



ALTENBURGER

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Technical Handbook *EIB-KNX*

This handbook shall assist in the planning, specifying and commencement of Altenburger *EIB-KNX* components and programmable dimming control systems. It specifies the hardware as well as the software.

The specifications are classified as follows:

A	Characterization, type and order-number
B	Mode of functioning
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Phase-interval- controlled push-dimmer	ALTODIM 600-0	IBDA600-0	80.13.061	3.1.1
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Dim-jalousie-sensor	IBDIMJAL	80.14.230	4.1.1	
Applications:	2-pushbutton dim-sensor		4.1.2	
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3-channel light value switch sensor	IBLWS3	80.14.016	4.2.1	
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1-channel	IB1DEDA	80.14.021	5.1.1	
2-channel	IB2DEDA	80.14.022	5.2.1	
4-channel	IB4DEDA	80.14.024	5.3.1	
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Assigners (for flexible room dividers)	IBAS	80.14.550	6.1.1	
Applications:	Assigner 7-fold, 5x1 bit, 1x4 bit, 1x1byte		6.1.3	
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Components for the Altenburger programmable dimming control systems (scene)

<u>NEW</u>	Phase-interval- controlled push-dimmer	ALTODIM 600-0/P	IBDA600-0/P	80.13.161	7.2.1.1
<u>NEW</u>	Phase-interval- controlled push-dimmer	ALTODIM 1400-0/P	IBDA1400-0/P	80.13.164	7.2.1.6
<u>NEW</u>	Phase controlled push-dimmer	ALTODIM 600/P	IBDA600/P	80.13.165	7.2.1.8
<u>NEW</u>	Phase controlled push-dimmer	ALTODIM 1300/P	IBDA1300/P	80.13.162	7.2.1.10
<u>NEW</u>	Phase controlled push-dimmer	ALTODIM 2000/P	IBDA2000/P	80.13.163	7.2.1.12
<u>NEW</u>	KNX Programmer Schwitch-Dim Actuator		IBDA-KP	80.14.132	7.2.1.14
<u>NEW</u>	EIB/KNX DALI Schwitch-Dim Actuator		IBDA-DP	80.14.170	7.2.1.16
	IR-decoder/programmer unit		IBIR-P	80.14.402	7.2.2.1
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ALTENBURGER *EIB-KNX* – PRODUCT DATABASE

Description: The *EIB-KNX* – Product Database includes Altenburger *EIB* – Products and application programs.
The Information refers to the current state of production and the devices.
Technical data subject to change.
New Products in the Product Database are marked with **NEW**

The current Product Databases could also
downloaded via internet at the address <http://www.altenburger.de>

Importing the Altenburger *EIB-KNX* – product database into the ETS 3

The *EIB-KNX* – Product Database must be imported into the *EIB* Tool Software (ETS).
The following overview indicates how to import the product database into the ETS database.

1. Starting the **ETS 3**
2. Select on the **File** menu
3. Select the icon **Import**
4. Select your file and import the data as follows:
Select database for ETS3 (**Altenxxx.vd3**) and click **Open**.
5. Click **Import all**
6. The following Altenburger *EIB* - products are available.

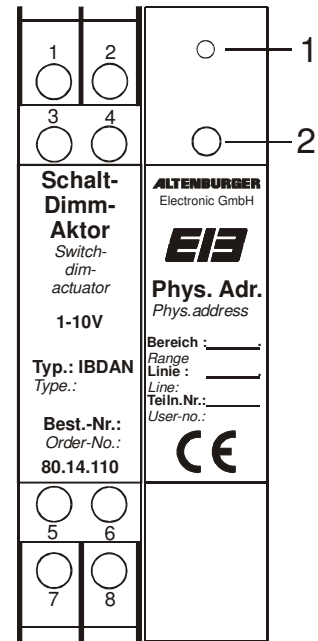
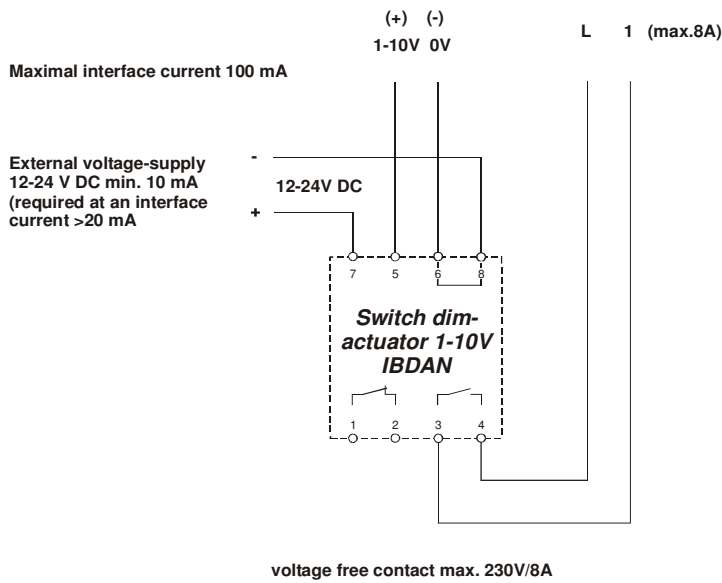
Product overview

Product-family	Product-type	Product	Accessories	Characterization Order-Number	Application
Lighting	Dimmer	Dim-actuator 1..10V (IBDAN)		IBDAN 80.14.110	Dim-actuator
Lighting	Dimmer	Power supply 24V/ 50mA (IB24/50)	X	IB24/50 80.14.600	---
Lighting	Dimmer	Dim-actuator 0..10/20V (IBDAS)		IBDAS 80.14.120	Dim-actuator
		Altoquick AQ 1,3kW	X	50.13.010	---
		Altoquick AQ 2kW	X	50.13.210	---
		Dimmers up to 8kW	X	on request	---
		Altoquick AQ-0 700W	X	50.13.110	---
		Altoquick AQ-0 1,4kW	X	50.13.111	---
		Dimmer 2kW-0	X	on request	---
Lighting	Dimmer	2-pushbutton dim-sensor (IBDIMJAL)		IBDIMJAL 80.14.230	2-pushbutton dim (from 8.93 on)
Lighting	Dimmer	3-pushbutton dim-sensor (IBDIMJAL)		IBDIMJAL 80.14.230	3-pushbutton dim (from 8.93 on)
Lighting	Dimmer	Potentiometer dim sensor (IBDIMJAL)		IBDIMJAL 80.14.230	potentiometer-dim-sensor
Lighting	Dimmer	Scene-memory sensor (IBDIMJAL)		IBDIMJAL 80.14.230	Scene memory (AE)

Product-family	Product-type	Product	Accessories	Characterization Order-Number	Application
Lighting	Dimmer	Universal-push dimmer ALTODIM 1500-U		IBDA1500-U 80.13.070	1-Key- Universal-Dimmer
Lighting	Dimmer	Phase-interval-control dimmer ALTODIM 600-0		IBDA600-0 80.13.061	1-key dimmer with feedback
Lighting	Dimmer	Phase-interval-control dimmer ALTODIM 1400-0		IBDA1400-0 80.13.064	1-key dimmer with feedback
Lighting	Dimmer	Phase-controlled dimmer ALTODIM 600		IBDA600 80.13.065	1-key dimmer with feedback
Lighting	Dimmer	Phase-controlled dimmer ALTODIM 1300		IBDA1300 80.13.062	1-key dimmer with feedback
Lighting	Dimmer	Phase-controlled dimmer ALTODIM 2000		IBDA2000 80.13.063	1-key dimmer with feedback
Lighting	Dimmer	Programmer selector panel (FIB)		FIB .../.../.../... 80.14.500	Programmer selector panel FIB
Lighting	Dimmer	Programmer selector panel extension (IBTE-P)		IBTE-P 80.14.161	Programmer selector panel FIB
Lighting <u>NEW</u>	Dimmer	Phase-interval-control dimmer ALTODIM 600-0/P		IBDA600-0/P 80.13.161	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	Phase-interval-control dimmer ALTODIM 1400-0/P		IBDA1400-0/P 80.13.164	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	Phase-controlled dimmer ALTODIM 600/P		IBDA600/P 80.13.165	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	Phase-controlled dimmer ALTODIM 1300/P		IBDA1300/P 80.13.162	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	Phase-controlled dimmer ALTODIM 2000/P		IBDA2000/P 80.13.163	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	KNX Programmer switch- dim-actuator		IBDA-KP 80.14.132	1-Key Dimmer Scene RGB
Lighting <u>NEW</u>	Dimmer	EIB/KNX DALI Switch-dim- actuator		IBDA-DP 80.14.170	1-Key Dimmer Scene RGB
Lighting	Special device	3-channel light value switch		IBLWS3 80.14.016	3-light value switch
Lighting	Special device	Multi-sensor-dimmer		IBMSD 80.14.800	MSD-KNX
Lighting <u>NEW</u>	Special device	Multi-sensor-controller		IBMSC-NV 80.14.810	MSD-KNX

Product-family	Product-type	Product	Accessories	Characterization Order-Number	Application
Lighting	Special device	Light sensors for IBLWS3: Wall-mounted IP40 (LF/a/D)	X	51.21.007	---
		Wall-mounted IP55 (LF/b/D)	X	51.21.008	---
		Wall-recessed IP40 (LF/c/D)	X	51.21.009	---
		1-hole IP40 (LF/d/D)	X	51.21.011	---
		Wall-mounted with swiveling angle IP54 (LF/w/D)	X	51.21.010	---
Input-/Output modules	Binary/binary	Input-/output module 1 channel		IB1DEDA 80.14.021	Input/output module 1 channel
Input-/Output modules	Binary/binary	Input-/output module 2 channels		IB2DEDA 80.14.022	Input/output module 2 channels
Input-/Output modules	Binary/binary	Input-/output module 4 channels		IB4DEDA 80.14.024	Input/output module 4 channels
Infrared	IR-handheld transmitter	IR-handheld transmitter IR-S/S	X	16.03.050	---
Infrared	IR-sensor	IR-sensor IR-E/S	X	16.03.060	---
Infrared	IR-decoder	IR-decoder/programmer unit 3 (IBIR-P)		IBIR-P 80.14.402	IR- decoder/programm er unit 3
Jalousie	Sensors	Jalousie-sensor		IBDIMJAL 80.14.230	Jalousie-sensor
controls	Room-partition	Room Divider-control (Assigner) 5x1bit, 1x4bit, 1x1byte		IBAS 80.14.550	Assigner 7-fold 5x1bit, 1x4bit, 1x1byte
controls	Room-partition	Room Divider-control (Assigner) 4x1bit, 3x4bit		IBAS 80.14.550	Assigner 7-fold 4x1bit, 3x4bit

D Wiring diagram:



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: Dim-actuator version 1.4

Number of addresses: 7
 Number of assignments: 7

Object description:

Number	Name	Size	Function
Object 0	ON/OFF	1 bit	ON/OFF
Object 1	dimming	4 bit	dimming
Object 2	absolute value	1 byte	absolute value

Description of the component functions as they are pre-adjusted in the data base:

After receipt of a 1 telegram (object 0) the relay switches ON and the brightness jumps to 100 %. A status back indication would not be sent.

At a bus voltage failure the switch dim actuator switches OFF. The brightness can be dimmed via the object 1 within a range of 0,5 % and 100%. This procedure requires 4 secs. If the switch dim actuator is switched OFF it can be switched ON with a value of object 2. It dims into the brightness of object 2. The range in which the switch dim actuator can be dimmed with this value is between OFF and 100%.

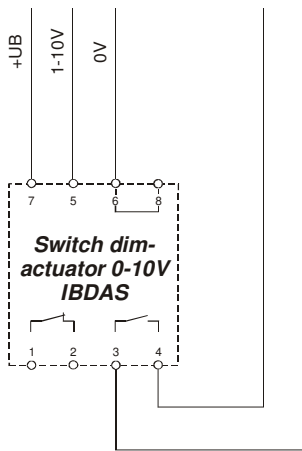
F Parametrizing:		
Parametername:	Parameter adjustment:	Parameter description:
ON/OFF		
Switch-on value (0=value before OFF)	0, 1, 2, ..., 253, 254, 255	Determines the switch-ON value at the receipt of an ON-telegram. Switch ON value in % = (parameter adjustment/255) x 100. If the switch ON value is set to 0 the component is switched ON with that value which had been adjusted before the switch off operation.
Status indication	disable status message enable status message	Determines if the value of the "ON/OFF" object shall be sent at the switch on of the module or not.
Reaction at power fail	switch off switch on relay unchanged	This allows the definition of the state of the relay of the dim-actuator at a power fail.
Dimming		
Brightness minimum (0-254)	0, 1, 2, ..., 252, 253, 254	This allows the adjustment of the brightness minimum which shall be achieved in the dimming project with object 1.
Brightness maximum (1-255)	1, 2, 3, ..., 253, 254, 255	This allows the adjustment of the brightness maximum which shall be achieved in the dimming project with object 1.
Dim-ramp (0-100%) timebase	Base 130 ms , 2,1 s, 34 s, 9 min,140 min	The set time basis multiplied with the set time factor results in the time range in which the switch dim actuator controls the light transfer from dark (0%) to bright (100%).
Dim-ramp timefactor (3-255)	3, 4, 5, ..., 30, 31 , 32, ..., 253, 254, 255	The set time factor multiplied with the set time basis results in the time range in which the switch dim actuator controls the light transfer from dark (0%) to bright (100%).
At dimming bright /set value	automatic switch-on not switch on	If from the OFF-state the light level shall be dimmed brighter or a value shall be set this can be adjusted by this parameter, independent if the switch ON shall be made automatically or not.
Set value		
Set value (parameterpart 1)	jump to value	Determines if a brightness shall be achieved immediately
Set value (parameterpart 2)	dim to value	(jumped on) or if it shall be dimmed.
Set value (parameterpart 3)		All 3 parameter parts have to be adjusted to the same level.
Dimming between	„0“ to max. possible min. to max. possible	Determines within which limits the brightness may move. Condition: the absolute value parameters must be adjusted to the dimming level.

Personal notes:

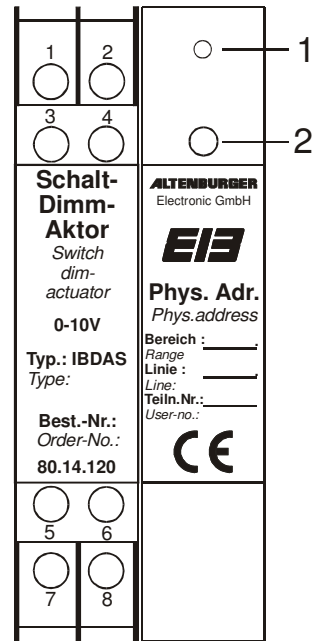
D Wiring diagram:

Terminals from Altoquick 7 8 9 10 11 L 1 (max.8A)

External voltage-supply
12-24 V DC
The voltage normally will be
supplied from the Altoquick dimmers



voltage free contact max. 230V/8A



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
Product type: Dimmer

Characterization: Dim-actuator version 1.4

Number of addresses: 7
Number of assignments: 7

Object description:

Number	Name	Size	Function
Object 0	ON/OFF	1 bit	ON/OFF
Object 1	dimming	4 bit	dimming
Object 2	absolute-value	1 byte	absolute-value

Description of the component functions as they are pre-adjusted in the data base.

After receipt of a 1 telegram (object 0) the relay switches ON and the brightness jumps to 100 %. A status back indication would not be sent.

At a bus voltage failure the switch dim actuator switches OFF. The brightness can be dimmed via the object 1 within a range of 0,5 % and 100%. This procedure requires 4 secs. If the switch dim actuator is switched OFF it can be switched ON with a value of object 2. It dims into the brightness of object 2. The range in which the switch dim actuator can be dimmed with this value is between OFF and 100%.

F Parametrizing:		
Parameter name:	Parameter adjustment:	Parameter description:
ON/OFF		
Switch-on value (0=value before OFF)	0, 1, 2, ..., 253, 254, 255	Determines the switch-ON value at the receipt of an ON-telegram. Switch ON value in % = (parameter adjustment/255) x 100. If the switch ON value is set to 0 the component is switched ON with that value which had been adjusted before the switch off operation.
Status indication	disable status message enable status message	Determines if the value of the "ON/OFF" object shall be sent at the switch on of the module or not.
Reaction at power fail	switch OFF switch ON relay unchanged	This allows the definition of the state of the relay of the dim-actuator at a power fail.
Dimming		
Brightness minimum (0-254)	0, 1, 2, ..., 252, 253, 254	This allows the adjustment of the brightness minimum which shall be achieved in the dimming project with object 1.
Brightness maximum (1-255)	1, 2, 3, ..., 253, 254, 255	This allows the adjustment of the brightness maximum which shall be achieved in the dimming project with object 1..
Dim-ramp (0-100%) timebase	Base 130 ms , 2,1 s, 34 s, 9 min, 140 min	The set time basis multiplied with the set time factor results in the time range in which the switch dim actuator controls the light transfer from dark (0%) to bright (100%).
Dim-ramp timefactor (3-255)	3, 4, 5, ..., 30, 31 , 32, ..., 253, 254, 255	The set time factor multiplied with the set time basis results in the time range in which the switch dim actuator controls the light transfer from dark (0%) to bright (100%).
At dimming brigh/set value	automatic switch-on not switch on	If from the OFF-state the light level shall be dimmed brighter or a value shall be set this can be adjusted by this parameter, independent if the switch ON shall be made automatically or not.
Set value		
Set value (parameterpart 1)	jump to value	Determines if a brightness shall be achieved immediately (jumped on) or if it shall be dimmed. All 3 parameter parts have to be adjusted to the same level.
Set value (parameterpart 2)	dim to value	
Set value (parameterpart 3)		
Dimming between	"0" and max. possible min. to max. possible	Determines within which limits the brightness may move. Condition: the absolute value parameters must be adjusted to the dimming level.

Personal notes:

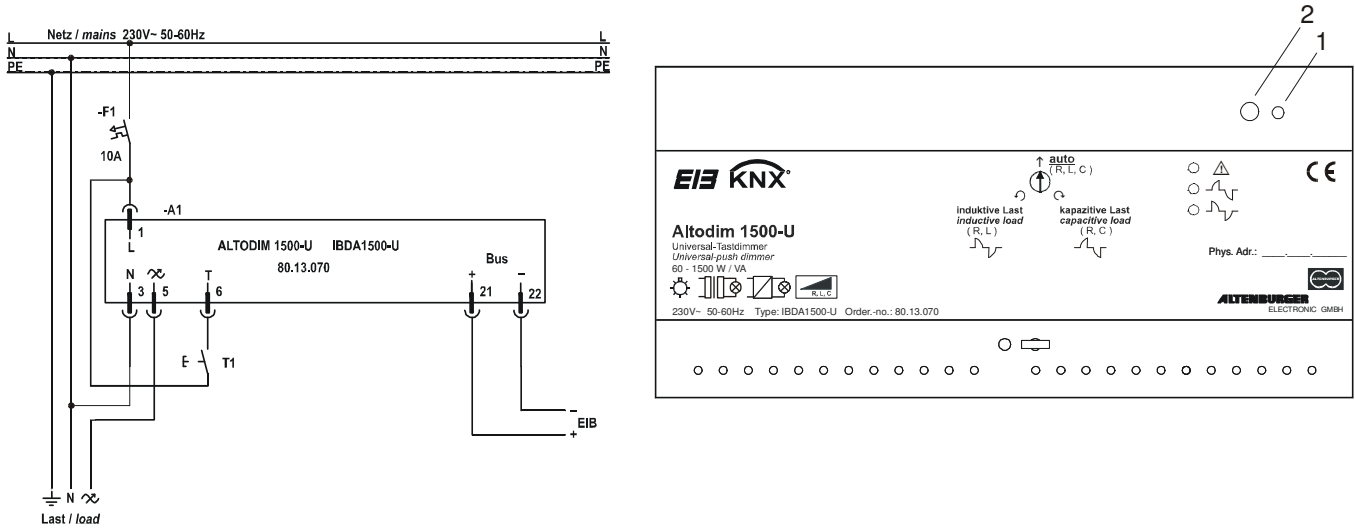
ALTODIM 1500-U

A	Characterization:	Universal-push dimmer ALTODIM 1500-U
	Type:	IBDA1500-U
	Order-No.:	80.13.070

B The ALTODIM 1500-U is a Universal-push dimmer for the control of inductive and capacitive loads, e.g. for incandescent lamps or low-voltage halogen lamps with wire-wound transformers as well as for electronic transformers. With the received switch and dim-commands the connected loads can be processed (e.g. dimmed between minimum and maximum). The operation of inductive and capacitive loads in one circuit is not permitted. The load output has an electronic current limiting, a light level reduction in case of an exceeding of a limit temperature and a switch-OFF function at inadmissible high temperatures. As soon as the temperature is cooled down the ALTODIM switches ON again after the functional switch-OFF mode. The ALTODIM 1500-U also can be controlled with *EIB*-control modules as well as with a suitable visualisation. The dimmer however can also directly be operated via the pushbutton input with a customary pushbutton (230V~ / 1-pushbutton function) through parametrizing a separate usage of pushbutton input (sensor) and dimmer (actuator) would be possible (see application description).

C	Technical data:		
	EIB supply		
	Voltage:	24V DC (+6V / -4V)	
	Input:	max. 230mW at 29VDC	
	External supply		
	Voltage:	230V~ / 50-60Hz, DC not permitted	
	Own consumption:	<2% of the connected load	
	Pushbutton input T		
	Voltage:	max. 250V~ (pushbutton for power supply)	
	Output		
	Load exit:	1500W/VA, 6,5A~ -electronic current limiting (starting current, overload/short-circuit current) -dimming to a lower level in case of the exceeding of a maximum temperature -switch-OFF function at a non-permissible high temperature -switching-ON again after the cooling down (functional switch OFF)	
	Minimum Load:	60W	
	Noise:	<25dB(A) at nominal load in a distance of 1 m	
	Wire length:	max. 100m for load and supply wires 1,5 mm ²	
	Terminals:	Screw contacts - wire - litz wire with sleeve	0,2mm ² - 2,5mm ² 0,2mm ² - 1,5mm ²
	Dimensions:	WxHxD = 175x83,5x58mm	
	Weigth:	approx. 520g	
	Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
	Ambient temperature:	0°C to +45°C	
	Protective class:	II (Protective isolation)	
Protective type:	IP 20		
Test mark:	EIB, KNX, CE		

D Wiring diagram :



Control Components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Universal-Dimmer, version 1.2

Number of addresses: 20
 Number of assignments: 20

Object description:

Number	Name	Size	Function
Object 0	actuator on/off	1 bit	switching
Object 1	actuator dimming	4 bit	dimming
Object 2	actuator value setting	1 byte	setting value
Object 3	sensor on/off	1 bit	switching
Object 4	sensor dimming	4 bit	dimming
Object 5	sensor value setting	1 byte	setting value
Object 6	switch status	1 bit	sending
Object 7	value feedback	1 byte	sending

The objects of the sensors are handled in a dynamic mode, this means the objects are being faded ON or OUT according to the respective parameter adjustment.

E Description of the component functions as they are pre-adjusted in the data base.

After receipt of a 1-telegram (object 0) the brightness jumps to that value which was set before the switch OFF function. A Status back indication would not be set.

The brightness can be dimmed via object 1 and 2 within a range of 20% and 100%. For this procedure the dimmer requires approx. 3,2 secs. If the dimmer is switched OFF the switch ON function applies if the command dimming brighter of object 1 as well as with a value of object 2 is switched ON. The pushbutton input of the dimmer is pre-adjusted for the 1-push-switch/dim function. At a short touch of the pushbutton (< 400 ms) switch commands are being send (object 3), while at a longer pressing of the pushbutton (> 400 ms) dimmer commands (object 4) are being sent.

At a voltage return the brightness goes to the same level as before the voltage failure and the pushbutton input is kept synchronous to this value.

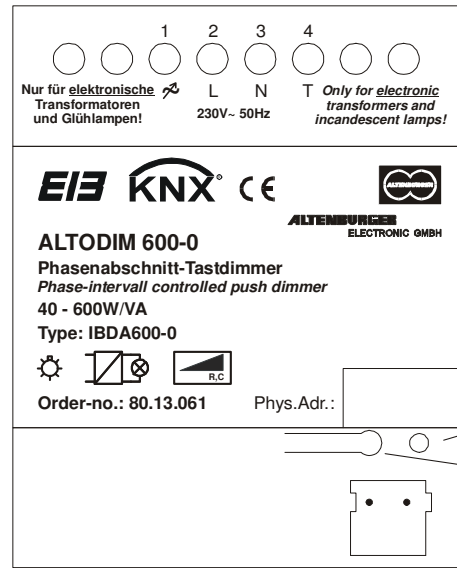
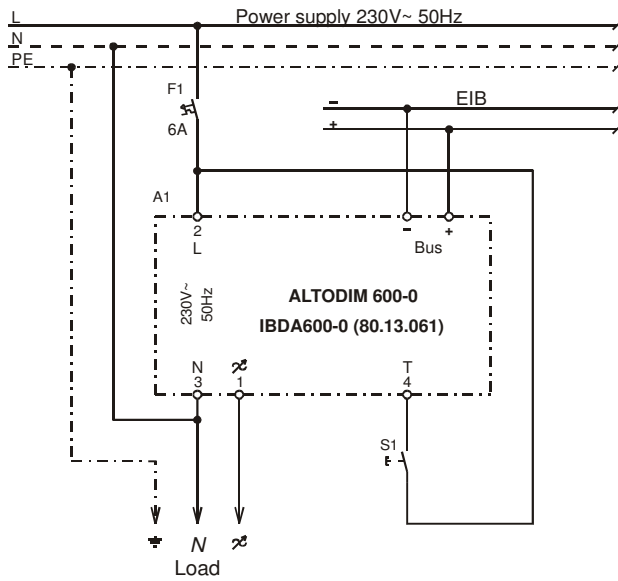
F **Parametrizing:**

Parameter name:	Parameter adjustment:	Parameter description:
On/Off		
switch on with after power-on / bus power recurrence	value before switching off 10%, 20%,.....80%, 90%, 100% off, value before voltage break down, 10%, 20%,.....80%, 90%, 100%	Determines the switch-ON value at the receipt of an ON-telegram. Determines how the dimmer shall work after power-on or bus power recurrence.
at bus-voltage failure	off, conserve current value, 10%, 20%,.....80%, 90%, 100%	Determines how the dimmer shall work at a bus-voltage failure.
internal key-sensor with internal dimmer	synchronize, not synchronize	Determines if the internal key-sensor shall be synchronized after power-on with the on/off state of the actuator.
Dimming		
output maximum [20.....100%]	20%, 25%,.....90%, 95%, 100%	Adjustment of the maximum brightness (limitation of the original value).
output minimum [0....80%]	0 (off), 10%, 15%,.....75%, 80%	Adjustment of the minimum brightness (increasing the original value).
speed of the dimmer process (0....100%) [in seconds]	1,2,3,4,5,.....253, 254, 255	Time range which shall be required for the total dimming process (0...100%).
fade time at value setting 0-100% (input value x 4 [in seconds]). at minimum	0, 1, 2, 3, 4,.....253, 254, 255 switching off, not switching off	Time range at value setting which shall be required for the total dimming process (0...100%). Determines if the dimmer shall be switched OFF after it has achieved the set brightness minimum level.

