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Berker the right way.

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THE PERFECT CONNECTION

EXCLUSIVE DESIGN ...

Even at first glance, the Berker TS Sensor is anything but a conventional switch. Its glass surface is completely uninterrupted – no rockers, no recesses, no buttons, not even fastening screws. The extremely flat cover and the reduced surface design give the TS Sensor an unique and unmistakable character. Without a frame, and flush-mounted to the wall, it delivers a surprisingly wide range of features. The maxim “less is more” has never been so true. Even so, the unit can control all kinds of applications - from blinds, shutters and lighting to heating, ventilation and air conditioning systems. Or, in fact, any other application which is controlled by the KNX/EIB system or via relay circuits.

With the colour choices of polar white, aluminium and black, this product will impress even in its basic version. What is more, the Berker TS Sensor's product concept offers a wide range of design possibilities. Each TS Sensor can be produced to suit the specific application and the living space. As well as the **Basic** model, Berker also offers the **Customized** and **Manufacturing** variants of the TS Sensor.

BASIC



UNPRINTED

- Background colours polar white, aluminium, black
- Order from the catalogue

CUSTOMIZED



PRINTED

- Layout configuration on the Internet
- Free text entry, selection from predefined fonts, symbols

... INNOVATIVE TECHNOLOGY

Only a second look - behind the glass front - reveals that this unit has more to offer beside its brilliant design – because under the surface you will find the technical intelligence of the electronic sensor. Conductor tracks fitted out with sensor electronics are printed directly onto the back of the glass.

This immediate proximity to the control surfaces on the glass front ensures extremely high switching reliability.

All it takes is a light touch on one of the capacitive sensor surfaces to activate the underlying function.

The white LEDs act as a visual marker for the otherwise invisible control surfaces and can, for example, be parameterised as status LEDs for connected devices in KNX/EIB applications. A blue LED indicates the sensor's general readiness for operation.

In the one to four-gang product variants, the TS sensor can be used to control up to eight functions with "one-button" operation. In the two/three-gang versions, the TS sensor with room thermostat can control up to six further functions in addition to the room temperature.

MANUFACTURING



- Background colours polar white, aluminium, black
- Order using design number

INDIVIDUALLY DESIGNED

- Individual layout design
- Free choice of texts, fonts, symbols and colours
- Send request to field sales representative

INDIVIDUAL CHARACTER

DESIGN POSSIBILITIES

BASIC

The product variants of the Berker TS Sensor can be ordered as a catalogue model in unprinted form with a choice of three background colours: polar white, aluminium, black.

CUSTOMIZED

Just as varied as customers' wishes are the ways in which the TS Sensor can be designed. This innovative product concept makes it possible to print lettering or symbolic labels on the back of the glass plate, where they are ideally protected against dirt, wear and damage.

This concept means, however, that the functions planned for each control panel are defined together with the customer before ordering. After that the selected labelling and symbols can no longer be changed, because the printing is generated uniquely at the time of production.

It is this simple:

1. Finalise the planning of the installation
 - Permanently define the functions of each control section

2. Create an individual design using the Web Configurator at www.berker.com/ts-sensor
 - Fill the layout template with symbols/lettering
 - Agree the design with the customer
 - Save the design on the Berker server

3. Order the sensor
 - Berker will send an individual design number
 - Place order with wholesaler or representative



MANUFACTURING

The Web Configurator already offers a wide range of customisation options. If, however, this should still not cover your customers' wishes, then Berker Manufacturing is what you need.

As far as it is technically feasible, the Berker TS Sensor can be manufactured with freely selectable printing and in all colours – even with logos or drawings as a background. Only the colours of the LEDs are predefined.

To arrange this, please address your enquiries to your regional field sales representative.

SIMPLE INSTALLATION

QUICK AND EASY - NO TOOLS REQUIRED

PREPARATIONS

Regardless of the planned application for the TS sensor, a 2gang wall box for Glass sensors should be plastered into the wall ready for mounting. This contains the mounting hardware (clamps) and offers enough space for interfaces and wiring.

In addition, the TS sensor requires a separate power supply which - in KNX/EIB applications - can be wired-through from the non-choked output of the RMD power supply (yellow/white wire).

