Group push button BCU 2gang, Flush-mounted Up 75142100
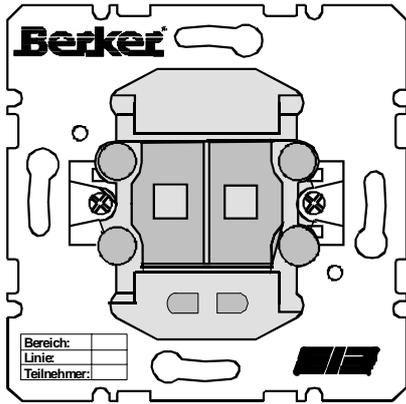
The group push button 2gang is a bus coupling unit combined with 4 microswitches and a mechanical recording unit in neutral position for rockers. All rockers in the Berker standard and area programmes in the module system can be pushed on. Depending on the parameter settings, switch, dim or shutter control telegrams are sent into the system when the push button is activated. The rocker functions can be varied in any way. The value of the communications objects can be displayed via 2 status LEDs.

General technical data:

Terminal	plug-in terminal
Terminal control element	push-on via rocker adapter
Protection mode:	IP 20 (under EN 60529)
Protection class:	III (under IEC 40)
Test mark:	EIB
Ambient temperature:	- 5 °C to + 45 °C
Storage temperature:	-25 °C to +70 °C
Mounting position:	any (not with 230 V appliances or leads in one outlet)
Minimum clearances:	none
Fixing method:	installation in appliance connector boxes ($\varnothing$ 60 mm, 40 mm deep) or in combined wall and joint boxes ($\varnothing$ 60 mm, 60 mm deep)

Supply *instabus* EIB:

Voltage:	24 V DC (+6 V / -4 V)
Terminal:	instabus supply terminal and branch terminal

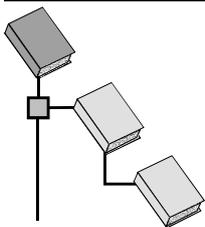**Behaviour on voltage loss:**
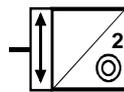Bus voltage only: No telegrams sent.

Behaviour on reconnection:
Bus voltage only: No telegrams sent.

Product management

Gebr. Berker
☒ **Berker**
☒ **Push button**
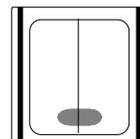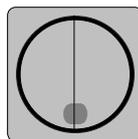☒ **Push button 2gang**

Group push button BCU 2gang, Flush-mounted

Order no. 75 142100

Switching, dimming, shutter 105801

General information
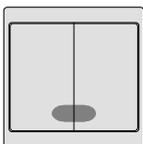
The Berker group push button BCU 2gang, flush-mounting, is equipped with 2 LEDs. In combination with the series rocker with lens (take note of the design!) along with the representation of the object and switching status the switch can also be used as orientation lighting. The two LEDs are designed with separate objects for linking with functions (group addresses).

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Group push button BCU 2gang, Flush-mounted Up 75142100

B. Berker

Switching, dimming, shutter 105801

Application characteristics

☑ **Combi application for: switching and/or dimming and/or shutter control**
☑ **Up to 4 x switching possibilities through changeover function**

No. of group addresses (max.):	**8**
No. of associations (max.):	**8**
No. of objects:	**4**

Parameter description:

Multiple applications enable different functions to be parameterised with the help of an application. **We recommend that the basic parameters are set to the required function (parameter card rocker n) before the group addresses are allocated !**

Communication objects function: Switching

Application: Switching, dimming, shutter 105801

Objects of the function Switching

	Obj	Function	Name	Type	Prio	Flag
⬚⇄	x	Switching	R/L upper push button	1 bit	Auto	C W R T
⬚⇄	x	Switching	R/L lower push button	1 bit	Auto	C W R T

Objects of the function Dimming

	Obj	Function	Name	Type	Prio	Flag
⬚⇄	x	Switching	Push button x	1 bit	Auto	C W T
⬚⇄	x	Dimming	Push button x	4 bit	Auto	C W T

Objects of the function Venetian blind

	Obj	Function	Name	Type	Prio	Flag
⬚⇄	x	Step operation	Push button x	1 bit	Auto	C W T
⬚⇄	x	Move operation	Push button x	1 bit	Auto	C W T

Objects of the function: Switching

- Switching N push button: when the corresponding rocker is activated sends a switching telegram with the sending group address. These and other allocated group addresses can also be received to change the object value and, with the corresponding setting, to control the LEDs.

Objects of the function: Dimming

- Switching: when the corresponding rocker is activated, sends a switching telegram (1 bit) with the group address. This controls the assigned actuator and switches it on.

- Dimming: controls the brightness of the connected dim actuators via a 4 bit control function.

Objects of the function: Shutter control

- Step operation: when the corresponding rocker is activated sends a switching telegram (1 bit) with the group address. This controls the assigned actuator into the inching mode. The group address linked with the object is also used to stop the drive during the active move operating mode (drive running) if a button is pressed again.

- Move operation: controls the linked drive into the latching function. The drive moves to the limit switch or is stopped prematurely through the reception of a step command.

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Parameter description:

General	
Time between step and move operation or between switching and dimming	300 ms, 400 ms, **500 ms,** 600 ms....6s, 7s
Time for cyclic transmission (using dim. With cyclic transmission)	300 ms, 400 ms, **500 ms,** 600 ms....6s, 7s
Status LED indication	**left normal, right normal** left inverted, right inverted left normal, right inverted left inverted, right normal

Switching, dimming, shutter

105801

Time between step and move operation: this parameter is only required in combination with a shutter control function.