F Key input

key input function:	no function, 1-key switch/dim function , short press: on, long press: brighter short press: off, long press: darker press: on, release: on press: off, release: off press: toggle press: on release: off press: off-release: on press: send value (8 bit)	This allows the selection of the function of the pushbutton input. The pushbutton input is free disposable, this means it can be used as an EIB-sensor operating independent of the dimmer.
value [0...255]:	0, 1, 2, ..., 253, 254, 255	This is the adjustment of the 8 bit-value which shall be set. This parameter appears only if the function of the pushbutton input is set ON "pressing: send value (8bit)".

D Wiring diagram :



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-pushbutton-dimmer with feedback, version 2.0

Number of addresses: 20
 Number of assignments: 20

Object description:

Number	Name	Size	Function
Object 0	Actuator ON/OFF	1 bit	switching
Object 1	Actuator dimming	4 bit	dimming
Object 2	Actuator value setting	1 byte	setting
Object 3	Sensor ON/OFF	1 bit	switching
Object 4	Sensor dimming	4 bit	dimming
Object 5	Sensor value setting	1 byte	setting

The objects of the sensors are handled in a dynamic mode, this means the objects are being faded ON or OUT according to the respective parameter adjustment.

E Description of the component functions as they are pre-adjusted in the data base.

After receipt of a 1-telegram (object 0) the brightness jumps to that value which was set before the switch OFF function. A Status back indication would not be set.

The brightness can be dimmed via object 1 and 2 within a range of 20% and 100%. For this procedure the dimmer requires approx. 3,2 secs. If the dimmer is switched OFF the switch ON function applies if the command dimming brighter of object 1 as well as with a value of object 2 is switched ON. The pushbutton input of the dimmer is pre-adjusted for the 1-push-switch/dim function. At a short touch of the pushbutton (< 400 ms) switch commands are being send (object 3), while at a longer pressing of the pushbutton (> 400 ms) dimmer commands (object 4) are being sent.

At a voltage return the brightness goes to the same level as before the voltage failure and the pushbutton input is kept synchronous to this value.

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
ON/OFF		
Switch ON value	value before switching off 10%, 15%, ..., 90%, 95%, 100%	Determines the switch-ON value at the receipt of an ON-telegram.
Status indication	no sending of status indication sending of stat. Indicat. (1 x per grp.)	Determines if the value of the ON/OFF object during the switching operation shall be sent or not.
Output Actual Dimming Value	no feedback feedback (1 x per grp.)	Determines if Output Actual Dimming Value to object 2 shall be sent or not.
Reaction when bus power returns	illumination stays dark maximum brightness maximum brightness (key input synchronous) brightness as before bus power fail. brightness as before bus-power/fail (k.i.synch.)	In this case the dimmer state at a bus voltage return can be determined.
Dimming and set value		
Brightness-minimum\ (dim down to minimum)	0%(OFF), 10%, 15%, 20% , ..., 70%, 75%, 80%	With the brightness minimum the minimum brightness which shall be achieved during the dimming procedure is adjusted.
Brightness-maximum\ (dim up to maximum)	20%, 25%, 30%, ..., 90%, 95%, 100%	With the brightness maximum the maximum brightness which shall be achieved during the dimming procedure is adjusted.
Dim-ramp 0-100% (1-255 seconds)	1,2,3,4,5, , 253, 254, 255	The dimmer controls the brightness from 0% to 100% and reverse within the set time range.
At dimming bright/ set value	automatic switch on no automatic switch on	If from the OFF state the light level shall be dimmed brighter or a value shall be set, it can be determined if the dimmer shall be switched ON automatically or not.
After set value	jump to value between "min." and 100% dim to value between "min" and "max".	Determines if a brightness value shall be achieved immediately (jumped ON) or if it shall be achieved by dimming

F Key input

Key input function:

no function,
1-key switch/dim function,
short press: on,
long press: brighter
short press: off,
long press: darker
press: on, release: on
press: off, release: off
press: toggle
press: on release: off
press: off-release: on
press: send value (8 bit)
0, 1, 2, ..., 253, 254, **255**

This allows the selection of the function of the pushbutton input. The pushbutton input is free disposable, this means it can be used as an EIB-sensor operating independent of the dimmer.

value [0...255]:

This is the adjustment of the 8 bit-value which shall be set. This parameter appears only if the function of the pushbutton input is set ON
"pressing: send value (8bit)".

ALTODIM 1400-0

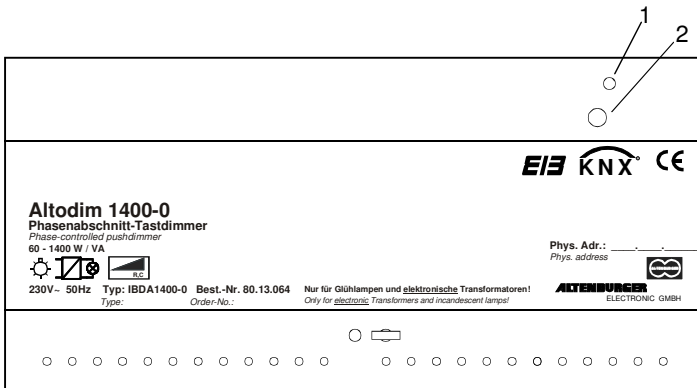
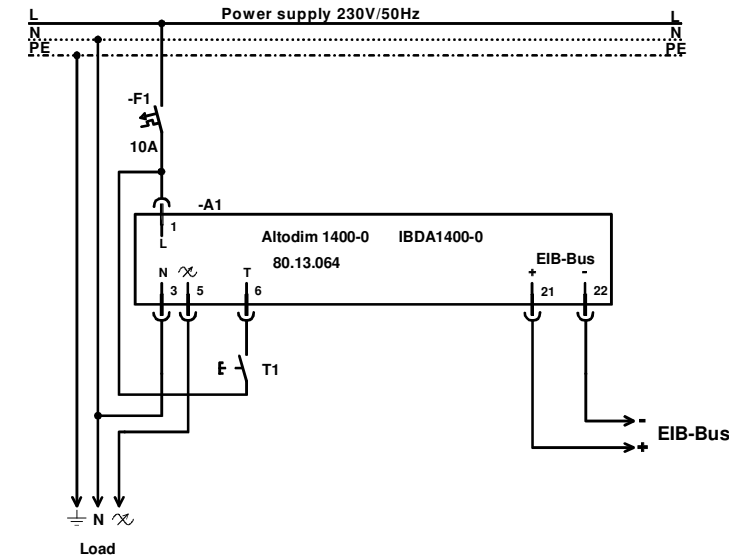
A	Characterization:	Phase-interval controlled pushdimmer ALTODIM 1400-0
	Type:	IBDA1400-0
	Order-No.:	80.13.064

B The ALTODIM 1400-0 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-interval control mode from 0 to maximum in its brightness. The device is suitable for incandescent lamps as well as low-voltage halogen lamps with electronic transformers with the load capacities between 60 and 1400 W/VA. Conventional, wire-wound transformers or inductive loads may not be connected. The load output has an electronic current limiting, a light level reduction in case of an exceeding of a limit temperature and a switch-OFF function at inadmissible high temperatures. As soon as the temperature is cooled down the ALTODIM switches ON again after the functional switch-OFF mode.

Additionally the component has a pushbutton input for pushbuttons (230 V ~). The input also can be used as an independent EIB-push-sensor. Several pushbuttons can be operated in parallel.

C	Technical data:		
	EIB supply		
	Voltage:	24V DC (+6V / -4V)	
	Input:	max. 230mW at 29VDC	
	External supply		
	Voltage:	230V~ / 50Hz, DC not permitted	
	Own consumption:	<2% of the connected load	
	Pushbutton input T		
	Voltage:	max. 250V~ (pushbutton for power supply)	
	Output		
	Load exit:	1400W/VA, 6,1A~ -electronic current limiting (starting current, overload/short-circuit current) -dimming to a lower level in case of the exceeding of a maximum temperature -switch-OFF function at a non-permissible high temperature -switching-ON again after the cooling down (functional switch OFF)	
	Minimum Load:	60W	
	Noise:	<25dB(A) at nominal load in a distance of 1 m	
	Wire length:	max. 100m for load and supply wires 1,5 mm ²	
	Terminals:	Screw contacts	- wire 0,2mm ² - 2,5mm ² - litz wire with sleeve 0,2mm ² - 2,5mm ²
	Dimensions:	WxHxD = 175x83,5x58mm	
	Weigth:	approx. 450g	
	Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
	Ambient temperature:	0°C to +45°C	
	Protective class:	II (Protective isolation)	
Protective type:	IP 20		
Test mark:	EIB / KNX, CE		

D Wiring diagram :



Control Components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-pushbutton-dimmer with feedback, version 2.0

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

F Parameter description

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

ALTODIM 600

A	Characterization:	Phase-controlled pushdimmer ALTODIM 600
	Type:	IBDA600
	Order-No. :	80.13.065

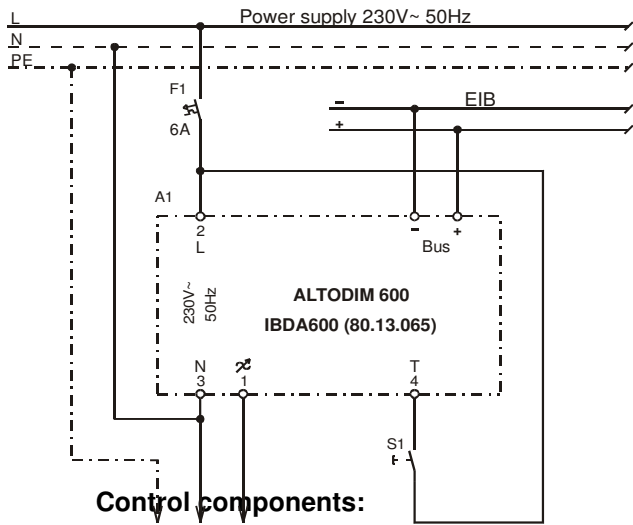
B Functional description:

The ALTODIM 600 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum in its brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 40 and 600 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature. Additionally the control has an input for normal pushbuttons component has a pushbutton input for pushbuttons (230 V ~). This input can be used as an independent EIB-push-sensor. Several pushbuttons can be operated in parallel.

C Technical data:

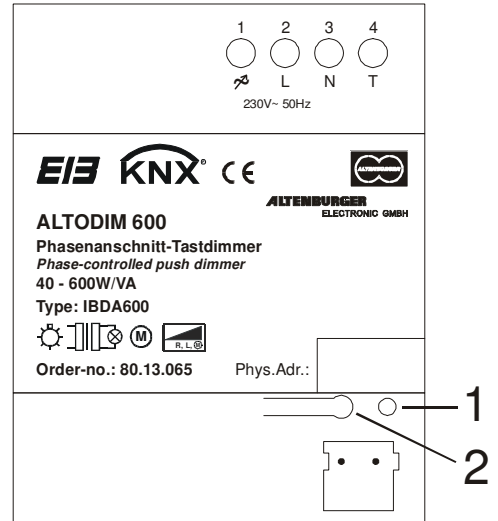
EIB supply		
Voltage:	24V DC (+6V / -4V)	
Input:	max. 230mW at 29VDC	
External supply		
Voltage:	230V~ 50Hz, DC not permitted	
Own consumption:	<1,5% of the connected load	
Pushbutton input T		
Voltage:	max. 250V~ (pushbutton for power supply)	
Output		
Load exit:	600W/VA, 2,6A~ -electronic current limiting when exceeding the maximum permissible temperature	
Minimum load:	40W	
Noise:	<30dB(A) at nominal load in a distance of 1 m	
Wire length:	max. 100m for load and supply wires 1,5 mm ²	
Terminals:	EIB via pressure contacts	
	Screw contacts - wire 0,2mm ² - 2,5mm ²	
		- litz wire with sleeve 0,2mm ² - 1,5mm ²
Dimensions:	WxHxD = 72x90x64mm	
Weight:	approx. 250g	
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)	
Protective type:	IP 20	
Test mark:	EIB / KNX, CE	

D Wiring diagram :



Control components:

- 1) LED_{bad} Programming LED
- 2) Pushbutton: Programming Pushbutton



E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-pushbutton-dimmer with feedback, version 2.0

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback,version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

F Parameter description

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback,version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

ALTODIM 1300

A	Characterization:	Phase-controlled pushdimmer ALTODIM 1300
	Type:	IBDA1300
	Order-No:	80.13.062

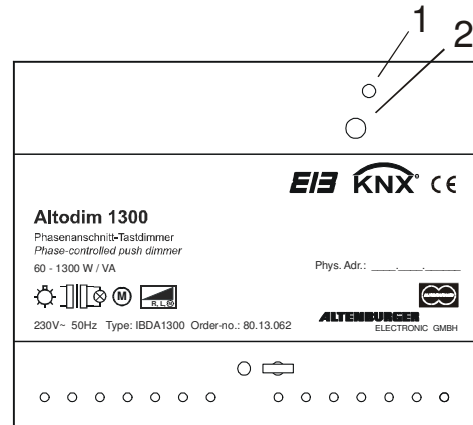
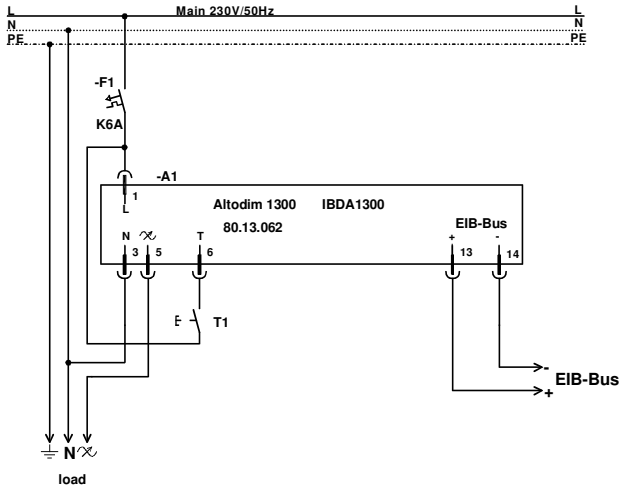
B Functional description:

The ALTODIM 1300 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum of the brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 60 and 1300 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature. Additionally the control has an input for common pushbuttons (230 V ~). This input can be used as an independent EIB-push-sensor. Several pushbuttons can be operated in parallel.

C Technical data:

EIB supply		
Voltage:	24V DC (+6V / -4V)	
Input:	max. 230mW at 29VDC	
External supply		
Voltage:	230V~ / 50Hz, DC not permitted	
Own consumption:	<1,5% of the connected load	
Pushbutton input T		
Voltage:	max. 250V~ (pushbutton for power supply)	
Output		
Load exit:	max. 1300W/VA 5,65A~ -electronic current limiting when exceeding the maximum permissible temperature	
Minimum load:	60W	
Noise:	<30dB(A) at nominal load in a distance of 1 m	
Cross section of a line	load and supply wires minimum 1,5mm ²	
Wire length:	max. 100 m for load and supply wires (1,5 mm ²)	
Terminals:	Srew contacts	- wire 0,5mm ² - 2,5mm ² - litz wire with sleeve 0,5mm ² - 2,5mm ²
Dimensions:	WxHxD = 105x83,5x58mm	
Weight:	approx. 380g	
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)	
Protective type:	IP 20	
Test mark:	EIB / KNX, CE	

D Wiring diagram :



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-pushbutton-dimmer with feedback, version 2.0

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

F Parameter description

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

ALTODIM 2000

A	Characterization:	Phase-controlled pushdimmer ALTODIM 2000
	Type:	IBDA2000
	Order-No. :	80.13.063

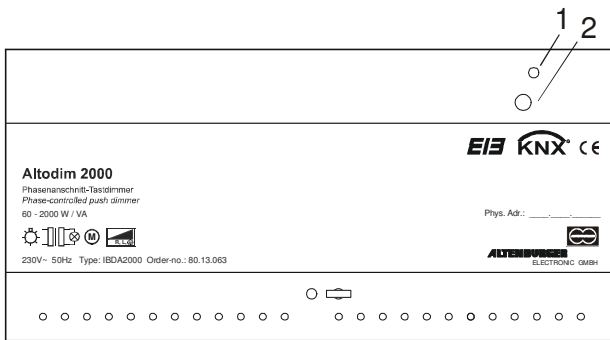
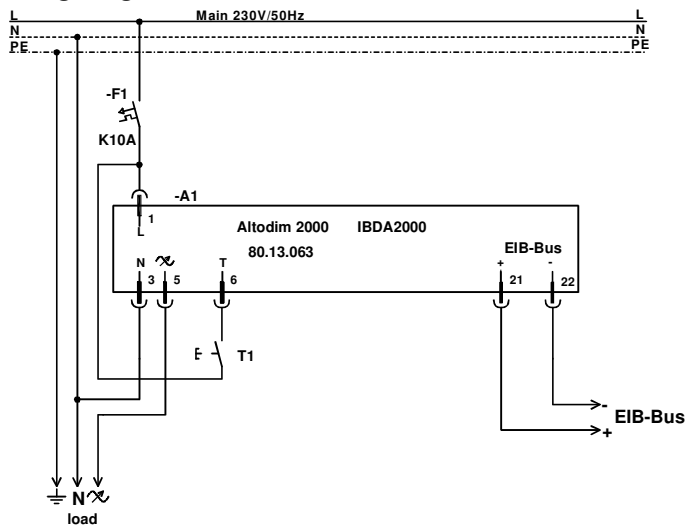
B Functional description:

The ALTODIM 2000 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum of the brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 60 and 2000 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature. Additionally the control has an input for common pushbuttons (230 V ~). This input can be used as an independent EIB-push-sensor. Several pushbuttons can be operated in parallel.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Input:	max. 230mW at 29VDC
External supply	
Voltage:	230V~ / 50Hz, DC not permitted
Own consumption:	<1,5% of the connected load
Pushbutton input T	
Voltage:	max. 250V~ (pushbutton for power supply)
Output	
Load exit:	max. 2000W/VA, 8,7A~ -electronic current limiting when exceeding the maximum permissible temperature
Minimum load:	60W
Noise:	<30dB(A) at nominal load in a distance of 1 m
Cross Section of a line:	load and supply wires minimum 1,5mm ²
Wire length:	max. 100m for load and supply wires (1,5 mm ²)
Terminals:	Screw contacts - wire 0,5mm ² - 2,5mm ² - litz wire with sleeve 0,5mm ² - 2,5mm ²
Dimensions:	WxHxD = 175x83,5x58mm
Weight:	approx. 500g
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB / KNX, CE

D Wiring diagram :



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton

E

ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-pushbutton-dimmer with feedback, version 2.0

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

F

Parameter description

The devices ALTODIM 600-0, 1400-0, 600, 1300, 2000 are working with the application 1-pushbutton-dimmer with feedback, version 2.0. See ALTODIM 600-0 (chapter 3.1.2)

DIM-JALOUSIE-SENSOR

A	Characterization:	Dim-Jalousie-Sensor
	Type:	IBDIMJAL
	Order-No. :	80.14.230

B Functional description:

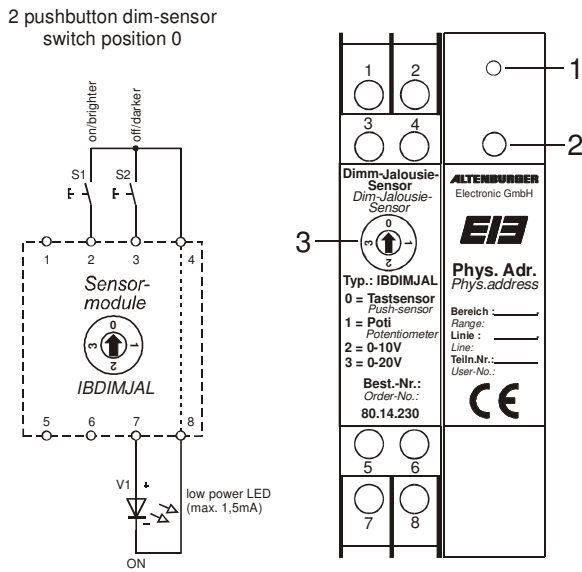
The Dim-Jalousie-Sensor is a plug-in module for DIN rail cabinets. It realizes different sensor functions. Through the loading of different applications this device is suitable for the acquisition of analogue voltages (0-10V/0-20V), of 2-pushbutton-/3-pushbutton- or potentiometer-dim-sensor, and finally it can be used as jalousie- or scene selection sensor (for ALTENBURGER ELECTRONICS Programmable lighting control systems).

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input	
	Voltage free pushbutton
	Potentiometer 22k Ω
Voltage:	0-10V; 0-20V / just protective extra low-voltage
Current:	max 100 μ A
Output	
LED:	for low-power LED max. 1,5mA
Wire length:	max. 100m for control wire 0,5mm ² ¹⁾
Terminals:	EIB via pressure contacts at the data rail
	Screw terminals max.
	- wire 2x2,5mm ²
	- litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 36x90x61mm
Weight:	approx. 190gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V (protective extra low-voltage).

D Wiring diagram 2-pushbutton dim-sensor:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton
- 3) Switch: Selector switch

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 2-pushbutton-dim (from 8.93 on), version 1.2

Number of addresses: 9
 Number of assignments: 9

Object description:

Number	Name	Size	Function
Object 0	ON/OFF	1 bit	ON/OFF
Object 1	dimming	4 bit	dimming

Description of the component functions as they are pre-adjusted in the data base:

The dim-jalousie sensor, loaded with the application of the 2-push-dim sensor operates in combination with 2 pushbuttons. With the 2 connected pushbuttons the following functions can be realized. The selector switch at the control must be set into the position 0 for the following applications.

Pushbutton ON/BRIGHTER: through a short pressing of the button (<400ms) an ON telegram (object 0) is being sent. At a longer push (>400 ms) a BRIGHTER telegram (object 1) is sent. When releasing the button a STOP telegram is sent (object 1). This means that the respective lighting level is maintained when the button is released.

Pushbutton OFF/DARKER: through a short pressing of the button (<400ms) an OFF telegram (object 0) is being sent. At a longer push (>400 ms) a DARKER telegram (object 1) is sent. When releasing the button a STOP telegram is sent (object 1).

LED-Output: Through a short pressing of the respective pushbutton the LED can be switched ON or OFF. The output also can be switched with telegrams of object 0.

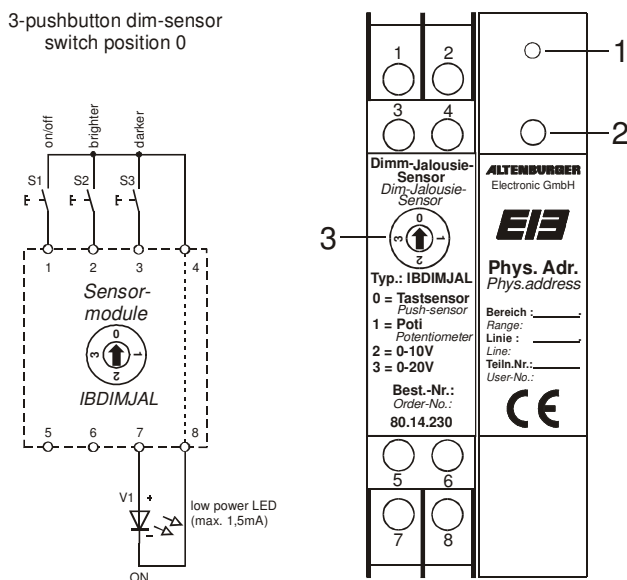
F Parametrizing:

Parameter name: Parameter adjustment: Parameter description:

Telegramrate

Telegram rate limitation (only at "full access" this parameter can be adjusted)	30 Telegrams per 17 secs. 60 Telegrams per 17 secs. 100 Telegrams per 17 secs. 127 Telegrams per 17 secs.	Limited through the number of telegrams being sent within 17 secs.
--	---	--

D Wiring diagram 3-pushbutton dim-sensor:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton
- 3) Switch: Selector switch

E ETS-Search path:

Product family: Lighting
Product type: Dimmer

Characterization: 3-push-dim (from 8.93 on), version 1.2

Number of addresses: 10
Number of assignments: 10

Object description:

Number	Name	Size	Function
Object 0	ON/OFF	1 bit	ON/OFF
Object 1	dimming	4 bit	dimming

E Description of the component functions as they are pre-adjusted in the data base:

The dim-jalousie sensor, loaded with the application of the 3-push-dim sensor operates in combination with 3 pushbuttons. With the 3 connected pushbuttons the following functions can be realized. The selector switch at the control must be placed into the position 0 for the following applications.

Pushbutton ON/OFF: through pressing the button an ON telegram (object 0) is being sent. At repeated pressing the button an OFF telegram (object 0) is sent.

Pushbutton BRIGHTER: through pressing the button a BRIGHTER telegram (object 1) is being sent. When releasing the button a STOP telegram is sent (object 1).

