

EIB/KNX Lighting Controls



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The production program comprises complete EIB/KNX-programmable dimming controls. They are internally wired, including all required components, programmed and addressed.

The systems survey on the pages 18/19 shows the combination of the different modules with the EIB/KNX control panels in form of pushbutton panels or touch screens. In both cases a visualization can be made with architectural layouts, light fixtures or groups, their function as well as supplementary controls for shutters, sun protection or curtains.

The functions of the different EIB/KNX modules being suitable for individual controls as well as for programmable control systems are shown on the following pages.

DIN rail cabinet for a programmable dimming control system with all required components

Illustration	Description	Туре	Order-No.
-	FENBURGER EIB/KNX dimmers, shutter a for wall-recessed DIN or BS-1-gang bo		
	1-pushbutton panel, custom (non-KNX) in connection with GER EIB/KNX load dimmer (ALTC switch dim-actuator with 0-10V face, Type IBDA/KP (s. page 12) of Switch-Dim-Actuator Type IBDA- Functions: BRIGHTER-DARKER-ON/OFF. The last light level being set before will be achieved again after swit	an ALTENBUR- DDIM, s.page 9), or 1-10V inter- or with the DALI- DP (s.page 12). re switching OFF	80.14.540



3-pushbutton panel with integrated bus-coupling unit in connection with ALTENBURGER EIB/KNX-dimmers and with switch dim-actuators as referred to under panel type NT 1. Pushbutton functions: BRIGHTER-DARKER-ON/OFF. Suitable in connection with EIB-projects. Optional: LED indication for ON. NT 3 SO

80.14.541



4-pushbutton panel NT
with integrated bus-coupling unit with functions:
2 circuits, each one ON/BRIGHTER
and DARKER/OFF
or
1 circuit ON/BRIGHTER and DARKER/OFF
1x shutter, open/close
optional: other pushbutton functions

Suitable EIB/KNX dimmers as under type NT1

NT 4 SO

80.14.542

Standard design for all panels: frame and plates aluminium natural anodized, brushed, dull or polished, Pushbutton black with white symbols For further combinations please refer to page 20

Illustration	Description	Туре	Order-No.
•	RGER EIB/KNX dimmers, shutter and ventilato all-recessed DIN or BS-1-gang boxes (55 mm Ø	-	
	5-pushbutton-panel with integrated bus-coupling unit with the pushbuttons: 4xScenes 1xON/OFF with LED-back indication for 2 circuits BRIGHTER/DARKER and 1xMaster control ON/OFF Optional: other pushbutton functions Suitable EIB/KNX dimmers as under type NT1	NT 5 SO	80.14.543



6-pushbutton-panel	NT 6 SO
for 6 switch or dim-functions	
Optional: other pushbutton functions	
Optional: with or without LED back indication	

Suitable EIB/KNX dimmers as under type NT1



Programmable scene selector panelsMini-in combination with programmable ALTENBUR-GER EIB/KNX load dimmers (ALTODIM/P – seeFIB6/PROgage 10 and 11), switch dim-actuators 0-10 V or1-10V interface (type IBDA-KP s.page 12) or withFIB6/PROEIB/KNX DALI-Switch-Dim-Actuator, Type IBDA/DP(s.page 12).Fib6/PROPushbutton functions:6xScene selection (with LED indication)Fib6/PRO1xDARKER1xON/OFF (with LED indication)1xProgramming (with LED indication)1xProgramming (with LED indication)Other pushbutton functions optional:

80.14.510

80.14.544

Illustration	Description	Туре	Order-No.
	EIB/KNX Programmable scene selector panel, 81 x 81 mm For 1-gang boxes DIN 55 mmØ flat design (h=12mm) Pushbutton functions: 12 x Scene selection with LED-indication 1 x BRIGHTER 1 x DARKER 1 x ON/OFF with LED- indication 1 x Programming with LED-indication Colour combinations please refer to page 20	FIB 12/PRO	80.14.520



EIB/KNX Programmable scene selector panelFIB 12S80.14.530With the functions:12 x Scenes with LED-indication1 x BRIGHTER1 x DARKER1 x ON/OFF with LED-indication41 x Programming with LED-indication550 ptional: with interlock key switch.55Dimensions (WxHxD):55Wall-recessed housing:100 x 200 x80 mm55Panel plate:120x220 mm5Colour combinations please refer to page 205

Illustration	Description	Туре	Order-No.

