

Push button, 4gang, flush mounted

(Fig.: Arsys polar white with labelling field)



(Fig.: Arsys polar white without labelling field)

The application module for pushing onto the flush-mounting bus coupling unit. Depending on the user software can trigger switch actuators, or dim actuators or shutter actuators, and can also be used as a value transmitter for transmitting brightness values, or for extension operations of the light scene push button.

<b>General technical da</b> Supply: Protection mode: Terminal:	ata	via BCU (24V; +6V/-2 IP 20 on BCU BA 2 x 5 pole	4V) from internal SV with 5V user interface
Product management	<u>nt</u> : Oslar Dealasa		Duck builten Anonen
	Gebr. Berker		Push button 4gang, flush mounting
$P \longrightarrow$	Push button		Order no.: 75164bai
	Push button 4gang		Dimming 102D01 Shutter 102C01 Switching,status 102E01 Switching,acknowl. 102F01 Value transmitter 101D01
Order data:			
Design	Colour	Order no. <b>with</b>	Order no. <b>without</b>
		labelling field	labelling field
Module 2*	white	751641 <b>12</b>	751640 <b>12</b>
	polar white	751641 <b>19</b>	751640 <b>19</b>
Arsys*	white	751641 <b>42</b>	751640 <b>42</b>
	polar white	751641 <b>49</b>	751640 <b>49</b>
	light bronze, varnished	751641 <b>44</b>	751640 <b>44</b>
	stainless steel, varnished	751641 <b>43</b>	751640 <b>43</b>
CLIPTEC*	polar white	751641 <b>59</b>	751640 <b>59</b>
	light grey	751641 <b>50</b>	751640 <b>50</b>
	deep black	751641 <b>55</b>	751640 <b>55</b>
	platinum, varnished,	751641 <b>58</b>	751640 <b>58</b>
Twinpoint	polar white		751641 <b>69</b>
	red		751641 <b>66</b>
	black		751641 <b>65</b>
B1/B3	Polar white	751641 <b>89</b>	751640 <b>89</b>
	Alu	751641 <b>83</b>	751640 <b>83</b>
	Anthracite	751641 <b>85</b>	751640 <b>85</b>

The application modules (AM) are equipped with a dismantling protection device that prevents the AM

© Gebr.Berker 2000	Version: 23.08.2001	Page: 1 / 5
(Subject to prior change)	75164yxx.doc	Part 5

being separated from the BCU. Application modules with the final digit 5x include the dismantling protection device and are supplied complete with an appropriately coloured adapter for mounting on CLIPTEC frames.

The Berker plug-in terminals in the socket outlet with earthing contact are shockproof and enable combinations of touch sensors and 230 V socket outlet with earthing contact under a single cover. A touch sensor consists of an application module and a bus coupling unit (BCU). Each of these is a separate delivery unit.

### **Applications description**

The Dimming application enables telegrams to be sent for switching and dimming lights. The status and the operating LEDs can be controlled separately.

							Dimming
No. of	associations:	max. 12					201D01
No. of	group addresses:	max. 12					
Obj	Function	Name	Туре	Prio	Flag	Groups	
0	Switching	Push button 1	1 bit	Auto	CWT		
1	Switching	Push button 2	1 bit	Auto	CWT		
2	Switching	Push button 3	1 bit	Auto	CWT		
3	Switching	Push button 4	1 bit	Auto	CWT		
4	Dimming	Push button 1	4 bit	Auto	СТ		
5	Dimming	Push button 2	4 bit	Auto	СТ		
6	Dimming	Push button 3	4 bit	Auto	СТ		
7	Dimming	Push button 4	4 bit	Auto	СТ		Para-meter
		•	•	•	•	•	window

General	
Function of operating LED	ON , OFF
Function of status LED	ON, OFF

### Parameter description

Function of operating LED: The bus device is connected to the system and the system voltage is available.

Function of status LED: The status LED is switched on by pressing the appropriate button (switch command).

