Sewi KNX L
Indoor brightness sensor

Technical specifications and installation instructions
Item numbers 70395 (white), 70695 (jet black)

KNX

1. Description

The **Sensor Sewi KNX L** for the KNX bus system captures the brightness in the room. The measurement value can be used for the control of limit-dependent switching outputs. States can be linked via AND logic gates and OR logic gates. Multi-function modules change input data as required by means of calculations, querying a condition, or converting the data point type.

Functions:
- **Brightness measurement** with **brightness control**
- **Threshold values** can be adjusted per parameter or via communication objects
- **8 AND and 8 OR logic gates**, each with 4 inputs. All switching events as well as 16 logic inputs in the form of communications objects can be used as inputs for the logic gates. The output of each gate can be configured optionally as 1-bit or 2 x 8-bit
- **8 multi-function modules** (computers) for changing the input data by calculations, by querying a condition or by converting the data point type

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.0.1. Scope of delivery

- Brightness sensor

1.1. Technical data

General:	
Housing	Plastic
Colours	• White similar to signal white RAL 9003 (skirting)/ grey white RAL 9002 (cover) • Jet black RAL 9005
Assembly	Surface, wall or ceiling installation
Dimensions Ø x height	approx. 105 mm x approx. 32 mm
Degree of protection	IP 30
Weight	approx. 45 g
Ambient temperature	-25…+80°C
Ambient humidity	5...95% RH, non-condensing
Storage temperature	-25…+85°C
KNX bus:	
KNX medium	TP1-256
Configuration mode	S-Mode
Group addresses	max. 2000
Assignments	max. 2000
Communication objects	189
Nominal voltage KNX	30 V === SELV
Power consumption KNX	max. 10 mA
Connection	KNX plug terminals
Duration after bus voltage restoration until data is received	approx. 5 seconds
Sensors:	
Brightness sensor:	
Measurement range	0 lux … 2,000 lux (higher values can be measured and output)
Resolution	1 lux at 0…2,000 lux

The product conforms with the provisions of EU directives.

2. Safety and use instructions

2.1. General installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.
- When planning and installing electrical systems, observe the applicable directives, regulations and provisions of the respective country.
- Ensure that the device or system can be disconnected. During installation, disconnect all cables from the power supply and take safety precautions against unintentional switch-on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for the intended purpose described in this manual. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

3. Installation

3.1. Installation location and preparation

Install and use only in dry interior rooms! Avoid condensation.

The **Sensor Sewi KNX L** is installed surface mounted on walls or ceilings.

3.2. Connection

For installation and wiring at the KNX connection, the provisions and standards applicable to SELV circuits must be complied with!

The **Sensor Sewi KNX L** is surface-mounted but at the same time can also be screwed to a flush-mounted socket.

If the **Sensor Sewi KNX L** is installed on a flush-mounted socket, it must not contain any wiring with 230 V.
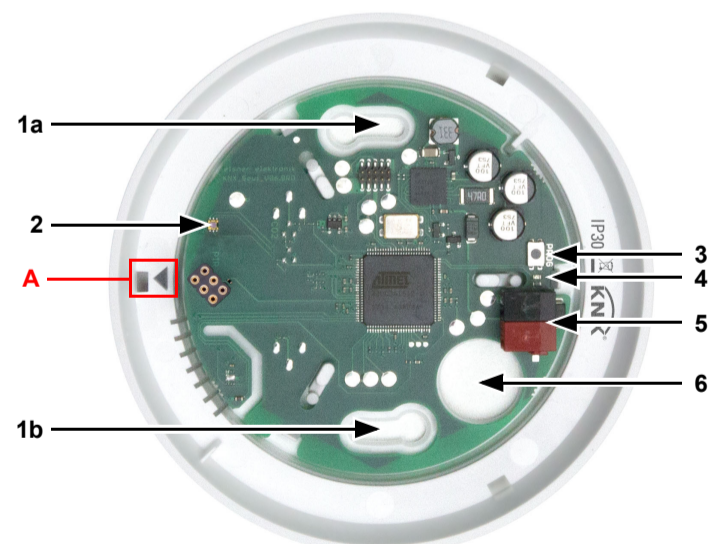
3.2.1. Layout of the circuit board

Fig. 1
1   a+b Long holes for mounting (hole distance 60 mm)
2   Brightness sensor
3   Programming button
4   Programming LED
5   KNX-terminal BUS +/-
6   Cable bushing

A   Mark for aligning the cover

3.2.2. Assembly

Fig. 2 Housing from the outside
1 Brightness sensors

A Recess to open the housing

Fig. 3

Open the housing. To do this, carefully lift the cover from the skirting. Start at the recess, e.g. with a flat-head screwdriver.
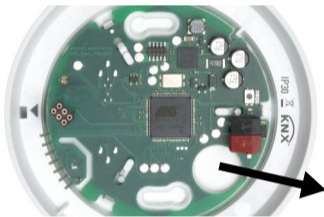
Fig. 4

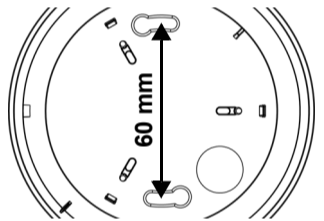Lead the bus cable through the cable bushing in the skirting.

Fig. 5

Screw the skirting to the wall or the ceiling.
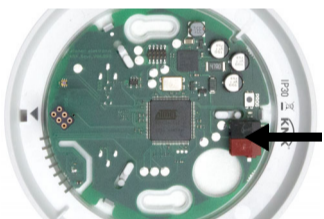
Hole distance 60 mm.

Fig. 6

Connect the KNX bus to the KNX terminal.

Fig. 7

Close the housing by positioning the cover and snapping it into place. To do this, align the recess on the cover to the marking on the skirting (the presence sensor must protrude through the opening in the cover).

4. Commissioning

The brightness sensor must not get dirty, be painted over or covered.

After the bus voltage has been applied, the device will enter an initialisation phase lasting approx. 5 seconds. During this phase no information can be received or sent via the bus.

4.1. Addressing the equipment

The individual address is assigned via the ETS. For this purpose there is a button with a control LED on the unit (Fig. 1, No. 3+4).

The equipment is delivered with the bus address 15.15.255. Another address can be programmed using the ETS.

5. Maintenance

As a rule, it is sufficient to wipe the device with a soft, dry cloth twice a year.

6. Disposal

After use, the device must be disposed of or recycled in accordance with the legal regulations. Do not dispose of it with the household waste!