Programmable EIB/KNX control panels







With the same functions as on FIB 12w 80.14.531 page 6 (bottom), however with the horizontal design. Pushbutton functions: 12 x Scene selection with LED-indication 1 x BRIGHTER 1 x DARKER 1 x ON/OFF with LED- indication 1 x Programming with LED-indication Optional: with interlock key switch. Wall-recessed housing (WxHxD)= 200 x100x80mm Panel plate: (WxH)=220 x120 mm **EIB** Programmable scene selector panel Special design for private homes with the following functions: Lighting 12 xScene selection with LED 1 x BRIGHTER 1 x DARKER 1 x ON/OFF with LED 1 x Programming with LED **Sockets** ON/OFF with LED **Outdoor lighting ON/OFF** with LED windows: **OPEN** and **CLOSED** curtains 2 x OPEN and CLOSED shutter 3 x UP and DOWN Wall-recessed housing(WxHxD)=200x260x80 mm Panel plate (WxH) = 220x280 mm **EIB/KNX lighting control for** Special design Conference rooms with the functions: 4 x Scene selection with LED 1 x BRIGHTFR 1 x DARKER 1 x ON/OFF with LED 1 x Programming with LED 1 x Shutter UP and DOWN 1 x Curtain OPEN and CLOSED Wall-recessed housing:(WxHxD) =200x200x80mm Panel plate (WxH) = $220 \times 220 \text{ mm}$

Surface property: (optional combinations) pushbutton (square)

Surface plate

Aluminium anodized, natural white black Stainless steel, brushed Stainless steel, dull Brass, gold-plated

black with white symbols white, with black symbols black, with white symbols black, with white symbols black, with white symbols black, with white symbols

Illustration	Description	Туре	Order-No.
	Handheld IR-programmer or	IR/PRO	50.13.545
AD Demonstration Contractions 18. Programmer HEGASTAN	radio-programmer	FU/PRO	50.13.547
	Remote Controls with the same pushbuttons as control panels (f. i. see pages 6 and 7) Handheld-IR-transmitter for the selection of 12 x lighting scenes 6 x Lighting scenes The transmitters can be operated in parallel to pushbutton or Touch Panels.	IR 12 IR 6	50.13.548 50.13.549
	Radio-transmitter Functions identical with the IR-transmitter The Handheld IR- or Radio transmitters can be extended through switch and other functions Standard design: Housing: black Plate: aluminium anodized, natural colour	FU 12 FU 6	50.13.550 50.13.551
Assigner Type BAS: Bet 40 Bet	Pushbuttons: black Control for divided rooms (Assigner)	IBAS	80.14.550
	IR-Sensor	IR-E/S	50.13.041
	Radio receiver	FU-E/S	52.10.000