# **General technical information**

Brief activation (ca. 40-400 ms) is processed as a switching command (1 bit). Holding the buttons (>400 ms) is interpreted as a dimming command (4 bit). Once the activation is stopped, a stop telegram is sent and the dimming procedure ends. The group addresses that are assigned to the switch objects 0, 1, 2 and 3 (1 bit) can also be used for switching actuators. The group addresses linked to object 4, 5, 6 and 7 generate a 4 bit dimming command for the dimming objects of the dim actuators. Dimming and switching objects can be used separately from each other.

### **Application description**

The *shutter* application enables a telegram to be sent to control and change the direction of venetian blinds and shutter motors. The activation times between the telegrams for controlling the step and move operations can be set separately.

No. of associations:		max. 12				
No. of group addresses:		max. 12				
Obj	Function	Name	Туре	Prio	Flag	Groups
0	Step operation	Push button 1	1 bit	Auto	CWT	
1	Step operation	Push button 2	1 bit	Auto	CWT	
2	Step operation	Push button 3	1 bit	Auto	CWT	
3	Step operation	Push button 4	1 bit	Auto	CWT	
4	Move operation	Push button 1	1 bit	Auto	CWT	
5	Move operation	Push button 2	1 bit	Auto	CWT	

© Gebr.Berker 2000 (Subject to prior change) Version: 23.08.2001 75164yxx.doc Page: 2 / 5 Part 5



