KNX sensors and actuators

With KNX, a house provides a significant contribution to looking after itself: motion detectors activate lighting as necessary. Windows and doors left open by accident are signalled using magnetic contacts and can be closed automatically. In addition, when the windows are open, the heating system reduces output. Using the Berker KNX bus system, your house can learn to adapt to changed environmental conditions. Actuators are selected according to the resources they are to switch or control. This allows e.g. switchable lamps, socket outlets or fixed-location consumers to be operated with switch actuators. The Berker KNX System so contains a special actuator type for each application.

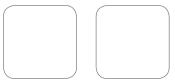




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Motion detectors



Bus coupling unit flush-mounted

Operating voltage over bus Power consumption, KNX Operating temperature Insertion depth

21 ... 32 V= ≈ 100 mW - as interface between KNX user module and bus line - with programming button and red programming LED

-5 ... +45 °C - bus connection via connecting terminal

- without spreader claws 23 mm

Design	Order no.	PU
Bus coupling unit flush-mounted	7504 00 01	1

Controller sensors

- With cover to limit detection angle
- Also suitable as extension unit
- Cyclic transmission possible



KNX controller comfort 1.1 m

KNX controller comfort 1.1 m	
Power consumption, KNX	≈ 110 mW
Nominal mounting height	1.1 m
Number of detection lev- els	2
Number of switching seg- ments	72
Detection field, semi-oval shaped	≈ 10 x 12 m
Detection angle	180 °
Range, frontal	≈ 10 m
Range, side	each ≈ 6 m
Delay time	≈ 10 s
Additional delay time programmable	130 ms 306 h
Potentiometer for additional delay time	± 50 %
Response sensitivity, set- table	≈ 20 100 %

Response brightness, configurable 3 ... 100 / daytime operation lx Response brightness ad-± 50 % justable by potentiometer

Lockout time 8 ms ... 140 min Operating temperature -5 ... +45 °C Dimensions assembling 23.5 mm height

Direct sunlight can lead to false alarms when using alarm application. Avoid using detection field equipment on windows.

Continuous direct sunlight penetrating the upward-pointing detection level can result in failure of the controller. Only suitable for indoor areas!

When movement of a person is detected a parameter defined data telegram is sent.

wit	th slide switch	n for OFF/automat	tic/ON

- with potentiometers for fine adjustment of the response brightness, sensitivity and delay time
- with red diagnostic LED for brightness-independent walk test function and disassembly message
- with lighting and message mode
- operating mode switched with object
- functions for lighting operating mode: Switching, Value transmitter and Light scene call
- parameter defineable lock function
- alarm telegram after disconnection from bus coupling unit. 1-bit

Suitable for	Order no.	Page
Bus coupling unit flush-mounted	7504 00 01	104

Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7526 15 52	1
polar white glossy	7526 15 59	1
polar white matt	7526 15 89	1
anthracite matt	7526 15 85	1
aluminium matt, lacquered	7526 15 83	1









Berker Q.1/Q.3

polar white velvety	7526 15 29	1
anthracite velvety, lacquered	7526 15 26	1

Berker K.1/K.5

polar white glossy	7526 15 79	1
anthracite matt, lacquered	7526 15 75	1
aluminium matt, lacquered	7526 15 71	1
stainless steel, matt, lacquered	7526 15 73	1
Berker Arsys		
white glossy	7526 15 42	1
polar white glossy	7526 15 49	1
light bronze matt, lacquered	7526 15 44	1
stainless steel matt, lacquered	7526 15 43	1



KNX motion detector module comfort 1.1 - integrated bus coupling unit

Operating voltage over bus $21 \dots 29 \text{ V=}$ Nominal mounting height 1.1 m Delay time adjustable $1 \dots 30 \text{ min}$ Response brightness, adjustable $\approx 5 \text{ to } 1000 \text{ lux}$ Detection field, rectangular shaped $\approx 10 \times 10 \text{ m}$ Operating temperature $-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$

Continuous direct sunlight penetrating the upward-pointing detection plane can result in failure of the motion detector. Only suitable for indoor areas!

Automatic triggering of bus functions for movement within the detection area or manual control via integrated button.

- Push-button function: switching functions, dimming functions, blind control functions, value transmitter functions, forced control functions, scene functions
- Specification of the controller operating mode
- Operating mode display via status LED, red/green/ orange
- Operating modes: automatic, permanent ON, ON for 2 hours, permanent OFF
- Two separated function channels for brightness-dependent and brightness-independent functions
- Integrated button for manual control of bus functions can be configured
- with button for automatic/permanent ON/ON for 2 hours/permanent OFF
- bus connection via connecting terminal
- with dismanting protection

Cover for KNX motion detector module

Order no.

7596 28 6.

105

DesignOrder no.PUKNX motion dectector module comfort 1.1 m7524 20 601

Suitable for



Cover for KNX motion detector module

	Suitable for KNX motion detector module comfort 1.1 m	Order no. 7524 20 60	Page 105
Design	Order no.		PU
Berker R.1/R.3			
polar white glossy	7596 28 69		1
black glossy	7596 28 65		1







KNX controller comfort 2.2 m

Power consumption, KNX	≈ 110 mW
Nominal mounting height	2.2 m
Number of detection levels	2
Number of switching segments	72
Detection field, semi-oval shaped	≈ 12 x 12 m
Detection angle	180 °
Range, frontal (at 1.1 m installation height)	≈ 6 m
Range, frontal	≈ 12 m
Range, side (at 1.1 m installation height)	each ≈ 3 m
Range, side	each ≈ 6 m
Delay time	≈ 10 s
Additional delay time programmable	130 ms 306 h
Potentiometer for additional delay time	± 50 %
Response sensitivity, settable	≈ 20 100 %
Response brightness, configurable	3 100 / daytime operation lx
Response brightness adjustable by potentiometer	± 50 %
Lockout time	8 ms 140 min
Operating temperature	-5 +45 °C
Dimensions assembling height	23.5 mm

Application as for order no. 7526 15 ..

Caution: Direct sunlight can lead to false alarms when using alarm application. Avoid using detection field equipment on

When movement of a person is detected a parameter defined data telegram is sent.

_	with	slide	switch	for	OFF/	autom/	atic/	'ON
---	------	-------	--------	-----	------	--------	-------	-----

with potentiometers for fine adjustment of the response brightness, sensitivity and delay time

with red diagnostic LED for brightness-independent walk test function and disassembly message

- with lighting and message mode
- operating mode switched with object
- functions for lighting operating mode: Switching, Value transmitter and Light scene call
- parameter defineable lock function
- alarm telegram after disconnection from bus coupling

Suitable for	Order no.	Page
Bus coupling unit flush-mounted	7504 00 01	104





Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7526 16 52	1
polar white glossy	7526 16 59	1
polar white matt	7526 16 89	1
anthracite matt	7526 16 85	1
aluminium matt, lacquered	7526 16 83	1
Berker Q.1/Q.3		
polar white velvety	7526 16 29	1
anthracite velvety, lacquered	7526 16 26	1

Borker K 1/K 5

Derker K. I/K.3		
polar white glossy	7526 16 79	1
anthracite matt, lacquered	7526 16 75	1
aluminium matt, lacquered	7526 16 71	1
stainless steel matt, lacquered	7526 16 73	1





Design	Order no.	PU
Berker Arsys		
white glossy	7526 16 42	1
polar white glossy	7526 16 49	1
light bronze matt, lacquered	7526 16 44	1
stainless steel matt, lacquered	7526 16 43	1





Nominal mounting height	1.1 m
Number of detection levels	2
Number of switching segments	72
Detection field, semi-ova shaped	I ≈ 10 x 12 m
Detection angle	180 °
Range, frontal	≈ 10 m
Range, side	each ≈ 6 m
Delay time	≈ 10 s
Additional delay time programmable	130 ms 152 ms
Response sensitivity, settable	≈ 20 100 %
Response brightness, configurable	1 1000 / daytime operation lx
Lockout time	8 ms 140 min
Operating temperature	-5 +45 °C
Dimensions assembling	23.5 mm

Continuous direct sunlight penetrating the upward-pointing detection plane can result in failure of the controller. Only suitable for indoor areas!

When movement of a person is detected a parameter defined data telegram is sent.

stainless steel matt, lacquered

 with potentiometer for fine adjustment of the response
sensitivity

- parameter defineable lock function

uitable for	Order no.	Page
us coupling unit flush-mounted	7504 00 01	104









Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7526 11 52	1
polar white glossy	7526 11 59	1
polar white matt	7526 11 89	1
anthracite matt	7526 11 85	1
aluminium matt, lacquered	7526 11 83	1
Berker Q.1/Q.3		
polar white velvety	7526 11 29	1
anthracite velvety, lacquered	7526 11 26	1



7526 11 43

1



Page 104





Nominal mounting height	2.2 m
Number of detection levels	2
Number of switching segments	72
Detection field, semi-ova shaped	l ≈ 12 x 12 m
Detection angle	180 °
Range, frontal (at 1.1 m installation height)	≈ 6 m
Range, frontal	≈ 12 m
Range, side (at 1.1 m installation height)	each ≈ 3 m
Range, side	each ≈ 6 m
Delay time	≈ 10 s
Additional delay time programmable	130 ms 152 h
Response sensitivity, settable	≈ 20 100 %
Response brightness, configurable	1 1000 / daytime operation lx
Lockout time	8 ms 140 min
Operating temperature	-5 +45 °C
Dimensions assembling height	23.5 mm

Application as for order no. 7526 11 ..