Pushbutton DARKER: through pressing the button a DARKER telegram is sent (object 1). When releasing the button a STOP telegram is sent (object 1).

LED-Output: Through pressing the ON/OFF button the LED can be switched ON or OFF. The output also can be switched with telegrams of object 0.

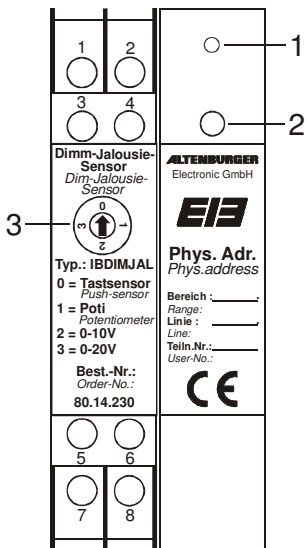
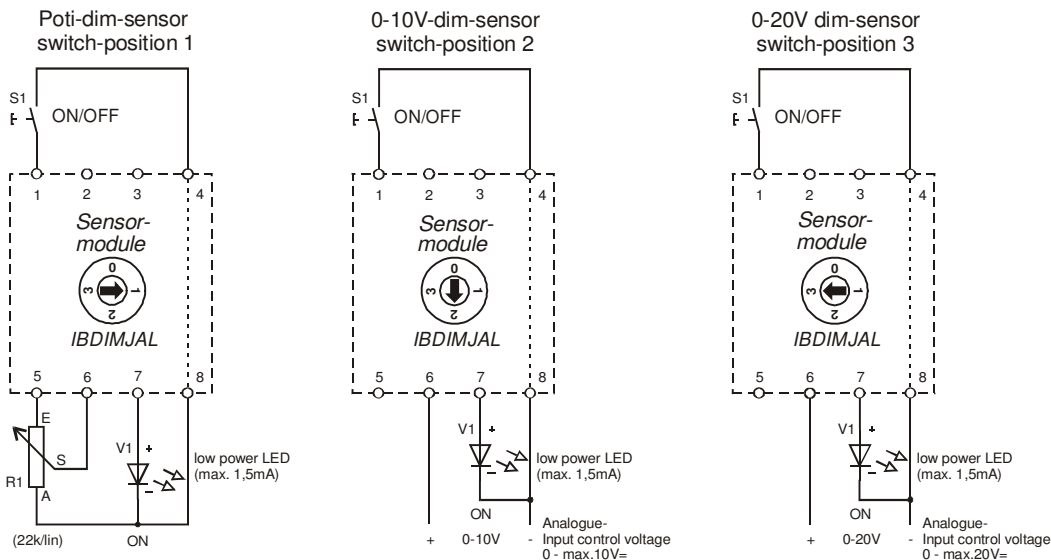
F **Parametrizing:**

Parameter name:	Parameter adjustment:	Parameter description:
------------------------	------------------------------	-------------------------------

Telegramrate

Telegram rate limitation (only at "full access" this parameter can be adjusted)	30 Telegrams per 17 secs. 60 Telegrams per 17 secs. 100 Telegrams per 17 secs. 127 Telegrams per 17 secs.	Limited through the number of telegrams being sent within 17 secs.
--	---	--

D Wiring diagram potentiometer dim-sensor:



Control components:

- 1) LED: Programmig-LED
- 2) Pushbutton: Programmig Pushbutton
- 3) Switch: Selector switch

E ETS-Search path:

Product family: Lighting
Product type: Dimmer

Characterization: potentiometer-dim-sensor, version 1.3

Number of addresses: 4
Number of assignments: 4

Object description:

Number	Name	Size	Function
Object 0	ON/OFF	1 bit	ON/OFF
Object 1	dimming (absolute value)	1 byte	dimming (absolute value)

E

Description of the component functions as they are pre-adjusted in the data base:

The dim-jalousie sensor, loaded with the application of the poti-dim-sensor operates in combination with 1 pushbutton and 1 potentiometer or in combination with a voltage of 0-10V or 0-20V. With this application the following functions can be realized. The selector switch in the control must be adjusted according to the functions.

Pushbutton ON/OFF: through pressing the button an ON telegram (object 0) is being sent. At repeated pressing the button an OFF telegram (object 0) is sent. In the switch-ON state the input for the potentiometer or the voltage is released.

Potentiometer: through turning or sliding of the potentiometer respective value telegrams (object 1) are being sent. The selector switch has to be placed into position 1 for this application.

Voltage 0-10V: Through the control of the voltage corresponding value telegrams (object 1) are being sent. The selector switch for this application must be placed into position 2.

Voltage 0-20V: Through the control of the voltage corresponding value telegrams (object 1) are being sent. The selector switch for this application must be placed into position 3.

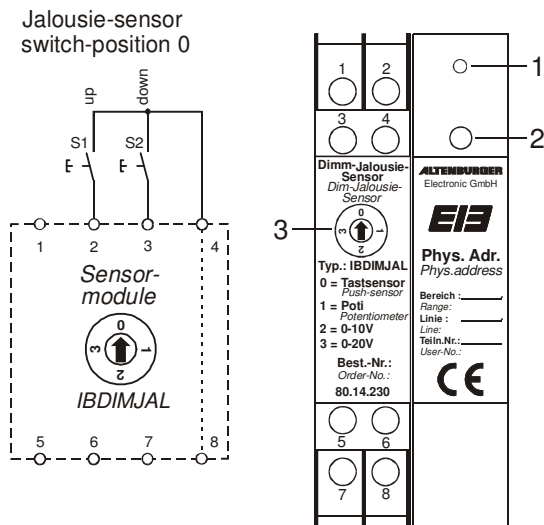
LED-Output: Through pressing the ON/OFF button the LED can be switched ON or OFF. The output also can be switched through telegrams of object 0.

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description
ON/OFF (enable analog-input)		
Dimm enable at Poweron	Object 0 = 1 (value send enabled) Object 0 = 0 (value send not enabled) enable as befor bus-power-fail	About this Parameter can be fixed if after Poweron a Telegram of the Objekt 0 to dimm enable of the analog input will be send shall or not. It can however immediately after the bus-power-fail only after a delay time of 17 seconds with the potentiometer or ext. input voltages dimmed are.
Analog Input (absolute value)		
Potentiometer-sensitivity	level 1 (min.-sensitivity) level 2, level 3, level 4, level 5 level 6 , level 7 (max.-sensitivity)	Adjusts the sensitivity of the potentiometer changing or the voltage changing. If telegrams already at small changings shall be sent to the bus, step 7 has to be adjusted.

D Wiring diagram jalousie-sensor:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton
- 3) Switch: Selector switch

E ETS-Search path:

Product family: Jalousie
 Product type: Sensors

Characterization: jalousie-sensor, version 1.0

Number of addresses: 8
 Number of assignments: 8

Object description:

Number	Name	Size	Function
Object 0	Jalousie UP/DOWN (ON/OFF)	1 bit	Jalousie UP/DOWN (ON/OFF)
Object 1	venetian blind UP/DOWN (ON/OFF)	1 bit	venetian blind UP/DOWN (ON/OFF)

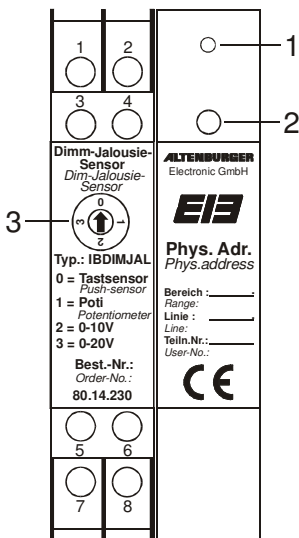
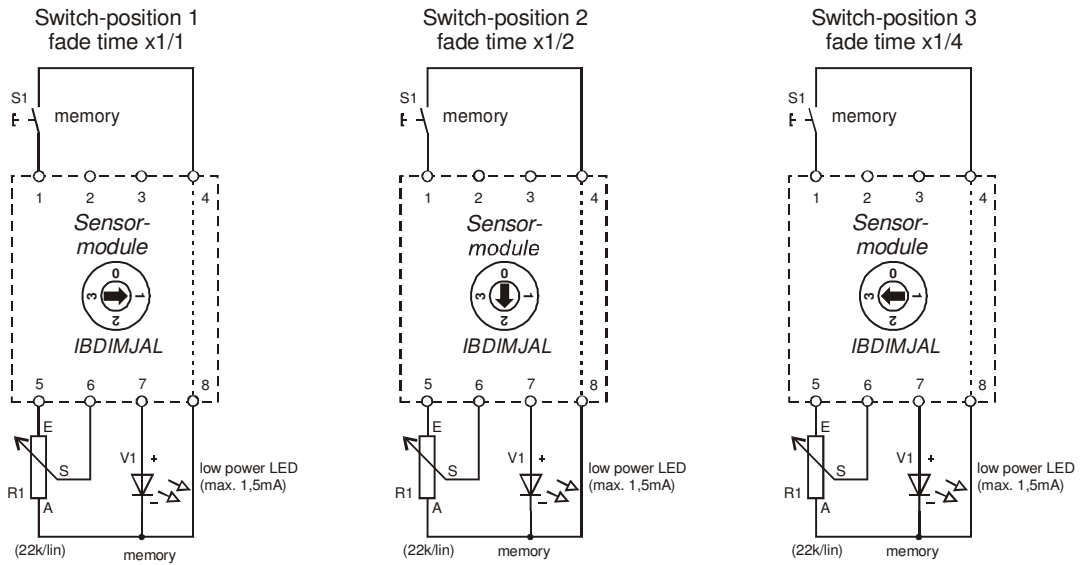
Description of the component functions as they are pre-adjusted in the data base:

The dim-jalousie sensor, loaded with the application of jalousie-sensors operates in combination with 2 pushbuttons. With this application the following functions can be realized. The selector switch at the control must be placed for this application into position 0.

- Pushbutton UP: through a short pressing of the button (<400 ms) a venetian blind ON telegram (object 1) is sent. When pressing the button longer (>400ms) a jalousie UP telegram (object 0) is sent.
- Pushbutton DOWN: through a short pressing of the button (<400 ms) a venetian blind OFF telegram (object 1) is sent. When pressing the button longer (>400 ms) a jalousie DOWN (object 0) is sent.

F Parametrizing:		
Parameter name:	Parameter adjustment:	Parameter description:
Lamination open/close		
Short PB-press timefactor (2-127)	2; 3 ; 4; ...;126; 127	The pushbutton short time factor multiplied with the time basis results in the time at which the pressure on the pushbutton is evaluated as a long range actuation.
* Timebase	130ms ; 260ms; 520ms; 1s; 2,1s; 4,2s; 8,4s; 17s; 34s; 1,1min; 2,2min; 4,5min; 9min; 18min; 35min; 1,2std	The time basis multiplied with the pushbutton short time factor results in the time at which a pressure on the pushbutton is evaluated as short actuation.
Jalousie up/down		
Sendrepetition up/down	disable ; enable	A cyclic transmission of the UP or DOWN command can be released or locked.
Sendrepetition timefactor (2-127)	2; 3; 4; ...; 9; 10 ; 11; ...; 126; 127	The transmission retry factor multiplied with the time basis results in the time between 2 telegrams in case of a transmission retry.
Timebase	130 ms; 260 ms; 520 ms; 1 seconds; 2,1 seconds; 4,2 seconds; 8,4 seconds; 17 seconds; 34 seconds; 1,1 minutes ; 2,2 minutes; 4,5 minutes; 9 minutes; 18 minutes; 35 minutes; 1,2 hours	The transmission retry factor multiplied with the time basis results in the time between 2 telegrams in case of a transmission retry.

D Wiring diagram of a scene memory sensor:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton
- 3) Switch: Selector switch

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: Scene memory (AE), version 1.0

Number of addresses: 9
 Number of assignments: 9

Object description:

Number	Name	Size	Function
Object 0	fade time/memory	2 byte	fade time/memory

E

Description of the component functions as they are pre-adjusted in the data base:

The dim-jalousie sensor, loaded with the application of the scene-memory-sensor operates in combination with 1 pushbutton and 1 potentiometer (optional). With this application different scenes within the ALTENBURGER ELECTRONIC's Programmable Dimming control system can be stored.

Pushbutton storage: through pressing this button the storage telegram (2 byte) including the fade time 16 secs. is sent to the bus. The parametrized maximum fade time can be adjusted with the selector switch at the dim-jalousie-sensor and with the connected potentiometer.

- Selector switch-position 1: fade time x 1/1 ⇒ 16s
- Selector switch-position 2: fade time x 1/2 ⇒ 8s
- Selector switch-position 3: fade time x 1/4 ⇒ 4s

Potentiometer (optional): the fade time, pre-selected with the selector switch can be reduced with the potentiometer down to 0 secs. If no potentiometer is connected a bridge between terminals 5 and 6 has to be provided for.

LED-Output: if the sent telegram is acknowledged by a minimum of 1 bus device the LED blinks for 2,5 secs.

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
Fadetime/Store		
maximal fadetime	0; 1; ...; 16 ; ...;9998; 9999	Determines the maximum fade time to be adjusted with the elector switch. It can be further reduced through the connected potentiometer (optional). The fade time is included in the telegram storage.
Telegramrate		
Telegram rate limitation (this parameter can be adjusted only at "full access")	30 Telegrams within 17 secs. 60 Telegrams within 17 secs. 100 Telegrams within 17 secs. 127 Telegrams within 17 secs.	Limits the number of telegrams which can be sent within 17 secs.

SENSOR FOR 3-CHANNEL-LIGHT VALUE CONTROL SWITCH

A Characterization: **Sensor for 3-channel-light value control switch**
Type: **IBLWS3**
Order-No. : **80.14.016**

Applicable light sensors:

Wall-mounted type/IP 40	Type: LF/a/D	51.21.007
Wall-mounted type, water tight/IP55	Type: LF/b/D	51.21.008
Wall-recessed type for wall-recessed DIN-box (55mm)/IP 40	Type: LF/c/D	51.21.009
Wall-mounted type, water tight with swiveling angle/IP55	Type: LF/w/D	51.21.010
Wall-recessed type for 1-hole mounting/IP 40	Type: LF/d/D	51.21.011

B Functional description:

The sensor for 3-channel light value control switches is a plug-in module for DIN rail cabinets. It is in a position to send switch telegrams in dependence of the daylight to the EIB.

The switch values can be adjusted for each channel separately at each device. With the parameters it is possible to decide if the switch telegram shall be sent once or cyclic, or after an exceeding or the remaining under the adjusted threshold value.

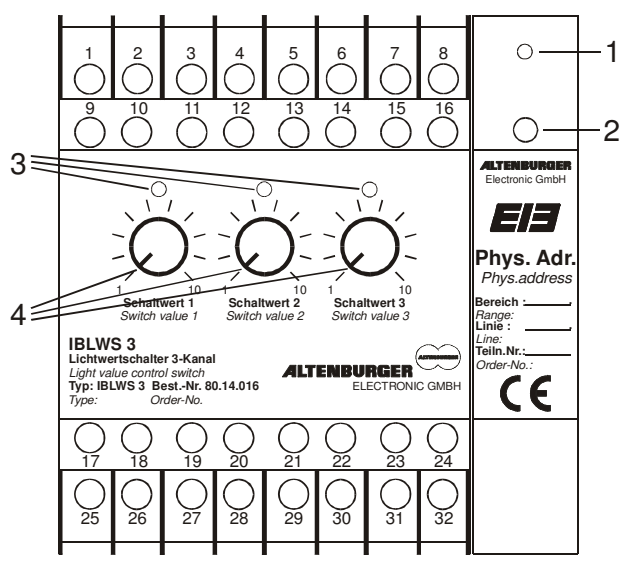
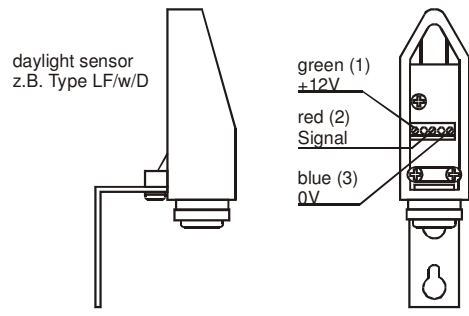
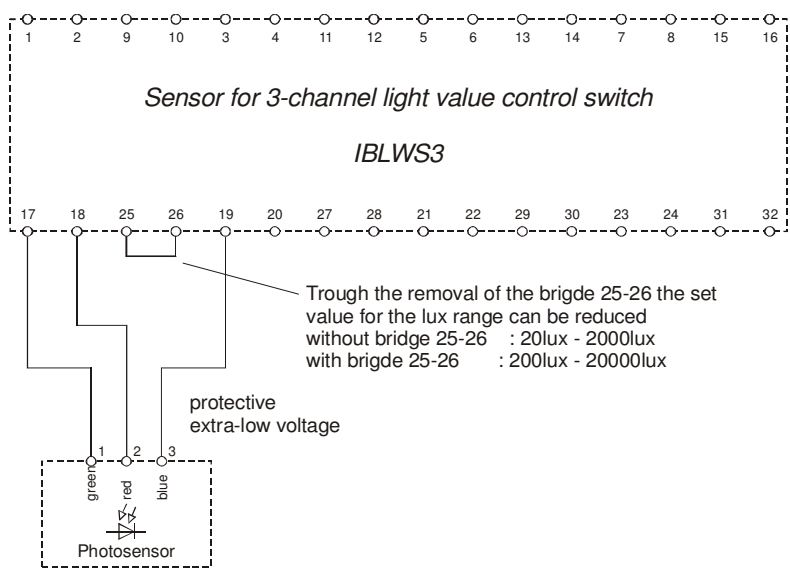
Interference effects can be limited through a delay time setting which is possible for each individual channel.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input	
Light sensor:	applicable types: please refer to A
Operational range:	20-2000lux, 200-20000 lux
Wire length:	max. 100m for the control wire 0,5mm ² ¹⁾
Terminals:	EIB via pressure contacts on data rail
	Screw contacts max.
	- solid wire 2x2,5mm ²
	- litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 90x90x61mm
Weight:	approx. 330gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V (protective extra low-voltage).

D Wiring diagram:



- Control components:**
- 1) LED: Programming-LED
 - 2) Pushbutton: Programming Pushbutton
 - 3) 3 LED: Display of the switch state
 - 4) 3 Potentiometer: Light value switch adjustment

E ETS-Search path:

Product family: Lighting
 Product type: Special devices

Characterization: 3-light value control switch, version 1.1

Number of addresses: 3
 Number of assignments: 3

Object description:

Number	Name	Size	Function
Object 0	Channel 1	1 bit	Channel 1
Object 1	Channel 2	1 bit	Channel 2
Object 2	Channel 3	1 bit	Channel 3

E Description of the component functions as they are pre-adjusted in the data base:

As soon as the daylight value falls below a switch value 1 which is adjusted with a potentiometer the respective LED (ascending slope) lights up. After the adjusted delay time of 10 min. the light value sensor transmits on channel 1 (object 0) an ON-value.

If the daylight value exceeds the adjusted switch value 1 the corresponding LED goes out (falling slope). After the adjusted delay time of 10 min. the sensor sends on channel 1 (object 0) and OFF value. Channel 2 and channel 3 have the same behaviour as described for channel 1.

F Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
All channels concerning		
Common delay-time-base	0,1 seconds 1 second 10 seconds 1 minute	Determines the delay time of all 3 channels. Delay time = delay time basis x delay time factor.
Telegram rate (this parameter can be adjusted only at "full access")	30 Telegrams per 17 secs. 60 Telegrams per 17 secs. 100 Telegrams per 17 secs. 127 telegrams per 17 secs.	Limits the number of telegrams which are being sent within 17 secs.
Channel X		
the following parameters are individually adjustable for all 3 channels		
Switching mode channel X	LED lights up: on, LED lights up: off LED lights off: on, LED lights off: off LED lights up: on, LED lights off: off LED lights up: off, LED lights off: on no function	Determines which switch command shall be sent after the delay time to the bus. Ascending slope: daylight falls below the switch value, LED lights up Falling slope: daylight exceeds the switch value, LED goes out
Delay time-factor Channel X	3, 4, 5, 6, 7, 8, 9, 10 , 11, ..., 253, 254, 255	Determines the delay time of channel X Delay time channel x = delay time basis x delay time factor channel X
Cyclic sending of channel X	single-trip action after LED changes cyclic sending	Determines if the switch command is sent once or cyclic after the switch threshold has been exceeded or fallen short. If a cyclical sending occurs the cycle time is identical with the delay time.

Personal notes:

MULTI-SENSOR-DIMMER EIB-KNX

A	Characterization:	Multi-sensor-dimmer EIB-KNX
	Type:	IBMSD
	Order-No.:	80.14.800

B Functional description:

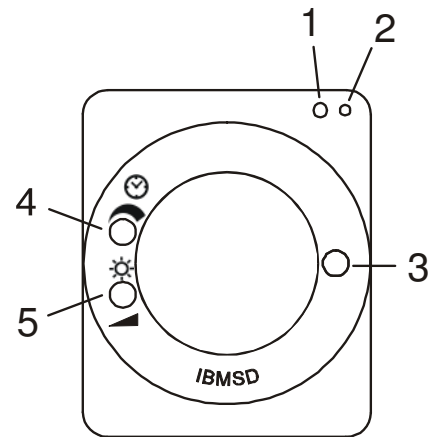
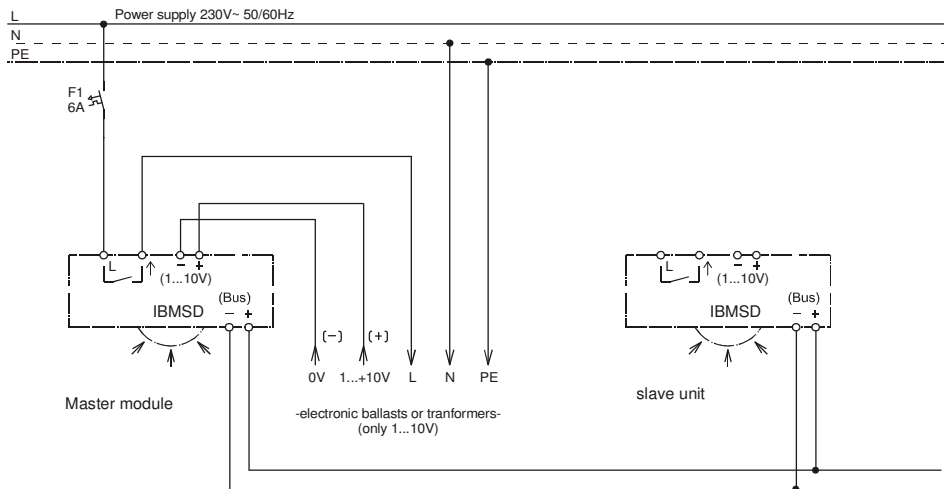
The Multi-sensor dimmer EIB-KNX is a motion detector, combined with constant light control, adjusting the artificial light smoothly to the daylight portion. As soon as motion is detected lighting goes into the preset light level to be kept constant. Only so much artificial light is added to the daylight portion as it is necessary for the achievement of the set light level. As soon as no motion is detected lighting is reduced within a presettable time range of 1-30min. to a level of 1% of maximum light and finally is switched off. With integrated 1..10V control outlet dimmable electronic ballasts for fluorescent lamps or electronic transformers, both with an interface of 1-10V can be controlled. The EIB-KNX is wired to power supply (phase for the switch contact), and its interface of 1-10V to the EIB-bus. The switch contact can directly be used for the load (electronic ballast or transformer) up to 6A.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Input:	< 250mW at 29VDC
Adjustable light level range:	approx. 25...750 Lux (directly at the EIB-KNX, equivalent to approx. 50..1500 lux at the workplace)
Acquisition angle:	approx. 100° (light and motion sensor)
Mounting height:	2,5 – 3m
Load connections:	switch contact input (↑), switch contact output (↓)
Control exits:	+, - (1...10V of the electronic ballasts or the transformers) Base isolation according to IEC664 (10/92), no protective low voltage
Capacity of the control exit:	50mA (passive coming from the electronic ballasts), equivalent approx. 50 electronic ballasts or transformers -please refer to manufacturer's data
Load contact:	function switching ON/OFF, no mechanical disconnection (μ-contact opening)
Minimum loads:	
5A ohmique load ⇒	30 single dimmable ballasts* 18W, 20 twin ballasts* for 2 x 18W 30 single dimmable ballasts* 36W, 20 twin ballasts* for 2 x 36W 20 single dimmable ballasts* 58W, 10 twin ballasts* for 2 x 58W
MCB:	external 6A
Wire lengths :	max. 100m for control wires (0,5mm ²), load and supply wires (1,5mm ²)
Terminals:	Screw contacts
	- solid wire 0,3mm ² - 1,5mm ²
	- litz wire with sleeve 0,3mm ² - 1,5mm ²
Dimensions:	WxHxD = 58,5 x 70,5 x 42mm
Weight:	approx. 100g
Mounting:	plastic housing for mounting on ceilings or into louvres of lamp fixtures
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB / KNX, CE

* Number of electronic ballasts with 15m and 1,5mm² wiring from the distribution to the EIB-KNX and further 20m to the midst of the lamp circuit (impedance approx. 800mΩ). Wiring with higher cross sections for shorter distances would reduce the permissible load (e.g. at an impedance of 400mΩ by 20%).

