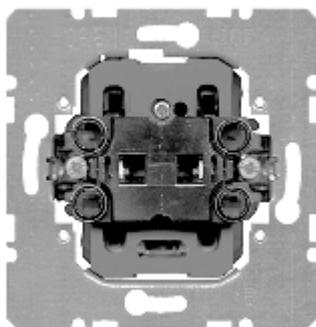


**Group push button BCU 1gang,
Flush-mounted (Up)
75141100**

**Technical
Documentation**



The group push button BCU 1gang is bus coupler combined with a micro push button and a mechanical locator for the rocker switches on all Berker standard and surface program for the module system.

Depending on the parameter settings, switching telegrams are sent to the system upon activation. The value of the communications object can be displayed via the status LED.

General Technical Data:

EIB connection:	Via plug-in terminal
Operating element connection:	Can be inserted using rocker switch adapter
Protection class:	IP 20 (as per EN 60529)
Safety class:	III (as per IEC 40)
Test symbol:	EIB
Ambient temperature:	- 5° C to + 45° C
Storage temperature:	-25° C to +70° C
Installation position:	Any (not in one outlet with 230 V equipment or cables)
Minimum clearance:	None
Fixing method:	Installed in switch and socket boxes (Ø 60 mm, 40 mm deep) or in equipment connector boxes (Ø 60 mm, 60 mm deep)

instabus EIB supply:

Voltage:	24 V DC (+6 V / -4 V)
Connection:	via <u>instabus</u> connection and branch terminal

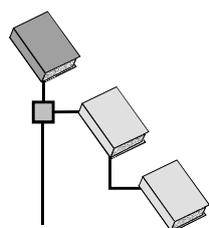
Response in event of voltage failure:

Bus voltage only:	No telegrams are sent.
-------------------	------------------------

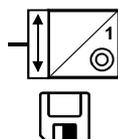
Response after restarting:

Bus voltage only:	No telegrams are sent.
-------------------	------------------------

Product management



- Gebr. Berker
- ☒ Berker
- ☒ Push button
- ☒ Push button 1gang

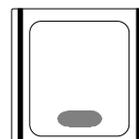
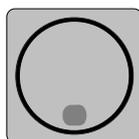
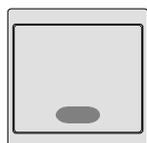


Group push button BCU 1gang, Flush-mounted

Order No. 75 141100

Switching, dimming, shutter 105601

Product management



The Berker group push button BCU 1gang is equipped with an LED. Together with the lens-equipped rocker switch, this can be used as an orientation light in addition to displaying the object and switching status.

Application properties

- Combined application for: switching, dimming or shutter control
- Up to 2 x switching possibilities through changeover function

Number of group addresses (max.): 4
 Number of assignments (max.): 4
 Number of objects (max.): 3
 Number of group addresses (max.):

Description of parameters:

Multiple applications enable the parameterisation of various functions with just one application. **It is recommended you set the basic parameters for the required function (parameter file rocker) before issuing the group addresses!**

Communications object Function:

Application: Switching, dimming, shutter 105601						
Objects for the Switch function						
	Obj	Function	Name	Type	Prio	Flag
<input type="checkbox"/>	0	Switching	Upper push button	1 Bit	Auto	C R W T
<input type="checkbox"/>	1	Switching	Lower push button	1 Bit	Auto	C R W T
<input type="checkbox"/>	2	Indication	Status LED	1 Bit	Auto	C W T
Objects for the Dim function						
<input type="checkbox"/>	0	Switching	Upper push button	1 Bit	Auto	C W T
<input type="checkbox"/>	1	Dimming	Lower push button	4 Bit	Auto	C W T
<input type="checkbox"/>	2	Indication	Status LED	1 Bit	Auto	C W T
Objects for the Shutter control function						
<input type="checkbox"/>	0	Step operation	Rocker switch	1 Bit	Auto	C W T
<input type="checkbox"/>	1	Move operation	Rocker switch	1 Bit	Auto	C W T
<input type="checkbox"/>	2	Indication	Status LED	1 Bit	Auto	C W T

Objects for the Switch function:

- **Switching:** Sends a switching telegram with the sending group address when push button is activated. These and further assigned group addresses can also be received to change the object value und to control the LEDs if they are set appropriately.

Objects for the Dim function:

- **Switching:** Sends a switching telegram (1 bit) with the group address when the corresponding push button is activated. This controls the allocated actuator and switches it on.
- **Dimming:** Controls the brightness of the connected dim actuator via a 4-bit control telegram.

Objects for the Shutter control function:

- **Step operation:** Sends the corresponding actuator a switching telegram (1 bit) with the group address when activated. This controls the allocated LED in the push button BCU. The group address connected to the object is also used to stop the drive while operating mode move operation is active (drive travelling) if the button is touched again.
- **Move operation:** Controls the connected drive into the latching function. The drives travels up to the limit switch or is stopped earlier due to the receipt of a step operation command.



Switching,
Dimming,
Shutter
105601

Description of parameters:



Switching,
Dimming,
Shutter,
105601

Description of parameters for the Switch function:

Push button	
Function of the push button	Switching , Shutter control, Dimming with stop telegram, Dimming with telegram repetition
Command at operating the upper push button	ON, OFF, TOGGLE
Command at operating the lower push button	ON, OFF, TOGGLE
Function of status LED	Always OFF Always ON for object 0 for object 1 for object 2
Status LED indication	normal , inverted

 **Command at operating the upper/lower push button:** The push buttons on the group push button BCU 1gang is equipped with a neutral central position. If two functions are to be triggered per push button, then the **TOGGLE** function should be chosen. The **Toggle** function inverts the object value and the information in the telegram with every activation. If the corresponding actuators are controlled by further functions, e.g. central or master controls, then the group push button BCU must be "informed" of this function. These group addresses must refer back to the switching object as the receive addresses.

