

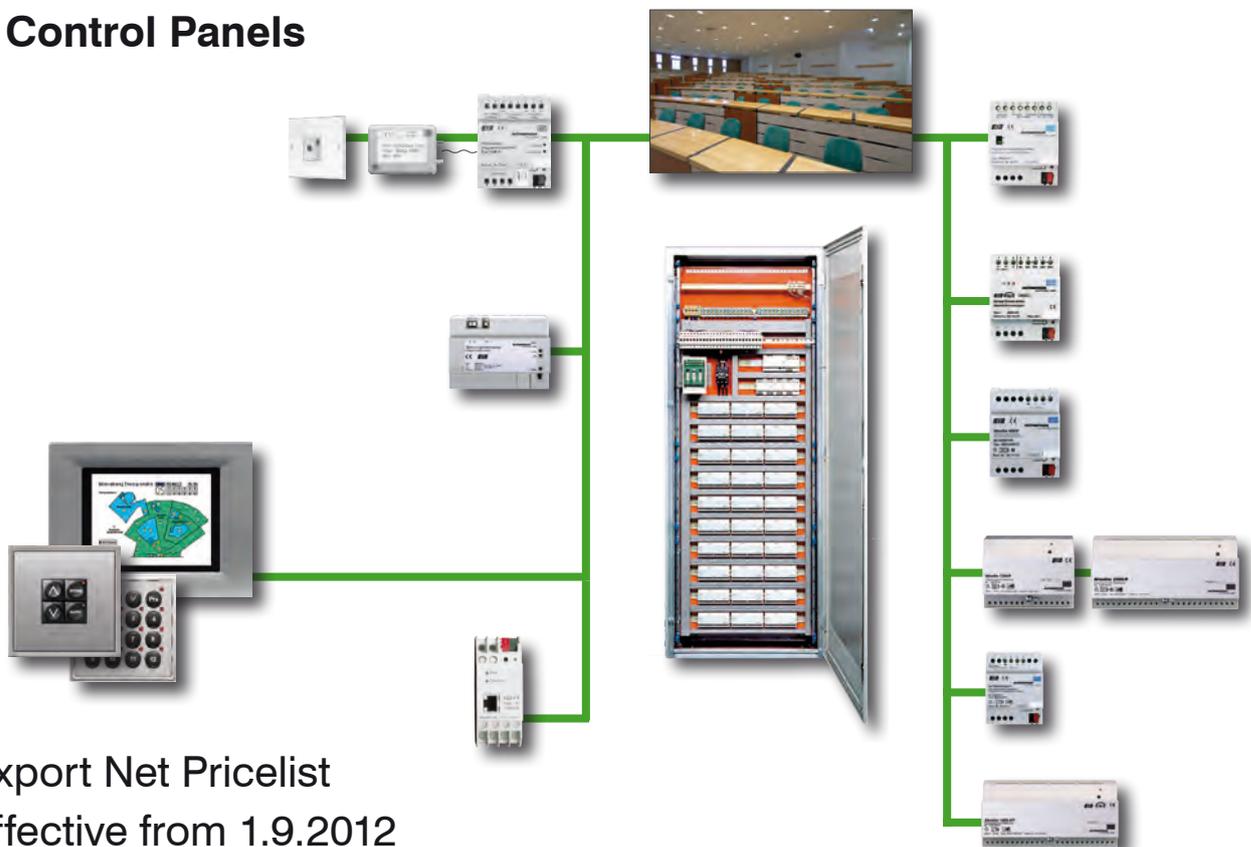


ALTENBURGER

ELECTRONIC GMBH

ALTENBURGER Lighting Controls

- KNX-Lighting Controls
- DALI-Lighting Controls
- Multi-Sensor-Dimmers and Switches
- ALTOQUICK-Dimmers for DIN-rail mounting
- Dimmers for Power-LED's
- Thyristor-controlled High-Load-Dimmers
- THYRODYN Stage Lighting Control Systems
- Control Panels



Export Net Pricelist
Effective from 1.9.2012

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KNX-Programmable Lighting Control Systems

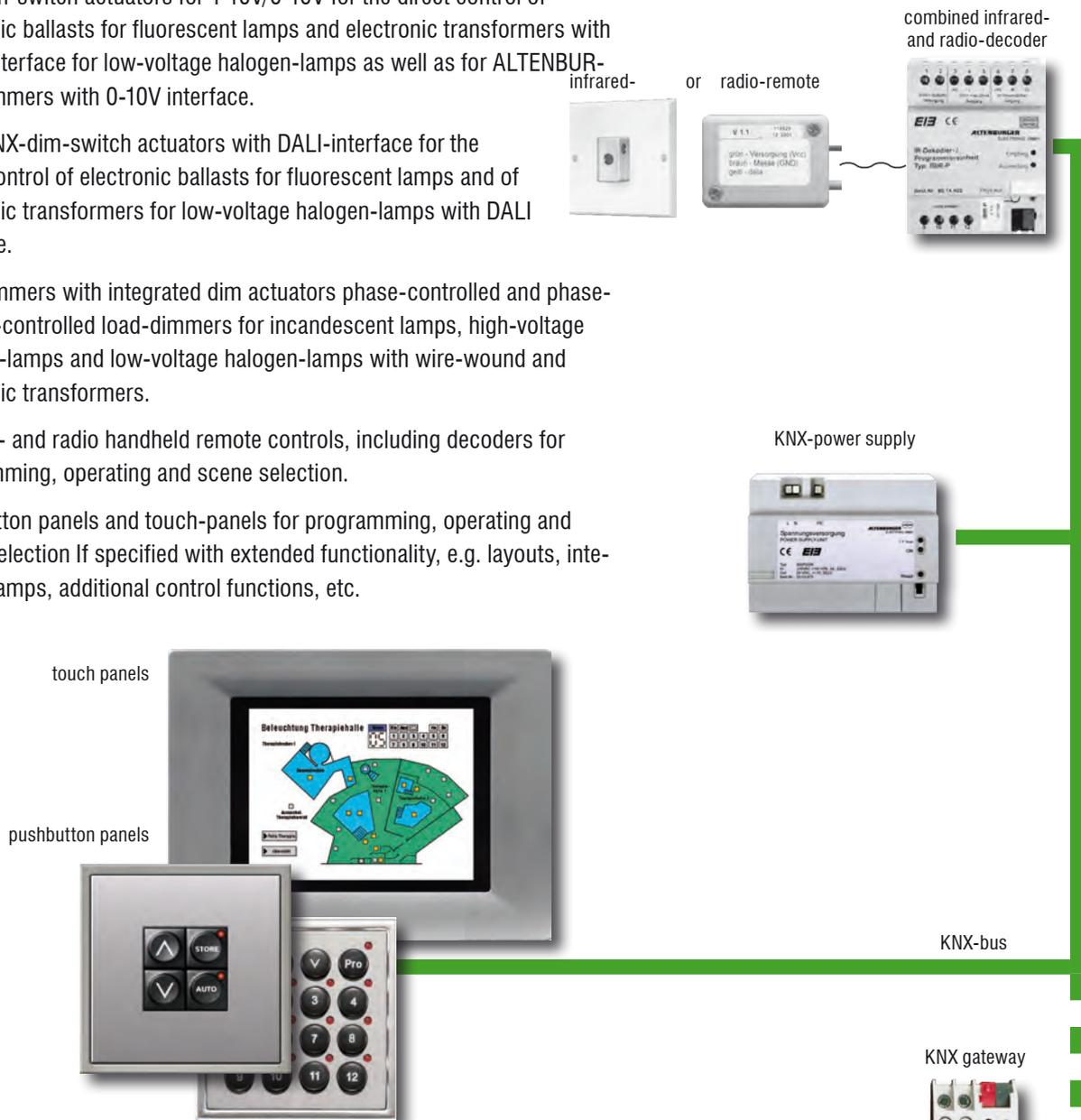


EIB/KNX

Programmable Lighting Controls System Survey KNX-Programmable Lighting Controls

The system survey illustrates the interaction between the various KNX-compounds:

- KNX-dim-switch 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 with 0-10V interface.
- DALI/KNX-dim-switch actuators with DALI-interface for the direct control of electronic ballasts for fluorescent lamps and of electronic transformers for low-voltage halogen-lamps with DALI interface.
- KNX-dimmers with integrated dim actuators phase-controlled and phase-interval-controlled load-dimmers for incandescent lamps, high-voltage halogen-lamps and low-voltage halogen-lamps with wire-wound and electronic transformers.
- Infrared- and radio handheld remote controls, including decoders for programming, operating and scene selection.
- Pushbutton panels and touch-panels for programming, operating and scene selection. If specified with extended functionality, e.g. layouts, integrated lamps, additional control functions, etc.



KNX-lighting controls with touch-panels, visualizations, pushbutton panels for:

- switching, dimming, light-level and fade-time settings,
- internal scene memory for up to 25 scenes,
- scene sequence controls, individual scenes can be combined to an automatic sequence, e.g. RGB-color control (3 devices are required),
- cleaning and pass-through/corridor light function,
- shutters.

optional:

- communication with the KNX-bus, e.g. via Ethernet, USB, etc.
- integration and connection of other bus-technologies to KNX-bus, e.g. DALI, LON, DMX, etc.
- remote maintenance

KNX gateway



Programmable Lighting Controls System Survey KNX-Programmable Lighting Controls



Dimmer rack cabinet with peripheral devices

Programmable KNX-Dim-Switch-Actuator for 1-10V/0-10V



Type: IBDA-KP

- Direct control (broadcast) of 1-10V electronic ballasts and electronic transformers with 1-10V interface,
- control of ALTENBURGER load-dimmers Types ALTOQUICK and TH via the 0-10V interface with load capacities of up to 8 kW or 3x 8 kW,
- the before mentioned load-dimmers are also available with integrated programmable dim-switch-actuators, Type ALTODIM/P and TH-EIB/P.

Programmable DALI/KNX-Dim-Switch-Actuator



Type: IBDA-DP

- Common controls of up to 100 DALI-ballasts and DALI-transformers in the broadcast mode.

Programmable KNX-Dimmers with integrated KNX-Dim-Switch-Actuators operating in the phase-control mode (leading edge)



ALTODIM/P DIN-rail dimmers with load capacities from 600 to 2000 W/VA

- Suitable for incandescent lamps and high-volt halogen-lamps,
- low-voltage halogen-lamps with wire-wound transformers,
- neon lamps.

Type: IBDA600/P

Type: IBDA1300/P

Type: IBDA2000/P



Programmable KNX-Dimmers with integrated KNX-Dim-Switch-Actuator operating in the phase-interval-control mode (lagging edge)



ALTODIM-0/P DIN-rail dimmers with load capacities of 600 and 1400 W/VA.

- Suitable for incandescent lamps, high-voltage halogen-lamps,
- low-voltage halogen-lamps with electronic transformers.

Type: IBDA600-0/P

Type: IBDA1400-0/P



EIB/KNX

Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>1-pushbutton panel</p> <p>customary, any make (non-KNX) in connection with an ALTENBURGER EIB/KNX load dimmer (ALTODIM, s.page 9), switch dim-actuator with 0-10V or 1-10V interface, Type IBDA/KP (s. page 11) or with the DALISwitch-Dim-Actuator Type IBDA-DP (s.page 11).</p> <p>Functions: BRIGHTER-DARKER-ON/OFF. The last light level being set before switching OFF will be achieved again after switching ON.</p>	NT 1 SO	80.14.540	8,60
	<p>3-pushbutton panel</p> <p>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.</p> <p>Pushbutton functions: BRIGHTER-DARKER-ON/OFF. Suitable in connection with EIB-projects. Optional: LED indication for ON.</p>	NT 3 SO	80.14.541	155,-
	<p>4-pushbutton panel</p> <p>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</p> <p>optional: other pushbutton functions</p> <p>Suitable EIB/KNX dimmers as under type NT1</p>	NT 4 SO	80.14.542	176,-
	<p>5-pushbutton panel</p> <p>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</p> <p>Optional: other pushbutton functions</p> <p>Suitable EIB/KNX dimmers as under type NT1</p>	NT 5 SO	80.14.543	242,-

EIB/KNX

Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>6-pushbutton panel</p> <p>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.</p> <p>for 6 switch or dim-functions 6x Scenes or 5x Scenes, 1x On/OFF</p> <p>Optional: other pushbutton functions (e.g. shutters, sun shade, outside lighting, door opener/interlocking) acc. to requirements</p> <p>Optional: with or without LED back indication</p>	NT 6 SO	80.14.544	253,-
	<p>Programmable scene selector panels Mini FIB6/PRO</p> <p>in combination with programmable ALTENBURGER EIB/KNX load dimmers (ALTODIM/P – see page 9 and 10), switch dim-actuators 0-10 V or 1-10V interface (type IBDA-KP s.page 11) or with EIB/KNX DALI-Switch-Dim-Actuator, Type IBDA/DP (s.page 11).</p> <p>Pushbutton functions: 6xScene selection (with LED indication) 1xBRIGHTER 1x DARKER 1xON/OFF (with LED indication) 1xProgramming (with LED indication) Other pushbutton functions optional:</p>	Mini FIB6/PRO	80.14.510	334,-
	<p>EIB/KNX Programmable scene selector panel, 81 x 81 mm</p> <p>For 1-gang boxes DIN 55 mmØ flat design (h=12mm)</p> <p>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</p>	Mini FIB12/PRO	80.14.520	418,-

EIB/KNX

Programmable Lighting Controls

Abbildung	Kurzbeschreibung	Typ	Best.-Nr.	Preis/Stück (Euro)
	<p>Programmable EIB/KNX control panels</p> <p>With the functions:</p> <ul style="list-style-type: none"> 12 x Scenes with LED-indication 1 x BRIGHTER 1 x DARKER 1 x ON/OFF with LED-indication 1 x Programming with LED-indication <p>Optional: with interlock key switch.</p> <p>Wall-recessed housing (WxHxD)= 200 x100x80mm Panel plate: (WxH)=220 x120 mm</p>	FIB12w	80.14.531	496,-
	<p>EIB/KNX light-value control switch IBLWS 3 operating in dependence of the daylight</p> <p>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 according 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.</p> <p>The IBLWS 3 has a switch capacity of max. 3x10 A/250 V ~.</p> <p>Set and display functions:</p> <ol style="list-style-type: none"> 1) 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) 	IB-LWS3	80.14.016	364,-
	<p>Photosensor for the light-value control switch</p> <p>Water proof (IP 55), swivelling for a 2-hole-mounting outside or inside close to a window. Suitable in connection with the 3 channel EIB/KNX Light-value control switch, type IBLWS 3.</p>	LF/w/D	51.21.010	39,30
	<p>Protection basket for the LF/w/D</p> <p>protection basket</p>	SK	51.21.090	47,-

EIB/KNX Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	ALTODIM 600-0 Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 600 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V). Without internal scene memory.	IBDA 600-0	80.13.061	142,-
	ALTODIM 1400-0 Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 1400 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V). Without internal scene memory.	IBDA 1400-0	80.13.064	305,-
	ALTODIM 600 Phase-controlled load-dimmer (leading-edge mode) with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 600 W/VA (with automatic overload protection) and for Power-LEDs (230 V). Without internal scene memory.	IBDA 600	80.13.065	142,-
	ALTODIM 1300 Phase-controlled load-dimmer (leading-edge mode) with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 1300 W/VA (with automatic overload protection) and for Power-LEDs (230 V). Without internal scene memory.	IBDA 1300	80.13.062	207,-
	ALTODIM 2000 Phase-controlled load-dimmer (leading-edge mode) with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 2000 W/VA (with automatic overload protection) and for Power-LEDs (230 V). Without internal scene memory.	IBDA 2000	80.13.063	305,-
	ALTODIM 1500 U Universal-dimmer (with automatic load-detection of leading- or trailing-/lagging-edge control mode) for electronic transformers, incandescent lamps, low-voltage halogen-lamps with conventional transformers (inductive) for up to 1500 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V). Without internal scene memory.	IBDA 1500 U	80.13.070	311,-

EIB/KNX

Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	ALTDIM 600-0/P	IBDA 600-0/P	80.13.161	205,-
	Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 600 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V).			
	With internal scene memory for up to 25 individual scenes.			
	ALTDIM 1400-0/P	IBDA 1400-0/P	80.13.164	368,-
	Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 1400 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V).			
	With internal scene memory for up to 25 individual scenes.			
	ALTDIM 600/P	IBDA 600/P	80.13.165	205,-
	Phase-controlled load-dimmer (leading-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 600 W/VA (with automatic overload protection) and for Power-LEDs (230 V).			
	With internal scene memory for up to 25 individual scenes.			
	ALTDIM 1300/P	IBDA 1300/P	80.13.162	270,-
	Phase-controlled load-dimmer (leading-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 1300 W/VA (with automatic overload protection) and for Power-LEDs (230 V).			
	With internal scene memory for up to 25 individual scenes.			
	ALTDIM 2000/P	IBDA 2000/P	80.13.163	368,-
	Phase-controlled load-dimmer (leading-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 2000 W/VA (with automatic overload protection) and for Power-LEDs (230 V).			
	With internal scene memory for up to 25 individual scenes.			