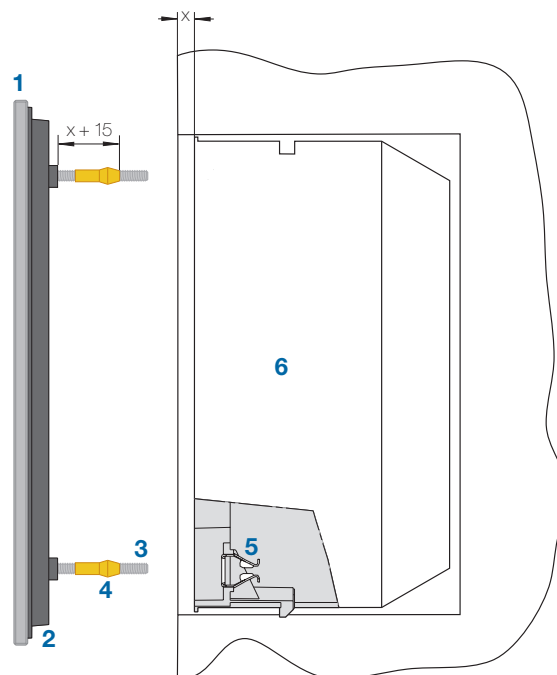
INSTALLATION

The Glass sensor is flush-mounted on the wall box (6) - if necessary together with the accessories and interfaces.

The supplied adapter ring (2) increases the distance between the wall and the sensor plate.

It gives the glass plate, which can otherwise appear lacking in body depth, a nice contour. Technically, it is provided as an aid for special mounting situations and for increased anti-dismantling protection.

The glass plate (1) with the mounting pins (4) on the setscrews (3) is snapped without the need for tools straight into the clamps (5) in the wall box. The adjustable mounting pins allow variations in installation depth and surface unevenness in the wall to be compensated for by up to 20 mm.



DISASSEMBLY

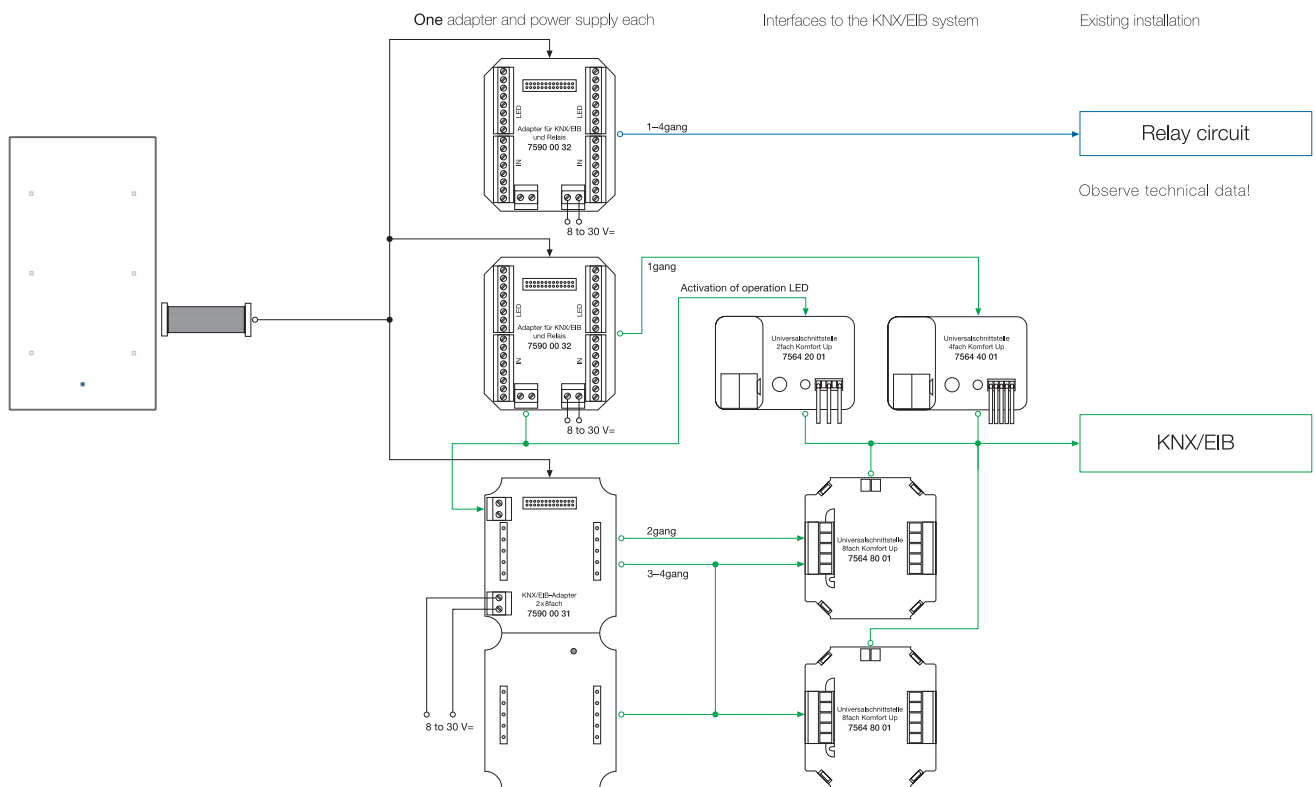
The removal tool with suction cups which is included in the package can be used to pull the glass plate relatively easily out of the clamps in the wall box.

