). For the heating and cooling function, the control mode PI control (continuous or switching) or 2-point control (switching) can be selected; two-stage heating and cooling are likewise possible. The integral push-button interface provides four independent binary inputs for control of lighting, blinds or as value transmitters. Two of these inputs can also be programmed as outputs and thus be used e. g. for activation of LED displays or electronic relays.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		Berker ARSYS	
White	7544 12 12	White, glossy.....	7544 12 52	White	7544 12 72	White	7544 12 42
Polar white	7544 12 19	Polar white, glossy..	7544 12 59	Polar white	7544 12 79	Polar white	7544 12 49
		Polar white, matt	7544 12 89	Anthracite, matt.....	7544 12 75	Light bronze, lacquered	7544 12 44
		Anthracite, matt.....	7544 12 85	Aluminium, matt	7544 12 74	Stainless steel, lacquered	7544 12 43
		Aluminium, matt	7544 12 83	Stainless steel, lacquered	7544 12 73		

Applications	Object controller with push-button interface 4gang 705D01	<ul style="list-style-type: none"> ■ Temperature detection via internal or external sensor or mixed operation can be set ■ Temperature compensation for sensors and polling time of the external sensor and transmission behaviour adjustable for temperature values
	Object controller with push-button interface 4gang 705D11 (for ETS 3 from version d)	<ul style="list-style-type: none"> ■ Operating modes comfort, standby, night, frost/heat protection mode and comfort extension can be activated through on-the-spot operation or object ■ Objects for general controller status and per operating mode set ■ Operating mode switching via value (1-byte) or switching (4 x 1-bit) adjustable ■ Operating mode adjustable in preferred position or after reset ■ Operating mode to extend comfort can be activated using presence button or presence object ■ Presence button and setting knob can be programmed to have no functions ■ Operating modes heating/cooling or heating and cooling, each with or without auxiliary step ■ Continuous or switched PI control or two-point control can be set. ■ Control variable objects invertible if required ■ Valve protection function can be set (valve is opened cyclically every 24 hours) ■ Temperature setpoints can be adjusted via software or bus (on the device) ■ Setting range of the temperature setpoints to be specified via software ■ Function as thermostat extension unit for other room thermostats, complete control and display at the thermostat extension unit ■ Room temperature measurement possible at the extension unit ■ Separate window contact object
	Push-button interface	
	General	■ Description of the previous device
	Function switching	■ Description of the previous device
	Function dimming	■ Description of the previous device
	Function shutter	■ Description of the previous device
	Functions value, temperature value, brightness value transmitter and light scene extension unit	■ Description of the previous device
	Outputs	■ Description of the previous device
	Objects	58
	Group addresses/assignments	maximum 120 each

- For individual single room control
- Without visible operation and display element for protection against unauthorised operation
- With integral bus coupling unit
- Programming button and programming LED accessible by pulling off the cover



Object room thermostat with push-button interface and integral bus coupling unit



ETS search path: Berker >> Heating, air conditioning, ventilation >> Controller >>

Technical data

Supply	via bus line	21–32 V DC
Inputs	Signal recognition	0–20,000 lux
	Signal duration	Continuous
Operation and display elements	Programming button	
	Programming LED	Red
Connections	RMD module	KNX/EIB via connecting terminal
	Brightness sensor	2 screw-type terminals, max. 100 m cable length
Protection	RMD module	IP 20, EN 60529
	Brightness sensor	IP 54, EN 60529
Ambient temperature range	RMD module operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	RMD module	Snap-on to top hat rail
	Brightness sensor	Fixing bracket
Mounting orientation	any	
Dimensions (WxHxD)	RMD module	86 x 35.8 x 60 mm, 2 modules
	Brightness sensor	86 x 27 x 38 mm

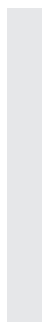
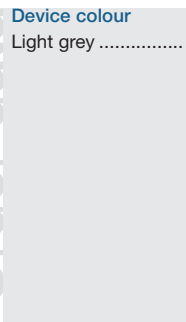
Information

The brightness sensor 3gang is executed as a top hat rail mounted device, and controls switch and/or dim actuators dependent on the ambient light. The ambient light is detected by a supplied external brightness sensor.

Depending on application, the RMD module has multiple software-programmable transmission channels. In addition, by way of a lockout object any combination of transmission channels can be temporarily disabled.

Order data

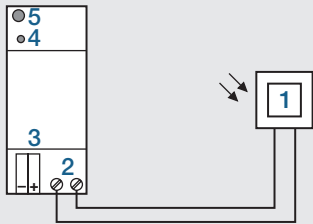
Device colour
Light grey 7521 30 06



Applications

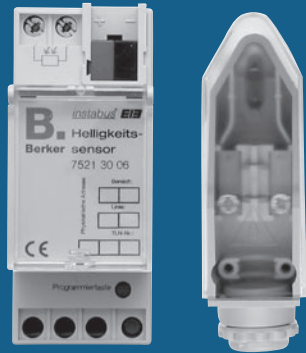
Switching, 3 limiting values 0009	<ul style="list-style-type: none"> Three separately programmable brightness limiting values (setting range: 1 to 10,000 lux) for three switching channels Switching response to infringement of lower and upper limiting values programmable Common setting of the three channels in terms of: <ul style="list-style-type: none"> cyclic transmission time delay hysteresis Activation/deactivation of any combination of the three channels
Objects	4
Group addresses/assignments	maximum of 5 each
Switching, value transmitter, 4 brightness areas 0010	<ul style="list-style-type: none"> Brightness sensor functions as a light-sensitive light scene module Setting range from 1 to 100 lux or 100 to 20,000 lux Definition of four brightness ranges based on three different brightness limiting values Each brightness range is a light scene, comprising three switch objects and one value object Delay for the switch and value telegrams programmable for each brightness range Forced guidance of each scene object
Objects	5
Group addresses/assignments	maximum of 5 each

Notes

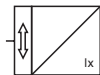


- Key**
- Brightness sensor
 - Brightness sensor connection
 - Bus connection
 - Programming LED
 - Programming button

- Three switching channels
- Lockout facility for any combination of the three channels
- Separate brightness sensor for interior and exterior (supplied)



Brightness sensor 3gang RMD



ETS search path: Berker >> Physical sensors >> Brightness >>

Technical data

Supply	via bus line	21–32 V DC
Inputs	Signal recognition	0 - 20,000 lux
	Signal duration	Continuous
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Inputs	Clip-on terminal 0.25 - 0.75 mm ² Single-wire 2 m, non-extendable
Protection	Built-in module (decoder)	---
	Brightness sensor (receiver)	IP 20, EN 60529
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Built-in module (decoder)	Fixing holes in housing base
	Brightness sensor (receiver)	Fixing hole dia. 34 mm
Mounting orientation	Built-in module (decoder)	any
	Brightness sensor (receiver)	Vertical in ceiling
Dimensions (WxHxD)	Built-in module (decoder)	274.5 x 42 x 28 mm
	Brightness sensor (receiver)	26 x 25 x 77.4 mm

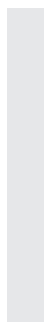
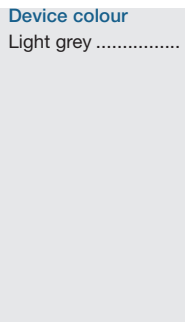
Information

The brightness sensor 1gang comprises the KNX/EIB built-in device (decoder) and the separate brightness sensor (receiver).

The decoder evaluates the detected brightness value and, depending on application, controls the lighting over the instabus KNX/EIB with the corresponding dim up or dim down command.

Order data

Device colour
Light grey 7543 10 01



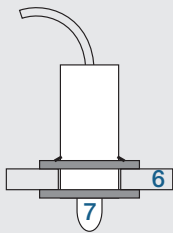
Applications

Calibration A00401	<ul style="list-style-type: none"> Only to calibrate brightness sensor during commissioning Input of current brightness value to determine result of calibration
Objects or group addresses/assignments	2 maximum of 2 each
Constant light regulation A00501	<ul style="list-style-type: none"> Transmission of 4-bit dimming telegrams to regulate the brightness target value Comparison of current and set-point values by brightness sensor Set-point value shift Transmission of cyclic dimming telegrams to adjust to the desired brightness value
Objects or group addresses/assignments	7 maximum of 15 each
Two position regulation A00601	<ul style="list-style-type: none"> Transmission of 1-bit telegram for on/off Definition of 2 brightness limiting values for on/off Definition of brightness limiting value as value transmitter (1-byte) Comparison of current value and the two set-point values Transmission of a switching telegram in event of continuous deviation; monitoring of lower limiting value for switch-on and of upper limiting value for switch-off.
Objects or group addresses/assignments	4 maximum of 15 each
Send lux value A00701	Transmission of 2-byte EIS 5 telegrams
Objects or group addresses/assignments	5 maximum of 18 each

Notes



Mounting configuration



- Key**
- 1. Brightness sensor
 - 2. Brightness sensor connection
 - 3. Programming LED
 - 4. Programming button
 - 5. Bus connection
 - 6. Intermediate ceiling
 - 7. Brightness sensor

- Constant brightness control
- Limiting value control
- Separate brightness sensor for interior (supplied)



Brightness sensor 1gang built-in



ETS search path: Berker >> Physical sensors >> Brightness >>

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	< 150 mW
Measuring range	Brightness	0 to 100 klx
	Temperature	Sensing angles: horizontal ± 60°, vertical -35 to +65° -25 to 55 °C
Operation and display elements	Programming button	
	Programming LED	Red
Terminals	KNX/EIB	Terminals
Protection	IP 54, EN 60529	when mounted vertically with cover
Ambient temperature range	Operation	-25 to +55 °C
	Storage/transport	-25 to +70 °C
Mode of fixing	Surface-mounted on wall	Use installation bracket
Mounting orientation	vertical	
Weight	approx. 140 g	
Dimensions (W x H x D)	72 x 110 x 54 mm	

Information

The sensor is designed as a surface-mounted device, and can detect brightness and temperature values. These values are transmitted to the bus as telegrams, e.g. in order to depict them graphically. The sensor also has four channels with one limit value switch each for linking the values that are used to control switch, dimmer and shutter actuators.

Also available is a sun protection channel with 3 limit values that can be used to control the height and lamella position of shading systems. This can be employed, for example, for integration into the awning, conservatory and greenhouse controllers.

Order data

Device colour	
White	7549 20 02

Applications

4 x brightness/temperature, 1 x sun shading

- Transmission of brightness and temperature values cyclically or when changed
- Comparison value for temperature detection adjustable
- Function selection for each channel as brightness or temperature sensor or universal channel with AND operation of brightness/temperature
- Separate teaching object for brightness limit value for each brightness/universal channel
- Brightness and temperature limit values selectable with fine adjustments within the measurement range
- Brightness/temperature-dependent switching, priority and value transmitter adjustable for each channel
- Two objects per channel – first and second telegram can be set separately
- Sun protection channel with twilight limit value and three brightness limit values
- Activation/deactivation of the sun shading via twilight limit value
- Operating modes shutter, roller blind, value transmitter or scene control for sun protection channel adjustable
- For each brightness limit value of the sun shading channel, the lamella position, drive height, value or scene is adjustable
- Blocking of each channel via object

Objects	27
Group addresses/assignments	maximum 108 each

Notes

Selection of mounting location

Please note the following:

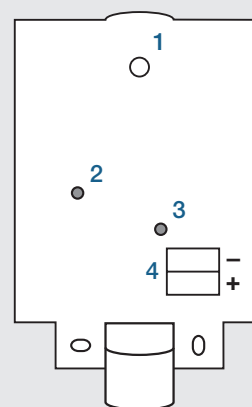
- Direct sunlight can affect the temperature reading.
- A dirty cover will affect the brightness reading. Whenever possible, select a mounting position where the sensor is not exposed to dirt.

Care

To remove dirt, clean the cover occasionally with a damp cloth.

Key

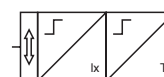
1. Sensor aperture
2. Programming LED
3. Programming button
4. Bus connection



- Sensing ambient brightness and temperature
- Activation of switch, dimmer or shutter actuators
- Brightness and temperature-dependent switching and valuator device
- Several limit switches for brightness, temperature and shading
- Constant light control
- Surface-mounted device for external mounting



Brightness and temperature sensor



ETS search path: Berker >> Physical sensors >> Brightness/temperature>>

Technical data

Supply	via bus line	21–32 V DC
Inputs	4	
	Signal voltage	110 - 230 V AC, ±10 %, 50/60 Hz
	“0” signal	0 - 70 V AC
	“1” signal	> 90 V AC
	Signal current	approx. 7 mA at 230 V AC per input
	Signal duration	$T_{min} = 200$ ms at pulse-pause ratio 1:1
	Power consumption per channel	approx. 1.6 VA at 230 V AC per input
Behaviour on power failure/restoration	Length of input cable	max. 100 m (unshielded)
	Bus power failure	---
	Bus power failure	Falling edge detected, software-dependent
	Bus and mains power failure	---
	Bus power restoration	Software-dependent
	Mains power restoration	Rising edge detected, software-dependent
Operation and display elements	Bus and mains power restoration	Software-dependent
	Programming button	Red
	Programming LED	Yellow
	4 status LEDs	
Terminals	KNX/EIB	Terminals
	Inputs	Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 58 mm	2 modules

Information

The binary input 4gang is executed as a top hat rail mounted device. It detects the presence of or change in the 230 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The four inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

Order data

Device colour	
Light grey	7521 40 08

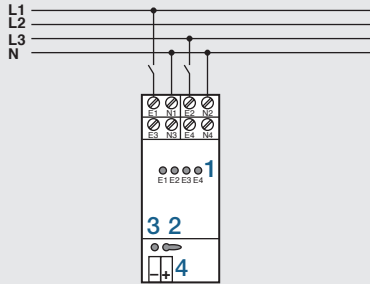
Applications

Universal input 705502	<ul style="list-style-type: none"> Free assignment of the functions switch, dim, shutter, value transmitter to the four 4 inputs Locking out the individual inputs using object Delay on bus power restoration and de-bounce time centrally configurable Behaviour on bus power restoration configurable separately for each input Telegram rate limitation configurable globally for all inputs Free assignment of the functions "pulse counter" and "switching counter" to inputs 1 and 2 (if "pulse counter", inputs 3, 4 then reserved for synchronising signal)
Switching	<ul style="list-style-type: none"> Two independent switch objects for each input enabled individually Command independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function) Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value
Dimming	<ul style="list-style-type: none"> Single surface or two-surface operation possible Time between dimmer and switch function and dimming step width configurable Optional telegram repetition and transmission of a stop telegram
Shutter	<ul style="list-style-type: none"> Command configurable on rising edge (UP, DOWN, TOGGLE, no function) Operating concept parameterizable (step and move operation) Slat adjustment time configurable
Value transmitters	<ul style="list-style-type: none"> Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitter Edge (button as normally-open, button as normally-closed, switches) and value at edge configurable Values can be set using the button by pressing the button for a long period Light scene extension units with memory function allow the scene to be saved without previously retrieving it
Objects or group addresses/assignments	12 maximum26/maximum 27

Notes

IMPORTANT

The reference potential N must be connected separately for each input.
Different phases can be connected.



Key

- Status LED
- Programming button
- Programming LED
- Bus connection

- Four independent 230 V AC inputs
- Different phases can be connected
- Simultaneous application of signal voltage to all inputs
- Four status LEDs to indicate input states



Binary input 4gang 230 V AC



ETS search path: Berker >> Inputs >> Binary input, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Inputs	6	
	Signal voltage	8–42 V AC/DC, 50/60 Hz
	“0” signal	0 to 1.8 V AC, -42 to 1.8 V DC
	“1” signal	> 8 V AC/DC
	Signal current	approx. 4 mA at 24 V AC/DC per input
	Signal duration	$T_{min} = 200$ ms at pulse-pause ratio 1:1
	Power consumption per channel	approx. 100 mW at 24 V AC/DC per input
Behaviour on power failure/restoration	Length of input cable	max. 100 m (unshielded)
	Bus power failure	---
	Bus power failure	Falling edge detected, software-dependent
	Bus and mains power failure	---
	Bus power restoration	Software-dependent
	Mains power restoration	Rising edge detected, software-dependent
Operation and display elements	Bus and mains power restoration	Software-dependent
	Programming button	
	Programming LED	red
	6 status LEDs	yellow
Terminals	KNX/EIB	Terminals
	Inputs	Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	35 x 90 x 58 mm	2 modules

Information

The binary input 6gang is executed as a top hat rail mounted device. It detects the presence of or change in the 24 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The six inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

Order data

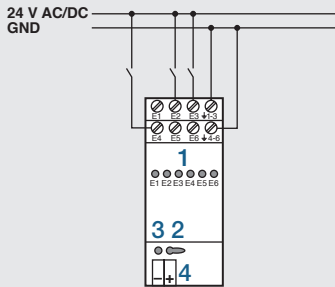
Device colour	
Light grey	7521 60 01

Applications

Universal input 705602	<ul style="list-style-type: none"> Free assignment of the functions switch, dim, shutter, value transmitter to the four 6 inputs Locking out the individual inputs using object Delay on bus power restoration and de-bounce time centrally configurable Behaviour on bus power restoration configurable separately for each input Telegram rate limitation configurable globally for all inputs Free assignment of the functions "pulse counter" and "switching counter" to inputs 1 and 2 (if "pulse counter", inputs 3, 4 then reserved for synchronising signal)
Switching	<ul style="list-style-type: none"> Two independent switch objects for each input enabled individually Command independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function) Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value
Dimming	<ul style="list-style-type: none"> Single surface or two-surface operation possible Time between dimmer and switch function and dimming step width configurable Optional telegram repetition and transmission of a stop telegram
Shutter	<ul style="list-style-type: none"> Command configurable on rising edge (UP, DOWN, TOGGLE, no function) Operating concept parameterizable (step and move operation) Slat adjustment time configurable
Value transmitters	<ul style="list-style-type: none"> Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitter Edge (button as normally-open, button as normally-closed, switches) and value at edge configurable Values can be set using the button by pressing the button for a long period Light scene extension units with memory function allow the scene to be saved without previously retrieving it
Objects; group addresses/assignments	18; maximum 26/maximum 27

Notes

IMPORTANT
Inputs 1–3 and 4–6 each have a common reference potential.



- Key**
1. Status LED
 2. Programming button
 3. Programming LED
 4. Bus connection

- Six independent 24 V AC/DC inputs
- A separate reference potential (GND) for each three inputs
- Simultaneous application of signal voltage to all inputs
- Six status LEDs to indicate input states



**Binary input 6gang
24V AC/DC**



ETS search path: Berker >> Inputs >> Binary input, 6gang >>

Technical data

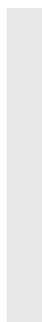
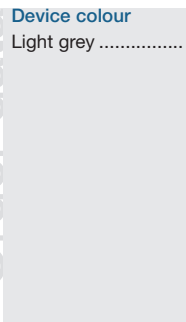
Supply	via bus line	21–32 V DC
Inputs	8	
	Signal voltage	110–230 V AC, ±10 %, 50/60 Hz
	“0” signal	0–70 V AC
	“1” signal	> 90 V AC
	Signal current	approx. 7 mA at 230 V AC per input
	Signal duration	$T_{min} = 200$ ms at pulse-pause ratio 1:1
	Power consumption per channel	approx. 1.6 VA at 230 V AC per input
Behaviour on power failure/restoration	Length of input cable	max. 100 m (unshielded)
	Bus power failure	---
	Bus power failure	Falling edge detected, software-dependent
	Bus and mains power failure	---
	Bus power restoration	Software-dependent
	Mains power restoration	Rising edge detected, software-dependent
Operation and display elements	Bus and mains power restoration	Software-dependent
	Programming button	red
	Programming LED	yellow
	8 status LEDs	yellow
Terminals	KNX/EIB	Terminals
	Inputs	Terminals with wire protection: 0.75–4 mm ² solid, 0.75–4 mm ² fine wire without end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Snap-on to top hat rail	
Mounting orientation	any	
Dimensions (WxHxD)	70 x 90 x 58 mm	4 modules

Information

The binary input 8gang is executed as a top hat rail mounted device. It detects the presence of or change in the 230 V voltage signals at its input terminals (e.g. from conventional switches, auxiliary contacts, door and window contacts) and, depending on the chosen programming, sends telegrams over the instabus KNX/EIB. The eight inputs can be assigned different functions independently of each other. Each input is provided with an LED, which indicates the status of the associated contact. Inputs can be individually locked out.

Order data

Device colour
Light grey 7521 80 01



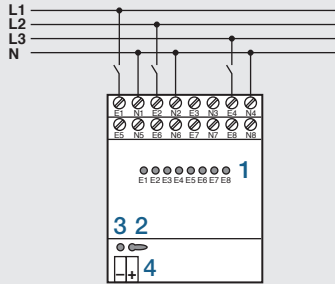
Applications

Universal input 705402	<ul style="list-style-type: none"> Free assignment of the functions switch, dim, shutter, value transmitter to the four 4 inputs Locking out the individual inputs using object Delay on bus power restoration and de-bounce time centrally configurable Behaviour on bus power restoration configurable separately for each input Telegram rate limitation configurable globally for all inputs Free assignment of the functions "pulse counter" and "switching counter" to inputs 1 and 2 (if "pulse counter", inputs 3, 4 then reserved for synchronising signal)
Switching	<ul style="list-style-type: none"> Two independent switch objects for each input enabled individually Command independently configurable on rising or falling edge (ON, OFF, TOGGLE, no function) Independent cyclical transmission of the switched object can be selected to be dependent on the signal edge or dependent on the object value
Dimming	<ul style="list-style-type: none"> Single surface or two-surface operation possible Time between dimmer and switch function and dimming step width configurable Optional telegram repetition and transmission of a stop telegram
Shutter	<ul style="list-style-type: none"> Command configurable on rising edge (UP, DOWN, TOGGLE, no function) Operating concept parameterizable (step and move operation) Slat adjustment time configurable
Value transmitters	<ul style="list-style-type: none"> Function as dimmer value transmitter, light scene retrieval, temperature value transmitter, brightness value transmitter Edge (button as normally-open, button as normally-closed, switches) and value at edge configurable Values can be set using the button by pressing the button for a long period Light scene extension units with memory function allow the scene to be saved without previously retrieving it
Objects; group addresses/assignments	24; maximum 26/maximum 27

Notes

IMPORTANT

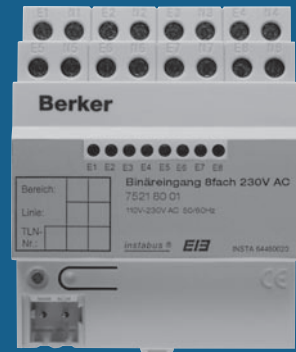
The reference potential N must be connected separately for each input. Different phases can be connected.



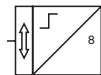
Key

1. Status LED
2. Programming button
3. Programming LED
4. Bus connection

- Eight independent 230 V AC inputs
- Different phases can be connected
- Simultaneous application of signal voltage to all inputs
- Eight status LEDs to indicate input states



Binary input 8gang 230 V



ETS search path: Berker >> Input >> Binary input, 8gang >>

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
Inputs	Number	max. 2
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Parallel circuit	in total 1.5 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Response to power failure/restoration	Bus power failure	no response (outputs switch off)
	Mains power failure	---
	Bus and mains power failure	---
	Bus power restoration	programmable for inputs and outputs
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminals
	Inputs/outputs	Pre-assembled connecting cables
Protection	IP 20, EN 60529	
	Protection class	III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	e. g. deep flush-mounted box	diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	43 x 28.5 x 15.5 mm	

Information

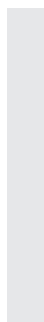
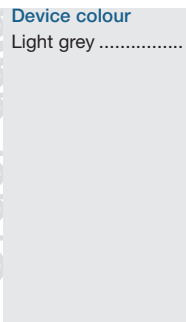
The universal interface 2gang comfort is designed as a flush-mounted device and has two independent channels. This means that the push-button interface can read in two push-button/switching statuses potential-free at a common reference potential and transit the appropriate telegrams to the instabus.

If programmed appropriately, the channels can also operate as independent outputs and control LEDs as status LEDs for example. To raise the output current (cf. technical data), these channels can also be connected in parallel if they have the same parameters.

The outputs are short-circuit-proof, and protected against overload and polarity reversal.

Order data

Device colour
Light grey 7564 20 01



Applications

2 inputs, 2 outputs 705801	
General	<ul style="list-style-type: none"> ■ Free assignment of the switch, dim, shutter and value transmitter functions to the max. two inputs ■ Free assignment of the "Pulse meter" and "Switching Meter" functions to inputs 1 and 2 ■ Blocking object for blocking individual inputs (polarity of the blocking object is programmable) ■ Delay in event of bus power restoration and de-bounce time centrally programmable ■ Response to bus power restoration programmable separately for each input ■ Telegram rate limitation programmable globally for all inputs
Switching function	<ul style="list-style-type: none"> ■ Two independent switching objects available for every input ■ Command in event of rising or falling flank independently programmable (ON, OFF, TOGGLE, no function) ■ Cyclical transmission of the switching objects programmable
Dimming function	<ul style="list-style-type: none"> ■ Single surface and two-surface operation possible ■ Time between dimmer and switch function and dimming step width programmable ■ Telegram repetition and Stop telegram transmission possible
Shutter function	<ul style="list-style-type: none"> ■ Command in event of rising edge (UP, DOWN, TOGGLE) and switchover time between step and move operation programmable ■ Operating concept programmable ■ Operation period for lamella shutter adjustment programmable
Value, temperature and brightness value transmitter function and light scene extension	<ul style="list-style-type: none"> ■ Edge (button as normally-open, button as normally-closed, switches) and value at edge programmable ■ Value can be changed by pressing and holding the push-button
Outputs	<ul style="list-style-type: none"> ■ Independent outputs programmable as NO (normally open) or NC (normally closed) contacts ■ Preferred location programmable on restoration of bus voltage ■ One switching status report and one additional function possible for each output ■ Programmable additional functions: logic operation function with three logical parameters, lock-out / forced positioning function ■ On and/or Off delay or time switch function programmable for each output separately ■ Flashing output signal programmable (flashing frequency in three stages)
Objects	24
Group addresses/assignments	26/27

Continued on next double page ►

- Assembly possible in a deep flush-mounted box behind installation switches
- 2 potential-free inputs
- Channels can be used as outputs
- Input and output functions can be combined
- Short-circuit-proof
- Reverse polarity protection



Universal interface 2gang comfort



ETS search path: Berker >> Input >> Universal >>



Notes

IMPORTANT

Only connect potential-free switches and push-buttons.

Hardware

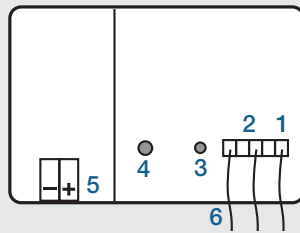
To avoid electromagnetic interference, the cables of the inputs should not be laid parallel to live cables carrying mains power.

The connection of 230 V signals or other external voltages to the inputs is not permitted.

The voltage potentials of the connecting cables for the contacts and the LED are **not** electrically isolated from the bus voltage.

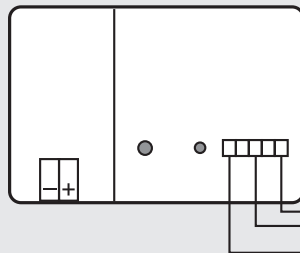
Connection diagrams/terminal assignment

The colour of the cable for the reference potential is grey.

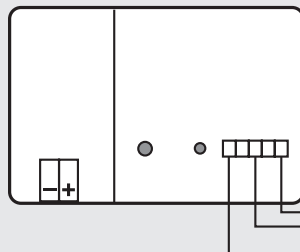


Key

- 1. Reference potential (grey)
- 2. Channels 1 and 2
- 3. Programming LED
- 4. Programming button
- 5. Bus connection
- 6. Connecting cables



Use as 2 x inputs



1 x input and 1 x output



**Universal interface
2gang comfort**

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
Inputs	Number	max. 4
	Cable length	≤ 5 m
	Scanning voltage	Continuous signal
Outputs	Number	max. 2
	Cable length	≤ 5 m
	Output current	max. 0.8 mA
	Parallel circuit	in total 1.5 mA
	Output voltage	typ. 1.5 V (5 V with open output)
Response to power failure/restoration	Bus power failure	no response (outputs switch off)
	Mains power failure	---
	Bus and mains power failure	---
	Bus power restoration	programmable for inputs and outputs
	Mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminals
	Inputs/outputs	Pre-assembled connecting cables
Protection	IP 20, EN 60529	
	Protection class	III
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Assembly	e.g. deep flush-mounted box	diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	43 x 28.5 x 15.5 mm	

Information

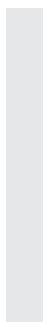
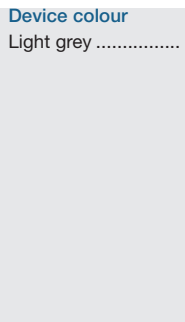
The universal interface 4gang comfort is designed as a flush-mounted device and has four independent channels. This means that the push-button interface can read in up to four push-button / switching statuses potential-free at a common reference potential and transit the appropriate telegrams to the instabus.

If programmed appropriately, channels 1 and 2 can also operate as independent outputs and activate LEDs as status LEDs for example. To raise the output current (cf. technical data), these channels can also be connected in parallel if they have the same parameters.

The outputs are short-circuit-proof, and protected against overload and polarity reversal.

Order data

Device colour
Light grey 7564 40 01

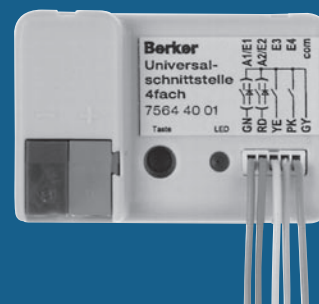


Applications

4 inputs, 2 outputs 705701	
General	<ul style="list-style-type: none"> ■ Free assignment of the switch, dim, shutter and value transmitter functions to the max. four inputs ■ Free assignment of the "Pulse meter" and "Switching Meter" functions to inputs 1 and 2 ■ Blocking object for blocking individual inputs (polarity of the blocking object is programmable) ■ Delay in event of bus power restoration and de-bounce time centrally programmable ■ Response to bus power restoration programmable separately for each input ■ Telegram rate limitation programmable globally for all inputs
Switching function	<ul style="list-style-type: none"> ■ Two independent switching objects available for every input ■ Command in event of rising or falling flank independently programmable (ON, OFF, TOGGLE, no function) ■ Cyclical transmission of the switching objects programmable
Dimming function	<ul style="list-style-type: none"> ■ Single surface and two-surface operation possible ■ Time between dimmer and switch function and dimming step width programmable ■ Telegram repetition and Stop telegram transmission possible
Shutter function	<ul style="list-style-type: none"> ■ Command in event of rising edge (UP, DOWN, TOGGLE) and switchover time between step and move operation programmable ■ Operating concept programmable ■ Operation period for lamella shutter adjustment programmable
Value, temperature and brightness transmitter function and light scene extension	<ul style="list-style-type: none"> ■ Edge (button as normally-open, button as normally-closed, switches) and value at edge programmable ■ Value can be changed by pressing and holding the push-button
Outputs	<ul style="list-style-type: none"> ■ Independent outputs programmable as NO (normally open) or NC (normally closed) contacts ■ Preferred location programmable on restoration of bus voltage ■ One switching status report and one additional function possible for each output ■ Programmable additional functions: <ul style="list-style-type: none"> logic operation function with three logical parameters, lock-out / forced positioning function ■ On and/or Off delay or time switch function programmable for each output separately ■ Flashing output signal programmable (flashing frequency in three stages)
Objects	24
Group addresses/assignments	26/27

Continued on next double page ►

- Assembly possible in a deep flush-mounted box behind installation switches
- Four potential-free inputs
- Channels 1 and 2 can be used as outputs
- Input and output functions can be combined
- Short-circuit-proof
- Reverse polarity protection



Universal interface 4gang comfort



ETS search path: Berker >> Input >> Universal >>



IMPORTANT

Only connect potential-free switches and push-buttons.

Hardware

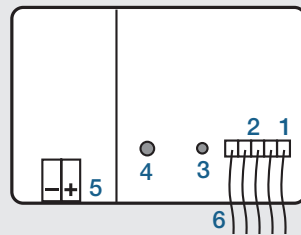
To avoid electromagnetic interference, the cables of the inputs should not be laid parallel to live cables carrying mains power.

The connection of 230 V signals or other external voltages to the inputs is not permitted.

The voltage potentials of the connecting cables for the contacts and the LED are not electrically isolated from the bus voltage.

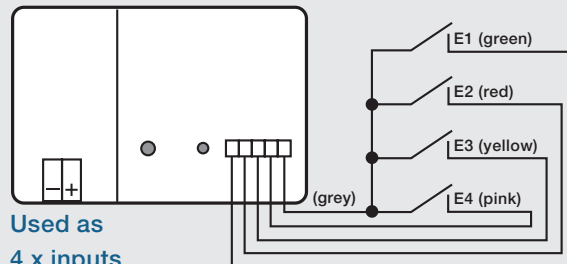
Connection diagrams/terminal assignment

The colour of the cable for the reference potential is grey.

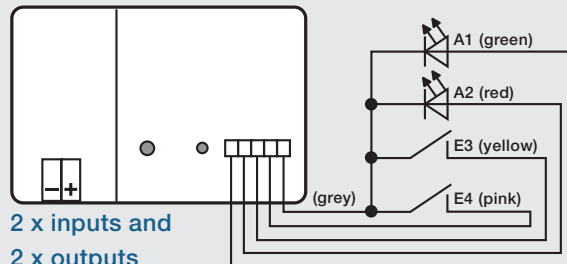


Key

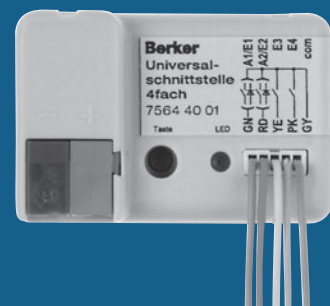
1. Reference potential (grey)
2. Channels 1 to 4
3. Programming LED
4. Programming button
5. Bus connection
6. Connecting cables



Used as
4 x inputs



2 x inputs and
2 x outputs



**Universal interface
4gang comfort**

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 8/4 (depending on application)
	Cable length	≥ 10 m
	Scanning voltage	20 V pulses, 2 ms long, cyclic every 60 ms
Outputs	Number	max. 8/4 (depending on application)
	Cable length	10 m
	Output current	0.8 mA (constant) each output
Response to power failure/restoration	Bus power failure	No response
	Mains power failure	---
	Bus power restoration	All object values of the outputs are cleared
	Mains power restoration	---
	Bus and mains power restoration	---
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Inputs/outputs	2 x 5-pin screw-terminal connector blocks
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	e.g. deep UP socket	Diameter 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	44 x 48 x 32 mm	

Information

The universal interface comfort 8gang is executed as a flush-mounted device. It has eight channels which, depending on the loaded application, operate all as inputs or outputs or as a combination of the two (four inputs/four outputs).

The device can operate up to eight LEDs, for example, by way of its independent outputs, or poll up to eight potential-free push-buttons via its inputs and send telegrams over the instabus KNX/EIB accordingly. The outputs are short-circuit-proof, and protected against overload and polarity reversal.

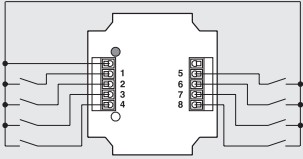
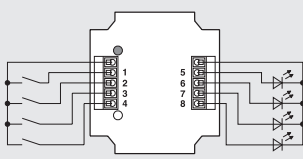
To avoid electromagnetic interference, the cables of the inputs should not be laid parallel to live cables carrying mains power.

Interference voltages must not be connected to the inputs.

Order data

Device colour	
Black	7564 80 01

Applications	General features	<ul style="list-style-type: none"> Free assignment of the Switching/Toggle, Dimming, Shutter, Value transmitter/light scene extension, Forced guidance and Control functions 	
	Switching/toggle function	<ul style="list-style-type: none"> Command programmable on rising or falling edge (ON, OFF, TOGGLE, no function) Cyclic transmission 	
	Dimming function	<ul style="list-style-type: none"> Single or two-area (one push-button or two push-buttons) operation programmable Switchover time between dimmer and switch function and dimming step width programmable Telegram repetition and transmission of a stop telegram 	
	Shutter function	<ul style="list-style-type: none"> Touch function (UP, DOWN) and switchover time between step and move operation programmable Operation period for shutter lamella adjustment programmable 	
	Value transmitter/light scene extension function	<ul style="list-style-type: none"> Switch between 1-byte value transmitter or light scene retrieval with/without memory function programmable Value adjustment by "long button press" programmable 	
	Forced guidance function	<ul style="list-style-type: none"> Command programmable on rising and falling edge 	
4 inputs 4 outputs, 8 outputs 704001			
Objects or group addresses/assignments	18		maximum of 26 each
8 inputs 704101			
	<ul style="list-style-type: none"> Eight potential-free binary inputs 4-digit level switch code freely selectable 		<ul style="list-style-type: none"> 2 user levels programmable
Objects or group addresses/assignments	18		maximum of 26 each

Notes	IMPORTANT	IMPORTANT
	Connect only potential-free switches and push-buttons!	Connect only potential-free switches and push-buttons. Pay attention to reference potentials of the inputs and outputs!
	 <p>8 inputs</p>	 <p>4 inputs and 4 outputs</p>

- Inputs potential-free
- Optionally programmable
 - Eight inputs
 - Four inputs and 4 outputs
 - Eight outputs
- Short-circuit-proof
- Reverse polarity protection



Universal interface 8gang comfort flush-mounted



ETS search path: Berker >> Input >> Binary input universal >>

Technical data

Supply	via bus line	21–32 V DC
Timer	Channels	2
	Memory locations	36
	Automatic program	Day and week program
	Special program	Interruption of automatic program from 1 to 99 days
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1s per day at 20 °C
	Reserve	> 6 years with indicator
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Operation and display elements	7 jog buttons	Time setting, program input and 2 hand switches
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	35.8 x 45 x 60 mm	2 modules

Information

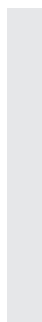
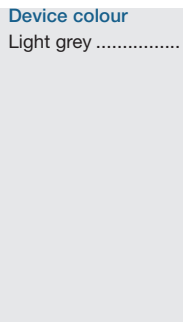
The time switch (weekly) 2gang is a top hat rail mounted device with integral bus coupling unit. The connection to the KNX/EIB is made via a terminal.

The timer offers 36 switching times, programmable by customized block formation on one day, several days or every day of the week.

Ex factory the device is preprogrammed with the current time and for automatic Summer/Winter time switching (according to Central European practice). If a different time configuration, or no time switching, is required, the setup can be reprogrammed as set out in the operating instructions.

Order data

Device colour
Light grey 7521 20 06



Applications

Switching, value transmitter, forced guidance	<ul style="list-style-type: none"> ■ Selection of telegram type for the two channels as follows: <ul style="list-style-type: none"> - Switching telegram (1-bit) - Forced guidance telegram (2-bit) - Value telegram (8-bit) - Cyclic transmission ■ Implementation of one scene per channel with up to four different telegram types In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time. ■ "Lock object" (telegram suppression) programmable for each channel 			
	<table border="1"> <tr> <td>Objects</td> <td>9</td> </tr> <tr> <td>Group addresses/assignments</td> <td>maximum of 11 each</td> </tr> </table>	Objects	9	Group addresses/assignments
Objects	9			
Group addresses/assignments	maximum of 11 each			


Notes

1	+
2	
3	•••••
4	•
5	•

Key

1. Bus connection
2. Display
3. User buttons
4. Programming button
5. Programming LED

- Two independent channels
- Switching, value and forced guidance telegrams
- Time preprogrammed
- Automatic Summer/Winter time switching
- Transmission of up to four telegrams per channel
- Storage of 36 switching times



**Time switch (weekly)
2gang**



ETS search path: Berker >> Timer >> Time switch >>

Technical data

Supply	via bus line	21–32 V DC
Timer	Channels	4
	Memory locations	324
	Automatic program	Day, week and year program
	Special program	9 priority programs Public holiday programs
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1 sec/day
	Reserve	> 1.5 years with indication
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Operation and display elements	15 jog buttons	Time setting, program input and 2 hand switches
	Programming button Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	105 x 45 x 60 mm	6 modules

Information

The time switch (annual) 4gang is a top hat rail mounted device. The connection to the instabus KNX/EIB is made via a terminal.

The time switch offers 324 switching times for selectable day, week and date commands, pulse commands, priority switching times, as well as one-off configurations for public holidays and vacation periods. For each channel, in addition to the standard week program nine further week programs with priority levels P1 to P9 and time-limited continuous operation can be programmed. The period covered by a priority program is defined by input of a start and end date.

The OBELISK memory card is programmed by means of the programming set. After programming, the memory card is slotted into the time switch (annual) and all relevant data are then transferred.

Ex factory the device is preprogrammed with the current time and for automatic Summer/Winter time switching.

Order data

Device colour		Accessories	
Light grey	7521 40 07	Programming set for OBELISK	7590 00 48
		OBELISK memory card	7590 00 49

Applications

Switching, value transmitter, forced guidance	<ul style="list-style-type: none"> ■ Selection of telegram type for the four channels as follows: <ul style="list-style-type: none"> - Switching telegram (1-bit) - Forced guidance telegram (2-bit) - Value telegram (8-bit) - Cyclic transmission ■ With channel 4 implementation of a scene with up to four different telegram types possible In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time.
Objects	8
Group addresses/assignments	maximum of 10 each

Switching, value transmitter, time and date transmission	■ see description of the next product
---	---------------------------------------

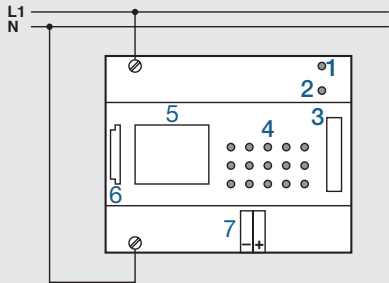
Switching, value transmitter, time and date reception	■ see description of the next product
--	---------------------------------------

Notes

IMPORTANT
The applications of the time switch (annual) 4gang DCF (next product 7521 40 06) are used!



OBELISK memory card

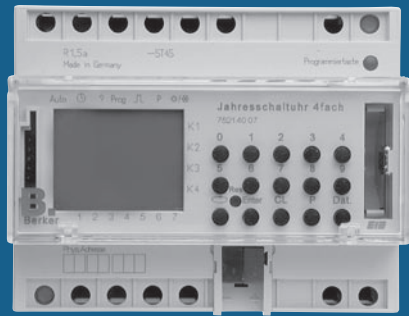


- Key**
1. Programming LED
 2. Programming button
 3. Emergency power battery
 4. User buttons
 5. Display
 6. OBELISK slot
 7. Bus connection

- Four independent channels
- Switching, value and forced guidance telegrams
- Summer/Winter time switching
- 324 switching times
- Nine priority programs
- Random functions
- Setting of switching times by programming set possible
- Transfer to time switch by OBELISK memory card



Programming set for OBELISK




Time switch (annual) 4gang



ETS search path: Berker >> Timer >> Time switch >>

Technical data

Supply	via bus line	21–32 V DC
Timer	Channels	4
	Memory locations	324
	Automatic program	Day, week and year program
	Special program	9 priority programs Public holiday programs
	Shortest switching interval	1 minute
	Switching accuracy	1 second
	Summer/Winter time switching	automatic
	Accuracy	< 1 sec/day or radio-controlled
	Reserve	> 1.5 years with indication
	Manual operation	Temporary/permanent manual operation
Display	LCD display	
Inputs	DCF receiver	
Operation and display elements	15 jog buttons	Time setting, program input and 2 hand switches
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	105 x 86 x 60 mm	6 modules

Continued on next double page 

Information

The time switch (annual) 4gang is a top hat rail mounted device. The connection to the instabus KNX/EIB is made via a terminal.

The device switch is prepared for connection of the DCF receiver.

The time switch offers 324 switching times for selectable day, week and date commands, pulse commands, priority switching times, as well as one-off configurations for public holidays and vacation periods. For each channel, in addition to the standard week program nine further week programs with priority levels P1 to P9 and time-limited continuous operation can be programmed. The period covered by a priority program is defined by input of a start and end date.