EIB/KNX

Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Programmable KNX-Switch-Dim-Actuator</p> <p>Programmable KNX-Switch-Dim-Actuator with integrated scene memory for up to 25 scenes with preselectable fade time for each scene (1 - 9999 sec.) with 0-10V/1-10V-interface</p> <ul style="list-style-type: none"> • For the realization of convenience lighting controls in combination with pushbutton panels, touch panels, visualizations, layout-tableaus, etc. • for switching, dimming, cross-fading and entering of light values and fade times, • scene sequence managements, i.e. RGB control, • infrared and radio remote controls. 	IBDA-KP	80.14.132	229,-
	<p>Programmable KNX/DALI-Switch-Dim-Actuator</p> <p>Programmable KNX/DALI-Switch-Dim-Actuator with integrated scene memory for up to 25 individual scenes, suitable for the control of up to 100 DALI-Ballasts, DALI-Transformers or DALI-Converters (digital -> analogue) in the broadcasting mode.</p> <p>The device enables the following functions:</p> <ul style="list-style-type: none"> • The integration of DALI ballasts or transformers into EIB-Lighting systems. DALI ballasts are being switched and dimmed with EIB/KNX DALI switch-dim-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. If the number of DALI ballasts or of converters exceeds the number of 100, additional EIB/KNX DALI switch-dim-actuators can be integrated (see system survey pages 32/33). • 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 for mains (1-pushbutton-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. 	IBDA-DP	80.14.170	293,-
<p>Daylight- and presence dependent working KNX-Multi-Sensor-Dimmers and KNX-Multi-Sensor-Controllers see page 31.</p>				

EIB/KNX

Programmable Lighting Controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TH-EIB/P - Phase-controlled load-dimmers (leading-edge mode) with integrated programmable KNX-Switch-Dim-Actuator

ifor backplate mounting in cabinets (optional: in wall recessed or surface mounting design), for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers or Power-LEDs (230 V).

Backplate mounting design with mounting plate and terminal blocks, plug-in load- and control components. Lighting control unit with integrated programmable KNX-switch-dim-actuator, 0-10V/1-10V, and scene memory for up to 25 scenes.

Single-phase TH-EIB/P-plug-in module with integrated, programmable KNX-Switch-Dim-Actuator, 0-10V/1-10V, and scene memory for up to 25 scenes: 230 V/AC, 50 Hz, leading-edge mode.



... bis 2 kW/kVA	TH-EIB/P 2 kW	80.02.000	585,-
... bis 3 kW/kVA	TH-EIB/P 3 kW	80.02.001	636,-
... bis 5 kW/kVA	TH-EIB/P 5 kW	80.02.002	752,-
... bis 8 kW/kVA	TH-EIB/P 8 kW	80.02.003	878,-

Triple-phase TH-EIB/P-plug-in module with integrated, programmable KNX-Switch-Dim-Actuator, 0-10V/1-10V, and scene memory for up to 25 scenes: 3x 230/400 V/AV, 50 Hz, leading-edge mode.



... bis 3x 2 kW/kVA	TH-EIB/P 3x2 kW	80.11.000	1.288,-
... bis 3x 3 kW/kVA	TH-EIB/P 3x3 kW	80.11.001	1.503,-
... bis 3x 5 kW/kVA	TH-EIB/P 3x5 kW	80.11.002	1.580,-
... bis 3x 8 kW/kVA	TH-EIB/P 3x8 kW	80.11.003	1.965,-

EIB/KNX

Programmable Lighting Controls

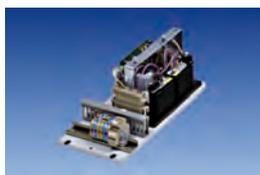
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TH-EIB/P-0 - Phase-controlled load-dimmer (trailing-/lagging-edge mode) with integrated programmable KNX-Switch-Dim-Actuator

for backplate mounting in cabinets (optional: in wall recessed or surface mounting design), for incandescent lamps, low-voltage halogen lamps with electronic transformers or Power-LEDs (230 V).

Backplate mounting design with mounting plate and terminal blocks, plug-in load- and control components. Lighting control unit with integrated programmable KNX-switch-dim-actuator, 0-10V/1-10V, and scene memory for up to 25 individual scenes.

Single-phase TH-EIB/P-0-plug-in module with integrated, programmable KNX-Switch-Dim-Actuator, 0-10V/1-10V, and scene memory for up to 25 scenes: 230 V/AC, 50 Hz, trailing-/lagging-edge mode.



... bis 2 kW/kVA	TH-EIB/P 2 kW-0	80.02.100	690,-
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Triple-phase TH-EIB/P-0-plug-in module with integrated, programmable KNX-Switch-Dim-Actuator, 0-10V/1-10V, and scene memory for up to 25 scenes: 3x 230/400 V/AV, 50 Hz, trailing-/lagging-edge mode.



... bis 3x 2 kW/kVA	TH-EIB/P 3x2 kW-0	80.11.100	1.602,-
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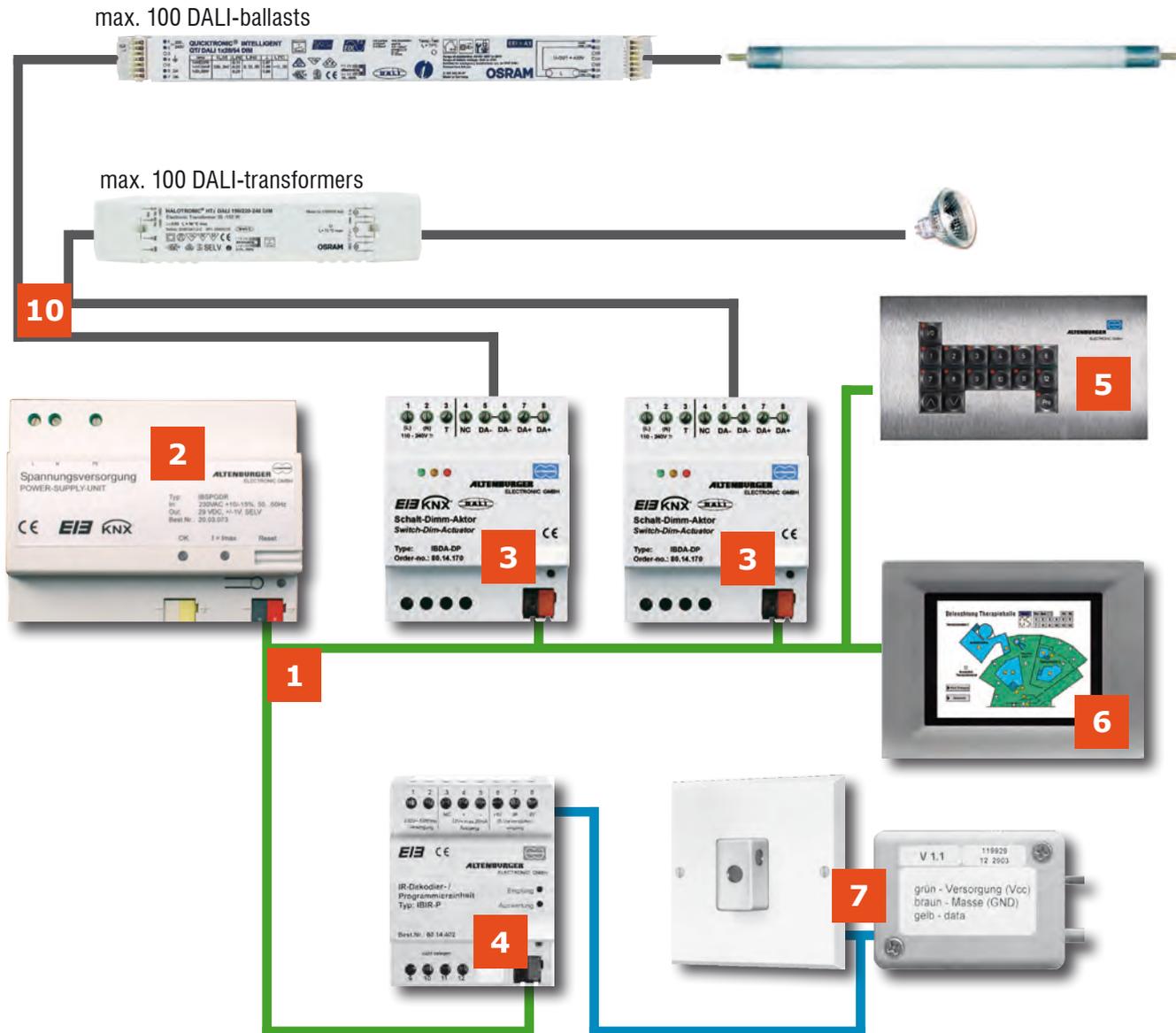


DALI-Lighting-Control-Systems



DALI

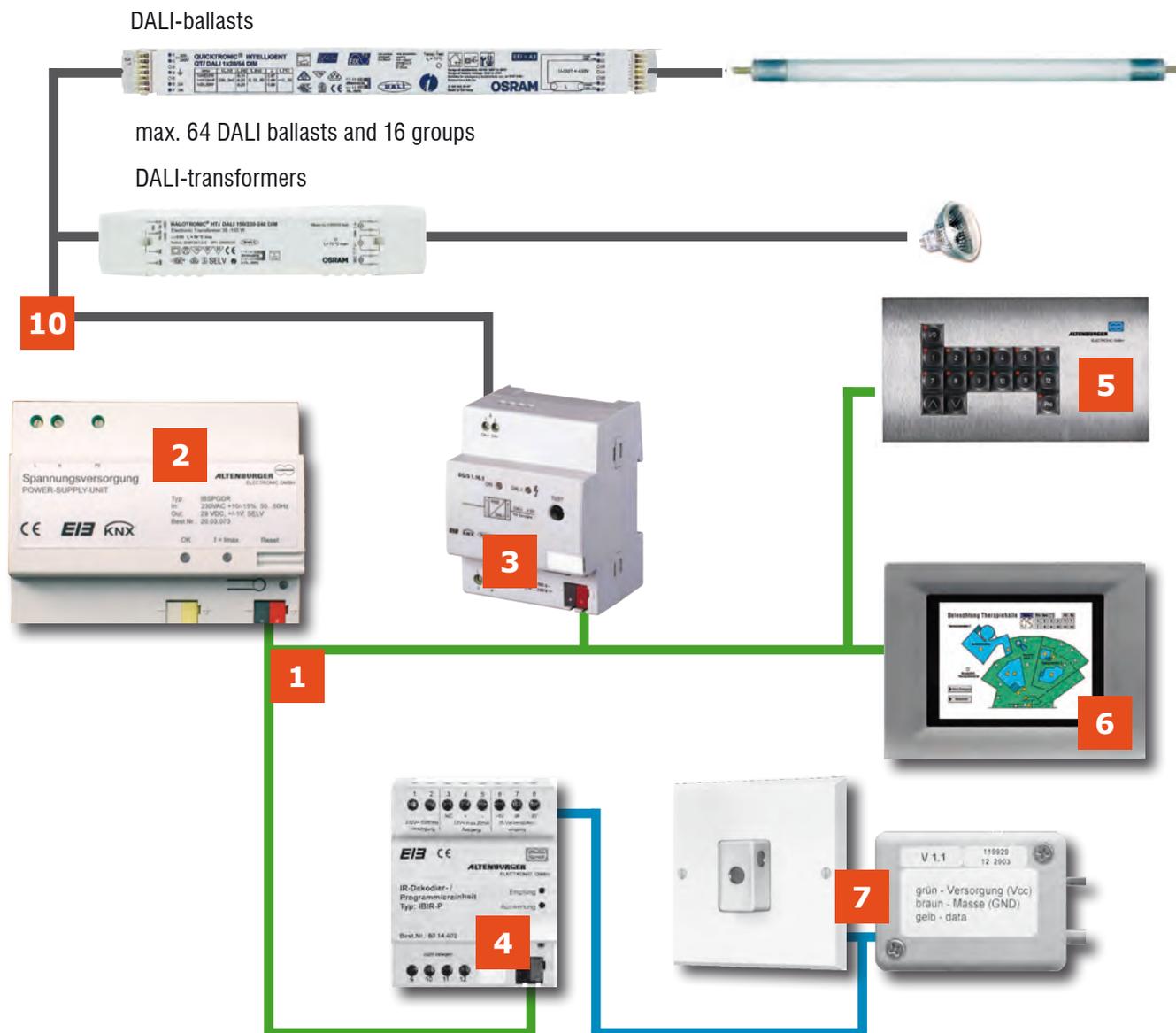
The interaction of bus components in the broadcast process.



1. KNX-bus-cable (PYCY M 2 x 2 x 0,8 mm²)
or (JY [ST] Y 2 x 2 x 0,8 mm²) or (SYT 1 PE 2 x 2 x 0,8 mm²)
2. Bus-voltage supply, type IBSPGDR
3. Programmable KNX/DALI-Switch-Dim-Actuator, type IBDA-DP
4. IR-decoder-/programmer unit, type IBIR-P
5. Scene selector panel, type FIB12w
6. Touch panel (if required)
7. Radio or IR-receiver, type FU-E/S (radio) or type IR-ES/R (IR)
8. Handheld IR or radio programmer according to requirements, type IR/PRO (IR) or type FU/PRO (radio)
9. Handheld IR or radio scene selector according to requirements, type IR12 (IR) or type FU12 (radio)
10. DALI-bus-cable



The interaction of the bus components with individual addressing.