D Wiring diagram :



Control components:

- 1) Programmable pushbutton
- 2) Programming-LED
- 3) Light sensing
- 4) Potentiometer for the delay time setting
- 5) Pushbutton for the setting of the required constant light level

E ETS-Search path:

Product family: Lighting
 Product type: Special components

Characterization: IBMSD, Version 1.1

Number of addresses: 30
 Number of assignments: 30

Object description:

Number	Name	Size	Function
Object 0	Lighting ON/OFF	1 bit	switching
Object 1	Lighting dimming	4 bit	dimming
Object 2	Lighting value setting	1 byte	set value
Object 3	Setpoint room brightness	1 byte	setpoint pretend
Object 4	Setpoint storage	1 bit	setpoint storage
Object 5	Control active	1 bit	activate/deactivate of control
Object 6	Movement	1 bit	triggering movement
Object 7	Movement lighting	1 bit	motion dependence ON/OFF
Object 8	HVAC ON/OFF	1 bit	switching
Object 9	Movement HVAC	1 bit	motion dependence HVAC

E

Descriptions of the component functions as they are pre-adjusted in the database:

After receipt of a ON/OFF-telegram (Object 0) the lighting directly can be switched ON or OFF. The brightness can be dimmed via the objects 1 and 2. The light level for the constant light control can be set directly via the object 3. It can be adjusted within a range of 1...255 (approx. 3...765 lux). According to the status of object 5 the set light level for the constant light control or the switch ON value can be memorized (Object 4). For the extension of the range of detection several EIB-KNX can be combined via the trigger object (Object 6) to one group. Via the object 7 the lighting control can be switched with motion detection or without motion detection.

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
ON/OFF		
Switch ON value	setting to the ETS switch ON value no changing at download	Determines if the possibly manually stored switch ON value at the downloading is kept or if it shall be replaced by the ETS-value
ETS switch ON value	10%, 15%, 20%.....90%, 95%, 100%	Enables the adjustment of the IBMSD / IBMSC-NV after bus-voltage failure or return.
Reaction if bus-voltage fails or returns	switches OFF / remains OFF relay unchanged / switches ON	Determines if during the switching status back indication shall be sent to the bus.
Status indication	switches OFF / switches ON no sending of status indication sending of status indication	
Dimming and set value		
Maximum output [5...255]	5,6,7,.....253,254, 255	Adjustment of the maximum brightness which shall be achieved.
Minimum output [0...250]	0 ,1,2,.....248,249,250	Adjustment of the minimum brightness which shall be achieved.
Speed of the dimmer process (0..100%) [in seconds]	1,2,3,4,5,6,7, 8 ,9,....253, 254, 255	Speed of the dimmer process during the dimming with object no.1 for the complete dimming range.
fade time with value setting 0-100% (input value x 4 [in seconds])	0,1, 2 ,3,.....253,254,255	Speed of the fade time to a value with object no.2 for the complete dimmer range.
read out value to the bus	no sending of status indication sending of status indication	To be adjusted if the control shall be switched OFF after the achievement during the dimming process.
at minimum	switching OFF not switching OFF	To be adjusted if the module shall switch OFF after the achievement of the brightness minimum during the dimming process.

F Lighting control

After bus-voltage return	lighting status as before the bus-voltage failure lighting control active lighting status ON/OFF active	To be adjusted if the module after a bus-voltage failure or after no movement was recognized shall work in the automatic mode or in the ON/OFF mode.
Light dependent switch off delay time [in minutes]	1,2,3,...8,9, 10 ,11,...253,254,255	Time unless switch off after the lighting control has achieved the minimum.
Speed of control (0-100%) (input value x 4 [in seconds])	10,11,12,...21, 22 ,23,...,253,254,255	Speed at which daylight changes shall be compensated by the artificial lighting.
Room brightness in the control mode	to be set on ETS-room brightness value not to be changed during the download	Determines if the possibly manually stored set value shall be maintained during the downloading or if it shall be changed through the ETS value.
ETS setpoint [1...254]	1,2,3,4,5,6,7.....251,252,253, 254	

Pusbutton at the module

Function set button	enable disable	To set button at the module can be set out of function.
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Lighting & movement

Switch OFF delay time [minutes]	1,2,3,4,...8,9, 10 ,11,...,253,254,255	Time unless final switch OFF after the lighting has been dimmed down within a set delay time to minimum.
Presence dependence after bus-voltage recovery	as before bus-voltage failure active inactive	Determines if the lighting control after a bus-voltage failure shall work in dependence of motion detection or not.

Heating, ventilation, air conditioning & Movement

Presence dependence after bus-voltage recovery	as before bus-voltage failure active	Determines if aircon, heating, ventilation control shall work after a bus-voltage failure in dependence of motion or not.
HVAC ON delay time	in seconds in minutes	Determines if the adjustable switch ON delay time shall be in seconds or in minutes.

F	HVAC ON delay time [0-255 seconds]	0,1,2,3,.....9, 10 ,11,.....253,254,255	Determines how long motion shall be detected unless aircon, heating or ventilation shall be switch on.
	[0-30 minutes]	0,1,2,3,.....8,9, 10 ,11,12.....28,29,30	
	HVAC recovery time [2-220 minutes]	2,3,4,.....8,9, 10 ,11.....253,254,255	Determines the time unless an OFF telegram shall be sent after no motion is recognized.
Sensitivity presence sensor			
	Sensitivity presence detection	high sensitivity mean sensitivity (standard) reduced sensitivity	The sensitivity of the motion sensoric can be adjusted in 3 steps.
	Motion impulse range during retriggering [minimum x times 12ms]	1,2,3... 5 ,6.....253,254,255	Determines the minimum time range for a moving impulse before a following movement shall activate the detection (lighting is already switched ON).
	Motion impulse time range at new movement [minimum x times 12ms]	1,2,3,.....13, 14 ,15.....253,254,255	Determines the minimum time range for a moving impulse before a following movement shall activate the detection. (follow-up time was already running down).
	Fade out of disturbance after relais switch OFF [x 12ms]	1,2,3,..... 40 ,41.....253,254,255	During the set time range no movement will be recognized by the sensor after the internal relay switched OFF.

Personal notes:

INPUT-/OUTPUT-MODULE 1-CHANNEL

A	Characterization:	Input-/Output-Module 1-channel
	Type:	IB1DEDA
	Order-No. :	80.14.021

B Functional description:

The input-/output-module is a plug-in module for DIN rail cabinets. It realizes a binary input and output in one module. Input and output are connected to each other (not individually addressable). The slope of the input can be configured. It is switched with a voltage-free pushbutton.

As an output a relay with voltage free normally open and normally closed contact as well as an LED control is available.

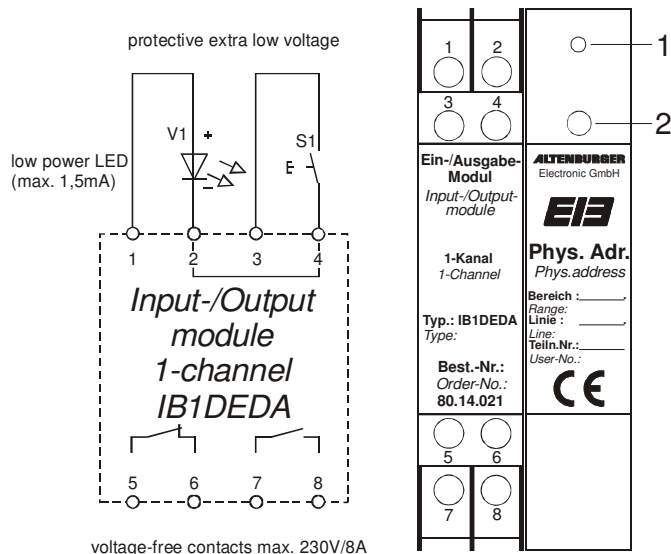
The output can be linkaged with two logic channels. If a linkage was selected, the output of the device can only be switched if also the logic linkage was made. If a push-operation at the input was made, the command goes in dependence of the slope direct to the bus.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input	Voltage-free pushbutton, switch, contact ¹⁾
Output	
Relay:	1 voltage-free normally closed contact 1 voltage-free normally open contact
Nominal voltage:	250V AC
Nominal current:	8A (ohmique load)
LED:	for low-power LED max. 1,5mA ¹⁾
Wire length:	max. 100m for control wire 0,5mm ² , load wire 1,5mm ²
Terminals:	EIB via pressure contacts on data rail Screw contacts max. - solid wire 2x2,5mm ² - litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 36x90x61mm
Weight:	approx. 190gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V (protective extra low-voltage).

D Wiring diagram:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: ON/OFF modules
Product type: binary/binary

Characterization: ON/OFF+ Log. 1-channel, version 1.2

Number of addresses: 9
Number of assignments: 9

Object description:

Number	Name	Size	Function
Object 0	channel/-input behaviour	1 bit	channel/-input behaviour
Object 1	logic channel A	1 bit	logic channel A
Object 2	logic channel B	1 bit	logic channel B

Description of the component functions as they are pre-adjusted in the data base:

The input-/output module 1-channel operates in its base adjustment in the toggle mode. Through short circuiting of the input (e.g. through pressing of a pushbutton or closing of a contact) an ascending slope occurs. If during the adjusted debounce time of 10 ms the state of the input is not changed a telegram is sent, and the output relay as well as the LED output is activated. When opening the input (e.g. through releasing of the pushbutton or opening of the contact) a falling slope occurs. This slope is not considered at this parameter adjustment.

Through a repeated short circuiting of the input again an ascending slope occurs. If during the debouncing time the state of the input is not changed, in this case an OFF-telegram would be sent. The output relay opens and the LED output is no longer controlled.

At the respective short circuiting of the input consequently the output always is changed over. The logic channel has no influence on the output. At a power fail the channel remains unchanged.

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
Channel		
Debounce time = value x 0,5 ms	0, 1, 2, ...,19, 20 , 21, ..., 253, 254, 255	In order to be able to evaluate a slope alteration the input in the adjusted debounce time may not be changed. Debounce time = adjustment x 0,5 ms.
Switching mode channel	rising: on rising: off rising: toggle falling: on falling: off falling: toggle rising: on, falling: off rising. off, falling: on rising: toggle, falling: toggle no function	Determines at which slope an ON or OFF telegram shall be sent. At the adjustment TOGGLE alternating an ON-and OFF telegram would be sent at the adjusted slope.
Logic connection	no logic connection Channel.AND.LogA Channel.AND.LogB Channel.AND.LogA.AND.LogB Channel.AND.(LogA.OR.LogB)	Determines if and how the output shall be linked with the logic channels
At power fail	Channel switches off Channel switches on no change	With this parameter the reaction of the component output at a power fail will be adjusted.
Logic channel A		
At power fail	Logic channel A switches off Logic channel A switches on Logic channel A does not change	Adjustment of the reaction of the logic channel A at a power fail.
Logic channel B		
At power fail	Logic channel B switches off Logic channel B switches on Logic channel B does not change	Adjustment of the reaction of the logic channel B at a power fail.

Personal notes:

INPUT-/OUTPUT-MODULE 2-CHANNELS

A	Characterization:	Input-/Output-Module 2-channels
	Type:	IB2DEDA
	Order-No. :	80.14.022

B Functional description:

The input-/output-module is a plug-in module for DIN rail cabinets. It realizes 2 channels with one binary input and output respectively in one module. Input and output of the different channels are connected to each other (not individually addressable). The slope configured inputs are switched with voltage-free pushbuttons.

As an output one relay with voltage free normally open and normally closed contact as well as an LED control is available for each channel.

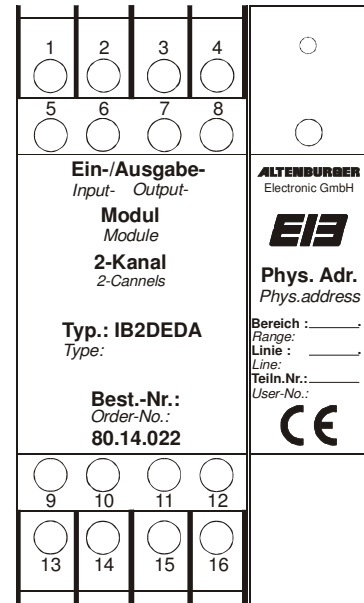
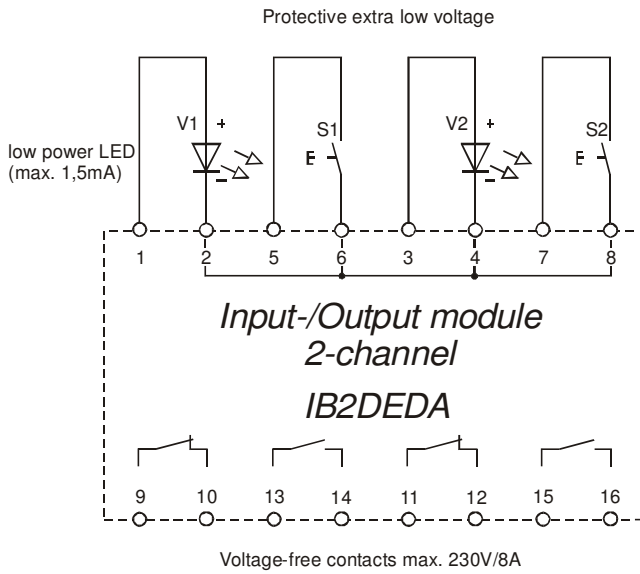
Each channel can be linked with a joint logic channel. If a linkage was selected, the output can only be switched if also the logic linkage is performed. If a push-operation at the input was made, the command goes in dependence of the slope direct to the bus.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input per channel	Voltage-free pushbutton, switch, contact ¹⁾
Output per channel	
Relay:	1 voltage-free normally closed contact 1 voltage-free normally open contact
Nominal voltage:	250V AC
Nominal current:	8A (ohmique load)
LED:	for low-power LED max. 1,5mA ¹⁾
Wire length:	max. 100m for control wire 0,5mm ² , load wire 1,5mm ²
Terminals:	EIB via pressure contacts on data rail Screw contacts max. - solid wire 2x2,5mm ² - litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 54x90x61mm
Weight:	approx. 250gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V (protective extra low-voltage).

D Wiring diagram:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: ON/OFF modules
Product type: binary/binary

Characterization: ON/OFF+ Log. 2-channel, version 8.1

Number of addresses: 13
Number of assignments: 13

Object description:

Number	Name	Size	Function
Object 0	channel 1	1 bit	channel 1
Object 1	channel 2	1 bit	channel 2
Object 2	logic channel	1 bit	logic channel

Description of the component functions as they are pre-adjusted in the data base:

The input-/output module for 2-channels operates in its base adjustment in the toggle mode. Through short circuiting of the inputs (e.g. through pressing of a pushbutton or closing of a contact) an ascending slope occurs. If during the adjusted debounce time of 10 ms the state of the input is not changed a telegram is sent, and the output relay as well as the LED output is activated. When opening the input (e.g. through releasing of the pushbutton or opening of the contact) a falling slope occurs. This slope is not considered at this parameter adjustment.

Through a repeated short circuiting of the input again an ascending slope occurs. If during the de-bouncing time the state of the input is not changed, in this case an OFF-telegram would be sent. The output relay opens and the LED output is no longer controlled. At the respective short circuiting of the input consequently the output always is changed over. The logic channel has no influence on the output. At a power fail the channel remains unchanged. The parameters of channels 1 and 2 are adjusted identically.

F Parametrizing:		
Parameter name:	Parameter adjustment:	Parameter description:
For all inputs		
Debounce time = value x 0,5 ms	0, 1, 2, ...,19, 20 , 21, ..., 253, 254, 255	In order to be able to evaluate a slope alteration the input in the adjusted debounce time may not be changed. Debounce time = adjustment x 0,5 ms.
Channel 1		
Switching-Mode Channel 1	rising: on rising: off rising: toggle falling: on falling: off falling: toggle rising: on, falling: off rising: off, falling: on rising: toggle, falling: toggle no function	Determines at which slope an ON or OFF telegram shall be sent. At the adjustment toggle alternating an ON-and OFF telegram would be sent at the adjusted slope.
Logic connection	no logic connection Channel1.OR.logic-channel Channel1.AND.logic-channel	Determines if and how the output shall be linked with the logic channels
At power fail	Channel 1 switches OFF Channel 1 switches ON Channel 1 does not change	With this parameter the reaction of the component output at a power fail will be adjusted.
Channel 2		
Switching mode channel 2	rising: ON rising: OFF rising: toggle falling: ON Falling: OFF Falling: toggle Rising: ON, falling: OFF Rising: OFF, falling: ON Rising: toggle, falling: toggle No function	Determines at which slope an ON or OFF telegram shall be sent. At the adjustment toggle alternating an ON-and OFF telegram would be sent at the adjusted slope.
Logic connection	no logic connection Channel 2.OR.logic-channel Channel 2.AND.logic-channel	Determines if and how the output shall be linked with the logic channels
At power fail	Channel 2 switches off Channel 2 switches on Channel 2 does not change	With this parameter the reaction of the component output at a power fail will be adjusted.
Logic channel		
At power fail	Logic-channel switches off Logic-channel switches on Logic-channel does not change	Adjustment of the reaction of the logic channel at a power fail.

Personal notes:

INPUT-/OUTPUT-MODULE 4-CHANNEL

A	Characterization:	Input-/Output-module 4-channel
	Type:	IB4DEDA
	Order-No.:	80.14.024

B Functional description:

The input-/output-module is a plug-in module for DIN rail cabinets. It realizes 4 channels with respectively one binary input and output in one module. Inputs and outputs of the individual channels are connected to each other (not individually addressable). The slopes of the inputs can be configured via voltage-free pushbuttons.

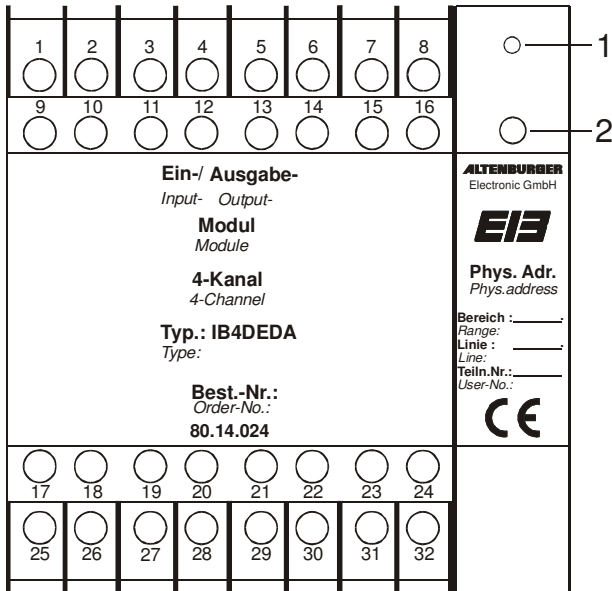
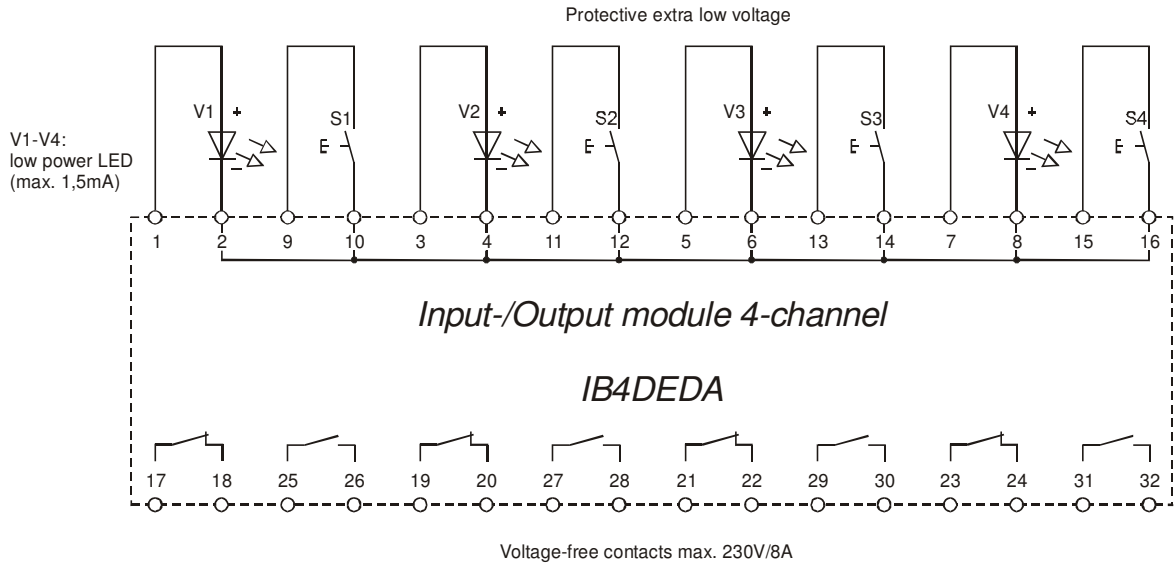
As an output one relay per channel with voltage free normally open and normally closed contact as well as an LED control is available.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input per channel	Voltage-free pushbutton, switch, contact ¹⁾
Output per channel	
Relay:	1 voltage-free normally open contact 1 voltage-free normally closed contact
Nominal voltage:	250V AC
Nominal current:	8A (ohmique load)
LED:	for low-power LED max. 1,5mA ¹⁾
Wire length:	max. 100m for control wire 0,5mm ² , load wire 1,5mm ²
Terminals:	EIB via pressure contacts on data rail
	Screw contacts max.
	- solid wire 2x2,5mm ²
	- litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 90x90x61mm
Weight:	approx. 360gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V (protective extra low-voltage).

D Wiring diagram:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product - family: ON/OFF modules
 Product - type: binary/binary

Characterization: ON/OFF+ Log. 4-channel, version 1.0

Number of addresses: 13
 Number of assignments: 13

Object description:

Number	Name	Size	Function
Object 0	channel 1	1 bit	channel 1
Object 1	channel 2	1 bit	channel 2
Object 2	channel 3	1 bit	channel 3
Object 3	channel 4	1 bit	channel 4

E Description of the component functions as they are pre-adjusted in the data base:

The input-/output module with 4-channels operates in its base adjustment in the toggle mode. Through short circuiting of the inputs (e.g. through pressing of a pushbutton or closing of a contact) an ascending slope occurs. If during the adjusted debounce time of 10 ms the state of the input is not changed a telegram is sent, and the output relay as well as the LED output is activated. When opening the input (e.g. through releasing of the pushbutton or opening of the contact) a falling slope occurs. This slope is not considered at this parameter adjustment.

Through a repeated short circuiting of the input again an ascending slope occurs. If during the de-bouncing time the state of the input is not changed, an OFF-telegram would be sent, the output relay opens and the LED output is no longer controlled.

At the respective short circuiting of the input consequently the output always is changed over.

At a power fail the channel remains unchanged.

The parameters of channels 1 to 4 are adjusted identically.

F Parametrizing:

Parameter name:	Parameter adjustment	Parameter description:
For all channels		
Debounce time=value x 0,5 ms	0, 1, 2, ...,19, 20 , 21, ..., 253, 254, 255	In order to be able to evaluate a slope alteration the input in the adjusted debounce time may not be changed. Debounce time = adjustment x 0,5 ms
Channel X	The following parameters are individually adjustable for all 4 channels	
Switching-Mode Channel X	rising: on rising:off rising: toggle falling: on falling: off falling: toggle rising: on, Falling: off rising: off, Falling: on rising: toggle, falling: toggle no function	Determines at which slope an ON or OFF telegram shall be sent. At the adjustment TOGGLE alternating an ON-and OFF telegram would be sent at the adjusted slope.
At power fail	Channel X switches off Channel X switches on Channel X does not change	With this parameter the reaction of the component output at a power fail will be adjusted.

Personal notes:

ASSIGNER (ROOM DIVIDER CONTROL)

A	Characterization:	Assigner (Room Divider-control)
	Type:	IBAS
	Order-No.:	80.14.550

B Functional description:

The Assigner (room divider control) is a plug-in module for DIN rail cabinets. It allows the joint or individual control of rooms which can be separated by room dividers. A voltage free wall contact or a master switch indicates if the room divider is open or closed.

If a room divider is closed the actuators in the individual rooms are controlled by the respective local sensors. If the room divider is opened the sensors would control additionally to the individual room also the actuators in other rooms. The sensors and actuators on the left and right of each room divider consequently are in operation in a parallel mode.

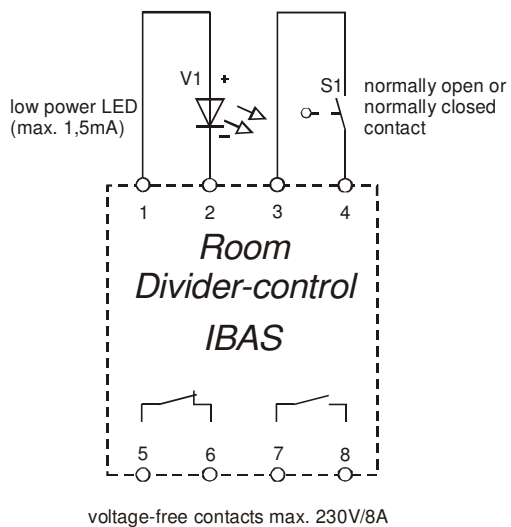
Via a low-power LED the switch condition of the assigner can be indicated. With a voltage-free normally open and normally closed contact of a relay other back indications can be made.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
Input	
	Voltage-free contact, switch ¹⁾
Output	
Relay:	1 voltage-free normally contact 1 voltage-free normally closed contact
Nominal voltage:	250V AC
Nominal current:	8A (ohmique load)
LED:	for low-power LED max. 1,5mA ¹⁾
Wire length:	max. 100m for the control wire 0,5mm ² , load wire 1,5mm ²
Terminals:	EIB via pressure contacts on data rail
	Screw contacts max.
	- solid wire 2x2,5mm ²
	- litz wire with sleeve 2x1,5mm ²
Dimensions:	WxHxD = 36x90x61mm
Weight:	approx. 190gr
Mounting:	snap-on on DIN rails
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

¹ When wiring together with other wires or cables the wires and cables must have an insulation voltage of minimum 4000 V. (protective extra low-voltage)

D Wiring diagram :



Control components:

- 1.) LED: Programming-LED
- 2.) Pushbutton: Programming Pushbutton

E ETS-Search path

Product family: Control components
 Product type: Assigner

Characterization: Assigner 7-fold 5x 1bit, 1x4bit,1x1byte Vers.1.3

Number of addresses: 15
Number of assignments: 15

Object description ¹:

Number	Name	Size	Function²
Object 0	ON/OFF side A (1)	1 bit	switching
Object 1	ON/OFF side B (1)	1 bit	switching
Object 2	ON/OFF side A (2)	1 bit	switching
Object 3	ON/OFF side B (2)	1 bit	switching
Object 4	ON/OFF side A (3)	1 bit	switching
Objekt 5	ON/OFF side B (3)	1 bit	switching
Object 6	ON/OFF side A (4)	1 bit	switching
Object 7	ON/OFF side B (4)	1 bit	switching
Object 8	ON/OFF side A (5)	1 bit	switching
Object 9	ON/OFF side B (5)	1 bit	switching
Object 10	Dimming side A (6)	4 bit	dimming
Object 11	Dimming side B (6)	4 bit	dimming
Object 12	Scene side A (7)	1 byte	fading
Object 13	Scene side B (7)	1 byte	fading
Object 14	Room divider open/closed	1 bit	switching

Description of the component functions as they are pre-adjusted in the data base:

Through the opening of the room divider contact (normally open type) the LED is switched ON and the relay picks up. This means that the room divider is open. The two side by side rooms now are operating in a master mode. For each individual room maximal the values of

7 objects are transmitted. In the standard adjustment of the parameters the objects are "not used" always two objects of one function are assigned, one for side A of the room divider and the other for side B of the room divider. The 7 objects are including 5 objects with the size of 1 bit, 1 object with the size of 4 bits and 1 object with a size of 1 byte. At the 1 bit objects different functions can be selected (ON/OFF; jalousie; dark roller blind; curtain; screen; venetian blind). At the 4 bit object the dimming function can be selected. The 1 byte object can be used for the function of the light level or for the scene control within the Altenburger programmable dimming control system.