Technical

Documentation



Shutter 102C01

Technical Documentation



6	Move operation	Push button 3	1 bit	Auto	CWT		1
7	Move operation	Push button 4	1 bit	Auto	CWT		
_							
Paran	neter window		-				
Gener	ral / Push button 1-4						
Functi	Function of operating LED ON, OFF						
Time I	Time between 2 telegrams base (*130 ms) / factor 3127						
Paran	neter description						
Funct availa	ion of operating LED: The b	ous device is connected	I to the syste	em and the	system	voltage is	
Statu	<b>s LED:</b> The status LED is not a	ctivated in the shutter a	oplication.				
Pressi self-ho The a transn time c precoi	ing buttons briefly (<390 ms) olding. Longer activation period ctuators switch to self-holding nission from step-by-step to pe controller (Step) in the actuator nditions for this is the allocation	triggers step command ds (adjustable through p g, and the actuator det rmanent operations set r! The move operation i n of the step operation o	s (Step). The barameters) t ermines the the time limit s interrupted bject (actuato	e actuators rigger run o duration. T t slightly lor by activation or and sens	switch in command o achieve nger than ng any bu or).	to a brief s (Move). e jolt-free the short- itton. The	Time betweer two telegram
In the <b>objec</b>	event that not all objects are u ts must be occupied with du	used actively, in other w I <b>mmy addresses</b> . Dumi	ords linked w my addresses	vith group a s do not ha	ddresses ve any pa	, <b>the free</b> artners on	Dummy address
Applie The a The st	<u>cations description</u> pplication <b>Switching, status</b> e atus LED shows the status of t	enables switching comn he groups linked to the	nands (ON/O object.	FF) to be s	sent to the	e system.	
							Switchi
No. of	associations:	max. 13	3				Switchir 102E01
No. of No. of	associations: group addresses:	max. 13 max. 13	3				Switchin 102E01
No. of No. of <b>Obj</b>	associations: group addresses: <i>Function</i>	max. 13 max. 13 <b>Name</b>	3 3 Type	Prio	Flag	Groups	Switchir 102E0 <sup>2</sup>
No. of No. of <b>Obj</b> <b>0</b>	associations: group addresses: <i>Function</i> Switching	max. 13 max. 13 Name Push button 1	Type	<i>Prio</i> Auto	<i>Flag</i> CWT	Groups	Switchir 102E01
No. of No. of <b>Obj</b> <b>0</b>	associations: group addresses: <i>Function</i> Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2	<i>Type</i> 1 bit	Prio Auto	<i>Flag</i> CWT CWT	Groups	Switchir 102E01
No. of No. of <b>Obj</b> <b>0</b> <b>1</b> <b>2</b>	associations: group addresses: <i>Function</i> Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 2	<i>Type</i> 1 bit 1 bit	Prio Auto Auto	Flag CWT CWT	Groups	Switchir 102E01
No. of No. of <b>Obj</b> <b>0</b> <b>1</b> <b>2</b>	associations: group addresses: <i>Function</i> Switching Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3	<i>Type</i> 1 bit 1 bit 1 bit	Prio Auto Auto Auto	Flag CWT CWT CWT	Groups	Switchir 102E01
No. of No. of <b>Obj</b> <b>1</b> <b>2</b> <b>3</b>	associations: group addresses: <i>Function</i> Switching Switching Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	<i>Type</i> 1 bit 1 bit 1 bit 1 bit 1 bit	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchir 102E01 Paramet
No. of No. of <b>Obj</b> 1 2 3	associations: group addresses: <i>Function</i> Switching Switching Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	<i>Type</i> 1 bit 1 bit 1 bit 1 bit 1 bit	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchir 102E01 Paramet windov
No. of No. of <b>Obj</b> 1 2 3 <b>Gener</b>	associations: group addresses: <i>Function</i> Switching Switching Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	<i>Type</i> 1 bit 1 bit 1 bit 1 bit 1 bit	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E07 Paramet windov
No. of No. of Obj 1 2 3 Gener Functi	associations: group addresses: <i>Function</i> Switching Switching Switching Switching	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	7ype 1 bit 1 bit 1 bit 1 bit 1 bit 0N, OFF	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E07 Paramet windov
No. of No. of Obj 1 2 3 Gener Functi Functi	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	Type 1 bit 1 bit 1 bit 1 bit 1 bit 0N, OFF 0N, OFF	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E07 Paramet windov
No. of No. of <b>Obj</b> <b>0</b> <b>1</b> <b>2</b> <b>3</b> <b>Gener</b> Functi Functi Comm	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED nand at operating the upper pus	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	Type 1 bit 1 bit 1 bit 1 bit 1 bit 0N, OFF 0N, OFF 0N, OFF	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E07 Paramet windov
No. of No. of <b>Obj</b> <b>0</b> <b>1</b> <b>2</b> <b>3</b> <b>Gener</b> Functi Functi Comm	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED nand at operating the upper pus	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	Type 1 bit 1 bit 1 bit 1 bit 1 bit 0N, OFF 0N, OFF 0N, OFF 0N, OFF 0N, OFF	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E07 Paramet windov
No. of No. of <b>Obj</b> <b>1</b> <b>2</b> <b>3</b> <b>Gener</b> Functi Functi Comm Comm	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED nand at operating the upper pus nand at operating the lower pus	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4	Type      1 bit      1 bit      1 bit      1 bit      0N, OFF      ON, OFF      ON, OFF      ON, OFF      ON, OFF      ON, OFF      ON, OFF	Prio Auto Auto Auto	Flag CWT CWT CWT CWT	Groups	Switchin 102E0 Parame windo