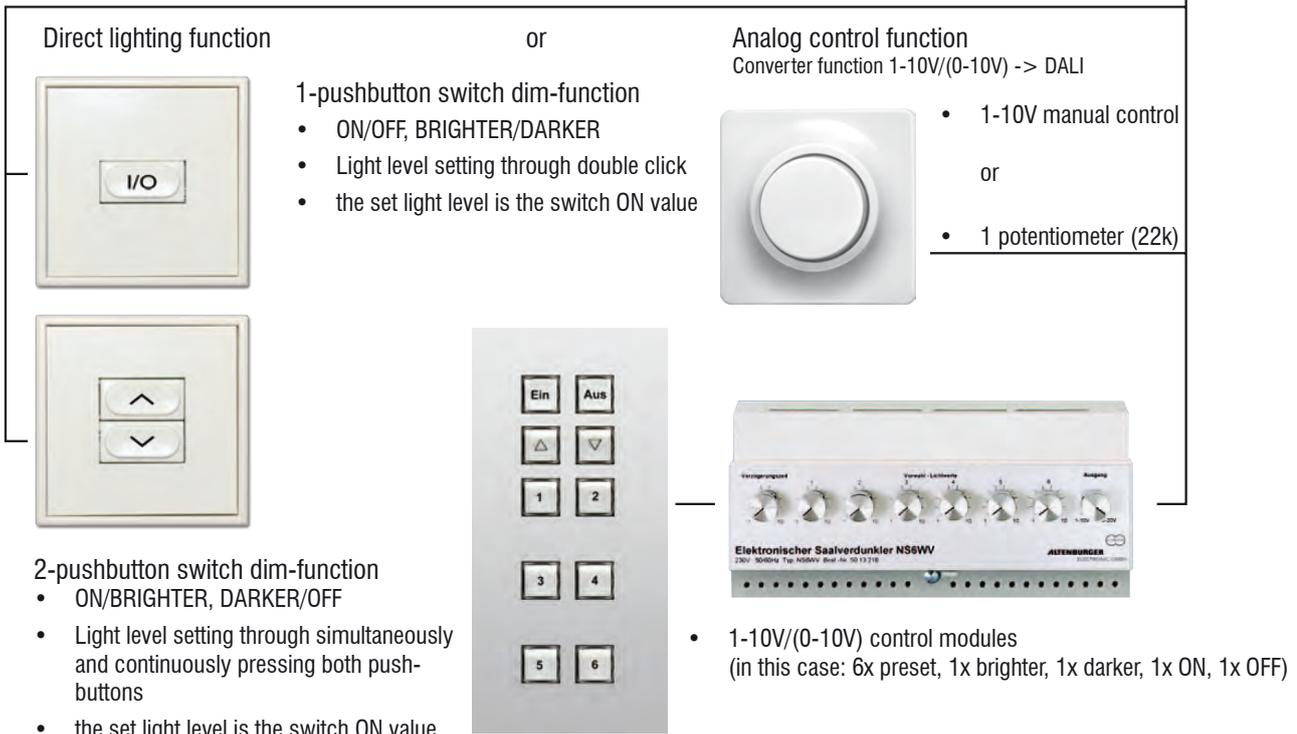
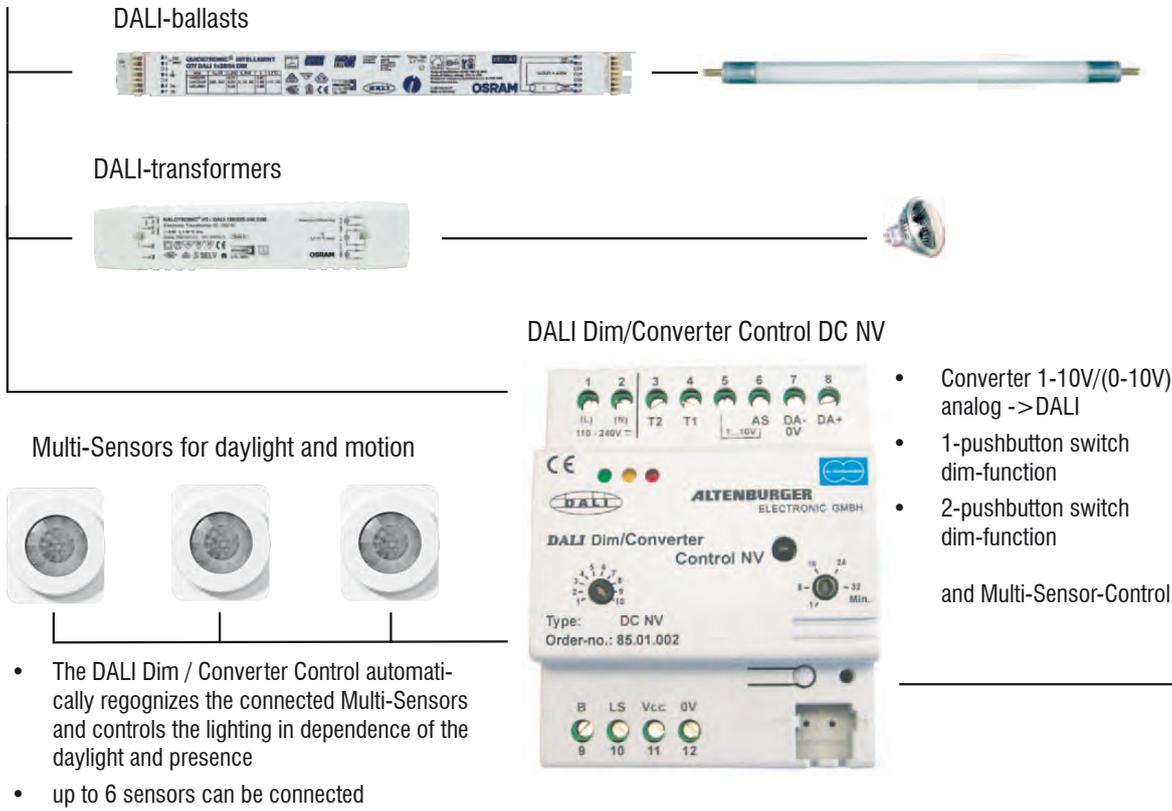
1. KNX-bus-cable (PYCY M 2 x 2 x 0,8 mm²)
or (JY [ST] Y 2 x 2 x 0,8 mm²) or (SYT 1 PE 2 x 2 x 0,8 mm²)
2. Bus-voltage supply, type IBSPGDR
3. DALI-gateway, type AE DG /S
4. IR-decoder-/programmer unit, type IBIR-P
5. Scene selector panel, type FIB12w
6. Touch panel (if required)
7. Radio or IR-receiver, type FU-E/S (radio) or type IR-ES/R (IR)
8. Handheld IR or radio programmer according to requirements, type IR/PRO (IR) or type FU/PRO (radio)
9. Handheld IR or radio scene selector according to requirements, type IR12 (IR) or type FU12 (radio)
10. DALI-bus-cable



DALI

System Survey for a DALI-Lighting Control with DALI-Dim-Converter-Control (DC NV)

up to 100 DALI ballasts (all ballasts are commonly and directly controlled)



DALI

Lighting-Control-Systems

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>DALI Controller Basic NV</p> <ul style="list-style-type: none"> Control of up to 64 DALI-ballasts, DALI-transformer or DALI-converters, assignment of the DALI-devices to up to 4 individual lighting groups (individual addressing), programming and selection of up to 4 lighting scenes, connection at 5-pushbutton panels for programming and selection of lighting scenes, constant light control (daylight dependent control) including presence detection in combination with Multi-Sensor-Dimmer. 	DCB NV	85.01.000	251,-
	<p>DALI-Converter (digital -> analogue) DK 1-10 V NV</p> <p>DALI-converter for DIN-rail mounting. Converts DALI-signals to 1-10V/0-10V-signals (analog).</p>	DK 1-10 V NV	85.01.001	78,-
	<p>DALI-Converter (digital -> analogue) KDK 1-10 V</p> <p>DALI-Converter in compact design for installation in luminaries. Converts DALI-signals to 1-10V/0-10V-signals (analog).</p>	KDK 1-10 V	85.02.000	75,-
	<p>DALI-Dim-Converter-Control DC NV</p> <ul style="list-style-type: none"> Integrated power supply for the control of up to 100 DALI-ballasts, DALI-transformers or DALI-converters in the broadcast mode, constant light control (daylight dependent control) including presence detection in connection with Multi-Sensor-Dimmers, integrated A/D-converter for the conversion of 1-10V/0-10V-signals to DALI-signals, i.e. for the connection of 1-10V/0-10V control units to DALI-devices, suitable for potentiometer controls, suitable for the connection of 1- or 2-pushbutton panels. 	DCNV	85.01.002	188,-
	<p>DALI/KNX-Switch-Dim-Actuator IBDA-DP</p> <ul style="list-style-type: none"> Realization of convenience DALI-lighting controls with KNX-networks in combination with pushbutton panels, touch panels, visualizations, layout-tableaus, etc. switching, dimming, cross-fading and entering of light values and fade times, integrated scene memory for up to 25 scenes in the broadcast mode, integrated scene sequence management, i.e. for RGB controls, suitable for infrared- and radio remote controls. 	IBDA-DP	80.14.170	293,-

DALI

Lighting-Control-Systems

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>1-Pushbutton-Panel</p> <p>1-Pushbutton-panel suitable in combination with the DALI-Dim-Converter-Control (DC NV). The NT1SO comprises the following functionality:</p> <ul style="list-style-type: none"> on/off (through short push), brighter/darker (through continuous pushing, brighter and darker alternates by each continuous push) and setting of light value (through double push). <p>Cover for flush-mounted box, Ø55 mm.</p>	NT 1 SO	80.14.540	8,60
	<p>2-Pushbutton-Panel</p> <p>2- Pushbutton-panel suitable for the connection to the DALI-Dim-Converter-Control (DC NV). The CTM2T comprises the following functionality:</p> <ul style="list-style-type: none"> on/brighter, off/darker, setting of a light level to be stored by through pushing both pushbuttons simultaneously. <p>Cover for flush-mounted box, Ø55 mm.</p>	CTM2T	51.01.321	86,-
	<p>5-Pushbutton Panel</p> <p>5-Pushbutton-panel for the connection to the DALI-Controller-Basic (DCB NV) for programming and selection of 4 light levels and with master on/off. Additionally setting of a constant daylight dependent light value in automatic mode.</p> <p>Cover for flush-mounted box, Ø55 mm.</p>	CTM5T	51.01.326	155,-
	<p>Rotary-Potentiometer</p> <p>Rotary-potentiometer with on/off-switch in flush-mounted box (Ø55 mm) with cover (80 x 80 mm) and rotary knob.</p>	DPU	51.01.021	26,-

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	DALI Gateway	AE DG/S 1.16.1	80.14.180	512,-



The Gateway is suitable for the control of DALI-ballasts, transformers and converters via the KNX bus.

It controls a maximum of 64 DALI-bus units. The bus units are individually addressable and can be assigned to 16 groups.

The application program offers the following functions:

- Switching, dimming and setting of brightness levels
- Status signals in case of lamp or ballast failures
- Programming of individual maximum and minimum dimming values
- Setting of different dimming fade times. Setting of dimming values
- Behaviour in case of DALI and KNX voltage failures and voltage restoration
- Programming of the light value after a voltage restoration (Power-ON Level)
- KNX control of all connected DALI units without previous setting-up operation (DALI-group assignment)
- 14 independent lighting scenes to be selected or stored via 1-bit or 8-bit telegrams

DALI

Lighting-Control-Systems

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Multi-Sensor Constant-light controller with present detection suitable in connection with DALI-Controller-Basic (DCB NV) and DALI-Dim-Converter-Control (DC NV). Ceiling surface mounting design.	LS/d	51.21.032	55,-
	Described as before. Ceiling recessed mounting design with round cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	LS/d/R	51.21.032R	74,-
	Described as before. Ceiling recessed mounting design with square cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	LS/d/Q	51.21.032Q	74,-
	Multi-Sensor Multi-Sensor for daylight dependent constant light control suitable in connection with DALI-Controller-Basic (DCB NV) and DALI-Dim-Converter-Control (DC NV). Ceiling surface mounting design.	LBS/d	51.21.031	50,-
	Described as before. Ceiling recessed mounting design with round cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	LBS/d/R	51.21.031R	69,-
	Described as before. Ceiling recessed mounting design with square cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	LBS/d/R	51.21.031Q	69,-

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Multi-Sensor</p> <p>in downlight housing with swiveling suspension for the KNX-network and for the DALI-Dim-Converter-Control (DC NV).</p> <p>Ceiling recessed mounting design.</p>	LB/dk	51.21.039	55,-
	<p>Multi-Sensor</p> <p>for in installation in lighting fixtures in combination with the DALI-Controller Basic (DCB NV) or with the DALI-Dim-Converter-Control (DC NV).</p>	LBS/de	51.21.033	45,-
	<p>Multi-Sensor</p> <p>Daylight dependent working Multi-Sensor-Dimmer in ceiling recessed mounting design in combination with the DALI-Controller-Basic (DCB NV) or with the DALI-Dim-Converter-Control (DC).</p>	LBS/db	51.21.038	55,-
	<p>Daylight-Sensor</p> <p>Daylight dependent working sensor (no motion detection) for the installation in lighting fixtures in combination with the DALI-Controller-Basic (DCB NV) or the DALI-Dim-Converter-Control (DC NV).</p>	LS/de	51.21.034	45,-

DALI

Lighting-Control-Systems

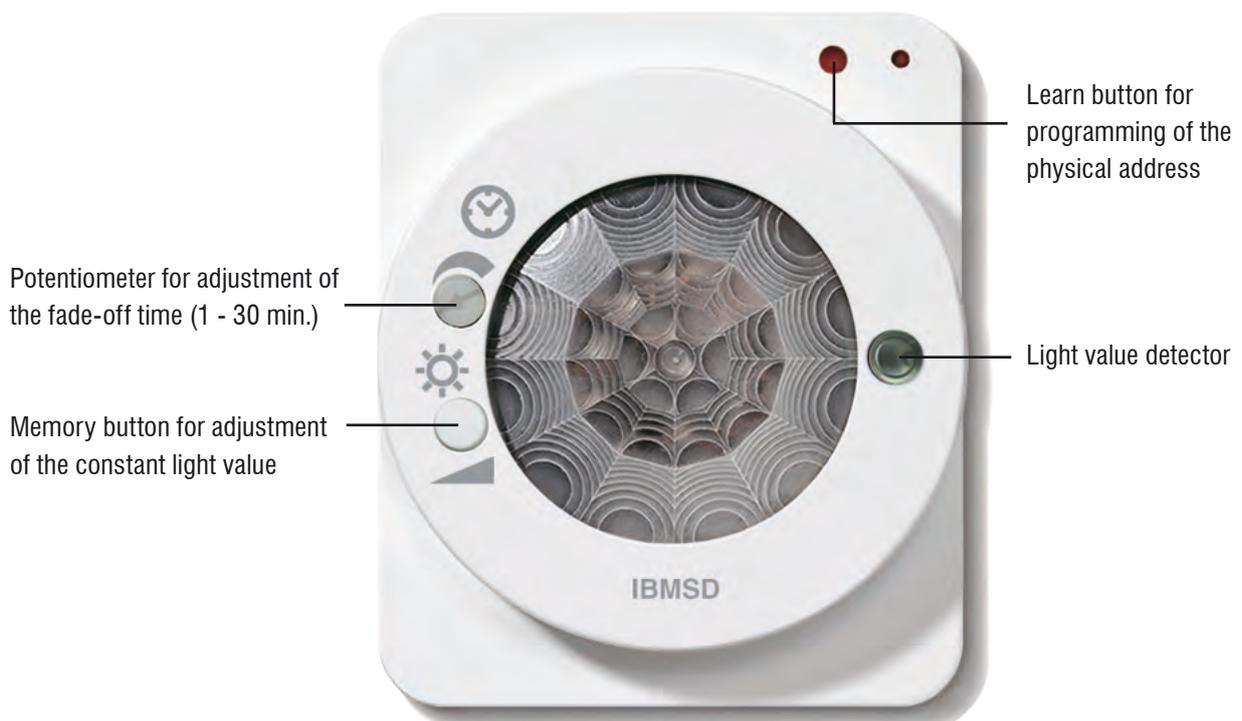
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Infrared-Handheld-Programmer	IR/PRO	50.13.552	163,-
	Radio-Handheld-Programmer	FU/PRO	50.13.547	163,-
	Infrared- and radio remote controls for programming and fade times of lighting scenes. The assignment of keys is similar with the layout of the respective push-button panels.			
	Infrared-Handheld-Controller	IR 12	50.13.548	229,-
	Infrared-Handheld-Controller	IR 6	50.13.549	185,-
	Infrared remote controller for the selection of 12 (IR12) or 6 (IR6) lighting scenes.			
	Radio-Handheld-Controller	FU 12	50.13.550	229,-
	Radio-Handheld-Controller	FU 6	50.13.551	185,-
	Radio remote controller for retrieval of 12 (IR12) or 6 (IR6) lighting scenes.			
	The handheld remote programmers and controllers can be used in parallel to pushbutton panels or touch panels. The functionality (key layout) can be extended by additional functions of other KNX-devices, i.e. switching, jalousie controls, etc.			
	Standard design: Housing black, front plate in natural aluminum, keys black.			
	Assigner	IBAS	80.14.550	142,-
Room divider control (assigner).				
	Infrared-Receiver	IR-ES/R	50.13.143	50,-
	Infrared-receiver with or without frame (no image).	IR-E/S	50.13.041	43,-
	Radio-Receiver	FU-E/S	52.10.000	86,-
	Infrared- and Radio-Decoder	IBIR-P	80.14.402	229,-
	For the conversion of infrared- and radio-signals from handheld-programmers and handheld-controllers onto the KNX-network.			

MSD

Multi-Sensor-Dimmers and Switches

Daylight and motion dependent working presence detectors for the control of transformers, electronic ballasts with 1-10V interface, DALI and KNX systems.

Also suitable for LED-installations, incandescent lamps, high-voltage halogen-lamps, low-voltage halogen-lamps with electronic or wire-wound transformers, each in connection with ALTENBURGER Altoquick load dimmers (DIN-rail mounting design, for up to 2 kW) or TH dimmers (backplate mounting design, for up to 8 kW).



Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Multi-Sensor-Dimmer</p> <p>Constant light controller with presence detection and set-point adjustment at the device or via an external pushbutton.</p> <p>Ceiling surface mounting design.</p>	MSD*	50.13.500	86,-
	<p>Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with round cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD/R	50.13.500R	105,-
	<p>Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with square cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD/Q	50.13.500Q	105,-

* Surcharge for all sensors with connected UV-resistant cable (1.5 m): 14,00 Euro

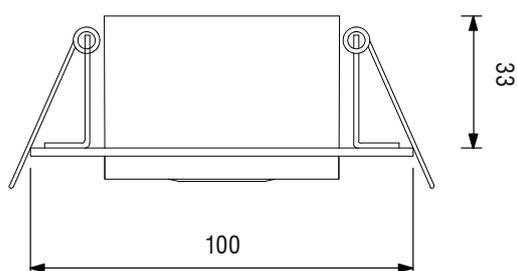


Illustration with tensed spring, diameter of drill holes, 90 mm.