UNCOMPLICATED CONNECTIONS

PLUGGED IN AND SCREWED ...

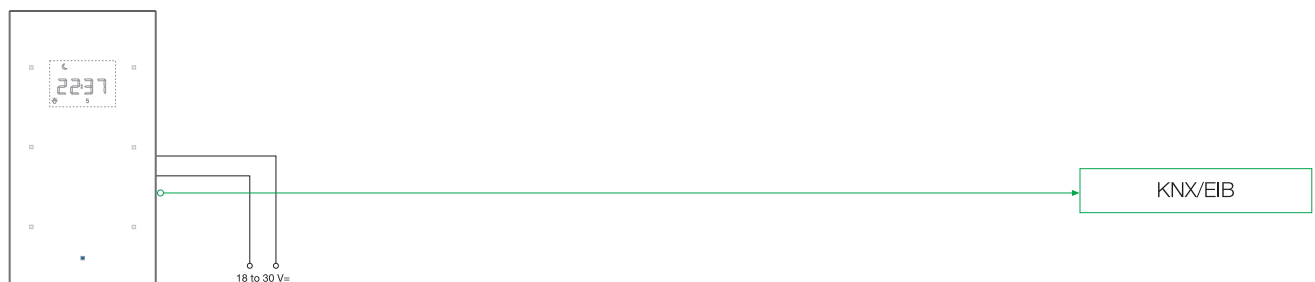
The 2 x 8gang KNX/EIB adapter can be plugged into up to two 8gang comfort/flush-mounted universal interfaces via its contacts and screwed to them. This means that up to 8 sensor surfaces and their 8 status LEDs can be controlled separately.

A 2gang or 4gang comfort/flush-mounted universal interface can be connected to the screw terminals of the adapter for KNX/EIB and relays. The voltage supply (to be provided by the customer) is wired into the adapter. The adapter supplies power to the Glass sensor via a ribbon cable. In this way, operations on the Glass sensor can be transmitted via the interfaces to the KNX/EIB system or directly to relay circuits.