The OBELISK memory card is programmed by means of the programming set. After programming, the memory card is slotted into the time switch (annual) and all relevant data are then transferred.

The device is preprogrammed with the current time and for automatic Summer/Winter time switching.

Order data

Device colour		Accessories	
Light grey	7521 40 06	DCF receiver	7590 00 47
		Programming set for OBELISK	7590 00 48
		OBELISK memory card	7590 00 49

Applications

Switching, value transmitter, forced guidance	<ul style="list-style-type: none"> ■ Selection of telegram type for the four channels as follows: <ul style="list-style-type: none"> - Switching telegram (1-bit) - Forced guidance telegram (2-bit) - Value telegram (8-bit) - Cyclic transmission ■ With channel 4 implementation of a scene with up to four different telegram types possible In this way, different types of actuators or actuator groups (switch/dim/shutter actuators) can be operated at one switching time.
Objects	8
Group addresses/assignments	maximum of 10 each

Switching, value transmitter, time and date transmission	<ul style="list-style-type: none"> ■ Selection of telegram type for the four channels as follows: <ul style="list-style-type: none"> - Switching telegram (1-bit) - Forced guidance telegram (2-bit)
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Continued on next double page ►

Notes



DCF receiver

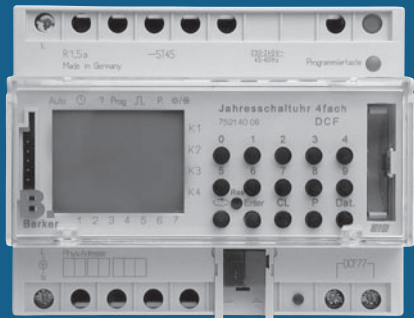


Programming set for OBELISK

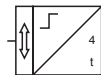


OBELISK memory card

- Four independent channels
- Switching, value and forced guidance telegrams
- Summer/Winter time switching
- 324 non-erasable switching times
- Nine priority programs
- Random functions
- Connection for DCF receiver
- Setting of switching times by programming set possible
- Transfer to time switch by OBELISK memory card



**Time switch (annual)
4gang DCF**



ETS search path: Berker >> Timer >>
Time switch >>

Technical data ▼

DCF receiver		
Supply	via time switch (annual) 4gang DCF	
Display	Function LED	Flashing once per second
Outputs	DCF 77	
	Connecting cable	e.g. NYM 3 x 1.5 mm ² , max. 100 m
Reception range	1500 km around Frankfurt/Main, Germany	
Protection	IP 54, EN 60529	
Ambient temperature range	Operation	-20 to +70 °C
	Storage/transportation	-25 to +70 °C
Mounting	Surface-mounted	Wall bracket, screw fixing (supplied)
Mounting orientation	Arrow pointing toward Frankfurt/Main, Germany	
Dimensions (WxHxD)	98 x 64 x 34 mm	

Information

Mount the DCF receiver with the supplied mounting bracket at a location which permits it to be simply aligned toward Frankfurt/Main, Germany.

In selection of the mounting location, avoid close proximity to TV sets, power packs, radio signal transmitters or large metallic objects.

Connect the DCF receiver's lead to the screw terminals provided (see diagram at right, item 7). When you activate the year timer, the reception LED assigned to the DCF receiver begins to flash. Align the DCF receiver so it flashes at a frequency of once per second.

Applications

Switching, value transmitter, time and date transmission (continued)

- Dimmer/value telegram (8-bit)
- Cyclic transmission
- Transmission of date and time per minute, per hour, per day or on request

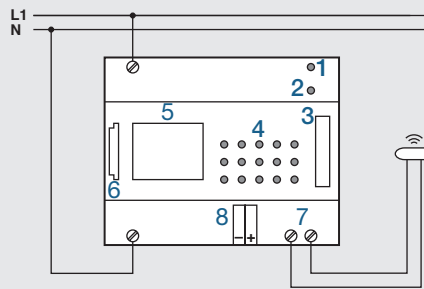
Objects	7
Group addresses/assignments	maximum of 8 each

Switching, value transmitter, temperature, time and date reception

- Selection of telegram type for the four channels as follows:
 - Switching telegram (1-bit)
 - Forced guidance telegram (2-bit)
 - Dimmer/value telegram (8-bit)
 - Temperature telegram (16-bit)
 - Any telegram in EIS 5 format (16-bit)
 - Cyclic transmission
 - Synchronization/setting of time by reception of time and date telegram

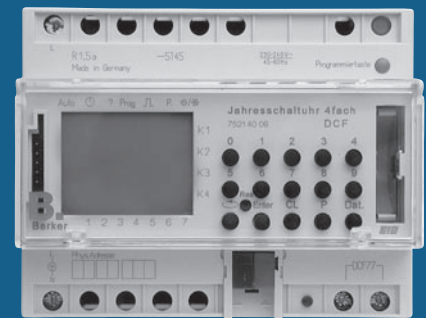
Objects	6
Group addresses/assignments	maximum of 8 each

Notes



Key

1. Programming LED
2. Programming button
3. Emergency power battery
4. User buttons
5. Display
6. OBELISK slot
7. DCF receiver connection
8. Bus connection



**Time switch (annual)
4gang DCF**

Technical data

Supply	via bus line	21–32 V DC
Input	DCF receivers	Max. cable length 100 m
Clock	Internal quartz time basis	
	Time deviation	1 s/d without DCF
	Power reserve	10 years (lithium battery)
Operation and display elements	Programming button	
	Programming LED	red
	DCF status LED	red
Connections	KNX/EIB	Connecting terminal
	Input	Screw terminal with wire protection
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-10 to +50 °C
	Storage/transport	-25 to +70 °C
Installation	Snap onto top hat rail	
Mounting orientation	as desired	
Dimensions (W x H x D)	36 x 90 x 66 mm	2 modules

Information

The time transmitter RMD is designed as a top hat rail mounted device.

The time transmitter has a quartz movement and transmits the time and date to the bus. Either the time can be set via the bus or it can be synchronised with the DCF signal. The time transmitter has an automatic summer/winter time change-over that can also be switched off. This way the time transmitter is also suitable for use as a clock for shade systems with sun level calculation.

Order data

Device colour		Accessories	
Light grey	7591 00 02	DCF receivers.....	7590 00 47

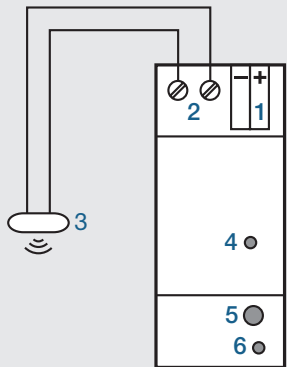
Applications

Time transmitter RMD V1.0 705B	<ul style="list-style-type: none"> ■ Transmission of time and date only on request or cyclically (interval adjustable) ■ Time zone for summer/winter time change-over can be adjusted flexibly ■ Time correction for quartz time adjustable ■ Rules for summer time change-over can be adjusted by the user ■ Time and the date object can be read out directly, e. g. via display
Objects	3
Group addresses/assignments	maximum 8 each

Notes

The time is set at the factory, and the time transmitter is thus ready for operation immediately once the group addresses are assigned. Use poled DCF receiver. The connecting terminals are labelled with + and -.

Information about DCF receiver on the previous double page.

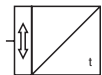


- Key**
1. Bus connection
 2. DCF receiver connection
 3. DCF receiver
 4. DCF status LED
 5. Programming button
 6. Programming LED

- Either Quartz operation or synchronisation with DCF77 time signal
- Connection for DCF receiver
- Status LED for DCF reception
- Integral lithium cell for power reserve



Time transmitter



ETS search path: Berker >> Timer >> Time transmitter >>

Technical data

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC ± 10 %	SELV
	Current input	max. 250 mA
Inputs	Sensor inputs	4
	Current	0–20 mA, 4–20 mA
	Voltage	0–1 V, 0–10 V
	Input resistance	Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs	2
	Rated voltage	24 V AC ±10 %
	Maximum current	100 mA DC total
Behaviour in the event of power failure	Bus voltage failure	no communication with KNX/EIB
	Supply voltage failure	no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage	no communication with KNX/EIB, no supply for the sensors
	Supply voltage	no communication with KNX/EIB
	Bus and supply voltage	Transmission of the measurement and limit values as per initialisation parameters of the application
Operation and display elements	Programming key	
	Programming LED	Red
	Status LED	Red/green
Connections	KNX/EIB	Connecting terminal
	Inputs	0.5–4 mm ² single/finely stranded without conductor sleeve, 0.5–2.5 mm ² finely stranded with conductor sleeve
	Module connection	6pole system plug for analogue input module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

Information

The analogue input 4gang is designed as a top hat rail mounted device and is used to acquire and forward up to four analogue sensor signals. The analogue input can evaluate both voltage and current signals. The current inputs with the measurement range 4–20mA can be monitored for wire break.

Sensor signals are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters and blinds, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e. g. via KNX/EIB devices such as information display or MT 701 plus or MT 701 ct. Operation of the analogue input requires a 24 V auxiliary voltage. External analogue sensors are supplied with voltage via the short-circuit and overload protected outputs.

The lateral interface can be used to connect an analogue input module for another 4 sensors, which are likewise adjusted via the software of the basic unit.

Order data

Device colour		Accessories	
Light grey	7541 40 04	Analogue input module	7542 40 04
		Power supply 24 V AC	7591 00 01

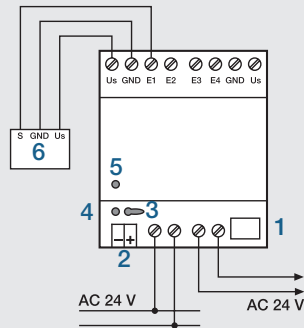
Applications

Analogue input 4gang V2 B00A01	
Analogue inputs	<ul style="list-style-type: none"> ■ Connectable sensor type can be adjusted for the integral analogue inputs: 0–1 V; 0–10 V; 0–20 mA; 4–20 mA ■ Transmission behaviour for measured values adjustable ■ 1 or 2-byte can be chosen as transmission format ■ Two limit values with hysteresis can be set per input ■ Two external limit values per input can be selected for adjustment via EIB devices in ongoing operation ■ Wire break monitoring can be set for 4–20 mA sensors ■ Transmission of an alarm bit can be set
Modules	<ul style="list-style-type: none"> ■ One analogue input module with four additional inputs can be selected: Programming options are the same as the basic unit
Objects	50
Group addresses/assignments	max. 200 each

Notes

Terminals

- +US: Supply for external sensors
- GND: Reference potential for +US and inputs
- E1...E4: Measured value inputs
- AC 24 V: External supply voltage



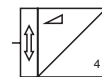
Key

1. Analogue input module connection
2. Bus connection
3. Programming button
4. Programming LED
5. Status LED
6. Active sensor

- Four freely adjustable sensor inputs
- Four additional sensor inputs possible using analogue input module
- Conversion of analogue measurement data into 1-byte and 2-byte values (EIS 5/6)
- System interface for connection of an analogue input module
- 24 V DC output for supplying connected sensors



Analogue input 4gang



Technical data

Auxiliary voltage	24 V AC \pm 10 %	SELV
Current input		max. 250 mA
Inputs	Sensor inputs	4
	Current	0–20 mA, 4–20 mA
	Voltage	0–1 V, 0–10 V
	Input resistance	Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs	2
	Rated voltage	24 V AC \pm 10 %
	Maximum current	100 mA DC total
Operation and display elements	Status LED	Red/green
Connections	inputs	0.5–4 mm ² single/finely stranded without conductor sleeve, 0.5–2.5 mm ² finely stranded with conductor sleeve
	Module connection	6pole system plug for analogue input module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

Information

The analogue input module is designed as a top hat rail mounted device. It is an inexpensive way to expand the analogue input 4gang or the weather station comfort to include four connections for four additional sensors. No separate application is available for the device; programming is carried out via the software of the basic unit.

For operation the analogue input requires a 24 V auxiliary voltage that is made available either directly from the 24V AC power supply or indirectly via the 24 V AC terminals of the basic unit.

Order data

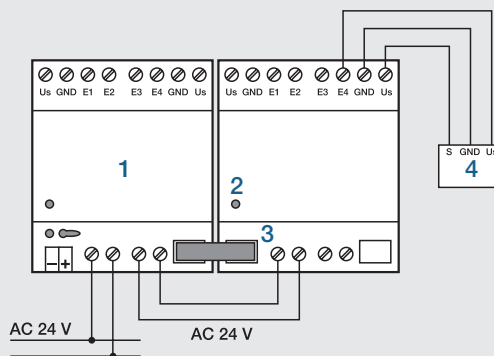
Device colour	
Light grey	7542 40 04

Notes

Connection of an analogue input module is exclusively by means of the 6pole system plug. Only one analogue input module can be connected per basic unit.

The connections +US and GND of the analogue input module may not be connected to the corresponding connections of another device, e. g. of the analogue input. This may result in accidental ground energisation.

Sensors that are connected to the inputs of the analogue input module may not be supplied by the analogue input, and vice versa. Exchange on an analogue input module e. g. in the event of a defect can be carried out in ongoing operation (isolate module from voltage!). After the exchange the analogue input carries out a reset after approx. 25 seconds. This re-initialises and places in the original state all inputs and outputs of the analogue input and the connected module.



Terminals

- +US: Supply for external sensors
- GND: Reference potential for +US and inputs
- E1...E4: Measured value inputs
- AC 24 V: Ext. supply voltage

Key

- 1. Analogue input 4gang
- 2. Status LED
- 3. System plug, 6pole
- 4. Active sensor

- Four additional sensor inputs for analogue input 4gang or weather station comfort
- Link to basic unit via 6pole system interface
- Status LED for indicating readiness for operation
- 24 V DC output for supplying connected sensors



Analogue input module 4gang



Technical data

Supply	via bus line	21 – 32 V DC
	Power consumption	typical 450 mW
Auxiliary voltage	24 V AC/DC	SELV
	Power consumption	typical 7.5 W
Wind measurement	Range	0 to 40 m/s
	Accuracy	2 m/s
Precipitation measurement	Range	yes/no (binary)
	Sensitivity	fine drizzle
Brightness measurement	3 sensors	each offset by 90°
	Range	1 to 110 klx
	Spectral range	700 to 1050 nm
	Accuracy	10% (of final value)
Twilight measurement	Range	0 to 674 lux
	Spectral range	700 to 1050 nm
	Accuracy	10% (of final value)
Temperature	Range	-20 to +55 °C
	Accuracy	±1 K (at wind speeds > 0.5 m/s)
Operation and display element	programming button	
	Programming LED	red
Connections	KNX/EIB	Connection terminal
	Auxiliary voltage	Connecting terminal yellow/white
Protection class	IP 44 acc. to DIN EN 60 529	in position of normal use
Ambient temperature range	Operation	-20 to +55 °C
	Storage/transport	-40 to +70 °C
Installation type	Surface-mounted wall/mast mounting	
Mounting orientation	vertical	
Dimensions (W x H x D)	88 x 170 x 204 mm	

Information

The KNX weather station is designed as a surface-mounted device, and detects wind speed, precipitation twilight, temperature and brightness in 3 directions. It is designed especially for use in homes. The main area of use is the automatic, weather-dependent control of shading systems.

The evaluation of the data themselves, especially the limit value processing, takes part already in the weather station. Logic gates are available for linking of the limit values and monitoring functions. Blocking elements can be used to block individual functions locally. To increase functional reliability, the weather station monitors some of its own important functions and automatically reports the corresponding errors to the bus via indicator objects.

The function is protected against frost and condensation to -20 °C by a built-in heating system. The weather station requires an external 24 V power supply for the heating and the precipitation sensor.

Order data

Device colour		Accessories	
Aluminium	7549 00 01	Power supply 24 V AC.....	7591 00 01
		Mast adapter.....	0154
		Corner mounting piece	0149 09

Applications

- Weather station B00901
- Weather station B00911 (for ETS 3 from version d)
- Output of the meas. values for temperature, wind, twilight, 3x brightness (3 directions) as 16-bit values
- Two limit values with adjustable hysteresis for each sensor (except for precipitation) adjustable or specifiable externally as 8-bit values or 16-bit values
- Teaching function for adopting the current 2-byte measured value as a limit value
- Parameterisable input and output delay for all limit value objects
- 6 Logic gates (AND, AND with return, OR, exclusive OR, NAND, NOR) with up to 4 inputs for external and internal 1-bit values
- 4 Blocking elements for blocking of functions or for manual operation
- Output of all values when there is a value change and cyclically
- Cascading of weather stations via the logic functions
- Monitoring of heating voltage and wind signal adjustable

Objects	89
Group addresses/assignments	maximum 200 each

information

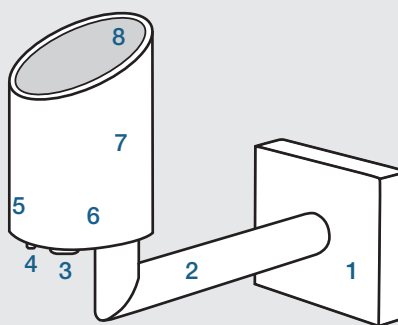
Selecting the installation location

Please note:

- The device must not be affected by obstacles or shading on any side.
- The weather station should also be accessible later for maintenance/cleaning purposes.

Care

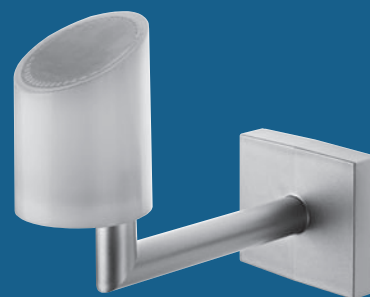
To remove dirt deposits, clean the sensor head from time to time with a moist cloth.



Legend

1. Terminal box with KNX/EIB connecting terminals and auxiliary voltage
2. Bracket arm
3. Thermal wind sensor
4. Temperature sensor
5. Twilight and brightness sensor 2
6. Brightness sensor 1
7. Sensor head, can be turned 90°, translucent
8. Precipitation sensor

- Detection of the ambient brightness and temperature
- Compact device for outdoor installation with integrated bus coupling unit
- With integrated wind, precipitation, twilight, temperature and brightness sensors
- Directional brightness detection via three sensors
- Rotatable sensor head
- Processing of the measurement data in the weather station



Weather station



ETS search path: Berker >> Physical sensors >> Weather station >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC ± 10 % Current input	SELV max. 250 mA
Inputs	Sensor inputs Current Voltage Input resistance	4 0–20 mA, 4–20 mA 0–1 V, 0–10 V Voltage measurement approx. 18 kOhm Current measurement approx. 100 ohm
Outputs	Supply outputs Rated voltage Maximum current	2 24 V AC ± 10 % 100 mA DC total
Behaviour in the event of power failure	Bus voltage failure Supply voltage failure	no communication with KNX/EIB no communication with KNX/EIB, no supply for the sensors
Behaviour in the event of power return	Bus voltage Supply voltage Bus and supply voltage	no communication with KNX/EIB, no supply for the sensors no communication with KNX/EIB Transmission of the measurement and limit values as per initialisation parameters of the application
Operation and display elements	Programming key Programming LED Status LED	red red/green
Connections	KNX/EIB Inputs Module connection Sensor connection	Connecting terminal 0.5–4 mm ² single/finely stranded without conductor sleeve, 0.5–2.5 mm ² finely stranded with conductor sleeve 6pole system plug for analogue input module 4pole system plug for combi weather sensor
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The weather station 4gang comfort is designed as a top hat rail mounted device. It makes it possible to connect four freely configurable sensors for detecting weather data and to acquire, process and forward their measured values. The measured values are converted into 1-byte or 2-byte value telegrams. Two limit values can be set per sensor; these can trigger measured-value dependent events, such as control of shutters, switching exterior lighting, etc. By means of external objects it is possible to adapt all of the limit values while operation continues, e. g. via EIB devices such as Info display.

The weather station is programmed using a clearly-organised software plug-in; configuration is made easier by the ability to select pre-configured sensors of the system. Operation requires a 24 V auxiliary voltage. External sensors are supplied with voltage via the short-circuit and overload protected outputs. An analogue input module for an additional four sensors can be connected via interfaces. It is also possible to connect a combi weather sensor with an integral DCF77 receiver.

These devices are likewise programmed using the software of the basic unit.

Device colour		Accessories	
Light grey	7541 40 03	Analogue input module	7542 40 04
		Combi weather sensor surface-mounted	7590 00 57
		Power supply 24 V AC	7591 00 01

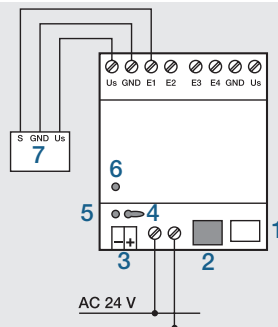
Applications

Weather station comfort B00602	
Analogue inputs	<ul style="list-style-type: none"> ■ Connectable sensor type can be adjusted for the integral analogue inputs: 0–1, 0–10 V; 0–20, 4–20 mA ■ Selection of the pre-configured system sensors for the analogue inputs: wind sensor, brightness sensor, twilight sensor, temperature sensor, rain sensor, humidity sensor, air pressure sensor. ■ Transmission behaviour for measured values adjustable ■ Transmission of an alarm bit can be set ■ 1 or 2-byte can be chosen as transmission format for measured values ■ Two limit values with hysteresis can be set per input (other than rain sensor) ■ Two external limit values per input can be selected for adjustment via EIB devices in ongoing operation ■ Wire break monitoring can be set for 4–20 mA sensors
Blocking modules	<ul style="list-style-type: none"> ■ 16 blocking modules available ■ One input, output and blocking object per blocking module ■ Per input and output object format switching 1-bit, value 1-byte and value 2-byte can be set
Logic controller	<ul style="list-style-type: none"> ■ Number of logic gates freely selectable, but limited by the max. number of objects (200) ■ Logic "AND", "OR", "exclusive OR" can be set ■ Number of inputs selectable per logic gate (max. 8 inputs) ■ For output object, switch on delay, switch off delay and cyclic transmission are adjustable
Modules	<ul style="list-style-type: none"> ■ One analogue input module with four additional inputs can be selected: Programming options as for the basic unit ■ One combi sensor can be selected: Programming options see combi sensor ■ Common selection of analogue input module and combi sensor possible
Objects	200
Group addresses/assignments	max. 200 each

Notes

Terminals

- +US: Supply for external sensors
- GND: Reference potential for +US and inputs
- E1...E4: Measured value inputs
- AC 24 V: External supply voltage



Key

1. Analogue input module connection
2. Combi weather sensor connection
3. Bus connection
4. Programming button
5. Programming LED
6. Status LED
7. Active sensor

- Four freely adjustable sensor inputs
- Four additional sensor inputs possible using analogue input module
- System interface for connection of an analogue input module
- Connection for combi weather sensor surface-mounted
- 24 V DC output for supplying connected sensors



Weather station 4gang comfort



ETS search paths:
 Berker >> Entry >> Analogue input, 4gang >>
 Berker >> Physical sensors >> Weather station >>

Technical data

Supply	Primary voltage	230 VAC ±10 %, 50/60 Hz
Output	Supply for KNX/EIB devices	2 connecting terminals
	Voltage	24 V AC ±10 %
	Output current	max. 1 A
	Switch-on time	100 %
	Short-circuit protection	Thermostatic switch
Connections	Inputs/supply outputs	Screw terminals 0.5–4 mm ² , single-core
		Screw terminals 0.34–4 mm ² , finely stranded (without conductor sleeve)
		Screw terminals 0.14–2.5 mm ² , finely stranded (with conductor sleeve)
Protection	IP 20, EN 60529	DIN 40050
Ambient temperature range	Operation	-5 °C to +45 °C
	Storage/transport	-25 °C to +70 °C
Humidity	Environment/storage/transport	max. 93 % relative humidity (moisture condensation not permissible)
Installation	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

Information

The power supply is designed as a top hat rail mounted device. It generates the operating voltage for the applicable KNX/EIB devices such as the weather station 4gang comfort RMD or analogue input 4gang RMD. For convenient connection the device has two internally connected 24 V outputs. In addition, the heating voltage for sensors such as a combi weather sensor surface-mounted or rain sensor surface-mounted can be made available using the device. The voltage supply is protected against overload by a thermostatic switch.

Order data

Device colour		Combination with	
Light grey	7591 00 01	Weather station 4gang comfort.....	7541 40 03
		Analogue input 4gang	7541 40 04

Notes

Terminals

AC 230 V ~: Mains voltage

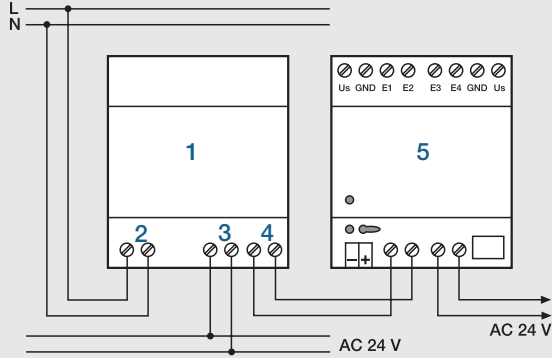
AC 24 V: Supply voltage

Installation

The output terminals are designed in pairs. The terminals with the same potential are connected internally (labelled with dot).

In the event of overload or short-circuit the thermostatic switch switches the device off if excessively heated.

The device starts again automatically after the short-circuit is rectified and it has cooled down.



Key

- 1. Power supply RMD
- 2. Connection 230 V
- 3. Power supply 24 V
- 4. Output 24 V

- 5. Example: Analogue input 4gang RMD

- Output current up to 1 A
- Two 24 V connecting terminals for convenient connection
- Thermostatic switch for overload/overheating protection



Power supply 24 V AC



Technical data

Supply voltage	AC/DC	24 V ±15 %, 50/60 Hz
	Current input	max. 600 mA
	Power consumption (sensors and heater)	max. 14.4 W
Sensor measurement range	Wind speed	approx. 1–40 m/s
	Precipitation	yes/no
	Twilight	approx. 0–674 lux
	Brightness	approx. 1–110 klx, per compass direction east, south, west
Operation and display elements	Reed contact	Activation of the acoustic DCF signal
	Adjusting screw	Orientation of the DCF antenna
Connecting cable	10 m, pre-assembled	LiYCY, 6 x 0.25 mm ² max. 50 m
Protection	IP 55, EN 60529	in position of normal use
Ambient temperature range	Operation	-40 to +60 °C, ice-free
	Storage/transport	-40 to +60 °C
Mounting orientation	vertical	Wind wheel up
Dimensions (Ø x H)	130 x 200 mm	

Information

The combi weather sensor combines seven sensors in a single device. It is used to measure wind speed, precipitation, brightness and twilight, and is connected directly to the weather station 4gang comfort. Combining different sensors in a single device reduces the amount of installation work. Additionally, the combi weather station has a DCF77 receiver that not only serves as a clock for the bus, but also enables integration of the time signal into an expanded shading control. Through the use of three brightness sensors oriented to the east, south, and west and connected to the weather station it is possible to control the shading systems for different sides of the building depending on the compass direction. Operation of the combi weather sensor requires a 24 V supply voltage, e. g. like that provided by the 24 V AC power supply. The additional heating of the combi sensor protects the electronics against condensation.

Order data

Device colour		Accessories	
Black	7590 00 57	Weather station 4gang comfort.....	7541 40 03
		Power supply 24 V AC.....	7591 00 01

Weather station comfort B00601
(expanded options with combi sensor)

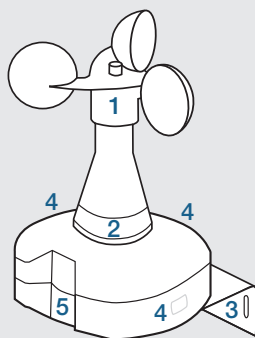
- Monitoring of the link to the combi sensor and testing the signals for conclusiveness
- In conjunction with DCF77 reception automatic shading of up to four sides of the building with tracking of the lamellae depending on the position of the sun
- Transmission behaviour of date and time and sun position can be set
- Entry of the geographical position for time-dependent calculation of the position of the sun
- Entry of the orientation of the side of the building for automatic, expanded shading control
- Transmission of the lamella position as an angle or in percent can be set
- Object for external adaptation of the basic brightness and opening angle to the sun

Installation

For interference-free reception of the DCF77 signal, maintain a distance of 3 m from other electrical devices.

So that the brightness sensors can detect the state of the sun's course unambiguously, the combi sensor should be aligned with a compass in such a way that the precipitation window points to the north.

The housing should be as free as possible from dust deposits so as not to distort the measurements. During operation, rain will keep the housing surfaces largely clean.



Key

1. Wind wheel
2. Twilight sensor
3. Fixing bracket with screw holes
4. Brightness sensor west
Brightness sensor east
Brightness sensor south
5. Precipitation sensor (north)

The heating of the combi sensor protects the electronics against condensation in the specified temperature range. It does not protect against icing of the housing or moving parts.

- DCF77 receiver
- Buzzer for quality indication of the DCF77 signal
- PTC heater element for winter operation
- Mounting bracket and Nirost clamp for fixing to a mast
- Pre-assembled connecting cable



Combi weather sensor



Technical data

Measuring range	linear	0.7 to 40 m/s
Electrical output	0 to 10 V	min. 1.5 K Ω load
Supply	Voltage	24 V DC (18 to 32 V DC)
	Current consumption	approx. 12 mA (without heater)
	Heater	24 V DC/AC, PTC element (80 °C)
Loading	short-time	max 60 m/s
Lead	3 m	LiYY 6 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	300 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-25 to +60 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	Mounting bracket (supplied)
Mounting orientation	vertical	
Dimensions	Overall height: 160 mm	Wind vane diameter: 124 mm

Information

The WS wind speed sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the wind speed.

The rotation speed, recorded by way of a reed contact, is converted by an electronic circuit into an analogue output signal from 0 to 10 V. The optional heating transformer permits trouble-free operation in case of frost.

The necessary supply voltage is provided by the analogue input or the weather station. The 24 V AC RMD power supply can provide the heating voltage for sensors such as the wind sensor surface-mounted or the rain sensor surface-mounted.

Connection to external systems is possible.

Order data

Device colour		Accessories	
White	7590 00 50	Mast adapter	7590 00 46
		Power supply 24 V AC	7591 00 01

Notes

Selection of mounting location

Do not mount the wind sensor close to transmitters (e. g. private mobile radio).

To avoid distortion of measured values, make sure the sensor is correctly orientated (e. g. not sheltered from the wind).

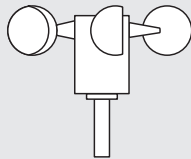
Wiring

Do not lay sensor cables parallel to live or load-carrying cables.

To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Terminal assignment

- White: Ground
- Brown: Operating voltage +24 V DC
- Green: Output 0–10 V
- Yellow: Ground
- Grey/pink: Heater 24 V AC/DC



- Registering and evaluation of wind speed
- Generation of analogue signals
- Non-frost-sensitive operation with optional WS heating transformer



Power supply 24 V AC



Wind speed sensor



Technical data

Electrical output	0 V dry, 10 V rain	min. 1 kΩ load
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 10 mA (without heater)
	Heater	24 V DC/AC, max 4.5 W
Lead	3 m	LiYY 5 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	300 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	Mounting bracket (supplied)
Mounting orientation	approx. 45°	
Dimensions (WxHxD)	60 x 82 x 17 mm	

Information

The WS rain sensor is deployed in conjunction with the weather station 4gang or the analogue input.

It registers and evaluates the precipitation.

The conductivity of the rain water is evaluated by means of a meander-shaped sensor and converted by an electronic circuit into an analogue output signal from 0 to 10 V. The optional heating transformer permits the end of the precipitation to be detected more quickly and prevents ice forming on the surface of the sensor.

An additional voltage of 24 V AC or DC is required to heat the rain sensor.

The necessary supply voltage is provided by the analogue input or the weather station. The 24 V AC RMD power supply can provide the heating voltage for sensors such as the wind sensor surface-mounted or the rain sensor surface-mounted.

Connection to external systems is possible.

Order data

Device colour		Accessories	
Grey.....	7590 00 52	Mast adapter.....	7590 00 46
		Power supply	
		24 V AC	7591 00 01

Notes

Selection of mounting location

Do not mount the rain sensor close to transmitters (e.g. private mobile radio).

The mounting location must ensure direct precipitation impact (not installed underneath roof overhangs).

Care

The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Wiring

Do not lay sensor cables parallel to live or load-carrying cables. To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Terminal assignment

- White: Ground
- Brown: Operating voltage +24 V DC
- Green: Output 0–10 V
- Yellow/
- grey: Heater 24 V

- Registering and evaluation of precipitation
- Generation of analogue signals
- Connection of optional heater



Power supply 24 V AC



Rain sensor



Technical data

Measuring range	0 to 60 klx	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 5 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions!
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

Information

The WS brightness sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the brightness.

The registered brightness is converted by an electronic circuit into a linear, analogue output signal from 0 to 10 V. To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm).

The required supply voltage for the brightness sensor is delivered by the weather station 4gang or the analogue input.

Connection to third-party systems is possible.

Order data

Device colour		Accessories	
Grey.....	7590 00 53	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

Do not mount the brightness sensor close to transmitters (e.g. private mobile radio). Pay attention to possible changes in ambient conditions (house shadow, change in level of foliage, etc.).

To avoid distortion of measured values, make sure the sensor is correctly aligned (e.g. East, South, West). Do not mount it within the range of influence of lamps.

Wiring

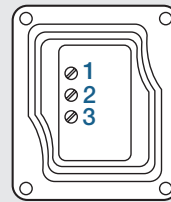
Do not lay sensor cables parallel to live or load-carrying cables. To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Care

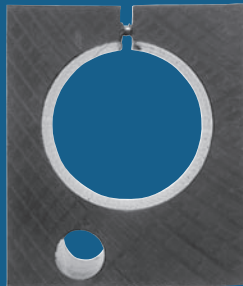
The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Terminal assignment

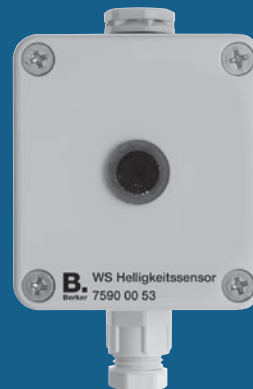
- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of ambient light
- Generation of analogue signals
- Climate control diaphragm



Mast adapter



Brightness sensor



Technical data

Measuring range	-30 to +70 °C	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 3 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions!
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

Information

The WS temperature sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the temperature.

To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm). The registered temperature is converted by an electronic circuit into an analogue output signal from 0 to 10 V.

The required supply voltage is delivered by the weather station 4gang or the analogue input. Connection to third-party systems is possible.

Order data

Device colour		Accessories	
Grey.....	7590 00 54	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

Do not mount the temperature sensor close to transmitters (e.g. private mobile radio).

To prevent distortion of measured values, make sure the sensor is mounted correctly (e.g. not in direct sunlight, not within the range of heaters).

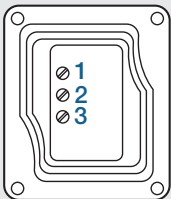
Wiring

Do not lay sensor cables parallel to live or load-carrying cables.

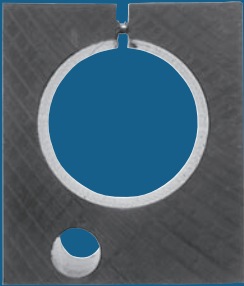
To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Terminal assignment

- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of outside temperature
- Generation of analogue signals
- Pressure compensation element



Mast adapter



Temperature sensor



Technical data

Measuring range	0 to 255 lux	linear
Electrical output	0 to 10 V (min. 1 kΩ load)	Short-circuit-proof
Supply	Voltage	24 V DC (15 to 30 V DC)
	Current consumption	approx. 5 mA
Lead	via PG7 gland	3 x 0.25 mm ²
Cable length	max. 100 m	Follow installation instructions
Weight	approx. 200 g	
Protection	IP 65, EN 60529	
Ambient temperature range	Operation	-30 to +70 °C
	Storage/transportation	-25 to +70 °C
Fixing method	Wall or mast mounted	
Mounting orientation	any	
Dimensions (WxHxD)	58 x 64 x 35 mm	

Information

The WS twilight sensor is deployed in conjunction with the weather station 4gang or the analogue input. It registers and evaluates the brightness.

To prevent damp forming in the housing, the device is fitted with a pressure compensation element (climate control diaphragm). The registered brightness is converted by an electronic circuit into a linear, analogue output signal from 0 to 10 V.

The required supply voltage for the brightness sensor is delivered by the weather station 4gang or the analogue input.

Connection to third-party systems is possible.

Order data

Device colour		Accessories	
Grey.....	7590 00 55	Mast adapter.....	7590 00 46

Notes

Selection of mounting location

Do not mount the brightness sensor close to transmitters (e.g. private mobile radio).

Pay attention to possible changes in ambient conditions (house shadow, change in level of foliage, etc.).

To prevent distortion of measured values, make sure the sensor is correctly aligned (toward the North, not in direct sunlight).

Do not mount it within the range of influence of lamps.

Wiring

Do not lay sensor cables parallel to live or load-carrying cables.

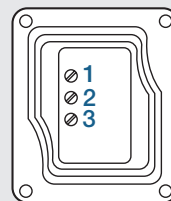
To avoid electromagnetic interference, maintain a clearance of a few centimetres from the cables.

Care

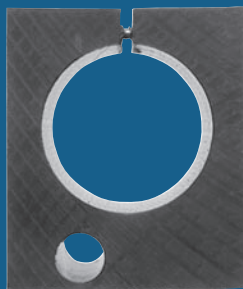
The sensor must be cleaned regularly with a mild cleaning agent, and so should be mounted at an easily accessible location.

Terminal assignment

- 1. Output 0–10 V
- 2. Ground
- 3. Operating voltage 24 V DC



- Registering and evaluation of ambient light
- Generation of analogue signals
- Climate control diaphragm



Mast adapter



Twilight sensor



Technical data

Connections	Three-pin terminal block	Plug-in terminals up to 1.5 mm ²
Protection	IP 20, EN 60529	
Ambient temperature range	Storage/transport	-25 to +70 °C
Mounting	in flush-mounted box to DIN 49073	Ø 60 mm
Mounting orientation	any	
Dimensions (WxHxD)	71 x 71 x 30 mm	Installation depth 30 mm

Information

The sensor insert is installed in a flush-mounted box and contains a terminal block for connection of wired sensors (e.g. PT-100 temperature sensors).

The sensor is covered by a central plate with slots for air circulation.

Mounting is completed with a frame, intermediate ring and central plates for the chosen switch range.

Order data

Design		MODUL 2	Berker S.1/B.1/B.3/ B.7 GLAS	Berker K.1/K.5
With support ring.....	7594 10 01	Central plate	Central plate	Central plate
		- White.....	- White, glossy	- White.....
		- Polar white	- Polar white, glossy.	- Polar white.....
		Intermediate ring	- Polar white, matt ...	- Stainless steel.....
		- White.....	- Anthracite, matt	Intermediate ring
		- Polar white.....	- Aluminium, matt....	- White.....
			Intermediate ring	- Polar white.....
			- White, glossy	- Anthracite, matt
			- Polar white, glossy.	- Aluminium, matt....
			- Polar white, matt ...	- Stainless steel,
			- Anthracite, matt	lacquered.....
			- Aluminium, matt....	

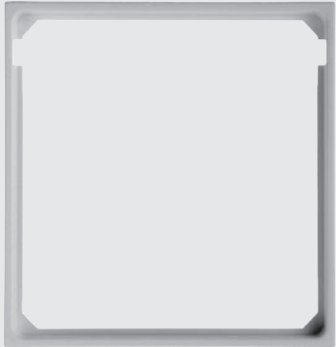
Notes

Mounting

The cover is provided by the central plate for the sensor unit.

IMPORTANT

The central plate should be used only with an intermediate ring.

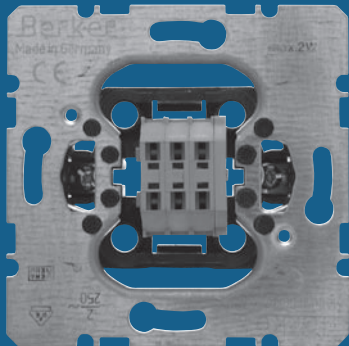


Intermediate ring

- Connection of wired sensors
- Protection of sensors by covering with a central plate
- Central plate with slots for air circulation
- Cover with frame, intermediate ring and central plate for the various switch ranges



Central plate



Sensor insert

Berker ARSYS	
Central plate	
- White.....	7594 04 02
- Polar white.....	7594 04 09
- Light bronze, lacquered	7594 04 04
- Stainless steel, lacquered	7594 04 03
Intermediate ring	
- White.....	1108 00 02
- Polar white.....	1108 00 69
- Light bronze, lacquered	1108 90 11
- Stainless steel, lacquered	1108 90 04

Technical data

Supply	via bus line	21–32 V DC
	9 V block battery	Only required for programming
Radio signal input	Number of channels	50
	Radio memory locations	100
	Transmission medium	Radio
	Reception frequency	433.42 Hz
	Modulation	ASK
Response to power failure/restoration	Bus power failure	-
	Bus power restoration	-
Operation and display elements	Channel indicator	Two-digit seven-segment display
	2 channel selector buttons	
	Acknowledgement button	
	Programming button	
	Programming LED	Red
Operation LED	Green	
Connections	KNX/EIB	Terminal
	Battery	Battery connection clip
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Fixing holes in housing base	
Mounting orientation	any	
Dimensions (WxHxD)	110 x 94 x 38 mm	

Information

The radio receiver is executed as a surface-mounted device, and links radio bus transmitters to the instabus KNX/EIB.

In the process, received radio telegrams are converted into corresponding KNX/EIB telegrams.

Up to 50 channels can be assigned a total of 100 memory locations for buttons (e.g. hand-held transmitter buttons) and devices (e.g. standard monitors).

The data transfer is unidirectional.