The object 14 transmits a telegram at the opening or closure of the room divider. At the opening an ON telegram is sent, at the closing an OFF telegram is sent. This object is suitable for the parallel control of several devices or for the monitoring of the room dividers e.g. in combination with the visualization.

¹ The objects are managed in a dynamic mode. Maximal 15 objects and minimal 1 object are available.

² The objects 0- 13 can be selected via the parameters. It is possible to adjust always 2 objects jointly, object 0 + 1, object 2+3, object 4+5, object 6+7, object 8+9, object 10+11 and object 12+13.

F

Parametrizing:

Parameter name:	Parameter adjustment	Parameter description
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Assigner-settings

transmission from side A to side B	disabled enabled	This adjustment indicates if telegrams from side A to side B may be transferred.
transmission from side B to side A	disabled enabled	This adjustment indicates if telegrams from side B to side A may be transferred.
partition wall contact	open means wall closed close means wall closed	This allows the adjustment of the type of the room divider contact. Open means a closure through a normally closed contact. Closed means closed through a normally open type.

Object usage

Objects 0 and 1 (1 bit) are used for	not used , on/off, jalousie. darkening, curtain screen, lamella	In this case the use of the objects 0 and 1 can be adjusted.
Objects 2 and 3 (1 bit) are used for	not used , on/off, Jalousie. darkening, curtain screen, lamella	In this case the use of the objects 2 and 3 can be adjusted.
Objects 4 and 5 (1 bit) are used for	not used , on/off, jalousie. darkening, curtain screen, lamella	In this case the use of the objects 4 and 5 can be adjusted.
Objects 6 and 7 (1bit) are used for	not used , on/off, jalousie. darkening, curtain screen, lamella	In this case the use of the objects 6 and 7 can be adjusted.
Object 8 and 9 (1bit) are used for	not used , on/off, jalousie. darkening, curtain screen, lamella	In this case the use of the objects 8 and 9 can be adjusted.
Object 10 and 11 (4bit) are used for	not used , dimming	In this case the use of the objects 10 and 11 can be adjusted.
Objekt 12 and 13 (1byte) are used for	not used , lighting scene (1byte) set value (1byte)	In this case the use of the objects 12 and 13 can be adjusted.

E ETS-Search path

Product family Control components
 Product type: Assigner

Characterization: Assigner 7-fold 4x1bit, 3x4bit Vers.1.5

Number of addresses: 15

Number of assignments: 15

Object description ¹:

Number	Name	Name	Function ²
Object 0	ON/OFF side A (1)	1 bit	switching
Object 1	ON/OFF side B (1)	1 bit	switching
Object 2	ON/OFF side A (2)	1 bit	switching
Object 3	ON/OFF side B (2)	1 bit	switching
Object 4	ON/OFF side A (3)	1 bit	switching
Object 5	ON/OFF side B (3)	1 bit	switching
Object 6	ON/OFF side A (4)	1 bit	switching
Object 7	ON/OFF side B (4)	1 bit	switching
Object 8	Dimming side (5)	4 bit	dimming
Object 9	Dimming side B (5)	4 bit	dimming
Object 10	Dimming side A (6)	4 bit	dimming
Object 11	Dimming side B (6)	4 bit	dimming
Object 12	Dimming side A (7)	4 bit	dimming
Object 13	Dimming side B (7)	4 bit	dimming
Object 14	room divider open/closed	1 bit	switching

Description of the component functions as they are pre-adjusted in the data base:

Through the opening of the room divider contact (normally open type) the LED is switched ON and the relay picks up. This means that the room divider is open. The two side by side rooms now are operating in a master mode. For each individual room maximal the values of 7 objects are transmitted. In the standard adjustment of the parameters the objects are "not used". Always two objects of one function are assigned, one for side A of the room divider and the other for side B of the room divider. The 7 objects are including 4 objects with the size of 1 bit and 3 objects with the size of 4 bits. At the 1 bit objects different functions can be selected (ON/OFF; jalousie; dark roller blind; curtain; screen; venetian blind). At the 4 bit object the dimming function can be selected.

The object 14 transmits a telegram at the opening or closure of the room divider. At the opening an ON telegram is sent, at the closing an OFF telegram is sent. This object is suitable for the parallel control of several devices or for the monitoring of the room dividers e.g. in combination with the visualization.

¹ The objects are managed in a dynamic mode. Maximal 15 objects and minimal 1 object are available.

² The objects 0- 13 can be selected via the parameters. It is possible to adjust always 2 objects jointly, object 0 + 1, object 2+3, object 4+5, object 6+7, object 8+9, object 10+11 and object 12+13.

F

Parametrizing:

Parameter name:	Parametereinstellungen:	Parameterbeschreibung:
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Assigner settings

transmission from side A to side B	disabled enabled	This adjustment indicates if telegrams from side A to side B may be transferred.
transmission from side B to side A	disabled enabled	This adjustment indicates if telegrams from side B to side A may be transferred.
partition wall contact	open means wall closed close means wall closed	Open means a closure through a normally closed contact. Closed means closed through a normally open type.

Object usage

Objects 0 and 1 (1bit) are used for	not used , on/off; jalousie, darkening, curtain, screen, lamella	In this case the use of the objects 0 and 1 can be adjusted.
Objects 2 and 3 (1bit) are used for	not used , on/off; jalousie, darkening, curtain, screen, lamella	In this case the use of the objects 2 and 3 can be adjusted.
Objects 4 and 5 (1bit) are used for	not used , on/off; jalousie, darkening, curtain, screen, lamella	In this case the use of the objects 4 and 5 can be adjusted.
Objects 6 and 7 (1bit) are used for	not used , on/off; jalousie, darkening, curtain, screen, lamella	In this case the use of the objects 6 and 7 can be adjusted.
Objects 8 and 9 (4bit) are used for	not used	In this case the use of the objects 8 and 9 can be adjusted.
Objects 10 and 11 (4bit) are used for	not used	In this case the use of the objects 10 and 11 can be adjusted.
Objects 12 and 13 (4 bit) are used for	not used	In this case the use of the objects 12 and 13 can be adjusted.

ALTENBURGER PROGRAMMABLE DIMMING CONTROL SYSTEMS

The programmable dimming control systems allows the programming and selection of up to 12 lighting scenes.

The individual circuits can be programmed independently of each other with regard to the brightness, the fade times and the switch conditions on the spot – inside the room where the lighting shall be programmed. The programming normally is made with a handheld infrared programmer. It can however also be made with a visualization at a PC or with special sensors.

The lighting scenes can be selected at a programmable scene selector panel (FIB) which also is required for the programming with a handheld IR- or FU-programmer. The scene selection however also can be made with the handheld IR- or FU-transmitter or with any sensors with suitable application.

A transit or cleaning light function is already integrated within the programmable system. Both functions can be programmed like a scene selection.

The programmable lighting control with the handheld IR or FU-programmer is suitable for the programming of up to 1134 circuits. With the other types of programming the number of actuators is nearly unlimited.

The programmable dimming control can be integrated in any complex EIB-system. Thus it can use the advantages of the EIB.

Programmable dimming controls are particularly suitable for hotels, theatres, conference rooms, churches, public buildings and in all other cases where comfortable lighting atmospheres shall be programmed and selected in a quick and uncomplicated mode.

The standard programmable dimming control system comprises the following components:

1. Programmer-switch-dim-actuator IBDA-KP with the device function programmer switch dim actuator:

The Switch-dim-Actuator is suitable for the control of a lighting group. It comprises the programmable 12 scene memory and a programmable transit/cleaning light function.

2. Programmer-switch-dim-actuator IBDA-kP with the device function programmer switch actuator:

The IBDA-KP is suitable for the switching of a lighting group. It comprises the programmable 12 scene memory and a programmable transit/cleaning light function. It is suitable for the switching of lighting circuits, jalousies, screens, curtains etc. in dependence of related scenes or they are suitable for the transfer of aforementioned components into their end position.

3. Programmable scene selector panel FIB:

Altenburger Programm-Lichtsteuerung

The FIB allows the switching and dimming of the brightness within the programmable dimming system. Up to 12 scenes can be selected. The FIB gives a release for the programming of lighting scenes and transit/cleaning lights. At the programming with a handheld IR-/FU-programmer the FIB is suitable for the control of 18 IBDA-KP. If more than 18 IBDA-KP are to be used additional FIB or extensions of the programmer-panels IBTE-P have to be considered.

4. IR-decoder/programmer unit IBIR-P:

The IBIR-P is suitable for the ON/OFF switching, dimming and scene selection of a programmable dimming control with a handheld IR/FU-transmitter. The programming can be made with a handheld IR/FU-programmer. It programs the 12 scenes of the individual IBDA-KP's with regard to the brightness, the fade time and the switch positions.

Functions:

System ON/OFF:

Through the system ON/OFF object all IBDA-KP's with an individual parametrizable "ON-value" are switched ON. The "switch ON value" is a fixed value, a previous value before a switch OFF operation was made or a scene value.

This object is responsible for the interlock of the transit/cleaning light function.

The operation of the system ON/OFF object is made with the pushbutton "ON/OFF" and the programmable scene selector panel or with the "ON/OFF" keys at the handheld IR- or FU-transmitter.

Dimming:

If in the switched OFF state the pushbutton BRIGHTER "∧" is pressed (independent if at the scene selector panel or at the handheld IR-transmitter) the selected circuits are being switched ON. They are going from the brightness minimum into a brighter light level. The back indication LED within the "ON/OFF" pushbutton of the panel indicates that the system is in operation. By pressing the pushbutton DARKER "∨" the addressed IBDA-KP's are dimmed down. They can go into their brightness minimum, this means also into the dark position. The system however remains switched ON and the LED within the "ON/OFF" pushbutton of the panel indicates that the system is ON. The fade time for each IBDA-KP can individually be adjusted, independent of the fade times and the scene controls.

Scene-Selection:

Through pressing of the scene selector pushbuttons "1...12" independent if at the control panel or with the handheld IR- or FU-transmitter the different scenes can be selected. The LED's within the scene pushbuttons at the control panel are indicating the scene being selected. During the selection of a scene the IBDA-KP's are dimming with the function programmer-switch-dim-actuator within the respective fade time into the adjusted brightness level. If the IBDA-KP's are used as programmer-switch actuators the selected switch state appears immediately.

Transit-/Cleaning Light:

The transit/cleaning light can be switched in the switched OFF state via EIB-sensors. The addressed IBDA-KP's are directly jumping to the adjusted transit/cleaning light level. They would not distinguish between the loaded applications.

If the system is switched ON the transit/cleaning lights are interlocked. This means the output of the IBDA-P can not be influenced with these pushbuttons. If after the switch OFF state of the system the previously adjusted state shall be reactivated, the parameter "transit/cleaning state" must be adjusted at an IBDA-KP to "non-changeable". The transit/cleaning light level can be programmed like a scene for each IBDA-KP individually, however without fade time because the value shall be directly achieved.

Circuit ON/OFF:

Via the circuit object an IBDA-KP can be switched ON with another parametrized "ON value", as via the system object. The "ON-value" can be a fixed value, the previous value before the switch OFF operation or a scene value. The circuit function is sub-ordinated to the system function. If the value of a system object changes the value of the circuit object always goes with it. In case of changings of a circuit the system however remains unchanged. This allows a quick changing of scenes without a changing of the scene programming.

Programming functions

Through pressing of the “PRO” pushbutton at the programmable scene selector panel the handheld IR-/FU-programmer is released and the panel goes into the programming mode. The LED at the “PRO”-pushbutton indicates the function.

If further panels or IBTE-P are in operation they also are transferred into the programmer mode.

Circuit Selection:

With this function the different IBDA-KP one after the other can be brought into the programming mode. The handheld IR/FU-programmer activates the circuits being organized by the programmable panels in an upwards or downwards sequence, depending if the pushbutton circuit selection upwards “^” or downwards “v” is pressed. If an IBDA-P is activated the activation is indicated through the blinking of its LED. With the parameter ,signalizing during programming’ the user additionally can adjust how the output of the IBDA-KP during the signalizing operates. After the signalizing the circuit again goes into the previous value.

The circuit remains so long ready for programming unless a new circuit selection is made and the next circuit is made ready for programming. After the last IBDA-KP has been made ready for programming through the circuit selection upwards “^” and if such that the last IBDA-KP was made ready for programming the first circuit again signalizes its readiness for programming provided the parameters at the control panel are properly adjusted. The same applies if the pushbutton circuit selection operates downwards “v”.

In bigger systems the programming through a notebook or touch panel PC is recommended. The programming of scenes in this case can be made without signalizing of circuits.

Programmer dimming:

If a circuit is ready for programming its state can be changed with this function. IBDA-KP with the function programming-switch-dim-actuator can be dimmed BRIGHTER or DARKER. Those with the application programming-switch actuator can be switched ON and OFF.

Fade time:

The fade time is the time being required by a circuit to change from one light level to another one within a scene. For the programming of the fade time the handheld IR/FU-programmer has a numeric row of keys for the programming of fade times between 0 and 9999 seconds. At actuators with the function programming switch actuator the fade time automatically is set to 0 seconds.

If the fade time in all scenes and circuits shall be the same it is sufficient if this one fade time is programmed just once at the beginning of the programming.

Unless a new fade time is programmed always the same time is stored for each circuit and scene.

With a pushbutton “CL” (clear) on the handheld IR-/FU-programmer the fade time can be set to 0 seconds.

Wrong storages such can easily be cancelled.

Store:

Through pressing the pushbutton “STORE” on the handheld IR-/FU-programmer the immediate light level with the programmed fade time within the respective scene can be stored. A storage is however only possible for the circuit which is ready for programming.

Programming of lighting scenes with a handheld IR/FU-programmer:

The following example is based on a programmable dimming control system, comprising a programmable scene selector panel (FIB), three dimmable light circuits (circuits 1, 2, 3), one switchable light circuit (circuit 3) and 1 IR-decoder/programmer unit with handheld IR-/FU-programmer and IR-/FU-transmitter.

Programming of Scene 1

1. Pressing of the "PRO"pushbutton at the programmable scene selector panel (FIB) in order to enter the programmer mode (indicated through the LED within the"PRO"pushbutton).
2. Selection of scene 1 at the control panel or the handheld programmer.
3. At the handheld IR/FU-programmer pressing the pushbutton "scene selection upwards".
The first circuit signalizes through blinking its readiness for programming.
4. With the keys "BRIGHTER/DARKER" at the IR-/FU-programmer the brightness of the respective circuit within scene 1 can be adjusted.
5. With a pushbutton "CL" (clear) at the IR-/FU-programmer the fade time is set to 0 seconds.
6. With the numeric key row at the IR-/FU-programmer the fade time in seconds is stored. Through pressing of key 5 the fade time is set to 5 seconds. If e.g. the fade time of 15 seconds is required key 1 and then key 5 has to be pressed.
7. The adjusted brightness and the fade time are stored through pressing the key "store" as the value of circuit 1 in scene 1.
8. For the programming of the second circuit the key "circuit selection upwards" is pressed at the IR/FU-programmer. A blinking indicates that the circuit is ready for programming.
9. With the keys "BRIGHTER/DARKER" the required brightness for the circuit within scene 1 can be adjusted.
10. If the fade time for circuit 2 shall be the same as for circuit 1 the "STORE" key shall be pressed. The fade time for circuit 1 within scene 1 is now stored also for circuit 2. If for circuit 2 another fade time is required, it can be programmed with the numeric key row into the required fade time.
11. For the programming of the third circuit the key "circuit selection upwards" is brought into program readiness. It is signalized through blinking.
12. With the keys "BRIGHTER/DARKER" the switching mode of circuit 3 within scene 1 can be adjusted.
13. With the key "STORE" the required switching state for circuit 3 in scene 1 can be stored.
As this circuit is switched (not dimmed) its switch state is stored without fade time.
14. For the programming of the fourth circuit the key "circuit selection upwards" is pressed. The readiness for programming is signalized through blinking.
15. With the keys "BRIGHTER/DARKER" the required brightness of the circuit within the scene 1 can be adjusted.
16. If the fade time for circuit 4 shall be the same as for circuit 1 and 2, they can be stored through pressing of key "STORE". The fade time for circuit 1 and 2 now also applies for circuit 4. If for circuit 4 another fade time would be required the fade time can be adjusted with the numeric key row.

Programming of further lighting scenes

1. Selection of the scene at the programmable scene selector panel or with the handheld IR-/FU-programmer.
2. All further steps are identical with those under item1-16.

Finalizing of the programming of lighting scenes

1. After the programming of the last circuit the programming mode is left through pressing the key "PRO" (the LED goes out).

Programming of the transit/cleaning light

1. Switch OFF the programmable dimming control at the control panel or the IR-/FU-programmer.
2. Switch ON the transit/cleaning light.
3. Pressing the "PRO" pushbutton at the control panel in order to enter the program mode (LED indication within the "PRO" pushbutton).
4. Press the key "circuit selection upwards" at the IR-/FU-handheld programmer.
The first circuit signalizes its readiness for programming through blinking.
5. With the keys "BRIGHTER/DARKER" the brightness being required for the transit/cleaning light of the respective circuit can be adjusted.
6. Pressing the key "STORE". The adjusted brightness for transit/cleaning light in circuit 1 is stored.
A fade time is not stored because the light level for the transit/cleaning light is achieved immediately.
7. For the programming of the second circuit press the key "circuit selection upwards".
The readiness for programming is indicated through blinking.
8. With the keys "BRIGHTER/DARKER" the required brightness of the circuit for the transit/cleaning light can be adjusted.
9. Through pressing the "STORE" key the light level for the transit/cleaning light in circuit 2 is stored.
10. For the programming of the third circuit the key "circuit selection upwards" is brought into program readiness.
It is signalized through blinking.
11. With the keys "BRIGHTER/DARKER" the brightness being required for the transit/cleaning light of the respective circuit can be adjusted.
12. Through pressing the "STORE" key the light level for the transit/cleaning light in circuit 3 is stored.
13. For the programming of the fourth circuit the key "circuit selection upwards" is pressed.
The readiness for programming is signalized through blinking.
14. With the keys "BRIGHTER/DARKER" the required brightness of the circuit for the transit/cleaning light can be adjusted.
15. Through pressing the "STORE" key the light level for the transit/cleaning light in circuit 4 is stored.

Finalizing of the programming for transit/cleaning light

1. After the programming of the last circuit press the "PRO" key in order to leave the program mode (the LED goes out).
2. Switching the dimming system at the control panel or at the IR/FU-programming ON and then again OFF.
3. The transit/cleaning light now can be switched OFF.

Personal notes:

ALTODIM 600-0/P (Scene)

A	Characterization:	Phase-interval controlled pushdimmer ALTODIM 600-0/P
	Type:	IBDA600-0/P
	Order-No.:	80.13.161

B Functional description:

The ALTODIM 600-0/P is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-interval control mode from 0 to maximum in its brightness. The device is suitable for incandescent lamps as well as low-voltage halogen lamps with electronic transformers with the load capacities between 40 and 600 W/VA. Conventional, wire-wound transformers or inductive loads may not be connected. The load output has an electronic current limiting, a light level reduction in case of an exceeding of a limit temperature and a switch-OFF function at inadmissible high temperatures. As soon as the temperature is cooled down the ALTODIM switches ON again after the functional switch-OFF mode.

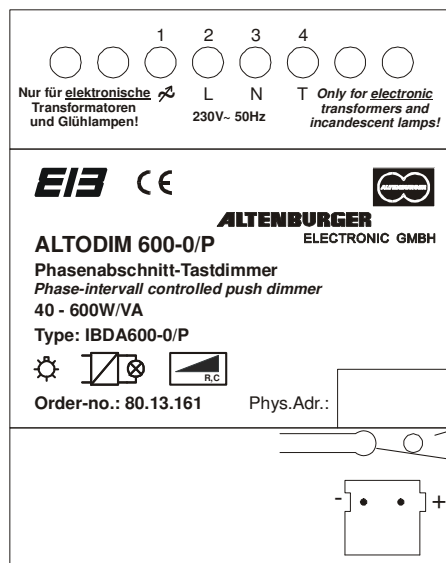
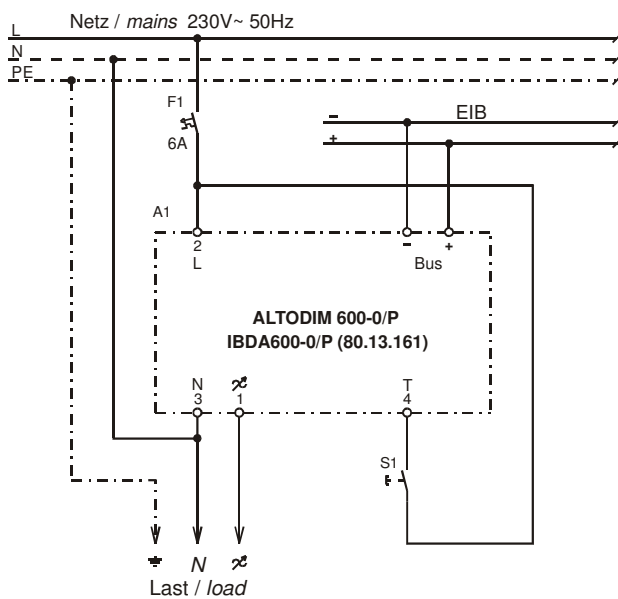
The ALTODIM 600-0/P provides additionally to the standard dim functions approximately 25 internal scene memories with fade control from scene to scene and with cleaning light control. The dimmer can be controlled with EIB-pushbutton or touch panels as well as with suitable visualization. It can be controlled as well however with customary pushbutton (230V~) with the functions BRIGHTER-DARKER-ON/OFF.

Internal scenes can be combined for an automatic control to a sequence. This includes for instance a certain order, stop points, repeatings etc. The program is made with the ETS software or it can be made in a live operation (real time mode). Two sequences can be stored and selected with the module. When using one sequence up to 10 stop points can be defined and with two sequences 5 stop points for each sequence.

C Technical data:

EIB supply		
Voltage:	24V DC (+6V / -4V)	
Input:	max. 290mW at 29VDC	
External supply		
Voltage:	230V~ 50Hz, DC not permitted	
Own consumption:	<2% of the connected load	
Pushbutton input T		
Voltage:	max. 250V~ (pushbutton for power supply)	
Output		
Load exit:	600W/VA, 2,6A~ - electronic current limiting (starting current, overload/short-circuit current) - dimming to a lower level in case of the exceeding of a maximum temperature - switch-OFF function at a non-permissible high temperature, switching-ON again after the cooling down (functional switch OFF)	
Minimum load:	40W	
Noise:	<25dB(A) at nominal load in a distance of 1 m	
Wire length:	max. 100m for load and supply wires 1,5 mm ²	
Terminals:	EIB via pressure contacts	
	Screw contacts	
	- solid wire	0,2mm ² - 2,5mm ²
	- litz wire with sleeve	0,2mm ² - 1,5mm ²
Dimensions:	WxHxD = 72x90x64mm	
Weigth:	approx. 230g	
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)	
Protective type:	IP 20	
Test mark:	EIB / KNX, CE	

D Wiring diagram :



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

Number of addresses: 51
 Number of assignments: 51

Object description:

Obj. no.	Object name	Function	Type
0	circuit on/off	switching	1 bit
1	circuit dimming	dimming	4 bit
2	circuit set value	set value	1 byte
3	circuit feedback	sending	1 bit
4	circuit value feedback	sending	1 bit
5	system on/off	switching	1 bit
6	system dimming	dimming	4 bit
7	system feedback	sending	1 bit
8	status request	request	1 bit
10	repeat RGB Sequence 1	repeat sequence	1 bit
11	repeat RGB Sequence 2	repeat sequence	1 bit
12	scene A, B	fading	1 bit
12	RGB player Sequence 1	start sequence	1 bit
13	scene C, D	fading	1 bit
13	RGB recorder Sequence 1	learn sequence	1 bit
14	scene E, F	fading	1 bit
14	RGB player Sequence 2	start sequence	1 bit
15	scene G, H	fading	1 bit
15	RGB recorder Sequence 2	learn sequence	1 bit
16	store scene	storing / fading	1 byte
17	scene info	storing	1 byte
18	store scene	storing	1 bit
19	transit / cleaning light	switching	1 bit
20	cleaning light switch status	sending	1 bit
21	fade time / circuit selection / store scene	fade time / programming	2 byte

General

The application '1-key-dimmer-scene RGB' includes the aforementioned objects and the following parameters, individually to be adjusted (see 'parametrizing'). Not used objects / parameters are not shown.

The integration of the application into the respective modules, as for instance the 'EIB push dimmer' of the ALTODIM/P series allows an easy and low cost lighting control via the EIB-control panels or suitable visualizations.