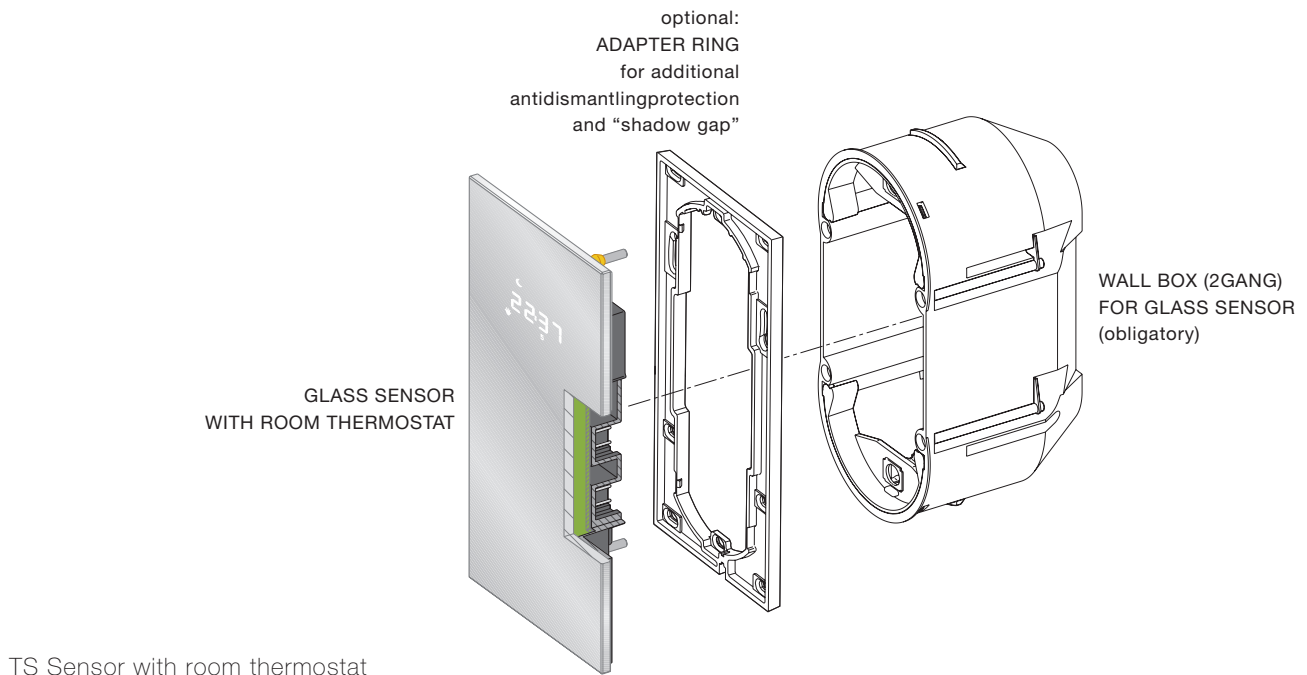
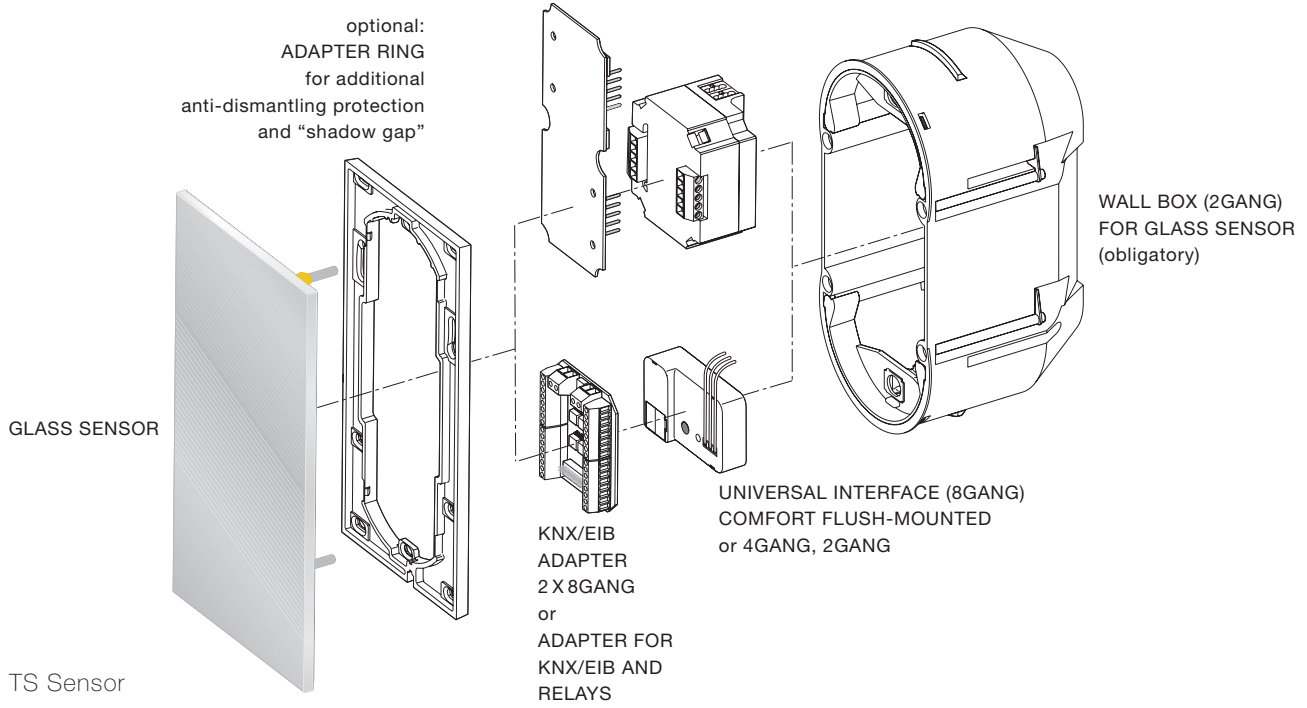
Recommended combinations of the product variants of the Berker TS Sensor for the highest expansion stage in each case