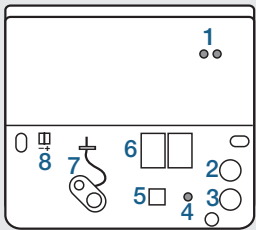
Order data

Device colour			Hand-held radio transmitter	
White	7563 00 04		Comfort	2766
			Mini	2769

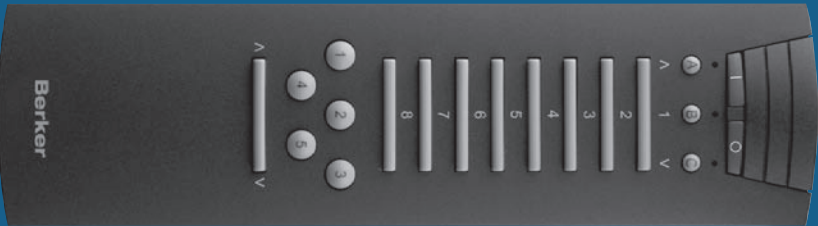
Applications

Radio receiver C00102	The application includes the following channel functions:
Switching	■ Function of upper/left and lower/right buttons programmable
Toggle	■ Alternating transmission of ON and OFF telegrams per button
Dimming	■ Dimming step width programmable ■ Send telegram repetition and stop telegram
Shutter control	■ Touch function (UP, DOWN) and time between step and move operation programmable ■ Louvered shutter adjustment time (time in which a move command is terminated by releasing the button) programmable
Value transmitter	■ Value (0 to 255) of upper/left and lower/right buttons programmable
Light scene extension	■ Light scene number (1 to 8) of upper/left and lower/right buttons programmable ■ Memory function possible
Light scene	■ Retrieve and store up to 5 light scenes each with 8 outputs via buttons or extension ■ Object types: switch (1-bit) or dimmer value (1-byte) configurable per output
Movement controller	■ Send 1-bit switching or 1-byte value telegrams dependent on preset twilight value ■ Telegram configurable at beginning and end of a detection ■ Transmission delay at end of detection and lockout time configurable
Universal transmitter as switch	■ Send ON/OFF telegrams according to the received universal transmitter telegrams
Objects	109
Group addresses/assignments	maximum of 113 each

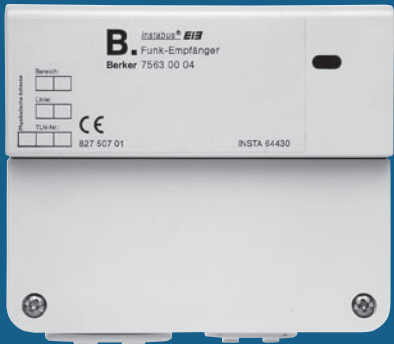
Notes



- Key**
1. Operation LEDs
 2. Channel selector button
 3. Programming button
 4. Programming LED
 5. Acknowledgement button
 6. Channel indicator
 7. Battery terminal
 8. Bus connection



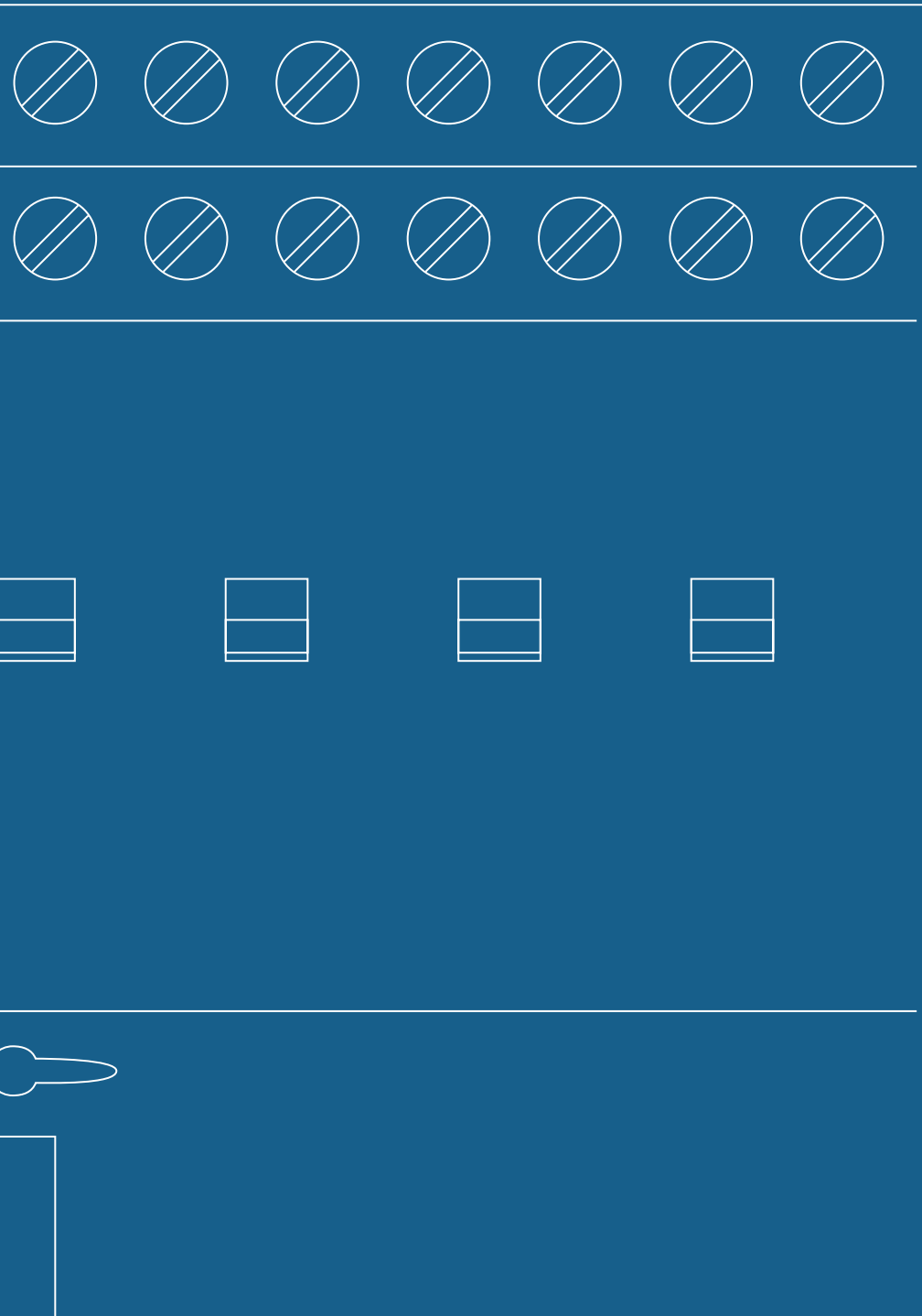
Hand-held radio transmitter comfort



Radio receiver

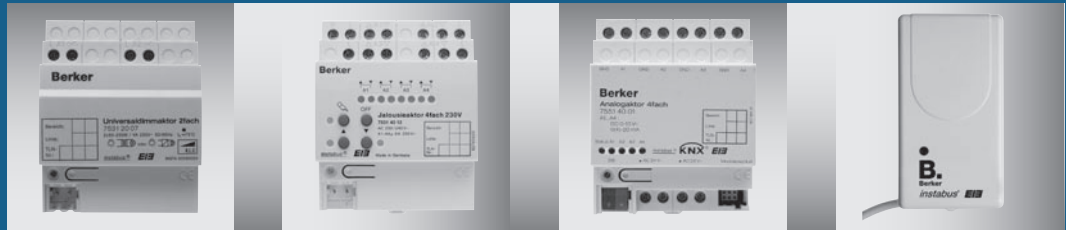


ETS search path: Berker >> Communication >> Radio >>



B.

Berker the right way.



Switch actuators	276–301
Dim actuators	302–311
Control units	312–313
Shutter actuators	314–339
Analogue actuators	340–343
Other actuators	344–361

Actuators

Logic modules

ACTUATORS

Visual representations

The actuators comprise the bus coupling unit, power module and application program. They are selected specific to the application and actuated with sensors. The information for processing first passes over the bus to the bus coupling unit. The bus coupling unit sends and receives data, delivers power for the electronics, saves key data for its own physical address, one or more group addresses and the application program with parameters. The power module and the application program define the function of the actuator.

Other components

Dim. drawings
Glossary

Training
Service

Technical data

Supply	via bus line	21–32 V DC
Outputs	2 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3 400 V AC: 10 A/AC-1; 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 400 A, 150 μ s; 200 A, 600 μ s
	Min. switching current	100 mA (for 24 V)
Behaviour in the event of voltage failure/return	Bus voltage failure	software-dependent
	Bus voltage return	software-dependent
Breaking capacity	Ohmic load	3600 W
	Incandescent lamps/HV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W parallel-compensated: 1300 W, 140 μ F Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 2000 W parallel-compensated: 2000 W, 140 μ F
Operation and display elements	2 manual selection switches	Relay ON/OFF
	Programming button	
	Programming LED	red
Connections	KNX/EIB	Connection terminal
	Outputs: Screw terminals	0.2–4 mm ² / 2 x 0.2–2.5 mm ² single stranded 0.75 – 4 mm ² finely stranded without cond. sleeve 0.5–2.5 mm ² finely stranded with cond. sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation or storage/transport	-5 to +45 °C / -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

Information

The switch actuator 2gang is designed as a rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. Each switching output has a separate bistable switching relay, so that switching states can also be secured in the event of a bus voltage failure.

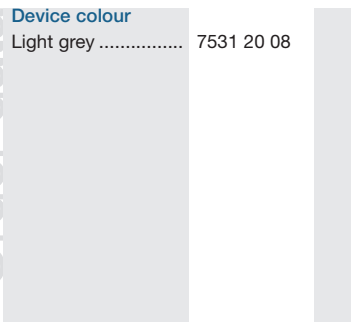
The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via the bus, however.

When the device is configured and commissioned with the ETS 3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

The switch actuator is supplied completely by the KNX/EIB and therefore does not require any additional external power supply.

Order data

Device colour
Light grey 7531 20 08



Applications

Switching RM, VK, ZF 209006

Switching RM, VK, ZF 209016
(for ETS 3 from version d)

- Independent switching of the two outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function adjustable for each channel – alternatively forced setting function for each output
- Time functions (switch-on, switch-off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel

Objects	26
Group addresses/assignments	maximum 254/maximum 255

information

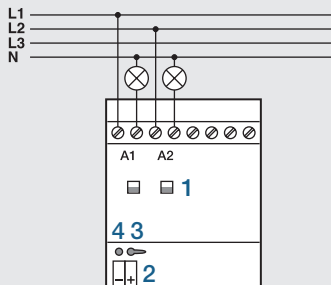
NOTE

Suitable for switching different external phase conductors.

The relay outputs of the switch actuator switch with a small time delay when adjusted via a central telegram.

The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permitted.

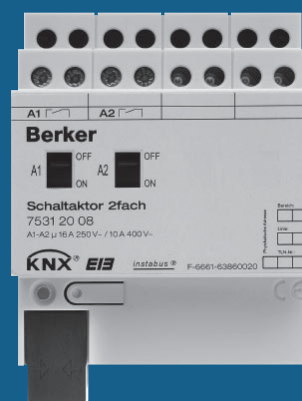
The connection of three-phase motors is not permitted.



Legend

1. manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED

- Two independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Manual selection switch with status indication for each output



**Switch actuator
2gang 16 A, NO,
manual, status**



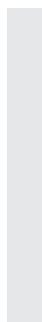
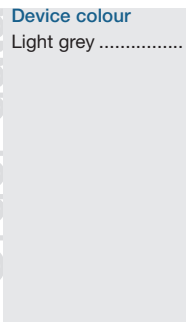
ETS search path: Berker >> Output >> Binary output, 2gang >>

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3 400 V AC: 10 A/AC-1; 6 A/AC-3 DC: 16 A/24 V
	Making current Min. switching current	max. 400 A, 150 μ s; 200 A, 600 μ s 100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3600 W
	Incandescent lamps/HV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W uncompensated: 2500 W
	Fluorescent lamps T5/T8	parallel-compensated: 1300 W, 140 μ F Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 2000 W parallel compensated: 2000 W, 140 μ F
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
Connections	Programming LED	Red
	KNX/EIB	Connecting terminal
Outputs: Screw terminals		0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core
		0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

The switch actuator 4gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. Each switching output has a separate bistable switching relay, so that switching states can also be secured in the event of a bus voltage failure.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via a bus, however. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator is supplied completely by the KNX/EIB and therefore does not require any additional external power supply.

Device colour
Light grey 7531 40 15



Applications

Switching RS, LO, TF 209001

Switching RS, LO, TF 209011
(for ETS 3 from version d)

- Independent switching of the four outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel – alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel

Objects	50
Group addresses/assignments	maximum 254/maximum 255

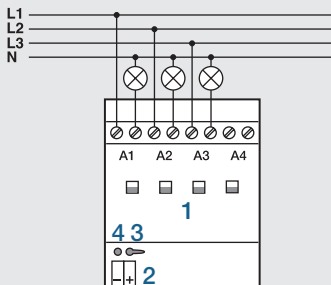
Notes

ATTENTION

Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

The connection of three-phase motors is not permissible.



Key

1. Manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED

- Four independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Manual selection switch with status indication for each output



**Switch actuator
4gang 16 A NO
manual status**



ETS search path: Berker >> Output >> Binary output, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Outputs	6 NO contacts Rated voltage Switching current AC-1	Potential-free 230 V AC (various outer conductors possible) 6 A/AC-1 Non-inductive or low-inductance loads, resistance furnaces
Response to power failure/restoration	Bus power failure Bus power restoration	programmable programmable
Switching capacity	Bulbs Fluorescent lamps - uncompensated - Duo circuit - parallel-compensated	1000 W 500 W (cos φ = 0.5) 2 x 500 W (cos φ = 1) 2 x 58 W/14 μ F 3 x 36 W/14 μ F 6 x 18 W/14 μ F
Operation and display elements	Programming button Programming LED	Red
Connections	KNX/EIB Outputs with screw-type terminals	Terminal 0.2 – 4 mm ² single-wire 2 x 0.2 – 2.5 mm ² single-wire 0.75 -4 mm ² fine wire without ferrule 0.5 – 2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transportation	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

Information

The switch actuator 6gang is executed as a top hat rail mounted device. It receives KNX/EIB telegrams and performs switching functions depending on the setting.

The six potential-free output channels can be connected to different outer conductors. A contact configuration of 230 V AC and SELV at the various outputs is not permitted!

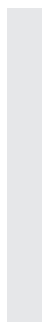
The relays of a device never operate simultaneously, but always at a time offset. At high switching frequencies this interval gets longer and longer.

Example

If all output channels are set to the same group address (all relays to operate simultaneously), and if multiple switching telegrams are received, the switching interval extends to max. 0.1 s. In this case the time between two telegrams must not fall below 0.6 seconds, so that all the relays will respond to the change of state.

Order data

Device colour
Light grey 7531 60 02



Applications

Switching RS, LO, TF 206101

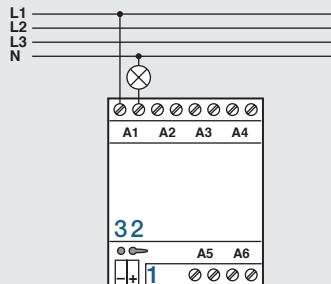
- Independent switching of the six outputs
- Outputs configurable as NO (normally open) or NC (normally closed) contacts
- Preferred position on bus power failure/restoration configurable
- Switching, revertive signal (feedback) and supplementary function programmable for the four outputs
- Switching, revertive signal (feedback) programmable via two additional outputs
- Configurable supplementary functions:
 - Logic operation function with three logic parameters
 - Lockout function with programmable relay response
 - Forced positioning function for prioritization of incoming switching telegrams
- Revertive signal (feedback) object invertible
- On and/or Off delay or timer function configurable for each output separately

Objects	16
Group addresses/assignments	maximum of 32 each

Notes

ATTENTION

Suitable for switching different phases.



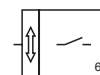
Key

1. Bus connection
2. Programming button
3. Programming LED

- Six potential-free, independent switching output channels
- NO (normally open) contacts 6 A
- Revertive signal (feedback) of relay state
- Forced guidance, logic operation, delay time and timer functions



Switch actuator 6gang 6 A



ETS search path: Berker >> Output >> Binary output 6gang >>

Technical data

Supply	via bus line	21–32 V DC
Outputs	8 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1, 10 A/AC-3 400 V AC: 10 A/AC-1, 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 400 A, 150 μ s; 200 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3600 W
	Incandescent lamps/HV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W parallel-compensated: 1300 W, 140 μ F Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 2000 W parallel compensated: 2000 W, 140 μ F
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	
Connecting terminal	Outputs: Screw terminals	0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

Information

The switch actuator 8gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. Each switching output has a separate bistable switching relay, so that switching states can also be secured in the event of a bus voltage failure.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via a bus, however. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator is supplied completely by the KNX/EIB and therefore does not require any additional external power supply.

Order data

Device colour
Light grey 7531 80 04

Applications

Switching RS, LO, TF 208801

Switching RS, LO, TF 208811
(for ETS 3 from version d)

- Independent switching of the eight outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel—alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel

Objects	106
Group addresses/assignments	maximum 254/maximum 255

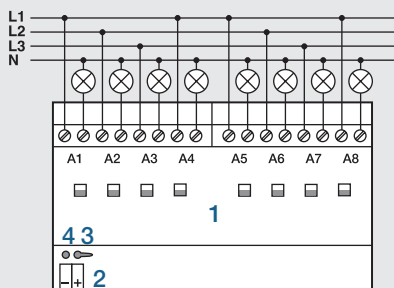
Notes

ATTENTION

Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

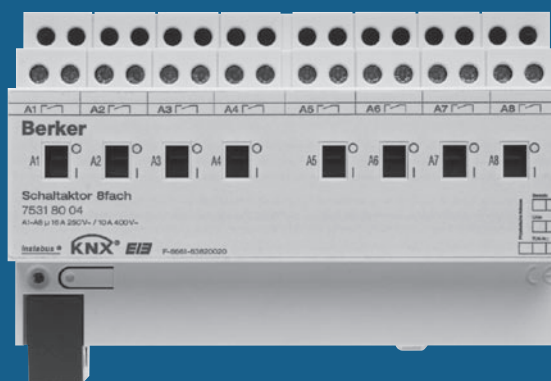
The connection of three-phase motors is not permissible.



Key

1. Manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED

- Eight independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Manual selection switch with status indication for each output



**Switch actuator
8gang 16 A NO
manual status**



ETS search path: Berker >> Output >> Binary output, 8gang >>

Technical data

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz; DC: 24 V
	Switching current	230/400 V AC: 16 A/AC-1, 16 A/AC-3; DC: 16 A/24 V
	Making current	max. 600 A, 150 μ s; 300 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3680 W
	Incandescent lamps/HV halogen lamps	3680 W
	LV halogen	Conventional transformers: 2000 VA Tronic transformers: 2500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W parallel-compensated: 2500 W, 200 μ F Duo circuit: 3680 W, 200 μ F
	Mercury vapour lamps	uncompensated: 3680 W parallel compensated: 3680 W, 200 μ F
Current detection	Frequency	50/60 Hz
	Detection range	0.25 to 16 A sinusoidal
	Detection precision	< 1 A: \pm 100 mA; > 1 A: \pm 8 % of the current value
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

Information

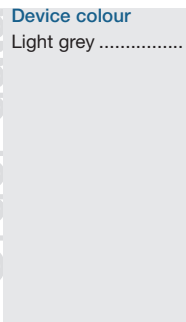
The switch actuator 4gang C load is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. The switching contacts are specially designed for the connection of loads with a capacitive character (C load) and the high making currents thus generated. The device is therefore especially suitable for the switching of Tronic transformers and fluorescent lamps. Additionally current detection can be optionally carried out and processed once per output.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state.

The relay position is not detected via the bus, however. When configured and commissioned with the ETS3.0d or newer versions, shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator does not require any additional external power supply.

Order data

Device colour
Light grey 7531 40 16



Applications

Switching RS, LO, TF 20A001

Switching RS, LO, TF 20A011
(for ETS 3 from version d)

- Independent switching of the four outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel—alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel
- Current detection for each output and transmission behaviour of the current detection adjustable
- Load monitoring with fixed load limits or adjustable with teaching function
- Message in the event of overload and underload and transmitter behaviour can be set

Objects	66
Group addresses/assignments	maximum 254/maximum 255

Notes

ATTENTION

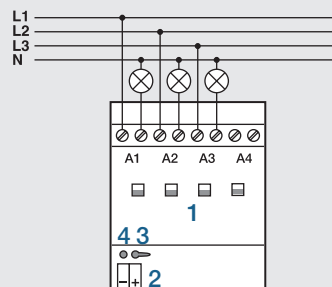
Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

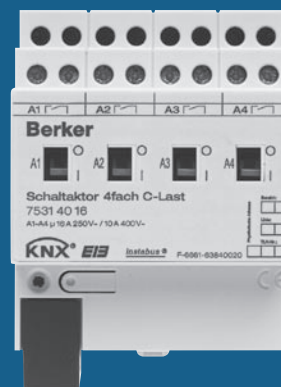
The connection of three-phase motors is not permissible.

Key

1. Manual selection switch/ status indication
2. Bus connection
3. Programming button
4. Programming LED



- Four independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Current detection for each output
- Manual selection switch with status indication for each output



**Switch actuator 4gang
16A C-load, NO manu-
al status with current
detection**



ETS search path: Berker >> Output >> Binary output, 4gang >>

Technical data

Supply	via bus line	21–32 V DC
Outputs	4 NO contacts	potential-free μ contacts, bistable
	Rated voltage	230/400 V AC: 50/60 Hz; DC: 24 V
	Switching current	230/400 V AC: 16 A/AC-1, 16 A/AC-3; DC: 16 A/24 V
	Making current	max. 600 A, 150 μ s; 300 A, 600 μ s
	Min. switching current	100 mA (at 24 V)
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Bus voltage restore	software-dependent
Breaking capacity	Ohmic load	3680 W
	Incandescent lamps/HV halogen lamps	3680 W
	LV halogen	Conventional transformers: 2000 VA
		Tronic transformers: 2500 W
	Fluorescent lamps T5/T8	uncompensated: 2500 W
		parallel-compensated: 2500 W, 200 μ F
		Duo circuit: 3680 W, 200 μ F
		uncompensated: 3680 W
	Mercury vapour lamps	parallel compensated: 3680 W, 200 μ F
Current detection	Frequency	50/60 Hz
	Detection range	0.25 to 16 A sinusoidal
	Detection precision	< 1 A: \pm 100 mA; > 1 A: \pm 8 % of the current value
Operation and display elements	4 manual selection switches	ON/OFF relay
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core
		0.75–4 mm ² finely stranded without conductor,
		0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

Information

The switch actuator 8gang C load is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts. The switching contacts are specially designed for the connection of loads with a capacitive character (C load) and the high making currents thus generated. The device is therefore especially suitable for the switching of Tronic transformers and fluorescent lamps. Additionally current detection can be optionally carried out and processed once per output.

The manual selection switches on the front of the device can be used to switch the relays on and off by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. The relay position is not detected via the bus, however. When configured and commissioned with the ETS3.0d or newer versions, shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions. The switch actuator does not require any additional external power supply.

Order data

Device colour	
Light grey	7531 80 05

Applications

Switching RS, LO, TF 209801

Switching RS, LO, TF 209811
(for ETS 3 from version d)

- Independent switching of the eight outputs
- NO or NC operation can be set
- Central switching function with group feedback
- Switching feedback (only in bus operation): Active (when changed or cyclically) or passive (object can be read out) feedback function can be set
- Logical linking function ("AND", "OR", "AND with return") for each output
- Blocking function can be set for each channel – alternatively forced setting function for each output
- Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function)
- Can be included in light scenes, up to eight internal scenes can be set
- Operating hours meter can be activated for each output
- Input monitoring for cyclic updating with safety position
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each channel
- Current detection for each output and transmission behaviour of the current detection adjustable
- Load monitoring with fixed load limits or adjustable with teaching function
- Message in the event of overload and underload and transmitter behaviour can be set

Objects	66
Group addresses/assignments	maximum 254/maximum 255

Notes

ATTENTION

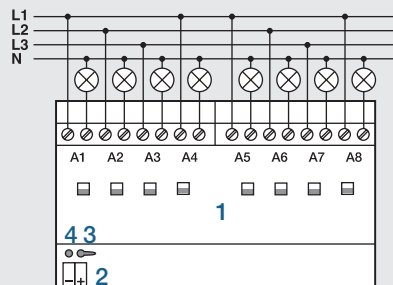
Suitable for switching different external phase conductors.

When adjusted by means of a central telegram, the relay outputs of the switch actuator switch with a slight time delay. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator

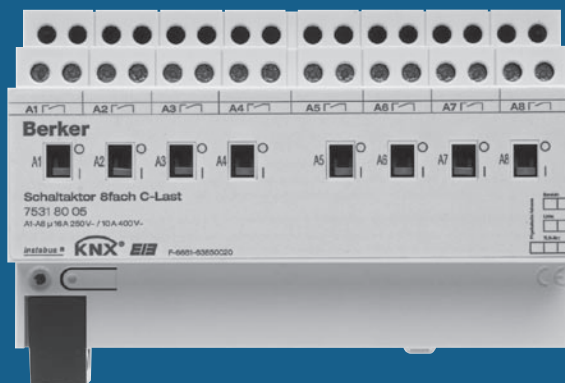
is not permissible. The connection of three-phase motors is not permissible.

Key

1. Manual selection switch/status indication
2. Bus connection
3. Programming button
4. Programming LED



- Eight independent outputs
- Outputs can be set as NO or NC
- Potential-free bistable NO contacts 16 A
- Current detection for each output
- Manual selection switch with status indication for each output



**Switch actuator 8gang
16A C-load NO manual
status with current
detection**



ETS search path: Berker >> Output >> Binary output, 8gang >>

Technical data

Supply	via bus line	21–32 V DC
	Auxiliary voltage	110 to 230 V AC ±10%, 50/60 Hz
Outputs	8 NO contacts	potential-free μ contacts, monostable
	Rated voltage	110 to 230 V AC, +10% -15% 400 V AC; 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3 400 V AC: 10 A/AC-1; 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 800 A, 200 μ s; 165 A, 20 ms
	Min. switching current	100 mA (at 24 V)
	Total current load capacity	max. 160 A
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
	Bus/mains voltage return	software-dependent
Breaking capacity	Ohmic load	3000 W
	Capacitive load	16 A, max. 140 μ F
	Motor load	1380 VA (shutter/blind or fan)
	Incandescent lamps	3000 W
	LV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 1000 W parallel-compensated: 1160 W, 140 μ F Duo circuit: 2300 W, 140 μ F
	Mercury vapour lamps	uncompensated: 1000 W parallel compensated: 1160 W, 140 μ F

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Information

The switch/shutter actuator 8gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts or controls up to four motor drives for shutters, blinds, etc. Switching and shutter operation combined on a single actuator are also possible.

The 4 push-button field on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. For manual operation and the power supply for the relays, a separate auxiliary voltage supply is required. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

Order data

Device colour	
Light grey	7531 80 03

Switching shutter 208002	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for the eight outputs, in shutter operation each pair of two neighbouring outputs are combined into a shutter output
Switching shutter 208012 (for ETS 3 from version d)	<ul style="list-style-type: none"> ■ Responses in the event of bus voltage failure and return can be set for each output ■ Delay for active feedback after bus voltage return can be adjusted ■ Manual operation can be blocked
Shutter operation	<ul style="list-style-type: none"> ■ Activation of lamella shutters, blinds or ventilation flaps adjustable ■ Separately paramet. operation times with operation time extension for moving to the upper end position ■ Central activation of all shutter outputs possible ■ Active and passive (object can be read out) feedback of the shutter position or lamella position ■ Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring ■ Forced setting function can implemented for each shutter output ■ Extensive sun shade function can be set for each output ■ Can be included in scenes: Up to eight internal scenes can be set
Switching operation	<ul style="list-style-type: none"> ■ NO or NC operation can be set ■ Central switching function with group feedback ■ Active and passive (object can be read out) feedback of the switching state ■ Logical linking function ("AND", "OR", "AND with return") for each output ■ Blocking function can be paramet. for each channel—alternatively forced setting function for each output ■ Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function) ■ Can be included in light scenes, up to eight internal scenes can be set
Objects:	76
Group addresses/assignments:	maximum 254/maximum 255

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- Combination unit for switching or control of motor drives
- Outputs can be set as NO or NC
- Eight potential-free NO contacts 16 A
- Four push-buttons with LED display for manual operation
- LED status indication for each channel



Switch/shutter actuator 8/4gang 16 A NO manual status



ETS search path: Berker >> Output >> Binary output, mix >>

Technical data ▼

Operation and display elements	Button field 4gang 3 status LEDs on-the-spot operation 8 status LEDs outputs Programming button Programming LED	Local operation Red Red Red
Connections	KNX/EIB Outputs: Screw terminals	Connecting terminal 0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules

Notes

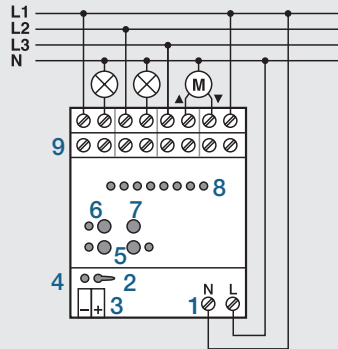
ATTENTION

Suitable for switching different external phase conductors.

The mains voltage must be present in order to activate the outputs.

The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

The connection of three-phase motors is not permissible.



Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons 1/▲ and 0/▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs



**Switch/shutter actuator 8/4gang
16 A NO manual status**

Technical data

Supply	via bus line	21–32 V DC
	Auxiliary voltage	110 to 230 V AC ±10%, 50/60 Hz
Outputs	16 NO contacts	potential-free μ contacts, monostable
	Rated voltage	110 to 230 V AC, +10% -15% 400 V AC; 50/60 Hz DC: 24 V
	Switching current	230 V AC: 16 A/AC-1; 10 A/AC-3 400 V AC: 10 A/AC-1; 6 A/AC-3 DC: 16 A/24 V
	Making current	max. 800 A, 200 μ s; 165 A, 20 ms
	Switching current	min. 100 mA (at 24 V)
Behaviour in the event of power failure/restore	Total current load capacity	max. 160 A
	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
Breaking capacity	Bus/mains voltage return	software-dependent
	Ohmic load	3000 W
	Capacitive load	16 A, max. 140 μ F
	Motor load	1380 VA (shutter/blind or fan)
	Incandescent lamps	3000 W
	LV halogen lamps	2500 W
	LV halogen	Conventional transformers: 1200 VA Tronic transformers: 1500 W
	Fluorescent lamps T5/T8	uncompensated: 1000 W parallel-compensated: 1160 W, 140 μ F
	Mercury vapour lamps	Duo circuit: 2300 W, 140 μ F

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Information

The switch/shutter actuator 16gang is designed as a top hat rail mounted device. It receives KNX/EIB telegrams and carries out appropriate switching functions depending on the setting using its mutually independent relay contacts or controls up to eight motor drives for shutters, blinds, etc. Switching and shutter operation combined on a single actuator are also possible.

The 4 push-button field on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. For manual operation and the power supply for the relays, a separate auxiliary voltage supply is required.

When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

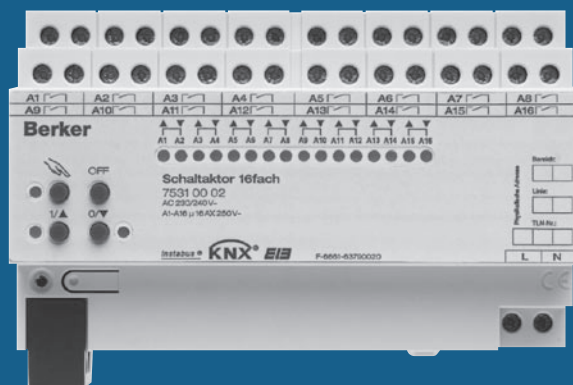
Order data

Device colour	
Light grey	7531 00 02

Switching/shutter 207802	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for the sixteen outputs, in shutter operation each pair of two neighbouring outputs are combined into a shutter output ■ Responses in the event of bus voltage failure and return can be set for each output ■ Delay for active feedback after bus voltage return can be adjusted ■ Manual operation can be blocked
Switching/shutter 207812 (for ETS 3 from version d)	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for the sixteen outputs, in shutter operation each pair of two neighbouring outputs are combined into a shutter output ■ Responses in the event of bus voltage failure and return can be set for each output ■ Delay for active feedback after bus voltage return can be adjusted ■ Manual operation can be blocked
Shutter operation	<ul style="list-style-type: none"> ■ Activation of lamella shutters, blinds or ventilation flaps adjustable ■ Separately paramet. operation times with operation time extension for moving to the upper end position ■ Central activation of all shutter outputs possible ■ Active and passive (object can be read out) feedback of the shutter position or lamella position ■ Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring ■ Forced setting function can implemented for each shutter output ■ Extensive sun shade function can be set for each output ■ Can be included in scenes: Up to eight internal scenes can be set
Switching operation	<ul style="list-style-type: none"> ■ NO or NC operation can be set ■ Central switching function with group feedback ■ Active and passive (object can be read out) feedback of the switching state ■ Logical linking function ("AND", "OR", "AND with return") for each output ■ Blocking function can be paramet. for each channel—alternatively forced setting function for each output ■ Time functions (switch on delay, switch off delay, stair light function - also with pre-warning function) ■ Can be included in light scenes, up to eight internal scenes can be set
Objects:	122
Group addresses/assignments:	maximum 254/maximum 255

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- Combination unit for switching or control of motor drives
- Outputs can be set as NO or NC
- Sixteen potential-free NO contacts 16 A
- Four push-buttons with LED display for manual operation
- LED status indication for each channel



Switch/shutter actuator 16/8gang 16 A NO manual, status



ETS search path: Berker >> Output >> Binary output, mix >>

Technical data ▼

Operation and display elements	Button field 4gang 3 status LEDs for local operation 8 status LEDs outputs Programming button Programming LED	Local operation Red Red Red
Connections	KNX/EIB Outputs: Screw terminals	Connecting terminal 0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

Information



Notes

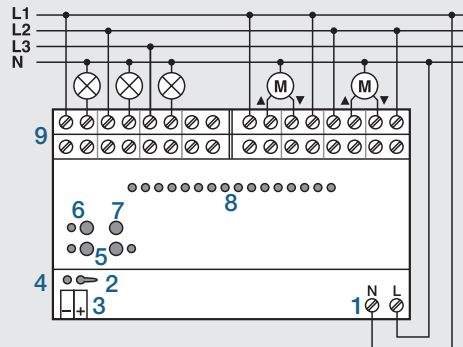
ATTENTION

Suitable for switching different external phase conductors.

The mains voltage must be present in order to activate the outputs.

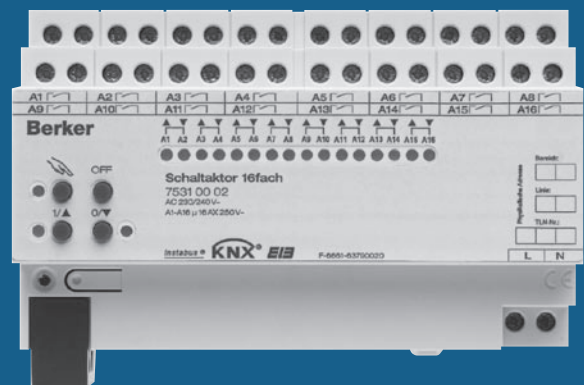
The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permissible.

The connection of three-phase motors is not permissible.



Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons 1/▲ and 0/▼ each with associated LED
6. Manual button with associated LED
7. Off/bus operation button
8. Status LEDs of the outputs
9. Outputs



Switch/shutter actuator 16/8gang 16 A NO manual, status

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	approx. -19 V DC; continuous signal
Outputs	1 NO contact	potential-free μ contact, bistable
	Rated voltage	230 V AC; 50 60 Hz
	Switching current	max. 16 A
	Making current	max. 400 A, 20 ms
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation
Behaviours in the event of bus voltage return	Inputs	No response
	Outputs	Dependent on the parameterisation
Breaking capacity	Incandescent lamps	2500 W
	HV halogen lamps	2200 W
	LV halogen	Conventional transformers: 1000 VA Tronic transformers: 1000 W
	Capacitive load	230 V AC, 10 A nominal current, max. 105 μ F
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pre-assem. connecting cable, connecting terminal
	Inputs	Pre-assem. connecting cable: YY 6 x 0.6 mm ²
	Output	Pre-assem. connecting cable: 2 x H05 V-K 2.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	e.g. insertion in deep flush-mounted box	\varnothing 60 mm
Mounting orientation	as desired	
Dimensions (\varnothing x H)	53 x 28 mm	Hole in the centre of the actuator: \varnothing = 7 mm

Information

The switch actuator 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and switches electrical loads with its relay contact.

The device also has two extension unit inputs that can operate either directly on the switching output (local operation of the switching output by input 1) or also alternatively as binary outputs on the bus, depending on the parameterisation. The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator.

Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Order data

Device colour	
Light grey	7534 10 01

Switching, 2 inputs 207201	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return and can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between step/move time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Value transmitter and light scene extension unit function	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Output can be set as NO or NC ■ Preferred position in the event of bus voltage failure and return can be set ■ Additional feedback and one additional function possible ■ Adjustable additional functions: <ul style="list-style-type: none"> - Logic function with three logical parameters - Blocking function with adjustable blocking behaviour of the relays - Forced setting function for assigning priorities to arriving switching telegrams ■ Feedback object invertible ■ Delay for bus voltage return can be adjusted ■ Switch-on and/or switch-off delay or timer function adjustable
Objects	9
Group addresses/assignments	maximum 26/maximum 27

continued on next double page ►

- Potential-free bistable NO contact 16 A
- Two independent binary inputs for potential-free contacts
- Local operation via input pre-programmed
- Pre-assembled connecting cables



Switch actuator 1gang 16A



ETS search path: Berker >> Output >> Binary output, 1gang >>



Notes

ATTENTION

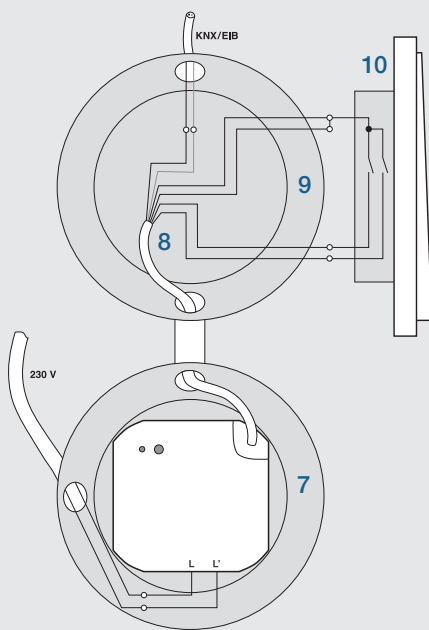
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (9) can house the bus and extension unit connection and also a series switch (10), for example.

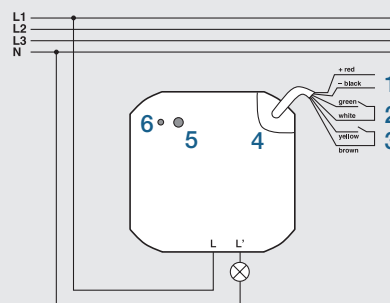
The other box (7) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (8) is routed through the connection between the boxes.



Connection diagram for e.g. a series switch

Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED
7. Flush-mounted box for switch actuator 1gang
8. 6pole connecting cable
9. Flush-mounted box for e.g. series switch
10. Series switch



**Switch actuator
1gang 16A**

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	approx. -19 V DC; continuous signal
Outputs	2 NO contacts	potential-free μ contact, bistable
	Rated voltage	230 V AC; 50 60 Hz
	Switching current	max. 6 A
	Making current	max. 120 A, 20 ms
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation
Behaviours in the event of bus voltage return	Inputs	No response
	Outputs	Dependent on the parameterisation
Breaking capacity	Incandescent lamps	1200 W
	HV halogen lamps	1200 W
	LV halogen	Conventional transformers: 500 VA Tronic transformers: 500 W
	Capacitive load	230 V AC, 6 A nominal current, max. 14 μ F
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pre-assem. connecting cable, connecting terminal
	Inputs	Pre-assem. connecting cable: YY 6 x 0.6 mm ²
	Output	Pre-assem. connecting cable: 2 x H05 V-K 2.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	e. g. insertion in deep flush-mounted box	\varnothing 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (\varnothing x H)	53 x 28 mm	Hole in the centre of the actuator: \varnothing = 7 mm

Information

The switch actuator 2gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and switches electrical loads with its two relay contacts.

The device also has two extension unit inputs that can operate either directly on the switching output (local operation) or also alternatively as binary outputs on the bus, depending on the parameterisation.

The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Order data

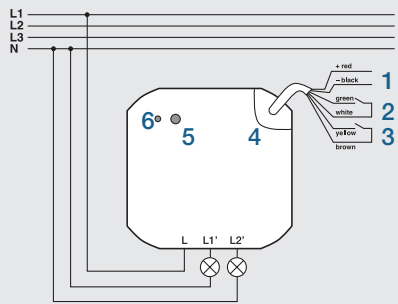
Device colour	
Light grey	7534 20 01

Applications

Switching, 2 inputs 207101	
Inputs	■ like previous device
Function switching	■ like previous device
Function dimming	■ like previous device
Function shutter	■ like previous device
Value transmitter and light scene extension unit function	■ like previous device
Outputs	■ like previous device
Objects	12
Group addresses	maximum 26
Assignments	maximum 27

Notes

ATTENTION
 The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!
 Not suitable for connection of different external conductors!
 Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.



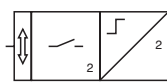
- Key**
1. KNX/EIB connection (red/black)
 2. Input 1 (green/white)
 3. Input 2 (yellow/brown)
 4. Bus and extension unit connection
 5. Programming button
 6. Programming LED

Installation recommendation
 See previous page.

- Potential-free bistable NO contacts 6 A
- Two independent binary inputs for potential-free contacts
- Local operation via inputs pre-programmed
- Pre-assembled connecting cables



Switch actuator 2gang 6A



ETS search path: Berker >> Output >> Binary output, 2gang >>

Technical data

Supply	via bus line Supply voltage	21–32 V DC via connected phase lead (2-wire system)
Outputs	Switch type Rated voltage Rated current Minimum load Overall power loss	Power MOS-FET (phase rising or falling zero transit) 230 V AC ±10 %, 50 to 60 Hz 2.2 A 50 W (if output switched) maximum 4.5 W
Behaviour on power failure/restoration	Bus or mains power failure Bus and mains power failure Bus power restoration Mains power restoration Bus and mains power restoration	Dimmer actuator switches off Dimmer actuator switches off Software-dependent Dimmer actuator adjusts brightness according to object value Software-dependent
Dimming capacity	Resistive load, incandescent lamps, HV halogen lamps, LV halogen lamps with electronic or conventional transformer	50–500 W/VA in each case
Operation and display elements	Programming button Programming LED	Red
Connections	KNX/EIB Outputs	terminals screw terminals 0.25–4 mm ²
Protection	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

Information

The universal dim actuator 1gang is executed as a top hat rail mounted device. It operates on the generalized phase cut-on or phase cut-off principle, and permits switching and dimming of incandescent lamps, HV halogen lamps and LV halogen lamps with conventional or Tronic transformers.

The characteristic of the connected load is automatically calibrated and the dimmer actuator is set to the appropriate dimming method.

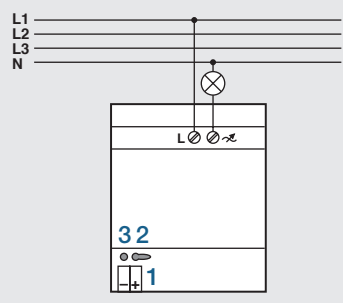
Order data

Device colour	
Light grey	7531 10 07

Applications

Dimming 301701	<ul style="list-style-type: none"> ■ Switching and dimming of lights ■ “Dim-down” or “Jump onto” preset brightness levels function ■ Switch-on and dimming response programmable ■ “Soft-ON”, “Soft-OFF” and “timed dimmer” (stairwell light function) programmable ■ Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level ■ Switching status/dimming value indication object ■ Light scene mode – retrieval of up to eight brightness values as light scenes ■ Activation of a lockout mode – brightness value at beginning and end of lockout programmable ■ Response to bus power restoration programmable ■ Overload detection
Objects	9
Group addresses/assignments	maximum of 27 each

Notes

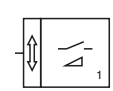


- Key**
1. Bus connection
 2. Programming button
 3. Programming LED

- Automatic calibration to connected load
- Energy-saving softstart
- Dimming rate and basic brightness configurable
- Revertive signal (feedback) of switching state
- Overheating protection
- Electronic shorting and overload protection



Universal dim actuator 1gang 50-500 W/VA



ETS search path: Berker >> Illumination >> Dimmer >>

Technical data

Supply	via bus line	21–32 V DC
	Supply voltage (two-wire technique)	via connected outer conductor
Outputs	Switch type	Power MOS-FET
	Rated voltage	230 V AC
	Rated current	2 x 1 A
	Minimum load	50 W per channel
	Total power loss	maximum 4.5 W (both channels)
Response to power failure/restoration	Bus or mains power failure	Dim actuator switches off
	Bus and mains power failure	Dim actuator switches off
	Bus power restoration	programmable
	Mains power restoration	Dim actuator adjusts brightness according to object value
	Bus and mains power restoration	programmable
Dimming capacity	Bulbs, HV halogen lamps, LV halogen lamps with electronic or conventional transformer	50 – 300 W/VA each
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Pressure contact on data rail
	Outputs	Screw-type terminals 0.25 – 4 mm ²
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	No minimum clearances
Mounting orientation	any	
Dimensions (WxHxD)	72 x 90 x 58 mm	4 modules

Information

The universal switch actuator 2gang is executed as a top hat rail mounted device. It operates on the generalized phase cut-on or phase cut-off principle, and permits switching and dimming of bulbs, HV halogen lamps and LV halogen lamps with conventional or Tronic transformers.

The characteristic of the connected load is automatically calibrated and the dim actuator is set to the appropriate dimming method.