When movement of a person is detected a parameter defined data telegram is sent.

Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7526 12 52	1
polar white glossy	7526 12 59	1
polar white matt	7526 12 89	1
anthracite matt	7526 12 85	1
aluminium matt, lacquered	7526 12 83	1
Berker Q.1/Q.3		
polar white velvety	7526 12 29	1
anthracite velvety, lacquered	7526 12 26	1







Berker K.1/K.5

polar white glossy	7526 12 79	1
anthracite matt, lacquered	7526 12 75	1
aluminium matt, lacquered	7526 12 71	1
stainless steel matt, lacquered	7526 12 73	1
Berker Arsys		
white glossy	7526 12 42	1
polar white glossy	7526 12 49	1
light bronze matt, lacquered	7526 12 44	1
stainless steel matt, lacquered	7526 12 43	1



Order no. 7504 00 01

with potentiometer for fine adjustment of the response sensitivity

- parameter defineable lock function

Suitable for Bus coupling unit flush-mounted



Presence detectors



KNX 2 channels presence detector

Supply voltage
Power consumption
Lighting time delay via
potentiometer
Presence time delay via
potentiometer
Brightness threshold
Recommended installation
distance from ground
Operating temperature

Bus 30 V 12 mA 1 to 30 min

30 s to 60 min

5 to 1200 lux 2.5 m to 3.5 m

0°C to 45°C

- TX510 devices are 2-channel presence detectors capable of detecting low amplitude movements (e.g. person working in an office).
- 2 control channels via KNX bus.
- Time delay adjustment for brightness and presence controls via product potentiometers or via ETS.
- Brightness threshold adjustment via product potentiometer or via ETS.
- Detection is by means of 2 pyroelectric sensors located under detection lenses.
- Brightness sensor measures room brightness on a continuous basis, matching it against the brightness threshold set by potentiometer.
- The head of the detector is directional at 90° and can be used to adjust the detection area according to the room configuration.
- Application software allows configuring the 2 channel presence detector 360° TX510.
- The TX510 2-channel presence detector is sensitive to infrared rays associated with heat emitted by moving bodies. Lighting, roller shutter / blind, heating, priority and scene commands can be sent during movement detection, depending on the ambient brightness.
- The lighting channel controls a load in case of presence detection, when the ambient brightness is below an adjustable threshold.
- The presence channel controls a load in case of presence detection, without taking account of the ambient brightness.
- The ambient brightness threshold can be defined by parameterizing or on the device via a potentiometer.
- Lighting and presence delay function sends a command at the end of a delay when no presence has been detected during the delay ("absence" of persons). The delay value can be set by parameterizing or on the device via a potentiometer.
- Brightness probe locking (Lighting channel) function inhibits the brightness measurement of certain detectors when they control the same output.
- This function authorizes or forbids presence detection by the lighting channel (by a clock, for example, at certain periods). The presence channel continues operating independently.
- The operating mode (Automatic or Semi-automatic) is selected by parameterizing or via a switch directly on the device.
- Master/Slave function extends the motion detector's detection area by associating it with several other detectors.
- The Scene Execution function sends group commands to different kinds of outputs to create ambiences or scenarios (presence scenario, absence scenario ...)

Design	Order no.	PU
white	TX510	1





KNX presence detector with light regulation

Supply voltage	29 V DC
Power consumption	12 mA
Lighting output operation time	1 to 30 min
Brightness threshold	5 to 1200 lux
Minimum adjustment range	0% to 50%
Presence level adjustment	mini to 100%
Recommended installation distance from ground	2.5 m to 3.5 m
Operating temperature	0°C to 45°C

- TX511 devices, in association with KNX dimmers, offer lighting control functions.
- 1 regulation channel via KNX bus.
- Brightness threshold, lighting time delay and minimum dimming level adjustment via product potentiometer or via ETS.
- They are designed to detect low amplitude movements (e.g. person working in an office).
- Detection is by means of 2 pyroelectric sensors located under detection lenses.
- A brightness sensor measures room brightness on a continuous basis, matching it against the brightness threshold set by potentiometer.
- The head of the detector is directional at 90° and can be used to adjust the detection area according to the room configuration.
- Application software allows configuring the 1-channel 360° presence detector light regulator TX511.
- The TX511 1-channel presence detector with light regulation is sensitive to infrared rays associated with heat emitted by moving bodies. It thus detects the presence or absence of persons in a room.
- Lighting level regulation can be active or inactive.
- When regulation is active, the regulation set points can be defined in Lux either via the potentiometer on the device or by ETS.
- When regulation is inactive, the dimming levels can be defined in %either via the potentiometer on the device or by ETS.
- Set point modification via pushbutton function modifies the regulation set point or the dimming level in the presence of persons via a communicating push button. The new value is then stored.
- Lighting delay function starts a delay at each presence detection; it extends the presence period accordingly.
- Priority function allows overriding a regulation set point (active regulation) or a dimming level (inactive regulation).
- Authorization ON or OFF function authorizes or inhibits presence detection (by a clock, for example, at certain periods).
- The operating mode (Automatic or Semi-automatic) is selected by parameterizing or via a switch directly on the device.
- The Scene function allows defining, for a given scene number, regulation setpoints or lighting levels to create ambiences or scenarios (presence scenario, absence scenario ...)

 Design
 Order no.
 PU

 white
 TXC511
 1





KNX presence detector 360° monobloc

Supply voltage Busline consumption Lighting output operating

Brightness level Recommended installation distance from ground Detection range

Hole size required Operating temperature KNX bus 30 V DC 12 mA 1 min to 1 hr

5 to 1000 lux

2.5 m to 3.5 m Ø 7 m

(installed product height: 2.5 m)

60 mm (flush mounted) 0°C to 45°C

- Occupancy sensors TCC520E are presence detectors designed to detect low amplitude movements (e.g. person sitting at a desk).
- Detection is by means of a pyro-electric sensor located under detection lens.
- The occupancy sensor measures the brightness in the room on a continuous basis and compares it to the level preset on the potentiometer or ETS parameter.
- One direct lighting control channel (relay output of the product).
- One lighting control channel on the KNX bus.
- Control of presence/ absence mode.
- Time and brightness adjustment via ETS or remot control EE807.
- Area linking: the occupancy sensor in a room can switch the light on in the corridor beside or the
- In addition to the local load, the detector can also activate an actuator connected to the bus when presence is detected and brightness level is below a defined threshold.
- The brightness threshold can be defined by ETS or directly on the device via a potentiometer or by means of the installer remote control EE807.
- The lighting time delay defines the activation duration of the lighting channel in case of occupancy. This delay may be reduced when there is enough ambient light. It can be set locally via potentiometer, remote control ETS, EE807.
- The Lighting channel and local load can also be switched on via the remote control ETS or via a EE808 push button.
- Authorization ON or OFF (Lighting channel) function authorizes or forbids presence detection by the lighting channel (by a clock, for example, at certain periods).
- The operating mode (Automatic or Semi-automatic) is selected by parameterizing or via a switch directly on the device.
- This function extends the presence detector's detection area by associating several other detectors.
- The local load can be controlled by the presence detector or directly via communication objects;

PU Design Order no TCC520E white





KNX presence detector with regulation DALI/DSI

Supply voltage KNX but
Busline consumption
Lighting output operating 1 n
time
Brightness level 5 to

Recommended installation distance from ground

Detection range

Hole size required Operating temperature

KNX bus 30 V DC 12 mA 1 min to 1 hr

5 to 1000 lux 2.5 m to 3.5 m

(installed product height: 2.5 m)

60 mm (flush mounted) -10°C to 45°C

- Presence detector with regulation DALI/DSI Occupancy sensors TCC521E are presence detectors designed to detect low amplitude movements (e.g. person sitting at a desk).
- Detection is by means of a pyro-electric sensor located under detection lens.
- The occupancy sensor measures the brightness in the room on a continuous basis and compares it to the level preset on the potentiometer (or by means of the remote control EE807 or ETS parameter).
- One lighting control channel on the KNX bus.
- Control of presence/ absence mode.
- Time and brightness adjustment via ETS or remote control EE807.
- Area linking: the occupancy sensor in a room can switch the light on in the corridor beside or the opposite.
- Application software allows configuring the light regulator -channel of TCC521E.
- The TCC521E presence detector for light regulation embeds a DALI/DSI interface that will be used to control directly DALI/DSI ballasts.
- It can also control KNX dimmers and KNX/DALI gateways (TX216) to fulfill the light regulation functionality.
- The lighting regulation process is activated according the presence and absence.
- When regulation is active, the detector regulates the lighting level in the room according to a set-point value in Lux in the presence of persons and according to another set-point value in the absence of persons.
- When regulation is inactive, the detector sets the dimming level of the dimmer outputs to a configurable set % value in the presence of persons and to another configurable set value in the absence of persons.
- Time delay (Lighting and regulation functions) function starts a delay at each presence detection; it extends the presence period accordingly.
- Authorization ON or OFF (Lighting and regulation functions) function authorizes or inhibits presence detection (by a clock, for example, at certain periods).
- The operating mode (Automatic or Semiautomatic) is selected by parameterizing or via a switch directly on the device.
- The Scene function allows defining, for a given scene number, regulation set-points or lighting levels to create ambiences or scenarios (presence scenario, absence scenario).
- Remote control via infra red control EE808.
- Setup with the installer remote control EE807.
- Linking Master / Slave function extends the motion detector's detection area by associating several other detectors.
- In addition to the lighting regulation channel, the detector can also activate an actuator connected to the bus, when presence and brightness level is below a defined threshold.