The great number of possible settings not only standard applications however also individual, specific EIB-projects can be performed.

Scene memory/Scene sequence control

All 25 internal scene memories can be stored and selected with 1-byte-commands. 8 of the 25 scenes can be stored and selected with 1-bit-commands. Through the fading from scene to scene all circuits achieve their final position at the same time such providing for a smooth transition from scene to scene. Internal scenes can be combined for an automatic control to a sequence.

F Parametrizing:

<i>Parameter name:</i>	<i>Parameter adjustment:</i>	<i>Parameter description:</i>
	Default values are bold	
Device function		Choose the desired function
Device function	Schwitch-dim actuator, Switch actuator	
On/Off		
Continuous actuator number	1, 2, 3,.....253, 254, 255	Individual circuit- and value back indications are being set to the bus by this delay factor. Through the selection of different actuator numbers it can be avoided that several telegrams are being sent at the same time. 1=+80ms, 2=+160ms, etc.
Switch on value "system on" is	value before switching off 1, 5, 10,.....245, 250, 255% Scene 0, 1, 2,.....,22, 23, 24	At the command system ON the dimmer switches with this value or selects the respective scene ON (object 5).
Switch on value "circuit on" is	Value before switching off 1, 5, 10,... 100% ...245, 250, 255% Scene 0, 1, 2,.....,22, 23, 24	At a command individual circuit ON the dimmer switches with this value ON or selects this scene ON (object 0).
Dimming		
Output maximum [20...100%]	20, 25, 30,.....90, 95, 100%	Adjustment of the maximum brightness (limitation of the original value).
Output minimum [0...80%]	0% (off) , 10, 15.....70, 75, 80%	Adjustment of the minimum brightness (increasing the original value).
Speed of the dimmer process (0...100%) [1...255 seconds]	1, 2, 3,... 10 ...253, 254, 255 sec.	Time range which shall be required for the total dimming process (objects 1, 11).
Fade time "set value" [0...255 seconds]	0, 1, 2,... 4 ...253, 254, 255 sec.	Fade time at value setting from an actual value to a new value (object 2). With the same parameter all circuits independent of their original light levels arrive their new light level at the same time.
"System dimming" enabled for	switched on dim circuits, all dim circuits	Determines if during the dimming of the system only the switched ON circuits shall be operated (object 6).
At minimum	switch off, not switch off	Determines if the dimmer shall be switched OFF after it has achieved the set brightness minimum level.
Bus power recurrence		
After bus power recurrence	like before bus power, switched off, switched on with config. max-brightness	Determines how the dimmer shall work after the bus-voltage return.

Transit-/Cleaning light status	With this function a pushbutton at a door realizes a passage or a cleaning light level to be selected with an EIB-pushbutton. With the 1 bit object (19) this fixed light level only can be switched ON or OFF if the system is switched OFF. This prevents a disturbance of a regular event.	
Transit-/Cleaning light value	0, 1, 5, 10,... 80% ...90, 95, 100%	Value at which the dimmer shall switch ON if cleaning light button is pressed (object 19).
Overwrite cleaning/transit light value with ETS value	not overwrite , overwrite	Determines that cleaning light value during the download my not be overwritten.
Presettings scene 0-24	For the scenes 0-24 the percentage output values and the fade times can be determined with these parameters. Following the scene 0 is explained. Scenes 1-24 are programmed similarly.	
Brightness scene 0	0, 1, 5, 10,... 20% ...90, 95, 100%	Determines which value appears after scene 0 is selected.
Fade time into scene 0 (0-9999 sec.)	Brightness of scene 1 25% , scene 2 30% , etc. scene 12 100% Brightness scenes 13-24 100% 0, 1, 2,... 4 ...9998, 9999 sec.	Fade time at scene selection from the actual value into the selected scene value. With the same fade time parameters all circuits arrive their final value at the same time.
Scenes general	Via the 1 byte object (16) all 25 scenes (0-24) directly can be stored and selected. Via the 1 bit object (4) the actual value on the previously adjusted scene (0-24) can be stored.	
Erase scene info	standard reset , reset to scene 0	At 'report' the scene number is reported after the scene selection. Via the parameter 'standard reset/reset to scene 0' it now can be decided what has to be set and what has to be selected if via system commands the respective scene is left.
Overwrite scene values with ETS values	not overwrite , overwrite	Determines that the scene values during the download my not be overwritten.
Confirmation of scene storing, cleaning light and circuit selection	light circuit flashes bright / dark no feedback	Decides, if during programming the light circuit flashes or not.
Altenburger programm option Scenes A to H	disable enable	If enable, the Objekt "fade time / circuit selection / store scene" is shown.
Scene A (Object 12 = 0)	Via the 1 bit objects (12 to 15) 8 free selectable out of the 25 stored scenes or the percentages of 8 output values can be selected. Each scene gets its set fade time range. In this way it is possible to select 8 out of the 25 scenes or additional values via 1 bit commands. Following the scenes A/B (object 12) are described the scenes C/D, E/F, G/H (objects 13, 14, 15) are similar. call up scene 0 , 1, 2..., 23, 24 fade to 0, 1, 5,..10,...90, 95, 100%	Determines which scene or which value is adjusted after this scene selection.

Scene B (Object 12 = 1)	call up scene 1 , 0, 1, 2,...,23, 24 fade to 0, 1, 5,..10,...90, 95, 100%	Determines which scene or which value is adjusted after this scene selection.
Scene C selection scene 2 , scene D selection scene 3 , etc.		
Scene filter		
Access to Scene 0 Color Control (RGB) Number of color sequences Overwrite residence points of Sequence1 with ETS vaues at download	enable , disable none , 1 sequence, 2 sequences overwrite , not overwrite	Following the scene 0 is explained. Scenes 1-24 are programmed similarly. Enable access to Scene 0. Following the Sequence 1 is explained. Sequence 2 is programmed similarly. Number of color sequences Decides, if the values are saved before download or not..
sequence cycles Sequence1	endless , number	If choosed number, select a number in the field below
Number of sequence cycles [1...255]	1, 2, 3,...254, 255	Select the number of sequence cycles.
RGB data type Sequence 1	light scene , absolute value	Call up scenes or absolute values
At sequence creation via recorder Sequence 1	residence time is scene fading time, residence time is time between scene call ups	This is shown only, if RGB data type is "light scene".
Sequence 1		
Residence point 1 value [0...255]	0, 1, 2, 3,253, 254, 255	Following the Sequence 1 is explained. Scene 2 is program-med similarly Depending on RGB data type, a scene or a absolute value can be chosen.
Residence point 1 residence time [1-65535 s]	1, 2, 3, ... 10 ...65534, 65535	Residence time in seconds
Status request		
Circuit switch status request via object 8	enable , disable	Following the circuit switch status is explained. Circuit value feedback, system swtich status, scene info and cleaning light status are programmed similarly Enables circuit switch status request via objekt 8.

ALTODIM 1400-0/P (Scene)

A	Characterization:	Phase-interval controlled pushdimmer ALTODIM 1400-0/P
	Type:	IBDA1400-0/P
	Order-No:	80.13.164

B The ALTODIM 1400-0/P is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-interval control mode from 0 to maximum in its brightness. The device is suitable for incandescent lamps as well as low-voltage halogen lamps with electronic transformers with the load capacities between 60 and 1400 W/VA. Conventional, wire-wound transformers or inductive loads may not be connected. The load output has an electronic current limiting, a light level reduction in case of an exceeding of a limit temperature and a switch-OFF function at inadmissible high temperatures. As soon as the temperature is cooled down the ALTODIM switches ON again after the functional switch-OFF mode.

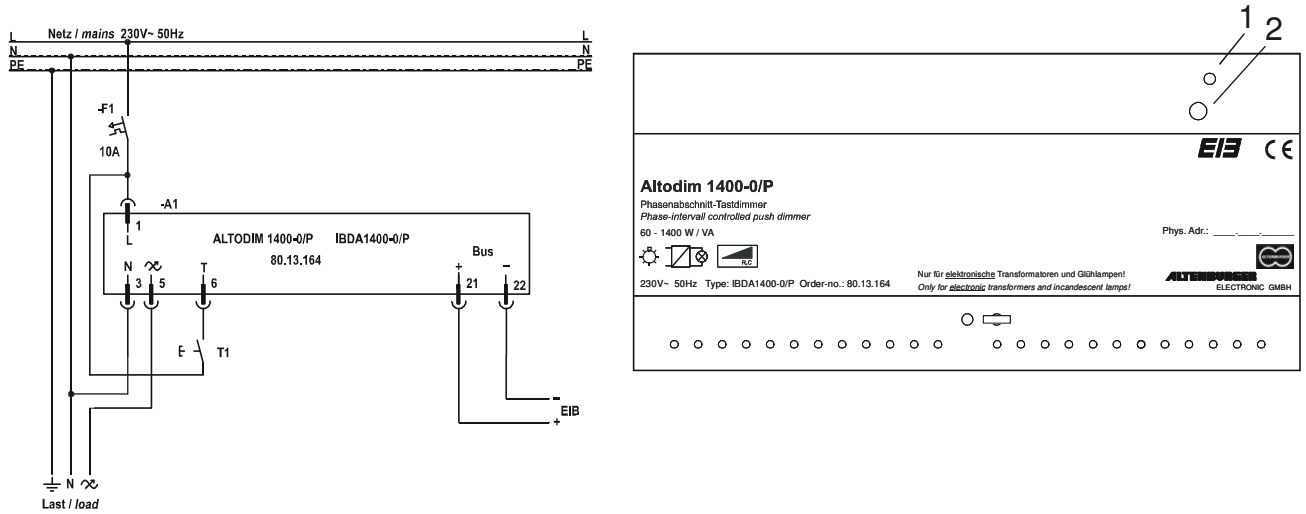
The ALTODIM 1400-0/P provides additionally to the standard dim functions approximately 25 internal scene memories with fade control from scene to scene and with cleaning light control. The dimmer can be controlled with EIB-pushbutton or touch panels as well as with suitable visualization. It can be controlled as well however with customary pushbutton (230V~) with the functions BRIGHTER-DARKER-ON/OFF.

Internal scenes can be combined for an automatic control to a sequence. This includes for instance a certain order, stop points, repeatings etc. The program is made with the ETS software or it can be made in a live operation (real time mode). Two sequences can be stored and selected with the module. When using one sequence up to 10 stop points can be defined and with two sequences 5 stop points for each sequence.

C Technical data:

EIB supply		
Voltage:	24V DC (+6V / -4V)	
Input:	max. 290mW at 29VDC	
External supply		
Voltage:	230V~ / 50Hz, DC not permitted	
Own consumption:	<2% of the connected load	
Pushbutton input T		
Voltage:	max. 250V~ (pushbutton for power supply)	
Output		
Load exit:	max. 1400W/VA, 6,1A~ - electronic current limiting (starting current, overload/short-circuit current) - dimming to a lower level in case of the exceeding of a maximum temperature - switch-OFF function at a non-permissible high temperature, switching-ON again after the cooling down (functional switch OFF)	
Minimum load:	60W	
Noise:	<25dB(A) at nominal load in a distance of 1 m	
Wire length:	max. 100m for load and supply wires 1,5 mm ²	
Terminals:	EIB via pressure contacts	
	Screw contacts	
	- solid wire	0,5mm ² - 2,5mm ²
	- litz wire with sleeve	0,5mm ² - 2,5mm ²
Dimensions:	WxHxD = 175x83,5x58mm	
Weigth:	approx. 460g	
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)	
Protective type:	IP 20	
Test mark:	EIB / KNX, CE	

D Wiring diagram:



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E

ETS-Search path:

Product family: Lighting
Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

ALTODIM 600/P (Scene)

A	Characterization:	Phase-controlled pushdimmer ALTODIM 600/P
	Type:	IBDA600/P
	Order-No.:	80.13.165

B Functional description:

The ALTODIM 600 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum in its brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 40 and 600 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature.

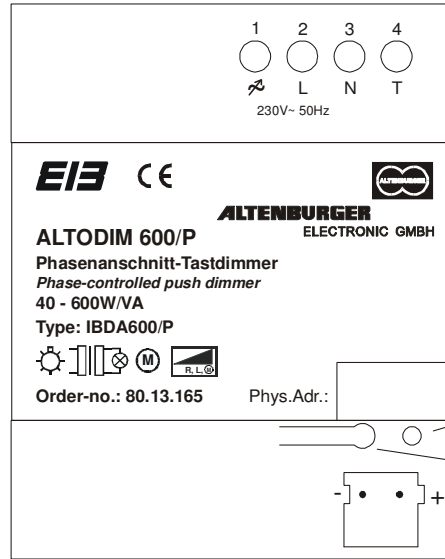
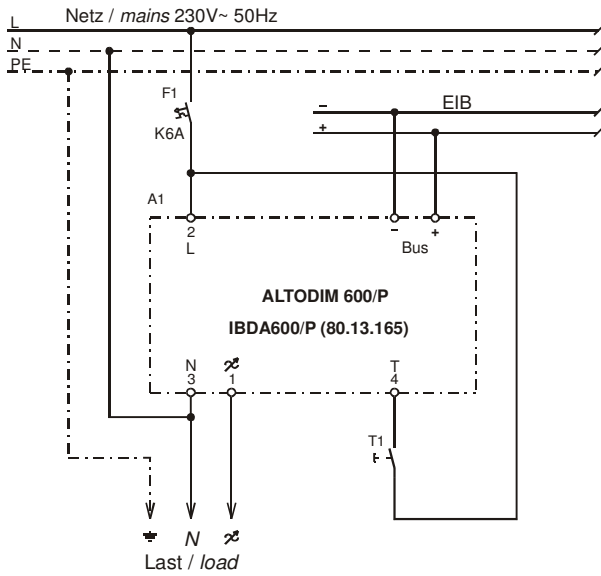
The ALTODIM 600/P provides additionally to the standard dim functions approximately 25 internal scene memories with fade control from scene to scene and with cleaning light control. The dimmer can be controlled with EIB-pushbutton or touch panels as well as with suitable visualization. It can be controlled as well however with customary pushbutton (230V~) with the functions BRIGHTER-DARKER-ON/OFF.

Internal scenes can be combined for an automatic control to a sequence. This includes for instance a certain order, stop points, repeatings etc. The program is made with the ETS software or it can be made in a live operation (real time mode). Two sequences can be stored and selected with the module. When using one sequence up to 10 stop points can be defined and with two sequences 5 stop points for each sequence.

C Technical data:

EIB supply		
Voltage:	24V DC (+6V / -4V)	
Input:	max. 290mW at 29VDC	
External supply		
Voltage:	230V~ 50Hz, DC not permitted	
Own consumption:	<1,5% of the connected load	
Pushbutton input T		
Voltage:	max. 250V~ (pushbutton for power supply)	
Output		
Load exit:	600W/VA, 2,6A~ -electronic current limiting when exceeding the maximum permissible temperature	
Minimum load:	40W/VA	
Noise:	<30dB(A) at nominal load in a distance of 1 m	
Wire length:	max. 100m for load and supply wires 1,5 mm ²	
Terminals:	EIB via pressure contacts	
	Screw contacts	
	- wire	0,2mm ² - 2,5mm ²
	- litz wire with sleeve	0,2mm ² - 1,5mm ²
Dimensions:	WxHxD = 72x90x64mm	
Weight:	approx. 260g	
Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)	
Protective type:	IP 20	
Test mark:	EIB / KNX, CE	

D Wiring diagram :



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

ALTODIM 1300/P (Scene)

A	Characterization:	Phase-controlled pushdimmer ALTODIM 1300/P
	Type:	IBDA1300/P
	Order-No.:	80.13.162

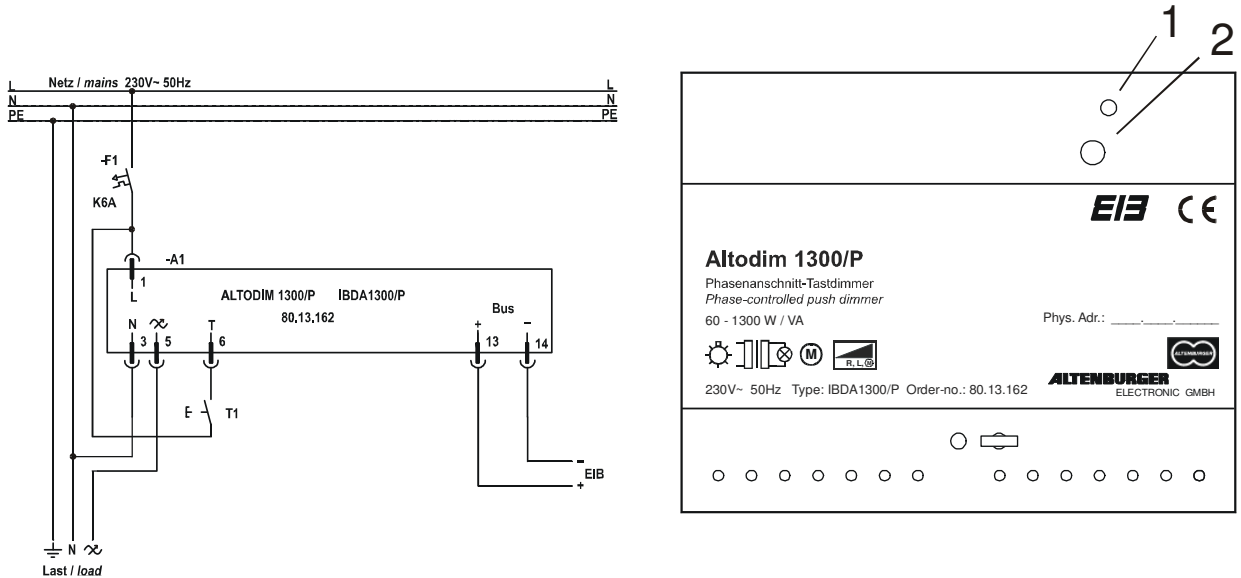
B The ALTODIM 1300 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum in its brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 60 and 1300 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature.

The ALTODIM 1300/P provides additionally to the standard dim functions approximately 25 internal scene memories with fade control from scene to scene and with cleaning light control. The dimmer can be controlled with EIB-pushbutton or touch panels as well as with suitable visualization. It can be controlled as well however with customary pushbutton (230V~) with the functions BRIGHTER-DARKER-ON/OFF.

Internal scenes can be combined for an automatic control to a sequence. This includes for instance a certain order, stop points, repeatings etc. The program is made with the ETS software or it can be made in a live operation (real time mode). Two sequences can be stored and selected with the module. When using one sequence up to 10 stop points can be defined and with two sequences 5 stop points for each sequence.

C	Technical data:		
	EIB supply		
	Voltage:	24V DC (+6V / -4V)	
	Input:	max. 290mW at 29VDC	
	External supply		
	Voltage:	230V~ / 50Hz, DC not permitted	
	Own consumption:	<1,5% of the connected load	
	Pushbutton input T		
	Voltage:	max. 250V~ (pushbutton for power supply)	
	Output		
	Load exit:	max. 1300W/VA, 5,65A~ -electronic current limiting when exceeding the maximum permissible temperature	
	Minimum load:	60W	
	Noise:	<30dB(A) at nominal load in a distance of 1 m	
	Wire length:	max. 100m for load and supply wires 1,5 mm ²	
	Terminals:	EIB via pressure contacts	
		Screw contacts	- wire 0,5mm ² - 2,5mm ² - litz wire with sleeve 0,5mm ² - 2,5mm ²
	Dimensions:	WxHxD = 105x83,5x58mm	
	Weight:	approx. 390g	
	Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
	Ambient temperature:	0°C to +45°C	
Protective class:	II (Protective isolation)		
Protective type:	IP 20		
Test mark:	EIB / KNX, CE		

D Wiring diagram :



Control components:

- 1) LED: Programmier-LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

ALTODIM 2000/P (Scene)

A	Characterization:	Phase-controlled pushdimmer ALTODIM 2000/P
	Type:	IBDA2000/P
	Order-No.:	80.13.163

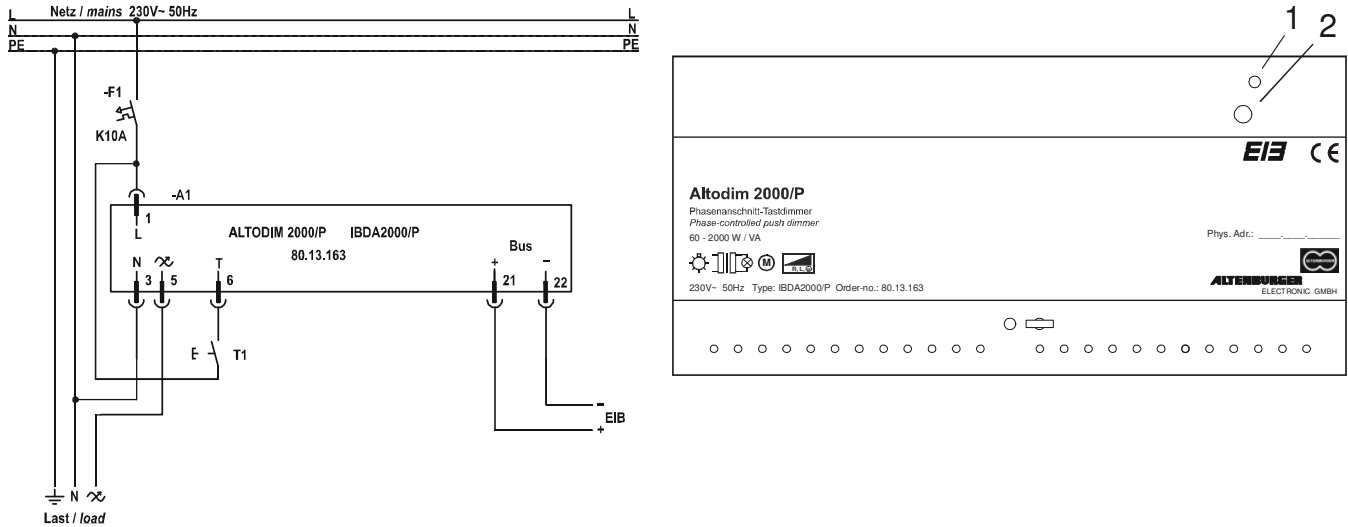
B The ALTODIM 2000 is a plug-in module for DIN rail cabinets. If it receives EIB-telegrams it would control the connected load in a phase-control mode from 0 to maximum in its brightness. The device is suitable for the control of incandescent lamps, wire-wound transformers and electrical motors between 60 and 2000 W/VA. The total load of the connected devices may not exceed the maximum load of the dimmer. In any case also the power dissipation of the transformers (approximately 15-20%) and of motors as well as their power factor has to be considered. The load output has an electronic current limiting in case of an exceeding of the maximal temperature.

The ALTODIM 2000/P provides additionally to the standard dim functions approximately 25 internal scene memories with fade control from scene to scene and with cleaning light control. The dimmer can be controlled with EIB-pushbutton or touch panels as well as with suitable visualization. It can be controlled as well however with customary pushbutton (230V~) with the functions BRIGHTER-DARKER-ON/OFF.

Internal scenes can be combined for an automatic control to a sequence. This includes for instance a certain order, stop points, repetitions etc. The program is made with the ETS software or it can be made in a live operation (real time mode). Two sequences can be stored and selected with the module. When using one sequence up to 10 stop points can be defined and with two sequences 5 stop points for each sequence.

C	Technical data:		
	EIB supply		
	Voltage:	24V DC (+6V / -4V)	
	Input:	max. 290mW at 29VDC	
	External supply		
	Voltage:	230V~ / 50Hz, DC not permitted	
	Own consumption:	<1,5% of the connected load	
	Pushbutton input T		
	Voltage:	max. 250V~ (pushbutton for power supply)	
	Output		
	Load exit:	max. 2000W/VA, 8,7A~ -electronic current limiting when exceeding the maximum permissible temperature	
	Minimum load:	60W	
	Noise:	<30dB(A) at nominal load in a distance of 1 m	
	Wire length:	max. 100m for load and supply wires 1,5 mm ²	
	Terminals:	EIB via pressure contacts	
		Screw contacts	- wire 0,5mm ² - 2,5mm ² - litz wire with sleeve 0,5mm ² - 2,5mm ²
	Dimensions:	WxHxD = 175x83,5x58mm	
	Weight:	approx. 510g	
	Mounting:	snap-on on DIN rails, natural cooling at vertical mounting	
	Ambient temperature:	0°C to +45°C	
	Protective class:	II (Protective isolation)	
Protective type:	IP 20		
Test mark:	EIB / KNX, CE		

D: Wiring diagram :



Control components:

- 1) LED: Programming LED
- 2) Pushbutton: Programming Pushbutton

E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB,version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB,version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

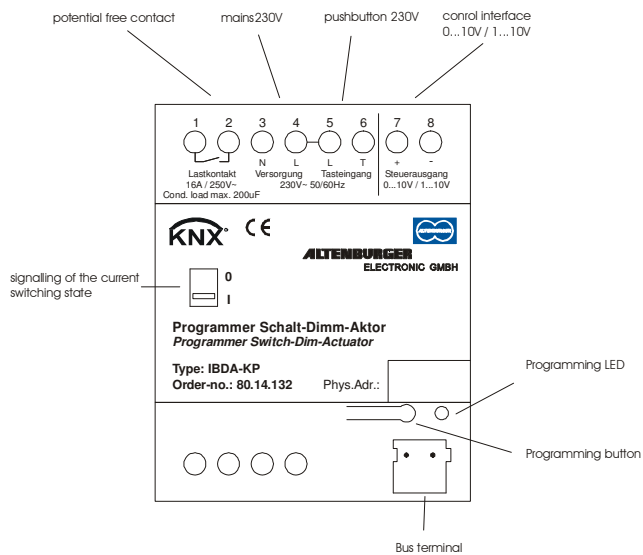
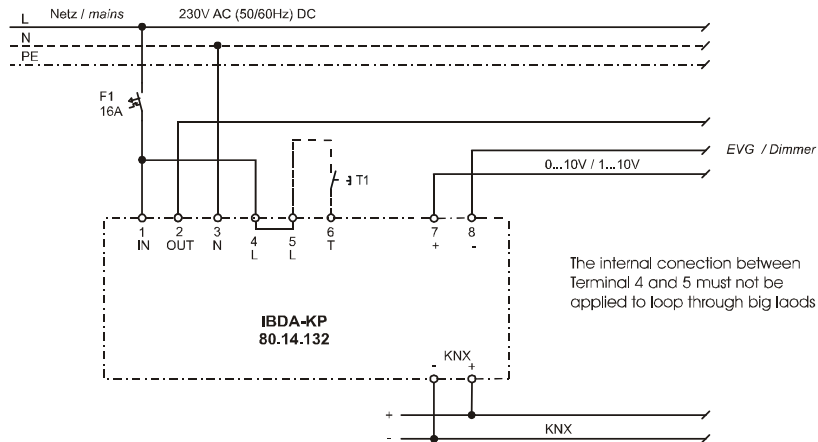
KNX Programmer Switch-Dim-Actuator

A	Characterization:	KNX Programmer Switch-Dim-Actuator
	Type:	IBDA-KP
	Order-No.:	80.14.132

B The KNX Programmer Switch-dim-actuator is suitable for the control of a max. of 100 EVGs with 1...10V interface. With KNX-switch and dim commands the connected ballasts can be switched ON and OFF as well as dimmed. Additionally the dim-actuator stores 25 scenes with fade control from scene to scene and a corridor and cleaning light control. Finally an automatic scene sequence can be programmed and selected (scene sequence control). With the combination of 3 programmable switch –dim-actuators for instance a color sequence control (RGB) can be realized.