IR- and radio decoder

IBIR-P

80.14.402

Illustration	Description	Туре	Order-No.	
ALTODIM EIB/KNX Dimmers for DIN rail systems up to a load capacity of 2 KW without internal scene memory				
	Phase-interval (lagging edge) controlled dimmer for electronic transformers 600 W/VA ALTODIM 600-0	IBDA 600-0	80.13.061	
Andrem 1400-0 Breat (or power of some of an of the source of a new	Phase-interval (lagging edge) controlled dimmer for electronic transformers 1400 W/VA ALTODIM 1400-0	IBDA 1400-0	80.13.064	
Justice Justice Justice Justice Marchaeler Marcha	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire- wound transformers, neon lamps, 600W/VA ALTODIM 600	IBDA 600	80.13.065	
	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire- wound transformers, neon lamps, 1300W/VA ALTODIM 1300	IBDA 1300	80.13.062	
	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire- wound transformers, neon lamps, 2000W/VA ALTODIM 2000	IBDA 2000	80.13.063	
	Universal dimmer for electronic transformers, incandescent lamps and low- voltage halogen lamps with wire-wound transformers, 1500W/VA ALTODIM 1500 U	IBDA 1500 U	80.13.070	
	Dim-actuator 1-10 V for electronic dimmable ballasts and transformers with 1-10V interface	IBDAN	80.14.110	
The set of	Dim-actuator 0-10 V for ALTENBURGER Dimming controls	IBDAS	80.14.120	

Illustration	Description	Туре	Order-No.
ALTODIM/P EIB/KNX dimmers up to a load capacity of 2 KW with internal scene memory			
	Phase-interval (lagging edge) controlled dimmer for electronic transformers 600 W/VA ALTODIM 600-0/P	IBDA 600-0/P	80.13.161
Aladim 1400-QP Hadim	Phase-interval (lagging edge) controlled dimmer for electronic transformers 1400 W/VA ALTODIM 1400-0/P	IBDA 1400-0/P	80.13.164
	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire- wound transformers, neon lamps, 600W/VA ALTODIM 600/P	IBDA 600/P	80.13.165
Aladim 1300/P Prate-controlled park atoms atoms of the state atoms atoms atoms of the state atoms atoms atoms atoms atoms of the state atoms atoms atoms atoms atoms atoms atoms of the state atoms atoms atoms atoms atom atoms atoms atom atoms a	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire- wound transformers, neon lamps, 1300W/VA ALTODIM 1300/P	IBDA 1300/P	80.13.162
	Phase-controlled (leading edge) dimmer for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers, neon lamps, 2000W/VA ALTODIM 2000/P	IBDA 2000/P	80.13.163

	Illustration	Description	Туре	Order-No.
Nor		Conventional Dimmers, operating in the phase control (leading edge) mode for the backplate mounting in cabinets, being suitable for incandescent lamps, high-voltage halo- gen lamps, low-voltage halogen lamps with wire- wound transformers and neon lamps with moun- ting plate and terminal blocks, plug-in load and control components		
	I-phase TH-plug-in module	Up to 2 KW/KVA Up to 3 KW/KVA Up to 5 KW/KVA Up to 8 KW/KVA	TH 2KW TH 3KW TH 5KW TH 8KW	51.02.000 51.02.001 51.02.002 51.02.003
and		Up to 3 x 2 KW/KVA Up to 3 x 3 KW/KVA Up to 3 x 5 KW/KVA Up to 3 x 8 KW/KVA	TH 3x2KW TH 3x3KW TH 3x5KW TH 3x8KW	51.11.000 51.11.001 51.11.002 51.11.003
	B-phase TH-Plug-in module	Conventional dimmers, operating in the phase-interval (lagging edge) control mode for the backplate mounting in cabinets, for low- voltage halogen lamps with electronic transfor- mers, incandescent lamps and high-voltage halo- gen lamps (design as above)		
	The aforementioned dimm witch-dim-actuators (pag	Up to 2 KW/KVA Up to 3x2KW/KVA ers can be combined with programmable EIB/KNX-	TH 2KW-0 TH3 x2KW-0	51.02.100 51.11.100

The following dimmers have already an integrated programmable EIB/KNX switch dim-actuator:

Programmable EIB/KNX-Dimmers operating in the phase-control (leading edge) mode with integrated EIB/KNX Dim-actuator for the back plate mounting in cabinets, being suitable for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps with mounting plate and terminal blocks, plug-in load and control components. Functions: see page 10