 Design
 Order no.
 PU

 white
 TCC521E
 1



PU

PU



KNX presence detector monobloc without relay

Supply voltage KNX bus 30 V DC Busline consumption 10 mA Lighting output operating 1 min to 1 hr

Brightness level 5 to 1000 lux Recommended installation 2.5 m to 3.5 m

distance from ground

Detection range

(installed product height: 2.5 m)

60 to 63 mm Hole size required (flush mounted)

-10°C to 45°C Operating temperature

- High performance detector to be used in premises or in passage areas, where they increase comfort and reduce drastically energy costs.

- High performance detector to be used in premises or in passage areas, where they increase comfort and reduce drastically energy costs.

- KNX commissioning via ETS.

- KNX commissioning via ETS or TX100



KNX presence detector monobloc multi-channel

KNX bus 30 V DC Supply voltage 315 mA Busline consumption Lighting output operating 1 min to 1 hr

time

Design

white

Brightness level 5 to 1000 lux Recommended installation 2.5 m to 3.5 m distance from ground

Detection range Ø 7 m

(installed product height:

2.5 m)

60 to 63 mm

Order no. **TCC510S**

(flush mounted)

-10°C to 45°C Operating temperature

Design Order no. TCC530E white



Mounting accessory

Hole size required

	Suitable for KNX presence detector monobloc w/o relay	Order no. TCC510S	Page 113
	KNX presence detector monobloc multi-channel		113
Design	Order no.		PU
vhite	EEK005		1

Design black matt

Design

black matt





IP30



IR hand-held transmitter for presence detector

Dimensions (L x W x H) 120 x 70 x 10 mm Battery service life [years] ≈ 3.5

Scope of functions dependent on the controlled presence detector.

Required battery (CR 2032) is included in the scope of delivery. $\,$

For control for the lighting connected to the presence detector.

- RC6 code

- additional acknowledgement LED for displaying the IR transmission
- with 4 function buttons (calling up/saving light scene)
- with green "on" and red "off" button (on/off, dimmer function)

Suitable for	Order no.	Page
KNX presence detector 360° monobloc	TCC520E	111
KNX presence detector with regulation DALI/DSI	TCC521E	112
KNX presence detector monobloc without relay	TCC510S	113
KNX presence detector monobloc multi- channel	TCC530E	113
Order no.		PU
EE808		1



IP30

IR configuration hand-held transmitter for presence detector

Dimensions (L x W x H)
Battery service life [years]

111 x 63 x 10 mm

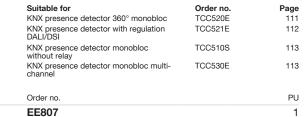
≈ 3.5

- RC6 code

Required battery (CR 2032) is included in the scope of

For convenient configuration of supported presence detectors.

- additional acknowledgement LED for displaying the IR transmission
- 15 buttons with integrated status-LED
- 3 configuration ranges for control, switch-off delay, brightness threshold
- setting of the brightness threshold manually, by default values or teach-in mode
- default settings can be selected for the brightness threshold daylight, office, corridor
- 2 configuration memories for identical configuration of several presence detectors







Thermostat

- For individual single room temperature control
- For heating and/or cooling mode
- Heating or cooling possible in 2 stages
- Bus connection via connecting terminal
- For continuous (PI) or switched (2-point) control
- With dismantling protection
- 4 binary inputs or 2-3 binary inputs and 1-2 outputs parameterisable
- With 4 independent binary inputs for potential-free contacts e.g. window magnetic contact
- Behaviour can be defined for bus voltage return
- Binary inputs / outputs with screw terminals
- Valve protection can be defined



KNX thermostat

- Setting knob
- integrated bus coupling unit



Binary input 4 parameter defineable for temperature sensor, order no. 161.

- operating modes:comfort, standby, night lowering, frost/heat protection, dewpoint displayed with LED
- with presence button for switching between comfort and standby mode
- with programming button and red programming LED
- presence button and setting knob can be programmed to have no functions
- with status LEDs: red for heating, blue for cooling and yellow for activation

Order no.

116

161

without spreader claws

Suitable for

Temperature sensor

optional

sor, order no. 101.		
Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7544 11 52	1
polar white glossy	7544 11 59	1
polar white matt	7544 11 89	1
anthracite matt	7544 11 85	1
aluminium matt, lacquered	7544 11 83	1
Berker Q.1/Q.3		
polar white velvety	7544 11 29	1
anthracite velvety, lacquered	7544 11 26	1







Berker K.1/K.5

light bronze matt, lacquered

stainless steel matt, lacquered

polar white glossy	7544 11 79	ı
anthracite matt, lacquered	7544 11 75	1
aluminium matt, lacquered	7544 11 71	1
stainless steel matt, lacquered	7544 11 73	1
Berker Arsys		
white glossy	7544 11 42	1
polar white glossy	7544 11 49	1

7544 11 44

7544 11 43

1

1





KNX object thermostat

- integrated bus coupling unit



max. 0.8 mA
-5 +45 °C
max. 5 m
50 m

operating modes: comfort, standby, night lowering, frost/heat protected, dewpoint

- with programming button and red programming LED

- without spreader claws

Suitable for	Order no.	Page
optional Temperature sensor	161	116

Binary input 4 parameter defineable for temperature sensor, order no. 161.

Design	Order no.	PU
Berker S.1/B.3/B.7		
white glossy	7544 12 52	1
polar white glossy	7544 12 59	1
polar white matt	7544 12 89	1
anthracite matt	7544 12 85	1
aluminium matt, lacquered	7544 12 83	1
Berker Q.1/Q.3		
polar white velvety	7544 12 29	1
anthracite velvety, lacquered	7544 12 26	1







Berker K.1/K.5

Stainless steel, metal matt finish	7544 12 73	1
Aluminium, aluminium anodised	7544 12 71	1
anthracite matt, lacquered	7544 12 75	1
polar white glossy	7544 12 79	1

Berke	r Ar	sys
1,200	. 1	-

Derker Arsys		
white glossy	7544 12 42	1
polar white glossy	7544 12 49	1
light bronze matt, aluminium lacquered	7544 12 44	1
Stainless steel, metal matt finish	7544 12 43	1



Temperature sensor

Characteristic resistance value at 25 °C	33 kΩ
Sensor cable length	4 m

as replacement or function extension of products with suitable connection, such as thermostat, glass sen-sors or KNX thermostat

	Suitable for	Order no.	Page
	Glass sensors comfort		35
	Glass sensors with thermostat		37
	KNX thermostat		115
	KNX object thermostat		116
Design	Order no.		PU
Temperature sensor	161		1

Size



Light sensitive switch



Light sensitive switch

Supply voltage Bus 29 V

Maximum connection distance of probe

Operating range 2 to 200 lux 200 to 20000 lux

Operating temperature 0°C to 45°C

This product is mainly intended for automatic control of inside/outside lighting circuits (ON/OFF and dimming controls) and blinds or rolling shutters according to ambient lighting level.

Associated with an external probe, this lightsensitive switch measures natural lighting and controls circuits according to a preset threshold range of 2 to 20000 lux. Several light sensitive switches may be chained to increase the number of channels. In this case, only one

probe is connected to one of the light sensitive switches.

Design	Order no.	PU
without cell	TXA025	1
with cell	TXA026	1

2 modules



Cell for flush mounting

Operating temperature

Dimensions 89 x 48 x 32 mm - Delivered with 1 m cable Connection flexible 2 x $0.75~\text{mm}^2$ / 1m IP 54

-30°C to 60°C

Design	Order no.	PU
cell for flush mounting	EE002	1



Cell for wall mounting

 $\begin{array}{lll} \mbox{Dimensions} & 25 \times 25 \times 20 \mbox{ mm} \\ \mbox{Connection} & \mbox{fixed 1 to 4 mm}^2 \\ \mbox{IP} & 54 \\ \mbox{Operating temperature} & -30 \mbox{°C to } 60 \mbox{°C} \\ \end{array}$

Design	Order no.	PU
cell for wall mounting	EE003	1



Physical sensors

KNX weather station



KNX weather station

Supply voltage 12-40 V DC 12-28 V AC

Consumption max. 81 mA 24 V DC 10 % residual ripple

44

Operating temperature $-30 \,^{\circ}\text{C}$ to $50 \,^{\circ}\text{C}$ Dimensions $96 \, \text{x}$ 77 x 118 mm

The weather station GPS-KNX TG053A measures the outdoor temperature, the wind speed and light. It detects rain and daylight fall.

The weather station gets date/time and site location data from GPS signals. It calculates also the exact position of the sun (Azimuth and Altitude) based on site coordinates and date/time data. This information (brightness level and sun position) is used to control blinds with slats based on sun tracking for up to 6 building frontages.

TG053A compact case houses all sensors, electronic data processing gear, GPS antenna and KNX bus connection.

The values measured are sent to the KNX bus as physical values (2x8 bits ou 1 bit). Each output has communication objects indicating the measured and calculated values. The state of outputs depends on one or more levels. Thresholds can be defined by settings or the communication objects.