When motorised drives are controlled manually a difference is made between two operating modes (sub-functions): 1. Inching mode = step operation and 2. Latching mode = move operation. Both operating modes are supported by separate objects. The control function decides on the telegram to be sent by means of the activation duration: if the activation is less than 500 ms (standard value), an "inching mode" step telegram is sent. A longer activation generates a move telegram with the contents "latching". After the information "latching" has been sent, pressing the operator interface generates the command "Stop" and the drive stops. This is carried out through the step object. This means that the step object must always be assigned with a corresponding group address.

Time for cyclic transmission: this parameter is only required in combination with the function dimming with telegram repeat.

Dimming with telegram repeat is mainly used where several actuators are to be controlled in different lines. Because of the coupler feature of placing telegrams in a buffer, it would not otherwise be possible to guarantee an even setting of the actuators. The actuator in the adjacent line would receive the stop telegram later and would therefore interrupt the dimming process in the corresponding actuator later.

The multiple transmission of the dimming range telegram (every 500 ms brighter / darker by e.g. 12.5 %) during activation ensures troublefree setting of the equipment in line-overlapping data exchange.

The smaller the selected range (min. 1.5 %), the more precise the dimming function .

Status LED indication: normal means that LEDs are on if object value = 1

Parameter description for the function: Switching

L/R push button: Parameter of the function Switching	
Function of the push button	**Switching**
Command at operating the up/lo push button	**ON, OFF**, TOGGLE
Function of the l/r status LED	**always OFF** always ON for object 0 for object 1 or 2 for object 2 or 3

Command at operating the upper/lower push button: each rocker can have up to 2 separate switching functions. If you want to trigger two functions per rocker with the help of the push button, select the **TOGGLE** function. The toggle function inverts the object value and therefore the information content of the telegram, each time it is activated. If the corresponding actuators are controlled by other functions, e.g. a central switching operation, the BA group push-button has to be "informed" of these functions. These groups addresses have to be fed back to the switching object as receiving group addresses.

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✎ **Function of the l/r status LED:** the two status LEDs enable individual settings: always ON for orientation lighting (rockers with lenses) or always (rocker without lens). Depending on the parameters, the status LEDs can also be allocated directly to the communications objects. A function of the status LEDs independent of the buttons is possible by setting the parameters "for object 2 or 3". In this case, only the correspondingly received group address has an effect on the LED.

Parameter description for the function: Shutter control

Rocker N: Parameters with function Shutter control	
Function of the push button	**Shutter control**
Command operating the push buttons	**upper = UP, lower = DOWN** upper = DOWN, lower = UP
Function of the l/r status LED	**always OFF** always ON for object 0 for object 1 for object 2

✎ **Function of the push button / Command operating the push buttons:** the group push button BCU 2gang enables the direction of rotation of up to two groups of motorised drives to be controlled manually. The parameter enables a customer-oriented setting of the operator interface. Transmission of an UP telegram is shown with the telegram content 0, and a DOWN telegram with 1.

✎ **Function of the l/r status LED:** the two status LEDs enable individual settings: always ON for orientation lighting (rockers with lenses) or always (rocker without lens). Depending on the parameters, the status LEDs can also be allocated directly to the communications objects.

Parameter description for the function: Dimming with stop telegram

Parameters with function: Dimming with stop telegram	
Function of the push button	**Dimming with stop telegram**
Command operating the push button	**upper = brighter (ON),lower = darker (OFF)** upper = brighter (TOG), lower = darker (TOG)
Function of the l/r status LED	**always OFF** always ON for object 0 for object 2

✎ **Function of the push button / Command operating the push buttons:** the group push button BCU 2gang enables the manual brightness control of up to two groups of actuators / dimming actuators. The parameter enables a customer-oriented setting of the operator interface. Two operating concepts are supported: separate ON and OFF and/or brighter/darker on a different rocker, and a changeover function in combination with ON / OFF for each rocker with separate controls for brightness.

✎ **Function of the l/r status LED:** the two status LEDs enable individual settings: always ON for orientation lighting (rockers with lenses) or always (rocker without lens). Depending on the parameters, the status LEDs can also be allocated directly to the communications objects.

Parameter description function: Dimming with telegram repetition

Parameters with function: Dimming with telegram repetition	
Function of the push button	Dimming with telegram repetition
Command operating the push buttons	**upper = brighter (ON),lower = darker (OFF)** upper = brighter (TOG), lower = darker (TOG)
Dimming brighter / darker by	1.5 %, 3%, 6%, **12.5%,** 25 %, 50 %, 100 %
Function of the l/r status LED	**always OFF** always ON for object 0 for object 2

Dimming brighter/darker by / Time between two telegrams: dimming with telegram repeat is mainly used where several actuators are controlled in different lines. Because of the coupler feature of placing telegrams in a buffer, it would not otherwise be possible to guarantee an even setting of the actuators. The actuator in the adjacent line would receive the stop telegram later and would therefore interrupt the dimming process in the corresponding actuator later.

The multiple transmission of the dimming range telegram (e.g. every 500 ms by 12.5 %) during activation ensures troublefree setting of the equipment in line-overlapping data exchange.

The smaller the selected range (min. 1.5 %), the more precise the setting quality. However, in this case we recommend keeping the time between two telegrams relatively short (e.g. 300 ms). This leads to an increased bus load, but this can in general be neglected.

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