Order data

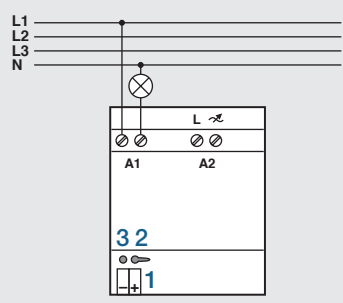
Device colour	
Light grey	7531 20 07

Applications

Dimming 301501	<ul style="list-style-type: none"> ■ Switching and dimming of lights ■ “Dim-down” or “Jump onto” preset brightness levels function ■ Switch-on and dimming response programmable ■ “Soft-ON”, “Soft-OFF” and “timed dimmer” (stairwell light function) programmable ■ Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level ■ Switching status/dimming value indication object ■ Light scene mode – retrieval of up to eight brightness values as light scenes ■ Activation of a lockout mode – brightness value at beginning and end of lockout programmable ■ Response to bus power restoration programmable ■ Overload detection
Objects	18
Group addresses/assignments	maximum 34/maximum 28

Notes

ATTENTION
Suitable for switching and dimming different external phase conductors.

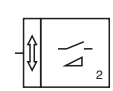


- Key**
1. Bus connection
 2. Programming button
 3. Programming LED

- Automatic calibration to connected load
- Energy-saving softstart
- Dimming rate and basic brightness configurable
- Revertive signal (feedback) of switching state
- Overheating protection
- Electronic shorting and overload protection



Universal dim actuator 2gang 2 x 300 W/VA



ETS search path: Berker >> Illumination >> Dimmer >>

Technical data

Supply	via bus line	21–32 V DC
Auxiliary voltage	AC 190 to 230 V ~ +10/-15 %; 50/60 Hz	
Outputs	Switch type	Power MOS-FET (phase cut-on or phase cut-off)
	Rated voltage	230 V AC; 50/60 Hz
	Minimum load	20 W/VA (if output connected)
	Total power loss	max. 10 W
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Mains voltage failure	Loads are switched off
	Bus/mains voltage return	software-dependent
Dimming capacity	Incandescent lamps, HV halogen lamps LV halogen lamps with electronic or conventional transformer	each 20–210 W/VA
Operation and display elements	Button field 4gang	Local operation
	3 status LEDs local operation	Red
	8 status LEDs outputs	Red
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0.5–4 mm ² single/finely stranded without conductor sleeve
		0.5–2.5 mm ² finely stranded with conductor sleeve
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Operation and storage/transport	-25 to +70 °C
Installation	on top hat rail 35 mm, EN 50022	
Mounting orientation	as desired	preferably output terminals up
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

Information

The dim actuator 4gang is designed as a top hat rail mounted device. It operates according to the phase cut-on and phase cut-off principle, and makes it possible to switch and dim different lamp loads on four outputs.

The characteristic of the connected load is calibrated automatically and the suitable dimming process is set, although the setting can also be made manually using the programming software.

The manual selection switches on the front of the device can be used to switch and dim the connected loads by means of manual actuation in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state.

When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

The device requires a separate auxiliary voltage supply.

Order data

Device colour	
Light grey	7531 40 17

Applications

Dimming 301A01

Dimming 301A11
(for ETS 3 from version d)

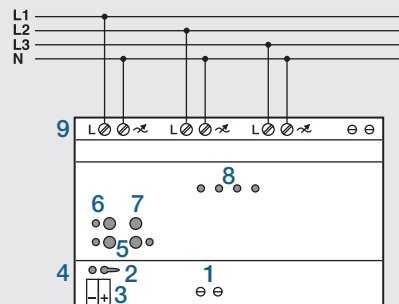
- Independent activation of up to 4 dimming outputs
- Manual actuation of the outputs possible independently from the bus (building site operation)
- Central switching function for common activation of all outputs
- Switching feedback: active or passive (object can be read out) feedback function
- Load type can be set for each output:
 - universal (with automatic calibration process)
 - electronic transformer (capacitive/phase cut-off principle)
 - conventional transformer (inductive/phase cut-on principle)
- Brightness limit values for basic and maximum brightness adjustable
- Dimming behaviour (including fading) and dimming characteristic curves adjustable
- Soft switch-on or soft switch-off function adjustable
- Transmission of message telegrams to the bus for each output in the event of short-circuit/overload and in the event of a load drop-out adjustable
- Feedback of the connected load type possible
- Blocking function or alternatively forced setting function for each output adjustable
- Time functions (switch-on, switch-off delay, stair light function - also with pre-warning function) adjustable
- Operating hours meter can be activated for each output
- Outputs can be included in up to 8 scenes
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each group

Objects	75
Group addresses/assignments	maximum 254/maximum 255

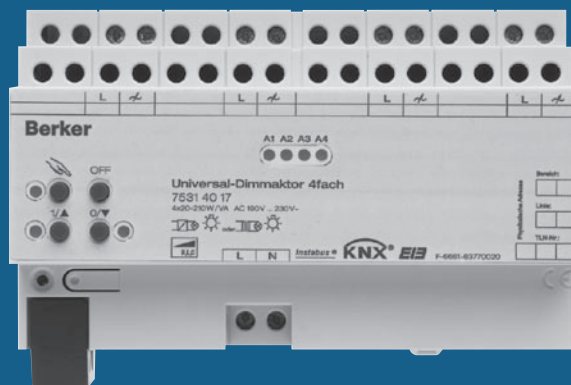
Notes

Key

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Connecting terminal auxiliary voltage 2. Programming button 3. Bus connection 4. Programming LED 5. Push-buttons 1/▲ and 0/▼ each with associated LED 6. Manual button with associated LED 7. OFF button | <ol style="list-style-type: none"> 8. Status LED of the outputs 9. Outputs |
|---|--|



- Four outputs for switching and dimming
- Automatic calibration of the connected load
- Bulb-preserving soft start
- Thermal overload protection
- Electronic short-circuit and overload protection
- Manual selection switch with status indication for each output



Universal dim actuator 4gang 20-210 W/VA manual status



ETS search path: Berker >> Illumination >> Dimmer >>

Technical data

Supply	via bus line external	21–32 V DC via connected external conductor
Inputs	Number Cable length Scanning voltage	maximum 2 33 cm pre-assembled, maximum 5 m approx. up to 19 V DC; continuous signal
Outputs	Switch type Rated voltage Nominal current Minimum load Total energy dissipation	Power MOS-FET (phase cut-on or phase cut-off) 230 V AC; 50/60 Hz 0.9 A 50 W/VA (if output connected) maximum 2 W
Behaviour in the event of bus voltage failure	Outputs	Dependent on the parameterisation Inputs no response
Behaviour in the event of bus voltage return	Outputs Inputs	Dependent on the parameterisation Dependent on the parameterisation
Dimming capacity	Incandescent lamps, HV halogen lamps LV halogen lamps with electronic or conventional transformer	50–210 W/VA
Operation and display elements	Programming button Programming LED	Red
Connections	KNX/EIB Inputs Output	Pre-assem. connecting cable, connecting terminal Pre-assem. connecting cable: YY 6 x 0.6 mm Pre-assem. connecting cable: 2 x H05 V-K 0.75 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Installation	e. g. insertion in deep flush-mounted box	Ø 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (Ø x H)	53 x 28 mm	Hole in the centre of the actuator: Ø = 7 mm

Information

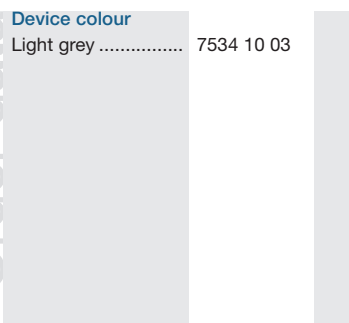
The dim actuator 1gang is designed as a flush-mounted device. It operates according to the phase cut-on and phase cut-off principle, and makes it possible to switch and dim different lamp loads. The characteristic of the connected load is calibrated automatically and the suitable dimming process is set.

The device also has two extension unit inputs that can operate either directly on the dimming output (local 2-push-button operation by inputs 1 and 2) or also alternatively as binary outputs on the bus, depending on the parameterisation. The connected potential-free switching or push-button contacts are read in via a common reference potential on the switch actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out via the binary inputs.

The external power supply is provided via the connected loads.

Order data

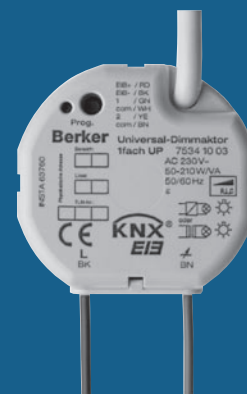
Device colour
Light grey 7534 10 03



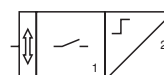
Dimming, 2 inputs 301901	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return and can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between step/move time operation adj. ■ Length of actuation for lamella adjustment adjustable ■ Control concept adjustable
Value transmitter and light scene extension unit function	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Switch-on and dimming behaviour adjustable using parameters ■ Feedback of the switching state possible using a separate communication object ■ Feedback of the set brightness value using a separate com. object or via the brightness value object ■ "Soft ON", "Soft OFF" and timed dimmer adjustable ■ Time-delayed switch-off if lower than a switch-off brightness possible ■ Short-circuit message and report of a load drop-out (also power failure) possible ■ Light scene operation (calling up up to eight internally stored brightness values as light scenes) ■ Activation of lock-out operation with parameterisable brightness value at the beginning and end of the lock-out adjustable via object ■ Behaviour after bus voltage failure and return can be set ■ Delay for bus voltage return can be adjusted centrally
Objects	19
Group addresses/assignments	maximum 26/maximum 27

continued on next double page ►

- Automatic calibration of the connected load
- Bulb-preserving soft start
- Thermal overload protection
- Electronic short-circuit and overload protection
- Two independent binary inputs for potential-free contacts
- Local operation via input pre-programmed
- Pre-assembled connecting cables



Universal dim actuator 1gang 50-210 W/VA



ETS search path: Berker >> Illumination >> Dimmer >>



Notes ATTENTION

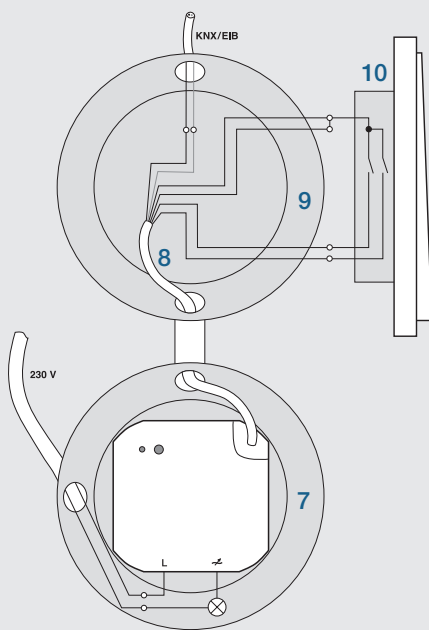
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (9) can house the bus and extension unit connection and also a series switch (10), for example.

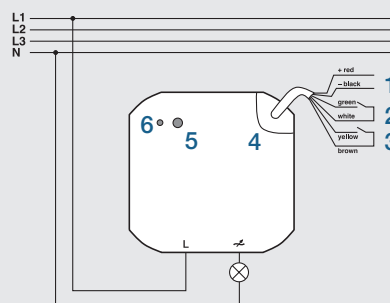
The other box (7) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (8) is routed through the connection between the boxes.



Connection diagram for e.g. a series switch

Key

1. KNX/EIB connection (red/black)
2. Input 1 (green/white)
3. Input 2 (yellow/brown)
4. Bus and extension unit connection
5. Programming button
6. Programming LED
7. Flush-mounted box for switch actuator 1gang
8. 6pole connecting cable
9. Flush-mounted box for e.g. series switch
10. Series switch



**Universal dim
actuator 1gang
50-210 W/VA**

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	3
	Signal voltage	1–10 V
	Signal current per input	max. 100 mA (1 Siemens electronic ballast: approx. 1 mA, 1 Helvar electronic ballast: approx. 4 mA)
	Signal duration	Continuous
	Length of input cable	100 m, at 1.5 mm ²
	Outputs	Number
Response to power failure/restoration	Rated voltage	230 V AC
	Rated current	16 A/AC-1; 10 A/AC-3
	Bus power failure	1–10 V input regulates to 10 V
	Mains power failure	Relay maintains value prior to bus power failure Control voltage at 1–10 V input undefined
	Bus and mains power failure	Relay maintains value prior to bus/mains power failure
	Bus power restoration	programmable
Mains power restoration	Control unit regulates brightness according to object value	programmable
	Bus and mains power restoration	programmable
Switching capacity	Ohmic load	2500 W
	Fluorescent lamps with electronic ballast	Type-dependent, different switch-on currents
Operation and display elements	Manual selection switch, programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal
	Outputs	0.25–4 mm ² and 2 x 0.2–2.5 mm ² , each single-wire
		0.75–4 mm ² fine wire without ferrule 0.5–2.5 mm ² fine wire with ferrule
Protection	IP 20, EN 60529	
Ambient temperature range	Operation and Storage/transportation	-5 to +45 °C or -25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	No minimum clearances
Mounting orientation	any	
Dimensions (WxHxD)	70 x 90 x 58 mm	4 modules

Information

The control unit 3gang is executed as a top hat rail mounted device.
 The unit receives KNX/EIB telegrams and performs switching and dimming functions accordingly.
 It is used to control ballasts with built-in 1–10 V interface (electronic ballasts, electronic transformers).
 The mains voltage of the equipment is fed in via relay contacts. The control voltage is fed in from the ballast and processed by electronic potentiometers of the control unit.

Order data

Device colour	
Light grey	7531 30 05

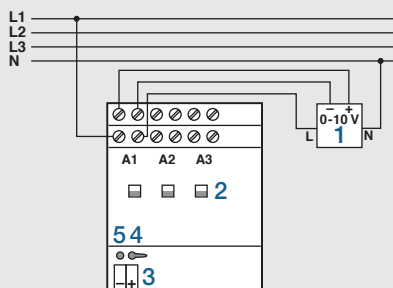
Applications

Control unit 301601

- “Dim-down” or “jump to” preset brightness levels function
- Switch-on and dimming response programmable
- Active transmission of brightness values (set “T” flag!)
- “Soft-ON”, “Soft-OFF” and “timed dimmer” (stairwell light function) programmable
- Time-delayed switch-off when basic brightness reached or when light falls below basic brightness level
- Switching status/dimming value indication object
- Switching and dimming of fluorescent lamps in conjunction with electronic ballast (EVG) or other 1–10 V dimmable devices
- Light scene mode, retrieval of up to eight brightness values as light scenes
- Activation of a lockout mode – brightness value at beginning and end of lockout programmable
- Response to bus power restoration programmable

Objects	18
Group addresses	maximum 34
Assignments	maximum 28

Notes



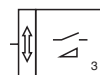
Key

1. Electronic ballast (EVG)
2. Manual selection switch/Status indication
3. Bus connection
4. Programming button
5. Programming LED

- Integral switching contacts 16 A
- 1–10 V interfaces 100 mA
- Manual selection switch/Status indication
- Switching status indication object



**Control unit 3gang
1-10 V 16 A**



ETS search path: Berker >> Illumination >> Dimmer >>

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typ. 150 mW
	Power supply	24 V DC ±10 % (no AC)
	Power loss	min. 0.3 W up to max. 1.8 W (without connected load)
Outputs	Number	4
	Type	4 changeover contacts (mono-stable for each output), direction mechanically locked against each other
	Switching voltage	230 V AC ±10 %, 50/60 Hz
	Switching power	max. 6 A at 24 V AC (non-inductive or low-inductance loads)
Response to power failure/restoration	Bus power failure	depends on software
	Mains power failure	all outputs switch off, no manual operation, position data, functions are lost, but safety functions remain intact
	Bus and mains power failure	as above - safety functions are discarded.
	Bus power restoration	Outputs off, bus communication possible
	Mains power restoration	depends on software, manual operation possible
	Bus and mains power restoration	depends on software, manual operation possible
Operating and display elements	Button	activation of manual operation
	3 buttons	Retrieval of the shutter functions locally
	Programming button	
	Programming LED	Red
Connections	11 status LEDs	Red
	KNX/EIB	terminal
	Outputs: screw terminals	0.5 – 4 mm ² single/fine wire without end cap sleeve 0.5 – 2.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation/storage/transport	-5 to +45 °C/-25 to +70 °C
Mounting/mounting orientation	on top hat rail 35 mm, EN 50022	any orientation
Dimensions (WxHxD)	72 x 90 x 64 mm	4 modules

Information

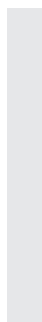
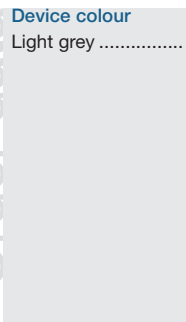
The shutter actuator 4gang is designed as a top hat rail mounted device. Depending on the instabus KNX/EIB telegrams, it switches four mutually independent channels so that they can control one motorised drive each. The number of channels can be reduced to two. In this case, two motors control one channel each.

The various outputs can be controlled independently of the bus by means of the integrated manual operation function in the device. The actuator also makes it possible to move to specific blind, shutter or lamella positions in response to sun shade, centre or position telegrams. The position is acted upon both in bus and manual mode and can be output via the position object. When a storm warning is received, the actuator can move the blinds and/or shutters to a preset safety position and lock them in place.

The device requires a separate 24 V DC power supply.

Order data

Device colour
Light grey 7531 40 11



Shutter 206901

- Four mutually independent outputs for one motorised drive
- 2 x 2 channel mode with shared control of two terminal outputs possible
- Operating mode for shutter or blind programmable
- A separate switchover time can be programmed for every output channel in the event of a change of direction
- Separate move times for step and move operation can be programmed for each channel
- A specific position of the shutter (including blade and/or blind) can be set for each channel
- Extension of movement time can be programmed to allow correction of the decelerated lifting time
- Two safety objects for shutter and blind channels with cyclic monitoring
- Polarity of the safety objects can be programmed
- Prioritisation of incoming telegrams can be programmed
- Two sun-protection functions to position the shutters depending on the brightness - one of the sun-protection functions can be selected per channel
- Four central functions are possible in 2 x 2 channel mode - the polarity for these functions can be programmed separately
- Response to bus power failure and bus power restoration can be programmed
- Manual operation can be locked

Objects or group address/assignments

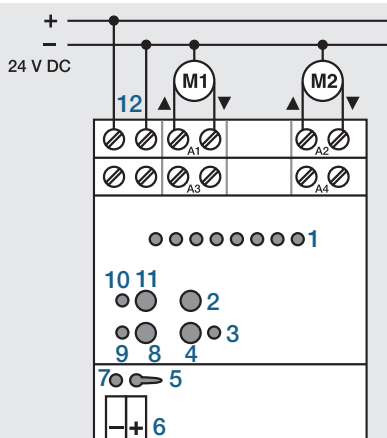
20

32 each

IMPORTANT

Not suitable for connecting alternating voltage (AC).

Terminals “+1/2-” and “+3/4-” must have the same operating voltage polarity. Otherwise, the actuator may be destroyed.



Key

1. LED direction display
2. Manual operation deactivated
3. LED direction display
4. DOWN button (manual operation)
5. Programming button
6. Bus connection
7. Programming LED
8. UP button (manual operation)
9. LED direction display
10. LED manual operation activated
11. Manual operation activation button
12. Terminals 24 V DC

- 4 independent channels for controlling 24 V DC drives
- 2 x 2 channel mode possible
- One separate supply connection for every two channels
- Two LEDs per channel for direction display
- Permanent manual activation with locking of the bus function is possible
- Manual activation without bus power is possible



Shutter actuator 4gang 6A 24 V DC manual status



ETS search path: Berker >> Shutter >> Shutters >>

Supply	via bus line	21–32 V DC
Auxiliary voltage	110 to 230 V AC ±10 %, 50/60 Hz	
Outputs	Number	4/2
	Dependent on the parameterised channel definition	(4-channel 230 V) or (2-channel 12–48 V DC)
	Contact type	μ contact, monostable
	Switching voltage AC	250 V ~, 50/60 Hz
	Contact rating AC	6 A
	Minimum switching current AC	min. 100 mA
	Switching voltage DC	12–48 V DC
	Contact rating DC 12/24 V	6 A
Behaviour in the event of power failure/restore	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
	Bus and mains voltage return	software-dependent
Operation and display elements	Button field 4gang	Local operation
	3 status LEDs local operation	Red
	8 status LEDs outputs	Red
	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Connecting terminal
	Outputs: Screw terminals	0.2–4 mm ² or 2 x 0.2–2.5 mm ² single-core 0.75–4 mm ² finely stranded without conductor, 0.5–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Installation	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	preferably connecting terminals up
Dimensions (WxHxD)	72 x 90 x 70 mm	4 modules

The shutter actuator 4gang is designed as a top hat rail mounted device and uses its mutually independent relay contacts to control motor drives for mains voltage 230 V AC (4 channels) or low voltage 12–48 V DC (2 channels). The four push-buttons on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state. When the device is configured and commissioned with the ETS3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS2/3 versions.

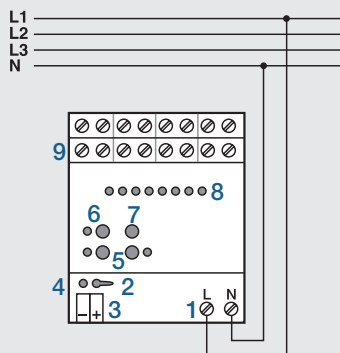
A separate auxiliary voltage supply is necessary for manual operation and for the power supply for the relays.

Device colour	
Light grey	7531 40 18

Applications

Shutter 20A802	<ul style="list-style-type: none"> Mode of operation can be set to four-channel or two-channel
Shutter 20A812 (for ETS 3 from version d)	<ul style="list-style-type: none"> Activation of lamella shutters, blinds or ventilation flaps adjustable Automatic operation time detection for 230 V drives with mechanical end position switches adjustable Separately adjustable operation times with operation time extension for moving to the upper end position Central activation of all shutter outputs possible Active and passive (object can be read out) feedback of the shutter position or lamella position Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring Forced setting function can implemented for each shutter output Extensive sun shade function can be set for each output Input objects for variable sun shade functions (specification e.g. via weather station) Expanded sun shading with presence detection adjustable Inclusion in scenes possible: Up to eight internal scenes can be set Responses in the event of bus voltage failure and return can be set for each output Delay for active feedback after bus voltage return can be adjusted Manual operation can be blocked
Objects	106
Group addresses/assignments	maximum 254/maximum 255

Notes

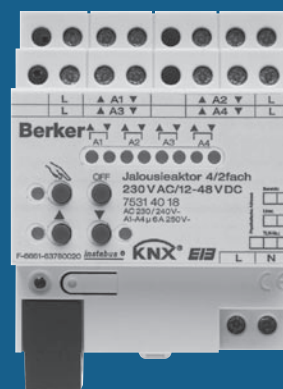


Key

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons ▲ and ▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs

continued on next double page ▶

- Four independent channels for 230V drives/two independent channels for direct current drives
- Automatic operation time detection for 230 V drives with mech. end position switches
- Four buttons for manual operation with LED display
- LED status indication for each channel

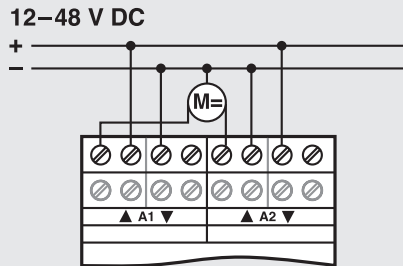


**Shutter actuator
4gang 230 V
AC/2gang 12-48 V
DC manual status**



ETS search path: Berker >> Shutter >> Shutters >>

Electrical connection for 12 to 48 V drive motors

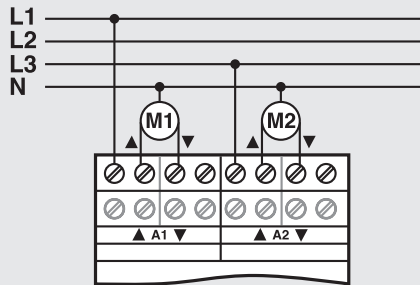


ATTENTION

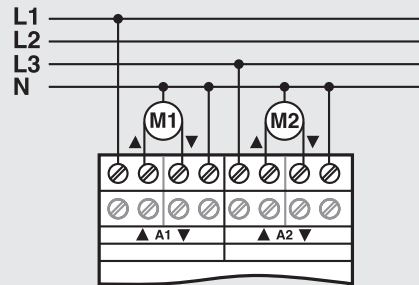
A1 and A2 (as well as A3 and A4) are combined into a channel pair and control a DC drive.
In 2-channel operation the manual operation for output A2 (or A4) does not have any function.
The status LEDs indicate the relay states.

Notes

Electrical connection for 110 to 230 V drive motors



without automatic end position detection

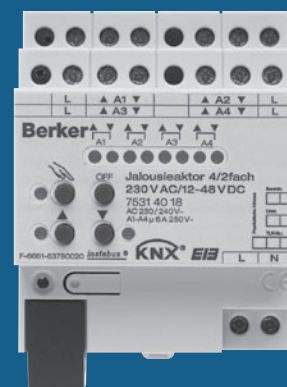


with automatic end position detection

ATTENTION

Suitable for dividing up the loads to different external phase conductors.

With appropriate programming and configuration the shutter actuator detects the operation times of the individual hangings itself and saves them. The actuator measures the voltage at the drives with mechanical end position switches the voltage against the activated N conductor, thus detecting the end positions. During operation the shutter actuator also adjusts itself to changed operation times (e. g. due to ageing of the drives).



**Shutter actuator
4gang 230 V
AC/2gang 12-48 V
DC manual status**

Technical data

Supply	via bus line	21–32 V DC SELV
	Power consumption	Typ. 150 mW
Outputs	Voltage	230 V AC ±10 %, 50/60 Hz
	Energy dissipation min.	0.3 to max. 1.8 W (without connected load)
	Number	4
Behaviour in the event of power failure/restore	Switching voltage	Type 1 NO and 1 change-over contact (mono stable), movement direction interlocked with each other
	Switching current	110 to 240 V AC ±10 %, 50/60 Hz max. 6 A at 230 V AC (not inductive or weakly inductive loads)
	Bus voltage failure	software-dependent
	Mains voltage failure	all outputs switch off; no manual operation; Position data, functions are lost; Safety functions remain, however as before - safety functions are discarded!
	Bus and mains voltage failure	Outputs off, bus communication possible
Operation and display elements	Bus voltage restore	software-dependent, manual operation possible
	Mains voltage return	software-dependent, manual operation possible
Connections	Bus and mains voltage return	software-dependent, manual operation possible
	Button	Activation of manual operation
Protection class	3 push-buttons	Retrieval the shutter functions locally
	Programming button	
	Programming LED	Red
	11 status LEDs	Red
Ambient temperature range	KNX/EIB	Connecting terminal
	Outputs	Screw terminals 0.5–4 mm ² single/finely stranded without conductor sleeve 0.5–2.5 mm ² finely stranded with conductor sleeve
Installation/mounting orientation	IP 20, EN 60529	Safety class II
Dimensions (W x H x D)	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
	on top hat rail 35 mm, EN 50022	as desired
	72 x 90 x 64 mm	4 modules

Information

The blinds actuator 4gang is designed as a top hat rail mounted device and depending on instabus KNX/EIB telegrams switches four mutually independent channels, each of which controls a motor drive. The number of channels can be reduced to two so that two motors can be activated per channel.

Using the integral manual operation on the devices it is possible to activate the individual outputs independently of the bus. If a storm message is received the actuator is able to move the shutters and/or blinds into a pre-defined safety position, and to lock them there. The device requires a separate auxiliary voltage supply.

Order data

Device colour	
Light grey	7531 40 13

Applications

Shutters 207401	<ul style="list-style-type: none"> ■ Four mutually independent output channels, each for a blind control motor or comparable systems ■ Two times 2-channel operation for common activation of two motors per output channel ■ Operation times for step and move operation can be set separately for each channel ■ Switching time on change of direction can be set separately for each output channel ■ Operation time extension can be set for correction of the slowed lifting time ■ Two safety objects for blinds channels can be assigned independently of each other, with cyclic monitoring ■ Polarity of the safety objects adjustable ■ Response in the event of bus voltage failure and bus voltage return can be set ■ Manual operation can be blocked
Objects	10
Group addresses/assignments	maximum 32 each

Notes

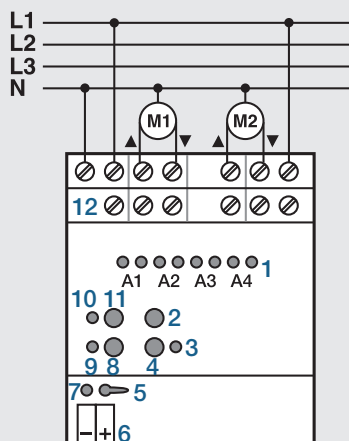
ATTENTION

Suitable for dividing up the loads to different external phase conductors.

Installation

The auxiliary voltage is connected at terminals N and L1 next to the terminals of output A1.

At the same time this supplies power to output A1.



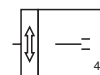
Key

1. LED indication of movement direction
2. Manual operation deactivated
3. LED indication of mov. direction
4. DOWN button (manual operation)
5. Programming button
6. Bus connection
7. Programming LED
8. UP button (manual operation)
9. LED indication of mov. direction
10. LED man. operation activated
11. Manual mode activation push-button
12. Connecting terminals 230 V

- Four independent channels for the activation of 230 V drives
- Two times 2-channel operation possible
- Per channel two LEDs for indication of movement direction
- Continuous manual actuation with lock-out of the bus function possible
- Manual actuation possible without bus voltage



**Blind actuator 4gang
6A 230 V manual**



ETS search path: Berker >> Shutter >> Shutters >>

Supply	via bus line	21– 32 V DC
	Auxiliary voltage	110 to 230 V AC ±10 %, 50/60 Hz
	Total energy dissipation	max. 4.5 W
Outputs	Number	8/4
	Dependent on the parameterised channel definition	(8-channel 230 V) or (4-channel 12 – 48 V DC)
	Contact type	µ contact, monostable
	Switching voltage AC	250 V~, 50/60 Hz
	Contact rating AC	6 A
	Minimum switching current AC	min. 100 mA
	Switching voltage DC	12–48 V DC
	Contact rating DC 12/24 V	6 A
	Contact rating DC 48 V	3 A
Minimum switching current DC	min. 100 mA	
Behaviour in the event of voltage failure/return	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
	Bus and mains voltage return	software-dependent
Operation and display elements	Button field 4gang	Local operation
	3 status LEDs, local operation	red
	16 Status LEDs, outputs	red
	Programming button	
	Programming LED	red
Connections	KNX/EIB	Connection terminal
	Outputs: Screw terminals	0.5 - 4 mm ² single stranded
		0.35 – 4 mm ² finely stranded without cond. sleeve
		0.14 – 2.5 mm ² finely stranded with cond. sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	preferably connection terminals at top
Dimensions (W x H x D)	144 x 90 x 70 mm	8 modules

The shutter actuator 4gang is designed as a rail mounted device and uses its mutually independent relay contacts to control motor drives for mains voltage 230 V AC (8 channels) or low voltage 12–48 V DC (4 channels). The four push-buttons on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the un-programmed state.

When the device is configured and commissioned with the ETS 3.0d or newer versions, the advantages of the new actuator generation, such as shorter download times and parameter configuration are fully usable. A separate product database is available for older ETS 2/3 versions.

A separate auxiliary voltage supply is necessary for manual operation and for the power supply for the relays.

Device colour	
Light grey	7531 80 08

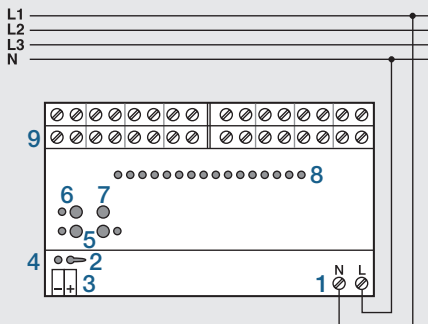
Shutter 20AD01
Shutter 20AD11 (or ETS 3 from version d)

- Mode of operation can be set to eight-channel or four-channel
- Activation of lamella shutters, roller blinds or ventilation flaps adjustable
- Automatic operation time detection for 230 V AC drives with mechan. end position switches adjustable
- Separately adjustable operation times with operation time extension for moving to the upper end position
- Central activation of all shutter outputs possible
- Active and passive (object can be read out) feedback of the shutter position or lamella position
- Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm)
 - if desired with cyclic monitoring
- Forced setting function can be implemented for each shutter output
- Extensive sun shade function can be set for each output
- Input objects for variable sun shade functions (specification e.g. via weather station)
- Expanded sun shading with presence detection adjustable
- Can be included in light scenes: up to eight internal scenes can be set
- Responses in the event of bus voltage failure and return can be set for each output
- Delay for active feedback after bus voltage return can be adjusted
- Manual operation can be blocked

Objects	160
Group addresses/assignments	maximum 254/maximum 255

NOTE

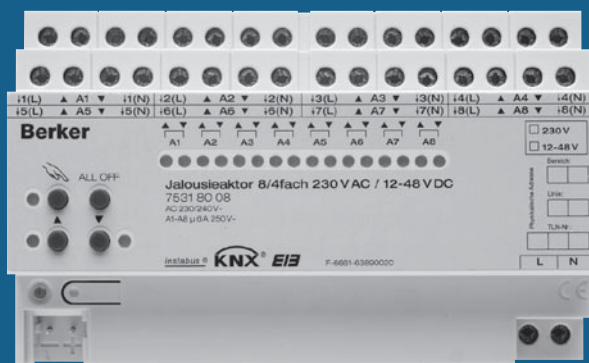
Wiring examples for 12 to 48 V and 110 to 230 V drive motors without or with automatic end position detection can be found on pages 318/319.



Legend

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons ▲ and ▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs

- Four independent channels for 230 V drives / two independent channels for direct current drives
- Automatic operation time detection for 230 V drives with mechanical end position switches
- Four buttons for manual operation with LED display
- LED status indication for each channel



**Shutter actuator
8gang 230 V AC/
4gang 12-48 V DC,
manual, status**



ETS search path: Berker >> Shutter >> Shutters >>

Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	max. 2
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	up to approx. 19 V DC; continuous signal
Output	1	1 x change-over contact plus 1 x NO, potential-free μ contacts, bistable
	Switching voltage	230 V AC; 50/60 Hz
	Switching current	maximum 3 A per output
	Making current	maximum 90 A (200 μ s)
		maximum 80 A (1 ms)
		Switching power Minimum switching current
Behaviour in the event of bus voltage failure	Outputs	Dependent on parameterisation
	Inputs	No response
Behaviour in the event of bus voltage return	Outputs	Dependent on parameterisation
	Inputs	Dependent on parameterisation
Operation and display elements	Programming button	
	Programming LED	red
Connections	KNX/EIB	pre-assem. connecting cable, connecting terminal
	Inputs	pre-assem. connecting cable: YY 6 x 0.6 mm
	Output	pre-assem. connecting cable: 3 x H05 V-K 1.5 mm ² with conductor sleeves
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	e. g. insertion in deep flush-mounted box	\varnothing 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (\varnothing x H)	53 x 28 mm	

Information

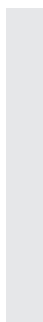
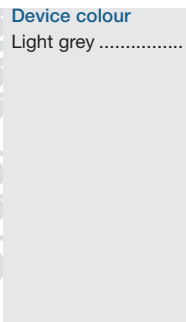
The shutter actuator 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and controls a shutter or roller blind control motor with its output. Both movement directions of the actuator are interlocked with each other.

The device also has three extension unit inputs, of which inputs 1 and 2 can operate either directly on the shutter output (local operation/two push-button principle). Alternatively all of the inputs can also operate on the bus as binary inputs, e.g. for window contacts. The connected potential-free switching or push-button contacts are read in via a common reference potential on the shutter actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out as binary inputs.

The switch actuator is supplied by the KNX/EIB and therefore does not require any additional external power supply.

Order data

Device colour
Light grey 7534 10 04



Shutter, input 20BD01

Shutter, input 20BD11 (for ETS3.0 from version d)

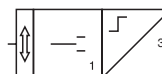
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between short/long time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Function value transmitter and light scene extension unit	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first

continued on next double page ►

- Potential-free bistable relay contacts 6 A
- Three independent binary inputs for potential-free contacts
- Local operation via inputs 1 and 2 pre-programmed
- Use of valve drives closed in de-energized state or open in de-energized state possible
- Pre-assembled connecting cables



Shutter actuator 1gang 3A



ETS search path: Berker >> Shutter >> Shutters >>

Shutter, input 20BD11
(continued)
Output

- Operating mode can be set (shutter, roller blind, or ventilation flap)
- Separately adjustable shutter operation times with independently adjustable lamella operation times
- Switching time on change of direction and times for short/long time operation adjustable
- Feedback of the shutter position or lamella position with active feedback function (when changed or cyclically transmitting to the bus) or passive feedback function (object can be read out)
- Assignments to up to 5 different safety functions (1 rain, 1 frost, 3 wind alarms), if desired with cyclic monitoring
- Extensive sun shade function with expanded sun shading for integration into more complex shading control systems (has separate automatic and blocking objects), if desired with automatic heating-cooling and presence function
- Forced setting function adjustable
- Up to 8 internal scenes adjustable
- Response after bus voltage failure and return adjustable

Objects	28
Group addresses/assignment	maximum 254/maximum 255



Information

NOTE

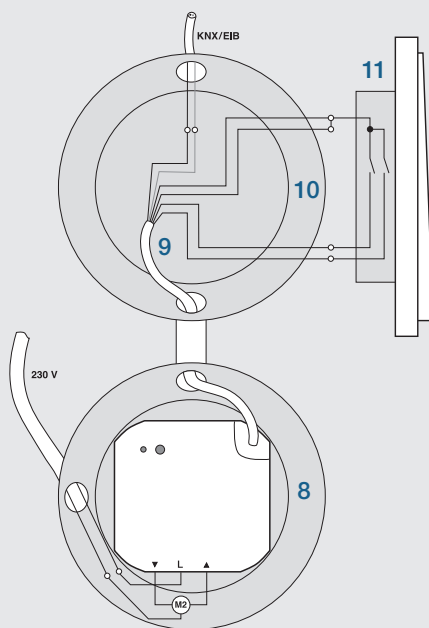
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation:

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (10) can house the bus and extension unit connection and also a series switch (11), for example.

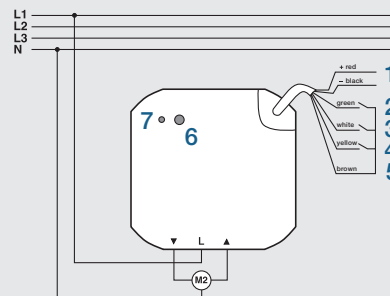
The other box (8) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (9) is routed through the connection between the boxes.



Connection diagram e.g. for a series switch

Legend

1. KNX/EIB connection (red/black)
2. Input 1 (green)
3. Input 2 (white)
4. Input 3 (yellow)
5. Reference potential com (brown)
6. Programming button
7. Programming LED
8. Flush-mounted box for window interface
9. 6pole connecting cable
10. Flush-mounted box for series switch, etc.
11. Series switch



**Shutter actuator
1gang 3A**

Technical data

Supply	via bus line	21– 32 V DC
	Auxiliary voltage	110 to 230 V AC ±10 %, 50/60 Hz
	Total energy dissipation	max. 6 W
Outputs	Number	6
Outputs A1 – A4	potential-free NO contacts	μ contacts, bistable
	Switching voltage	250 V AC
	Contact rating AC1/AC3 (cos φ < 0.8)	16 A/6 A
	Making current	max. 800 A, 200 μs; max. 165 A 20 ms
	min. switching current	100 mA
	Switching capacities	3,000 W (ohmic) 16 A, max. 140 μF (capacitive) 1,380 VA (shutter/roller blinds or fan motors)
Outputs A5 – A6	Semiconductor (triac)	ε
	Switching voltage	230 V AC
	Switching current	5–50 mA
	Making current 2 s	max. 1.5 A
	Number of drives per output	max. 4
Behaviour in the event of voltage failure/return	Bus voltage failure	software-dependent
	Mains voltage failure	Outputs switch off/stop
	Bus and mains voltage return	software-dependent

continued on next double page 

Information

The room actuator 4/2gang is designed as a rail mounted device, and is used for activation of electrical loads from various building facilities, such as those found in residential or office spaces or in a hotel room.

The first 4 outputs can be set to shutter operation, or alternatively to switching operation; mixed operation of these two operating modes is also possible on the device. By means of two additional electronic switching outputs the actuator can control electrothermal valve drives for heating or cooling systems. Up to 4 electrothermal valve drives can be connected to each of these electronic outputs, which are protected against overload and short-circuit.

continued on next double page 

Order data

Device colour	
Light grey	7531 40 19

Switching, shutter, valve 20B301	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for outputs A1... A4 ■ Conversion of switching or constant command value telegrams on the electronic outputs can be set in a switching or pulse-width modulated output signal ■ Separate status feedback to the bus for manual operation; manual operation can be blocked via the bus
Switching, shutter, valve 20B311 (for ETS 3 from version d)	<ul style="list-style-type: none"> ■ Shutter or switching operation can be set for outputs A1... A4 ■ Conversion of switching or constant command value telegrams on the electronic outputs can be set in a switching or pulse-width modulated output signal ■ Separate status feedback to the bus for manual operation; manual operation can be blocked via the bus
Shutter operation	<ul style="list-style-type: none"> ■ Activation of lamella shutters, roller blinds or ventilation flaps adjustable ■ Separately adjustable operation times with operation times extension for moving to the upper end position ■ Central activation of all shutter outputs possible ■ Active and passive (object can be read out) feedback of the shutter position or lamella position ■ Assignments to up to five different safety functions (3 wind, 1 rain, 1 frost alarm), if desired with cyclic monitoring ■ Forced setting function can be implemented for each shutter output ■ Extensive sun shade function can be set for each output ■ Can be included in light scenes, up to eight internal scenes can be set
Switching operation	<ul style="list-style-type: none"> ■ NO or NC operation can be set ■ Central switching function with group feedback ■ Active and passive (object can be read out) feedback of the switching state ■ Logical linking function ("AND", "OR", "AND with return") for each output ■ Blocking function parameterisable for each channel – alternatively forced setting function for each output ■ Time functions (switch-on, switch-off delay, stair light function – also with pre-warning function) ■ Can be included in light scenes, up to eight internal scenes can be set
Valve activation	<ul style="list-style-type: none"> ■ Activation via a switching (1-bit) or continuous (1-byte) command value telegram adjustable. ■ Status feedback (1-bit or 1-byte) automatic or upon read request adjustable ■ Valve direction of action (open/closed in de-energized state) adjustable ■ Summer or winter can be selected via an object (polarity configurable) ■ Cyclical monitoring of the command value adjustable, emergency operation and alarm message can be transmitted to the bus via a separate object (polarity parameterisable) ■ Forced position for activation of a valve position with fixed parameterisation in the ETS ■ Short-circuit and overload protection with optional separate alarm message to the bus (polarity adjustable) ■ Anti-sticking protection for the connected valve drives
Objects	72
Group addresses/assignments	maximum 254/maximum 255

- Four independent channels for switching loads / two independent channels for 230V drives
- Mixed operation for switching and shutter applications
- Two additional electronic switching outputs for heating control
- Noiseless activation of up to 4 thermoelectric drives per electronic output
- Four push-buttons with LED display for manual operation
- LED status indication for each channel



Room actuator 4/2 gang 16 A NO contact, manual, status



ETS search path:
 Berker >> Output >> Binary output, mix >>
 Berker >> Heating, air conditioning, ventilation >>
 Valve >>

Technical data

Operation and display elements	Button field 4gang 3 status LEDs, local operation 6 Status LEDs, outputs Programming button Programming LED	Local operation red red red
Connections	KNX/EIB Outputs: Screw terminals	Connection terminal 0.5 - 4 mm ² single stranded 0.35 - 4 mm ² finely stranded without cond. sleeve 0.14 - 2.5 mm ² finely stranded with cond. sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +70 °C
Mounting	on top hat rail 35 mm	EN 50022
Mounting orientation	as desired	preferably connection terminals at top
Dimensions (W x H x D)	70 x 90 x 70 mm	4 modules

Information

The four push-buttons on the front of the device can be used to switch the relays on and off for manual actuation of the switching or shutter outputs in parallel with KNX/EIB, even without bus voltage or in the un-programmed state.