The weather station TG 053A includes an annual clock and a weekly clock. The clock channels can switch the outputs using the communication objects. The weekly clock controls up to four different time settings for each day of the week. The annual clock can be used to define up to three periods in the year with two daily ON/OFF commands for each of them. The switching times can be defined by settings or the communication objects.

The weather station also has 8 logical AND gates and 8 logical OR gates, each with four inputs. All control events, time programs, and the 8 logical inputs (such as communication objects) can be used as inputs of logical gates. The output of each gate can be configured in 1-bit or 2×8 -bit format.

ETS software performs KNX configuration.

Design	Order no.	PU
white	TG053A	1



Support for TG053 weather station

Design	Order no.	PU
big (75 x 60 x 360 mm)	TG353	1
small (45 x 53 x 60 mm)	TG354	



Power supply for TG053 weather station

Supply voltage 230 V 160 mA max 24 V DC TBTS 0.25 A max

P 54

Operating temperature $-25 \,^{\circ}\text{C}$ to $50 \,^{\circ}\text{C}$ Dimensions $50 \, \times \, 50 \, \times \, 24 \, \text{mm}$

D	Design	Order no.	PU
b	black	TP110	1



Analogue inputs



Analogue input 4gang RMD

Frequency	50/60 Hz
Operating voltage over bus	21 32 V=
Auxiliary voltage	24 V~
Voltage, inputs	0-1; 0-10 V
Input impedence, voltage	18 kΩ
Sensor output voltage	24 V=
Sensor output current	max. 100 mA
Current consumption	170 mA
Inputs, current	0-20; 4-20 mA
Input impedence, current	100 Ω
Limit values	per channel 2
Operating temperature	-5 +45 °C
Assembling height as from DIN rail	63 mm
Dimensions (W x H x D)	72 x 90 x 70 mm
Width of rail mounted device (RMD)	4 TE

- with green/red status LED (operation/fault)

- with programming button and red programming LED

for active sensors

for wind, precipitation, brightness, temperature, twilight as well as humidity and temperature sensor, surface-mounted

- extendable with an analogue input module 4gang

- bus connection via connecting terminal

- inputs parameterisable can be set individually

- input 4-20 mA will be controlled for wire break

- cyclic transmission or transmission at absolute input modification settable

- with screw terminals

- with system interface for analogue input module

Suitable for	Order no.	Page
Power supply 24 V AC RMD	ST312	120

The analogue input is for the registration and treatment of independent analogue sensor signals. Depending on the input signal, limiting value messages can be transmitted via KNX.

Input signals to according to DIN IEC 381-1, -2

Design	Order no.	PU
light grey	TYF784	1

230 V AC 50 Hz

Wind gauge



Wind gauge

contact loading capacity 230 V AC 4 A 65 Operating temperature -25 °C to 50°C Dimensions of the enclosure 80 x 100 x 52 mm Adjustment of wind's speed limit up to 55 km/h (range ex-works 25 km/h)

- Reaction time when exceeding this limit : 3 seconds (5 seconds max.)

- Close time at wind: 10 minutes (fixed)

In the system Tebis, the wind gauge TG050 is used as a protection device for solar shading equipment against strong wind. The speed of the wind is measured by the wind gauge.

If the wind's speed exceeds the value adjusted on the potentiometer for longer than three seconds, the solar shading equipment is retracted and kept in security position for 10 minutes.

After this delay, if the wind speed has decreased, the solar shading equipment can again be controlled by switches.

Desian PU Order no. wind gauge and connection enclosure IP65 **TG050** 1



Supplementary products



Safety transformer 25VA 230V / 12-24V

Operating voltage 230 V~ 50/60 Hz Frequency 25VA Rated power Operating temperature -20 ... +35 °C Width 4 modules

These transformers are designed to ensure personal safety, their primary winding are electrically separated from their secondary windings and they are intended to feed safety extra low voltage circuits U ≤ 50V. A thermal overload, in the primary windings, ensures that if a short circuit or an overload occurs in the output it will not damage the device.

Design	Order no.	PU
light grey	ST312	1



Sensor insert

- e.g. for temperature sensor PT100

- with plug-in terminals

- without spreader claws

Design	Order no.	PU
Sensor insert	7594 10 01	10



Central plate for sensor insert

Use only with intermediate ring for central plate from the corresponding range. Labelling field cannot be used.

- e.g. for temperature sensor PT100

- with slots for air circulation

Design	Order no.	PU
Berker S.1/B.3/B.7, Q.1/Q.3, K.1/K.5, Arsys		
white glossy	7594 04 02	1
polar white glossy	7594 04 09	1
polar white matt/velvety	7594 04 89	1
anthracite matt	7594 04 85	1
aluminium matt, lacquered	7594 04 83	1
light bronze matt, lacquered	7594 04 04	1
stainless steel matt, lacquered	7594 04 03	1



Input modules

- Power supply by Bus.
- The modules are installed in a 60 mm dia. Flush mounting box in association with a pushbutton or a switch.
- Application software is used to configure the individual inputs.
- The sensors associated to the inputs (pushbuttons, switches, automatic controls) are used to control lighting, shutters, blinds.
- The Toggle Switch function changes the status of the controlled output whenever it is operated.
- This function is used for switching lighting, blind or heating circuits ON or OFF. The command may come from switches, pushbuttons or automatic controls.
- This function is used to control lighting circuits using one or two buttons
- The ON / OFF function transmits the ON / OFF object (short key-press).
- The Dimming function transmits the Dimming object (long key-press).
- This function controls a shutter or a blind using one or two push buttons.
- The Up / Down function transmits the Up / Down object (long key-press).
- The Stop / Angle function transmits the Stop / Angle object (short key-press).
- The Alarm 1 and Alarm 2 functions allow alarms coming from automatic controls to be periodically emitted (anemometer, rain detector, light sensitive switch, etc.)
- The Heating mode function is used to select a heating or air conditioning set point (Comfort, Eco, Frost protection, Absence). The command may come from switches, pushbuttons or automatic controls.
- The Value function (2 byte) is used for sending: Percentage %, Temperature °C, Luminosity level Lux, Brightness value % and Value 0-65535.
- The Scene function is used to select and storing scenes.
- The Timer function is used to switch ON or OFF a lighting circuit, shutters, heating for an adjustable time.
- The Priority function allows an input to be forced to a defined status.
- The Two Channel mode function allows controlling, with the same pushbutton, two independent circuits having different functions.
- The Jamming function is used to lock an input via an object on the bus.
- With programming button and red programming LED.



2-input universal module	
Contact current	0.5 mA
Supply voltage	30V DC
Busline max consumption	15 mA
Dimensions	38 x 35 x 12 mm
Degree of protection	IP 30
Operating temperature	+0 +45°C
Storage temperature	-20 +70°C
Standards	EN 60 669-2-1 NF EN 50 428

- Universal input modules are used to interface contacts free of potential with KNX bus.
- In this way, pushbuttons, switches or conventional automatic controls can become communicating devices.
- 2 independent channels.

NF EN 50 428		
Design	Order no.	PU
light grey, 2gang	TXB302	1



4-input universal module

Contact current	0.5 mA
Supply voltage	30V DC
Busline max consumption	15 mA
Dimensions	38 x 35 x 12 mm
Degree of protection	IP 30
Operating temperature	+0 +45°C
Storage temperature	-20 +70°C
Standards	EN 60 669-2-1 NF EN 50 428

- Universal input modules are used to interface contacts free of potential with KNX bus.
- 4 independent channels.

Design	Order no.	PU
light grey, 4gang	TXB304	1

4	Ĺ	.ED	ki

4 LED kit			
	Suitable for	Order no.	Page
	2-input / 2-output indication of state	TXB322	122
	4-input / 4-output indication of state	TXB344	122
Design	Order no.		PU
Ø 5mm, red	TG308		1

Design

light grey, 2gang



Input / output modules

- Power supply by Bus.
- Control of 2 LEDs.
- The modules are associated with push buttons or switches and are installed in a flush-mounted wall box of diameter 60mm and adapted depth.
- Connection length to push button and LEDs shall not exceed 5m.
- Physical addressing is done using push button and LED.
- Application softwares are used to configure the individual inputs of the TXB322 products.
- The products allow controlling lighting, blinds, shutters, heating and scenes.
- The Priority function sends priority-start or priority-stop commands.
- The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios (leaving home scenario, reading ambience, etc.).
- The Jamming function authorizes product locking. Jamming forbids sending commands.
- The 2-channel mode function allows controlling, with the same pushbutton, 2 independent circuits having different functions.
- LED outputs (statusindication) control the lighting of standard LED signal lamps.



2-input / 2-output module LED (status indication)

LED outputs specifications	I = 850 μA U = 1.8V DC
Supply voltage	30V DC
Busline max consumption	15 mA
Dimensions	38 x 35 x 12 mm
Degree of protection	IP 30
Operating temperature	+0 +45°C
Storage temperature	-20 +70°C
Standards	EN 60 669-2-1 NF EN 50 428

- The universal input modules interface potential free contacts with KNX.
- Push buttons, switches and conventional automatisms can thus be used to drive standard LED indicators.
- Outputs can control conventional signaling LEDs.
- 2 independent channels.