Up to 2 KW/KVA	TH-EIB/P 2KW	80.02.000
Up to 3 KW/KVA	TH-EIB/P 3KW	80.02.001
Up to 5 KW/KVA	TH-EIB/P 5KW	80.02.002
Up to 8 KW/KVA	TH EIB/P 8KW	80.02.003
Up to 3 x 2 KW/KVA	TH-EIB/P 3x2KW	80.11.000
Up to 3 x 3 KW/KVA	TH-EIB/P 3x3KW	80.11.001
Up to 3 x 5 KW/KVA	TH-EIB/P 3x5KW	80.11.002
Up to 3 x 8 KW/KVA	TH-EIB/P 3x8KW	80.11.003

Programmable EIB/KNX Dimmers operating in the phase-interval (lagging edge) control mode with integrated EIB/KNX dim-actuator for the backplate mounting in cabinets, for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps

Up to 2 KW/KVA	TH-EIB/P 2KW-0	80.02.100
Up to 3x2KW/KVA	TH-EIB/P 3x2KW-0	80.11.100

Illustration	Description	Туре	Order-No.

Programmable EIB/KNX Switch-Dim-Actuator with internal scene memory for 25 scenes with 1-10V and 0-10 V interface



The IBDA-KP is suitable for the control of up to 100 dimmable ballasts with 1-10V interface or 5 ALTENBURGER dimmers (with 0-10V interface). Via received KNX-Switch- and Dim-commands the connected load can be switched ON/OFF or dimmed between minimum and maximum.

IBDA-KP

80.14.132

The module has a memory for 25 scenes with fade time and corridor / cleaning light control. Additionally an automatic scene sequence can be programmed and selected.

With the combination of 3 IBDA-KP modules e.g. a colour sequence control (RGB) can be realized

The dim-actuator can be controlled with KNX buttons or a suitable (touch screen) visualization. The actuator however also can be controlled through its pushbutton inlet with a customary pushbutton (1-pushbutton dim-function). For details of parametrizing and objects see application description in the ALTENBURGER EIB/KNX handbook.

Programmable EIB/KNX DALI-Switch-Dim-Actuator with internal scene memory for up to 25 scenes

IBDA-DP 80.14.170



Application and function:

The EIB/KNX DALI switch-dim-actuator is suitable for the control of max. 100 DALI ballasts or transformers and digital ->analog converters. It performs the following functions:

- The integration of DALI ballasts or transformers into EIB-Lighting systems. DALI ballasts are being switched and dimmed with EIB/KNX DALI switchdim-actuators.
- The module has 25 internal scene memories with fade time settings from scene to scene, cleaning and corridor lighting controls. Additionally scenes can be programmed to a sequence and selected accordingly (scene sequence control). With the combination of 3 EIB/KNX DALI switch-dim-actuators e.g. a colour sequence (RGB) can be programmed. Additionally the EIB/KNX DALI switch-dim- actuator is one of the components for a complete EIB-programmable dimming control system (see survey pages 18/19). If the number of DALI-ballasts or of converters

exceeds the number of 100, additional EIB/KNX DALI switch-dim-actuators can be integrated.

- The EIB/KNX DALI switch-dim-actuator can be operated with customary EIB-controls or with a suitable visualization. The module however also can be controlled directly with a pushbutton input and a customary pushbutton (1-push-button-dim-function). Details for the parametrizing and to objects: see application description.
- The actuator includes already the current supply for the interfaces of 100 DALI ballasts. All connected electronic ballasts have the same address (broadcast).

Illustration	Description	Туре	Order-No.				
EIB/KNX Multi-Senso lighting control	ce-dependent IBMSD	80.14.800					
Possibilities: • Elimination of one of both above-mentioned functions via the ETS • manual lighting control with a pushbutton panel							
	Product features						



EIB/KNX Multi-Sensor-Dimmer Type IBMSD

With a direct voltage-free contact and the 1-10V and 0 - 10 V interface dimmable electronic ballasts, transformers and load dimmers can be switched and controlled in dependence of the daylight (constant light control) and presence detection or one of both functions.