A separate auxiliary voltage supply is necessary for manual operation and for the power supply for the relays.

Information

NOTE

Suitable for switching different external phase conductors.

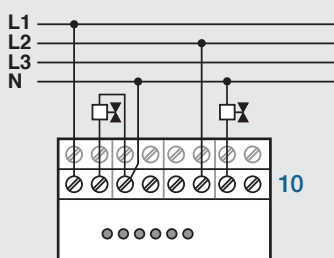
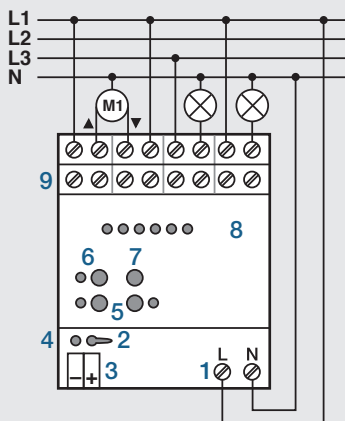
The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permitted.

The connection of three-phase motors is not permitted.

Do not connect more than four electrothermal valve drives per electronic switching output. Do not connect any electric motor-driven valve drives!

The neutral conductor terminals (labelled "N") next to the electronic switching outputs are intended exclusively as a connection aid for the neutral conductors of the valve drives.

The terminals are not connected in the room actuator with any voltage potential or with any other connecting terminal (free supporting terminals), and their use is therefore optional (see 10).



Legend

1. Connecting terminal auxiliary voltage
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons ▲ and ▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs
10. Connection for 230 V electrothermal drives




Room actuator 4/2 gang 16 A NO contact, manual, status

Technical data

Supply	via bus line	21– 32 V DC	
	Auxiliary voltage	230/240 V AC, 50/60 Hz	
	Total energy dissipation	max. 3 W	
Outputs	potential-free NO contacts	μ contacts, bistable	
	Switching voltage	230 V AC	
	Contact rating AC1/AC3 (cos φ < 0.65)	10 A/10 A	
	Making current	max. 800 A, 200 μs; max. 165 A 20 ms	
	min. switching current	100 mA	
	Switching capacities		2,300 W (ohmic)
			10 A, max. 140 μF (capacitive) 2,300 W (230 V incandescent/halogen lamps) 1,500 W (electronic transformers) 1,200 VA (inductive transformers)
Behaviour in the event of voltage failure/return	Bus voltage failure	software-dependent	
	Mains voltage failure	Outputs switch off	
	Bus and mains voltage return	software-dependent	
Operation and display elements	Button field 4gang	Local operation	
	3 status LEDs, local operation	red	
	8 Status LEDs, outputs	red	
	Programming button		
	Programming LED	red	
Connections	KNX/EIB	Connection terminal	
	Outputs: Screw terminals	0.5 - 4 mm ² single stranded	
		0.35 - 4 mm ² finely stranded without cond. sleeve	
		0.14 - 2.5 mm ² finely stranded with cond. sleeve	
Protection class	IP 20, EN 60529		
Ambient temperature range	Operation	-5 to +45 °C	
	Storage/transport	-25 to +70 °C	
Mounting	on top hat rail 35 mm	EN 50022	
Mounting orientation	as desired	preferably connection terminals at top	
Dimensions (W x H x D)	72 x 90 x 70 mm	4 modules	

Information

The fan coil actuator 2gang is designed as a rail mounted device, and allows the control of one or two fan coil units for the heating and cooling of rooms. The device can be used for fan coil units for 2- or 4-tube systems. The fan coil actuator receives command value telegrams and converts these command value telegrams into equivalent fan stages. Furthermore, the fan coil actuator activates the valves in the fan coil unit, which open or close the heating or cooling tube(s) in accordance with the demand. In addition, the fan coil actuator also allows manual activation of the fan, allowing execution of simple ventilation functions without heating or cooling operation, or individual room ventilation when heating or cooling are active. This function is of interest for hotel rooms, classrooms or office spaces, for example. Manual control can be performed using push-buttons or operating panels.

continued on next double page 

Order data

Device colour	
Light grey	7531 20 12

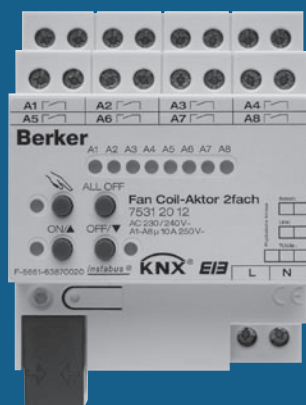
Switching, fan coil 20B001

Switching, fan coil 20B011
(for ETS 3 from version d)

- 1-channel operation or alternatively 2-channel operation can be set
- 5 different fan coil systems can be controlled:
 - 2-tube system only heating (1- and 2-channel operation)
 - 2-tube system only cooling (1- and 2-channel operation)
 - 2-tube system heating/cooling via change-over object (1- and 2-channel operation)
 - 4-tube system heating/cooling via change-over object (only 1-channel operation)
 - 4-tube system heating/cooling via command value specification (only 1-channel operation)
- Separate status feedback to the bus for manual operation; manual operation can be blocked via the bus
- Responses in the event of bus voltage failure and bus and mains voltage return can be set
- Read request possible for operating mode switching in case of switching via object
- Valve and fan protection configurable
- Number of fan stages can be set in the ETS (1-channel operation max. 6 fan stages, 2-channel operation max. 3 fan stages each)
- Fan stages can be operated per alternating principle (only one fan stage output switches on) or stages principle (fan stage outputs switch hierarchically)
- Command value ranges for the fan stages can be adjusted flexibly through assignment of a command value (1 to 100 %) for each fan stage incl. hysteresis
- Switch on behaviour of the fan adjustable
- Switch on delay of the fan during heating or switch-off delay during cooling adjustable
- Limitation of the fan stage via separate 1-bit object to activate
- Feedback of the active fan stage either as an active
- Feedback of the active fan stage either as active message object (transmitting when there is an update) or as a passive status object (can be read out)
- Manual fan control possible
- Cyclic monitoring of the command value telegrams adjustable
- Blocking function possible
- Behaviour of the outputs at the beginning and end of the block adjustable

Objects	45
Group addresses/assignments	maximum 254/maximum 255

- Activation of one or two fan coils
- Activation of one or two fan channels with six or three fan stages for the operating modes heating, cooling, heating and cooling
- Use of free channels to control switching loads
- Four push-buttons with LED display for manual operation

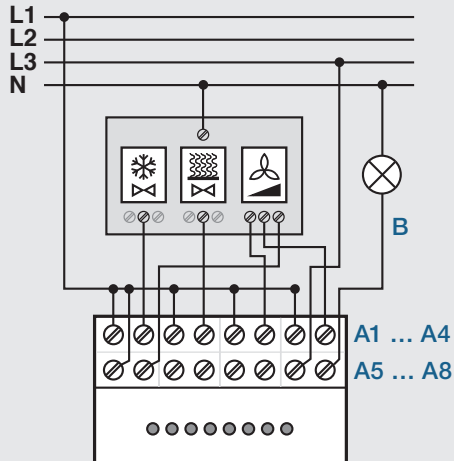


**Fan coil actuator
2gang 10 A NO
contact, manual,
status**



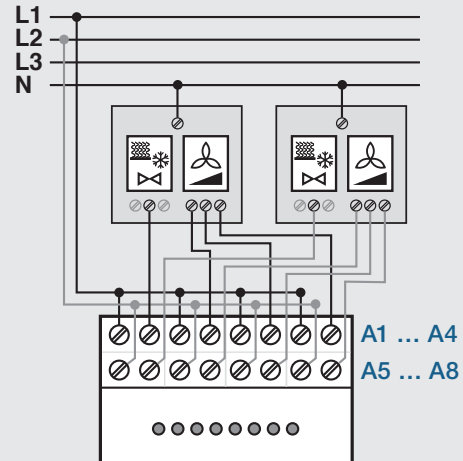
ETS search path: Berker >> Heating, air conditioning, ventilation >> Fan coil >>

Electrical connection in 1-channel operation
4-tube fan coil system (heating and cooling via separate valve) with 3 fan stages



In 1-channel operation the outputs A1 to maximum A8 form the valve and fan stage outputs. In the example output 8 is not used as a fan stage, and is wired as a simple switching output (B). Outputs A6 and A7 are not used in the connection example.

Electrical connection in 2-channel operation
2-tube fan coil system (heating and cooling via separate valve) with 3 fan stages



In 2-channel operation the outputs A1 to A4 form the valve and fan stage outputs for channel 1, and outputs A5 to A8 the valve and fan stage outputs for channel 2.

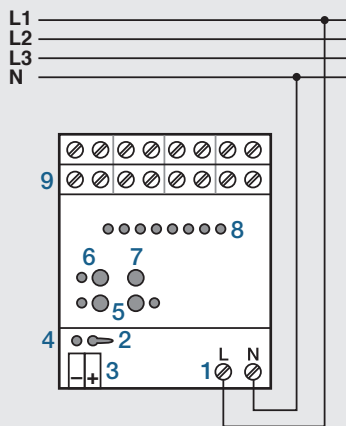
The four push-buttons on the front of the device can be used to switch the relays on and off for manual actuation of the connected valves/fans in parallel with KNX/EIB, even without bus voltage or in the unprogrammed state.

A separate auxiliary voltage supply is necessary for manual operation and activation of the outputs.

NOTE

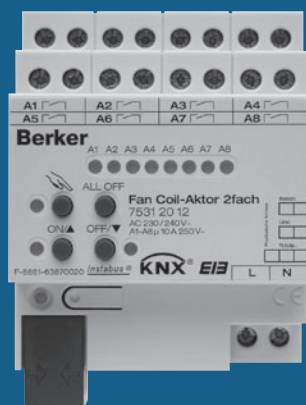
Suitable for switching different external phase conductors. The connection of mains voltage and SELV/PELV electric circuits to a switch actuator is not permitted.

1- or 2-channel operation is selected in the ETS. The possible number of valve outputs for heating or cooling depends on the fan coil system selected in the ETS (2-tube or 4-tube). Unused fan stages of a fan coil channel can moreover optionally be used as switching outputs with a simple switching function (see left-hand page).



Legend

1. Auxiliary voltage connecting terminals
2. Programming button
3. Bus connection
4. Programming LED
5. Buttons ON/▲ and OFF/▼ each with associated LED
6. Manual button with associated LED
7. ALL OFF button
8. Status LEDs of the outputs
9. Outputs



**Fan coil actuator
2gang 10 A NO
contact, manual,
status**

Technical data

Supply	via bus line	21– 32 V DC
Inputs	Number	max. 3
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	up to approx. 19 V DC; continuous signal
Motor output	1 x change-over plus 1 x NO	potential-free μ contacts, bistable
	Switching voltage	230 V AC, 50/60 Hz
	Switching current	maximum 3 A per output
	Making current	maximum 90 A (200 μ s) maximum 80 A (1ms)
	Switching power	maximum 1 motor 600 VA
Heating output	Minimum switching current	100 mA
	Semiconductor (triac)	ϵ
	Switching voltage	230 V AC, 50/60 Hz
	Switching current	5 to 25 mA
	Making current	maximum 600 mA (2 s)
Behaviour in the event of bus voltage failure/return	Outputs	Dependent on specific parameterisation
	Inputs	No response/dependent on parameterisation
Operation and display elements	programming button	
	Programming LED	red
Connections	KNX/EIB	Preassem. connecting cable: connecting terminal
	Inputs	Preassem. connecting cable: YY 6 x 0.6 mm
	Output	Preassem. connect. cable: 4 x H05 V-K 1.5 mm ² Connecting terminals included
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	e.g. insertion in deep flush-mounted box	\varnothing 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	53 x 28 mm	

Information

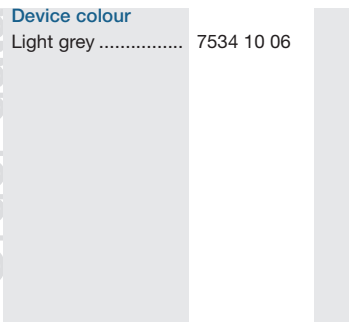
The window interface 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and uses its combined outputs to control two systems, such as those typically present in the area of windows. Thus they can activate a shutter or roller blind motor, and up to two thermoelectric valve drives with one electronic output.

The device also has three extension unit inputs, of which inputs 1 and 2 can operate either directly on the shutter output (local operation/two push-button principle). Alternatively all of the inputs can also operate on the bus as binary inputs, e.g. for window contacts. The connected potential-free switching or push-button contacts are read in via a common reference potential on the shutter actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out as binary inputs.

The device is supplied by the instabus KNX/EIB and therefore does not require any additional external power supply.

Order data

Device colour
Light grey 7534 10 06



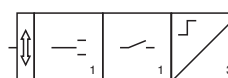
Applications

Shutter, valve, input 20BA01	
Shutter, valve, input 20BA11 (for ETS3.0 from version d)	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (state at delivery) - Operation as general binary inputs separately on the bus ■ Free assignment of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between short/long time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Function value transmitter and light scene extension unit	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with memory function it is possible to save the scene without calling it up first
Motor output	see shutter actuator 1gang 3 A flush-mounted (7534 10 04)
Heating output	see heating actuator 1gang 230 V AC flush-mounted (7534 10 05)
Objects	36
Group addresses/assignments	maximum 254/maximum 255

- Potential-free, bistable relay contacts 3 A for motor control
- Electronic output for up to 2 thermoelectric drives
- Three independent binary inputs for potential-free contacts
- Local operation for motors via inputs 1 and 2 pre-programmed
- Use of valve drives closed in de-energized state or open in de-energized state possible
- Pre-assembled connecting cables



Window interface 1/1gang



ETS search path:
 Berker >> Output >> Binary output, mix >>
 Berker >> Shutter >> Shutters >>
 Berker >> Heating, air conditioning, ventilation >>
 Valve >>

Information



Information

NOTE

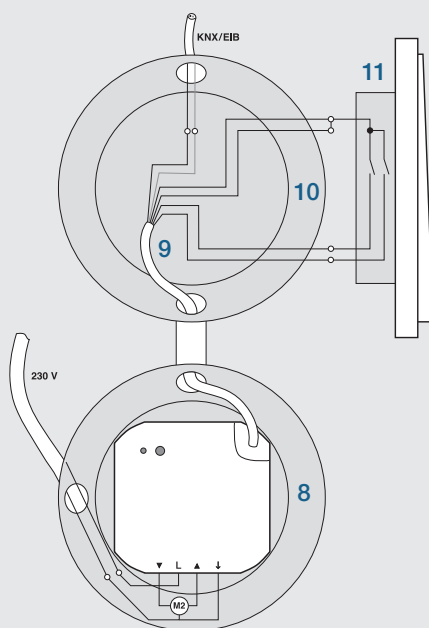
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation:

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (10) can house the bus and extension unit connection and also a series switch (11), for example.

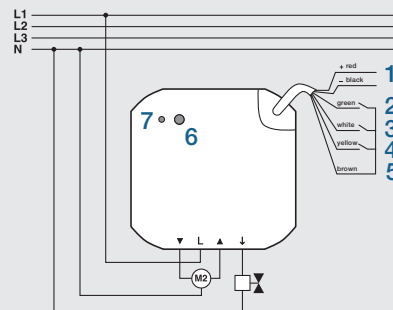
The other box (8) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (9) is routed through the connection between the boxes.



Connection diagram e.g. for a series switch

Legend

1. KNX/EIB connection (red/black)
2. Input 1 (green)
3. Input 2 (white)
4. Input 3 (yellow)
5. Reference potential com (brown)
6. Programming button
7. Programming LED
8. Flush-mounted box for window interface
9. 6pole connecting cable
10. Flush-mounted box for series switch, etc.
11. Series switch



Window interface
1/1gang

Supply	via bus line	21–32 V DC
Auxiliary voltage	24 V AC ±10 % Current input	SELV maximum 310 mA
Outputs	Current or voltage output	4
	Signal type	Depending on setting: 0–1 V DC, 0–10 V DC, 0–20 mA DC or 4–20 mA DC
	Load output signal	Voltage signal, ≥ 1 kohm Current signal, ≤ 500 ohm
	Output current	Voltage signal, maximum 10 mA per channel Current signal, maximum 20 mA per channel
Behaviour in the event of power failure	Bus voltage failure	adjustable: last value is kept
	Supply voltage failure	Outputs run against 0 V or 0 mA
Behaviour in the event of power return	Bus voltage	adjustable: no response
	Supply voltage	Initialisation state, last value before failure Adjustable status query of the group addresses, Detection and adjustment of the set output states when bus voltage is connected
Operation and display elements	Programming key	
	Programming LED	Red
	Status LED	Red/orange/green
	4 status LED outputs	yellow
Connections	KNX/EIB	Connecting terminal
	Outputs	0.5–4 mm ² single-core
		0.34–4 mm ² single-core/finely stranded without conductor sleeve, 0.14–2.5 mm ² finely stranded with conductor sleeve
	Module connection	6pole. System plug for analogue output module
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The analogue actuator 4gang is designed as a top hat rail mounted device and has four analogue outputs that can output voltage or current signals. For this purpose the device converts measurement data that is received via KNX/EIB telegrams into analogue output signals. The analogue output signals make it possible for end devices of the heating, air conditioning and ventilation systems to adapt their output variables based on bus information and to take part in control processes. Outputs that are not needed can be switched off. For operation the analogue output requires a 24 V auxiliary voltage. The lateral interface can be used to connect an analogue actuator module for another four analogue outputs, which are likewise adjusted via the software of the basic unit.

Device colour		Accessories	
Light grey	7551 40 01	Analogue output module	7552 40 01
		Power supply 24 V AC	7591 00 01

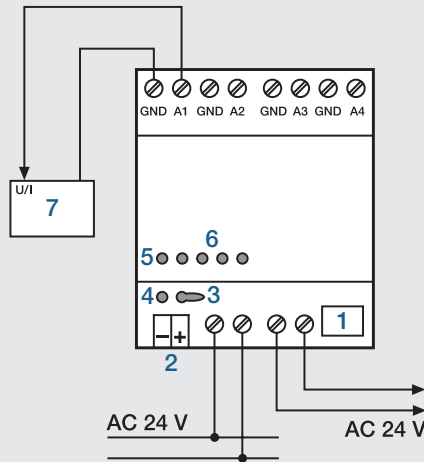
Applications

Analogue actuator B00811	
Analogue outputs	<ul style="list-style-type: none"> ■ Type of signal output (0–10 V, 0–1 V, 0–20 mA, 4–20 mA) adjustable ■ Format of the input value (8-bit or 16-bit) adjustable ■ Dim actuator operation (for 8-bit input objects) possible ■ Output value after initialisation adjustable ■ Up to two forced guidance functions possible ■ Cyclic monitoring of the input variables ■ Response for exceeding of the monitoring time can be set ■ Behaviour in the event of bus voltage failure and bus voltage return can be set
Modules	■ One analogue actuator module with four additional inputs can be selected: Programming options are the same as the basic unit
Objects	58
Group addresses/assignments	maximum 200 each

Notes

Terminals

- GND: Reference potential for outputs
- A1 to A4: Outputs
- AC 24 V: External supply voltage



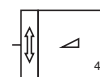
Key

1. Analogue actuator module connection
2. Bus connection
3. Programming button
4. Programming LED
5. Status LED
6. Status LED outputs
7. Device with analogue interface

- Four freely adjustable outputs
- Conversion of digital measurement data into voltage or current signals
- LED status indication for each channel
- Four additional outputs possible using analogue actuator module
- System interface for connection of an analogue output module



Analogue actuator 4gang



ETS search path: Berker >> Output >> Analogue output, 4gang >>

Technical data

Auxiliary voltage	24 V AC \pm 10 % Current input	SELV maximum 310 mA
Outputs	Current or voltage output	4
	Signal type	Depending on setting: 0–1 V DC, 0–10 V DC, 0–20 mA DC or 4–20 mA DC
	Load output signal	Voltage signal, \geq 1 kohm Current signal, \leq 500 ohm
	Output current	Voltage signal, maximum 10 mA per channel Current signal, maximum 20 mA per channel
Behaviour in the event of power failure	Bus voltage failure	adjustable: last value is kept
	Supply voltage failure	Outputs run against 0 V or 0 mA
Behaviour in the event of power return	Bus voltage	adjustable: no response
	Supply voltage	Initialisation state, last value before failure Adjustable status query of the group addresses, Detection and adjustment of the set output states when bus voltage is connected
Operation and display elements	Status LED	Red/orange/green
	4 status LED outputs	Yellow
Connections	Actuator connection	6pole system plug
	Outputs	0.5–4 mm ² single-core
		0.34–4 mm ² single-core/finely stranded without conductor sleeve, 0.14–2.5 mm ² finely stranded with conductor sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

Information

The analogue actuator module is an inexpensive way to expand the analogue actuator 4gang to include four additional outputs for voltage or current signals.

No separate application is available for the device; programming is carried out via the software of the basic unit.

For operation the analogue input of the module requires a 24 V auxiliary voltage that is made available either directly from the 24V AC power supply or indirectly via the 24 V AC terminals of the basic unit.

Order data

Device colour		Accessories	
Light grey	7552 40 01	Power supply	
		24 V AC	7591 00 01

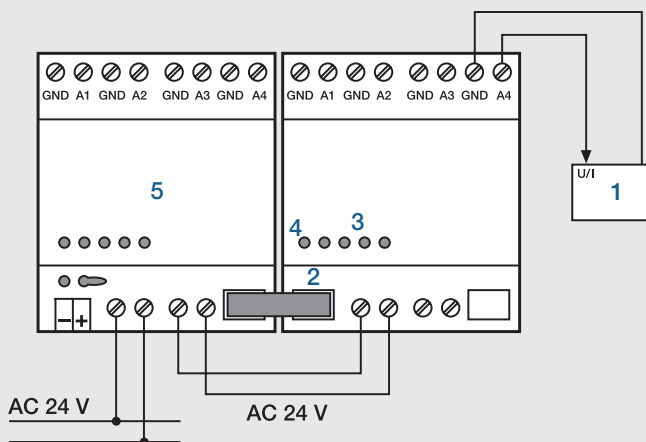
Notes

Installation

Connection of the analogue actuator module is exclusively by means of the 6pole system plug. Only one analogue actuator module can be connected per basic unit.

The GND connections of the analogue actuator module may not be connected to the corresponding connections of another device, e.g. of the analogue input. The exchange of an analogue actuator module in the event of a defect can be carried out in ongoing operation (isolate module from voltage!).

Then the analogue actuator carries out a reset after approx. 25 seconds. This re-initialises all inputs and places them in the original state.



Terminals

- GND: Reference potential for outputs
- A1 to A4: Outputs
- AC 24 V: External supply voltage

Key

- 1. Device with analogue interface
- 2. 6pole system plug, e.g. for connection of an analogue actuator
- 3. Status LED outputs
- 4. Status LED
- 5. Analogue actuator 7551 40 01

- Four additional analogue outputs
- Link to basic unit via 6pole system interface
- Status LED for indicating readiness for operation
- LED status indication for each channel



Analogue actuator module 4gang



Technical data

Supply	via bus line	21–32 V DC
Inputs	Number	2
	Signal voltage	20 V pulses, approx. 3 ms long
	Signal current	approx. 1 mA per channel
Output	Length of input cable	max. 5 m
	1 channel	Controls one thermostat valve tappet
	Stroke	max. 4.2 mm
Response to bus power failure/restore	Running time	25 s/mm
	Bus power failure	Drive remains in last position
	Mains power failure	-
	Bus and mains power failure	-
	Bus power restoration	Drive runs through adjustment routine. Then the “Manipulated variable if no controller is present...” value is activated and manipulated variable telegrams are waited for. Inputs are interrogated and the programmed function is triggered if necessary.
Operating and display elements	Mains power restoration	-
	Bus and mains power restoration	-
	Reed contact for triggering the programming	Activation via programming magnet
Connections	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Terminal via pre-manufactured connecting cable (J)EYY–OB 3 x 2 x 0.6/1m
Protection	IP 43; EN 60529	Note mounting orientation
Ambient temperature range	Operation	0 to +50 °C
	Storage/transport	-20 to +70 °C
Mounting	Bolted on to thermostat valve tappet	
Mounting orientation	Vertical upright	IP 43
	other positions	IP 42
Dimensions (W×H×D)	46 x 87 x 60 mm	

Information

The valve drive is suitable for mounting on Heimeier thermostat valve lower parts for room temperature control such as on heaters, radiators, convectors, heating circuit distributors for underfloor heating systems, etc. It is maintenance-free and designed for direct connection to the instabus KNX/EIB.

The valve drive moves the heating valve to the appropriate position according to the setpoint (target) value transmitted by a KNX/EIB room thermostat.

Window contacts, for example, as well as normal push-buttons and switches can be connected by way of 2 potential-free inputs. They can act directly on the actuator or be used for switching, dimming or shutter control.

The valve drive has no programming button, but has a reed contact which is operated by a programming magnet (separate order number). The programming function is toggled on and off when the reed contact is only approached.

Order data

Device colour	
Valve drive with 2 inputs	
White	7550 00 02
Programming magnet	
White	7590 00 19

Applications

Valve drive A00D01

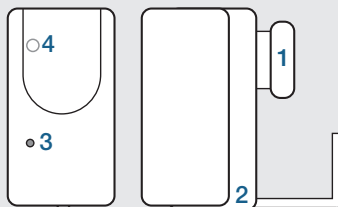
- 2 binary inputs to control valve drive or generate switch, dim or shutter commands
- Reception of a valve manipulated variable signal (e.g. from a thermostat)
- Change in heater valve tappets (0 to 255 = 0 to 100 %) dependent on manipulated variables (proportional to a setting between "Open" and "Closed")
- Complete change of position of valve when telegram evaluation sustained
- Execution of last telegram
- Minimum change of manipulated variable: ±2 degrees of manipulation (range 0 to 255)
- Maximum travel of servo drive approx. 4.2 mm
- Variable travel of connected heater valve tappets (possibly less)
- Adjustment routine – facility to ascertain actual adjustment travel
- Proportional conversion of adjustment travel (possibly differing from travel of valve drive)
- Initialization of adjustment routine after
 - download/restoration of bus power or
 - 4096 "manipulated variable" telegrams received (object update) or
 - 4096 actual adjustments of the heater valve

Objects	12
Group addresses/assignments	maximum 12

Notes

Installation

Please avoid mounting vertically underneath the valve lower part (with knurled nut at top), since water may then get into the device in the event of a leak. The servo drive is mounted by pressing it lightly onto the heater valve, and the union nut is tightened using a suitably sized pair of pliers.



Programming

Switching the programming function on and off is achieved by bringing the programming magnet close to the activation point (toggle function).

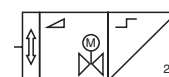
Key

1. Union nut
2. Bus connection (Bus/binary input)
3. Programming LED
4. Activation point for the programming magnet

- Direct connection to instabus KNX/EIB
- Control of devices for room temperature regulation
- High control accuracy based on proportional translation of adjustment travel
- Maintenance-free
- 2 potential free inputs for window contacts



Valve drive



ETS search path: Berker >> Heating, air conditioning >> Valves >>

Technical data

Supply	via bus line	21–32 V DC
	Power consumption	typically 125 mW
	Power supply	230 V AC ±10 %, 50/60 Hz
	Power loss	approx. 2 W disregarding the power loss of the actuator drives (depending on the type and number of the actuator drives)
Outputs	6	Triac
	Rated voltage	230 V AC ±10 %, 50/60 Hz (dependent on the mains input voltage)
	Rated current	50 mA (resistive per output)
	Making current	max. 1.5 A (short-time)
	Minimum load	2 W (1 actuator drive)
	Number of connectable loads	max. 4 actuator drives per output (actuator drives can be from different manufacturers)
Actuator drives	230 V per output	electro-thermal max. 4
Behaviour on power failure/restore	Bus power failure	Software-dependent
	Mains power failure	all outputs deactivated (outputs high-resistance), Bus communication exists; Control variables received will be acted upon
	Bus and mains power failure	all outputs deactivated (outputs high-resistance)
	Bus power restoration	Software-dependent
	Mains power restoration	PWM 50 % (15 minutes cycle time)
	Bus and mains power restoration	
Operation and display elements	Programming button	
	Programming LED	Red

Continued on next double page

Information

The heating actuator 6gang is executed as a top hat rail-mounted device for activation of electro-thermal actuator drives (ETA) for heating systems or cooling systems. It has 6 electronic outputs, which are silently activated by KNX/EIB telegrams. Up to four actuator drives (e.g. order no. 7590 00 71) can be connected to each output.

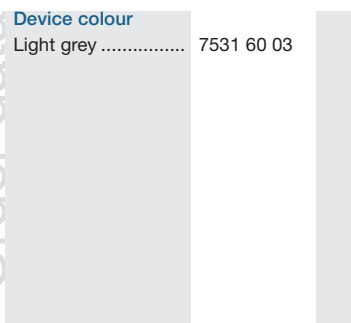
Outputs provide either switching or a PWM signal, depending on the setting of the control variable (1 bit or 8 bit). In the unprogrammed condition the heating actuator is set for pulse width modulation with a control variable of 50 % and a cycle time of 15 minutes. This permits the actuator to be tested for functioning even without bus power.

The heating actuator is able to detect overloads/short circuits at an output/at multiple outputs.

Continued on next double page

Order data

Device colour
Light grey 7531 60 03



Switching PWM 206701

- 6 independent outputs (activation optionally by 1 bit or 1 byte size of control variables)
- If 1 byte activation by pulse width modulation (PWM); cycle time output signals configurable
- Status feedback (1 bit/1 byte) available for each output automatically or on read request
- Valve activation (open/closed in de-energized state) adjustable for each output
- Summer or winter mode can be set by an object; polarity configurable
- Supervisory and cyclical monitoring of the control variable configurable for each output
- Activation of back-up operation, with Alarm report object, if control variable telegram missing
- Forced position (locking each output with various values for summer/winter mode)
- Behaviour on bus voltage restoration and failure separately configurable for each output as follows: "Valve closing/opening", "Positive position", "Back-up operation", "No response" (only on bus power failure)
- Overload/short circuit reporting separately configurable for each output; polarity configurable
- Mains failure report can be set by an object; polarity configurable
- "Global report" by an object (control variables for all valves "OFF" or "0"); polarity configurable
- Separate object for sending the values stored in the actuator 1 byte control variable for an output
- Automatic valve protection programmable to avoid sticking

Objects	29
Group addresses/assignments	maximum of 29 each

Continued on next double page ►

- Six independent electronic outputs
- Up to four electro-thermal actuator drives can be connected to each output
- Choice between switching and continuous (PWM) regulation
- Detection and reporting of overloads or short circuits
- Changeover between summer and winter mode by object
- Back-up operation in the event of sensor or bus failure
- Automatic valve protection



Heating actuator 6gang Triac 230 V AC



ETS search path: Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Technical data

Connections	KNX/EIB Outputs: Screw terminals	terminals 0.2 – 4 mm ² / 2 x 0.2 – 2.5 mm ² single-wire 0.75 – 4 mm ² fine wire without end cap sleeve 0.5 – 2.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	-5 to +45 °C -25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022	
Mounting orientation	any	
Dimensions (W×H×D)	72 x 90 x 64 mm	4 modules

Information

In this case the short circuited outputs after a identification time permanently deactivated.

Overloads and also mains voltage failures can be set by parameters for reporting on the bus.

The system can be changed over between summer and winter mode. In addition the heating actuator makes it possible to cyclically monitor the control variables. If, during the cyclic monitoring, control variable telegrams are found to be missing, back-up operation will be activated for the respective output, using a parameterised control variable defined for summer or winter mode.

The facility is also available to activate each output separately to a positive position. For this a parameterizable control variable, different for summer and winter mode, is assigned to the respective output.

Back-up operation and mandatory position are independent of bus power failure/restoration.

Notes

Installation

Do not connect capacitive or inductive loads!

Outputs which are switched off are not electrically isolated from the mains and should therefore not be disconnected! When connecting an actuator drive, disconnect the device from the mains!

The "N" terminals for outputs A1 to A6 are suitable only for connection to the actuator drives and should not be used for looping through to other devices! Looping through can cause damage to the device!

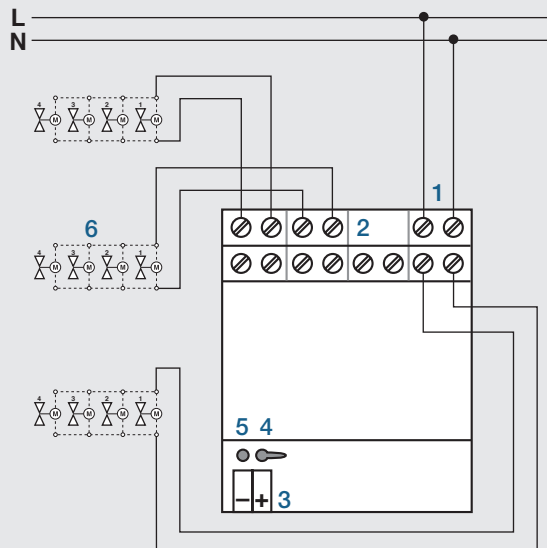
The outputs always timed to switch with a 0.5 s separation period from each other, so that no overload is reported at the moment of switching.

Each output can be connected to up to four actuator valves from different manufacturers in any combination, even if the valves have different load characteristics.

Key

1. Mains power connection
2. Outputs A1 to A6
3. Bus terminal

4. Programming button
5. Programming LED
6. Actuator drives (different manufacturers)



Short circuit

Because the operating groups affect one another, reliable detection of overloads in one or more output channels can only be ensured after a final test cycle, which lasts about 4 minutes.



**Heating actuator
6gang Triac
230 V AC**

Technical data

Supply	via bus line	21– 32 V DC
Inputs	Number	max. 3
	Cable length	33 cm pre-assembled, max. 5 m
	Scanning voltage	up to approx. 19 V DC; continuous signal
Heating output	Semiconductor (triac)	ε
	Switching voltage	230 V AC, 50/60 Hz
	Switching current	5 to 25 mA
	Making current	maximum 600 mA (2 s)
	Number of drives per output	maximum 2
Behaviour in the event of bus voltage failure/return	Outputs	Dependent on specific parameterisation
	Inputs	No response/dependent on parameterisation
Operation and display elements	Programming button	
	Programming LED	Red
Connections	KNX/EIB	Preassem. connecting cable: connecting terminal
	Inputs	Preassem. connecting cable: YY 6 x 0.6 mm
	Output	Preassem. connecting cable: 4 x H05 V-K 1.5 mm ²
		Connecting terminals included
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	e. g. insertion in deep flush-mounted box	Ø 60 mm x 60 mm
Mounting orientation	as desired	
Dimensions (W x H x D)	53 x 28 mm	

Information

The heating actuator 1gang is designed as a flush-mounted device. It receives telegrams from sensors via the instabus KNX/EIB and control up to two thermoelectric valve drives with its electronic output. This output is protected against overload and short-circuit.

The electronic switching output converts continuous command value telegrams into a pulse-width modulated output signal (PWM), which results in quasi-continuous activation of the connected valve drives. Alternatively, switching command values can be converted. The device also has three extension unit inputs. The connected potential-free switching or push-button contacts are read in via a common reference potential on the shutter actuator. Telegrams for switching or dimming, for shutter control or value transmitter applications (dimming value transmitter, light scene extension unit) can be sent out as binary inputs.

The device is supplied by the instabus KNX/EIB and therefore does not require any additional external power supply.

Order data

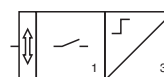
Device colour		Accessories	
Light grey	7534 10 05	Valve drive 230 V.....	7590 00 76

Valve, input 20A001	
Valve, input 20A011 (for ETS3.0 from version d)	
Inputs	<ul style="list-style-type: none"> ■ Mode of operation of the inputs adjustable: <ul style="list-style-type: none"> - Operation only as extension unit inputs directly on the switching output (this is the state at delivery) - Operation as general binary inputs separately on the bus ■ Free assign. of the functions switching, dimming, shutter and value transmitter to the max. of two inputs ■ Blocking object for blocking individual entries (polarity of the blocking object adjustable) ■ Delay for bus voltage return and debounce time can be adjusted centrally ■ Behaviour for bus voltage return can be adjusted separately for each input ■ Telegram rate limit can be set generally for all inputs
Function switching	<ul style="list-style-type: none"> ■ Two independent switching objects available for each input ■ Command for rising and falling edge can be set independently (ON, OFF, TOGGLE, no response) ■ Independent cyclic transmission of the switching object depending on the edge and/or depending on the object value can be selected
Function dimming	<ul style="list-style-type: none"> ■ One-push-button and two-push-button operation possible ■ Time between dimming and switching and dimming increment adjustable ■ Telegram repetition and send stop telegram possible
Function shutter	<ul style="list-style-type: none"> ■ Command for rising edge (UP, DOWN, TOGGLE) and switching time between short/long time operation adjustable ■ Control concept adjustable ■ Length of actuation for lamella adjustment adjustable
Function value transmitter and light scene extension unit	<ul style="list-style-type: none"> ■ Edge (push-button as NO, push-button as NC, switch) and value for edge adjustable ■ Value adjustment can be set using a long press on the push-button ■ For light scene extension unit with mem. function it is possible to save the scene without calling it up first
Output	<ul style="list-style-type: none"> ■ Activation via a switching (1-bit) or continuous (1-byte) command value telegram adjustable ■ Status feedback (1-bit or 1-byte) automatic or upon read request adjustable ■ Valve direction of action (open/closed in de-energized state) adjustable ■ Summer or winter can be selected via an object (polarity configurable) ■ Cyclical monitoring of the command value adjustable, emergency operation and alarm message can be transmitted to the bus via a separate object (polarity parameterisable) ■ Forced position for activation of a valve position with fixed parameterisation in the ETS ■ Short-circuit / overload protection with optional, separate alarm message to the bus (polarity adjustable) ■ Anti-sticking protection for the connected valve drives
Objects	17
Group addresses/assignments	maximum 254/maximum 255

- Noiseless activation of up to two thermoelectric drives
- Selection between switching and continuous (PWM) control
- Three independent binary inputs for potential-free contacts
- Use of valve drives closed in de-energized state or open in de-energized state possible
- Pre-assembled connecting cables



Heating actuator 1gang 230 V AC



ETS search path: Berker >> Heating, air conditioning, ventilation >> Valve >>



Information

NOTE

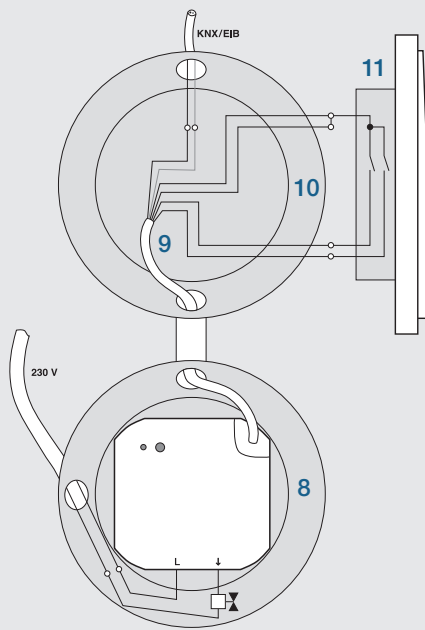
The connection of 230 V signals or other external voltages to the extension unit inputs is not permissible!

Minimum distance between bus/extension unit cores and mains voltage cores 4 mm.

Recommendation:

Install the switch actuator in two interconnected flush-mounted boxes (see illustration at right). One box (10) can house the bus and extension unit connection and also a series switch (11), for example.

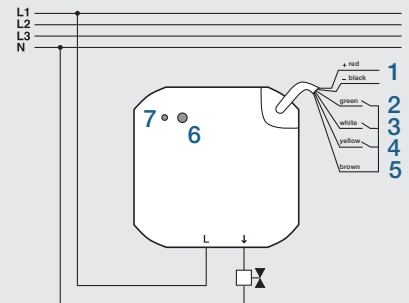
The other box (8) houses the the switch actuator and the 230 V terminals. The 6pole connecting cable (9) is routed through the connection between the boxes.



Connection diagram e.g. for a series switch

Legend

1. KNX/EIB connection (red/black)
2. Input 1 (green)
3. Input 2 (white)
4. Input 3 (yellow)
5. Reference potential com (brown)
6. Programming button
7. Programming LED
8. Flush-mounted box for window interface
9. 6pole connecting cable
10. Flush-mounted box for series switch, etc.
11. Series switch



**Heating actuator
1gang 230 V AC**

Technical data

Supply	via bus line	21–32 V DC
	Power supply	primary: 230 V AC, 50/60 Hz secondary: 24 V, 50/60 Hz
	Power consumption (no load)	3 W
Outputs	Maximum power consumption	50 W
	6	Triac
Actuator drives	Rated voltage	24 V AC, ±20 %
	per output	max. 4
Behaviour in the event of bus voltage failure	Total connectable actuator drives	max. 13
	Back-up operation	programmable
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Green
	Fuse LED	Red
	6 status LEDs	Red (when calling for heating)
Fuse	2 A (slow-blowing)	common to all outputs
Connections	KNX/EIB	terminals
	Transformer	Mains plug
	Actuator drives	screwless plug-in terminals
		0.5–1.5 mm ² solid, 1–1.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +50 °C
	Storage/transport	-25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022 or	on wall in the heating circuit distributor box
Mounting orientation	any	
Weight	1700 g	
Dimensions (W×H×D)	302 x 75 x 70 mm	

Information

The heating actuator 6gang Triac, 24 V is for activating the thermal actuator drives. These can be divided into six channels with a maximum of four actuator drives per channel. This means that the temperatures in the various rooms can be controlled individually using different instabus KNX/EIB controllers. In addition the heating actuator sends data to the boiler controls and thus assists in saving energy.

The device is designed to be especially suitable for mounting on a top hat rail or on the wall in the heating circuit distributor. The Triac outputs allow silent switching and are protected against short circuits and overloads.

Order data

Device colour		Accessories	
Light grey	7533 60 01	Actuator drive 24 V..	7591 00 77

Applications

Actuator drives 6/12 outputs

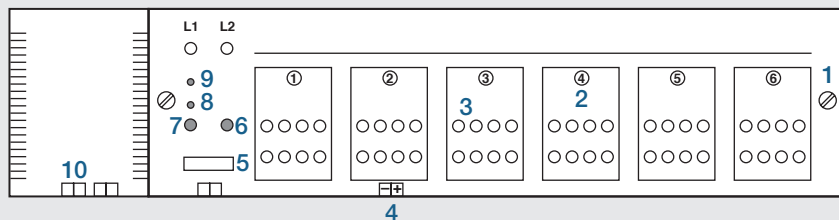
- Selectable by channel between switched and continuous (pulse width modulated) control
- Behaviour of the actuator drives (open/closed in de-energized state) configurable
- Control variable monitoring can be sent cyclically or in the event of control variable failure
- Summer mode
- Valve protection function
- Actuation cycle time (PWM period) configurable
- Control variable range limits configurable
- Back-up operation on bus or sensor failure configurable
- Each channel: Input object for control variable, mandatory position and status object
- Lock-out operation by object

Objects	31 (dependent on the parameterisation)
Group addresses/assignments	maximum of 66 each

Notes

Key

1. Cover fixing
2. Status LED
3. Plug-in terminals for actuator drives
4. Bus connection
5. Fuse
6. Programming LED
7. Programming button
8. Fuse LED
9. Power-LED
10. Transformer with mains plug



- Six separately controlled channels
- Selection between switched and continuous (pulse width modulated) control
- Summer mode for deactivation of the heating actuator
- Simple connection of the drives
- Integral transformer with mains plug for power supply to actuator drives
- Actuator drives operate on a 24 V supply



Heating actuator 6gang Triac, 24 V



ETS search path: Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Technical data

Supply	via bus line	21–32 V DC
	Power supply	primary: 230 V AC, 50/60 Hz secondary: 24 V, 50/60 Hz
	Power consumption (no load)	3 W
Outputs	Maximum power consumption	50 W
	12	Triac
Actuator drives	Rated voltage	24 V AC, ±20 %
	per output	max. 2
Behaviour in the event of bus voltage failure	Total connectable actuator drives	max. 13
	Back-up operation	Configurable
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Green
	Fuse LED	Red
	12 status LEDs	Red (when calling for heating)
Fuse	2 A (slow-blowing)	common to all outputs
Connections	KNX/EIB	terminals
	Transformer	Mains plug
	Actuator drives	screwless plug-in terminals
		0.5–1.5 mm ² solid, 1–1.5 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +50 °C
	Storage/transport	-25 to +60 °C
Mounting	on top hat rail 35 mm, EN 50022 or	on wall in the heating circuit distributor box
Mounting orientation	any	
Weight	1700 g	
Dimensions (W×H×D)	302 x 75 x 70 mm	

Information

The heating actuator 12gang is for activating thermal actuator drives. These can be divided into twelve channels with a maximum of two actuator drives per channel. This means that the temperatures in the various rooms can be controlled individually using different instabus KNX/EIB controllers. In addition the heating actuator sends data to the boiler controls and thus assists in saving energy.