Also the ceiling recessed sensors comprise a mounting plate and a functional part.

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Multi-Sensor-Dimmer</p> <p>with external set-point adjustment and manual control via pushbutton.</p> <p>Constant light controller with presence detection and with external push-button control.</p> <p>Ceiling surface mounting design.</p>	MSD-T	50.13.520	86,-
	<p>Described as before.</p> <p>Ceiling recessed mounting design with round cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD-T/R	50.13.520R	105,-
	<p>Described as before.</p> <p>Ceiling recessed mounting design with square cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD-T/Q	50.13.520Q	105,-
	<p>Pushbutton</p> <p>Pushbutton for external set-point adjustment and manual control with the functions On/Off - Brighter/Darker.</p>	T1	55.70.035	14,20

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Multi-Sensor-Switch, Multiswitch Daylight- and presence dependent working switch. Ceiling surface mounting design.	MS	50.13.535	65,-
	Multi-Sensor-Switch, Multiswitch Described as before. Ceiling recessed mounting design with round cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MS/R	50.13.535R	84,-
	Multi-Sensor-Switch, Multiswitch Described as before. Ceiling recessed mounting design with square cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MS/Q	50.13.535Q	84,-
	Multi-Sensor-Dimmer with preselectable minimum/maximum limitation of the light level and with 6 addition dim and switch functions. Ceiling surface mounting design.	MSL	50.13.510	86,-
	Multi-Sensor-Dimmer Described as before. Ceiling recessed mounting design with round cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MSL/R	50.13.510R	105,-
	Multi-Sensor-Dimmer Described as before. Ceiling recessed mounting design with square cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MSL/Q	50.13.510Q	105,-

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Multi-Sensor-Light-Value-Control-Switch for daylight- and presence depending switching. Ceiling surface mounting design.	MS-LRS	50.13.530	86,-
	Multi-Sensor-Light-Value-Control-Switch Described as before. Ceiling recessed mounting design with round cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MS-LRS/R	50.13.530R	105,-
	Multi-Sensor-Light-Value-Control-Switch Described as before. Ceiling recessed mounting design with square cover, color white. Extremely flat design, height max. 8 mm. With mounting spring clamps.	MS-LRS/Q	50.13.530Q	105,-
	External Potentiometer for adjustment of the constant light value with integrated On/Off-switch.	DPUTX-S	50.50.012	32,-

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Infrared-Multi-Sensor-Dimmer</p> <p>in ceiling surface mounting design and for the programming and for the selection of constant light values, lighting scenes and for the manual infrared-control with a handheld remote control.</p> <p>Ceiling surface mounting design.</p>	IR-MSD	50.13.540	130,-
	<p>Infrared-Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with round cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	IR-MSD/R	50.13.540R	148,-
	<p>Infrared-Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with square cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	IR-MSD/Q	50.13.540Q	148,-
	<p>Infrared-Handheld Remote Control</p> <p>for the selection of constant light values, for the programming of scenes and for the manual control via infrared-control.</p> <p>Standard design:</p> <p>Housing black, front plate in natural aluminum, keys black.</p>	IR-TM	50.13.544	155,-
	<p>3-Pushbutton-Panel</p> <p>for the programming and for the selection of constant light values and for manual control of up to 3 lighting circuits (3x IR-MSD).</p>	CTM 3T	51.01.322	126,-

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Daylight- and presence depended working KNX-Multi-Sensor-Dimmer. In combination with KNX-switch actuator also heating, air-conditioners or fans can presence dependently be switched. Via the 1-10V interface electronic ballasts or transformers (with 1-10V interface) can be controlled. The active 0-10V interface is suitable for the control of load dimmers. Set-point adjustments can be carried out directly at the IB-MSD or via the ETS software as saved values of the objects. The constant light value can be furthermore programmed via a pushbutton panel which is also suitable for manual dimming with the functions On/Off - Brighter/Darker.	IBMSD	80.14.800	190,-
	Ceiling surface mounting design.			
	Described as before.	IBMSD/R	80.14.800R	209,-
	Ceiling recessed mounting design with round cover, color white.			
	Extremely flat design, height max. 8 mm.			
	With mounting spring clamps.			
	Described as before.	IBMSD/Q	80.14.800Q	209,-
	Ceiling recessed mounting design with square cover, color white.			
	Extremely flat design, height max. 8 mm.			
	With mounting spring clamps.			
	for the programming of the constant light values and for manual control with the functions Brighter/Darker.	NT 4L S0	80.14.545	253,-
	With LED for indication of the programming mode (automatic mode).			

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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KNX-Multi-Sensor-Controller	IBMSC-NV	80.14.810	222,-
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EIB/KNX Multi-Sensor-Controller, The controller has the same functions as the Multi-Sensor IBMSD, it can however be connected 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.

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.

Multi-Sensor	LBS/d	51.21.031	50,-
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Ceiling surface mounting design.



The sensors are not including the IBMSD control electronic. This is included in the controller IBMSC-NV.

Multi-Sensor	LBS/d/R	51.21.031R	69,-
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Described as before.

Ceiling recessed mounting design with round cover, color white.

Extremely flat design, height max. 8 mm.

With mounting spring clamps.



Multi-Sensor	LBS/d/Q	51.21.031Q	69,-
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Described as before.

Ceiling recessed mounting design with square cover, color white.

Extremely flat design, height max. 8 mm.

With mounting spring clamps.



Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Multi-Sensor-DIN rail Controller</p> <p>For the connection of up to 6 Multi-Sensors. With selector switch for 6 functions and manual control with the functions BRIGHTER-DARKER-ON/OFF.</p> <p>The distance between the controller and the sensors can be up to 100 m.</p>	AQ-MSS	50.14.140	167,-
	<p>Multi-Sensor for the AQ-MSS</p> <p>Multi-Sensor, accommodated in a downlight housing with swiveling suspension</p>	LB/k	51.21.037	82,-
	<p>Multi-Sensor for the AQ-MSS/KMSS</p> <p>Multi-Sensor without housing, fitting into light fixtures</p>	LB/b	51.21.036	55,-
	<p>Multi-Sensor for the KMSS/AQ-MSS</p> <p>Multi-sensor-dimmers preferably to be fitted to floorstanding lamps.</p>	LBS/e	51.21.030	45,-
	<p>KMSS</p> <p>Multi-Sensor-Control KMSS for an insertion into light fittings.</p>	KMSS	50.13.320	65,80

Sensors for Lighting Control

Lighting Automation with Multi-Sensor-Dimmers and Switches

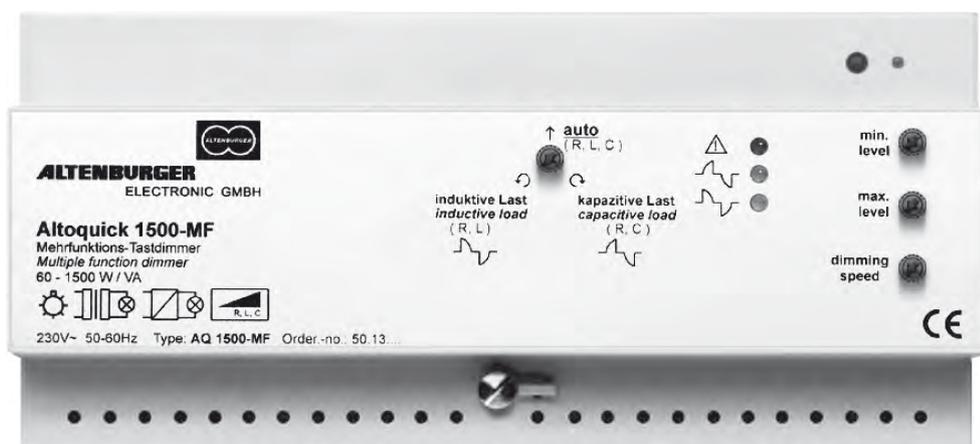
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Signal converter (phase-control mode > 1-10V)</p> <p>The signal converter changes the phase-controlled AC voltage of a dimmer into an 1-10V DC signal for a maximum of 20 electronic ballasts or transformers with 1 – 10V interface.</p>	KSU-S	50.13.301	92,-
	<p>Switch dim-module For the functions (Brighter-Darker-ON/OFF, fitting to light fixtures)</p> <p>With the switch dim-module a lighting system with ballasts with 1-10V interface can be controlled with pushbuttons (Brighter-Darker-On/Off) from several places.</p>	KSDM-S	50.13.302	142,-
	<p>Constant light control KAD-S The KAD-S to be fitted to light fixtures has to be combined with:</p> <ul style="list-style-type: none"> 1 external set value device or pushbutton 1 x light sensor <p>And as option:</p> <ul style="list-style-type: none"> 1 or more signal amplifiers 1 or more motion detectors 	KAD-S	50.13.310	153,-
	<p>Supplementary motion control KBM The KBM switches with its voltage free contact motion dependent any load.</p> <p>It is the supplement module for the multi-sensor-type MSD or MSD-T and the minimum/maximum light level control type MSL or the light value control switch MS-LRS.</p>	KBM	50.13.330	58,50
	<p>Current sink Conversion from 0-10V > 1-10V for approx. 80 electronic ballasts</p>	Current sink	51.22.001	59,60

ALTOQUICK (AQ)

Dimmers and control modules for DIN rail systems

Suitable for:

- The manual dimming with potentiometers
- Pushbutton-, IR- and radio control in connection with AQ-controls
- KNX (programmable) dimming controls
- Controls in combination with daylight and motion dependent multi-sensor dimmers
- Building management systems



ALTOQUICK (AQ)

Load dimmers and controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	AQ-Load dimmer 6A (max. 1300W/VA)	AQ 1,3 KW	50.13.010	163,-
	Phase-controlled (leading-edge) dimmer for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers, neon lamps (remote potentiometers: see page 40)			
	AQ-Load dimmer 10A (max. 2KW/KVA)	AQ 2 KW	50.13.210	264,-
	Phase-controlled (leading-edge) dimmer for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers, power LEDs (230V), neon lamps (remote potentiometers: see page 40)			
	AQ-0 Load dimmer (max. 0,7kW/KVA)	AQ-0 0,7 KW	50.13.110	190,-
	Phase-interval (lagging edge) controlled dimmer for the control of electronic transformers for low-voltage halogen lamps, incandescent lamps and high-voltage halogen lamps (remote potentiometers: see page 40)			
	AQ-0 Load dimmer (max. 1,4kW/KVA)	AQ-0 1,4 KW	50.13.111	264,-
	Phase-interval (lagging edge) controlled dimmer for the control of electronic transformers for low-voltage halogen lamps, incandescent lamps, high-voltage halogen lamps and power LEDs (230V) (remote potentiometers: see page 40)			
	AQ-0 Universal dimmer (max. 1,5kW/KVA)	AQ 1500-MFU	50.13.000	311,-
	Phase-controlled and phase-interval controlled dimmer with integrated control functions: Examples for applicable control panels: type CTM 2T (see page 39)			
	AQ-master control	AQS	50.13.012	153,-
	Operating in connection with AQ load dimmer for the common control of a maximum of 40 AQ dimmers (remote potentiometers see page 40)			

ALTOQUICK (AQ)

Load dimmers and controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>1-pushbutton auditorium control</p> <p>The NS1 is suitable for up to 40 AQ-load dimmers with the functions BRIGHTER-DARKER-ON/OFF</p> <p>Applicable control panel, Type NT 1 SO see page 39</p>	NS1	50.13.015	179,-
	<p>3-pushbutton auditorium control</p> <p>The NS2-X is suitable for the common control of up to 40 AQ-load dimmers with the following functions:</p> <ul style="list-style-type: none"> 1 x BRIGHTER (Lighting goes into its maximum position) 1 x DARKER (lighting goes to 0) 1 x ON/OFF <p>Applicable control panel, Type CTM 3T, see page 39</p>	NS2-X	50.13.030	349,-
	<p>Auditorium dimming control</p> <p>The NS4 type is suitable for the common control of up to 40 AQ-load dimmers. The connected load can be controlled with 4 pushbuttons with the following functions:</p> <ul style="list-style-type: none"> Pushbutton 1: Lighting goes into its brightest level Pushbutton 2: Lighting goes into the dark position Pushbutton 3: Lighting stops during the transfer into brighter or darker Pushbutton 4: Lighting goes into a level to be set with a potentiometer at the control. <p>Applicable control panel, Type CTM 5T, see page 39</p>	NS4	50.13.013	320,-
	<p>Auditorium dimming control with 4 scene selections</p> <p>The NS4WV is suitable for the setting of 4 different light levels plus ON/OFF.</p> <p>Applicable control panel, Type CTM 5T, see page 39</p>	NS4 WV	50.13.016	320,-
	<p>Auditorium dimming control with 6 scene selections</p> <p>The NS6WV is suitable for the control of a maximum of 20 AQ load dimmers with the following functions:</p> <ul style="list-style-type: none"> 6xScene selection, 1xBrighter, 1xDarker, 1xON, 1xOFF with the changeover interfaces of 0-10V (control of load dimmers) and 1-10V (control of electronic ballasts and transformers with 1-10V interface). <p>Applicable control panel, Type F10sES/UP, see page 39</p>	NS6 WV	50.13.218	425,-

ALTOQUICK (AQ)

Load dimmers and controls Special devices

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	AQ-control module Lighting control operating in the reverse proportional control mode to the daylight In combination with: 1 x load dimmer (see page 36) 1 x daylight dependent sensor, type LF/w	AQNP	50.14.030	320,-
	AQ-control module Lighting control operating in the proportional control mode to the daylight In combination with: 1 x load dimmer (see page 36) 1 x daylight dependent sensor, type LF/w	AQP	50.14.031	320,-

ALTOQUICK (AQ)

Load dimmers and controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	1-Pushbutton panel 1-Pushbutton function, suitable for the AQ-control types NS 1, NS1-S and universal auditorium dimming control type AQ-1500-MFU	NT 1 SO	80.14.540	8,60
	Coverplate for wall-recessed housings 55 mm			
	CTM2T For 2-Pushbutton functions, suitable for the universal control dimmer type AQ1500-MFU with the functions 'ON/BRIGHTER' and DARKER/OFF	CTM2T	51.01.321	86,-
	Coverplate for wall-recessed housings 55 mm			
	CTM3T For 3-Pushbutton functions, suitable for the controls type NS2-X and NS2-SX with the functions 'BRIGHTER-DARKER-ON/OFF'.	CTM3T	51.01.322	126,-
	Coverplate for wall-recessed housings 55 mm			
	CTM5T With 5-Pushbutton functions, suitable for the controls type NS4, and NS4-S with external ON/OFF switch	CTM5T	51.01.326	155,-
	Coverplate for wall-recessed housings 55 mm			
	CTM5T WV With 5-Pushbutton functions, suitable for the controls type NS4WV-S with external ON/OFF switch	CTM5T WV	51.01.325	155,-
	Coverplate for wall-recessed housings 55 mm			
	F10sES/UP Suitable for the control type NS6WV (see page 37)	F10sES/UP	51.01.170	272,-

ALTOQUICK (AQ)

Load dimmers and controls

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Rotary potentiometer Rotary potentiometer for wall-recessed housings (55mm-Ø) with rotary ON/OFF switch with coverplate (80x80mm) and knob.	DPU	51.01.021	26,-
	Rotary potentiometer Similar to the DPU (see above) however with pushbutton ON/OFF	DPUT	51.01.022	24,-
	Rotary potentiometer with scale With rotary ON/OFF switch, knob and scale	DPO	51.01.019	25,-
	Rotary potentiometer with scale and pushbutton As above, however with pushbutton ON/OFF instead of switch	DPOT	51.01.020	25,-
	Rotary potentiometer without cover Rotary potentiometer for wall-recessed housings (55mm-Ø) with rotary ON/OFF switch without coverplate and knob, shaft = 4mm-Ø	DPUO	51.02.021	25,-
	Rotary potentiometer with pushbutton Rotary potentiometer as above, however with pushbutton instead of switch. Shaft = 4mm-Ø	DPUTO	51.02.022	25,-
	Slider Sliding potentiometer with scale and knob.	SP	51.01.027	24,-

ALTOQUICK (AQ)

With IR and radio controls and accessories

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Combined IR- and radio control module	IRNV-3S	50.13.145	533,-
	For the control of a maximum of 3 light circuits with electronic ballasts or transformers with 1-10V interface or up to 3 ALTENBURGER load dimmers with 0-10V interface respectively with the function ON/OFF, Brighter-Darker. To be operated with pushbutton panels or / and handheld IR-or radio transmitters (see below).			
	IR control for 5-functions	IR-ST/S	50.13.142	235,-
	In connection with the control modules for load dimmers (0-10V) interface or with controls with 1-10V interface as well as for sun protections and ventilators with an extension range up to 35 channels.			
	IR sensor	IR-ES/R	50.13.143	50,-
	Radio receiver	FU-E/S	52.10.000	86,-
	Handheld IR-transmitter	IR-S/S	50.13.060	74,-
	With up to 35 channels. A smaller quantity of keys according to the specification			
	Handheld radio-transmitter	FU-S/S	52.00.000	90,-
	With up to 35 channels. A smaller quantity of keys according to the specification			