C	Technical data:	
Designation	:	KNX Programmer Switch-Dim-Actuator
Type	:	IBDA-KP
Order-No.	:	80.14.132
Power supply	:	230V AC 50/60Hz
Own consumption	:	approx. 2W according to type
Ambient temperature	:	0°C...45°C
Relay switching output	:	Voltage-free relay contact (normally open contact) μ contact gap: function switching, no reliable isolation
Load capacity	:	Lamp load: max. 250V~/16A~
Condenser load	:	max. 200μF ⇒ 43 pcs.* elec. bal. 1 lamp 18W, 35 pcs. * elec. bal. 2 lamp 18W 35 pcs.* elec. bal. 1 lamp 36W, 25 pcs. * elec. bal. 2 lamp 36W 25 pcs. * elec. bal. 1 lamp 58W, 17 pcs. * elec. bal. 2 lamp 58W,
protection	:	external max. 16A MCB
Control output	:	0...10V, 5mA max (active) for altenburger dimmers 1...10V, 100mA max for EVG
Pushbutton inlet T	:	max. 250V (pushbutton for mains)
Protective class	:	II (protective isolation)
Protective type	:	IP20
Contamination grade	:	2 (dry non-conductive)
Internal display-	:	1xKNX-Programming LED
Control	:	1xKNX-Programming pushbutton
Terminals	:	screw terminals: solid wire/litz wire with sleeve 0,25-2,5mm ² Load In- Output: terminals No. (1, 2) Power supply : N, L terminals No. (3, 4) control input : L, T terminals No. (5, 6) control output : + / - terminals No. (7, 8)
Max. wire length	:	100m
Wire installation	:	accord. to the general rules of installation, isolation, protection and minimum sections to be observed
Housing	:	isolated housing (for the mounting on DIN-rail systems)
Dimensions	:	WxHxD=72x90x64mm
Weight	:	approx.. 210g
KNX	:	Contact via WAGO-plug
Wires	:	KNX-cable
KNX-supply	:	24VDC (+6V/-3V) KNX-power supply
Own consumption	:	max 290mW at 29VDC
Designation	:	EIB / KNX, CE

D Wiring diagram:



E ETS-Search path:

Product family: Lighting
 Product type: Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

EIB/KNX DALI Switch-Dim-Actuator

A

Characterization:	EIB/KNX DALI Switch-Dim-Actuator
Type:	IBDA-DP
Order-No.:	80.14.170

B

The EIB/KNX-DALI Switch-dim-actuator is suitable for the control of a max. of 100 DALI-ballasts. The DALI-circuits can be integrated into EIB/KNX-systems. An assignment to groups is not necessary. Each DALI can directly be assigned. The dim-actuator includes already the power supply for the interfaces of the 100 DALI-ballasts.

With EIB/KNX-switch and dim commands the connected ballasts can be switched ON and OFF as well as dimmed. Additionally the dim-actuator stores 25 scenes with fade control from scene to scene and a corridor and cleaning light control. Additionally several scenes can be programmed and selected in a sequence (scene sequence control) with the combination of 3 EIB-KNX DALI-switch-dim-actuators for instance a colour sequence control (RGB) can be realized.

C

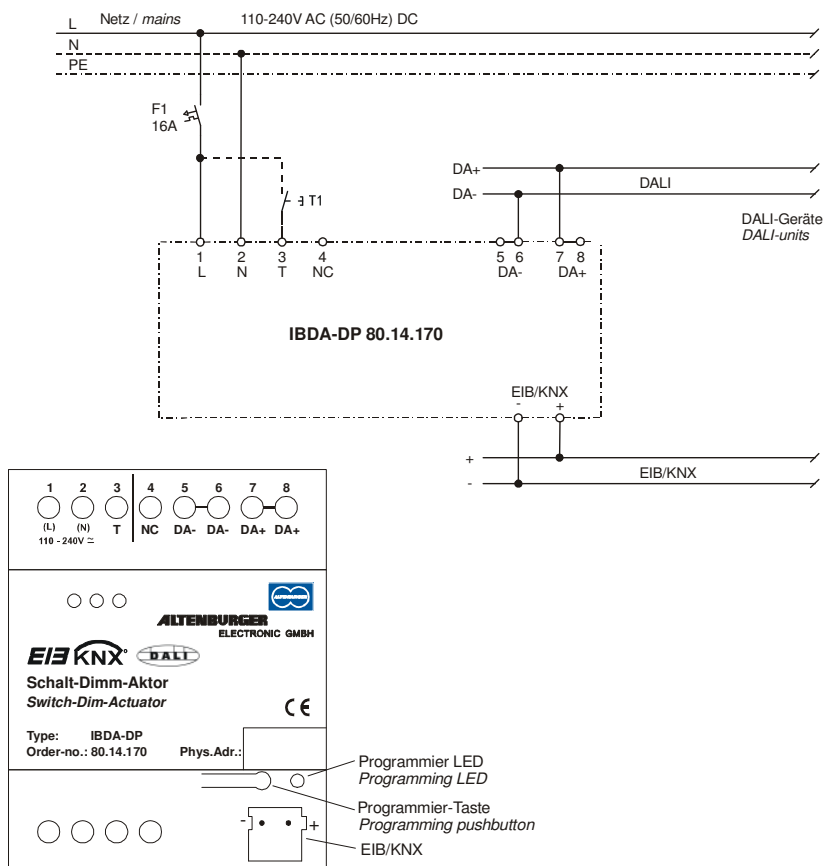
Technical data:

Designation	: EIB/KNX DALI Switch-Dim-Actuator
Type	: IBDA-DP
Order-No.	: 80.14.170
Power supply	: 110V-240V AC 50/60Hz, 110V-240V DC
Own consumption	: approx. 0,7 - 5,8W according to type
protection	: external 16A MCB
Ambient temperature	: 0°C...45°C
Protective class	: II (protective isolation)
Protective type	: IP20
Contamination grade	: 2 (dry non-conductive)
DALI-interface	: interface accord. to DALI-specification, interface poled. Current supply for a max of 100 DALI-ballasts approx. 200mA/13V DC (U ₀ approx. 15V DC) - I _k <250mA DC, max. 22,5V DC - electronic current limitation - DALI-Interface with basic isolation, no protective low-voltage
Pushbutton inlet T	: max. 240V (pushbutton for mains)
internal display- Control	: 3x LED: display for module states, 1xEIB/KNX-Programmer LED 1xEIB/KNX-Programmer pushbutton
Terminals	: screw terminals: solid wire/litz wire with sleeve 0,25-2,5mm ² Power supply : L, N terminals No. (1, 2) control input : T terminals No. (3) NC : NC terminals No. (4) (may not be used) DALI-interface : DA+ DA- terminals No. (7/8, 5/6) terminal 7 and 8 are internal connected terminal 5 and 6 are internal connected
Max. wire length	: 100m DALI-wires: max. 300m with 1,5mm ² or accord. to the following table (distance between IBDA-DP and DALI-ballasts)
Wire installation	: accord. to the general rules of installation, isolation, protection and minimum sections to be observed
Housing	: isolated housing (for the mounting on DIN-rail systems)

Dimensions : WxHxD=72x90x64mm (4TE)
 Weight : approx.. 200gr
 EIB/KNX : Contact via WAGO-plug
 Wires : EIB/KNX-cable
 EIB/KNX-supply : 24VDC (+6V/-3V) EIB/KNX-power supply
 Own consumption : max 290mW at 29VDC
 Designation : EIB / KNX, CE, DALI

Expect to mains terminals and the pushbutton input no mains potentials may be connected to the module
 All DALI-modules are requiring as minimum a basic isolation

D Wiring diagram:



E ETS-Search path:

Product family : Lighting
 Product type : Dimmer

Characterization: 1-Key-Dimmer-Scene RGB, Vers. 2.2

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

F Parameter description

The devices ALTODIM 600-0/P, 1400-0/P, 600/P, 1300/P, 2000/P are working with the application 1-Key-Dimmer Scene RGB, version 2.2 See ALTODIM 600-0/P (chapter 7.2.1.3)

IR-DECODER-/PROGRAMMER UNIT

A	Characterization:	IR-Decodier-/Programmer unit	
	Type:	IBIR-P	
	Orde-No.:	80.14.402	

Accessories:

FU-sensor	FU-E/S; Order-No.	52.10.000
Handheld FU-transmitter	FU12; Order-No.	50.13.550
Handheld FU-transmitter	FU/PRO; Order-No.	50.13.547
IR-sensor	IR-E/S; Order-No.	50.13.041
Handheld IR-transmitter	IR-12; Order-No.	50.13.548
Handheld IR-transmitter	IR/PRO; Order-No.	50.13.545

B Functional description:

The IR-decoder-/programmer unit is a plug-in module for DIN rail cabinets. It converts the electrical signals of the respective IR/FU-sensors into bus-telegrams. With handheld IR/FU-transmitters e.g. ON/OFF switchings, jalousie controls, dimming controls, scene selections, scenes and cleaning light programmes etc. can be executed.

Up to 6 IR-pre-amplifier or one FU-pre-amplifier can be connected to one IBIR-P. Also several handheld IR/FU-transmitters can be assigned to one IBIR-P. The required functions of the individual keys as well as the assignment of levels can be adjusted via the EIB-tool software. Via the assignment of levels several IR/FU-transmitters with identical key functions can send different commands to one IBIR-P. With one IBIR-P up to 3 programmable dimming controls as well as additional functions like ON/OFF and jalousies can be operated. For the extension of the functions up to 3 IBIR-P can be connected in parallel to the IR/FU-sensors.

The IR-decoder-/programmer unit has 2 service LED's. The LED "receipt" indicates the receipt of signals of the IR/FU-sensor. The LED "evaluation" signalizes the sending of bus-telegrams: the handheld IR/FU-transmitter corresponds with the parametrizing and the respective object is interconnected.

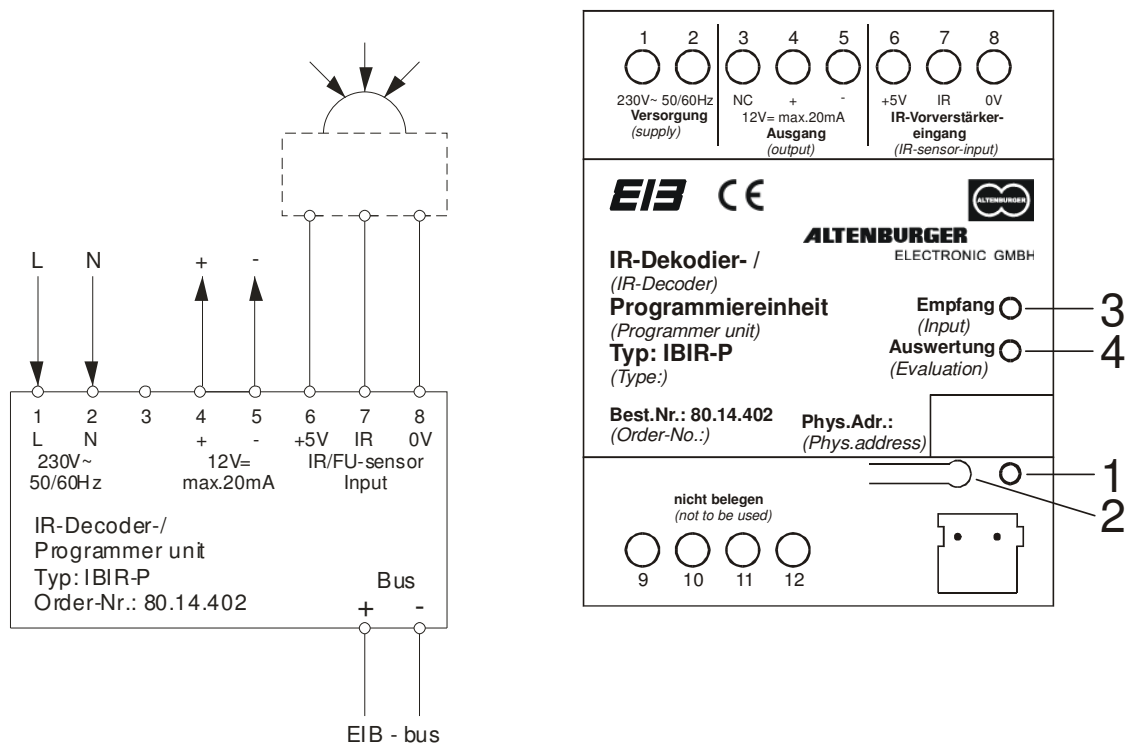
The module additionally has a 12V DC outlet. This outlet can be used for the supply of other modules, e.g. switch-dim actuators 1-10V.

C Technical data:

EIB supply	
Voltage:	24V DC (+6V / -4V)
Load capacity:	max. 100mW
External supply	
Voltage:	230V AC 50/60Hz
Power consumption:	approx. 1W
Input	
	max. 1 FU-sensor
	max. 3 IR-sensors
	Basic isolation according to IEC 664 (10/92) no protective extra-low voltage
Output	
Voltage:	12V DC
Current:	max. 20mA
	If several IR-sensors are connected the current is reduced as follows: $I = 20\text{mA} - (\text{number of IR-sensors} \times 3 \text{ mA} - 3 \text{ mA})$

C	Wire length:	max. 100m for control wire 0,5mm ² , load wire 1,5mm ²		
	Terminals:	EIB via pressure contacts		
		Screw contacts	- solid wire	0,2mm ² - 4mm ²
			- litz wire with sleeve	0,2mm ² - 2,5mm ²
	Dimensions:	WxHxD = 72x90x64,5mm		
	Weight:	approx. 200gr		
	Mounting:	snap-on on DIN rails, natural convection at vertical placement of the components		
	Ambient temperature:	0°C to +45°C		
	Protective class:	II (Protective isolation)		
	Protective type:	IP 20		
	Test mark:	EIB		

D
Wiring diagram



Control components:

- | | | |
|----|-------------|-------------------------|
| 1) | LED: | Programming-LED |
| 2) | Pushbutton: | Programming Pushbutton |
| 3) | LED: | Input-LED (green) |
| 4) | LED: | Evaluation -LED (green) |

E ETS-Search-path:

Product family: Infrared
 Product type: Decoder

Characterization: IR-decoder-/programmer unit 3, Vers.3.0

Number of addresses: 22
Number of assignments: 22

Object description ¹:

Number	Name	Size	Function²
Object 0	ON/OFF area 1	1 bit	switching
Object 1	dimming area 1	4 bit	dimming
Object 2	ON/OFF area 2	1 bit	switching
Object 3	dimming area 2	4 bit	dimming
Object 4	ON/OFF area 3	1 bit	switching
Object 5	dimming area 3	4 bit	dimming
Object 6	ON/OFF area 4	1 bit	switching
Object 7	dimming area 4	4 bit	dimming
Object 8	ON/OFF	1 bit	switching
Object 9	programming/dimming	4 bit	dimming
Object 10	jalousie 1 up/down	1 bit	up/down
Object 10	circuit 1.1 ON/OFF	1 bit	switching
Object 11	venetian blind 1 open/closed	1 bit	venetian blind/stop
Object 11	circuit 1.2 ON/OFF	1 bit	switching
Object 12	jalousie 2 up/down	1 bit	up/down
Object 12	circuit 2.1 ON/OFF	1 bit	switching
Object 13	venetian blind 2 open/closed	1 bit	venetian blind/stop
Object 13	circuit 2.2 ON/OFF	1 bit	switching
Object 14	jalousie 3 up/down	1 bit	up/down
Object 14	circuit 3.1 ON/OFF	1 bit	switching
Object 15	venetian blind 3 open/closed	1 bit	venetian blind/stop
Object 15	circuit 3.2 ON/OFF	1 bit	switching
Object 16	scene area 1	1 byte	fade procedure
Object 17	scene area 2	1 byte	fade procedure
Object 18	scene area 3	1 byte	fade procedure
Object 19	programming / fading / circuit/ storage.	2 byte	fade time/programming
Object 20	jalousie 4 up/down	1 bit	up/down
Object 20	circuit 4.1 ON/OFF	1 bit	switching
Object 21	venetian blind 4 open/closed	1 bit	venetian blind/stop
Object 21	circuit 4.2 ON/OFF	1 it	switching

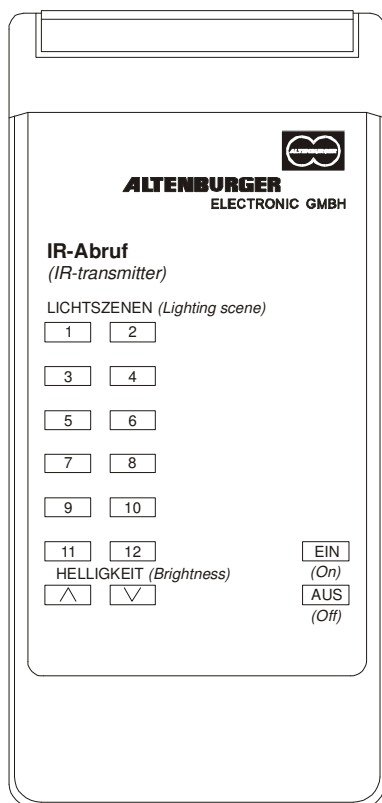
¹ The objects are managed in a dynamic mode. A maximum of 22 objects are available.

² The functions "UP/DOWN" or "venetian blind/stop" of objects 10-15 and 20,21 can be changed to the functions "switching" through respective parameter adjustments. Consequently up to 13 "switching" functions (ON/OFF) are available.

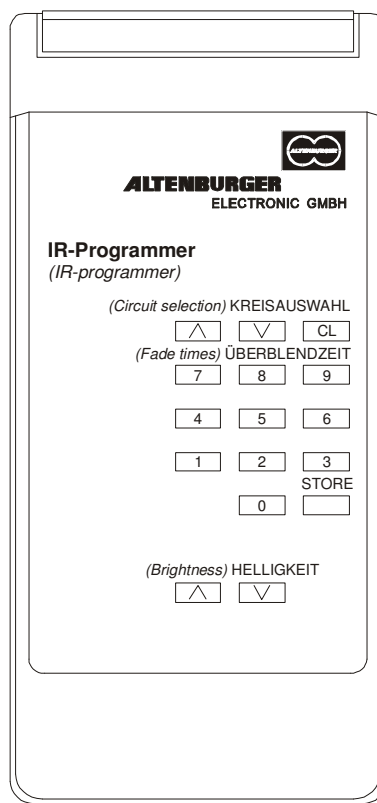
E

Description of the module functions as they are pre-adjusted in the data base:

The standard adjustment of the parameters corresponds with the operation and programming of a programmable dimming control system. These are the functions: ON/OFF, dimming, scene selection, program dimming and fade time/programming. The codes for the IR-transmitter are parametrized on the standard level 3 while the positions of the keys are parametrized on the Altenburger standard (please refer to our IR/FU-selection and the IR/FU-programmer).
The other parameters are not adjusted to any function. Consequently the objects are not displayed.



Handheld IR-transmitter



Handheld IR-programmer

The FU-transmitter and programmer looks alike the IR parts!

F

Parametrizing:

Parameter name:	Parameter adjustment:	Parameter description:
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The following 3 parameters must individually be adjusted for any function:

...-keys position at transmitter (left, upper corner of key block)	Handheld transmitter Row 1, column 1 Row 1, column 2...5 Row 2, column 1...5 Row 3...7, cloumn 1...5	This determines the position of the key. If the function is to be performed with several keys in this case the position of the keys in the upper left corner of the key board is defined.
...-keys order	Keys vertical Keys horizontal	For functions with 1-key-operation this parameter can not be adjusted. On functions with 2 keys it can be adjusted how the keys shall be arranged.
...-keys-IR-handheld transmitter-codes	Level 1 (no diode) Level 2 (D15) Standard level 3 (D14) Level 4 (D13) Level 5 (D12) Level 6 (D11) Level 7 (D10)	To be adjusted on which level the respective IR-transmitter shall operate.

The areas 1-4 and their parameters are identical. In area 4 an ON/OFF function replaces the function scene.

switching-dimming area 1

selection	no function combined switch/dim-functions separate switch/dim function	The required operation of the objects "switching" and "dimming" can be selected.
At combined switch-dim-function Function of key/keys	1-Key: Brighter-darker-On/Off (1T) 2-keys: Brighter/On-Darker/Off (2T)	If the objects ,switching' and "dimming" shall jointly be controlled it has to be adjusted if a 1-pushbutton control or a 2-pushbutton control shall be performed.
At separate switch-dim-functions Function On/Off	no function 1 key >switching: On/Off toggle 1 key>press:On release: Off 2 keys> On-Off 2 keys>Off-On	If a separate switch-dim-function shall be obtained it has to be adjusted if and how the ON/OFF function shall be operated.
Function dimming	no function 2 keys brighter-darker	If a separate switch-dim-function shall be obtained it has to be adjusted if and how the dimmer function shall be operated.

F Scene area 1		
Function	no function lighting scene	Setting if the scene function shall be activated or not.
Order of keys	1 vertical, 1 horizontal (1Scene) 1 vertical, 2 horizontal (2Scenes) 2 vertical, 1 horizontal (2Scenes) ... 6 vertical, 2 horizontal (12 Scenes)	With the functions scene through the arrangement of the keys the number of selectable scenes can be selected. The selector keys are arranged in one field. The shape of this field determines the number of scenes.
 Jalousie area 1/2xOn-Off		
selection	no function jalousie 2 x switch-circuits On/Off	This allows the selection of the required functions for 2 objects. If they are operating as "up/down" and "venetian blind/stop" or as 2x "switching" can be decided.
For 2 switch circuits On/Off Function switch circuit 1.1	No function 1 key:press:On/- release: off 2 keys On/Off 2 keys Off/On	At the selection of 2 switch circuits ON/OFF it can be adjusted if and how the 1. switch function shall be operated.
Function switch circuit 1.2	no function 1 key:press:On/- release: off 2 keys On/Off 2 keys Off/On	At the selection of 2 switch circuits ON/OFF it can be adjusted if and how the 2. switch function shall be operated.
 On/Off		
Function	no function 1 key>switching On/Off Toggle 1 key>press:On release: Off 2 keys > On-Off 2 keys > Off-On	It can be adjusted if and how this switch function shall be operated.
 Programmer-dimming		
Function	no function 2 keys: brighter-darker	This is to adjust if the dimming function shall be operated.
 Fadetime/circuit selection/storage		
Function	no function fade time/circuit selection store	This is to adjust if this function shall be operated.
Keys order	standard order	This parameter can not be adjusted.