The TS sensor with room thermostat has been developed exclusively for KNX/EIB applications. As a monoblock, it is equipped with an integrated bus coupling unit. This means that there are connecting terminals on the back of the unit which are used to connect the sensor directly to the bus system and to a separate power supply. In addition, an external temperature sensor can also be connected.



Simple connection of the TS Sensor with room thermostat via the integrated bus coupling unit

... ASSEMBLED



SUPERLATIVE COMFORT

FEATURES IN KNX/EIB APPLICATIONS ...

TS SENSOR

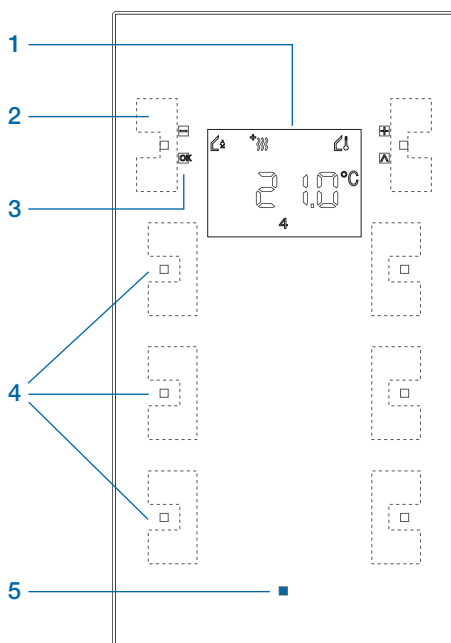
- Free assignment of functions to every sensor surface
- Available key functions: push-button/switching, dimming, value transmitter/light scene extension unit, control (e. g. audio) and forced guidance
- Available rocker functions: switching, dimming, shutter for opposite sensor surfaces
- Up to eight scenes can be stored and called up as a scene extension unit (depending on the product variant)

TS SENSOR WITH ROOM THERMOSTAT

In a very unique way, the TS Sensor with room thermostat successfully expands the functions of a push-button device with capacitive sensor surfaces by adding room temperature control with digital display elements.

As a result, this push-button sensor has now evolved into a complete room control device which is capable of controlling all the different functions in a room and combining them all in a uniform design.

- Free assignment of functions to every sensor surface
- Every sensor surface can be parameterised for the functions push-button, dimmer, shutter, 1-byte value transmitter, 2-byte value transmitter, scene extension unit, two button operation or for individual room temperature control.
- Each rocker or push-button can control two independent channels with different functions at the same time
- Sensor surfaces can be parameterised as push-buttons with one button operation – including room thermostat functions like thermostat extension unit, ventilator speed control, thermostat operating mode, setpoint shift – or as a rocker with two button operation.
- Integrated scene control allows up to eight scenes to be saved with eight output channels; as a scene extension unit up to 64 scenes can be called up and saved.