ALTOQUICK (AQ)

Dimmers with 1-10V interface

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Dimmer for the control of max. 200 electronic ballasts or transformers with 1-10V interface to be operated with rotary or sliding potentiometers. In order to provide for a versatile operation the external control is made via DC 0-20 (0-10)V or with an internal rotary potentiometer with rotary ON/OFF-switch.	AQS-S	50.13.112	153,-
	AQ-auditorium dimming control module with 1-pushbutton function. With the NS1-S dimmable electronic ballasts and electronic transformers with low-voltage interface of 1-10V are controlled. The NS1-S controls the brightness between 0..100% continuously only with a pushbutton and switches ON/OFF (1-pushbutton function). Remote control panel, type NT1S0 see page 39	NS1-S	50.13.115	179,-
	AQ-auditorium dimming control module with direct switching ON/OFF. The NS2-SX is suitable for the common control of up to 200 electronic ballasts or transformers with 1-10V interface with the following functions: 1xBRIGHTER, 1xDARKER 1xON/OFF Remote control panel, type CTM 3T see page 39	NS2-SX	50.13.130	349,-
	AQ-auditorium dimming control module with 4-pushbutton function. With the NS4-S dimmable electronic ballasts and electronic transformers with low-voltage interface of 1-10V are controlled. With the NS4-S the brightness between 0..100% continuously can be controlled with 4 pushbuttons (4-pushbutton function). Remote control panel, type CTM 5T see page 39	NS4-S	50.13.113	320,-
	AQ-auditorium dimming control module with 4-pushbutton-selection function. With the NS4 WV-S up to 200 dimmable electronic ballasts and electronic transformers with low-voltage interface of 1-10V are controlled. With the NS4 WV-S up to 4 different light values can be selected via external buttons. Remote control panel, type CTM 5T WV see page 39	NS4 WV-S	50.13.116	320,-
	AQ-auditorium dimming control module with 6-pushbutton-selection function, 6xPreselection, 1xBrighter, 1xDarker, 1xON, 1xOFF with switchable interface 0-10V (control of load dimmers) and 1-10V (direct control of electronic ballasts and transformers). Remote control panel, type F10s/ES/UP see page 39	NS6 WV	50.13.218	425,-

ALTOQUICK (AQ)

Constant light controls, light-value control switches and electronic lux instrument transformers

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Constant light control AQAD-S	AQAD-S	50.14.116	320,-
	For electronic ballasts and transformers with 1-10V interface or for a maximum of 3 load dimmers with 0-10V interface for a smooth adjustment of artificial light to the daylight with ON/OFF switch with the possibility of an external setting of the light level to be kept constant with the pushbutton type DPUT-S.			
	Photosensor	LF/w/D	51.21.010	39,30
	For the constant light control type AQAD-S and light value control switches (see below) Wall-mounted, swivelling, water protection IP 55.			
	Basket protection for the photosensor	SK	51.21.090	47,-
	protection against ball shot			
	Light value control switches for all types of lamps			
	Light value control switch for 1-circuit illumination	LWS1	50.14.011	257,-
	with light-value setting of 10-1000 lux and 200-20000 lux with switch state display.			
	Light value control switch for 3-circuit illumination	LWS3	50.14.016	352,-
	with light-value setting of 10-1000 lux and 200-20000 lux per light circuit with switch state displays.			
	Photosensor	LF/w/D	51.21.010	39,30
	For the light value control switches see above			
	Electronic lux instrument transformer for building management systems	LM3	50.14.102	882,-
	The lux-instrument transformer acquires with the light sensor the brightness per circuit and transforms it into a linear DC proportional to the brightness. Systems with photosensor-dependent controls for the connection of 3 photosensors type LF/w/D (see above) for 3 channels.			

ALTOQUICK (AQ)

Dimmers with 1-10V interface

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Wall-recessed dimmer with rotary ON/OFF switch Dimmer for electronic ballasts and transformers with 1-10V interface with AX-coverplate and knob	DPUX-S	50.50.010	28,80
	Wall-recessed dimmer with push-changeover switch Dimmer for electronic ballasts and transformers with 1-10V interface with AX-coverplate and knob	DPUWX-S	50.50.011	28,80
	Wall-recessed dimmer with pushbutton Dimmer for electronic ballasts and transformers with 1-10V interface with AX-coverplate and knob	DPUTX-S	50.50.012	28,80
	Wall-recessed dimmer with rotary ON/OFF switch Dimmer for electronic ballasts and transformers with 1-10V interface with 4mm shaft, without coverplate and knob	DPUO-S	50.50.020	28,80
	Wall-recessed dimmer with push-changeover switch Dimmer for electronic ballasts and transformers with 1-10V interface with 4mm shaft, without coverplate and knob	DPUWO-S	50.50.021	28,80
	Wall-recessed dimmer with pushbutton Dimmer for electronic ballasts and transformers with 1-10V interface with 4mm shaft, without coverplate and knob	DPUTO-S	50.50.022	28,80

ALTOQUICK (AQ)

Dimmers with 1-10V interface

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Wall-recessed dimmer with rotary ON/OFF switch Dimmer for electronic ballasts and transformers with 1-10V interface for DIN rail systems	DPN-S	50.50.030	35,10
	Wall-recessed dimmer with push-changeover switch Dimmer for electronic ballasts and transformers with 1-10V interface for DIN rail systems	DPNW-S	50.50.031	35,10
	Wall-recessed dimmer with pushbutton Dimmer for electronic ballasts and transformers with 1-10V interface for DIN rail systems	DPNT-S	50.50.032	35,10
	Wall-mounted dimmer with rotary ON/OFF switch Dimmer for electronic ballasts and transformers with 1-10V interface	DPA-S	50.50.040	35,60
	Wall-mounted dimmer with push-changeover switch Dimmer for electronic ballasts and transformers with 1-10V interface	DPAW-S	50.50.041	35,60
	Wall-mounted dimmer with pushbutton Dimmer for electronic ballasts and transformers with 1-10V interface	DPAT-S	50.50.042	35,60

ALTOQUICK (AQ)

Special modules with 1-10 V interface

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	1-10V control Dimming control operating reverse proportional to the daylight	AQNP-S	50.14.130	320,-
	Accessory: 1 daylight sensor, type LF/w			
	1-10V control Dimming control operating proportional to the daylight.	AQP-S	50.14.131	320,-
	Accessory: 1 daylight sensor, type LF/w			
	Double wave motion lighting control This control operates two lighting groups individually up and down between 100 % and 0: While group 1 is in its brightest position group 2 arrives at 0 (and vice versa). The fade time can be set individually. For each group between 3 and 60 secs. with a potentiometer at the device. The module is suitable for the control of up to 200 dimmable ballasts or transformers with 1-10V interface or 40 AQ load dimmers with 0-10V interface.	AQE2-S	50.13.121	320,-
	Over and under voltage relay The over and under voltage relay is a control which automatically switches light circuits ON or OFF in dependence of different voltage inputs. It has two control inputs which can be used alternatively: Input voltage 1: phase-control (leading edge) mode Input voltage 2: D/C A LED indicates the respective control state It is used for the direct switching of lighting groups.	SW	50.14.010	129,-
	Signal amplifier The KSV-S is a current amplifier for the dimming control of a great number of electronic ballasts or electronic transformers with 1-10 V interface. It reduces the loading of a preceeded dimmer for a better utilizing of the dimmer capacity. The signal amplifier has the same input specification as the electronic ballasts and consequently also can be combined with dimmers for these ballasts or transformers. The maximum output loading of the KSV-S is 200 mA (for approx. 200 electronic ballasts).	KSV-S	50.13.300	92,-

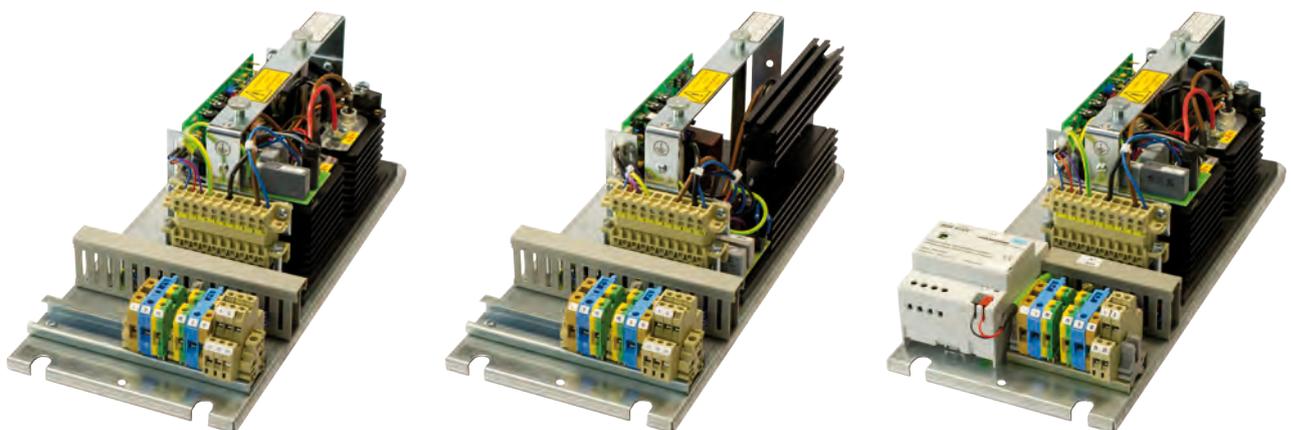
TH

Thyristor-controlled high power load dimmers

**Conventional and programmable KNX load dimmers
up to a load capacity of 8 kW**

Suitable for:

- **Manual dimming control with potentiometers (see page 40)**
- **Pushbutton, IR-and radio controlled in connection with AQ control gear**
- **Control of power LEDs (230V)**
- **Programmable KNX load dimmers with integrated memory for up to 25 lighting scenes**
- **Load dimmers in connection with daylight and motion dependent multi-sensor-dimmers**
- **Power modules in building management systems**



TH & TH-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

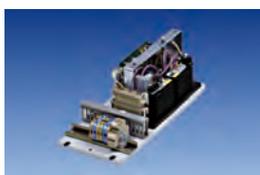
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TH load dimmers operating in the phase-controlled (leading edge) mode

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Manually controlled with attached rotary potentiometer with ON/OFF switch.

1-phase TH-plug in module: 230 V/AC, 50 Hz, phase-controlled mode



... up to 2 kW/kVA	TH 2 kW	51.02.000	273,-
... up to 3 kW/kVA	TH 3 kW	51.02.001	323,-
... up to 5 kW/kVA	TH 5 kW	51.02.002	439,-
... up to 8 kW/kVA	TH 8 kW	51.02.003	564,-

3-phase TH-plug in module: 3x 230/400 V, 50 Hz, phase-controlled mode



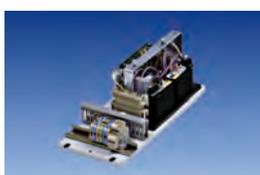
... up to 3x 2 kW/kVA	TH 3x2 kW	51.11.000	975,-
... up to 3x 3 kW/kVA	TH 3x3 kW	51.11.001	1.189,-
... up to 3x 5 kW/kVA	TH 3x5 kW	51.11.002	1.267,-
... up to 3x 8 kW/kVA	TH 3x8 kW	51.11.003	1.652,-

TH-0 load module, operating in the phase-interval controlled (trailing edge) mode.

Backplate mounted for cabinets suitable for incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps or suitable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Manually controlled with attached rotary potentiometer with ON/OFF switch.

1-phase TH-0 plug in module: 230 V/AC, 50 Hz, phase-interval (trailing edge) controlled mode



... up to 2 kW/kVA	TH 2 kW-0	51.02.100	396,-
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3-phase TH-0 plug in module: 3x 230/400 V, 50Hz, phase-interval (trailing edge) controlled mode



... up to 3x 2 kW/kVA	TH 3x2 kW-0	51.11.100	1.288,-
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THG & THG-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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THG load dimmers, operating in the phase-controlled (leading edge) mode

With wall-mounted or wall-recessed housing, suitable for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and suitable power LEDs.

Dimming controls in wall-mounted or wall-recessed design (kindly add the respective designation for the type which is required) with integrated MCBs and rotary potentiometers with ON/OFF switch and scale.



1-phase THG-AP/UP modules: 230 V/AC, 50 Hz, phase-controlled (leading edge) mode

... up to 2 kW/kVA	THG 2 kW	51.02.005	378,-
... up to 3 kW/kVA	THG 3 kW	51.02.006	480,-
... up to 5 kW/kVA	THG 5 kW	51.02.007	570,-
... up to 8 kW/kVA	THG 8 kW	51.02.008	699,-

AP: wall-mounted, UP: wall-recessed

3-phase THG AP/UP modules: 3x 230/400 V, 50 Hz, phase-controlled (leading edge) mode

... up to 3x 2 kW/kVA	THG 3x2 kW	51.11.005	1.155,-
... up to 3x 3 kW/kVA	THG 3x3 kW	51.11.006	1.391,-
... up to 3x 5 kW/kVA	THG 3x5 kW	51.11.007	1.519,-
... up to 3x 8 kW/kVA	THG 3x8 kW	51.11.008	1.899,-

AP: wall-mounted, UP: wall-recessed

THG-0 load dimmers, operating in the phase-interval controlled (trailing edge) mode

With wall-mounted or wall-recessed housing, suitable for incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and suitable power LEDs.

Dimming controls in wall-mounted or wall-recessed design (kindly add the respective designation for the type which is required) with integrated MCBs and rotary potentiometers with ON/OFF switch and scale.



1-phase THG-0 wall-mounted/wall-recessed modules with housing: 230 V/AC, 50 Hz, phase-interval controlled (trailing edge) mode

... up to 2 kW/kVA	THG 2 kW-0	51.02.105	481,-
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AP: wall-mounted, UP: wall-recessed

3-phase THG-0 wall-mounted/wall-recessed modules with housing: 3x 230/400V, 50 Hz, phase-interval controlled (trailing edge) mode

... up to 3x 2 kW/kVA	THG 3x2 kW-0	51.11.105	1.465,-
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AP: wall-mounted, UP: wall-recessed

THD & THD-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

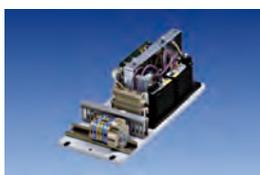
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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THD load dimmers operating in the phase-controlled (leading edge) mode with direct switching ON/OFF

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Manually controlled lighting control with direct ON/OFF switching with attached rotary potentiometer with pushbutton and scale.

1-phase THD-plug in module: 230 V/AC, 50 Hz, phase-controlled mode



... up to 2 kW/kVA	THD 2 kW	51.30.000	353,-
... up to 3 kW/kVA	THD 3 kW	51.30.001	405,-
... up to 5 kW/kVA	THD 5 kW	51.30.002	528,-
... up to 8 kW/kVA	THD 8 kW	51.30.003	669,-

3-phase THD-plug in module: 3x 230/400 V, 50 Hz, phase-controlled mode



... up to 3x 2 kW/kVA	THD 3x2 kW	51.30.005	1.088,-
... up to 3x 3 kW/kVA	THD 3x3 kW	51.30.006	1.299,-
... up to 3x 5 kW/kVA	THD 3x5 kW	51.30.007	1.391,-
... up to 3x 8 kW/kVA	THD 3x8 kW	51.30.008	1.788,-

THD-0 load module, operating in the phase-interval controlled (trailing edge) mode with direct switching ON/OFF

Backplate mounted for cabinets suitable for incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps or suitable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Manually controlled lighting control with direct ON/OFF switching with attached rotary potentiometer with pushbutton and scale.

1-phase THD-0 plug in module: 230V/AC, 50 Hz, phase-interval (trailing edge) controlled mode



... up to 2 kW/kVA	THD 2 kW-0	51.30.100	457,-
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3-phase THD-0 plug in module: 3x 230/400 V, 50 Hz, phase-interval (trailing edge) controlled mode



... up to 3x 2 kW/kVA	THD 3x2 kW-0	51.30.105	1.398,-
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THDG & THDG-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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THDG load dimmers, operating in the phase-controlled (leading edge) mode with direct ON/OFF switching

With wall-mounted or wall-recessed housing, suitable for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and suitable power LEDs.