The device is designed to be especially suitable for mounting on a top hat rail or on the wall in the heating circuit distributor. The Triac outputs allow silent switching and are protected against short circuits and overloads.

Order data

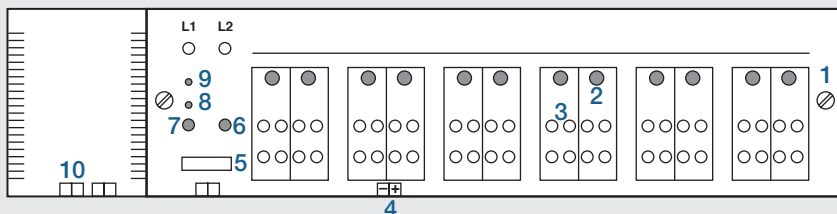
Device colour		Accessories	
Light grey	7533 00 01	Actuator drive 24 V..	7591 00 77

Applications

Actuator drives 6/12 outputs	<ul style="list-style-type: none"> ■ Selectable by channel between switched and continuous (pulse width modulated) control ■ Behaviour of the actuator drives (open/closed in de-energized state) configurable ■ Control variable monitoring can be sent cyclically or in the event of control variable failure ■ Summer mode ■ Valve protection function ■ Actuation cycle time (PWM period) configurable ■ Control variable range limits configurable ■ Back-up operation on bus or sensor failure configurable ■ Each channel: Input object for control variable, mandatory position and status object ■ Lock-out operation by object
Objects	31 (dependent on the parameterisation)
Group addresses/assignments	maximum of 66 each

Notes

- Key**
1. Cover fixing
 2. Status LED
 3. Plug-in terminals for actuator drives
 4. Bus connection
 5. Fuse
 6. Programming LED
 7. Programming button
 8. Fuse LED
 9. Power-LED
 10. Transformer with mains plug



- Twelve independently controlled channels
- Selection between switched and continuous (pulse width modulated) control
- Summer mode for deactivation of the heating actuator
- Simple connection of the drives
- Integral transformer with mains plug for power supply to actuator drives
- Actuator drives operate on a 24 V supply)



Heating actuator 12gang Triac, 24 V



ETS search path: Berker >> Heating, air conditioning, ventilation >> Heating actuators >>

Technical data

Supply	Power supply	24 V AC/DC, +20 to -10 %, 0 to 60 Hz
Design	PTC-heated expansion element with compression spring	Closed when de-energised
Power consumption	Operating power Operating current Making current	1.8 W 75 mA max. 250 mA for max. 2 min.
Drive	Closing and opening times Operating travel/stroke Operating force	approx. 3 min. approx. 4 mm 100 N ± 5 %
Behaviour on power failure/restore	dependent on actuator	
Connections	Plug-in connection cable	1 m, 2 x 0.75 mm ² max. cable length: 20 m
Protection	IP 54, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	0 to +60 °C -20 to +60 °C
Mounting	Clip on to valve adapter Screw the valve adapters to the thermostat valve lower part	
Mounting orientation	any	Refer to note regarding "overhead mounting"!
Dimensions (W×H×D)	opened	44 x 60 x 61 mm

Information

The actuator drive 24 V is a thermoelectric drive for opening and closing valves in heating, ventilation and air conditioning applications. Activation is by conventional room thermostats or instabus KNX/EIB heating actuators. The actuator drives are suitable for two-point operation or continuous control (pulse width modulated). A selection of valve adapters is available, to match valve lower parts and heating circuit distributors from a variety of manufacturers.

Order data

Device colour	Valve adapter
White..... 7591 00 77	Grey (M 30 x 1.5) 7590 00 72
	Dark grey (M 30 x 1.5) 7590 00 73
	Polar white, (Flange)..... 7590 00 74
	Light grey (M 30 x 1.5) 7590 00 75
	Other valve adapters on request

Notes

Mounting orientation

We recommend vertical and lateral mounting. Overhead mounting is possible, however no warranty can be accepted if this mounting orientation is employed.

Valve adaptation

Valve adaptation is achieved using valve adapters, which are available in various versions for the most popular valve lower parts and heating circuit distributors.

Please check this when ordering!

Valve adapter 10

Adapts to the valves or distributors made by

- Dumser
- Simplex

Valve adapter 50

Adapts to the valves or distributors made by

- Honeywell & Brauckmann
- Reich (distributor)
- Landis & Gyr
- MNG
- Cazzaniga

Valve adapter 78

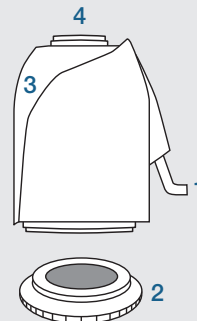
Adapts to the valves or distributors made by

- Danfoss RA

Valve adapter 80

Adapts to the valves or distributors made by

- Heimeier
- Herb
- Onda
- Schlösser (manufactured 1993 and later)
- Oventrop



Key

1. Function indicator
2. Disassembly clip
3. Plug-in connecting cable
4. Valve adapter (example)

- Function display and adjustment control
- Easy plug-in assembly
- Anti-dismantling protection by means of removable dismantling aid
- Valve adapters for various valve lower parts
- First-open function
- Plug-in connecting cable



Valve adapter (example)



Actuator drive 24 V



Technical data

Supply	Power supply	230 V AC/DC, ± 10 %, 0 to 60 Hz
Design	PTC-heated expansion element with compression spring	Closed when de-energised
Power consumption	Operating power Operating current Making current	1.8 W 8 mA max. 250 mA for max. 2 min.
Drive	Closing and opening times Operating travel/stroke Operating force	approx. 3 min. approx. 4 mm 100 N ± 5 %
Behaviour on power failure/restore	dependent on actuator	
Connections	Plug-in connection cable	1 m, 2 x 0.75 mm ² max. cable length: 20 m
Protection	IP 54, EN 60529	Protection class II
Ambient temperature range	Operation Storage/transport	0 to +60 °C -20 to +60 °C
Mounting	Clip on to valve adapter Screw the valve adapters to the thermostat valve lower part	
Mounting orientation	any	Refer to note regarding "overhead mounting"!
Dimensions (W×H×D)	opened	44 x 60 x 61 mm

Information

The actuator drive 230 V is a thermoelectric drive for opening and closing valves in heating, ventilation and air conditioning applications. Activation is by conventional room thermostats or instabus KNX/EIB heating actuators. The actuator drives are suitable for two-point operation or continuous control (pulse width modulated). A selection of valve adapters is available, to match valve lower parts and heating circuit distributors from a variety of manufacturers.

Order data

Device colour	Valve adapter
White..... 7591 00 76	Grey (M 30 x 1.5) 7590 00 72
	Dark grey (M 30 x 1.5) 7590 00 73
	Polar white, (Flange)..... 7590 00 74
	Light grey (M 30 x 1.5) 7590 00 75
	Other valve adapters on request

Notes

Mounting orientation

We recommend vertical and lateral mounting. Overhead mounting is possible, however no warranty can be accepted if this mounting orientation is employed.

Valve adaptation

Valve adaptation is achieved using valve adapters, which are available in various versions for the most popular valve lower parts and heating circuit distributors.

Please check this when ordering!

Valve adapter 10

Adapts to the valves or distributors made by

- Dumser
- Simplex

Valve adapter 50

Adapts to the valves or distributors made by

- Honeywell & Brauckmann
- Reich (distributor)
- Landis & Gyr
- MNG
- Cazzaniga

Valve adapter 78

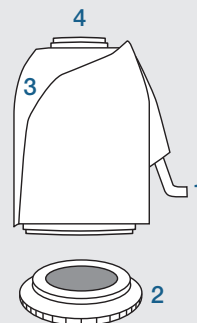
Adapts to the valves or distributors made by

- Danfoss RA

Valve adapter 80

Adapts to the valves or distributors made by

- Heimeier
- Herb
- Onda
- Schlösser (manufactured 1993 and later)
- Oventrop



Key

1. Function indicator
2. Disassembly clip
3. Plug-in connecting cable
4. Valve adapter (example)

- Function display and adjustment control
- Easy plug-in assembly
- Anti-dismantling protection by means of removable dismantling aid
- Valve adapters for various valve lower parts
- First-open function
- Plug-in connecting cable



Valve adapter (example)



Actuator drive 230 V





B.

Berker the right way.



LOGIC MODULES

Increasing requirements resulting from complex functional interrelationships in instabus KNX/EIB systems provided the impetus for the development of logic modules. Of particular importance in this context are the function modules. With their real-time operating systems, they permit implementation of complex, time-critical processes.

Logic controller	364–367
Function module	368–369
Mini-function module	370–371

Logic modules

Visual representations

Other components

Dim. drawings
Glossary

Training
Service

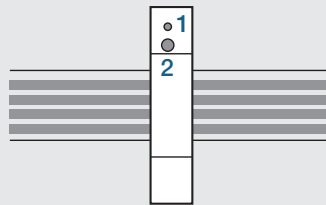
Technical data

Supply	via bus line	21–32 V DC
Operation and display elements	Programming button	
	Programming LED	Red
Connections	Pressure contact on data rail	
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm	EN 50022 with bonded-in data rail
Dimensions (WxHxD)	17.5 x 90 x 58 mm	1 module

Notes

Key

- 1. Programming LED
- 2. Programming button

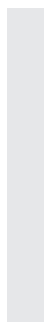
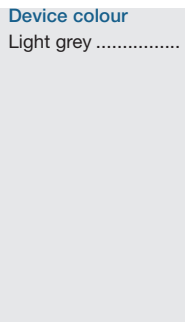


Information

The logic controller is executed as a top hat rail mounted device. It receives and processes instabus KNX/EIB system commands. The result of the logic operation is sent as a command onto the instabus KNX/EIB.

Order data

Device colour
Light grey 7502 00 01



Applications

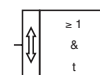
Filter/time 600701	<ul style="list-style-type: none"> ■ Conversion of input telegrams into other output telegrams with different group address (2 channels) ■ Telegram conversion configurable for ON and OFF telegrams ■ Time function at output configurable for ON or OFF telegrams ■ Telegram rate configurable
Objects	6
Group addresses/assignments	maximum 10/maximum 14
Transfer 1 Bit 600801	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to four outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
Transfer 4 Bit 600901	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to 4 outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
Transfer 8 Bit 600C01	<ul style="list-style-type: none"> ■ Three input gates (channel 1-3) each with up to 4 outputs (A, B, C, D) ■ Generation of max. 4 output telegrams (1-bit) per channel with different group addresses ■ Disable/enable all outputs via main enable object ■ Disable/enable all outputs with same letter coding (A, B, C, D) ■ Telegram rate configurable
Objects	20
Group addresses/assignments	maximum 22/maximum 25
1 >> 8 Bit Transfer 600B01	<ul style="list-style-type: none"> ■ Telegram conversion from 1 bit to 8 bit for value transmitter or light scene extension (2 channels) ■ Input enable or gating (logic operation) function (AND, OR, XOR) configurable per channel ■ Response of gate object to initialization configurable

Continued on next double page ►

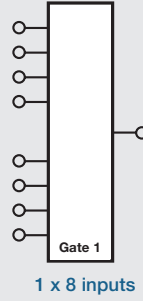
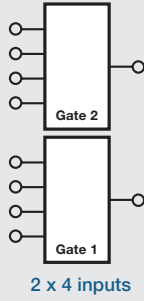
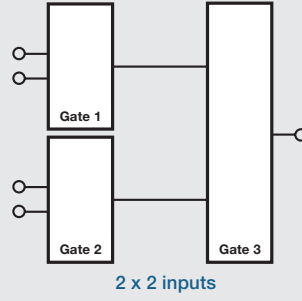
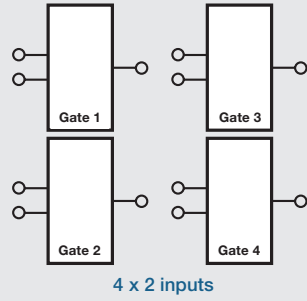
- Logic operations
- Time delays
- Telegram multiplications



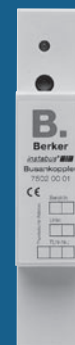
Logic controller



ETS search path: Berker >> Controller >> Controller >>



1 >> 8 Bit Transfer 600B01 (continued)	<ul style="list-style-type: none"> ■ Send criterion for logic operation function configurable ■ Output delay configurable
Objects	6
Group addresses/assignments	maximum 14/maximum 15
4 x 2 inputs 600312	<ul style="list-style-type: none"> ■ Four logic gates each with two inputs and one output ■ Logic operation function for both gates configurable separately ■ Generation of one output telegram per input telegram
Objects	10
Group addresses/assignments	maximum 10/maximum 12
2 x 2 inputs 600402	<ul style="list-style-type: none"> ■ Logic operation of two input gates and one output gate ■ Logic operation function for both gates configurable separately ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	5
Group addresses/assignments	maximum 6/maximum 8
2 x 4 inputs 600502	<ul style="list-style-type: none"> ■ Two logic gates each with four inputs and one output ■ Logic operation function for both gates configurable separately ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	10
Group addresses/assignments	maximum 10/maximum 12
1 x 8 inputs 600602	<ul style="list-style-type: none"> ■ Logic gate with eight inputs and one output ■ Logic operation function configurable (AND, OR, NAND, NOR) ■ Response of inputs configurable individually ■ Telegram rate, send criterion and cyclic transmission configurable
Objects	9
Group addresses/assignments	maximum 10/maximum 12



Logic controller

Technical data

Supply	via bus line	21–32 V DC
	External voltage	29 V DC (20 – 30 V unchoked)
Current consumption	Normal operation	40 mA (approx. 8 device units)
	At initialization/programming	< 100 mA
Buffering for real-time clock	Capacitive buffering	for at least 24 hours
Number of function blocks	Dependency on number of group addresses	e.g. 2000 function blocks with 500 group addresses Input with 500 group addresses Output
Telegram buffer	Input	50 telegrams
	Output	100 telegrams
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Red
	Fault LED	Red
Connections	Bus	Pressure contact on data rail
	PC port	serial, RS 232
Protection	IP 20, to EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022 with bonded-in data rail	
Dimensions (WxHxD)	54 x 90 x 58 mm	3 modules

Information

The function module is a maintenance-free programmable control device.

As an add-on to the decentralized system, a wide range of control and automation tasks can be efficiently performed with the aid of the extensive function library. KNX/EIB telegrams are received and processed, and the result sent onto the bus within a defined time.

Project design and commissioning is carried out with a function diagram oriented software program (FM tool with dongle). The program runs cyclically, operating the module in real-time mode.

The connection to the KNX/EIB system is made via the integral bus coupling unit. The device is mounted on the top hat rail and powered via the 29 V DC contacts of the data rail (outer conductor pair).

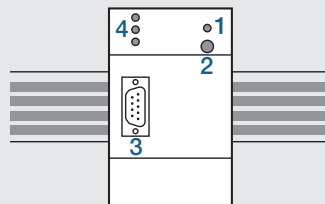
Order data

Device colour		Accessories	
Light grey	7572 00 10	Tool software	
		- Full version.....	7570 00 11
		- Demo version.....	7590 00 17

Notes

Operation

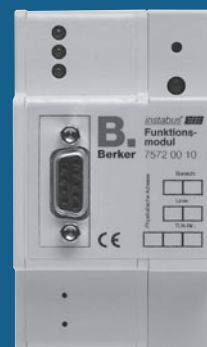
The supply is delivered via the two outer bars of the data rail. This requires a 4gang connector (7501 00 05).



Key

- 1. Programming LED
- 2. Programming button
- 3. PC port
- 4. Operating/fault LEDs

- Implementation of wide-ranging logic, time, control and/or monitoring functions
- Integral bus coupling unit
- Integral real-time clock
- Processing of different EIS telegrams



Function module



Technical data

Supply	via bus line	21–32 V DC
	Auxiliary voltage	29 V DC (20–30 V unchoked)
	Current consumption	Normal operation 40 mA (approx. 8 device units) < 100 mA
	Initialization/programming	< 100 mA
Buffering for real-time clock	Capacitive buffering	for at least 24 hours
Number of function blocks	maximum of 150 per device with maximum 200 group addresses (inputs/outputs)	
Telegram buffer	Input	50 telegrams
	Output	100 telegrams
Operation and display elements	Programming button	
	Programming LED	Red
	Operation LED	Red
	Fault LED	Red
Connections	Bus	Pressure contact on data rail
	PC port	serial, RS 232
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022 with bonded-in data rail	
Dimensions (WxHxD)	54 x 90 x 58 mm	3 modules

Information

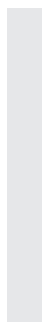
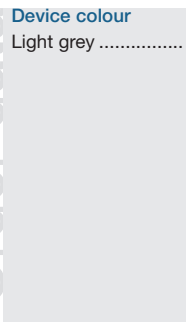
The mini function module is a maintenance-free programmable control device. As an add-on to the decentralized system, a wide range of control and automation tasks can be efficiently performed with the aid of the extensive function library. KNX/EIB telegrams are received and processed, and the result sent onto the bus within a defined time.

Project design and commissioning is carried out with a function diagram oriented software program (Mini FM tool). The program runs cyclically, operating the module in real-time mode.

The connection to the KNX/EIB system is made via the integral bus coupling unit. The device is mounted on the top hat rail and powered via the 29 V DC contacts of the data rail (outer conductor pair).

Order data

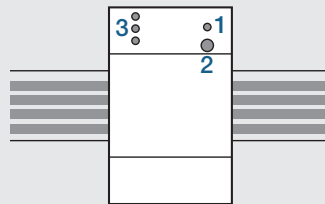
Device colour
Light grey 7572 00 11



Notes

Operation

The supply is delivered via the two outer bars of the data rail. This requires a 4gang connector (7501 00 05).



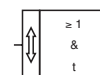
Key

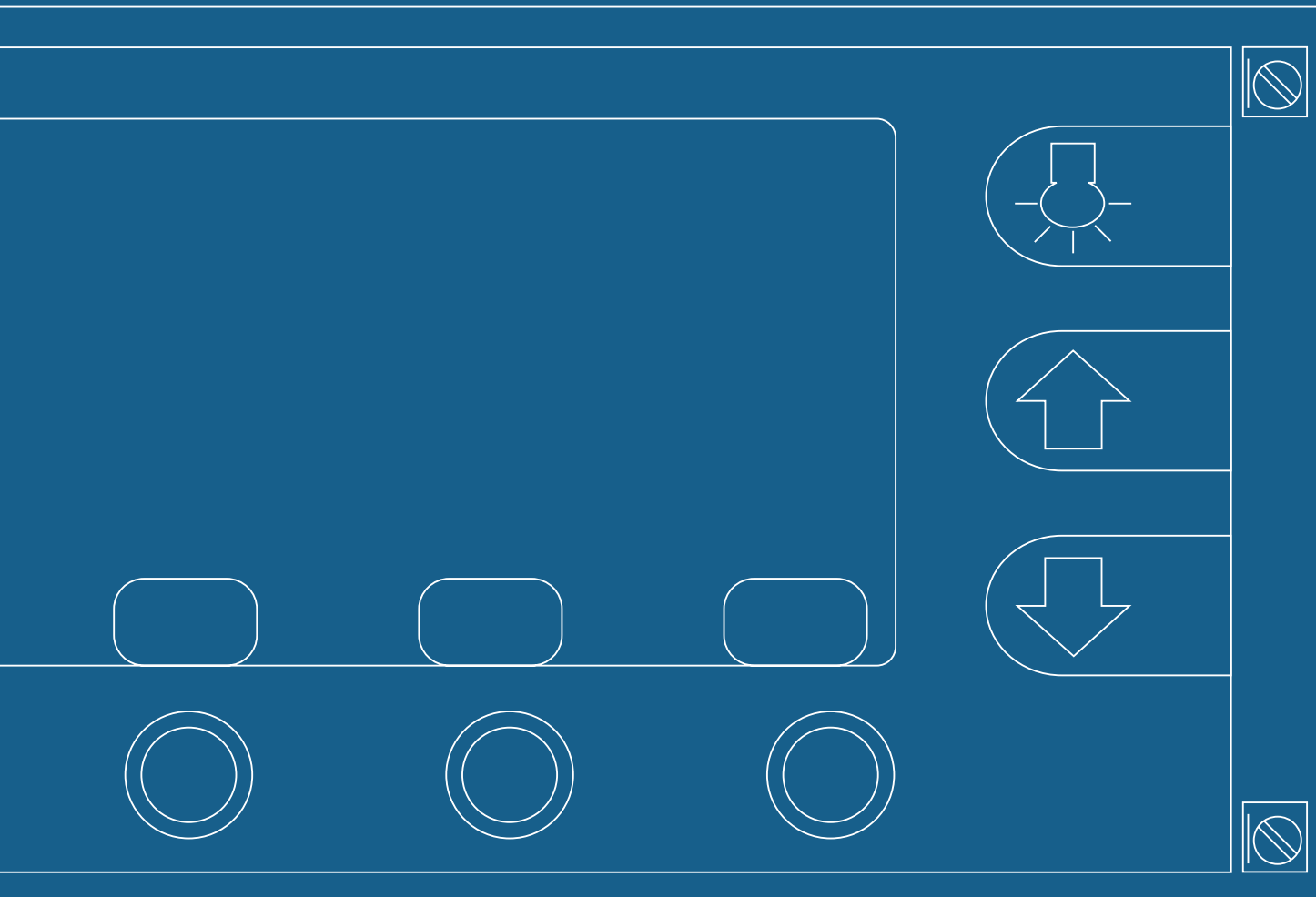
- 1. Programming LED
- 2. Programming button
- 3. Operating/fault LEDs

- Integral bus coupling unit
- Integral real-time clock
- Implementation of wide-ranging logic, time, control and/or monitoring functions
- Processing of different EIS telegrams (no 2-byte floating point)



Mini-function module





B.

Berker the right way.



VISUAL REPRESENTATIONS

In residential, public and commercial buildings, the operating states of various sub-systems often need to be recorded and signalled. This requirement covers both the interior and exterior areas of the buildings concerned.

The KNX/EIB installation bus can be used in a multifunctional role to perform this task. All display, signalling, operator control and monitoring elements can receive information over a bus cable and send commands and messages to all other devices on the bus.

This leads to clearly-structured systems, and reduces costs.

Displays	374–375
Indication and operating panels	376–381

Supply	via bus line	21–32 V DC
Operation and display elements	LC display	Four lines of 16 characters
	Navigation buttons	2
	Function buttons	2
Behaviour in the event of power restore	Status enquiry	Programmable
Connections	Bus coupling unit, flush-mounted	PEI: 2 × 5-pin male connectors
Protection	IP 20, EN 60529	Protection class II
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Clip on to flush-mounted bus coupling unit	Plastic adapter with retaining screw
Mounting orientation	any	
Dimensions	Dependent on design	See dimensions diagrams

The info display makes it possible to trigger a wide variety of building functions using instabus KNX/EIB telegrams, and to display information about these function on LC displays. Displays are in the form of freely programmable texts and words called up from the devices on the bus.

Up to 12 pages with 1, 2 or 4 lines each programmable. Each line can be assigned a function (switching, dimming, value display, etc.).

The two buttons on the right are for navigation between the display screens. The two buttons on the left are for operation of the selected function according to the ETS programming. From these functions up to 12 alarm messages can be selected and administered on an alarm screen. Alarm messages can result in triggering an acoustic and/or visual alarm.

Messages from the alarm centre KNX/EIB can be displayed on the information display and acknowledged.

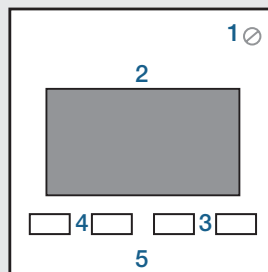
MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		Berker ARSYS	
White	7586 00 12	White, glossy.....	7586 00 52	White	7586 00 72	White.....	7586 00 42
Polar white	7586 00 89	Polar white, glossy..	7586 00 59	Polar white	7586 00 79	Polar white	7586 00 49
		Polar white, matt	7586 00 89	Anthracite, matt.....	7586 00 75	Light bronze, lacquered	7586 00 44
		Anthracite, matt.....	7586 00 85	Aluminium, matt	7586 00 74	Stainless steel, lacquered	7586 00 43
		Aluminium, matt	7586 00 83	Stainless steel, lacquered	7586 00 73		

Display 500D01

- Device parameters configurable
- Selectable line functions:
 - Retrieve light scene (light scene extension set)
 - Drive shutters
 - Display date and/or time of master clock
 - Display text
- Page functions selectable:
 - Display
- Protection against incorrect use configurable
- Line functions configurable
- Alarm functions configurable
- Lighting can be activated by object
- Object value sent on removal of the device from the bus coupling configurable

- Dimming the lighting
- Switching the lighting
- Forced guidance
- Send and receive values (up to 4 bytes)
- Display ASCII text
- No function
- Display alarm centre

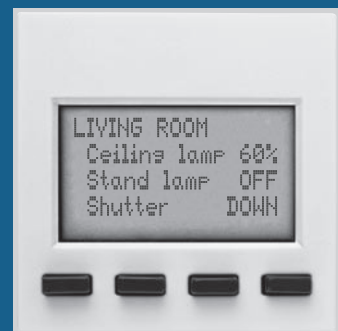
Objects	50 (dependent on the parameterisation)
Group addresses/assignments	maximum 78/maximum 127



Key

1. Protection against removal (under the design cover)
2. Info Display
3. Two navigation buttons
4. Two function buttons
5. Design cover

- Display and operation of building functions
- Illuminated LC display
- 1, 2 or 4-line display (4, 8, 16 characters per line)
- Acoustic and/or visual alarms
- Display of messages and operation of bus devices
- Protection against incorrect use
- Values can be presented
- Directly programmable using ETS (no special software required)



Info display



ETS search path: Berker >> Displays >> LCD displays >>

Technical data

Supply	Bus	21–32 V DC
	External voltage	230 V AC ±10 %, 50 to 60 Hz
	Power consumption	approx. 3 VA lighting off, approx. 6 VA lighting on
Operation and display elements	4 programmable keys	
	2 cursor keys	
	Backlighting button	
	Display	LCD with 240 x 180 pixels
Connections	Bus	Terminal
	Supply voltage	Screw-type terminals up to 2.5 mm ²
Response to power failure	Bus voltage	Last display values are retained
	Mains voltage	Device does not function
	Bus and mains power	Device does not function
Response to power restore	Bus or mains power	Status polling of bus devices and updating of display values
	Bus and mains power	Status polling of bus devices and updating of display values (if function selected in plug-in software)
Protection	Depending on size and properties of mounting area	up to IP 54, EN 60529
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transportation	-25 to +70 °C
Mounting	Bolted into flush-mounted housing	
Mounting orientation	any	
Dimensions (WxHxD)	Visible dimensions	213 x 125 x 75 mm without decor frame 216 x 145 mm with decor frame (accessory)
	Cavity installation dimensions (hole dimensions) for flush-mounted housing	212 x 124 x 75 mm

Information

The Minitableau MT 701 Plus is used to display and modify building functions from a central point. The display medium is an LCD graphical display. The physical external interface is controlled via a membrane keypad using the common Interworking Standards. Basic functions such as switching, dimming and shutter control operation can be handled, as well as complex functions such as value transmission, time, date, etc. The functions of the four input keys can be programmed freely.

The projecting tool to program the Minitableau is a plug-in, which is implemented in the ETS. It has a direct access to the project group addresses. A preview window helps to check the programmed pages.

An internal real-time clock is provided for the time functions. The switching times can be altered without use of a PC. The date and time can be received by system time transmitters and transmitted by the internal value transmitter. It is possible to control and store up to 24 scenes with up to 32 outputs (1-bit, 1-byte).

Light scenes can be changed and labelled by the user.

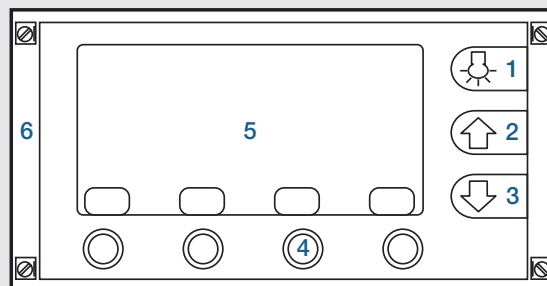
Extension mode operation is possible by way of suitable sensors (value transmitters).

Order data

Device colour		Accessories	
Light grey	7574 00 09	Masking frame	
		- Polar white	7594 00 09
		- Deep black.....	7594 00 05
		- Light bronze, lacquered	7594 00 04
		- Stainless steel, lacquered	7594 00 03
		Flush-mounted housing	7590 00 21

Notes

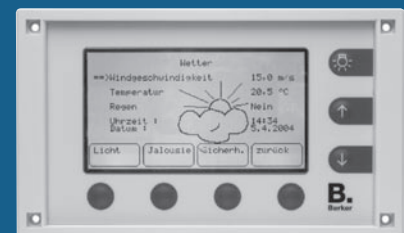
Alarm functions	Definition and processing Representation	by alarm list (190 entries) by pop-up functions and/or acoustic signals
Limiting value functions	Definition Processing Representation	from up to eight telegrams into switching telegrams as analogue values
Password functions	Structure Backup Password selection Password changing	Four segments, hierarchical, segment 4 has highest priority in EEPROM – Backup also in case of power failure and project redesign possible without software possible without software



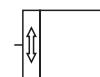
Key

1. "Illumination" push-button
2. Cursor "Up"
3. Cursor "Down"
4. Context-sensitive menu keys
5. Display
6. PC port and bus connection on rear

- Graphical display with 240 x 128 pixels
- Backlighting
- Contrast adjustable
- Background bitmaps insertable
- Up to 50 dialogue pages each with sixteen functions in eight lines programmable
- Four membrane push-buttons freely programmable for interactive user control
- Two cursor push-buttons
- Illumination push-button
- System time buffered (approx. 3 days)
- Switching times programmable with use of PC
- Password functions
- Alarm functions
- Limiting value functions
- Sixteen-channel timer function (week program)
- Light scene function with extension mode
- Integral programming interface
- Programming via KNX/EIB possible



**Minitableau
MT 701 Plus**



ETS search path: Berker >> Displays >> LCD displays >>

Supply	via bus line	21 – 32 V DC
	Auxiliary voltage	230 V ~ AC, 50/60 Hz
	Power consumption	approx. 13.8 W
	Power consumption in standby	approx. 5 W
Operation and display elements	Touch screen, colour	TFT display, 320 x 240/240 x 320 pixels, 4096 colours
	Programming button with Reset button with	programming LED, red reset LED, red
Graphics memory	for icons and background images	approx. 4 MB
Behaviour in the event of power failure	Bus voltage	Display values are depicted with dashes, Display elements are not depicted no operating via the instabus KNX/EIB
	Mains voltage Bus and mains voltage Bus or mains voltage	no function of the device no function of the device Status query of the bus devices and update of the display values
Behaviour when power returns	Bus and mains voltage	Status query of the bus devices and update of the display values (if this function has been selected in the plug-in software)
	Bus and mains voltage	Status query of the bus devices and update of the display values (if this function has been selected in the plug-in software)
Connections	KNX/EIB	Connection terminal
	Programming interface	USB socket, type B
	Ethernet, 10 Mbit/s	RJ45 jack 8/4pole
	Screw terminals Mains voltage	0.5–2.5 mm ² single stranded 0.5–2.5 mm ² finely stranded without cond. sleeve 0.5–1.5 mm ² finely stranded with cond. sleeve
Protection class	IP 20, EN 60529	
Ambient temperature range	Operation or storage/transport	-5 to +45 °C / -25 to +75 °C
Mounting	in flush-mounted housing	
Mounting orientation	horizontal or vertical	preferably horizontal
Dimensions (WxHxD)	Visible dimensions	220 x 140 x 48 mm without frame 231 x 159 x 48 mm with frame
	Panel hole dimensions, hollow wall (hole dimensions) for flush-mounted housing	212 x 124 x 75 mm

The Berker Master Control is used to depict and operate building functions at a central point. This is done using a colour touch screen (TFT display), whose user interface can be custom configured. The functions of the display elements can be set freely. Basic functions such as switching, dimming, shutter and complex functions such as value transmitter, time, date, etc. can be edited. In addition, an Ethernet interface is available, via which up to 5 e-mail mailboxes can be synchronised, and text contents of e-mail messages can be called up, all under password protection. It is also possible to transmit predefined fault messages via e-mail. What is more, RSS newsfeeds can be displayed. The display and operation functions of the master control can be visualised remotely and at the same time controlled using easy-to-install PC client software (remote communication). Furthermore, the Ethernet interface enables user-oriented configuration and commissioning of the master control.

Configuration is carried out via a software plug-in integrated into the ETS which allows the transfer of group addresses. A preview screen allows direct control of the display page created.

continued on next double page

Device colour		Accessories	
Polar white	7574 00 12	Frame	
Anthracite.....	7574 00 13	- Glass, polar white...	7594 01 01
		- Stainless steel.....	7594 01 03
		Flush-mounted	
		housing	7590 00 21

Master Control 590101

- Duration/type of activation of the display illumination adjustable, activation via object possible
- Display format, sending and updating behaviour of date and time adjustable
- Display depiction for horizontal and vertical mounting
- Mode of depiction adjustable by means of numerous parameters
- Display of 50 dialogue pages possible with free design and integration of graphics
- Password protection possible for each display page
- Adjustable display elements (e.g. buttons) with configuration preview and operation via photo-realistic room depiction possible, e.g. as floor plan
- Character sets for Western and Eastern Europe, Greek and Cyrillic
- Parts of a project can be saved for re-use as function blocks
- Functions switching, dimming, shutter, value display (if desired with limit value monitoring), light scene, date, time, text display, access control, positive operation and operating mode change-over, heating for display elements adjustable
- Possible to show a 4-button line at the lower edge of the display with the selectable functions switching, dimming, shutter, value, light scene, positive operation and calling other display dialogue pages
- Possible to show a status line with a display of events, fault messages, values, date, time or texts
- Service page for system settings
- Four password levels for assigning various access rights
- Adjustable integrated week time switch with sixteen timer channels on two timer pages
- Up to 50 fault messages can be set
- Possible to display the last 20 fault messages with opening of a message window and acoustic signal
- Acknowledgement of fault messages via display or object
- 80 logic operations (AND, OR, exclusive OR) can be programmed for convenient linking/processing of statuses and events
- 12 multiplexers with up to three channels can be programmed
- Up to 40 time elements with filter, time and blocking parameters programmable for switching functions
- Password-protected synchronisation of up to 5 e-mail mailboxes and writing of the text contents of e-mail messages.

continued on next double page ►

- Colour touch screen (TFT display with 320 x 240 pixels)
- Bitmap/JPG graphics can be inserted
- Up to 50 dialogue pages, each with up to 16 display elements
- Total of 400 display elements possible
- Switching times adjustable without PC
- System time with C backup (approx. 3 days)
- Four password levels for controlling access
- Alarm functions
- Limit value functions



Berker Master Control



ETS search path: Berker >> Display >> Panel >>

Applications

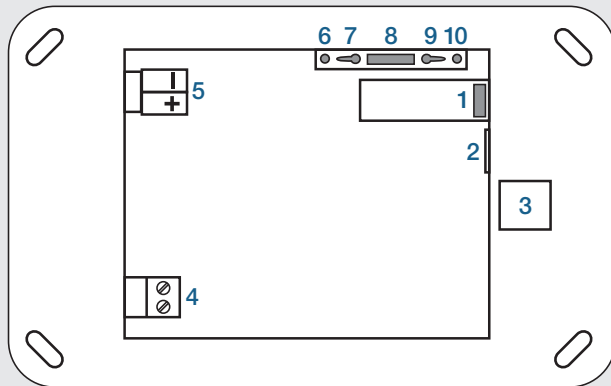
Master Control 590101 (continued)	
	<ul style="list-style-type: none"> ■ Display of up to 8 RSS news feeds (RSS 2.0) in colour on the touch screen ■ Remote communication for display and operation of the master control via a PC ■ Presence simulation for recording or playback of any desired simulations adjustable via specific time sequences ■ Data logger for recording and depiction of KNX/EIB data, and forwarding via e-mail possible ■ Integrated alarm system with up to two different alarm areas (internal/external) for monitoring of windows and doors for burglary and sabotage
Objects	max. 2,000, generated dynamically
Group addresses/assignments	maximum 3,000/maximum 3,000

Information

An internal real-time clock is available for processing the time functions. The switching times can be changed without a PC intervention. Date and time can be received by system timers and also transmitted by the internal value transmitter.

Control (possible even via the integrated time switch) and saving of up to 24 light scenes with up to 32 outputs (1 bit, 1 byte) are possible, light scenes and descriptive texts can be changed. Extension unit operation is possible using suitable sensors (value transmitters).

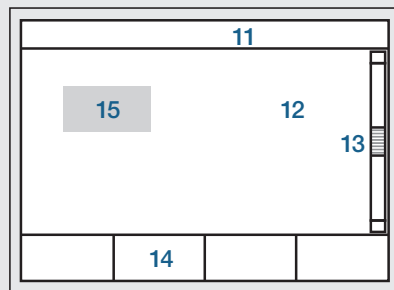
A presence simulation and a data logger function can be implemented as additional functions. The presence simulation can be used to record any desired simulations over certain time periods, and to play them back at any time. The data logger provides the capability of recording the data that are received from the KNX/EIB in various formats and to depict them on the device, e.g. as a diagram, or to forward them via e-mail.



Connections (rear of device)

Legend

1. USB connection on the rear of the device (blade terminal)
2. Connection Ethernet 8pole
3. USB connection to the front of the device (USB type B)
4. Mains voltage connection
5. KNX/EIB bus connection
6. Programming LED
7. Programming button
8. Connection for future expansions, e.g. membrane keyboard
9. Reset button
10. Reset LED



Touch screen operating elements

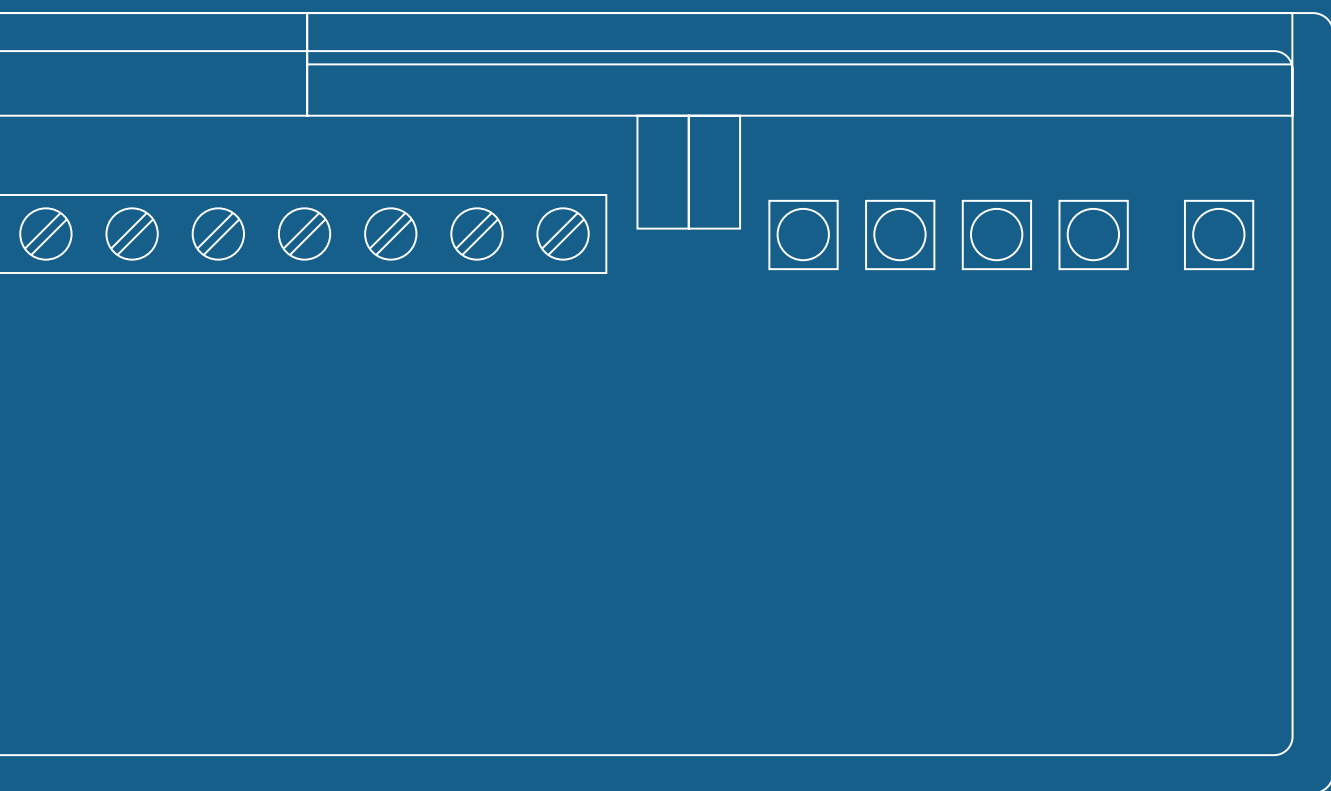
Legend

11. Status line
12. User interface with freely selectable background graphics and display elements
13. Scroll bar
14. Four button displays (optional)
15. Display element (up to 16 freely positionable per dialogue page)

- Integrated alarm system with two alarm areas
- Week time switch with 16 channels, each with 8 switching times
- Light scene operation with extension unit operation
- Programming possible via KNX/EIB or USB
- Integrated piezo buzzer

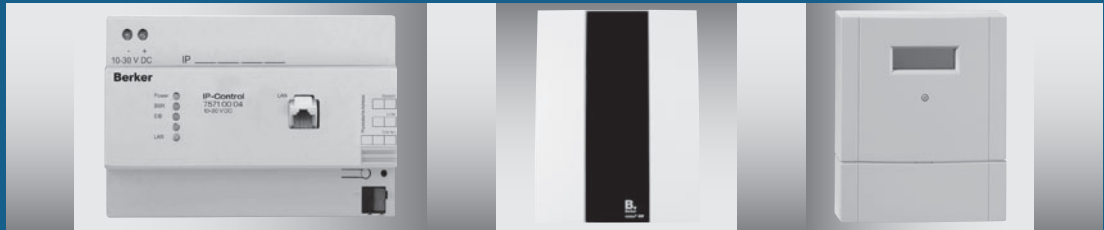


Berker Master Control



B.

Berker the right way.



OTHER COMPONENTS

The instabus KNX/EIB connects and links all subsystems within a building. In accordance with modern requirements, it should also be possible to communicate with the system or activate facilities from outside the building via contemporary means of communication such as the Internet and e-mail (IP-Control).

Gateways create the connection from standardised systems to the instabus KNX/EIB so that the PDA rises up to the cable-less operating centre of a room (Bluetooth gateway) or the light is switched on via the television remote control (IR gateway).

The alarm centre uses the instabus KNX/EIB to control all components; the connection to the building system technology creates synergies through the use of movement detectors to control the lighting and monitor the interior.

It is not just a question of convenience but also of security when important information such as burglary reports or fire alarms can be reported to nearly every place by telephone (Tele-Control).