Order no. **TXB322**



4-input / 4-output module LED (status indication)

	,
LED outputs specifications	I = 850 μA U = 1.8V DC
Supply voltage	30V DC
Busline max consumption	15 mA
Dimensions	38 x 35 x 12 mm
Degree of protection	IP 30
Operating temperature	+0 +45°C
Storage temperature	-20 +70°C
Standards	EN 60 669-2-1 NF EN 50 428

- The universal input modules interface potential free contacts with KNX.
- 4 independent channels.



Design	Order no.	PU
light grey, 4gang	TXB344	1



Binary inputs

- Power failure detection is available to filter false alarms due to cut-off of all inputs connected on the same reference phase.
- Output states are displayed on the product.
- Outputs can be controlled manually from the product
- Application software is used to configure the individual inputs
- The sensors associated to the inputs (pushbuttons, switches, automatic controls) are used to control lighting, shutters, blinds
- The Toggle Switch function changes the status of the controlled output whenever it is operated
- This function is used for switching lighting, blind or heating circuits ON or OFF. The command may come from switches, pushbuttons or automatic controls
- This function is used to control lighting circuits using one or two buttons
 - The ON / OFF function transmits the ON / OFF object (short key-press)
 - The Dimming function transmits the Dimming object (long key-press)
- This function controls a shutter or a blind using one or two push buttons.
 - The Up / Down function transmits the Up / Down object (long key-press)
 - The Stop / Angle function transmits the Stop / Angle object (short key-press)
- The Alarm 1 and Alarm 2 functions allow alarms coming from automatic controls to be periodically emitted (anemometer, rain detector, light sensitive switch, etc.)
- The Heating mode function is used to select a heating or air conditioning set point (Comfort, Eco, Frost protection, Absence).
- The command may come from switches, pushbuttons or automatic controls.
- The Value function (2 byte) is used for sending: Percentage %, Temperature °C, Luminosity level Lux, Brightness value % and Value 0-65535.
- The Scene function is used to select and storing scenes.
- The Timer function is used to switch ON or OFF a lighting circuit, shutters, heating for an adjustable time
- The Priority function allows an input to be forced to a defined status
- The Two Channel mode function allows controlling, with the same pushbutton, two independent circuits having different functions.
- The Jamming function is used to lock an input via an object on the bus
- The power cut detection function is used for specific management of an input during a power cut, taking into account all the status changes which could occur during this period
- With programming button and red programming LED
- Bus connection via connecting terminal
- Quick Connection Terminal



4 channel input module	
Signal voltage	230V AC 50 Hz
Maximum connection distance per input	100 m
Minimum contacts closing time	18 ms
Low signal level	0 -> 100 V
High signal level	> 195 V
Supply voltage	30V DC
Busline max consumption	4 mA
Width	4 modules
Operating temperature	0°C to +45°C
Connections	0.75 to 2.5 mm ²

- Universal input modules allow interfacing 230V AC contacts supplied by KNX bus
- In this way, pushbuttons, switches or conventional automatic controls can become communicating dayings
- 4 independent channels can be connected on different phases
- It is possible to connect 10 illuminated pushbuttons per channel

Design	Order no.	PU
light grey	TXA304	1





6 channel input module

Signal voltage	24 230V AC (50Hz)/DC
Maximum connection distance per input	100 m
Minimum contacts closing time	50 ms
Supply voltage	30V DC
Busline max consumption	7 mA
Width	6 modules
Operating temperature	0°C to +45°C
Connections	0.75 to 2.5 mm ²

- Universal input modules allow interfacing contacts free of potential or supplied with 24...230V AC/DC power by bus KNX.
- In this way, pushbuttons, switches or conventional automatic controls can become communicating devices
- 6 independent channels with automatic recognition of the type of connected circuit (24...230V AC/DC or circuit free of potential).
- It is possible to connect 5 illuminated pushbuttons per channel

Design	Order no.	PU
light grey	TXA306	1



10 channel input module

Signal voltage	230V AC 50 Hz max
Maximum connection distance per input	100 m
Minimum contacts closing time	18 ms
Low signal level	0 -> 100 V
High signal level	> 195 V
Supply voltage	30V DC
Busline max consumption	15 mA
Width	6 modules
Operating temperature	0°C to +45°C
Connections	0.75 to 2.5 mm ²

- Universal input modules allow interfacing 230V AC contacts supplied by KNX bus
- In this way, pushbuttons, switches or conventional automatic controls can become communicating devices
- 10 independent channels can be connected on different phases

Design	Order no.	PU
light grey	TXA310	1

Size



Time switches



2 channels electronic time switches weekly cycle

Supply voltage Bus 30 V DC

Consumption 9.5 mA max (TXA022)
10 mA max (TXA023)

IP 20

Operating temperature -5 °C to 45°C

- Product delivered with current time and date set.
- Automatic change of winter / summer time
- Programming key:
 - for permanent overrides,
 - for program copy or save
- Programming for day or group of days
- 56 program steps On, Off , 1 s to 30 min pulse or options
- Permanent overrides On or Off (permanent light on).
- ON or OFF temporary priority settings, using configuration tools
- Temporary overrides On or Off (flashing)
- Holiday mode : overrides On or Off between two dates
- Simulation of presence
- Display bar graph of daily profile for both channels.
- Keyboard locking possible
- Programmable with power off
- DCF Synchronization (only for TXA023)
- Possible transmission of date and time on the bus

Design	Order no.	PU
EASY	TXA022	1
with DCF	TXA023	1

2 modules



Clock key

Avoids unrequested handling of the TXA022 and TXA023 time switches.

Design	Order no.	PU
yellow	EG004	1



Programming key

Allows complementary programms back-up for TXA022 and TXA023 time switches.

Design	Order no.	PU
grey	EG005	1



Consumption indicator and energymeters

Bus power supply



KNX consumption indicator

Mains power supply

Max. consumption on the bus

Dissipated output

Connection capacity:
- for the upper terminals
- for the lower terminals
IP

Operating temperature

230 V AC +10/-15% 50 Hz
+10/-15%

30 V DC (TBTS)

The consumption indicator informs users of their consumption through 4 metering channels. It is used to monitor and control energy consumption and is built into an automatic global energy management system.

- This product can be used in a single-phase or threephase installation. In three-phase, consumption is measured phase by phase
- The data is sent on the KNX bus
- In addition to metering, the consumption indicator also has:
 - 1 tariff input T1/T2
 - a temperature input for the connection of a probe
- The system can be constructed with several TE330.
 This thus makes it possible to measure one or more circuits using toroids
- The consumption indicator is adapted for use with domovea. In this case, the display devices are:
 - meter (consumption)
 - meter (production)
 - energy
 - power
 - sub-counter (consumption)
- It can also be interfaced with the ambiance units or other display systems thanks to objects sent on the KNX bus
- It is used to display the current tariff and the energy consumption according to the current tariff. The tariff can also be distributed to other devices on the bus
- Includes 3 current transformers and straps.

Design	Order no.	PU
light grey	TE330	1



Temperature sensors

Max current

Design	Order no.	PU
outdoor sensor	EK088	1
indoor sensor	EK089	1

63A



Three phase energymeter, direct reading 100A

Voltage 230 V AC 50/60 Hz Starting current 40 mA Base current 10A

Energymeters are aimed to measure the active energy consumed by an installation.

They permit to have under control the real cost of an installation and to divide the consumption between the different appliances.

- Fully compliant with the european standard EN50470-3.
- Class B.
- Accuracy 1%
- Energy readout : 7 digits.
- Backlighted display
- Indication of instantaneous power consumption
- Total / partial counter (excepted MID references)
- Pulsed ouput
- unlimited saving of measures.
- LED flashing according to consumption.
- Option : tarif 1 / tarif 2.
- Three phases energymeters are adapted to all kind of networks.
- Display indication in case of bad wiring.

Design	Order no.	PU
light grey	TE360	1





Three phase energymeters, connection via current transformers

230/400 V AC 50/60 Hz - Fully compliant with the european standard EN50470-3.

10 mA - Class B. Starting current - Accuracy 1% Max current on CT secondary

Energymeters are aimed to measure the active energy consumed by an installation.

They permit to have under control the real cost of an installation and to divide the consumption between the different appliances.

- Energy readout : 7 digits.
- Backlighted display - Indication of instantaneous power consumption
- Total / partial counter (excepted MID references)
- Pulsed ouput
- unlimited saving of measures.
- LED flashing according to consumption.
- Option : tarif 1 / tarif 2.
- Three phases energymeters are adapted to all kind of networks.
- Display indication in case of bad wiring.

