Leak KNX Leakage Sensor for water and pipe breakage reporting

Technical specifications and installation instructions
Item number 70315

KNX

Fig. 1
Probe
1) 3 electrodes (contacts) on the lower side
2) Fixing screw
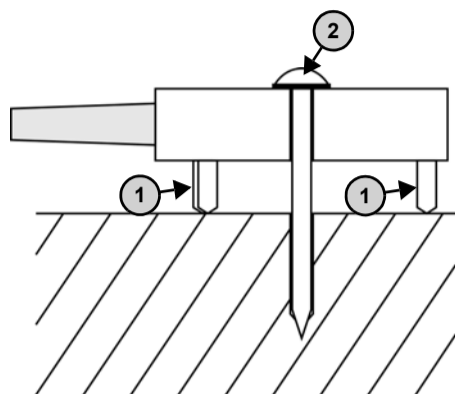3) Connection lead (for evaluation unit)

Fig. 2
Scheme of the probe bolted to the ground
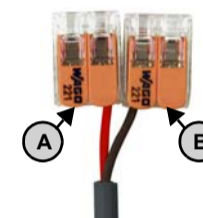
Use a fixing material suitable for the ground (dowels)!

Tighten the plumbing screw with rubber buffer (2) only so far that the 3 electrodes (1) have loose contact with the ground.

1. Description

The **Leakage sensor Leak KNX basic** for the KNX building bus system recognizes water, e.g. in case of a pipe breakage. If there is water between the electrodes of the probe, an alarm message will be sent to the KNX bus.

Functions:
* Detection of water on the probe
* Alarm signal sent to the KNX bus with a text message
* 4 AND and 4 OR logic gates with each 4 inputs. Every switching incident as well as 16 logic inputs in the form of communication objects, may be used as inputs for the logic gates. The output of each gate may optionally be configured as 1 bit or 2 x 8 bits

Configuration is made using the KNX software ETS 5. The **product file** can be downloaded from the ETS online catalogue and the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.1. Deliverables

* Probe with cable
* Stainless steel plumbing screw 4.5 x 70 (DIN 7995), matching dowel SX6 x 30
* Surface-mounted junction box (IP 55)
* Magnet for teaching procedure (telescopic rod)

1.2. Technical specifications

Casing	Polished stainless steel
Installation	for placing on the floor
Protection category	IP 68
Electrode chemical resistance	Water
Dimensions	Diameter: approx. 77 mm Height: approx. 33 mm
Cable length	approx. 140 mm (plus cable grip and plugs)
Weight	approx. 210 g (without junction box)
Operating voltage	bus voltage
Power on the bus	30 mA
Data output	KNX +/- Bus connector terminal
BCU type	unit's own microcontroller
PEI type	0
Group addresses	254
Assignments	254
Communication objects	54

The product is compliant with the provisions of EC guidelines.

2. Installation and commissioning

2.1. Installation notes

Installation, testing, operational start-up and troubleshooting of parts of the electrical installation should only be performed by an electrician.

The device is only to be used for its intended purpose. 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.

2.2. Probe placement

The electrode probe is placed on the floor with the contacts facing downwards. To prevent slipping or tilting, the probe can be screwed to the floor.

Ideally, the probe should be located in a place that, in case of water damage, would be the first to be flooded — e.g. close to washing machines, sinks, baths, water pipes or pump sumps.

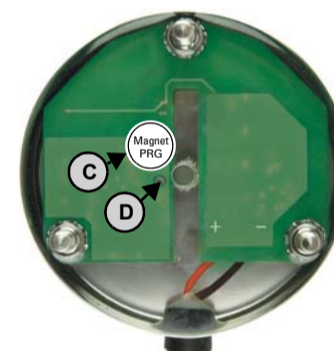### 2.3. Leakage sensor commissioning

1. Connect the bus lead +/-.

Fig. 3
A KNX + (red)
B KNX - (black)

2. Activate the programming mode of the device by holding the enclosed magnet (telescopic rod) to the programming magnet switch (C). The programming LED (D) will light up.

Fig. 4 Bottom of the probe
C Reaction range of the programming magnet switch
D Programming LED

3. The programming magnet switch also reacts when you hold the magnet from above to the housing of the probe in the area of the screw.

Fig. 5
C Reaction range of the programming magnet switch

4. Address the device (see *Addressing the device*) and configure the ETS.

2.4. Bus settings

If there is water contact, **Leak KNX basic** can send an alarm signal and a text message to the KNX bus. Adjust the setting for these parameters in the ETS.

3. Addressing the device

The device is delivered with the bus address 15.15.255. You can program a different address in the ETS by overwriting the address 15.15.255 or by teaching the device via the programming button.

The programming button (magnetic switch) is inside the case and is activated with the attached magnetic telescopic rod.