IP-Control	384–387
Gateways	388–393
Alarm central unit	394–397
Tele-Control	398–399

Other
components

Dim. drawings
Glossary

Training
Service

Technical data

Supply	via bus line	21–32 V DC
	Auxiliary voltage	12–30 V DC
	Power consumption	max. 5W
Operation and display elements	Power LED (operational stand-by)	green/orange
	BMX LED (data traffic)	red/green/orange
	KNX/EIB LED (KNX/EIB-data exchange)	red/green/orange
	LAN LED (LAN connection)	green/orange
	Programming button	
Connections	Programming LED	red
	KNX/EIB	Connection terminal
Memory	Power supply	Screw terminals
	Ethernet interface	RJ45 jack
	RAM	64 MB
Protection class	ROM	64 MB
	IP 20, EN 60 529	
Ambient temperature range	Operation	0 to +35 °C
	Storage/transport	-20 to +70 °C
Mounting	on top hat rail 35 mm, EN 50022	
Dimensions (W x H x D)	144 x 90 x 64 mm	8 modules

Information

The IP Control is designed as a rail mounted device. Berker IP Control is a central control, signalling and monitoring unit that captures all of the information from a KNX/EIB installation. The information is transmitted via an IP interface. All of the KNX/EIB functions are processed and visualised with the aid of the pre-installed software.

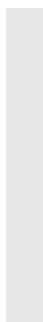
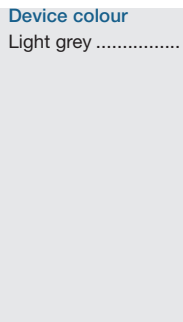
IP Control functions like a server and allows additional functions such as:

- Coupling of multiple KNX/EIB systems with their own IP Control via the LAN interface
- Independent access to the building functions from each (mobile) PC for nearly unlimited mobility
- Simultaneous access by up to 50 visualisation clients (including decentralised ones) for users with individual user rights

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Order data

Device colour
Light grey 7571 00 04



Information

NOTE

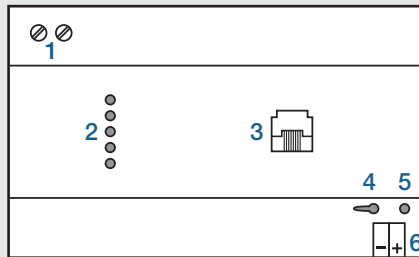
The non-reduced output of a KNX/EIB voltage supply can be used as the voltage supply.

IP Control requires no ETS application. It is not necessary to program the bus coupling unit.

Network technology skills are required for commissioning and configuration.

When using a direct connection to a PC, use a crossover network cable. For the complete range of functions,

the JAVA Runtime Engine version 1.5 or higher must be installed on the application PC.



Legend

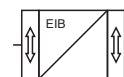
1. Power supply 10–30 V DC
2. Signal LED (operation)
3. RJ45 jack for Ethernet LAN
4. Programming button KNX/EIB
5. Programming LED KNX/EIB
6. Bus connection terminal KNX/EIB

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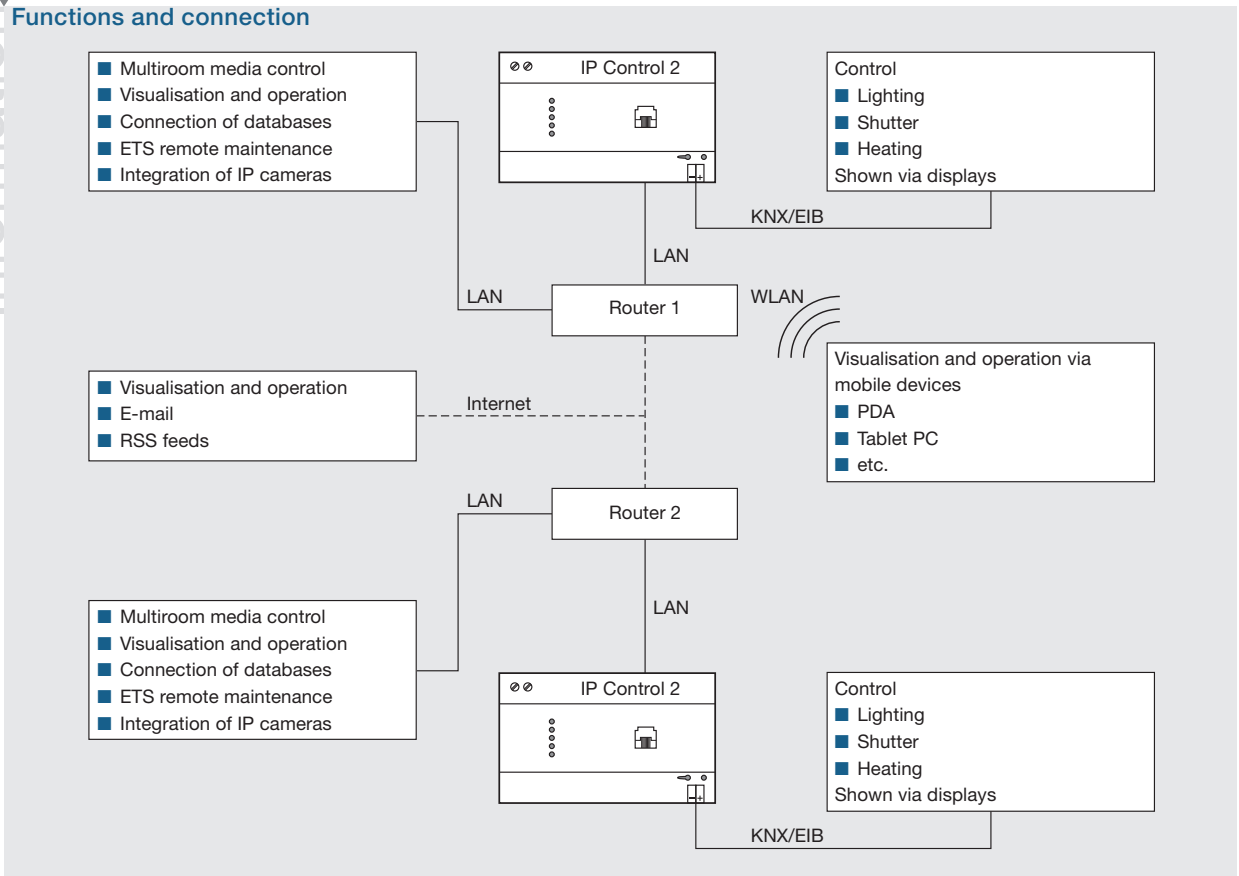
- Convenient visualisation via PC
- Basic project with preconfigured function blocks
- Week and year timers
- Logic gates
- Light scene control
- Threshold switches with hysteresis
- Space-saving RMD installation



IP Control



Functions and connection



- Transmission of preset status and event messages per e-mail
- Monitoring, recording and depiction of use and consumption data
- KNX/EIB commissioning and maintenance from each network access point or via the Internet

Supply is e.g. via the non-reduced output of a KNX/EIB voltage supply.

User interface

The IP Control can be reached via its IP address using a Web browser. The following functional areas can be selected from the start page:

Visualisation

User interface that is used to transmit commands to and to display status information from the KNX/EIB system via IP Control. The user interface can be created or edited in a project using the editors provided. The editors are provided by IP Control via the network. Berker provides a preset basic project with prepared graphics and preconfigured function blocks; this makes it easier to commission and design new projects.

Visualisation Editor

Editor for designing the user interface. Visualisation elements are integrated and can be selected via the menu bar. In addition, you can create elements yourself using the supplied software. The visualisation elements can be imported and selected in the editor, texts can be added and parameterised. In the background you can insert your own graphics (e.g. floor plans) or photographs for individual designs.

Job Editor

Creation of additional jobs. Jobs are tasks/functions that IP Control can execute independently:

- Week and year timers
- Light scenes with up to 28 KNX devices
- Event-controlled sending of e-mails
- Logic gates (operations) AND, OR, XOR and negation of the corresponding logic
- Comparison of values of the group addresses with results-dependent transmission of values
- Outputting of RSS feeds as scrolling text on EIS 14-capable visualisation devices
- Setting-up of a multiroom media control with operation via KNX/EIB components
- Timer, switch-on and switch-off delay
- Limit value and hysteresis switches

System Configurator

Interface for configuration of the device. IP addresses, e-mail providers, the time zone, passwords, physical addresses, etc. are set here. Your own graphics and operating elements are loaded into the device. Backup files for projects and settings can be created and links to a database can be set up.



IP Control

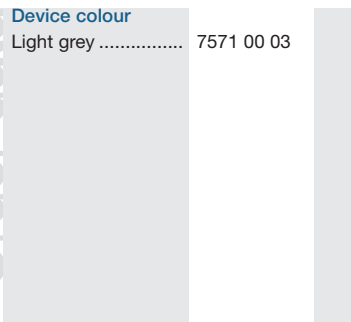
Supply	via bus line	21–32 V DC
Auxiliary voltage	110 to 240 V AC +10 %/-15 % Power consumption	50/60 Hz maximum 6 W
DALI	Voltage Current	typ. 16 V DC (with overvoltage protection) typ. 128 mA, maximum 200 mA briefly designed for max. 64 DALI devices with 2 mA each with short-circuit and overload protection
	Transmission rate	1200 bit/s
Cable lengths between Gateway and operating device	Ø 1.5 mm ² or Ø 1.0 mm ² Ø 0.75 mm ² or Ø 0.5 mm ² Resistivity Cable type	maximum 300 m or maximum 238 m maximum 174 m or maximum 116 m maximum 4 ohm (one-way length) maximum 8 ohm (two-way cable) Specified by FELV; preferably two free cores of an NYM installation cable
Behaviour in the event of power failure	Bus voltage failure Mains voltage failure	software-dependent According to its parameterisation, the device reports failure of the supply voltage on the bus and then switches off
Behaviour in the event of power return	Bus voltage Mains voltage	software-dependent brief initialisation, then readiness for operation
Operation and display elements	Button field 4gang 3 local operation status LEDs, 1 programming LED Programming button	Local operation Red
Connections	KNX/EIB Inputs	Connecting terminal single-core 0.2–4 mm ² or 2 x 0.2–2.5 mm ² 0.75–4 mm ² finely stranded without conductor 0.5–2.5 mm ² finely stranded with conductor
Protection	IP 20, EN 60529	
Ambient temperature range	Operation and storage/transport	-5 to +45 °C and -25 to +70 °C
Installation/mounting orientation	on top hat rail 35 mm, EN 50022	as desired, preferably output terminals up
Dimensions (W x H x D)	72 x 90 x 58 mm	4 modules

The DALI Gateway is designed as a rail mounted device and serves as the interface between a KNX/EIB installation and a DALI lighting system. It makes it possible to switch and dim up to 64 lights with a DALI operating device (e.g. electronic ballast) that can be assigned to up to 32 different light groups. Activation of the DALI Gateway makes possible room-specific light control in the higher-level KNX/EIB building management. Additionally, the light groups can be integrated into up to 16 scenes, meaning that it is possible to call up pre-programmed lighting moods, for example.

The operating devices (4 push-buttons) can be used to switch the DALI light groups on and off or dim them in parallel with KNX/EIB, even without bus voltage or in an unprogrammed state. This enables quick function testing of the connected loads. The device is configured and commissioned via a plug-in embedded in the ETS 3. The DALI Gateway is supplied with power entirely from the separate mains connection.

The mains voltage must be switched on in order to activate the DALI interface.

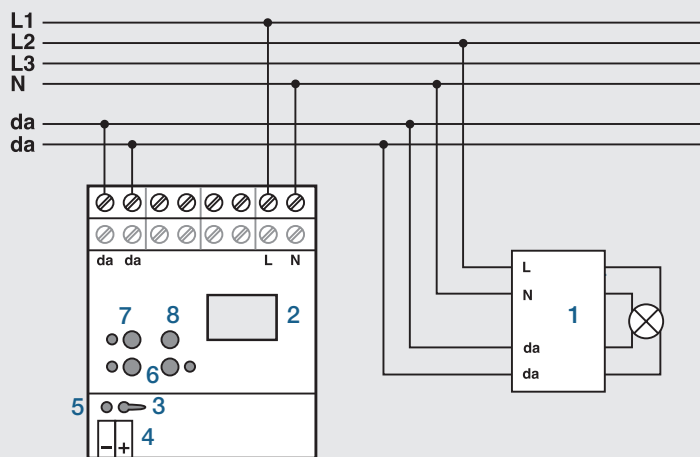
Device colour
Light grey 7571 00 03



DALI Gateway C00C01

- Control of max. 64 DALI devices in a max. of 32 groups
- Parameters for activation and function of manual operation adjustable
- Feedback of DALI error state or short-circuit
- Switching feedback: active or passive (object can be read out) feedback function
- Message in the event of failure of the supply voltage
- Central switching function
- Brightness limit value adjustable
- Lock function or alternatively forced guidance function can be set for each group; in the lock function flashing of light groups is possible
- Adjustable time functions (on delay, off delay, stair light function—also with prewarning function)
- The groups can be included in up to 16 light scenes
- Responses in the event of bus voltage failure and return and after an ETS programming process can be set for each group
- Soft switch-on or soft switch-off function
- DALI commissioning with ETS plug-in
- Dimming behaviours adjustable

Objects	216
Group addresses/assignments	maximum 254/maximum 255



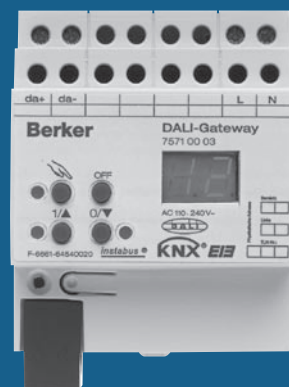
Terminals

da = DALI system voltage

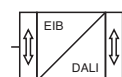
Key

1. DALI device (e.g. electronic ballast, up to 64 devices)
2. Display
3. Programming button
4. Bus connection
5. Programming LED
6. Buttons 1/▲ and 0/▼ each with associated LED
7. Manual button with associated LED
8. OFF button

- Interface to DALI lighting systems
- Control of 64 lights in up to 32 lighting groups
- Provision of the DALI system voltage
- Four buttons for manual operation with LED display
- Two-character, seven-segment display for DALI groups and status information



DALI gateway



ETS search path: Berker >> Lighting >> Dimmer

Technical data

Supply	via bus line	21–32 V DC
Controls and display elements	Buttons	4
	Graphic display	four lines with 16 characters
Bluetooth	2.4 GHz ISM-Band	79 channels
	Frequency hopping	1600/sec
	Transmitting power	10 mW
	Transmission/reception range	approx. 10 m in class 3
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +75 °C
Mounting	Clip on to flush-mounted bus coupling unit plus	
Mounting orientation	any	
Dimensions (W x H x D)	depends on design	see dimension drawings

Information

The Bluetooth gateway is clipped onto a flush-mounted bus coupling unit, and sends and receives Bluetooth signals wirelessly. Bluetooth signals are converted into KNX/EIB telegrams and vice versa at the gateway. This allows lights, shutters and heaters to be operated with the correct Bluetooth terminal devices and their current status to be visualised. The physical external interface in the terminal device is designed with specific systems in mind and is tailored to the specific application.

Up to eight terminal devices can be administered. The terminal devices are registered, and the settings and configuration performed using the displays and the four device buttons. No re-programming is necessary. Frequency hopping during transmission from gateway to terminal device keeps the connection immune from interference.

Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		Berker ARSYS	
White	7566 01 12	White, glossy	7566 01 52	White	7566 01 72	White	7566 01 42
Polar white	7566 01 19	Polar white, glossy ..	7566 01 59	Polar white	7566 01 79	Polar white	7566 01 49
		Polar white, matt	7566 01 89	Anthracite, matt	7566 01 75	Light bronze, lacquered	7566 01 44
		Anthracite, matt	7566 01 85	Aluminium, matt	7566 01 74	Stainless steel, lacquered	7566 01 43
		Aluminium, matt	7566 01 83	Stainless steel, lacquered	7566 01 73		

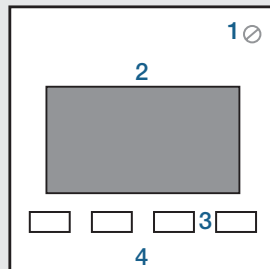
Applications

Bluetooth	<ul style="list-style-type: none"> ■ Creation of eight rooms and eight subsystems ■ User-defined names for rooms, channels, subsystems to be displayed in the Bluetooth device ■ Max. 24 channels per room ■ Total number of channels: 62 ■ Channel functions: switching, dimmer value transmitter, shutter, light scene extension with/without memory function, value display (2-byte) ■ Control channel objects are invertible ■ Alarm function when user module is disconnected can be programmed ■ PIN number for each of device administration and device settings ■ Eight error messages with 16 characters each for displays in the terminal device ■ Error messages activated via object ■ Acknowledgement of the error messages can be programmed
Objects	60
Group addresses/assignments	maximum of 60 each

Notes

Compatibility

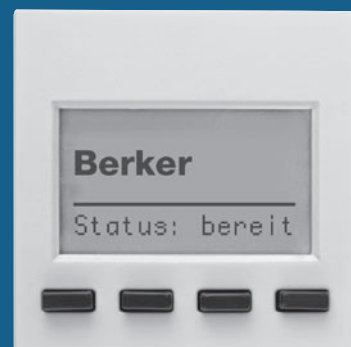
At present, the Bluetooth gateway supports Tungsten T3, T5 and E2 manufactured by PALM.



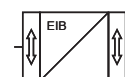
Key

1. Protection against removal (under the design cover)
2. Display
3. Buttons for managing and configuring terminal devices
4. Design cover

- Wireless operation of the instabus KNX/EIB via Bluetooth terminal devices
- Management of terminal devices via the display and user buttons on the device
- Management of up to eight terminal devices
- Illuminated graphic display
- Integral mechanical anti-dismantling protection



Bluetooth gateway



ETS search path: Berker >> Communication >> Radio

Technical data

Supply	via bus line	21–32 V DC
Controls and display elements	Rotary potentiometer	Reset
	Slide switch	Operating statuses: - operation (left position) - standby (central position) - learning (right position)
	LED, three colours	Operating status displayed beneath the lens
Connections	Bus coupling unit V2, flush-mounted	PEI: 2 × 5-pin male connectors
IR range	Transmission and reception angle	30°
	Transmission/reception range	approx. 7 m
IR signals	Scanning and sending	20–70 kHz and 455 kHz
	Reception	34–42 kHz and 455 kHz
Protection	IP 20, EN 60529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +75 °C
Mounting	Clip on to bus coupling unit V2, flush-mounted	
Mounting orientation	Ensure it is aligned with transmitters and receivers	
Dimensions (W x H x D)	depends on design	see dimension drawings

Information

The IR gateway is clipped onto a flush-mounted bus coupling unit V2, and sends and receives IR signals. Incoming KNX/EIB telegrams are converted into IR signals, and can then control IR-controllable devices such as televisions and audio systems or integrate them into scenes. In the same way, IR signals are converted into KNX/EIB telegrams so that KNX/EIB devices can be operated with IR remote controls.

By using several IR gateways, the instabus-KNX/EIB can be used as a transmission link to allow for simplified, IR control from one room to another. For this purpose, the IR signal is converted into an KNX/EIB telegram, is forwarded and then re-converted into an IR signal elsewhere.

In teach-in mode, the IR gateway can learn nearly all standard IR remote controls (e.g. with RC5 code) and convert their signals into KNX/EIB telegrams. A reset function to delete all IR signals is integrated into the IR gateway.

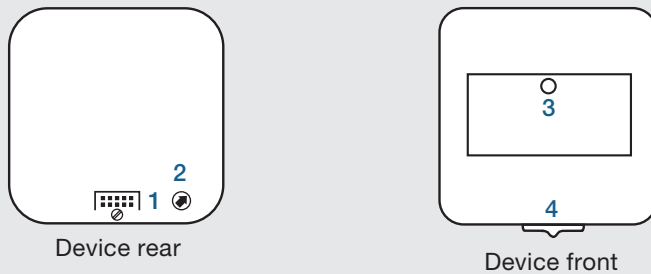
Order data

MODUL 2		Berker S.1/B.1/B.3/ B.7 GLAS		Berker K.1/K.5		Berker ARSYS	
White	7566 03 12	White, glossy.....	7566 03 52	White	7566 03 72	White	7566 03 42
Polar white	7566 03 19	Polar white, glossy..	7566 03 59	Polar white	7566 03 79	Polar white	7566 03 49
		Polar white, matt	7566 03 89	Anthracite, matt.....	7566 03 75	Light bronze, lacquered	7566 03 44
		Anthracite, matt.....	7566 03 85	Aluminium, matt	7566 03 74	Stainless steel, lacquered	7566 03 43
		Aluminium, matt	7566 03 83	Stainless steel, lacquered	7566 03 73		

Applications

IR gateway	<ul style="list-style-type: none"> ■ Time interval for repetition of the infrared transmissions can be programmed. ■ LED confirmation of received objects can be programmed. ■ Assignment of infrared signals to switching (1 bit), dimming (4 bit) or value objects (1 Byte) is possible. ■ Assignment to one object per infrared signal ■ When assigning switching objects, it is possible to send two IR signals (ON or OFF) per object in toggle mode. ■ Infrared signals assigned to objects via teach-in mode in the device
Objects	32
Group addresses/assignments	not yet known at time of going to press

Notes



IMPORTANT

Remote controls without carrier frequency of older design, IR transmitters or receivers not operating according to the RC5 or B&O standards, and IR remote controls with a differing carrier frequency cannot be taught-in!

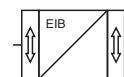
Key

- 1. Physical external interface
- 2. "Reset" potentiometer
- 3. LED (can display three colours)
- 4. Slide switch (operating modes)

- Sends and receives infrared signals
- "Operation", "Standby" and "Teach-in" operating modes can be selected via the slide switch.
- Three-coloured LED to distinguish between operating status displays
- Reset via potentiometer at rear
- Teach-in mode for teaching in standard IR remote controls



IR gateway



ETS search path: Berker >> Infrared >> IR converter

Supply	via bus line	21 to 32 V DC
	Power consumption	typically 240 mW
	Auxiliary power supply	230 V AC $\pm 10\%$, 50 to 60 Hz
	Power consumption	max. 24 W
Inputs	all following inputs in common:	
	- Signal duration - Signal current	minimum 100 ms typically 500 μ A (when closed)
	Wired detectors	1
	- Signal voltage	approx. 4.7 V DC (when open = "1" signal)
	- Detector resistance	max. 1.7 kOhm (when closed)
	- Length of the input cable	max. 200 m (minimum 0.8 mm cable diameter)
Sabotage		1
	- Signal voltage	approx. 4.7 V DC (when open = "1" signal)
	- Length of the input cable	max. 600 m (minimum 0.8 mm cable diameter)
Transfer device (ÜG-R)		1
	- Signal voltage	external max. 5 V DC SELV
	- Signal recognition	"1" signal: ≥ 2 V DC / "0" signal: 0–0.8 V DC
	- Length of the input cable	max. 200 m (minimum 0.6 mm cable diameter)
Outputs	Alarm sensors	3: External/internal sirens and flash
	- Switch type	Power MOS-FET for each output
	- Rated voltage	12 V DC SELV each output (± 1.5 V back-up power operation)
	- Rated current	max. 1.6 A (all 3 outputs together)
	- Length of output cable	max. 200 m (minimum 0.6 mm cable diameter)
Transfer device		
	- Supply	2: 1 x 12 V DC and 1 x GND ÜG (-)
	- Control outputs	5: 1 each x ÜG-S/U, ÜG-E, ÜG-F, ÜG-Ü and ÜG-S
	- Rated voltage	12 V DC SELV each output (± 1.5 V back-up power operation)
	- Switch type	Transistor for each control output
	- Rated current (supply and control outputs)	max. 100 mA
	- Length of output cable	max. 200 m (minimum 0.6 mm cable diameter)
Relay output		1 x normally open (NO) and 1 x normally closed (NC)
- Switch type		Potential-free relay contacts

Continued on next double page

The alarm central unit KNX/EIB is designed for surface-mounting. It links all system components of the alarm system and coordinates their functions. The alarm centre monitors the detectors and activation equipment and controls the alarm sensors and displays. So as to offer systems appropriate both to the structures of residential buildings and also small trade business premises, up to four security zones can be configured as the application requires.

In addition, two zones are available for monitoring fire detectors and burglary detectors. Programming is performed using an easy-to-use software plug-in, which displays the structure of the alarm system in diagrammatic overview. Events such as activations, alarms, errors are recorded in an event log with time and date.

For large buildings, several alarm centres can be set up, which monitor one another.

Device colour	
Alarm central unit	
Polar white/black.....	7573 00 10
Back-up battery	
Black	9200 01

Alarm centre C00401

- ETS plug-in for easy programming of the alarm centre
- 15 practical configurations for structuring the alarm system
- Permanent monitoring of the zones for fire and break-in, irrespective of whether the system is activated
- Max. 160 dynamically addressed detector inputs with freely selectable designations
- Individual identification and monitoring of all detectors
- Various types of detectors can be programmed for different applications
- Freely selectable designations for all zones
- Four switching devices per activation zone with individual identification for anti-sabotage protection
- Deactivation of switching devices in the event of sabotage
- Activation delays programmable by zone
- Objects for activating/deactivating acknowledgement can be set by zone
- Alarm delays programmable by zone
- Advance alarm programmable by zone via object
- Alarm output configurable for all zones and for the additional fire and break-in zones
- Alarm duration for flash light, external and internal sirens programmable
- Display and transfer of error messages
- 4 groups of displays (e.g. information displays) with individually programmable display configurations
- Mutual functional monitoring of multiple alarm centres by input/output object
- Cyclical functional monitoring of the mutual communication signals
- Dynamic event log for recording the last 400 events (e.g. alarms, errors)
- System log can be sent from the ETS to a printer or to a file
- Facility for synchronisation of the integral system clock via KNX/EIB object (e.g. by DCF-77 receiver)
- Detector test mode for function testing of all detectors in the alarm system

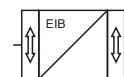
Objects	231
Group addresses/assignments	maximum of 254 each

Continued on next double page ►

- Four individually configurable security zones with up to 160 detectors
- Decentralised display and operation e. g. using the information display
- Individual identification and monitoring of all detectors via the KNX/EIB
- Direct connection of the alarm sensors (siren, flash, transfer device) to the alarm centre and/or control of alarm sensor via the KNX/EIB
- Back-up battery for continuous operation up to 12 hours
- Potential-free output for e.g. additional alarm sensors
- Sabotage protection by cover contact
- Self-protection by means of local detector input (wired detectors)



Alarm central unit



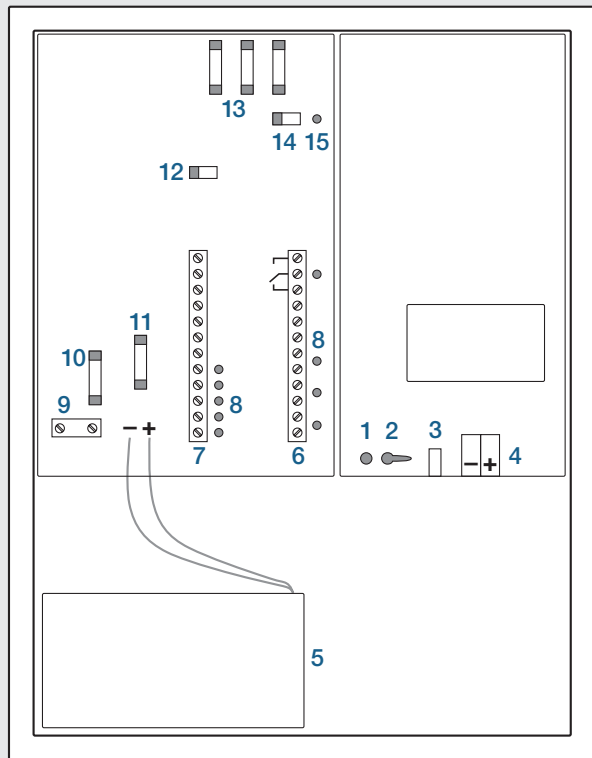
ETS search path: Berker >> Alarm technology >>
Alarm centre >>

Outputs (continued)	- Switching voltage	12 V AC/DC
	- Switching current/minimum load	max. 5 A/30 mA
	- Length of output cable	max. 200 m (minimum. 0.6 mm cable diameter)
	Additional output 12 V DC	1 × 12 V DC and 2 × GND
	- Rated voltage	12 V DC SELV (±1.5 V back-up power operation)
	- Rated current	max. 100 mA
	- Length of output cable	Dependent on load relative to cable diameter
Behaviour on power failure/restore	Bus power failure	Configurable using plug-in jumper J1 (see item 12)
	Mains power failure	Event-dependent, supply from battery
	Bus and mains power failure	Configurable, supply from battery
	Bus power restoration	Configurable
	Mains power restoration	Event-dependent
	Bus and mains power restoration	Configurable
Operation and display elements	Plug-in jumper J1	Determines behaviour in the event of bus power failure
	Programming button	
	Programming LED	Red
	9 + 1 status LEDs	Red/green (status bus power, see item 13)
Connections	KNX/EIB	Terminals
	Auxiliary voltage: Screw terminals	max. 4 mm ² single wire max. 2.5 mm ² fine wire without end cap sleeve max. 1.5 mm ² fine wire with end cap sleeve
	Inputs and outputs: Screw terminals	max. 1.5 mm ² single wire max. 1.0 mm ² fine wire without end cap sleeve max. 0.75 mm ² fine wire with end cap sleeve
Protection	IP 20, EN 60529	
Ambient temperature range	Operation/storage/transport	-5 to +45 °C / -25 to +75 °C
Battery	Type	Lead-gel battery
	Rated voltage/capacity	12 V DC/1.2 Ah
	Charging voltage/current	13.4 V DC/max. 150 mA
Mounting/Mounting orientation	Wall-mounted	Preferably upright
Dimensions (W×H×D)	210 x 270 x 70 mm	



OTHER COMPONENTS (Continued)

Notes



Key

1. Programming LED
2. Programming button
3. Sabotage contact (cover contact)
4. Bus connection
5. Back-up power battery
6. Terminal strip for alarm sensor
7. Terminal strip for wired detector/transfer device
8. Status LED
9. Mains connection 230 V
10. Fuse for mains supply
11. Fuse for battery reverse polarity protection
12. Plug-in jumper J2
13. Fuses for actuator outputs
14. Plug-in jumper J1 (determines behaviour in the event of bus power failure)
15. Bus power LED

IMPORTANT

The plug-in jumper J2 (item 12) must be plugged in - position immaterial!

Exact terminal assignment can be found in the installation guide.



Alarm central unit

Technical data

Supply	via bus line	21 – 32 V DC
	Primary auxiliary voltage (wall wart)	100–240 V AC, 50/60 Hz
	Secondary auxiliary voltage (wall wart)	12 V DC, max. 1.25 A
	Power consumption	max. 10.2 W
Inputs	6 signal inputs	potential-free
	10 KNX/EIB inputs	via object
Outputs	6 switching outputs	12 V DC, 100 mA
	10 KNX/EIB outputs	via object
	1 local alarm output	12 V DC, 100 mA
		Fault message telephone connection
Telephony	Analogue connection	CTR 21
	Dialling method	Pulse dialling or DTMF
	Telephone numbers for signals	4 per signal input
	Telephone numbers, KNX/EIB-signal inputs	4 per input
Operation and display elements	LC display, 4-line	Display: states of the inputs/outputs
	Rotary switch	Device configuration, alarm acknowledgement
Connections	KNX/EIB	Plug-in spring terminal
	Power supply	Wall wart, 2 m connecting cable
	Telephone	connection cable 3 m, RJ12 TAE plug, N-coded
	PC	serial, RS232
Protection class	IP 30, EN 60 529	
Ambient temperature range	Operation	-5 to +45 °C
	Storage/transport	-25 to +70 °C
Mounting	Surface-mounted, wall mounting	
Dimensions (WxHxD)	205 x 251 x 49 mm	

Information

The Tele-control is designed as a surface-mounted device, and is the linking element between the KNX/EIB and electrical installations, and the telephone network. It is used as a remote switching and fault signalling device. Six 12 V switching outputs and ten KNX/EIB output objects are available for remote switching; activation is via telephone with DTMF signals (tone dialling). Faults and alarm signals can be detected via six conventional signal inputs with potential-free contacts and ten KNX/EIB input objects, and forwarded to up to four freely selectable telephone numbers per input. The fault message can be transmitted as a voice message, fax/SMS, or e-mail (provider required).

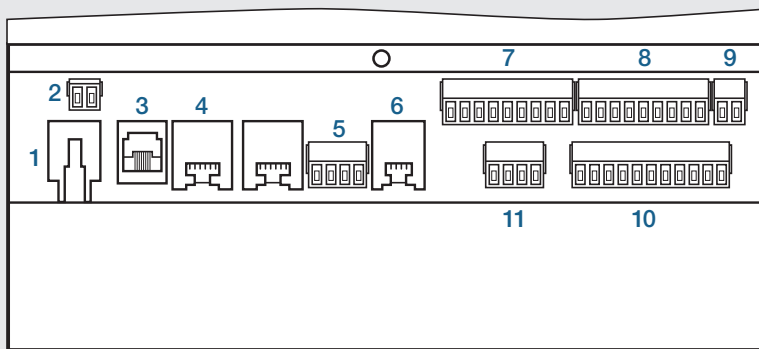
Commissioning is performed conveniently via PC using the supplied software or via the integrated rotary switch on the device. The display supports commissioning via clear texts and provides information at all times as to the states of the inputs and outputs.

Power supply is via the wall wart included in the scope of supply.

Order data

Device colour	Light grey	7573 00 11	Accessories	Headset	
				black.....	7590 00 09

Telecommunications interface		<ul style="list-style-type: none"> ■ Input object type 1-bit, 1-byte, 2-byte and EIS type adjustable for each signal input ■ Function of the switching object can be set as NC or NO ■ Limit value for activation and deactivation of the signal adjustable for each input value object ■ Output object type 1-bit, 1-byte, 2-byte and EIS type adjustable for each output (remote switching) ■ Value for switching on and off adjustable for each output value object ■ Switching state after mains voltage return adjustable for each output ■ Delay time adjustable up to 16 hours for each output
Objects	20	
Group addresses/assignments	maximum of 55 each	



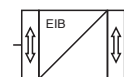
Legend

1. Plug-in power supply unit connection
2. 12 V DC direct connection
3. Headset connection
4. PC connection
5. Telephone connection
6. Telephone connection (TAE)
7. Signal inputs
8. Signal contacts (switching state of the outputs)
9. KNX/EIB connection
10. Switching outputs
11. Alarm push-button connection

- 10 KNX/EIB output objects for remote switching of bus devices
- 10 KNX/EIB input objects for forwarding of fault/alarm messages
- Access protection via 4-digit PIN
- Four-line plain text display
- Mains failure safe memory for programs
- Additional switching output "Alarm" in case of telephone fault



Tele-control



ETS search path: Berker >> Communication >> Modem >>

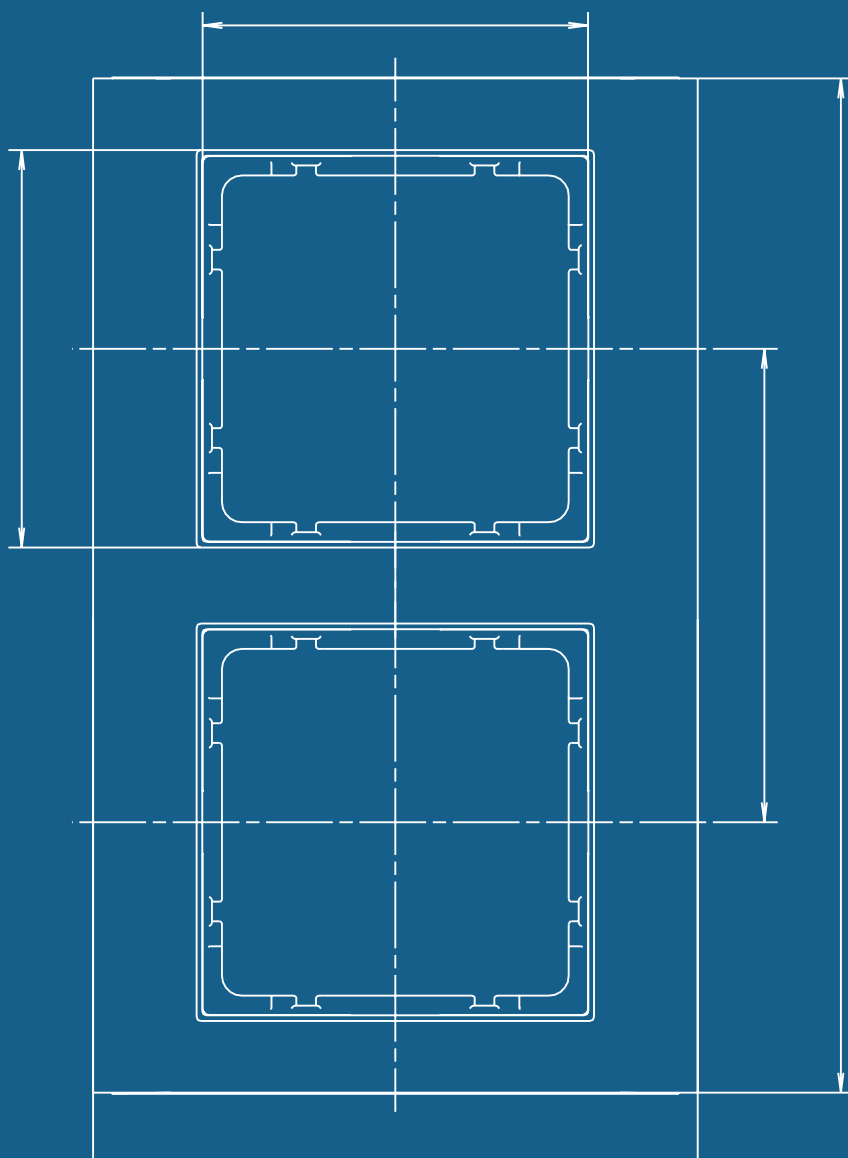
INSTRUCTIONS FOR CLEANING AND CARE

Clean by wiping off the surfaces with a moist, soft, lint-free cloth.

In the case of heavy dirt we recommend using a diluted household cleaning agent containing soap. The surfaces "Glass" and "Aluminium" can be cleaned using common glass cleaners.

For heavy dirt on stainless steel surfaces, special cleaners such as "Surface Shield" or "Chromol" are preferred. Please observe the corresponding instructions for use, as they may not be used on plastics and fine metallic surface finishes.

Abrasives and polishes, acidic (scale removing) cleaning agents and cleaning agents containing chlorine generally damage all surfaces. Moreover, painted surfaces must not come in contact with cleaning agents that contain alcohol.





DIMENSIONAL DRAWINGS

For the sake of conciseness, in the “Technical data” section of the product descriptions as soon as a product features in more than one of our designs it is no longer detailed in each with the associated dimensional variations. The dimensions are presented in the following table, in millimetres.

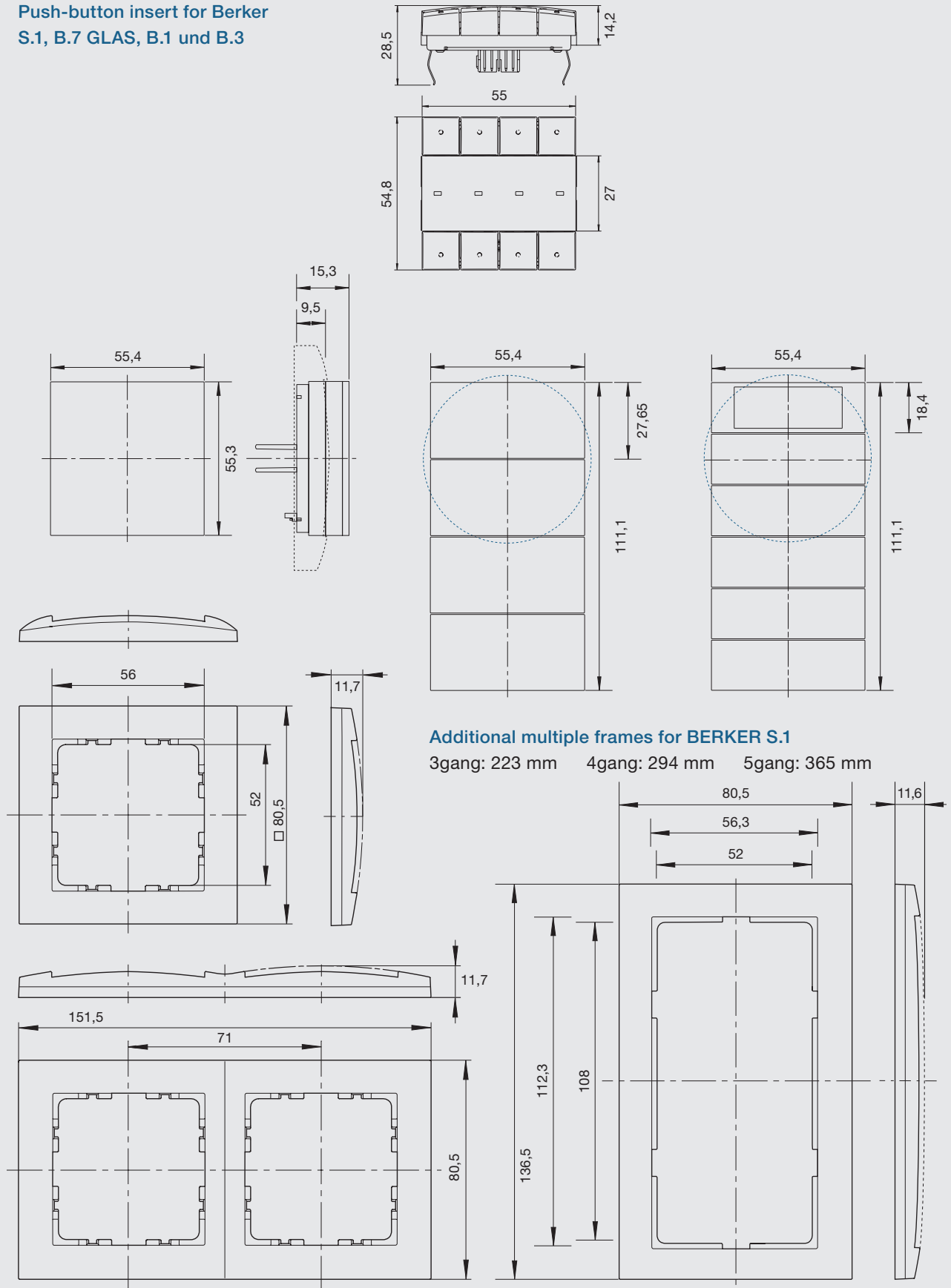
Device-specific dimensions, such as for DIN rail mounted devices, panels, etc., are still detailed directly in the technical data for the individual products. For more information on dimensions refer to the master catalogue.

GLOSSARY

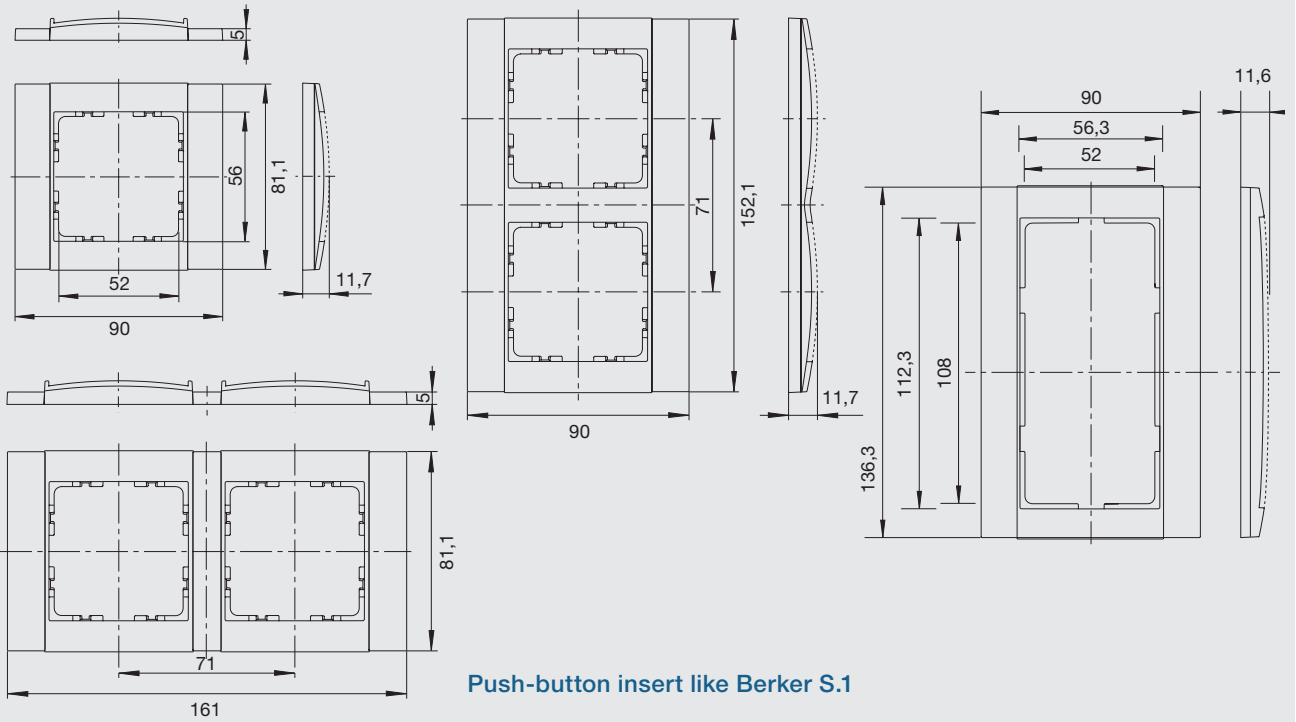
The explanations of the specialist terms are intended to make the technical features and their context as easily understood as possible. The Glossary presents unified terminology related to building systems engineering, and consequently should only be used in that context.