Design	Order no.	PU
light grey	TE370	1





Current transformers for TE360 and TE370)	
Design	Order no.	PU
50 / 5 A	SR051	1
100 / 5 A	SR101	1
150 / 5 A	SR150	1
200 / 5 A	SR200	1
250 / 5 A	SR250	1
300 / 5 A	SR300	1
400 / 5 A	SR400	1
600 / 5 A	SR600	1
800 / 5 A	SR800	1
1000 / 5 A	SR850	1
1500 / 5 A	SR900	1
2000 / 5 A	SR910	1



Switching actuators

- Common parameter of switching actuator
- Output states are displayed on the product.
- Outputs can be controlled manually from the product
- Each output to be individually configurated for Lighting or Heating
- The ON/OFF function is used to switch a lighting circuit ON or OFF
- The Status indication function displays the status of the output contact
- The Timer function is used to switch a lighting circuit ON or OFF for an adjustable time
- The Time delayed switch function combines a toggle function and a cut-off delay
- The Priority function allows overriding an output to a definite status, ON or OFF
- The Jamming function allows locking an output in its current status
- Each output may be integrated into 32 different scenes
- The Timer and Automatic controls function allow the outputs to by controlled by:
 - Timer functions: Timer/toggle change over, Switching delay, Tripping delay, Switching and tripping delay, Timer.
 - Automatic control functions: Authorization, Logical AND or Logical

OR

- Each output may be integrated into 32 different scenes
- Manual override, permanent or Time limited.
- Behavior in the event of bus voltage failure/Return parameterisable
- With programming button and red programming LED
- Bus connection via connecting terminal
- Quick Connection Terminal

	Max. switching capacity for switching actuators					
	TYA604A TYA606A TYA608A TYA610A	TYA604B TYA606B TYA608B TYA610B	TYA604C TYA606C TYA608C TYA610C	TYA604D TYA606D TYA608D TYA610D	TYA606E	TYB601A TYB602A
230 V incandescent and halogen lamps	800 W	1200 W	2300 W	2300 W	2300 W	600 W
Halogen ELV (12 or 24V) via ferromagnetic transformer	800 W	1200 W	1600 W	1600 W	1600 W	600 W
Halogen ELV (12 or 24V) via Electronic transformer	800 W	1000 W	1200 W	1200 W	1380 W	600 W
Fluorescent tubes non compensated	800 W	1000 W	1200 W	1200 W	800 W	600 W
Fluorescent tubes for electronic ballast	450 W	550 W	725 W	725 W	25 x 18 W	6 X 58 W
Parallel compensated fluorescent tubes	-	-	-	1500 W (200µF)	1000 W (130µF)	-
Compact fluorescent with PF < 0.6	150 W	300 W	425 W	425 W	25 x 18 W	6 X 18 W



4 channel switching actuator 4A/10A/16A/16A (Capacitive Load)

Supply voltage 30 V DC Power dissipation 1 W (TYA204A)

3 W (TYA204B) 8 W (TYA204C) 8 W (TYA204D)

Width 4 modules Operating temperature $0^{\circ}\text{C to } +45^{\circ}\text{C}$ Connections 0.75 to 2.5 mm²

- The 4-fold output module TYA604. are relays designed to interface Bus KNX with on/off electric loads
- 4 volt-free contacts

Design	Order no.	PU
switching actuator 4A	TYA604A	1
switching actuator 10A	TYA604B	1
switching actuator 16A	TYA604C	1
switching actuator 16A for capacitive load	TYA604D	1





6 channel switching actuator 4A/10A/16A/16A (Capacitive Load)

Supply voltage 30 V DC - The 6-fold output module TYA606. are relays designed to interface Bus KNX with on/off electric loads 1 W (TYA206A) 5 W (TYA206B) Power dissipation

- 6 volt-free contacts 12 W (TYA206C) 12 W (TYA206D) 6 W (TYA206E)

4 modules 6 modules (TYA606E) Width

0°C to +45°C Operating temperature Connections 0.75 to 2.5 mm²

Design	Order no.	PU
switching actuator 4A	TYA606A	1
switching actuator 10A	TYA606B	1
switching actuator 16A	TYA606C	1
switching actuator 16A for capacitive load	TYA606D	1
switching actuator 16A for capacitive load with current monitoring	TYA606E	1



8 channel switching actuator 4A/10A/16A/16A (Capacitive Load)

 The 8-fold output module TYA608. are relays designed to interface Bus KNX with on/off electric loads 30 V DC Supply voltage 2 W (TYA206A) Power dissipation - 8 volt-free contacts

6 W (TYA206B) 12 W (TYA206C) 12 W (TYA206D)

Width 6 modules Operating temperature 0°C to +45°C Connections 0.75 to 2.5 mm²

Order no.	PU
TYA608A	1
TYA608B	1
TYA608C	1
TYA608D	1
	TYA608B TYA608C



10 channel switching actuator 4A/10A/16A/16A (Capacitive Load)

Supply voltage 30 V DC Power dissipation 3 W (TYA206A)

7 W (TYA206B) 15 W (TYA206C) 15 W (TYA206D)

6 modules Width Operating temperature 0°C to +45°C Connections 0.75 to 2.5 mm²

- The 10-fold output module TYA610. are relays designed to interface Bus KNX with on/off electric
- 10 volt-free contacts
- Each output to be individually configurated for Lighting or Shutters/Blinds applications
- Shutters/Blinds applications required two Output Channel

Design	Order no.	PU
switching actuator 4A	TYA610A	1
switching actuator 10A	TYA610B	1
switching actuator 16A	TYA610C	1
switching actuator 16A for capacitive load	TYA610D	1





1 flush mounted output

Supply voltage 30 V DC SELV Power dissipation 225 W Typical consumption on the KNX bus 5.3 mA Standby consumption on the KNX bus 4.7 mA Dimensions 53 x 29 mm Operating temperature 0°C to +45°C Connections 0.75 to 2.5 mm² μ230 Vv 4A AC1 Breaking capacity Surge voltage 4kV Protection degree IP20

- 1 channel controlled via the KNX bus (depending on features configured).

- Output state is displayed on the product.

- Output can be manually controlled using the pushbutton.

Each product feature depends on its configuration and settings.

Design	Order no.	PU
light grey	TYB601A	1



2 flush mounted outputs

2 flush mounted outputs	
Supply voltage	30 V DC SELV
Power dissipation	225 W
Typical consumption on the KNX bus	5.9 mA
Standby consumption on the KNX bus	4.7 mA
Dimensions	53 x 29 mm
Operating temperature	0°C to +45°C
Connections	0.75 to 2.5 mm ²
Breaking capacity	μ230 Vv 4A AC1
Surge voltage	4kV
Protection degree	IP20

- 2 channels controlled via the KNX bus (depending on features configured).
- Outputs state are displayed on the product.
- Outputs manual control option from pushbuttons.
 Each product feature depends on its configuration and settings.

Design	Order no.	PU
light grey	TYB602A	1



Dim actuators

Universal dim actuators

- 1 dimming channels controlled by KNX bus.
- Universal dimmer with automatic load recognition
- Min/Max level local setting.
- Display of channel state on the product.
- Manual mode that allows dimming even when the bus is disconnected.
- Control button for manual mode.
- Per channels 32 light scenes with a related scene speed
- Short-circuit, over heating & overload protection with LED indication
- With programming button and red programming LED in same button.

30 V DC 230 V AC

30 V DC 230 V AC

30 V DC 230 V AC

0.75 to 2.5 mm²

- Bus connection via connecting terminal.
- Quick Connection Terminal.



1 channel universal dimmer 300W Supply voltage

cappi, remage	50/60 Hz
Busline max consumption	2.3 mA
Consumption without load	3 W
Power dissipation	4 W
Width	4 modules
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²

- 230 V incandescent and halogen lamps 300W
- Halogen ELV (12 or 24V) via ferromagnetic transformer suitable for dimming 300VA.
- Halogen ELV (12 or 24V) via electronic transformer suitable for dimming 300W
- Dimmable CFL lamp (CFLi) with integrated ballast suitable for dimming 60W
- Dimmable LED lamp(LEDi) with integrated ballast suitable for dimming 60W

Design	Order no.	PU
light grey	TYA661A	1



1 channel universal dimmer 600W

Supply voltage

Supply voltage

Connections

,	50/60 Hz
Busline max consumption	2.3 mA
Consumption without load	3 W
Power dissipation	7.5 W
Width	4 modules
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²

- 230 V incandescent and halogen lamps 600W
- Halogen ELV (12 or 24V) via ferromagnetic transformer suitable for dimming 600VA.
- Halogen ELV (12 or 24V) via electronic transformer suitable for dimming 600W
- Dimmable CFL lamp (CFLi) with integrated ballast suitable for dimming 120W
- Dimmable LED lamp (LEDi) with integrated ballast suitable for dimming 120W

Design	Order no.	PU
light grey	TYA661B	1



3 channels universal dimmer 300W

Busline max consumption	2.3 mA
Consumption without load	5 W
Power dissipation	8.9 W
Width	6 modules
Operating temperature -5	5°C to +45°C

- 1, 2, or 3 dimming channels controlled by KNX bus.
- The product can control 1, 2 or 3 independent lighting circuits, the outputs number depends on the switch position.
- 230 V incandescent and halogen lamps 300W, 600W, 900W according to output selector switch per channel.
- Halogen ELV (12 or 24V) via ferromagnetic transformer suitable for dimming 300W, 600W, 900W according to output selector switch per channel.
- Halogen ELV (12 or 24V) via electronic transformer 300W, 600W, 900W according to output selector switch per channel.
- Dimmable CFL lamp (CFLi) with integrated ballast suitable for dimming 210W, 120W, 60W according to output selector switch per channel.
- Dimmable LED lamp (LEDi) with integrated ballast suitable for dimming 210W, 120W, 60W according to output selector switch per channel.