KEY

- 1 Display
- 2 Capacitive sensor surfaces for operation of the display
- 3 Status indications for operation of the display
- 4 Capacitive sensor surfaces with status LEDs
- 5 Operation LED

... WITH ROOM TEMPERATURE CONTROL

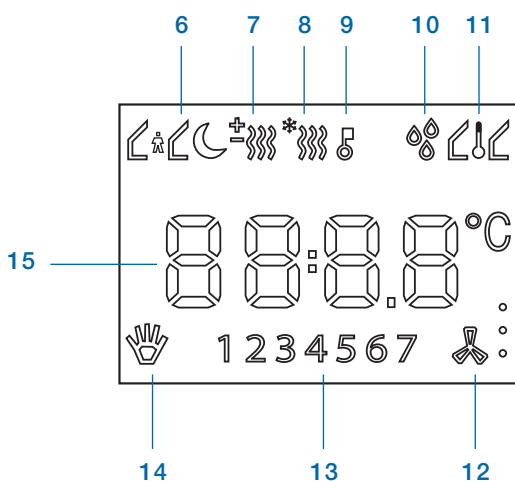
THERMOSTAT FUNCTIONS

- Switchable LED display
- Up to four display functions (time, actual temperature, set temperature, outside temperature) can be rotated
- Sensor surfaces on the display for operation of the thermostat via two menu levels
- Temperature measurements via an internal or external sensor (the latter is used if the TS Sensor is mounted in a location where temperature measurements are difficult)
- Various operating modes with their own temperature setpoint values can be activated
- Different control modes can be set for heating and cooling levels (continuous or switching pulse-width modulation or switching two-point control)
- Temperature-controlled switch-off function for underfloor heating (protection function)
- Setpoint temperature limitation is available in cooling mode in order to comply with legally prescribed limits
- Operation of a fully-fledged extension unit can be activated in order to control an additional room thermostat

DISPLAY

The integrated "Dark Design" LED display only displays the symbol elements of active functions, and all inactive functions are invisible.

Depending on the colour variant of the Glass sensor, the display will be shown in different ways: the polar white background has a subtle and muted display, while the display elements on the aluminium coloured glass panel are very pleasing and homogeneous, and the black sensor glass variant uses striking visuals with much more contrast. Capacitive sensor surfaces are arranged on the side of the display. They enable menu-guided control of the room thermostat and transform the digital display into an interactive heating control panel. As Berker has continued with the established symbols already used on previous room control devices, use of the panel is particularly intuitive and easy.



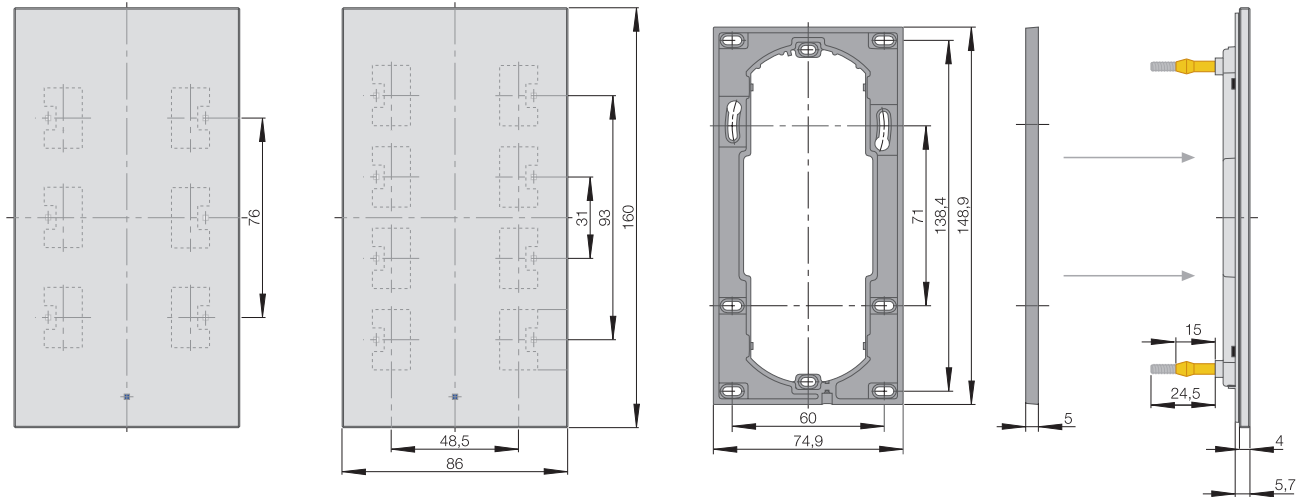
KEY

- 6** Operating modes: Comfort, Standard, Night
- 7** Operating modes: Heating/cooling
- 8** Frost/heat protection
- 9** Sensor surface disable
- 10** Dew point operation
- 11** Display modes: Inside/outside temperature
- 12** Fan stages 1, 2 or 3
- 13** Day of the week
- 14** Manual base setpoint shift ("handwheel function")
- 15** Time or temperature