Dimming controls in wall-mounted or wall-recessed design (please add the respective designation for the type) with integrated MCBs and rotary potentiometers with ON/OFF switch and scale.



1-phase THDG-AP/UP modules: 230 V/AC, 50 Hz, phase-controlled (leading edge) mode

... up to 2 kW/kVA	THDG 2 kW	51.31.000	452,-
... up to 3 kW/kVA	THDG 3 kW	51.31.001	514,-
... up to 5 kW/kVA	THDG 5 kW	51.31.002	659,-
... up to 8 kW/kVA	THDG 8 kW	51.31.003	797,-

AP: wall-mounted, UP: wall-recessed

3-phase THDG AP/UP modules: 3x 230/400 V, 50 Hz, phase-controlled (leading edge) mode

... up to 3x 2 kW/kVA	THDG 3x2 kW	51.31.005	1.291,-
... up to 3x 3 kW/kVA	THDG 3x3 kW	51.31.006	1.503,-
... up to 3x 5 kW/kVA	THDG 3x5 kW	51.31.007	1.642,-
... up to 3x 8 kW/kVA	THDG 3x8 kW	51.31.008	2.034,-

AP: wall-mounted, UP: wall-recessed

THDG-0 load dimmers, operating in the phase-interval controlled (trailing edge) mode with direct ON/OFF switching

With wall-mounted or wall-recessed housing, suitable for incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and suitable power LEDs.

Dimming controls in wall-mounted or wall-recessed design (please add the respective designation for the type) with integrated MCBs and rotary potentiometers with ON/OFF switch and scale.



1-phase THDG-0 AP/UP modules with housing: 230 V/AC, 50 Hz, phase-interval controlled (trailing edge) mode

... up to 2 kW/kVA	THDG 2 kW-0	51.31.100	556,-
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AP: wall-mounted, UP: wall-recessed

3-phase THDG-0 AP/UP modules with housing: 3x 230/400 V, 50 Hz, phase-interval controlled (trailing edge) mode

... up to 3x 2 kW/kVA	THDG 3x2 kW-0	51.31.105	1.601,-
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AP: wall-mounted, UP: wall-recessed

TS & TS-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

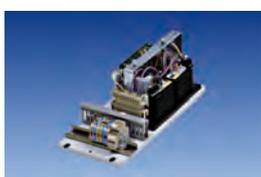
Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TS auditorium dimmers operating in the phase-controlled (leading edge) mode

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and dimmable power LEDs.

Pushbutton controlled dimmer backplate mounted in cabinets, consisting of mounting plate with terminal blocks and plug-on load and control module. To be controlled with pushbutton panels. Pushbutton functions: bright, dark, stop, light value setting (preselection).

1-phase TS-plug in module backplate mounted: 230 V/AC, 50 Hz, phase-controlled mode



... up to 2 kW/kVA	TS 2 kW	51.04.000	774,-
... up to 3 kW/kVA	TS 3 kW	51.04.001	831,-
... up to 5 kW/kVA	TS 5 kW	51.04.002	927,-
... up to 8 kW/kVA	TS 8 kW	51.04.003	1.044,-

3-phase TS-plug in module backplate mounted: 3x 230/400 V, 50 Hz, phase-controlled mode



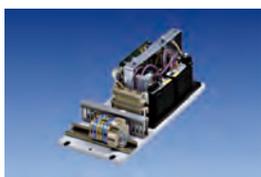
... up to 3x 2 kW/kVA	TS 3x2 kW	51.13.000	1.531,-
... up to 3x 3 kW/kVA	TS 3x3 kW	51.13.001	1.752,-
... up to 3x 5 kW/kVA	TS 3x5 kW	51.13.002	1.804,-
... up to 3x 8 kW/kVA	TS 3x8 kW	51.13.003	2.212,-

TS-0 load module, operating in the phase-interval controlled (trailing edge) mode

Transistor/Mosfet controlled auditorium dimmer for incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Backplate mounted in cabinets, consisting of mounting plate with terminal blocks and plug-on load and control module. To be controlled with pushbutton panels. Pushbutton functions: bright, dark, stop, light value setting (preselection).

1-phase TS-0 plug in module backplate mounted: 230 V/AC, 50 Hz, phase-interval controlled mode



... up to 2 kW/kVA	TS 2 kW-0	51.04.100	878,-
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3-phase TS-0 plug in module backplate mounted: 3x 230/400 V, 50 Hz, phase-interval controlled mode



... up to 3x 2 kW/kVA	TS 3x2 kW-0	51.13.100	1.841,-
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TSG & TSG-0

Thyristor controlled dimmers

Operating in the phase-controlled and phase-interval controlled mode

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TSG load dimmers operating in the phase-controlled (leading edge) mode

Thyristor controlled dimmer operating in the phase controlled mode for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and dimmable power LEDs.

Pushbutton operated in wall-mounted or wall-recessed design (please add the respective designation for the type) with integrated MCBs. To be controlled with pushbutton panels. Pushbutton functions: bright, dark, stop, light value setting (preselection).



1-phase TSG-plug in module with wall-mounted or wall-recessed housing: 230 V/AC, 50 Hz, phase-controlled mode

... up to 2 kW/kVA	TSG 2 kW	51.04.005	879,-
... up to 3 kW/kVA	TSG 3 kW	51.04.006	937,-
... up to 5 kW/kVA	TSG 5 kW	51.04.007	1.056,-
... up to 8 kW/kVA	TSG 8 kW	51.04.008	1.143,-

AP: wall-mounted, UP: wall-recessed

3-phase TSG-plug in module with wall-mounted or wall-recessed housing: 3x 230/400V, 50 Hz, phase-controlled mode

... up to 3x 2 kW/kVA	TSG 3x2 kW	51.13.005	1.735,-
... up to 3x 3 kW/kVA	TSG 3x3 kW	51.13.006	1.954,-
... up to 3x 5 kW/kVA	TSG 3x5 kW	51.13.007	2.065,-
... up to 3x 8 kW/kVA	TSG 3x8 kW	51.13.008	2.431,-

AP: wall-mounted, UP: wall-recessed

TSG-0 load module, operating in the phase-interval controlled (trailing edge) mode

for the pushbutton control of incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Pushbutton operated dimming controls in wall-mounted or wall-recessed design (please add the respective designation for the type) with integrated MCBs. To be controlled with pushbutton panels. Pushbutton functions: bright, dark, stop, light value setting (preselection).



1-phase TSG-0 plug in module with wall-mounted or wall-recessed housing: 230 V/AC, 50 Hz, phase-interval controlled mode

... up to 2 kW/kVA	TSG 2 kW-0	51.04.105	982,-
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AP: wall-mounted, UP: wall-recessed

3-phase TS-0 plug in module with wall-mounted or wall-recessed housing: 3x 230/400 V, 50 Hz, phase-interval controlled mode

... up to 3x 2 kW/kVA	TSG 3x2 kW-0	51.13.105	2.045,-
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AP: wall-mounted, UP: wall-recessed

TH-EIB/P & TH-EIB/P-0

Thyristor controlled dimmers

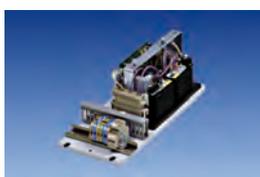
Operating in the phase-controlled and phase-interval controlled mode

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TH-EIB/P - load dimmers operating in the phase-controlled (leading edge) mode with programmable KNX switch dim actuator

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and dimmable power LEDs.

1-phase TH-EIB/P plug in module with KNX switch dim actuator, 0-10V/1-10V and scene memory for 25 scenes: 230 V, 50 Hz, phase-controlled mode



... up to 2 kW/kVA	TH-EIB/P 2 kW	80.02.000	585,-
... up to 3 kW/kVA	TH-EIB/P 3 kW	80.02.001	636,-
... up to 5 kW/kVA	TH-EIB/P 5 kW	80.02.002	752,-
... up to 8 kW/kVA	TH-EIB/P 8 kW	80.02.003	878,-

3-phase TH-EIB/P plug in module with KNX switch dim actuator, 0-10V/1-10V and scene memory for 25 scenes: 3x 230/400 V, 50 Hz, phase-controlled mode



... up to 3x 2 kW/kVA	TH-EIB/P 3x2 kW	80.11.000	1.288,-
... up to 3x 3 kW/kVA	TH-EIB/P 3x3 kW	80.11.001	1.503,-
... up to 3x 5 kW/kVA	TH-EIB/P 3x5 kW	80.11.002	1.580,-
... up to 3x 8 kW/kVA	TH-EIB/P 3x8 kW	80.11.003	1.965,-

TH-EIB/P-0 load module, operating in the phase-interval controlled (trailing edge) mode with programmable KNX switch dim actuator

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Lighting control with integrated KNX switch-dim actuator, 0-10V/1-10V and scene memory for 25 scenes.

1-phase TH-EIB/P-0 plug in module with KNX switch dim actuator, 0-10V/1-10V and scene memory for 25 scenes: 230 V, 50Hz, phase-interval (trailing edge) controlled mode



... up to 2 kW/kVA	TH-EIB/P 2 kW-0	80.02.100	690,-
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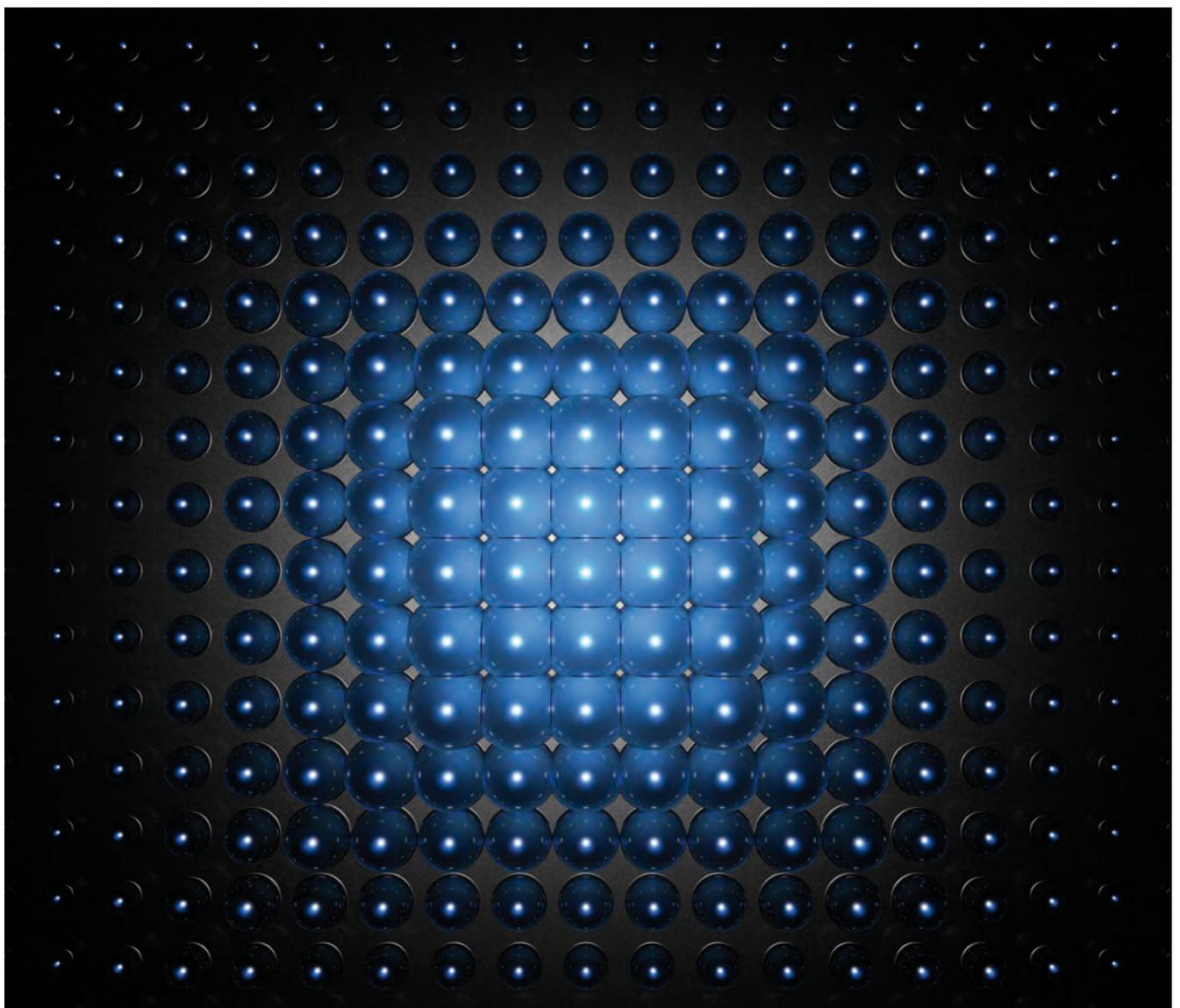
3-phase TH-EIB/P-0 plug in module with KNX switch dim actuator, 0-10V/1-10V and scene memory for 25 scenes: 3x 230/400 V, 50 Hz, phase-interval (trailing edge) controlled mode



... up to 3x 2 kW/kVA	TH-EIB/P 3x2 kW-0	80.11.100	1.602,-
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LED

Dimmers and lighting controls for Power-LEDs (230V)



Power-LEDs

Dimmers and lighting controls for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	AQ-Load dimmer 10A (max. 2KW/KVA)	AQ 2 KW	50.13.210	264,-
	Phase-controlled (leading-edge) dimmer for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers, power LEDs (230V), neon lamps (remote potentiometers: see page 40)			
	AQ-0 Load dimmer (max. 1,4kW/KVA)	AQ-0 1,4 KW	50.13.111	264,-
	Phase-interval (lagging edge) controlled dimmer for the control of electronic transformers for low-voltage halogen lamps, incandescent lamps, high-voltage halogen lamps and power LEDs (230V) (remote potentiometers: see page 40)			
	AQ-0 Universal dimmer (max. 1,5kW/KVA)	AQ 1500-MFU	50.13.000	311,-
	Phase-controlled and phase-interval controlled dimmer with integrated control functions: Examples for applicable control panels: type CTM 2T (see page 57)			
 	Rotary potentiometer	DPU	51.01.021	26,-
	Rotary potentiometer for wall-recessed housings (55mm-Ø) with rotary ON/OFF switch with coverplate (80x80mm) and knob.			
	AQ-master control	AQS	50.13.012	153,-
	Operating in connection with AQ load dimmer for the common control of a maximum of 40 AQ dimmers (remote potentiometers see page 40)			

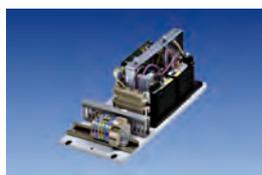
Power-LEDs

Dimmers and pushbutton panels for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	1-Pushbutton panel	NT 1 S0	80.14.540	8,60
	1-Pushbutton function, suitable for the AQ-control types NS 1, NS1-S and universal auditorium dimming control type AQ-1500-MFU Coverplate for wall-recessed housings 55 mm			
	2-Pushbutton panel	CTM2T	51.01.321	86,-
	For 2-Pushbutton functions, suitable for the universal control dimmer type AQ1500-MFU with the functions 'ON/BRIGHTER' and DARKER/OFF Coverplate for wall-recessed housings 55 mm			
	4-Pushbutton panel	CTM4T /U	51.01.354	141,-
	For 4-Pushbutton functions, suitable for the universal control dimmer type AQ1500-MFU. Coverplate for wall-recessed housings 55 mm			

TH load dimmers for dimmable power LEDs (230V), suitable also for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound or electronic transformers (where applicable).