No. of No. of Obj 1 2 3 Gener Functi Comm Comm Paran Funct availa	associations: group addresses: Function Switching Switching Switching Switching switching switching and a sperating LED on of status LED on of status LED nand at operating the upper pus nand at operating the lower pus neter description ion of operating LED: The b	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4 Sh button Sh button	Type    1 bit    1 bit    1 bit    1 bit    0N, OFF    ON, OFF    ON, OFF    ON, OFF    ON, OFF    Ito the system	Prio Auto Auto Auto Auto	Flag CWT CWT CWT CWT	voltage is	Switchi 102E0 Parame windo
No. of No. of Obj 0 1 2 3 Genei Functi Comm Comm Comm <b>Paran</b> Funct availal <b>Funct</b> the ob button All oth the te monitor	associations: group addresses: Function Switching Switching Switching Switching Switching switching aswitching switching ral on of operating LED on of status LED nand at operating the upper push and at operating the lower push heter description ion of operating LED: The ble. ion of status LED: When this ject is displayed. The first linke is activated and the switching er linked addresses are receiv legram. If actuators are controlled with the help of the LED b	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 5 Push button 4 Push button 5 Push button 5 Push button 6 Push button 6 Push button 7 Push Push Push 7 Push Push 7 Push Push 7 Push Push 7 Push	Type    1 bit    1 bit    1 bit    1 bit    1 bit    0N, OFF    ON, off	Prio Auto Auto Auto Auto Auto em and the e group ado he LED dire the switch bject of the	Flag CWT CWT CWT CWT CWT	voltage is ked with the t value in s can be ton.	Switchin 102E0
No. of No. of Obj 0 1 2 3 Genei Functi Comm Comm Paran Functi availal Funct the ob button All oth the te monito Comm	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED nand at operating the upper pus nand at operating the lower pus neter description ion of operating LED: The b ble. ion of status LED: When this ject is displayed. The first linke is activated and the switching ier linked addresses are receiv legram. If actuators are contro ored with the help of the LED b nand at oper. upper/lower pus	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 5 Push button 4 Push button 5 Push button 5 Push button 6 Push button 7 Push Push Push 7 Push Push 7 Push Push 7 Push Push 7 Push 7 Push Push 7 Push 7 Push Push 7 Push 7 Pu	Type    1 bit    1 bit    1 bit    1 bit    1 bit    0N, OFF    ON, OFF	Prio Auto Auto Auto Auto Auto Auto em and the e group ado he LED dire the switch bject of the al position the	Flag CWT CWT CWT CWT CWT CWT cwt cwt cwt cwt cwt cwt cwt cwt cwt cwt	voltage is ked with the t value in s can be ton. rd setting	Switchin 102E0 Paramet window
No. of No. of Obj 0 1 2 3 Genei Functi Functi Comm Param Functi availal Funct the ob button All oth the te monito Comm	associations: group addresses: Function Switching Switching Switching Switching ral on of operating LED on of status LED hand at operating the upper push and at operating the lower push heter description ion of operating LED: The b ble. ion of status LED: When this ject is displayed. The first linked is activated and the switching here linked addresses are received legram. If actuators are contributed with the help of the LED b mand at oper. upper/lower put	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 5 Push butt	Type    1 bit    1 bit    1 bit    1 bit    1 bit    0N, OFF    ON, on the neutration    on the neutration    on the neutration	Prio Auto Auto Auto Auto Auto Auto em and the e group ado he LED dire the switch bject of the al position the	Flag CWT CWT CWT CWT CWT CWT CWT dresses lir ectly wher valid objecting statu push butt he standa	Voltage is woltage is nked with the t value in s can be ton. rd setting	Switchin 102E0 Paramet window
No. of No. of Obj 0 1 2 3 Genei Functi Functi Comm Param Funct availa Funct the ob button All oth the te monito Comm	associations: group addresses: Function Switching Switching Switching Switching Switching ral on of operating LED on of status LED hand at operating the upper push hand at operating the lower push heter description ion of operating LED: The base ion of status LED: When this ject is displayed. The first linked is activated and the switching here linked addresses are received legram. If actuators are conturbed on at oper. upper/lower push © Gebr.Berker 2000 (Subject to particupation	max. 13 max. 13 Name Push button 1 Push button 2 Push button 3 Push button 4 Push button 4 Push button 4 Push button 4 Push button 4 Push button 5 Push button 4 Push button 5 Push butt	Type    1 bit    1 bit    1 bit    1 bit    1 bit    0N, OFF    ON, OFF    I to the system    e status of the system       in accordance    o addresses, sees to the oil on the neutration    Versid	Prio Auto Auto Auto Auto Auto Auto Auto Aut	Flag CWT CWT CWT CWT CWT CWT CWT dresses lir ectly wher valid object ning statu push butt he standa	Voltage is woltage is nked with the t value in s can be ton. rd setting	Paramet window