TECHNICAL DETAILS

TS SENSOR

DIMENSIONAL DRAWING



TECHNICAL DATA

Power supply
 Switching voltage
 Switching current
 Loads are not directly switchable (only via interfaces)
 LED actuating voltage
 LED actuating current
 LED, adjustable:
 - Status LED
 - Operation-LED
 Protection class
 Dimensions of the glass panel (W x H x D)
 Overall height:
 - wall-mounted (flush)
 - with adapter ring
 Surface adjustment
 Phasing of the glass plate

8 to 30 V =
 max. 30 V =
 max. 1 mA

 max. 5 V =
 max. 1 mA

 white
 blue
 IP 21 (protected against moisture from cleaning)
 86 x 160 x 4 mm

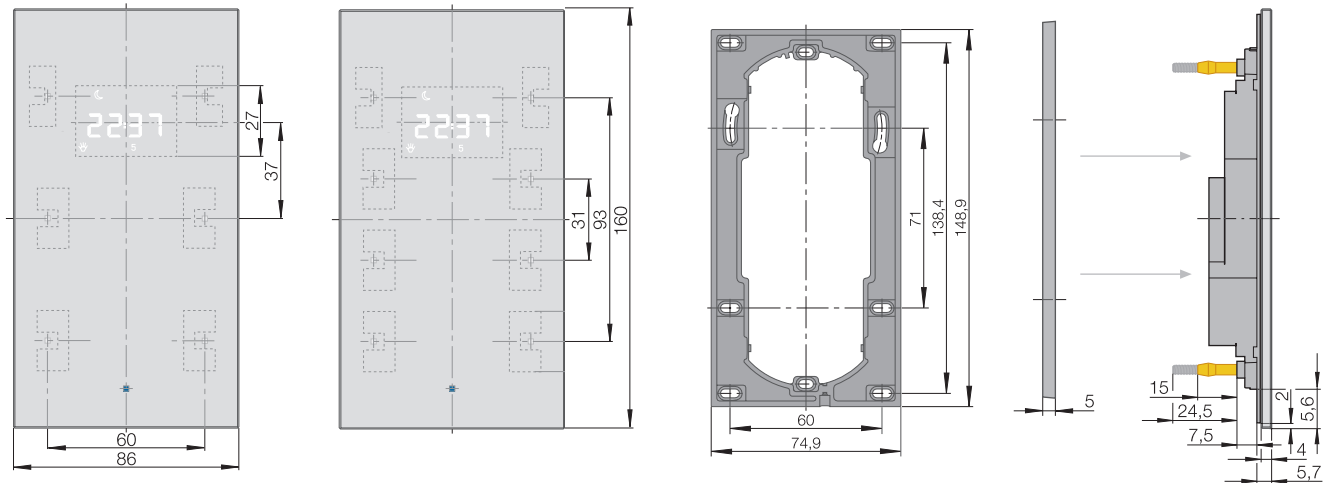
 5.7 mm
 10.7 mm
 max. 20 mm
 0.5 mm; 45°

PACKAGE INCLUDES

Glass sensor
 Adapter ring
 Ribbon cable (approx. 20 cm)
 Dismantling aid with suction cups

TS SENSOR WITH ROOM THERMOSTAT

DIMENSIONAL DRAWING



TECHNICAL DATA

Power supply

Current draw

Connection

LED, programmable:

- Status LED
- Operation LED

Surroundings:

- Operating temperature
- Storage/transport temperature

Protection class

Dimensions of the glass panel (W x H x D)

Overall height:

- wall-mounted (flush)
- with adapter ring

Surface adjustment

Phasing of the glass plate

18 to 30 V =

max. 23 mA

Bus connection terminal

White

Blue

-5 to + 45 °C

-25 to + 70 °C

IP 20 (protected against moisture from cleaning)