The delay time after the end of a presence detection can be set at the Multi-Sensor-Module itself between 1 and 30 min. After this time lighting goes to 1 % of maximum and finally switches OFF after a time range of 1-255 min. with the ETS project.

The light level to be kept constant can also be preadjusted at the multi-sensor dimmer.

KNX-projection with the following functions:

- light switching ON/OFF
- light dimming
- Set light level to be kept constant in dependence of the daylight and storing
- Activation and deactivation of constant light control
- Presence detection ON/OFF
- Function heating, airconditioning, ventilation etc. ON/OFF
- Additional motion depending ON/OFF command for external functions (heating airconditioning, ventilation) etc. to be projected time dependent.

The presence detection comprises a diameter of 7m at a mounting height of the module of 3 m. For the extension of the range of detection up to 64 multi-sensor modules, type IBMSD can be combined on the KNX Bus.



4-pushbutton-EIB/KNX-**Programming-panel with** manual control

The programming of the light level to be kept constant and a manual dimming control can be performed with a remote 4-pushbuttoncontrol and programming panel: (see page 4)

Automatic-Mode (storing of the light level to be kept constant):

1. When pressing the button ,AUTOMATIC/MANUAL':

the LED at the pushbutton lights up as soon as the automatic mode is achieved.

- 2. With the pushbutton ,BRIGHTER' and ,DARKER' the light level to be kept constant can be selected.
- 3. The selected light level is kept constant after pressing the pushbutton ,STORE'
- 4. If the LED at the pushbutton 'STORE' does not light the dimmer control is in the manual mode and can be dimmed with imed and imed.

Manual Control

After pressing the button ,Manual/Automatic' the lighting is in the manual mode if the LED at the button does not light.

Pressing the pushbutton BRIGHTER (\blacklozenge): Lighting switches ON and becomes brighter until the button is released.

Pressing the pushbutton DARK (ψ): lighting becomes darker and finally switches OFF.

The same functions can be performed at a Touch Panel.

Illustration	Description	Туре	Order-No.
CE CE CE CE CE CE CE CE CE CE	EIB/KNX Multi-Sensor-Controller, The controller has the same functions as the Multi-Sensor IBMSD, it can however be connec- ted with 6 IBMSD sensors for the extension of the range of motion detection. The sensors are not including the IBMSD control electronic. This is included in the controller IBMSC-NV. Its switch capacity is 16A.	IBMSC-NV	80.14.810
IB/KNX Aulti-Sensor-Controller	If one sensor recognizes a presence lighting in the range of detection of all connected sensors is switching ON. Each sensor identifies ,his' light level, and all connected sensors are computing a mixed light level which is the light level being kept constant.		
	Optional the functions ,presence detection' or ,daylight dependent constant light control' can be eliminated through the ETS software so that just one function is active.		
	The sensors are wired in a conventional mode. Optional the range of detection also can be extended with the combination of up to 64 IBMSD Multi-Sensor-Controls at the KNX bus.		
	The LBS/d sensor has the same housing as the multi-sensor-dimmer IBMSD (please refer to page 13)	LBS/d	51.21.031
	The (Multi) Sensor has a ceiling recessed-down- light-housing with swivelling suspension	LB/dk	51.21.039
	The (Multi-) Sensor is suitable for the mounting to lamp fixtures or other components.	LBS/e	51.21.030