can be varied, for example to realise an **OFF** push-button in a lighting controller.

#### **Applications description**

No. of associations:

No. of group addresses:

The application **Switching**, **acknowledge** (transmission check) enables a switch command (ON/OFF) to be sent. Successful transmission is displayed on the LED in accordance with the time settings (display duration).

max. 10

max. 10



General	
Function of operating LED	ON, OFF
Function of status LED	ON, OFF
Light duration of the status LED in	0.75s, 1.5s, 2.25s, 2.7s , <b>3s</b> , 4.5s, 6s, 10s, 15s, 20s
acknowledge mode	
Command at operating the upper push button	ON, OFF
Command at operating the lower push button	ON, OFF

#### Parameter description

Function of operating LED: The bus device is connected to the system and the system voltage is available.

**Function of status LED:** When a push-button is activated a telegram is sent to the bus. The devices connected in a group send a receive confirmation to the transmitting devices. The status LED displays the transmission/receive status. **This process applies to both ON and OFF commands.** 

Light duration of the status LED in acknowledge mode: Successful transmission (ON and OFF) is displayed through the LED with adjustable display duration.

**Command at operating the u/lo push button:** Conditional on the neutral position the standard setting can be varied, for example to realise an **OFF** push-button in a lighting controller.

# **Application description**

The Value transmission application enables 8-bit values to be sent on the *instabus*. Optionally, 8 dimmer values for controlling brightness or an active and/or passive extension unit function of the light scene push button can be set. The setting of the dimmer values and the allocation of the lighting arrangements are stipulated by means of parameter settings. The functions of the status LED and the operating LED can be set separately.

No.	of associations:	max. 1
No.	of group addresses:	max. 1

Obj	Function	Name	Туре	Prio	Flag	Groups
0	Value/light scene	Push buttons	1 byte	Auto	СТ	

General		Parameter
Function of operating LED	ON, OFF	window
Function of status LED	ON, OFF	
Operating mode	Value transmitter	
	Call light scenes with memory function	
© Gebr.Berker 2000	Version: 23.08.2001	Page: 4 / 5
(Subject to prior change)	75164yxx.doc	Part 5

Parameter window

Technical Documentation



Switching 102F01



Value transmitter 101D01



Groups

Flag

CWT

CWT

CWT

CWT

Technical Documentation



	Call light scenes without memory function
Push button 1,2,3,4	
Command at operat. upper push button, value (0255); light scene (18)	<b>1</b> 8 or 0255
Command at operat. lower push button, value (0255); light scene (18)	1. <b>2</b> 8 or 0255

# Parameter description

Function of operating LED: The bus device is connected to the system and the system voltage is available.

**Function of status LED:** If a key is pressed and a value sent (light scene number, dimmer value), the LED confirms the procedure by lighting for one second. A successfully concluded light scene storage process is displayed by the LED lighting for 3 seconds. If the LED stays on during the storage process for a considerably longer period, this may be an indication that it was not possible to carry out the function correctly. See light scene push button. **(T flag, R flag, transmitting group address)** 

# Operating mode "value transmitter":

The value transmitter function of the push button 4gang can be described as an 8-port touch dimmer with fixed value memory. An operating key is assigned two different values. If the upper or the lower key is activated, a telegram with an 8 bit value field is generated. Dim actuators and control units can evaluate this because of the link with the object *Dimmer value*. Depending on the setting in the actuator the dimmer value is started or dimmed. The complete dimming range (100%) is subdivided into 255 subsections. An increase by a single subsection will increase the brightness by about 0.4% (transmission values 0 = switch OFF process).

# Operating mode "Call light scenes with memory function"

The operating mode "Call light scenes with memory function" enables a light scene push button to be operated as an extension unit and is only possible in combination with a light scene push button. If the upper/lower key is pressed, a telegram is sent with group address and light scene identifier with telegram function (set). The light scene push button linked correspondingly with the same group address (object extension unit operations) receives the telegram and transmits the brightness and/or switching values stored under the light scene identifier to the actuators (object output light scene push button). The operating mode allows a light scene to be stored / altered through the extension unit operation. If the upper/lower key is held for longer than 5 seconds a telegram is sent with group address and the preselectable identifier of the light scene and telegram function (store). The light scene push button that is linked correspondingly with the same group address (object extension unit operations) receives the telegram function (store). The light scene push button that is linked correspondingly with the same group address (object extension unit operations) receives the telegram and sends the prompt for the transmission of the current switching or brightness status to the actuators. The actuators transmit the values that are stored in the light scene push button.

### Operating mode\_"Call light scenes without memory function"

This operating mode does **not** enable a light scene to be stored / altered. This application is practical, e.g., if unwanted data storage is to be prevented (e.g. hotel reception, speaker's desks in lecture rooms).

The recall function corresponds to the description of the other operating modes.

The selection of the operating mode determines the range of possible input ranges (value transmitter 0..255 / light scene 1..8).

Selection criteria

© Gebr.Berker 2000 (Subject to prior change) Version: 23.08.2001 75164yxx.doc Page: 5 / 5 Part 5