86 x 160 x 4 mm

5.7 mm

10.7 mm

max. 20 mm

0.5 mm; 45°

PACKAGE INCLUDES







Glass sensor with room thermostat

Adapter ring

Dismantling aid with suction cups

ORDERING DATA

BERKER TS SENSOR

Colour	Product	Equipment	1gang Order no.	2gang Order no.	3gang Order no.	4gang Order no.
Glass, polar white (adapter ring: polar white)		UNPRINTED (BASIC)	1681 09	1682 09	1683 09	1684 09
		PRINTED (CUSTOMIZED) Lettering/symbols: black	1691 09 .. ¹	1692 09 .. ¹	1693 09 .. ¹	1694 09 .. ¹
		UNPRINTED (BASIC)		7564 20 39	7564 30 39	
		PRINTED (CUSTOMIZED) Lettering/symbols: black		7564 21 39 .. ¹	7564 31 39 .. ¹	
Glass, aluminium (adapter ring: anthracite)		UNPRINTED (BASIC)	1681 07	1682 07	1683 07	1684 07
		PRINTED (CUSTOMIZED) Lettering/symbols: black	1691 07 .. ¹	1692 07 .. ¹	1693 07 .. ¹	1694 07 .. ¹
		UNPRINTED (BASIC)		7564 20 34	7564 30 34	
		PRINTED (CUSTOMIZED) Lettering/symbols: black		7564 21 34 .. ¹	7564 31 34 .. ¹	
Glass, black (adapter ring: anthracite)		UNPRINTED (BASIC)	1681 05	1682 05	1683 05	1684 05
		PRINTED (CUSTOMIZED) Lettering/symbols: white	1691 05 .. ¹	1692 05 .. ¹	1693 05 .. ¹	1694 05 .. ¹
		UNPRINTED (BASIC)		7564 20 35	7564 30 35	
		PRINTED (CUSTOMIZED) Lettering/symbols: white		7564 21 35 .. ¹	7564 31 35 .. ¹	

If you require more information or would like to order individually customisable products from the “Manufacture” range, please contact your field sales representative.

¹Design number is generated by the Web Configurator

SUPPLEMENTARY PRODUCTS



Wall box (2gang) for glass sensor

Order no. 1870

Power supply:

With KNX/EIB applications the unchoked output from the power supply can be used



Floor temperature sensor/remote sensor¹

Order no. 0161






Relays²



Adapter for KNX/EIB and relays

Order no. 7590 00 32

KNX/EIB²

		Glass sensor	1gang			2gang			3gang			4gang		
Functions	Sensor surfaces		2	2	2	4	4	4	6	6	6	8	8	8
	Status	Factory settings	■	-	-	■	-	-	■	-	-	■	-	-
	LED	Own configuration	-	■	■	-	■	■	-	■	■	-	■	■
	Operation	Factory settings	■	■	-	■	■	-	■	■	-	■	■	-
	LED	Own configuration	-	-	■	-	-	■	-	-	■	-	-	■
Adapters	 Adapter for KNX/EIB and relays, Order no. 7590 00 32		■	■	■	■	-	-	-	-	-	-	-	-
	 KNX/EIB adapter 2 x 8gang Order no. 7590 00 31		-	-	-	-	■	■	■	■	■	■	■	■
KNX/EIB universal interfaces	 2gang comfort/flush-mounted Order no 7564 20 01		1	-	1	-	-	1	-	-	1	-	-	1
	 4gang comfort/flush-mounted, Order no 7564 40 01		-	1	1	1	-	-	-	-	-	-	-	-
	 8gang comfort/flush-mounted Order no. 7564 80 01		-	-	-	-	1	1	1	2	2	1	2	2

¹only in conjunction with the TS Sensor with room thermostat

²only when using the TS Sensor (without room thermostat)

BERKER – THE RIGHT WAY.

Do you know how to design rooms with exceptional ease and with a more individual style?
At Berker we have been working on that since 1919 – and we have found some highly attractive answers.

Berker switches and systems are in use all over the world, making life more beautiful, easier and more comfortable. We place the utmost emphasis on quality, design and innovation. This is confirmed by the numerous awards we have received both at home and abroad.

Berker is a leading supplier of high-quality electrical installations – from timelessly classic switch design through to intelligent building management systems. All new developments are created with just one thing in mind: the satisfaction of our customers. After all, we want you to feel at home with our products for decades to come.

Don't just let your life be guided by taste, but also by state-of-the-art technology,
with Berker - the right way.



Berker Switches and Systems

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