For the backplate mounting in cabinets



1-phase TH-plug in module: 230 V/AC, 50 Hz, phase-controlled mode			
Plug-in modules with terminal plate and separate function part.	TH 2 kW	51.02.000	273,-
	TH 3 kW	51.02.001	323,-
	TH 5 kW	51.02.002	439,-
	TH 8 kW	51.02.003	564,-



1-phase TH-0 plug in module: 230 V/AC, 50 Hz, phase-interval (trailing edge) controlled mode			
Plug-in modules with terminal plate and separate function part.	TH 2 kW-0	51.02.100	396,-

Power-LEDs

Auditorium control and pushbutton panels for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>3-pushbutton auditorium control</p> <p>The NS2-X is suitable for the common control of up to 40 AQ-load dimmers with the following functions:</p> <ul style="list-style-type: none">1 x BRIGHTER (Lighting goes into its maximum position)1 x DARKER (lighting goes to 0)1 x ON/OFF <p>Applicable control panel, Type CTM 3T</p>	NS2-X	50.13.030	349,-
	<p>3-Pushbutton panel</p> <p>For 3-Pushbutton functions, suitable for the controls type NS2-X and NS2-SX with the functions 'BRIGHTER-DARKER-ON/OFF'.</p> <p>Coverplate for wall-recessed housings 55 mm</p>	CTM3T	51.01.322	126,-

Power-LEDs

KNX – Dimmers and lighting controls for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Phase-controlled load-dimmer (leading-edge mode) with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 2000 W/VA (with automatic overload protection) and for Power-LEDs (230 V).	IBDA 2000	80.13.063	305,-
	Without internal scene memory.			
	Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 1400 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V).	IBDA 1400-0	80.13.064	305,-
	Without internal scene memory.			
	Universal-dimmer (with automatic load-detection of leading- or trailing-/lagging-edge control mode) for electronic transformers, incandescent lamps, low-voltage halogen-lamps with conventional transformers (inductive) for up to 1500 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V).	IBDA 1500U	80.13.070	311,-
	Without internal scene memory.			
KNX – LED Dimmers as before, however programmable with an internal memory for up to 25 scenes.				
	Phase-controlled load-dimmer (leading-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and neon lamps for up to 2000 W/VA (with automatic overload protection) and for Power-LEDs (230 V).	IBDA 2000/P	80.13.163	368,-
	With internal scene memory for up to 25 individual scenes.			
	Phase-interval-controlled load-dimmer (lagging-/trailing-edge mode) with integrated scene memory (for up to 25 scenes) and with external pushbutton control for low-voltage halogen lamps with electronic transformers, incandescent lamps and high-voltage halogen lamps for up to 1400 W/VA (with automatic overload protection) and for dimmable Power-LEDs (230 V).	IBDA 1400-0/P	80.13.164	368,-
	With internal scene memory for up to 25 individual scenes.			

Power-LEDs

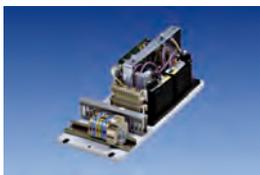
Dimmers and lighting controls for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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TH-EIB/P - load dimmers operating in the phase-controlled (leading edge) mode with programmable KNX switch dim actuator

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with wire-wound transformers and dimmable power LEDs.

**1-phase TH-EIB/P plug in module with KNX switch dim actuator,
0-10V/1-10V and scene memory for 25 scenes:
230 V, 50 Hz, phase-controlled mode**



... up to 2 kW/kVA	TH-EIB/P 2 kW	80.02.000	585,-
... up to 3 kW/kVA	TH-EIB/P 3 kW	80.02.001	636,-
... up to 5 kW/kVA	TH-EIB/P 5 kW	80.02.002	752,-
... up to 8 kW/kVA	TH-EIB/P 8 kW	80.02.003	878,-

**3-phase TH-EIB/P plug in module with KNX switch dim actuator,
0-10V/1-10V and scene memory for 25 scenes:
3x 230/400 V, 50 Hz, phase-controlled mode**



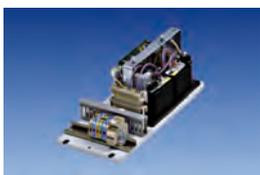
... up to 3x 2 kW/kVA	TH-EIB/P 3x2 kW	80.11.000	1.288,-
... up to 3x 3 kW/kVA	TH-EIB/P 3x3 kW	80.11.001	1.503,-
... up to 3x 5 kW/kVA	TH-EIB/P 3x5 kW	80.11.002	1.580,-
... up to 3x 8 kW/kVA	TH-EIB/P 3x8 kW	80.11.003	1.965,-

TH-EIB/P-0 load module, operating in the phase-interval controlled (trailing edge) mode with programmable KNX switch dim actuator

Backplate-mounted in cabinets (optional wall-mounted or wall-recessed housing) for the control of incandescent lamps, low-voltage halogen lamps with electronic transformers, high-voltage halogen lamps and dimmable power LEDs.

Mounting plate with terminal blocks and plug-on load and control module. Lighting control with integrated KNX switch-dim actuator, 0-10V/1-10V and scene memory for 25 scenes.

**1-phase TH-EIB/P-0 plug in module with KNX switch dim actuator,
0-10V/1-10V and scene memory for 25 scenes:
230 V, 50Hz, phase-interval (trailing edge) controlled mode**



... up to 2 kW/kVA	TH-EIB/P 2 kW-0	80.02.100	690,-
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**3-phase TH-EIB/P-0 plug in module with KNX switch dim actuator,
0-10V/1-10V and scene memory for 25 scenes:
3x 230/400 V, 50 Hz, phase-interval (trailing edge) controlled mode**



... up to 3x 2 kW/kVA	TH-EIB/P 3x2 kW-0	80.11.100	1.602,-
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Power-LEDs

Dimmers for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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LED wall-recessed dimmers for dimmable power LEDs for 55 mm-Ø housings or for DIN rail systems. The dimmers have a load capacity of 1000VA. They are also suitable for the control of incandescent lamps, high-voltage halogen lamps and low-voltage halogen lamps with wire-wound transformers where applicable.



EHR/DE 1000VA

**EHR/DE
1000VA**

50.06.102

47,40

wall-recessed dimmer module with rotary ON/OFF switch, 800VA, without coverplate and knob in combination with customary coverplates and knobs.

Shaft = 4 mm-Ø



EHR/AX 1000VA

**EHR/VX
1000VA**

55.06.002

48,50

As before, however with ALTOFLEX-coverplates

Shaft = 6 mm-Ø



EHR/NV 1000VA

**EHR/NV
1000VA**

50.06.020

50,90

Dimmer for DIN rail systems 1000VA, with rotary ON/OFF switch, including housing and knob.



Table dimmer 400VA

TD 400VA

50.08.004

67,20

Trapeze formed table dimmer with a load capacity of 400VA and rotary potentiometer with rotary ON/OFF switch.

Power-LEDs

Multi-Sensor-Dimmers and Switches for dimmable Power-LEDs (230V)

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Multi-Sensor-Dimmer</p> <p>Constant light controller with presence detection and set-point adjustment at the device or via an external pushbutton.</p> <p>Ceiling surface mounting design.</p>	MSD*	50.13.500	86,-
	<p>Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with round cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD/R	50.13.500R	105,-
	<p>Multi-Sensor-Dimmer</p> <p>Described as before.</p> <p>Ceiling recessed mounting design with square cover, color white.</p> <p>Extremely flat design, height max. 8 mm.</p> <p>With mounting spring clamps.</p>	MSD/Q	50.13.500Q	105,-

* Surcharge for all sensors with connected UV-resistant cable (1.5 m): 14,00 Euro

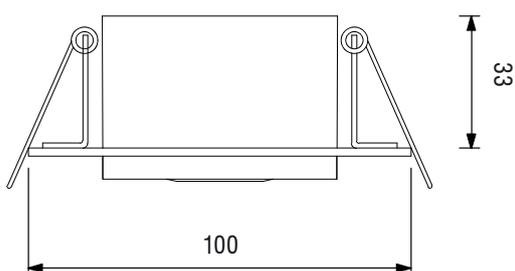


Illustration with tensed spring, diameter of drill holes, 90 mm.

Also the ceiling recessed sensors comprise a mounting plate and a functional part.

Dimmer

Up to 1000 W/VA load



Dimmer up to 1000 W/VA

wall-recessed design

**Dimmer with coverplate and rotary knob
wall-recessed Altoflex
(AX)-design 71 x 71 mm
light beige**



**Dimmer without cover-plate and rotary knob
with 4 mm Ø axis in
wall-recessed design**



	Order-No.	Euro/Piece	Order-No.	Euro/Piece
Dimmers for incandescent lamps and high-voltage halogen lamps				
... 60 – 400 W with rotary on/off-switch	55.03.001	20,80	50.03.101	18,80
... 60 – 600 W with rotary on/off-switch	55.04.000	26,40	50.04.100	24,40
... 60 – 800 W with rotary on/off-switch	55.05.000	36,-	50.05.100	34,-
... 60 – 1000 W with rotary on/off-switch	55.07.000	44,-	50.07.100	42,-
... 60 – 400 W with push-changeover switch	55.03.002	22,80	50.03.102	20,80
... 60 – 600 W with push-changeover switch	55.04.001	28,40	50.04.101	26,40
... 60 – 800 W with push-changeover switch	55.05.001	38,-	50.05.101	36,-
... 60 – 1000 W with push-changeover switch	55.07.001	46,-	50.07.101	44,-
Dimmers for the control of low-voltage halogen lamps with wire-wound transformers				
... 15 – 500 W with rotary on/off-switch	55.20.000	47,-	50.20.100	45,-
... 15 – 500 W with push-changeover switch	55.20.002	49,-	50.20.102	47,-
Dimmers (phase-interval control mode) for the control of low-voltage halogen lamps with electronic transformers				
... 15 – 350 W with push-changeover switch	55.30.010	58,-	50.30.110	56,-
Speed controller for fans and ventilators				
... 20 – 800 VA with push-changeover switch	55.06.003	46,-	50.06.103	44,-

Dimmer up to 1000 W/VA

DIN rail and wall-mounted

**Dimmer for DIN rails
with coverplate and
rotary knob**

**Dimmer in wall-moun-
ted design with housing
and rotary knob**



	Order-No.	Euro/Piece	Order-No.	Euro/Piece
Dimmers for incandescent lamps and high-voltage halogen lamps				
... 60 – 400 W with rotary on/off-switch	50.03.007	24,80	56.03.001	32,80
... 60 – 600 W with rotary on/off-switch	50.04.005	28,40	56.04.000	36,40
... 60 – 800 W with rotary on/off-switch	50.05.005	38,-	56.05.000	46,-
... 60 – 1000 W with rotary on/off-switch	50.07.005	46,-	56.07.000	54,-
... 60 – 400 W with push-changeover switch	50.03.008	26,80	56.03.002	34,80
... 60 – 600 W with push-changeover switch	50.04.006	30,40	56.04.001	38,40
... 60 – 800 W with push-changeover switch	50.05.006	40,-	56.05.001	48,-
... 60 – 1000 W with push-changeover switch	50.07.006	48,-	56.07.001	56,-
Dimmers for the control of low-voltage halogen lamps with wire-wound transformers				
... 15 – 500 W with rotary on/off-switch	50.20.010	56,-	56.20.000	64,-
... 15 – 500 W with push-changeover switch	50.20.012	58,-	56.20.002	66,-
Dimmers (phase-interval control mode) for the control of low-voltage halogen lamps with electronic transformers				
... 15 – 350 W with push-changeover switch	50.30.030	62,-	56.30.010	70,-
Speed controller for fans and ventilators				
... 20 – 800 VA with push-changeover switch	50.06.014	48,-	56.06.003	56,-



ALTENBURGER
ELECTRONIC GMBH

THYRODYN

STAGE LIGHTING CONTROLS AND ACCESSORIES



THYRODYN

STAGE LIGHTING CONTROLS AND ACCESSORIES

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
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Dimmer Rack Cabinet

GPL6

2.300,-

for 6 lighting circuits with main switch, MCBs, earth leakage circuit breaker, transformer with fuse, latching relay, DMX, push-buttons with indicator LED and protective cover without load modules.

Load modules

2 kW	30.04.006	203,-
3 kW	30.04.007	225,-
5 kW	30.04.008	310,-
8 kW	30.04.009	465,-
2 kW-0 Phase-interval controlled modules	30.04.030	310,-
2x 2 kW (only for GPL.../2+2)	30.04.040	320,-

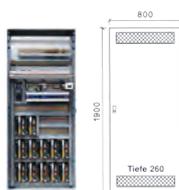
Dimmer Rack Cabinet

GPL6/2+2

2.400,-

for 12 lighting circuits with main switch, MCBs, earth leakage circuit breaker, transformer with fuse, latching relay, DMX, push-buttons with indicator LED and protective cover without load modules.

Price per load module 2x2KW: see above



Dimmer Rack Cabinet

GPL12

3.220,-

for 12 lighting circuits with main switch, MCBs, earth leakage circuit breaker, transformer with fuse, latching relay, DMX, push-buttons with indicator LED and protective cover without load modules.

Price per load modules: see above

Dimmer Rack Cabinet

GPL12/2+2

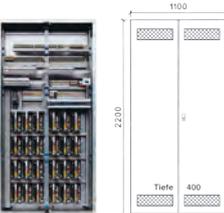
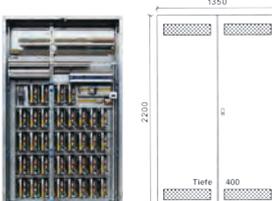
3.500,-

for 24 lighting circuits with main switch, MCBs, earth leakage circuit breaker, transformer with fuse, latching relay, DMX, push-buttons with indicator LED and protective cover without load modules.

Price per load module 2x2KW: see above

THYRODYN

STAGE LIGHTING CONTROLS AND ACCESSORIES

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Dimmer Rack Cabinet</p> <p>for 18 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per load module: see page 67</p>	GPL18		4.100,-
	<p>Dimmer Rack Cabinet</p> <p>for 36 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per 2x2KW load module: see page 67</p>	GPL18/2+2		4.220,-
	<p>Dimmer Rack Cabinet</p> <p>for 24 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per load module: see page 67</p>	GPL24		4.970,-
	<p>Dimmer Rack Cabinet</p> <p>for 48 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per 2x2KW load module: see page 67</p>	GPL24/2+2		5.200,-
	<p>Dimmer Rack Cabinet</p> <p>for 36 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per load module: see page 67</p>	GPL36		6.560,-
	<p>Dimmer Rack Cabinet</p> <p>for 72 lighting circuits with main switch, MCBs (1-pole), earth leakage circuit breaker, transformer with fuse, latching relay, Mux-Box (72k), pushbuttons with indicator LED and protective cover without load modules.</p> <p>Price per 2x2KW load module: see page 67</p>	GPL36/2+2		6.850,-

THYRODYN

STAGE LIGHTING CONTROLS AND ACCESSORIES

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Memory programmable Stage lighting control board for 12 lighting circuits	PL 12		830,-
	Memory programmable Stage lighting control board for 24 lighting circuits	PL 24		1.420,-
	Memory programmable Stage lighting control board for 24 lighting circuits for professional applications	PL 16/24		2.980,-
	Memory programmable Stage lighting control board for 36 lighting circuits for professional applications	PL 16/36		5.580,-
	Memory programmable Stage lighting control board for 48 lighting circuits for professional applications	PL 16/48		6.500,-

THYRODYN

STAGE LIGHTING CONTROL BOARDS AND SPOTS

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Flood and soft light</p> <p>Individual spot 240W with symmetric aluminium reflector (optional asymmetric reflector)</p> <ul style="list-style-type: none"> • Incl. 1,5 m silicone cable with protective plug • Protective grid • C-hook for 50 mm tube • Safety rope (Safeking) • Lamp • Filter frame 244 x 195 mm 	FLS300		132,-
	<p>Flood and soft light</p> <p>Individual spot 400W with symmetric aluminium reflector (optional asymmetric reflector)</p> <ul style="list-style-type: none"> • Incl. 1,5 m silicone cable with protective plug • Protective grid • C-hook for 50 mm tube • Safety rope (Safeking) • Lamp • Filter frame 244 x 195 mm 	FLS500		132,-
	<p>Flood and soft light</p> <p>Individual spot 1000W with symmetric aluminium reflector (optional asymmetric reflector)</p> <ul style="list-style-type: none"> • Incl. 1,5 m silicone cable with protective plug • Protective glass • C-hook for 50 mm tube • Safety rope (Safeking) • Lamp • Filter frame 290 x 270 mm 	FLS1000		308,-
	<p>Top and back light Cyclorama, 4-fold with flood lamp FLS300</p> <p>Individual spot 240W with symmetric aluminium reflector (optional asymmetric reflector)</p> <ul style="list-style-type: none"> • Incl. 4x 1,5 m silicone cable with protective plug • Protective glass • C-hook for 50 mm tube • Safety rope (Safeking) • Lamp • Filter frame 244 x 195 mm 	RAMPE4S		485,-