Design	Order no.	PU
light grey	TYA663A	1



1 - 10 V / DALI interfaces



3 channel 1 - 10 V dimmer

30 V DC 230 V AC Supply voltage Busline max consumption Consumption without load Power dissipation Control current per channel Switching current 230 V incandescent and halogen lamps Halogen ELV (12 or 24V) 1500 VA / 1500 W via ferromagnetic transformer/ electronic transformer Electronic Ballast 1-10V Dimmable Electronic Ballast

1000 W 50 mA max Light Dimmer 30 max Width 4 modules Operating temperature 0°C to +45°C Connections 1 to 6 mm² (screw terminal) - 3 dimming channels controlled by bus KNX

Control lighting circuits via a 1/10V connection, acting upon remote control dimmers or electronic ballasts

- Min/Max level local setting

- State of channel displayed on product

- Manual control of channels available locally on the product for Wiring, testing and start-up

After power on, a 20-sec delay is required for the dimmer switch to perform the first control operation

- With potential-free NO contacts

- Basic brightness programmable

- Behavior in the event of bus voltage failure

With programming button and red programming LED

- Bus connection via connecting terminal

- With screw terminals

PU Design Order no TX211A light grey

50/60 Hz

50 mA max

2300 W

2.3 mA

3 W

9 W



KNX DALI-Gateway

KNX supply voltage External supply voltage

Busline max consumption Power consumption Total power loss Operating temperature Connections

DALI voltage

DALI current

21 ... 32 V DC SELV 110...240 V AC +10%/-15% 50/60 Hz typically 150 mW max. 6 W max. 3 W -5°C to +45°C screw terminal

preferably on top typically 16 V DC with overvoltage protection

typically 128mA max. 200mA temporarily

- Control of a maximum of 64 DALI devices in a max. of 32 groups
- Manual control of the groups independent of the bus (site operation with broadcast control)
- Feedback of DALI error status or short-circuit and supply voltage failure message
- Central switching function
- Incorporation of the groups into up to 16 lightscenes possible
- All channel-oriented functions can be parameterized separately for each group. This feature permits independent and multi-functional control of the DALI
- The Staircase timer function can only be parameterized for groups 1 ... 16
- Adjusting the limit values for brightness is possible.
- Dimming response can be parameterized.
- Soft-On or Soft-Off function
- Disable function or, alternatively, forced-control position function can be parameterized for each group, with the disable function, blinking of lighting groups is possible
- Timer functions (ON-delay, OFF-delay, staircase lighting function, also with pre-warning function)
- Response to bus voltage failure and bus voltage return as well as after ETS programming can be adjusted for each group
- Automatic device replacement
- With programming button and red programming LED
- Bus connection via connecting terminal
- With screw terminals preferably on top

Design	Order no.	PU
light grey	TYA670D	1



3-channel LED controller



3-channel LED controller - voltage controlled

Supply voltage 12-24 V DC Maximum charge 2.2 A / channel Max power 12V DC 80 W

Control mode direct voltage
Number of channel 1-3
Control signal KNX

Consumption on the KNX bus

Max. 12 mA

Operating temperature

-5°C to +45°C

Connections

KNX wire 0.75 to 1.5 mm²

(screw-on terminal block)
Output signal PWM / 600Hz
Max. cable length 10 m
Protection degree IP20

The TYB673A 3-channel LED controller can be used to vary the luminosity of a voltage controlled LED module.

This product can be used more particularly to control a coloured lighting system, create lighting effects or launch a sequence of pre-programmed colours.

- 3 variation channels controlled by the KNX bus

- 60 scenes called up by the KNX bus

 4 different colour sequences including up to 12 colours per sequence.

- Short circuit protection

- Overheating protection

- Electrical surge protection

- Polarity reversal protection



24V DC 155 W



3-channel LED controller - current controlled

Supply voltage 24 V DC Output current 350/500/700 mA Control mode direct current Max output voltage 22V DC Number of channel 1-3 Control signal KNX Consumption on the KNX bus Max. 12 mA Operating temperature -5°C to +45°C Connections KNX wire 0.75 to 1.5 mm²

(screw-on terminal block)
Output signal PWM / 600Hz
Max. cable length 10 m
Protection degree IP20

The TYB673B 3-channel LED controller can be used to vary the luminosity of a current controlled LED module.

This product can be used more particularly to control a coloured lighting system, create lighting effects or launch a sequence of pre-programmed colours.

- 3 variation channels controlled by the KNX bus

- 60 scenes called up by the KNX bus

 4 different colour sequences including up to 12 colours per sequence.

- Short circuit protection

- Overheating protection

- Electrical surge protection

- Polarity reversal protection

Design	Order no.	PU
black	TYB673B	1



Blind actuators RMD

- Outputs can be controlled manually from the product
- Output states are displayed on the product
- Delay time between 2 opposite directions 600 ms.
- Application softwares allow each output to be individually configurated for Shutter/Blind applications.
- The Up/Down Function allows moving up or down a shutter, a blind with inclinable slats, an awning, a Venetian blind, etc.
- The Up/Down function also allows opening and closing electric curtains.
- The Slat angle/Stop function allows inclining the slats of a blind or stopping its current movement.
- The Slat angle/Stop function allows modifying the occultation or the direction of the light beams coming from outside.
- The Stop function allows stopping the current shutter movement.
- The Position in % function allows putting a shutter or a blind in a desired position expressed in % of closure.
- The Slat angle function allows inclining the slats of a blind into a desired position expressed in degrees (0° to 180°).
- Wind alarm and rain alarm functions allow putting a shutter or a blind in a parameterisable predefined status.
- The Priority function allows forcing a shutter or a blind into a predefined position.
- The Jamming function allows locking a shutter or a blind in its current position.
- Each output may be integrated into 32 different scenes.
- The Status indication function allows sending on the bus:
 - Status indication (1 byte): indicates the current operating mode of the output (Alarm, Priority, Jamming, and Normal)
 - Position indication in %: indicates the position of the shutter or blind
 - Slat angle indication in °: indicates the position of the shutter or blind
 - Status indication (1Bit): indicates the last movement, up or down, of the shutter or blind



Output device for 4 shutters 230V AC

Supply voltage	30 V DC SELV
Power dissipation	2W
Typical consumption on the KNX bus	5,2 mA
Standby consumption on the KNX bus	4,5 mA
Width	4 modules
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²
Breaking capacity	μ230 Vv 6A AC1
Surge voltage	4kV
Protection degree	IP20

The 4-output drivers TYA624A and TYA624C are actuators that allow interfacing Bus KNX with opening devices. They are part of the tebis Installation System and are designed to control such devices as rolling shutters, blinds with awnings, blinds with slats, etc.

- 4 independent channels controlled by bus KNX.
- Output states are displayed on the product.
- Outputs can be controlled manually from the product.
 Each product feature depends on its configuration and settings.

Design	Order no.	PU
output device for 4 shutters	TYA624A	1
output device for 4 shutters and / or blinds	TYA624C	1





Output device for 4 shutters 24V DC

Supply voltage	30 V DC SELV
Power dissipation	2W
Typical consumption on the KNX bus	5,2 mA
Standby consumption on the KNX bus	4,5 mA
Width	4 modules
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²
Breaking capacity	μ 24V DC 6A DC1
Surge voltage	4kV
Protection degree	IP20

The 4-output drivers TYA624B and TYA624D are actuators that allow interfacing Bus KNX with opening devices. They are part of the tebis Installation System and are designed to control such devices as rolling shutters, blinds with awnings, blinds with slats, etc.

- 4 independent channels controlled by bus KNX.
- Output states are displayed on the product.
- Outputs can be controlled manually from the product.
 Each product feature depends on its configuration and settings.

Design	Order no.	PU
output device for 4 shutters	TYA624B	1
output device for 4 shutters and / or blinds	TYA624D	1



Output device for 8 shutters 230V AC

Supply voltage	30 V DC SELV
Power dissipation	2W
Typical consumption on the KNX bus	15.8 mA
Standby consumption on the KNX bus	8.8 mA
Width	6 modules
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²
Breaking capacity	μ230 Vv 6A AC1
Surge voltage	4kV
Protection degree	IP20

The 8-output drivers TYA628A and TYA628C are actuators that allow interfacing Bus KNX with opening devices. They are part of the tebis Installation System and are designed to control such devices as rolling shutters, blinds with awnings, blinds with slats, etc.

- 8 independent channels controlled by bus KNX.
- Product display of outputs status with or without the presence of bus and/or main supply (230V~).
- The outputs may be switched with or without the presence of bus and/or main supply (230V~).

Each product feature depends on its configuration and settings.





1-output module for shutters and/or blinds, flush mounting

Supply voltage Power dissipation	30 V DC SELV 225 mW
Typical consumption on the KNX bus	5.9 mA
Standby consumption on the KNX bus	4.7 mA
Dimensions	53 x 29 mm
Operating temperature	-5°C to +45°C
Connections	0.75 to 2.5 mm ²
Breaking capacity	μ230Vv 4A AC1
Surge voltage	4kV
Protection degree	IP20

The 1-output controls TYB621C are actuators that enable interfacing of the KNX Bus with the opening elements. They are part of the tebis installation system. They are used to control opening elements such as shutters, awnings, venetian blinds, etc.

-	1 (control	ied cr	nannel.

- Visualization of the movement in progress (up/down) on the product.
- Up/down manual control option from pushbuttons.
 Each product feature depends on its configuration and settings.