Illustration	Description	Туре	Order-No.
	EIB/KNX light-value control switch IBLWS 3 operating in dependence of the daylight	IB LWS 3	80.14.016
S-channel EIB/KNX Light value control switch IBLWS 3	The IBLWS 3 switches 3 connected light circuits in dependence of the daylight ON and OFF. The low-voltage signals from a light sensor being mounted outside the building or close to a window are processed by the IBLWS 3 accor- ding to the set light levels. The light levels for each channel can be set at the module between 20 and 2000 lux and between 200 and 20000 lux. With the ETS parameter it can be decided if the switch telegram shall be sent after the set light levels have exceeded or fallen below.		
	Der IBLWS 3 has a switch capacity of max. $3x10$ A/250 V ~.		
	 Set and display functions: 3 Potentiometers for the setting of the switch ON/OFF levels for each of the 3 		
	channels 2) 3 LED: display for the switch state (lighting up if lamps are switched ON)		
	Photosensor for the light-value control switch	LF/w/D	51.21.010
	Water proof (IP 55), swivelling for a 2-hole – mounting outside or inside close to a window.		
6	Suitable in connection with the 3 channel EIB/KNX Light-value control switch, type IBLWS 3		
photosensor Type LF/w/D			



Type LF/w/D with protection basket

Photosensor for the light value control switchLF/w/D-sk51.21.091However with protection basket

Programmable Touch Panels

Instead of EIB/KNX-pushbutton control panels also touch panels as programmer and selection panels can be realized. **They are available including the programming and addressing.**

- in all customary sizes (6, 10, 12, 15")
- black-white and coloured
- with and without architectural layout

For example:

5-Star Hotel



Comprehensive EIB/KNX-Lighting control in all public areas via Touch Panels, including architectural layouts.

Possibilities:

- Static lighting scenes (independent of the daylight and presence detection)
- Dynamic lighting scenes (scenes operating in dependence of the daylight and presence detection).
- If required a minimum light level can be kept constant even if no presence is detected.

Programmable Touch Panels

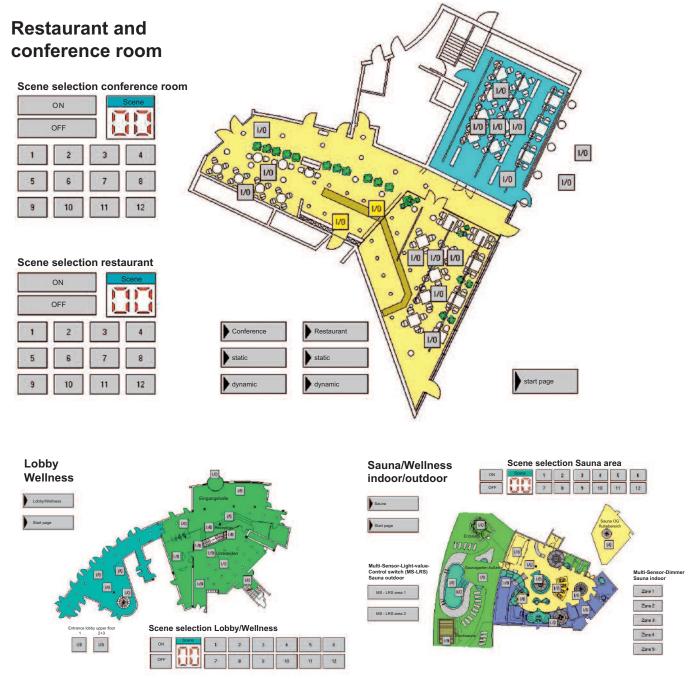
Touch Panels with the possibility of the selection of

• **static scenes:** the respective scene remains static independent of the daylight portion or presence detection

• **dynamic scenes:** the respective scene adjusts smoothly to the daylight and operates in dependence of presence detection. If daylight exceeds the set light level or if no presence is detected lighting would not burn. It burns only if presence is detected and it adds to the daylight only so much artificial light as required for the achievement of the set light level.

With the touch panel also sequence controls (also RGB), shutter controls, air-conditioner and heating controls can be performed.

Touch panels with the possibility of static and dynamic scene controls for a hotel with comprehensive wellness area.