C Technical data:

EIB supply
 Voltage: 24V DC (+6V / -4V)
 Power consumption: max. 150mW

Input
 Key switch: Voltage-free contact

Terminals: EIB via plug-connectors

Dimensions
 Wall-recessed housing: WxHxD = 200x100x80mm
 Weight: approx. 1,1kg
 Wall mounted housing: WxHxD = 225x125x80mm
 Weight: approx. 1,4kg
 Panel face: WxHxD = 220x120x2mm

Mounting: snap-on on DIN rails

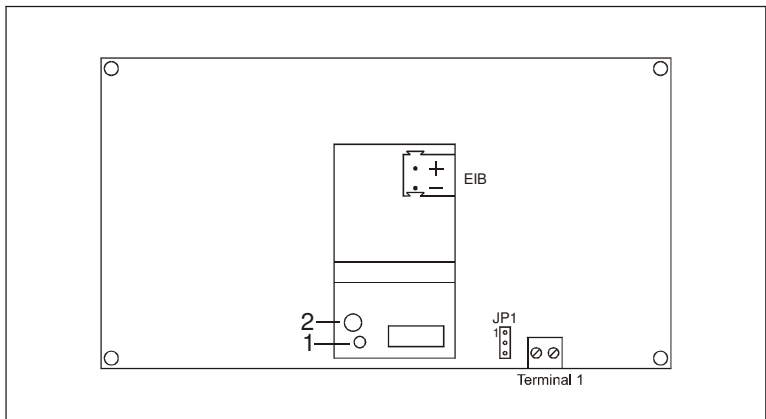
Ambient temperature: 0°C to +45°C

Protective class: II (Protective isolation)

Protective type: IP 20

Test mark: EIB

D Wiring diagram:

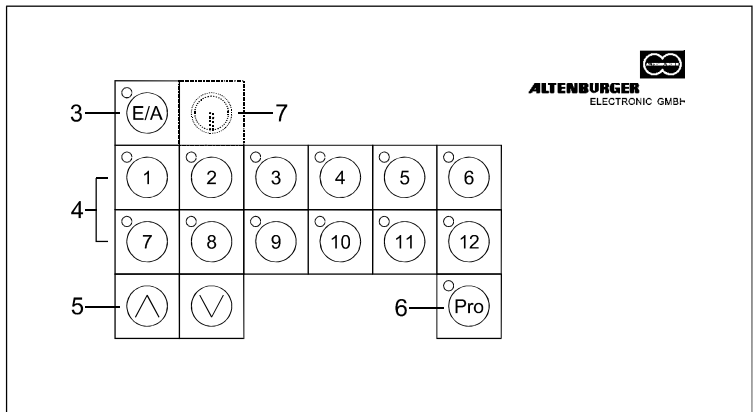


Position JP1: no interlocking of pushbuttons via terminal 1 possible
 Interlocking of pushbuttons via terminal 1 possible

Terminal 1 : key lock connection (voltage-free contact)
 (contact open - pushbutton interlocked)

Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming-Pushbutton



- 3) On/Off pushbutton with status LED
- 4) 12 scene pushbuttons with LED back indication
- 5) Brighter/Darker pushbuttons
- 6) Programmer pushbutton with LED back indication
- 7) Optional: key switch

E**ETS-Search path:**

Product family: Lighting
 Product type: Dimming

Characterization: Programmable scene selector panel FIB, Vers.3.0

Number of addresses: 46

Number of assignments: 46

Object description:

Number	Name	Size	Function
Object 0	programming mode	1 byte	transition of programming mode
Object 1	system ON/OFF	1 bit	switching
Object 2	scene	1 byte	fade
Object 3	master dimming	4 bit	dimming
Object 4	programming/dimming	4 bit	linkage/IR-decoder
Object 5	programming/fading/circuit/storage	2 byte	linkage/IR-decoder
Object 6	ind.circuits/switching/jalousie.	1 bit	linkage/ind. circuits
Object 7	ind.circuit/dimming	4 bit	linkage/ind. circuits
Object 8	ind. Circuit/fading/circuit/storage.	2 byte	linkage/ind. circuits

Object 0 Programming mode: This object is suitable for the communication with parallel operating programmable scene selector panels or panel extensions. As soon as at one of the panels (FIB) the pushbutton "PRO" is pressed the addressed FIB and IBTE-P modules are ready for programming. The transfer of the circuit selection is made via this object.

Object 1 System ON/OFF: This object switches the system ON/OFF

Object 2 Scene: with this objects the scenes 1-12 in the circuits are selected.

Object 3 Master dimming: the switch-dim actuators with the application programmer switch dim-actuator are being controlled with this object into brighter and darker.

Object 4 programming/dimming: this object receives the brighter/darker commands from the handheld IR-programmer. The incoming commands are again transferred during the programming procedure via the object 6 or 7, depending of the parameter adjustment.

Object 5 programming/fading/circuit/storage: this object receives the commands from the handheld IR-programmer with regard to the circuit selection, the fade time and the storage. The incoming commands are being transferred during the programming procedure via the object 8.

Object 6 individual circuit/switching/jalousie: this object would be required for the programming of the scenes and the cleaning light. All objects 0 of the actuators in one system with the application programmer-switch actuator must be linked with this object.

Object 7 individual circuits/dimming: this object is required for the programming of scenes and the cleaning light. All objects 1 of the actuators in one system with the application programmer switch dim-actuator must be linked with this object.

Object 8 individual circuit/fading/circuit/storage: this object is required for the programming of scenes and the cleaning light. All objects 3 of the actuators in one system must be linked with this object.

F Parametrizing:		
Parameter name:	Parameter adjustment:	Parameter description:
panel settings		
Takes over channel selection from panel no.:	1, 2, ..., 62, 63	With this parameter it is adjusted from which FIB or IBTE-P the circuit selection shall be taken. If for instance a programmable dimming control system includes ≤ 18 circuits the "own panel no." has to be noted. If it consists of more than 18 circuits the number of the following FIB and IBTE-P have to be noted.
Hands over channel selection to panel-no.:	1, 2, ..., 62, 63	With this parameter it is adjusted to which FIB or IBTE-P the circuit selection shall be handed. If for instance a programmable dimming control system includes ≤ 18 circuits the "own panel no." has to be noted. If it consists of more than 18 circuits the number of the following FIB and IBTE-P have to be noted.
Number of addressed single circuits (0-18)	0, 1, 2, ..., 17, 18	In this case the number of circuits are noted which shall be managed in this FIB. If the FIB has one programmer pushbutton a minimum of one circuit must be managed.
Own panel no.:	1, 2, ..., 62, 63	The "own panel number" is used for the transfer of the circuit selection during the programming procedure.
circuit 1-9 (type setting)		
circuits 10 –18 (type setting)		
individual circuit...is used as (applicable for individual circuits 1-9) individual circuit...is used as (applicable for individual circuits 10-18)	switch-dim circuit switch circuit jalousie circuit	The application of the individual actuators which are managed in this FIB has to be noted. The programming course of the circuits is determined through the sequence of the group addresses in object 8 of the FIB.

EXTENSION OF THE PROGRAMMABLE SCENE SELECTOR PANEL

A	Characterization:	Extension of the Programmable scene selector panel
	Type:	IBTE-P
	Order-No.:	80.14.161

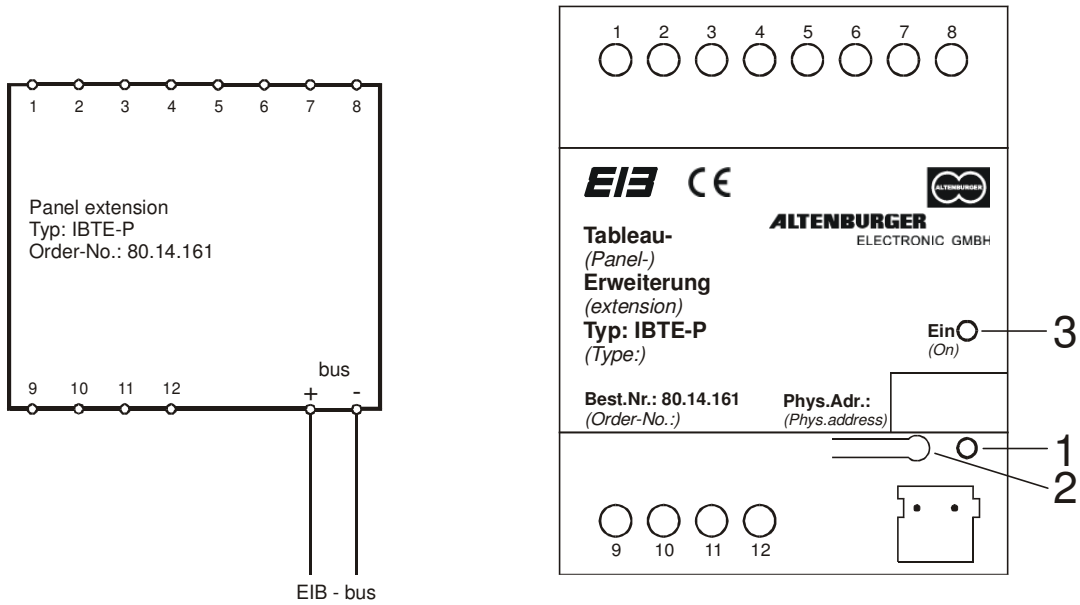
B **Function description:**

The extension of the programmable scene selector panel IBTE-P is a DIN-rail system which can be integrated into the programmable dimming control system with more than 18 circuits. It is able (as well as the control panel FIB) to program 18 circuits with a handheld IR-programmer.

C **Technical data:**

EIB supply	
Voltage:	24V DC (+6V / -4V)
Power consumption:	max. 150mW
Terminals:	EIB via plug-connectors
Dimensions:	WxHxD = 72x90x64,5mm
Weight:	approx. 200gr
Mounting:	snap-on on DIN rails, air-convection required at vertical placement of the components
Ambient temperature:	0°C to +45°C
Protective class:	II (Protective isolation)
Protective type:	IP 20
Test mark:	EIB

D Wiring diagram:



Control components:

- 1) LED: Programming-LED
- 2) Pushbutton: Programming Pushbutton
- 3) LED: Status LED indicating the readiness for programming (green)

E ETS-Search-path:

Product family: Lighting
 Product type: Dimming

Characterization: programmable scene selector panel FIB, Vers.3.0

Number of addresses: 46
 Number of assignments: 46

Object description:

Number	Name	Size	Function
Object 0	mode of programming	1 byte	transition of programming mode
Object 1	system ON/OFF	1 bit	switching
Object 2	scene	1 byte	fading
Object 3	master dimming control	4 bit	dimming
Object 4	programming/dimming	4 bit	linkage IR-decoder
Object 5	programming/fade time/ circuit/store	2 byte	linkage IR-decoder
Object 6	individual circuits/ switching/jalousie	1 bit	linkage individual circuit
Object 7	individual circuit/dimming	4 bit	linkage individual circuit
Object 8	individual circuit/ fade time/circuit/store	2 byte	linkage individual circuit

- E**
- Object 0 Programming-Mode:** This object is suitable for the communication between parallel operating programmable scene selector panels or panel extensions. If at an FIB-Panel the pushbutton "PRO" is pressed the IBTE-P can be programmed. The circuit selection is made with this object.
 - Object 1 System ON/OFF:** This object is of no importance within this panel.
 - Object 2 Scene:** This object is of no importance within this panel.
 - Object 3 Master control:** This object is of no importance within this panel.
 - Object 4 Programming/Dimming:** this object receives its brighter/darker commands from the handheld IR-programmer. The commands are being sent again via the objects 6 or 7 during the programming procedure-depending on the parametrizing.
 - Object 5 Programming/Fade time/Circuit/Storage:** this object receives from the handheld IR-programmer the commands for the circuit selection, the fade time and the storage. The received commands are being sent via the object 8 again during the programming procedure.
 - Object 6 individual circuits/switching/jalousie control:** this object is required for the programming of the scenes and the cleaning light. All objects 0 of the actuators in one system with the application programmer-switch actuator must be interlinked with this object.
 - Object 7 Individual circuits/dimming:** this object is required for the programming of the scenes and the cleaning light. All objects 1 of the actuators in one system with the application programmer-switch actuator must be interlinked with this object.
 - Object 8 Individual circuits/fade time/circuits/storage:** this object is required for the programming of the scenes and the cleaning light. All objects 3 of the actuators in one system with the application programmer-switch actuator must be interlinked with this object.

F

Parameter name:	Parameter adjustment:	Parameter description:
panel-settings		
Takes over channel selection from panel no.:	1, 2, ..., 62, 63	With this parameter it is adjusted from which FIB or IBTE-P the circuit selection shall be taken. If for instance a programmable dimming control system includes ≤ 18 circuits the "own panel no." has to be noted. If it consists of more than 18 circuits the number of the following FIB and IBTE-P have to be noted.
Hands over channel selection to panel-no.:	1, 2, ..., 62, 63	With this parameter it is adjusted to which FIB or IBTE-P the circuit selection shall be handed. If for instance a programmable dimming control system includes ≤ 18 circuits the "own panel no." has to be noted. If it consists of more than 18 circuits the number of the following FIB and IBTE-P have to be noted.
Number of addressed single circuits (0-18)	0, 1, 2, ..., 17, 18	In this case the number of circuits are noted which shall be managed in this FIB. If the FIB has one programmer pushbutton a minimum of one circuit must be managed.

F	Own panel number	1, 2, ..., 62, 63	The "own panel number" is used for the transfer of the circuit selection during the programming procedure.
	circuit 1-9 (type setting) circuits 10 –18 (type setting)		
	individual circuit...is used as (applicable for....individual circuits 1-9 / 10-18)	switch-dim-circuit switch circuit jalousie circuit	The application of the individual actuators which are managed in this FIB has to be noted. The programming course of the circuits is determined through the sequence of the group addresses in object 8 of the FIB.

VERSIONS OF ALTENBURGER PROGRAMMABLE DIMMING CONTROL SYSTEMS

The Altenburger Programmable Dimming Control System allows different control versions. These can be combined in a multi-fold way by each other and can be extended with additional EIB-components.

The following versions are just a selection. For more applications please refer to ALTENBURGER ELECTRONICS.

- **Version 1**

Programmable Dimming Control System with individual circuit control and scene selection via a time switch

- Programmer-switch-dim-actuators and programmer switch actuators
- IR-decoder/programmer unit
- Programmable panel and – if required – panel extensions
- Dim-jalousie sensor for individual circuit controls (ON/OFF, BRIGHTER/DARKER)
- 1-/2-/4-channel time switches for the time dependent selection of lighting scenes.

- **Version 2**

Programmable Dimming Control System with visualization and programming via infrared

- Programmer-switch-dim-actuators and programmer switch actuators
- IR-decoder/programmer unit
- Programmer-control panel extensions
- Visualization with a PC, a notebook or touch panel PC

- **Version 3**

Programmable Dimming Control System with selection and programming via visualization

- Programmer-switch-dim-actuators and programmer switch actuators
- Visualization with a PC, a notebook or touch panel PC

- **Version 4**

Programmable Dimming Control System with selection via EIB-sensors and programming via scene-storage sensors

- Programmer-switch-dim-actuators and programmer switch actuators
- EIB-sensors for ON/OFF, scene selection and master dimming
- EIB-sensors for individual circuit controls
- Dim-jalousie sensor as a scene storage sensor

Visualization

With the visualization software layouts with the actual states of the lighting circuits can be displayed. It is possible to visualize control components (pushbuttons, switches, sliding potentiometers) with which the different functions can be operated. Furthermore it is possible to program the lighting system with the visualization and to control the circuits and scenes in a time depending mode. Further functions on request.

VERSIONS OF ALTENBURGER PROGRAMMABLE DIMMING CONTROL SYSTEMS

Personal notes:

PLANNING OF AN ALTENBURGER PROGRAMMABLE LIGHTING CONTROL

The following description of a smaller project shall indicate how a programmable dimming control is planned.

The project includes the following components:

- 1 IR-Decoder/programmer unit
- 3 Programmer switch-dim-actuators
with the device function switch-dim-actuator
- 1 Programmer-switch-dim-actuator with the
device function switch actuator
- 1 Programmable scene selector panel
- 1 Extension of the programmable scene selector panel

Functions of the programmable scene selection:

- System ON/OFF with back indication
- Selection of 12 scenes
- Master control (dimming)
- Programming of the scenes
- Transit/cleaning light
- Color Control (RGB)

The addressing should be made exactly according to the enclosed ETS-sample.

During the addressing the following has to be observed:

- The addresses for the dimming objects of all switch dim actuators must be entered in an ascending complete sequence into the address table. If the programmable lighting control includes also switch actuators the addresses for the ON/OFF circuits have to be incorporated into the sequence of the addresses of the dimming objects. The sequence of the addresses determines later in which sequence the circuits can be programmed with the handheld IR-programmer.
- In a following steps a number of reserve addresses should be entered in order to reduce the projecting efforts at possible extensions as far as possible (dimmer-or circuit ON/OFF objects must be entered in an ascending complete mode into the address table).
- Following the addresses for the fade time objects of all actuators also in an ascending complete mode must be entered into the address table. It is important that the addresses being determined for a dimming – or circuit ON/OFF object and fade time object always are placed at the same spot of the sequence of the addresses.
- Following on these addresses again a number of reserve addresses should be entered in order to reduce the project efforts during a possible extension (fade time objects again must be entered in an ascending complete sequence into the address table).
- The addresses of all other objects would not require a defined sequence. On organization reasons we would suggest however to set up the address table always at the same sequence.

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Address-Table:

1/1	Dimming switch-dim-actuator 1
1/2	Dimming switch-dim-actuator 2
1/3	Switching switch-actuator 1
1/4	Dimming switch-dim-actuator 3
1/5-1/100	Switching switch-actuator
1/101	Fade time switch-dim-actuator 1
1/102	Fade time switch-dim-actuator 2
1/103	Fade time switch-actuator 1
1/104	Fade time switch-dim-actuator 3
1/105-1/200	Reserve for extensions
1/201	Value-setting switch-dim actuator 1 (prepared for a possible later usage)
1/202	Value-setting switch-dim actuator 2 (prepared for a possible later usage)
1/203	(should not be used on reasons of a better distinctness)
1/204	Value setting switch-dim-actuator 3 (prepared for possible later usage)
1/205	Switching switch-dim-actuator1
1/206	Switching switch-dim-actuator2
1/207	Switching switch-dim-actuator3
1/208-1/300	Reserve for extensions
1/301	Programming mode
1/302	System ON/OFF
1/303	ON/OFF state of the system
1/304	Master dimming
1/305	Scene selection
1/306	Programmer dimming
1/307	Programmer fade time
1/308	Transit/cleaning light
1/309	RGB player 1 start
1/310	RGB player 2 start (prepared for a possible later usage)
1/311	RGB recorder 1 start
1/312	RGB recorder 2 start (prepared for a possible later usage)
1/313	Status request

Projektierung einer Altenburger Programm-Lichtsteuerung

The objects of the different components are interconnected to each other as follows:

Addresses	Switch-dim-actuator 1	Switch-dim-actuator 2	Switch-actuator 1	Switch-dim-actuator 3	IR-decoder/programmer unit	Programmable Scene selector panel	Extension of the progr. scene selector panel
1/1	Object 1					Object 7	
1/2		Object 1				Object 7	
1/3			Object 0				Object 6
1/4				Object 1			Object 7
1/5-1/100							
1/101	Object 3					Object 8	
1/102		Object 3				Object 8	
1/103			Object 3				Object 8
1/104				Object 3			Object 8
1/105-1/200							
1/201	Object 2						
1/202		Object 2					
1/203							
1/204				Object 2			
1/205	Object 0						
1/206		Object 0					
1/207				Object 0			
1/208-1/300							
1/301						Object 0	Object 0
1/302	Object 6	Object 6	Object 6	Object 6	Object 0	Object 1	Object 1
1/303	Object 6					Object 1	Object 1
1/304	Object 1	Object 1		Object 1	Object 1	Object 3	Object 3
1/305	Object 4	Object 4	Object 4	Object 4	Object 16	Object 2	Object 2
1/306					Object 9	Object 4	Object 4
1/307					Object 19	Object 5	Object 5
1/308	Object 5	Object 5	Object 5	Object 5			
1/309	Object 10+12	Object 10+12		Object 10+12			
1/310	Object 11+14	Object 11+14		Object 11+14			
1/311	Object 13	Object 13		Object 13			
1/312	Object 15	Object 15		Object 15			
1/313	Object 8	Object 8		Object 8			

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Details for the interlinking of a switch-dim-actuator:

Object 0	Circuit ON/OFF:	<ul style="list-style-type: none">• The value of the object can be sent as a status back indication• Can be linked to suitable objects of different sensors
Object 1	Dimming:	<ul style="list-style-type: none">• to be interlinked with object 7 of the programmable scene selector panel for the adjustment of the brightness of a lighting scene during the programming procedure.• can be interlinked with suitable objects of different sensors.
Object 2	Setting of values:	<ul style="list-style-type: none">• a value between 0 and 255 can be send to the dimmer.
Object 5	System ON/OFF:	<ul style="list-style-type: none">• to be interlinked with object 1 of the programmable scene selector panel• to be interlinked with object 0 of the IR-decoder/Programmer unit• value of the object can be sent as a status back indication• can be interlinked with suitable objects of different sensor
Object 6	System dimming	<ul style="list-style-type: none">• to be interlinked for the function of the system dimming with object 3 of the programmable scene selector panel
Object 8	Status request	<ul style="list-style-type: none">• with this object several feedbacks can be requested. The selection of feedbacks which are send, can be selected by parameter.
Object 10	repeat RGB Sequence	<ul style="list-style-type: none">• to be interlinked with object RGB Player start to repeat a sequenz
Object 12	RGB Player start	<ul style="list-style-type: none">• can be interlinked with suitable objects of a pushbutton
Object 16	Scene store/fading	<ul style="list-style-type: none">• to be interlinked with object 2 of the programmable scene selector panel• to be interlinked with object 16 of the IR-decoder/programmer unit• can be interlinked with suitable object of different sensors
Object 19	Transit-/Cleaning light:	<ul style="list-style-type: none">• to be interlinked with the switch object of the transit/cleaning light pushbutton• can be interlinked with suitable objects of different sensors
Object 21	Fade time/Circuit selection:	<ul style="list-style-type: none">• to be interlinked with object 8 of the programmable scene selector panel for the programming of a lighting scene

Interlinking of a switch-actuator:

Object 0	Circuit ON/OFF:	<ul style="list-style-type: none">• to be interlinked with object 6 of the programmable scene selector panel for the adjustment of the switching states of a lighting scene during the programming procedure• value of the object can be sent as a status back indication• can be interlinked with suitable objects of different sensors
Object 5	Transit-/Cleaning light	<ul style="list-style-type: none">• to be interlinked with the switch object of the transit cleaning light Pushbutton
Object 6	System ON/OFF:	<ul style="list-style-type: none">• can be interlinked with suitable object of different sensors• to be interlinked with object 1 of the programmable scene selector panel• to be interlinked with object 0 of the IR-decoder/programmer unit• value of the object can be sent as a status back indication• can be interlinked with suitable objects of different sensors
Object 16	Scene storing/fading	<ul style="list-style-type: none">• to be interlinked with object 2 of the programmable scene selector panel• to be interlinked with object 16 of the IR-decoder/programmer unit• can be interlinked with suitable objects of different sensors
Object 21	Fade time/Circuit selection/storage:	<ul style="list-style-type: none">• to be interlinked with object 8 of the programmable scene selector panel for the programming of a lighting scene

Interlinking of an IR-decoder/Programmer unit:

Object 0	ON/OFF Area 1:	<ul style="list-style-type: none"> • to be interlinked with object 5 of the switch-dim-actuators and the switch-actuators as system ON/OFF • to be interlinked with object 1 of the programmable scene selector panel as system ON/OFF • can be interlinked with suitable objects of different actuators
Object 1	Dimming Area 1:	<ul style="list-style-type: none"> • to be interlinked with object 6 of the switch-dim-actuators for the function of a master dimming control • can be interlinked with a suitable object of different actuators
Object 9	Programming/ dimming	<ul style="list-style-type: none"> • to be interlinked with object 4 of the programmable scene selector panel for the programming via a handheld IR-programmer • can be interlinked with suitable objects of different actuators
Object 16	Scene Area 1:	<ul style="list-style-type: none"> • to be interlinked with object 16 of switch dim actuators and switch actuators
Object 19	Programming/ Store/ Fading/ Circuit	<ul style="list-style-type: none"> • to be interlinked with object 5 of the programmable scene selector panel for the programming with the handheld IR-programmer

Interlinking of a programmable scene selector panel and a panel extension:

Object 0	Programming- Mode:	<ul style="list-style-type: none"> • to be interconnected with object 0 from parallel programmable scene selector panels or panel extensions
Object 1	System ON/OFF:	<ul style="list-style-type: none"> • to be interlinked with object 5 of the switch dim actuators and the switch actuators
Object 2	Scene:	<ul style="list-style-type: none"> • to be interlinked with object 16 of the switch dim actuators and switch actuators • must not be interlinked at a panel extension
Object 3	Master- dimming control:	<ul style="list-style-type: none"> • can be interlinked with object 6 of the switch dim-actuator for the functioning "Master dimming control" • may not be interlinked for a panel extension
Object 4	Programming/ dimming:	<ul style="list-style-type: none"> • to be interlinked with object 9 of the IR-decoder/programmer unit
Object 5	Programming/ Fade Time/Circuit/ Store	<ul style="list-style-type: none"> • to be interlinked with object 19 of the IR-decoder/programmer unit
Object 6	Individual circuit/ Switching/jalousie	<ul style="list-style-type: none"> • to be interlinked with all objects 0 of the switch-actuators within the system
Object 7	Individual circuit/ dimming:	<ul style="list-style-type: none"> • to be interlinked with all objects 1 of all switch dim-actuators within the system
Object 8	Individual circuit/ Fade Time/circuit/ Store	<ul style="list-style-type: none"> • to be interlinked with all objects 21 of the switch dim actuators and switch actuators within the system

Important parameters which have to be observed during the planning of a programmable dimming control system:

- **Device Typ ALTODIM XXXX/P and IBDA-KP and IBDA-DP**

In connection with this devices within a system, independent of the device function, particularly the following points have to be observed.

- Altenburger programm option: Only if this parameter is set to „enable“, the object no. 21 is shown.
- Not used objects / parameters are not shown.
- System, Szene and Transit-/ Cleaning light feedbacks should only send by one actuator. The feedbacks of the other devices should not interlinked or disabled in the parameter “status request”.

- **IR-Decoder/programmer unit IBIR-P**

At the IBIR-P it has to be observed that the pushbuttons which are arranged at the same level are not overlapping to another one. Otherwise malfunctions would be possible.

- **Programmable scene selector panels FIB and Panel extensions IBTE-P**

If a system of a maximum of 18 individual circuits (IBDA-XXX/P) have to be planned the parameters “TAKE” as well as “Assignment circuit selection ...” must be adjusted identical with a parameter “own panel number”. In systems with more than 18 IBDA-P additional FIB or IBTE-P are require. In this case all FIB and IBTE-P are being numbered in a sequence at the parameter “own panel number”. The parameter “TAKE” as well “Assignment circuit selection” must be adjusted such that they form with all parameters “own panel number” a kind of circle.

At “number of addressed individual circuits” it has to be adjusted how many circles in the panel or the panel extension shall be handled. This adjustment is identical with the number of group addresses in object 8.

The parameter adjustments at a programmable lighting control with for instance 50 IBDA-KP could be as follows:

Panel (FIB) no. 1	Panel (FIB or IBTE-P) no. 2	Panel (FIB or IBTE-P) no. 3
Take of circuit selection from panel no. 3	Take of circuit selection from panel no. 1	Take of circuit selection from panel no. 2
Handing over of panel selection at panel no. 2	Handing over of panel selection at panel no. 3	Handing over of panel selection at panel no. 1
Number of addressed individual circuits: 18	Number of addressed individual circuits: 18	Number of addressed individual circuits: 14
Own panel no.: 1	Own panel no.: 2	Own panel no.: 3

Personal notes:

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