Design	Order no.	PU
flush mounting	TYB621C	1

Design light grey



HVAC actuators RMD



Heating actuator 6gang RMD 230 V

Operating voltage over bus	21 32 V=
Auxiliary voltage	230/240 V~
Frequency	50/60 Hz
Switching current at 250 V~	max. 50 mA
Actuators per channel	max. 4
Operating temperature	-5 +45 °C
Assembling height as from DIN rail	58 mm
Dimensions (W x H x D)	72 x 90 x 65 mm
Width of rail mounted device (RMD)	4 TE

_	valve drives	s for thermo	pelectric	valve	drives	230	٧,
	closed in d	e-energized	d state				

- for individual single room temperature control
- for continuous (PI) or switched (2-point) control
- with programming button and red programming LED
- bus connection via connecting terminal
- with emergency programme, e.g. for sensor or bus failure
- with screw terminals

Suitable for

TYF646T		1
Order no.		PU
Valve drive 230 V	7590 00 76	137

Order no.

Page



Fan coil actuator 2gang RMD

Operating voltage over bus	21 32 V=
Auxiliary voltage	230 V~
230 V incandescent lamps	2300 W
230 V halogen lamps	2300 W
Conventional transformers	1200 W
Electronic transformers	1500 W
Fluorescent lamps:	
- uncompensated	1000 W
- parallel compensated	1160 W /140 μF
Operating temperature	-5 +45 °C
Assembling height as from DIN rail	63 mm
Dimensions (W x H x D)	72 x 90 x 70 mm
Width	4 modules

Comply with the fan convector manufacturer's instructions

Optimised for commissioning with ETS3 from version D, patch A.

- for the electric activation of fan convectors
- for converting RTR control variables into valve positions, fan stages
- activation of 1 or 2 fan channels with 6 or 3 fan stages
- for operating modes heating/cooling or heating and cooling
- manual activation of blow fans using push-buttons or the operating panel
- use of free channels to control switching loads
- 4 manual operation buttons for controlling fan stages and bus function on/off
- manual operating also possible without bus e.g. on building site
- with programming button and red programming LED
- with 8 red status LEDs and 3 red LEDs as manual actuation indication
- bus connection via connecting terminal
- with screw terminals

Design	Order no.	PU
light grey	TYF642F	1

Valve drives



KNX valve drive

Power supply	bus KNX 30V DC TBTS
Power consumption	< 10 mA
Run time	< 20 s/mm
Set force	> 120N
Maximal stroke	6 min
Target value display	5 LEDs
Operating temperature	0°C to +50°C
Dimensions	82 x 50 x 65 mm

- bus KNX Automatic regulating apparatus and temperature collection apparatus.
 - Work mode: Comfort, Standby, Night time, Frost.
 - Oriented start up
 - Forced service
 - Summer operation

Design	Order no.	PU
white	TX502	1





Valve drive 230 V

Operating voltage 230 V~ Frequency 0 ... 60 Hz Power consumption 1.8 W Running time 45 s /mm Stroke 4 mm Operating temperature +0 ... +60 °C Medium temperature max. 0 ... 100 °C Pre-assembled cables ≈ 1 m Dimensions (W x H x D) 44 x 60 x 61 mm - valve drives closed in de-energized state - thermoelectric mode of operation

- with state indication (opened or closed) - with overheating protection

- with anti-dismantling protection - pluggable connection cable

- for plug-in cover

Heating actuator 6 channels

Valve adapter for valve drive

Suitable for Order no. Page Valve adapter for valve drive 7590 00 7. Heating actuator 6gang RMD 230 V Heating actuator 230 V flush-mounted TYF646T 136 TYB641A 139

Order no.

7590 00 7 ..

TX206H

Page

139



Neutral conductor necessary!

Order valve adapter separately.



Design	Order no.	PU
polar white	7590 00 76	1



Valve drive 24 V AC/DC

Operating voltage 24 V~/= - valve drives closed in de-energized state - thermoelectric mode of operation 50/60 Hz Frequency - with state indication (opened or closed) Power consumption 1.8 W - with overheating protection Running time 45 s /mm - with anti-dismantling protection 4 mm Stroke - pluggable connection cable +0 ... +60 °C Operating temperature - for plug-in cover max. 0 ... 100 °C Medium temperature Suitable for max. 200 m Line length

44 x 60 x 61 mm

IP54

Order valve adapter separately.

Pre-assembled cables

Dimensions (W x H x D)



Design	Order no.	PU
polar white	7590 00 77	1

≈ 1 m



Valve adapter for valve drive

Cap nut (M x L) Metric thread More valve adapters upon request.	M30 x 1.5 mm M30	Suitable for Valve drive 230 V Valve drive 24 V AC/DC	Order no. 7590 00 76 7590 00 77	Page 137 137
Design		Order no.		PU
grey, VA10, Dumser/Simplex/Beulco (f	rom 2005)	7590 00 72		1
dark grey, VA50, Cazzaniga/Honeywel Landis & Gyr/Frese/Reich (distributor)/		7590 00 73		1
light grey, VA80, Comap/Empur/Heime MNG/Onda/Oventrop/Schlösser/Straw		7590 00 75		1
polar white, VA78, flane for Danfoss va	alves, type: RA	7590 00 74		1



Analogue actuators



Analogue actuator 4gang RMD

Operating voltage over bus	21 32 V=
Auxiliary voltage	24 V~
Frequency	50/60 Hz
Output load voltage	> 1 kΩ
Voltage, outputs	0 1; 0 10 V
Output current per channel	max. 20 mA
Current consumption	max. 170 mA
Outputs current	0 20, 4 20 mA
Output load current	< 500 Ω
Forced controls (1-bit objects)	per channel 2
Operating temperature	-5 +45 °C
Assembling height as from DIN rail	63 mm
Dimensions (W x H x D)	72 x 90 x 70 mm
Width of rail mounted device (RMD)	4 TE

The analogue actuator receives KNX telegrams and converts them into current and/or voltage signals, e.g. for heating, air conditioning and ventilation systems.

Output signals according to DIN IEC 381

Design	Order no.	P
light grey	TYF684	



Analogue actuator module 4gang RMD

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Operating voltage over bus	21 32 V=
Auxiliary voltage	24 V~
Frequency	50/60 Hz
Output load voltage	> 1 kΩ
Voltage, outputs	0 1; 0 10 V
Output current per channel	max. 20 mA
Current consumption	max. 170 mA
Outputs current	0 20, 4 20 mA
Output load current	< 500 Ω
Forced controls (1-bit objects)	per channel 2
Operating temperature	-5 +45 °C
Assembling height as from DIN rail	63 mm
Dimensions (W x H x D)	72 x 90 x 70 mm
Width of rail mounted device (RMD)	4 TE
Output signals according to DIN IEC	381

Output signals according to DIN IEC 381

Design	Order no.	PU
light grey	TYF684A	1

-	with	green/	red	status	LED	(operat	tion/	faul	t)
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- with red programming LED

- channels can be adjusted independently

- with programming button

- expandable with 4gang analogue actuator module

- bus connection via connecting terminal

- initial status via status- and/or switch object evaluable

- with 4 independant analogue outputs

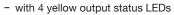
- cyclic supervision of the outputs

- with screw terminals

- with system interface for analogue actuator module

Suitable for	Order no.	Page
Power supply 24 V AC RMD	ST312	120
optional		
Analogue actuator module 4gang RMD	TYF684A	138

Order no.		PU



- with green/red status LED (operation/fault)
- as extension for analogue actuator 4gang
- with 4 independant analogue outputs
- cyclic supervision of the outputs
- with screw terminals
- with system plug for connection to the analogue actuator system interface

Suitable for	Order no.	Page
Analogue actuator 4gang RMD	TYF684	138



Actuators, flush/surface-mounted



Heating actuator 230 V flush-mounted

Operating voltage Switching current for electron-	21 32 V= max. 25 mA
ic outputs	
Actuators per channel	max. 2
Operating temperature	-5 +45 °C
Load cable length	\approx 20 cm with 2 x 1,5 mm ²
Cable length, bus + inputs (extendable to max. 5 m)	≈ 33 cm
Dimensions (Ø x H)	53 x 28 mm

Optimised for commissioning with ETS3 from version D, patch A.

- binary input functions: Switching, dimming, shutter control and value transmitter
- for individual single room temperature control
- for continuous (PI) or switched (2-point) control
- with programming button and red programming LED
- 1 electronic output (triac) for connection of 230V thermoelectric actuator drives
- with 3 independent binary inputs for potential-free contacts
- with emergency programme, e.g. for sensor or bus
- installation in flush-mounted or splash-protected junction box
- pre-assembled, with cables

	Suitable for Valve drive 230 V	Order no. 7590 00 76	Page 137
Design	Order no.		PU
light grey	TYB641A		1



Heating actuator 6 channels

- for individual single room temperature cor - for continuous (PI) or switched (2-point) co Suitable for Order no. Valve drive 24 V AC/DC 7590 00 77 Design Order no.	PU
 for continuous (PI) or switched (2-point) continuous Suitable for Order no. 	
	Page 137
Operating temperature -5 to +40 °C failure Dimensions (W x H x D) 302 x 75 x 70 mm - short-circuit and overload proof (fine-wire frequency 50/60 Hz - with plug-in terminals	use) rol
Supply voltage Bus KNX 30V DC TBTS Max. power uptake Bus power consumption Standard fuse Max. number of actuators 230V AC 50W 50W 10mA 13 For valve drives 24 V, closed in de-energiz with on red heat request LED per channel with green operation LED and red prograr with red fuse LED with integral transformer bus connection via connecting terminal with emergency programme, e.g. for sens	ming LED