 **Function of the status LED:** The status LED enables individual settings: always ON for orientation lighting (rocker with lens) or always OFF (rocker without lens). According to the parameters, the status LED can also be assigned directly to the communications objects. The push button-unrelated function of the status LED is possible by setting the parameters to "for object 2". In this case, only the correspondingly received group address influences the LED.

 **Status LED indication:** Normal means LED illuminated when object value = 1

Description of parameters for the Shutter control function:

Push button	
Function of the push button	Switching, Shutter control , Dimming with stop telegram, Dimming with telegram repetition
Command operating the push buttons	upper = UP, lower = DOWN upper = DOWN, lower = UP
Time between step and move operation	300 msec, 400 msec, 500 msec , 600 msec....6 sec, 7 sec
Function of the status LED	Always OFF Always ON for object 0 for object 1 for object 2
Status LED indication	normal , inverted

 **Function of the push button:** The group push button BCU 1gang allows the manual controlling of the rotating direction for a group of motor drives. The parameter allows the operating panel to be custom set. The sending of an UP telegram is shown with a telegram content of 0, a DOWN telegram has a content of 1.

Time between step and move operation:

When manually controlling motor-driven drive units, a difference is made between two operating modes (sub-functions): 1. Touch mode = step operation and 2. Latch mode = move operation. Separate objects support both operating modes. Because of the duration of activation and which telegram is executed, the control functions differ: If an activation lasts for less than 500 msec (standard value), then a "touch mode" telegram is sent. An activation that lasts longer generates a telegram with the information content "latch mode". Once the "latch mode" information has been sent, each activation of the operating panel causes the sending of a "Stop" command. The drive stops. This is performed via the step operation group object. As a result, the step operation object must always be configured with the corresponding group address.

Function of the status LED: The status LED enables individual settings: always ON for orientation lighting (rocker with lens) or always OFF (rocker without lens). According to the parameters, the status LED can also be assigned directly to the communications objects.

Status LED display: Normal means LED illuminated when object value = 1



Switching,
Dimming,
Shutter
105601

Description of parameters for the Dim with stop telegram function:

Push button	
Function of the push button	Switching, Shutter control, Dimming with stop telegram, Dimming with telegram repetition
Command operating the push buttons	upper = brighter (ON), lower = darker (OFF) upper = brighter (TOG), lower = darker (TOG)
Function of the status LED	Always OFF Always ON for object 0 for object 2
Status LED indication	normal, inverted

Function of the rocker / command operating the push buttons: The group push button BCU 1gang allows manual brightness controls by a group of actuators / dim actuators. The parameter allows for a customised setting of the operating panel. Two operating concepts are supported: separating between ON and OFF or brighter and darker, each using one half of the rocker switch, or a switchover function in combination with switching both rocker switches ON/OFF while separately controlling the brightness.

Function of the status LED: The status LED enables individual settings: always ON for orientation lighting (rocker with lens) or always OFF (rocker without lens). According to the parameters, the status LED can also be assigned directly to the communications objects.

Status LED indication: Normal means LED illuminated when object value = 1

Description of parameters for the Dim with repeat telegram function:



Switching,
Dimming,
Shutter
105601

Push buttons	
Function of the push button	Switching, Shutter control, Dimming with stop telegram, 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 %
Time between switching and dimming	300 msec, 400 msec, 500 msec , 600 msec....6 sec, 7 sec
Time between two telegrams	300 msec, 400 msec, 500 msec , 600 msec....6 sec, 7 sec
Function of the status LED	Always OFF Always ON for object 0 for object 2
Status LED indication	normal , inverted

 **Dimming brighter / darker by /  Time between two telegrams:** Dimming with repeat telegrams is mainly used if several actuators are to be controlled in various lines. Because of the coupling properties of interim storing telegrams even settings of the actuators could not be otherwise guaranteed. The actuator in the neighbouring line would receive the stop at a later time and therefore later cancel the dimming process in the corresponding actuator.

Multiple transmission of dimming range telegrams (e.g. every 500 msec by 12.5%) during activation ensures perfect settings of the operational equipment with the line over-reaching exchange of data.

The smaller the selected range (min. 1.5%) the finer the fine-tuning quality. In this case however we recommend keeping the time between two telegrams relative small (e.g. 300 msec). This leads to an increased bus load that can however generally be disregarded.

 **Function of the rocker / command operating the push buttons:** The group push button BCU 1gang allows manual brightness controls by a group of actuators / dim actuators. The parameter allows for a customised setting of the operating panel. Two operating concepts are supported: separating between ON and OFF or brighter and darker, each using one half of the rocker switch, or a switchover function in combination with switching both rocker switches ON/OFF while separately controlling the brightness.

 **Function of the status LED:** The status LED enables individual settings: always ON for orientation lighting (rocker with lens) or always OFF (rocker without lens).

According to the parameters, the status LED can also be assigned directly to the communications objects.

 **Status LED indication:** Normal means LED illuminated when object value = 1