THYRODYN

STAGE LIGHTING CONTROL BOARDS AND SPOTS

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Fresnel lens spot Suono F650 plus (7-60°)</p> <p>With Fresnel lens 120 mm Ø, glass mirror 55 mm Ø, GY9,5 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none"> • Incl. 1 m silicone cable with protective plug • Filter frame 150 x 150 mm • Protective grid • Lamp 650 W • C-hook • Safety rope (Safeking) 	STL650		242,-
	<p>Fresnel lens spot Nota F1000 plus (10-56°)</p> <p>With Fresnel lens 150 mm Ø, glass mirror 100 mm Ø, GX9,5 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none"> • Incl. 1 m silicone cable with protective plug • Filter frame 185 x 185 mm • Protective grid • Lamp 1000 W • C-hook • Safety rope (Safeking) 	STL1000		340,-
	<p>Fresnel lens spot Tono F2000 plus (7-60°)</p> <p>With Fresnel lens 200 mm Ø, glass mirror 87,5 mm Ø, G22 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none"> • Incl. 1 m silicone cable with protective plug • Filter frame 245 x 245 mm • Protective grid • Lamp 2000 W • C-hook • Safety rope (Safeking) 	STL2000		520,-

THYRODYN

STAGE LIGHTING CONTROL BOARDS AND SPOTS

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Profile spot Suono pc650 plus (7-58°)</p> <p>With Fresnel lense 120 mm Ø, glass mirror 55 mm Ø, GY9,5 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none">• Incl. 1 m silicone cable with protective plug• Filter frame 150 x 150 mm• Protective grid• Lamp 650 W• C-hook• Safety rope (Safeking)	PLS650		242,-
	<p>Profile spot Nota pc1000 plus (8-60°)</p> <p>With Fresnel lense 150 mm Ø, glass mirror 100 mm Ø, GX9,5 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none">• Incl. 1 m silicone cable with protective plug• Filter frame 185 x 185 mm• Protective grid• Lamp 1000 W• C-hook• Safety rope (Safeking)	PLS1000		340,-
	<p>Profile spot Tono pc2000 plus (9-70°)</p> <p>With Fresnel lense 200 mm Ø, glass mirror 87,5mm Ø, G22 soft focusing, optical adjustable light area with harsh centre and broad, soft edge</p> <ul style="list-style-type: none">• Incl. 1 m silicone cable with protective plug• Filter frame 245 x 245 mm• Protective grid• Lamp 2000 W• C-hook• Safety rope (Safeking)	PLS2000		520,-

THYRODYN

STAGE LIGHTING CONTROL BOARDS AND SPOTS

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	Double condenser optic Profile spot Suono 10/28	PRS650		450,-
	Double condenser optic Profile spot Suono 20/40	PRS650		450,-
	Profile spot with rotatable insertion, GY9,5			
	<ul style="list-style-type: none"> • Incl. 1,5 m silicone cable with protective plug • 4 shadower • Filter frame 125 x 125 mm • Protective grid • Lamp 650 W • C-hook • Safety rope (Safeking) 			
	Double condenser optic Profile spot Nota 8/22	PRS1000		812,-
	Double condenser optic Profile spot Nota 18/36	PRS1000		812,-
	Double condenser optic Profile spot Nota 30/65	PRS1000		812,-
	Profile spot with rotatable insertion, GX9,5			
	<ul style="list-style-type: none"> • Incl. 1,5 m silicone cable with protective plug • 4 shadower • Filter frame 185 x 185 mm • Protective grid • Lamp 1000 W • C-hook • Safety rope (Safeking) 			

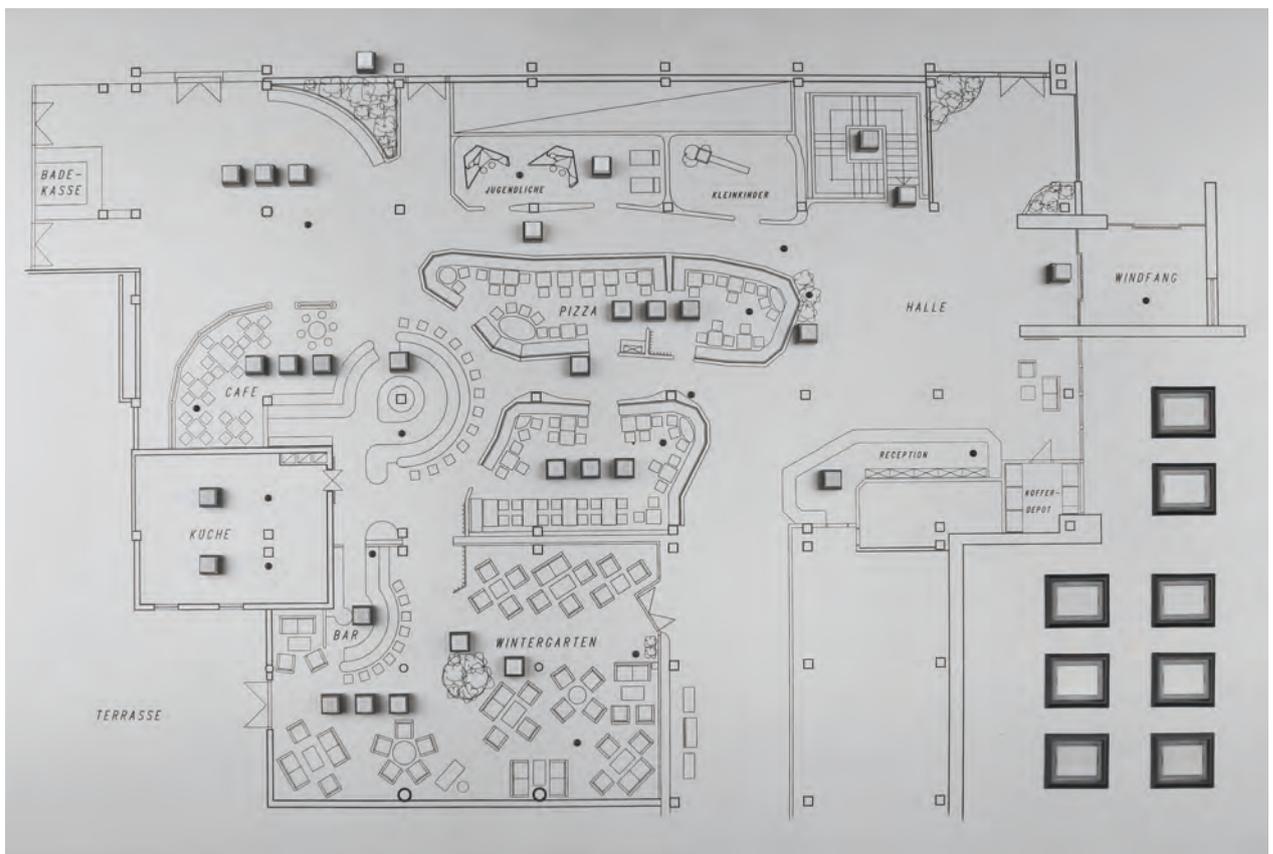
THYRDYN

STAGE LIGHTING CONTROL BOARDS AND SPOTS

Illustration	Specification	Type	Order-No.	Price/Piece (Euro)
	<p>Halogen follow spot Canto 1200TH MK2</p> <p>With double condenser optic for 1000/1200W halogen lamps with zoom optic, ventilation support, with 2 micro switches, ON/OFF switching and adjustable GX9,5 holder</p> <ul style="list-style-type: none">• Incl. 2 m silicone cable with protective plug• Iris• Filter frame 185 x 185 mm• Rotary plug 28 mm for tripods• Built-in dimmer	VS1200TH		1.270,-
	<p>Tripod for halogen follow up spot</p> <p>Chrome-plated or black coloured tripod, 2 sections, 1 pull-off, 1 adjustable tripod leg. With memory-ring for the vertical adjustment. Maximum stand area: 109 cm in diameter minimum height 88 cm, max. height 147 cm</p> <ul style="list-style-type: none">• Max load 40 kgs• Own weight: 6,8 kgs	ST-070U		160,-

CONTROL PANELS

Layouts, pushbutton and potentiometer control panels



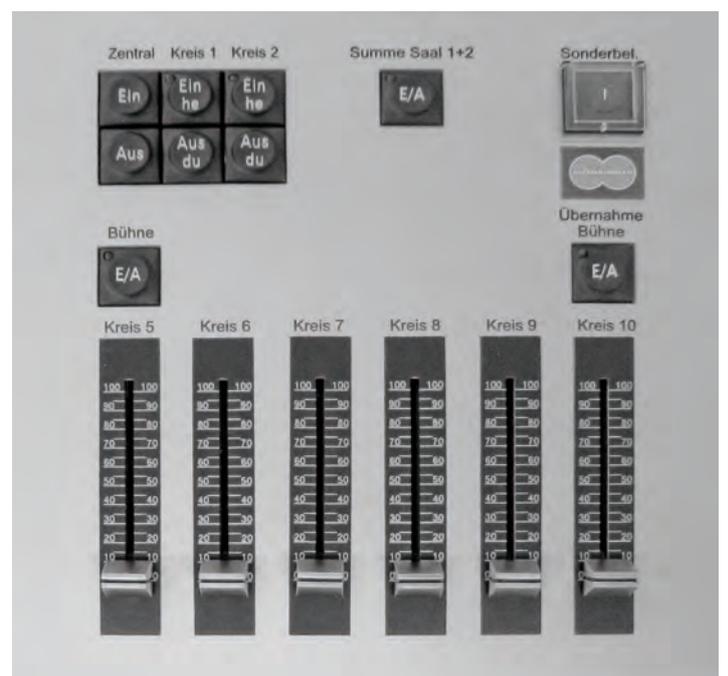
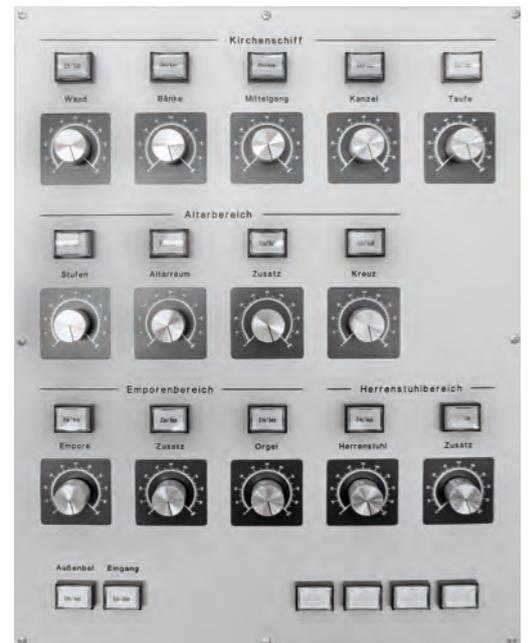
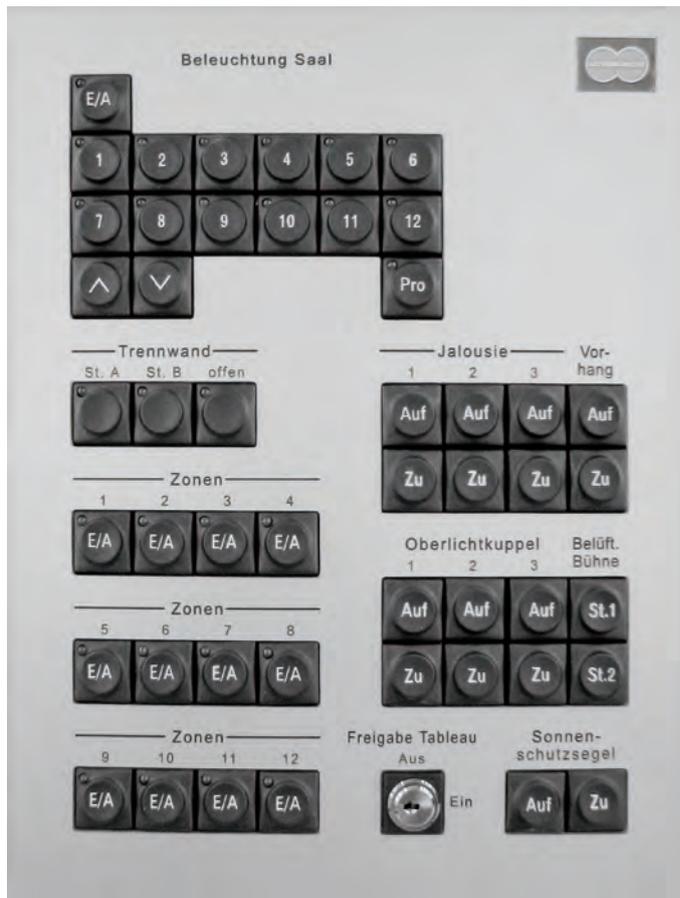
Panels

Stainless steel pushbuttons and -surfaces

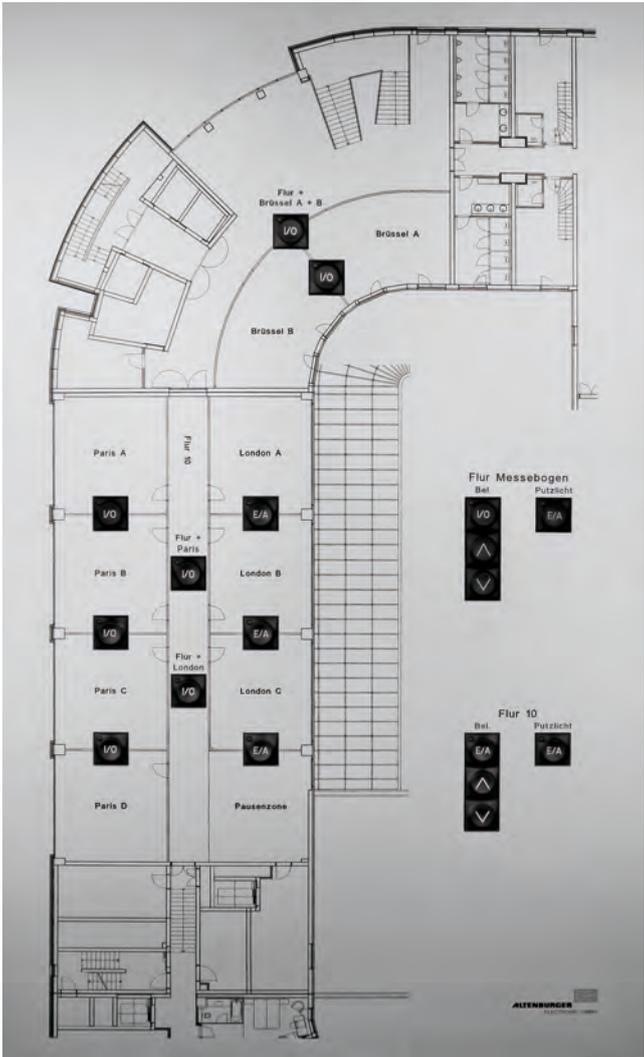
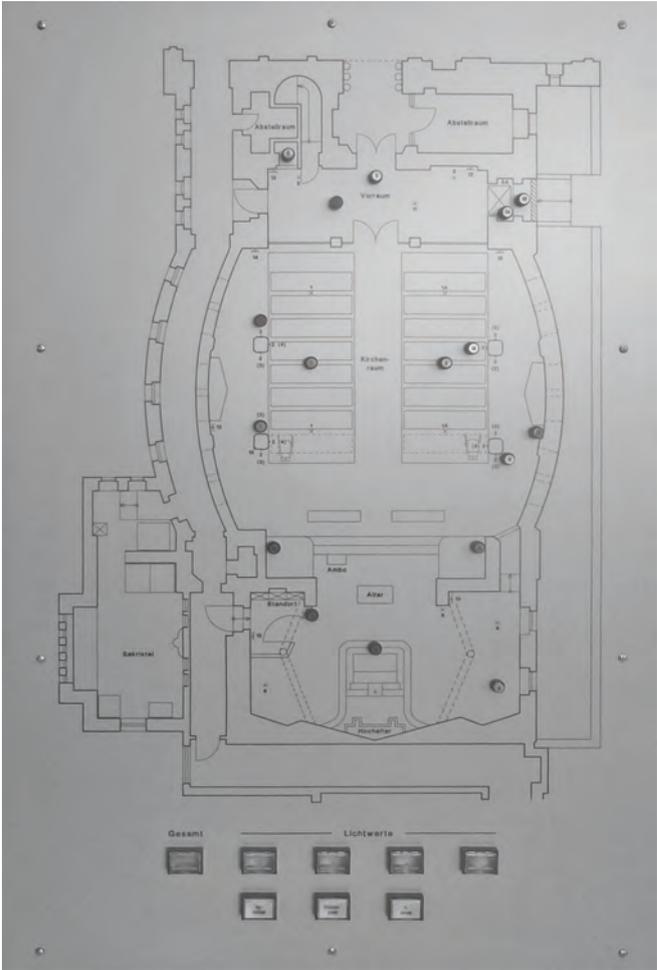


Panels

Pushbutton and potentiometer control panels



Layout panels



Delivery: FOB
Delivery time: within 1 week
Payment: c/d
Guarantee: 12 months



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