Dimensional drawings	402–410
Glossary	411–415

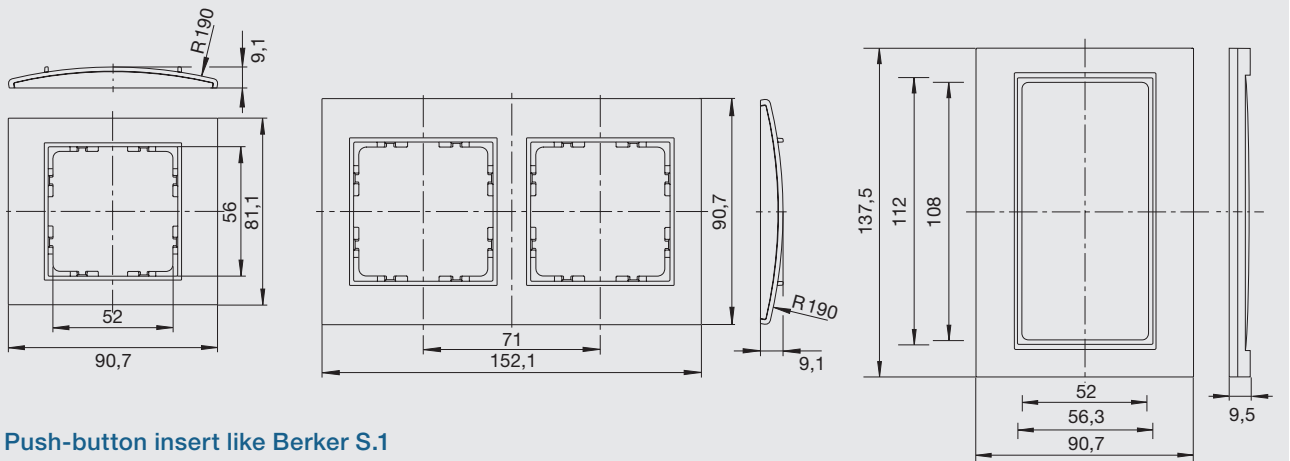
Push-button insert for Berker
S.1, B.7 GLAS, B.1 und B.3



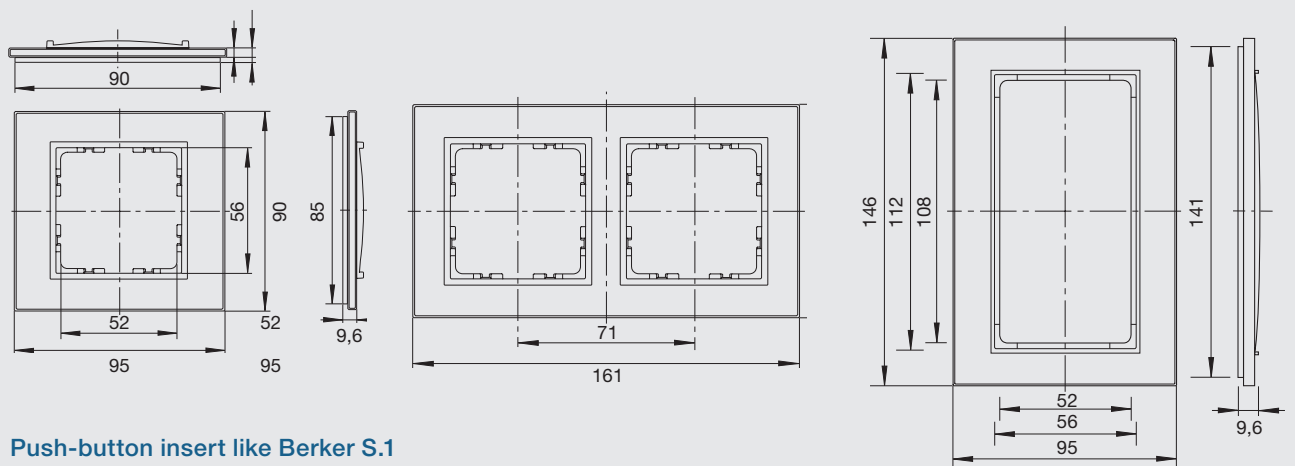
B.1



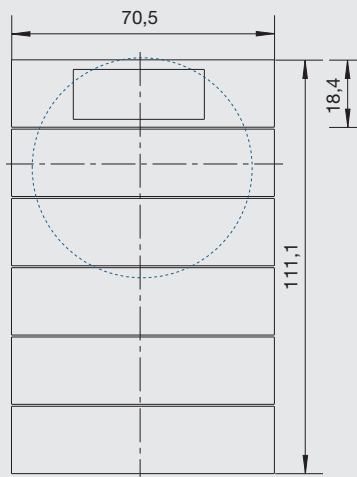
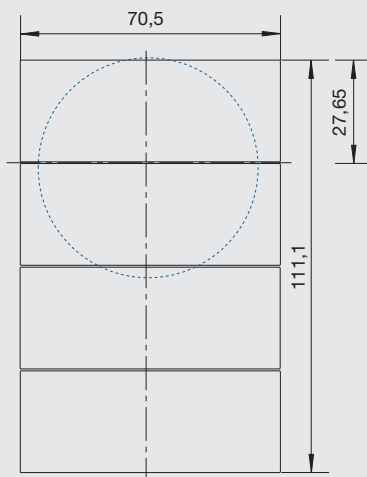
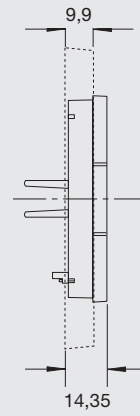
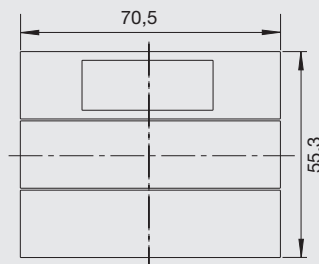
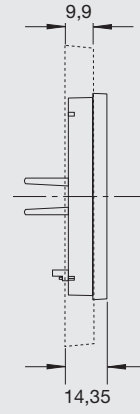
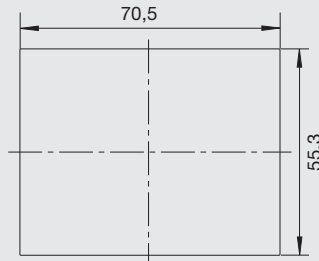
B.3

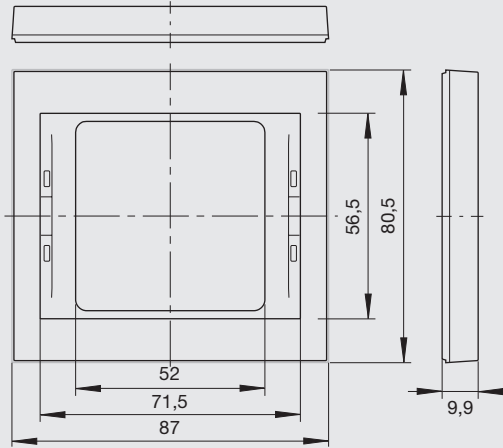


B.7 GLAS



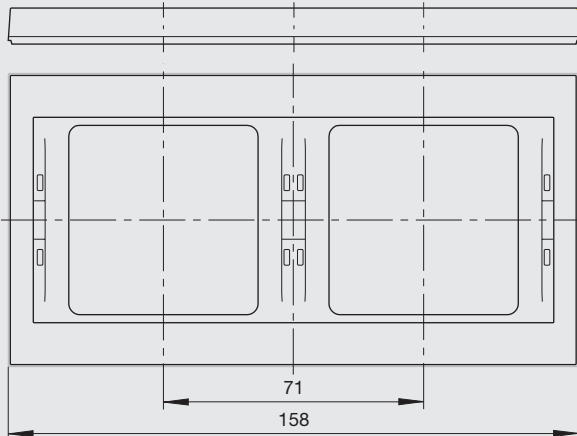
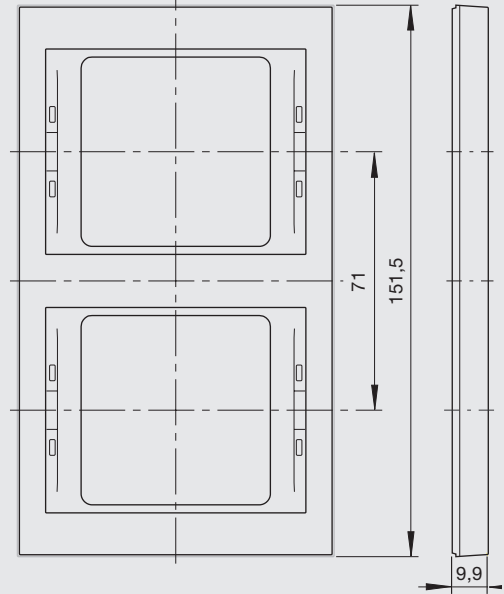
Push-button insert for
Berker K.1 and K.5





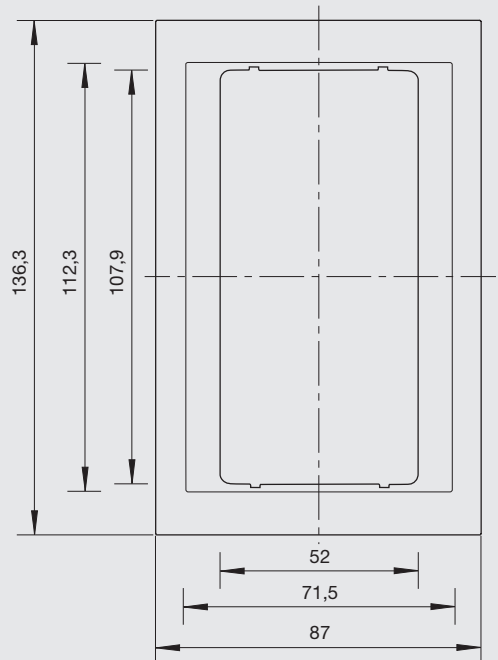
Additional multiple frames

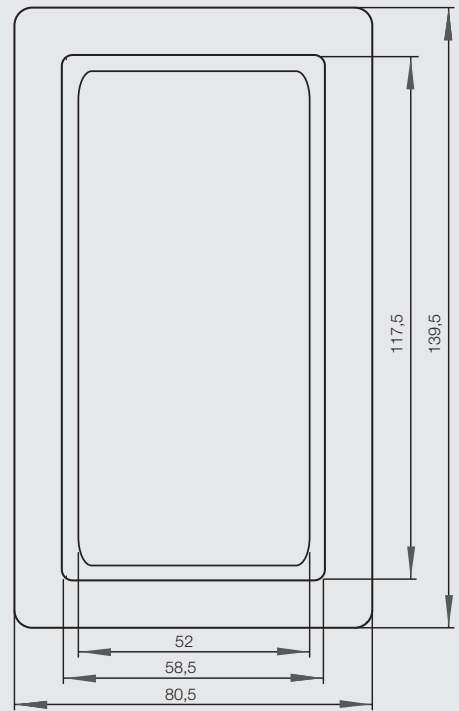
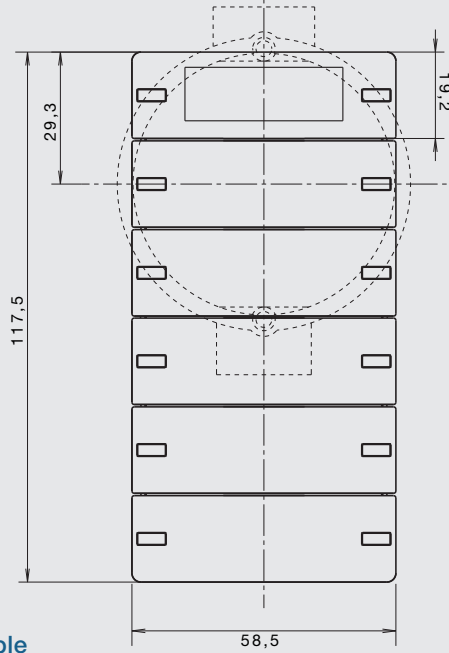
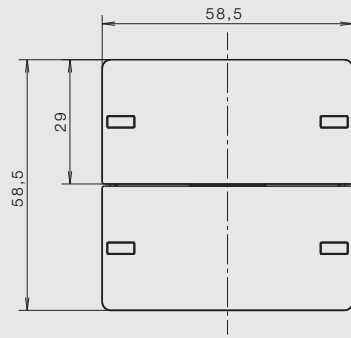
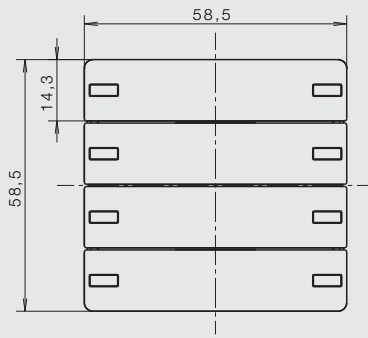
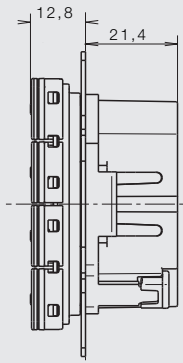
- 3gang vertical: 222.5 mm
- 4gang vertical: 293.5 mm
- 5gang vertical: 364.5 mm



Additional multiple frames

- 3gang horizontal: 229 mm
- 4gang horizontal: 300 mm
- 5gang horizontal: 371 mm



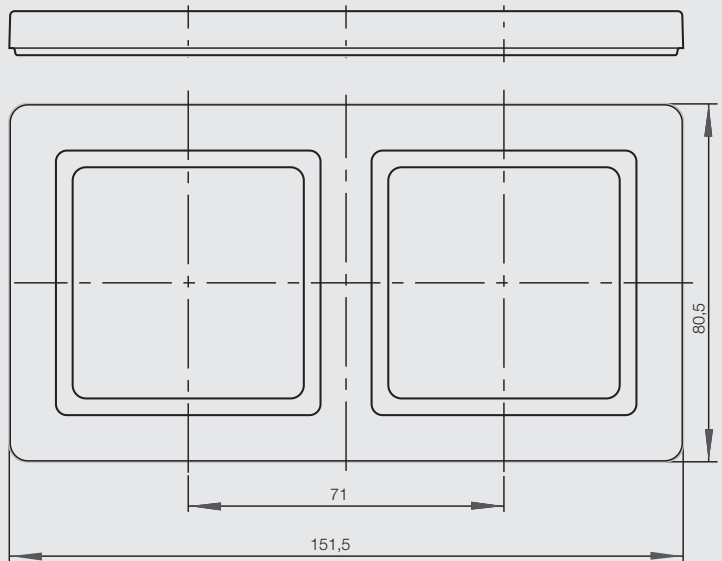
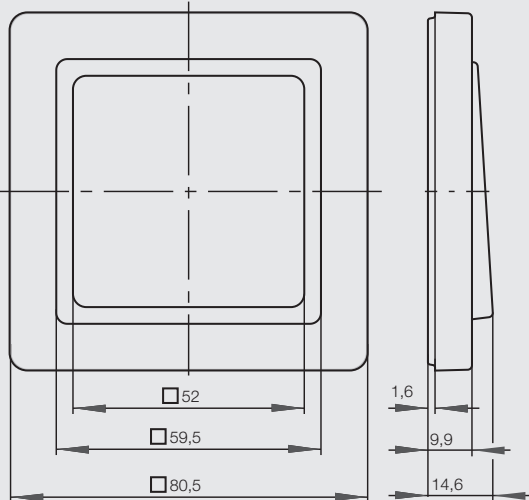


Additional multiple frames

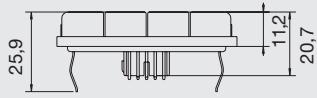
3gang: 222.5 mm

4gang: 293.5 mm

5gang: 364.5 mm

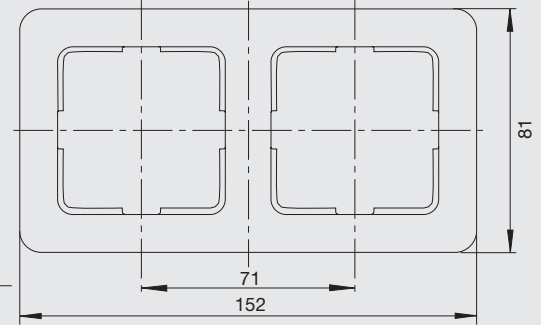
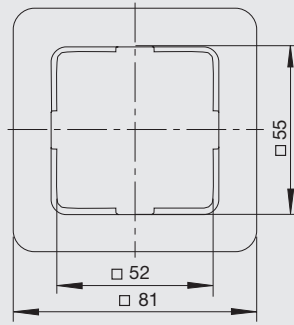
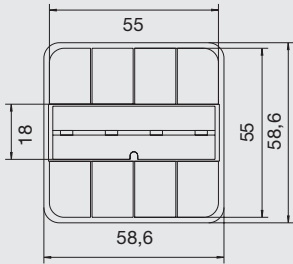


MODUL 2

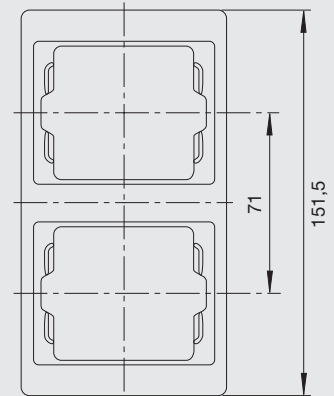
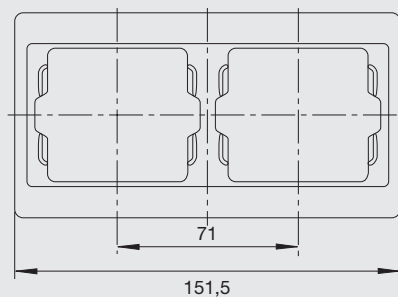
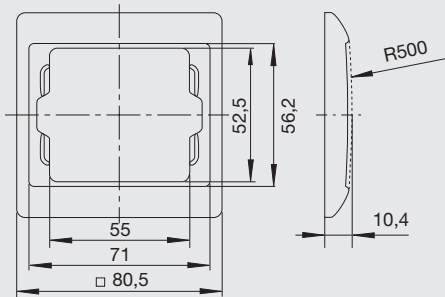
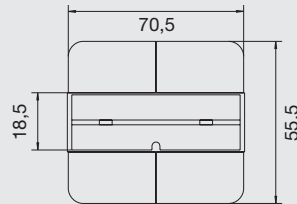
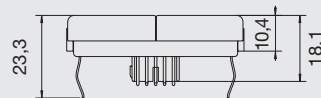


Additional multiple frames

3gang: 223 mm 4gang: 294 mm 5gang: 365 mm



BERKER ARSYS

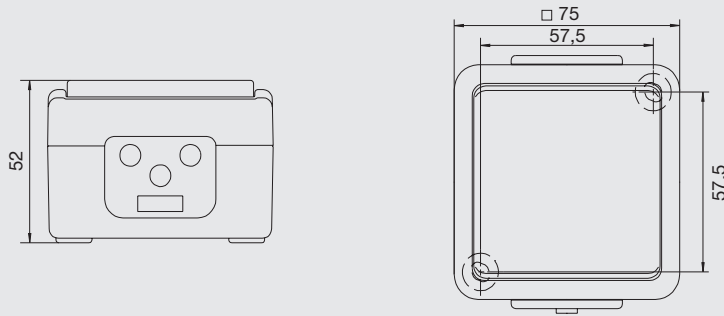
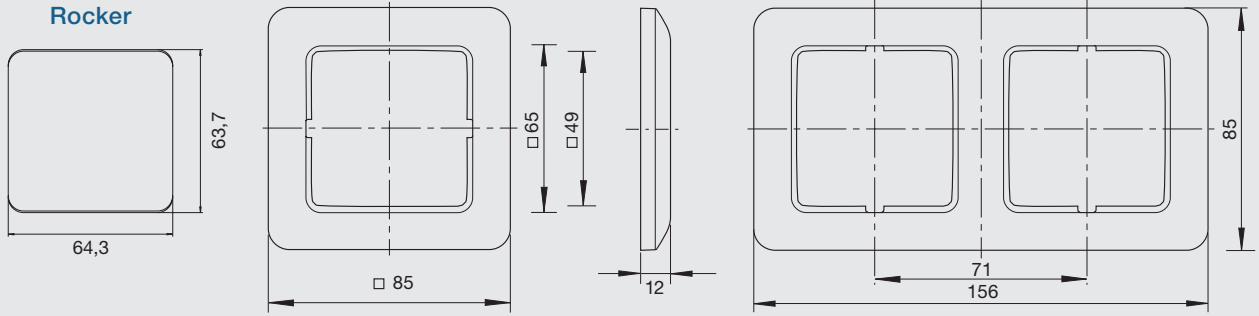


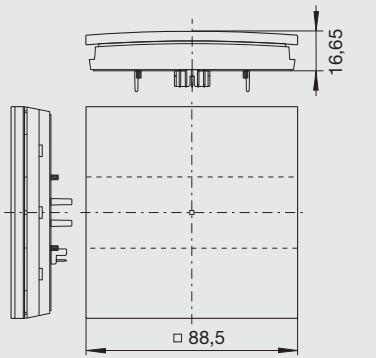
Additional multiple frames

3gang: 222.5 mm
4gang: 293.5 mm
5gang: 364.5 mm

Additional multiple frames
3gang: 227 mm

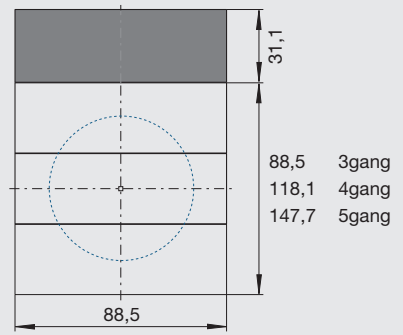
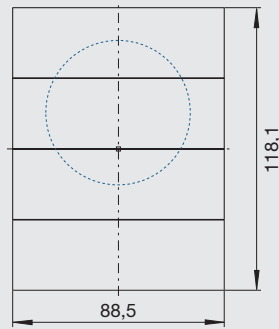
Rocker





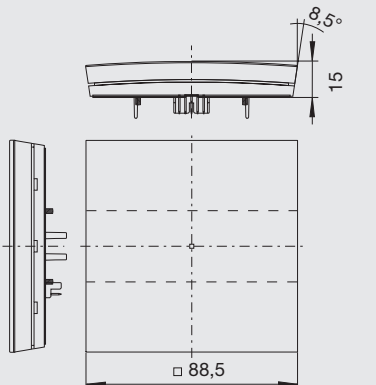
Push-button 1-3gang: at top
Push-button 4gang: on right

B.I.Q Glass, stainless steel



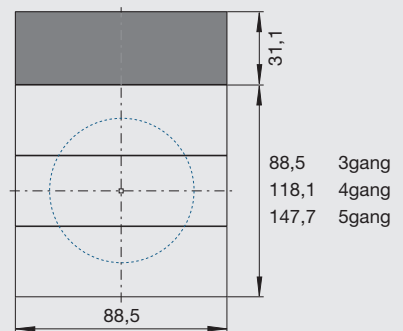
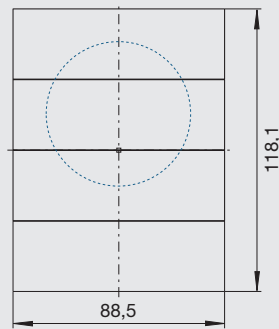
Push-button with room thermo-
stat and display 3-5gang

- 88,5 3gang
- 118,1 4gang
- 147,7 5gang



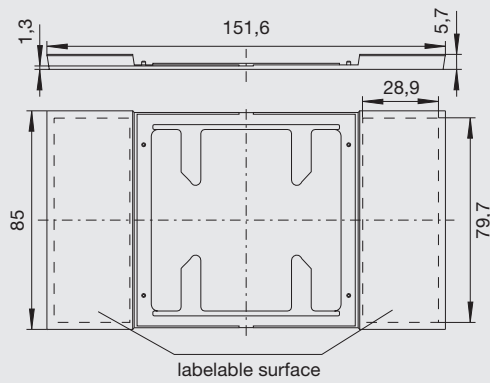
Push-button 1-3gang: at top
Push-button 4gang: on right

B.I.Q Polar white



Push-button with room thermo-
stat and display 3-5gang

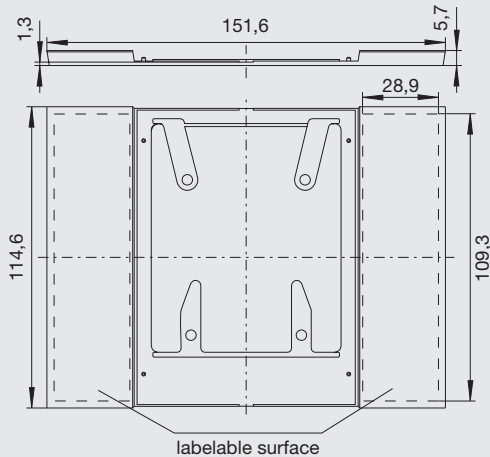
- 88,5 3gang
- 118,1 4gang
- 147,7 5gang



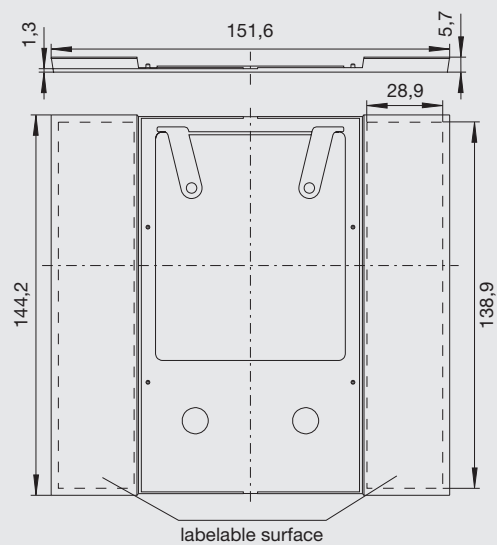
labelable surface

B.I.Q Labelling fields

for push-buttons 1-3gang (left), for push-buttons 4gang (bottom left) and push-buttons 5gang (bottom)



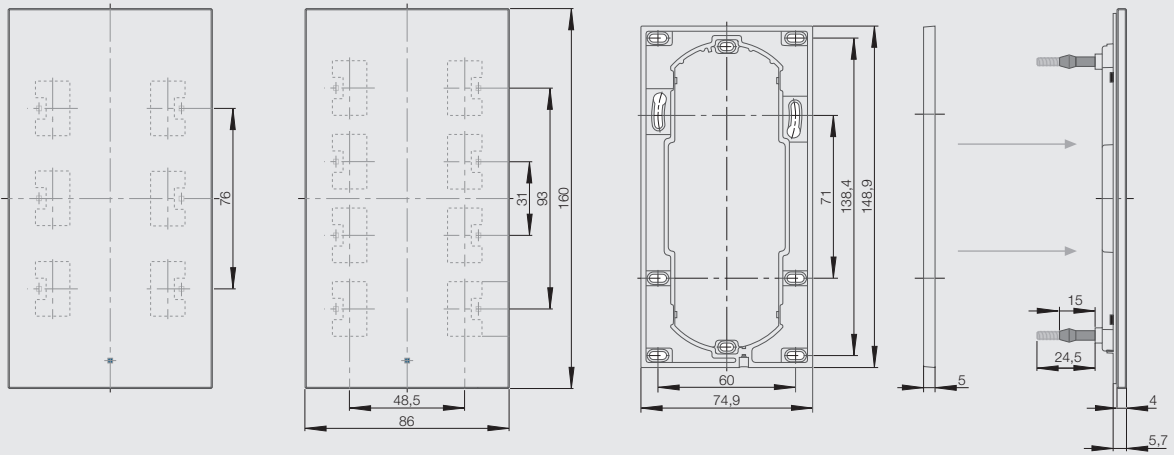
labelable surface



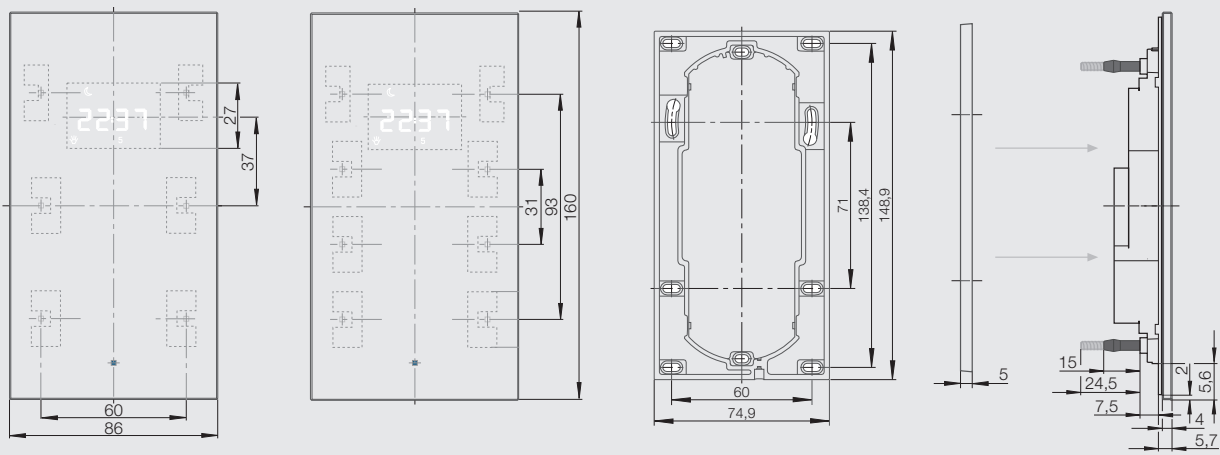
labelable surface

TS SENSOR

TS SENSOR



TS SENSOR WITH ROOM THERMOSTAT



- A**
- Acknowledgement**..... Feedback that an item of information has been received, understood and/or processed.
- Actuator**..... Device which executes control commands. It includes, for example, NO (normally open) contacts to switch consumers.
- Address** Identification of devices on the bus, e.g. in the form of a consecutive numbering (see Group address, Physical address, Source address, Telegram, Destination address).
- Addressing** The process in which a device on the bus is assigned a physical address and/or one or more group addresses.
- Analogue value** An analogue value may assume an infinite number of intermediate values between a minimum and maximum, e.g. temperature, brightness, etc.
- Application program**..... The program which is loaded into a bus coupling unit or user module and defines the function of the bus device.
- Application** Application program in a bus coupling unit. A push-button can be used, for example, for dimming or to control the shutters or window blinds. In ETS 2 the term “program” is used.
- Area coupler** Provides the data link between a main line and the area line.
- Area** Multiple bus lines can be grouped with line couplers over a main line to form an area.
- B**
- Baud rate**..... Number of bits transferred in a specific time unit. The unit is bits per second. On the instabus the baud rate is 9600.
- Binary character, binary data** A value which can assume only two variables, “1” or “0”.
- Bit** Smallest unit of representation of binary data (binary digit). A bit can only assume the value 0 or 1.
- Building systems engineering** Interconnection of system components and users over the instabus to form a unified electrical installation system, implementing functions and processes, and the systemic links between them, within a building. The intelligence is distributed across the system components. Information is exchanged directly between the devices.
- Building visualization**..... Visualization of the switching states of electrical equipment forming part of the building installation, on a PC monitor or touch panel. The program also permits remote control of the installed components.
- Bus access method**..... Organizational method by which each individual device accesses the bus to exchange information. The instabus uses the CSMA/CA (Carrier Sense Multiple Access/Collision Avoidance) method. It permits equal access privileges for the devices connected to the bus, with avoidance of collisions.

- Bus cable**..... Twisted-pair two-wire cable. Permissible cable types: PYCYM or J-Y(St)Y 2x2x0.8
- Bus coupling unit (BCU)** Forms the mechanical, electrical and data link between the bus (cable or data rail) and the user module.
- Bus** Transfer medium over which a number of users (devices) exchange information. On the instabus the transfer medium used is a two-wire cable or data rail. Apart from the information, the power to the electronics of the devices connected to the bus is also transmitted over the instabus.
- Byte** A unit of information comprising 8 bits. A byte can assume 256 (2⁸) different values.

C

- Coupler**..... Bus device to provide the data link between, and to extend, lines and areas.

D

- Data type**..... Determines the length of the telegram. An item of On/Off switching information has a different telegram structure to an item of dimming information, for example.
- Debounce time** Waiting time in order to avoid erroneous telegrams possibly caused by the repeated spring-back when a mechanical contact closes.
- Decentralized system** A system which operates with no higher-level central control. In a system of such a kind, the users/subsystems control the information flow, bus access, etc. themselves.
- Destination address** The address of the device on the bus which receives the information.
- DIN rail**..... Rail executed to DIN EN 50 022, onto which appropriately designed DIN rail mounted devices ("RMD") to DIN 43 880 are snapped. Dimensions: 35 x 7.5 mm (x modules).

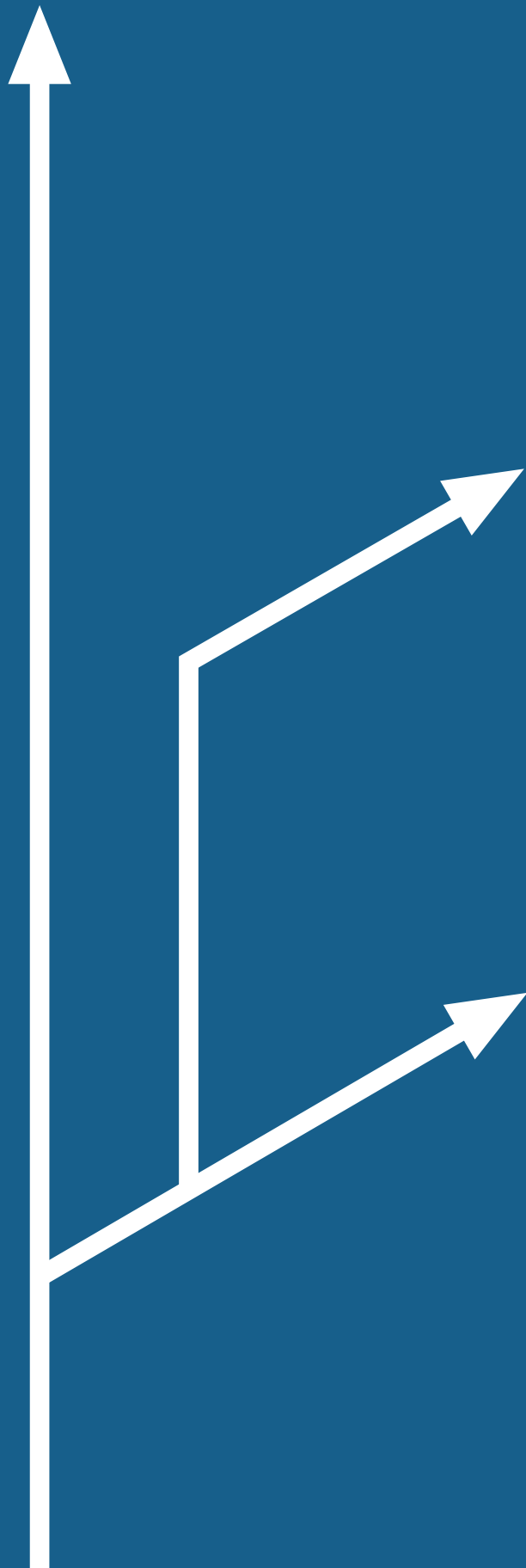
E

- EEPROM/EPROM**..... Electrically Erasable Programmable Read Only Memory. The data are retained in the event of power failure.
- ETS**..... KNX/EIB Tool Software, non-proprietary program for parameter setting of KNX/EIB devices.
- European Installation Bus Association (KNX/EIBA)** Association of leading electrical installation companies with the aim of offering a uniform, high-reliability installation bus system on the market.
- Extra-low voltage** Protective measures against direct touch contact to DIN VDE 0100 part 410. Umbrella term for:
FELV = Functional Extra Low Voltage
PELV = Protective Extra Low Voltage
SELV = Safety Extra Low Voltage

- F**
- Feedback**..... Indication that an item of information (command) has been understood and/or processed and/or executed and/or the item of equipment concerned has changed its state.
- Filter table**..... List stored in a coupler that decides which telegrams are allowed through and which are blocked.
- Flag**..... Accessory to an object. It decides, for example, whether the object status can be read over the bus.
- Forced guidance** Forced activation or deactivation of an actuator contact, without other devices being able to change the set switching state. When forced guidance is cancelled, the actuator can return to its original state.
- Functions**..... Functions generally refer to the correlation between cause and effect, between input and output variable, or between sensor and actuator. The instabus provides the following functions:
- Switching, loop control, measurement
 - Open-loop control, signalling, monitoring
- G**
- Group address**..... Address at which multiple recipients can be reached by one telegram. They thus form a group. The group address is a function-oriented address.
- H**
- Interfaces**..... Defined points within a system or within devices. In the instabus KNX/EIB, for example, the following interfaces are defined:
- Between bus (cable or data rail) and bus coupling unit
 - Between bus coupling unit and physical external interface (PEI)
- L**
- Light scene**..... Specific lighting situation in a room with multiple lighting groups.
- Line amplifier**..... Coupler which detects, based on its physical address, that it is to be used to expand a line.
- Line coupler**..... Bus device to interconnect lines. Depending on the destination address, telegrams are forwarded via line couplers or limited to one line.
- Line**..... Part of an instabus comprising an electrical segment or created by the interconnection of electrical segments via line amplifiers.
- Logic operation** Combines the effect of different sensors on an actuator.

- M**
- Main line** Interconnects multiple line couplers and connects them where appropriate to the assigned area coupler. Thereby permits data exchange across multiple lines and areas.
- Module**..... A function group with defined, known properties, which may be either hardware (unit, circuit board) or software.
- P**
- Parameter** Configurable settings of an KNX/EIB device. They can be used to define whether, for example, pressing the upper rocker of the push-button triggers an On or Off telegram.
- Physical address** Unique identifier of a bus device in the instabus. The physical address contains the device, line and area numbers.
- Physical external interface (PEI)** 2 x 5-pin connection between a bus coupling unit and a user module. The function of the PEI is programmable, e.g. as inputs/outputs or serial data transfer.
- Programming** In relation to the instabus this term is also used for parameter setting and addressing, e.g.:
- Assigning addresses - Entering switching times
 - Entering logic operations - Defining threshold values
- R**
- RS 232-C** Designation of a standardized serial port; another is V.24.
- S**
- Sensors** Devices in the system which record physical variables, process them and send them as telegrams over the bus.
- Serial data transfer** Sequential information processing, i.e. the information is transmitted and received consecutively.
- Source address** The address of the device sending information over the bus.
- System components** Designation of devices on the bus which perform higher-level non-application-specific functions.
- Software plug-in** For an additional program provided for an instabus device.
A software plug-in is started by calling up the parameters view within the ETS. This is a convenient facility for overall project control and parameter setting for devices, covering all functions.

- T**
- Telegram rate limitation** This parameter defines how many telegrams the device can send as a maximum in 17 seconds. It prevents overloading of the bus time capacity.
- Telegram**..... A bit sequence for transfer of an item of information from one device on the bus to others. In the instabus the telegram contains:
- Control field
 - Address field with source and destination address
 - Data field
 - Security field with checksum
 - Confirmation field
- Time functions** Switch actuator contacts can operate at a delay after reception of a telegram.
- Time switch** Implements the so-called “automatic stairwell light”. When an On telegram is received the contact of an actuator remains closed for a certain period of time.
- Topology**..... System layout/structure
- Transfer rate** Number of bits transferred in a specific time unit. The unit is bits per second. The instabus KNX/EIB uses a transfer rate of 9600 bit/s.
- Twisted pair** Twisted pair of wires
- U**
- USB** The universal serial bus is a port for connecting peripheral devices (mouse, modem, printer, KNX/EIB data interface) to the computer. Up to 127 devices can be connected to one single USB port. In 2000, USB 1.1 was upgraded to USB 2.0. However, the KNX/EIB interfaces support both standards.
- User module (UM)**..... Part of an instabus KNX/EIB device which is clipped onto or connected to a bus coupling unit.



B.

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TRAINING AND SERVICE

Acquiring the know-how you need to make use of the advantages of KNX/EIB. Berker offers suitable theoretical and practise-oriented professional training, and cordially invites anyone who would like to upgrade their capabilities to include KNX/EIB. In addition to the basic course, Berker also offers special advanced courses for KNX/EIB insiders.

Please address any technical questions to our KNX/EIB hotline at:

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Feel free to ask our representatives directly about options for product training. Please contact the representative or Berker office nearest you.

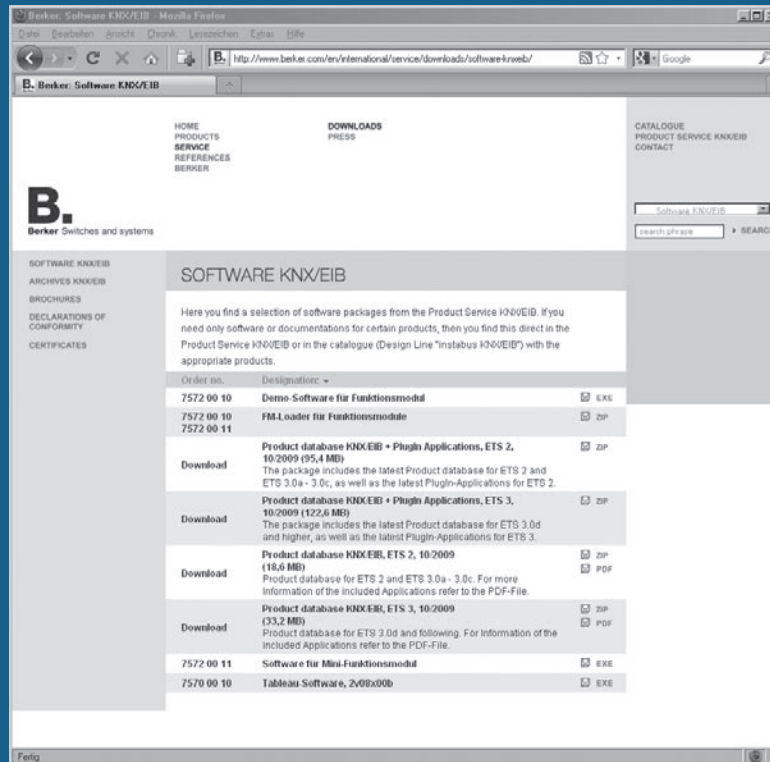
Information about representatives, contact persons and the download area with current data are available on the Berker website at www.berker.com

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B.

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The current instabus KNX/EIB software is available as a package at www.berker.com/software-knx

The latest versions of applications for individual devices can be found under the corresponding article in the Berker online catalogue at www.berker.com/catalogue

BERKER THE RIGHT WAY.

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