System survey EIB/KNX-Programmable Dimming Controls

IR-

or

radio-receiver

The system survey indicates the combination of different EIB/KNX-components:

- EIB/KNX Switch-Dim-Actuators for 1-10V / 0-10V for the direct control of electronic ballasts for fluorescent lamps and electronic transformers with 1-10V interface for low-voltage halogen lamps as well as for ALTENBURGER dimmers from 3 KW onwards.
- EIB/KNX Switch-Dim-Actuators for DALI for the direct control of electronic ballasts for fluorescent lamps and electronic transformers with DALI-interface.
- EIB/KNX-Dimmers with integrated dim-actuators Phase-controlled or phase-interval controlled dimmers for incandescent lamps, high voltage halogen lamps or low-voltage halogen lamps with wire-wound or electronic transformers.
- **IR- or radio transmitters and decoders** for the programming and scene selection.
- Pushbutton or touch panels for the programming and scene selection If specified with layouts and integrated lamps and control functions.

Touch Panels / pushbutton panels







IR- or radio programmer IR- or radio transmitter

EIB/KNX-BUS

EIB - Gateway

F2

30

IR- / radio-decoder

EIJ

EIB/KNX

power supply

Comfortable EIB-lighting controls with Touch Panels, Visualization, pushbutton panels with the functions:

- Switching, Dimming, light-level and fade time setting
- 25 integrated scene memories
- Scene sequences

Scenes to be combined to sequences e.g. RGB colour controls (3 devices required)

- Cleaning and corridor light
- Shutters



- communication with EIB, e.g. via Ethernet, ISDN

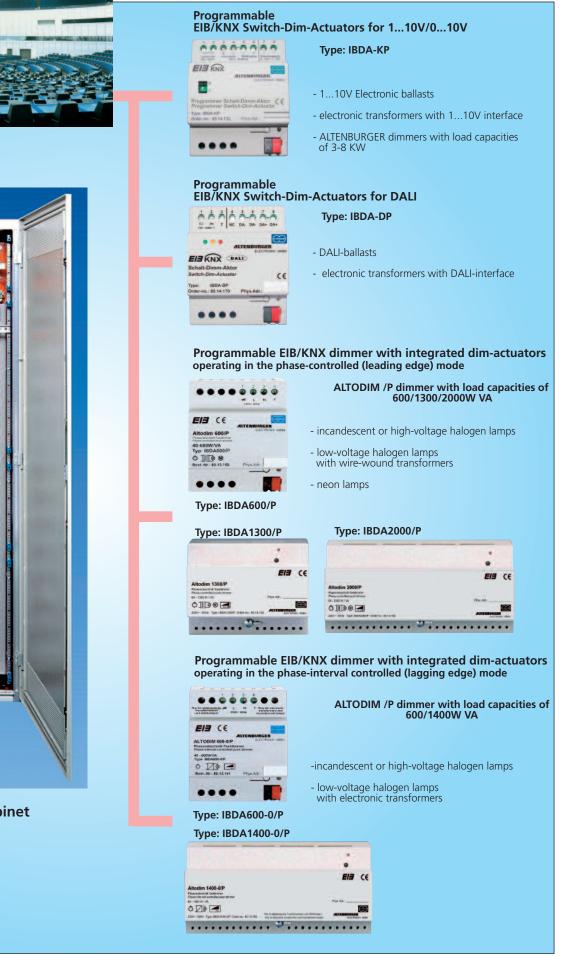
- combination with other systems, e.g. PLC, DALI ...

- remote maintenance ...





ELECTRONIC GMBH





dimmer rack cabinet

Possible combinations of frames-plates-pushbuttons for KNX-control panels

Color combination: R= Frame, E= Inlay, T= Pushbutton



R= white, E= white, T= white



R= white, E= blue, T= white



R= black, E= gold, T= black



R= black, E= black, T= black



R= grey, E= stainless steel, T= grey



R= black, E= stainless steel, T= black (dull or brushed)

ALTENBURGER

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