

LS02+ flex

Leakage Sensor

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
Issue date: 5/9/2023 • A124



» APPLICATION

Leakage sensor for the detection of (weakly) electrically conductive liquids. (e.g. water leaks under air conditioners, pipe bursts). The sensor rod consists of a plastic mesh with two integrated wires. With this the sensor detects leakages along the whole sensor rod. With lengths of up to 30 m, even larger areas can be covered. The cable is laid in a spiral around the respective pipeline or in a meandering pattern on surfaces or in collection containers. Due to the plastic braiding, the sensor cable can also be used on electrically conductive materials without any problems.

» TYPES AVAILABLE

Leakage sensor

- LS02+ flex 2 m (6.6 ft.)
- LS02+ flex 5 m (16.4 ft.)

Other lengths on request, up to 30 m (98 ft.) possible

» SECURITY ADVICE – CAUTION



The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

Local laws, health & safety regulations, technical standards and regulations
Condition of the device at the time of installation, to ensure safe installation
This data sheet and installation manual

» PRODUCT TESTING AND CERTIFICATION



Declaration of conformity

The declaration of conformity of the products are found on our website <https://www.thermokon.de/>

» NOTES ON DISPOSAL



As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

» TECHNICAL DATA

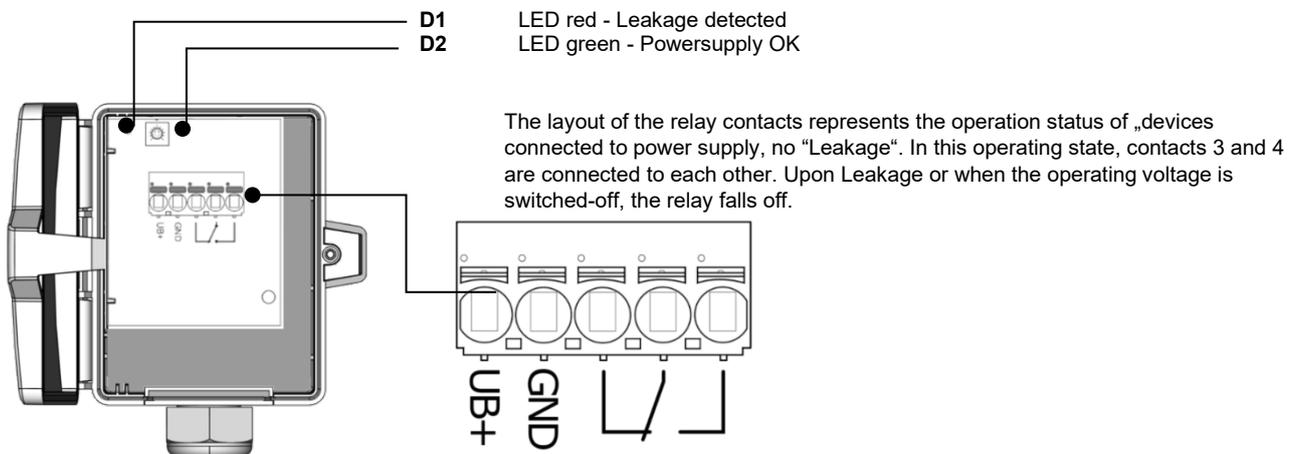
| | |
|----------------------------------|--|
| Measuring values | leakage |
| Output switch contact | changeover contact, 24 V: max. 24 V / 1,0 A (resistive, floating) |
| Power supply | 15..24 V = ($\pm 10\%$) or 24 V ~ ($\pm 10\%$) SELV |
| Power consumption | typ. 0,8 W (24 V =) 1,6 VA (24 V ~) |
| Display | LED green – power supply OK, LED red – Leakage |
| Enclosure | enclosure USE-M, PC, pure white, cover PC, transparent, with removable cable entry |
| Protection | IP65 according to EN 60529 |
| Cable entry | Flextherm M20, for wire max. $\varnothing=0.18..0.35$ in., removable |
| Connection electrical | removable plug-in terminal, max. 14AWG |
| Sensor rod | PVC hose wrapped with PBT braiding, L=6.6 16.4 ft., other lengths on request (max. 98 ft.) |
| Switching threshold conductivity | ca. 1 μS |
| Ambient condition | -4..+140 °F, max 85% rH, short term condensation |

» USE ENCLOSURE WITH UV AND WEATHER RESISTANCE

After some time, outdoor mounted plastics can lose their color and quality. Therefore, all USE housings are made of special white polycarbonate (PC). The light-stable colorants and additives are used to achieve optimum protection of the polymer while maintaining color stability. The titanium dioxide used is specially developed for polycarbonate and offers excellent UV protection through the reflection of the entire light spectrum including the UV component by 340 nm. This effectively counteracts the otherwise occurring photochemical polymer degradation. The colors stay full for a long time without fading. The material is also resistant to cold and frost.

» CONNECTION PLAN

The power supply must not be interrupted. If the leakage protection is not permanently supplied with power, a possible leakage cannot be detected.



» MOUNTING AND INSTALLATION

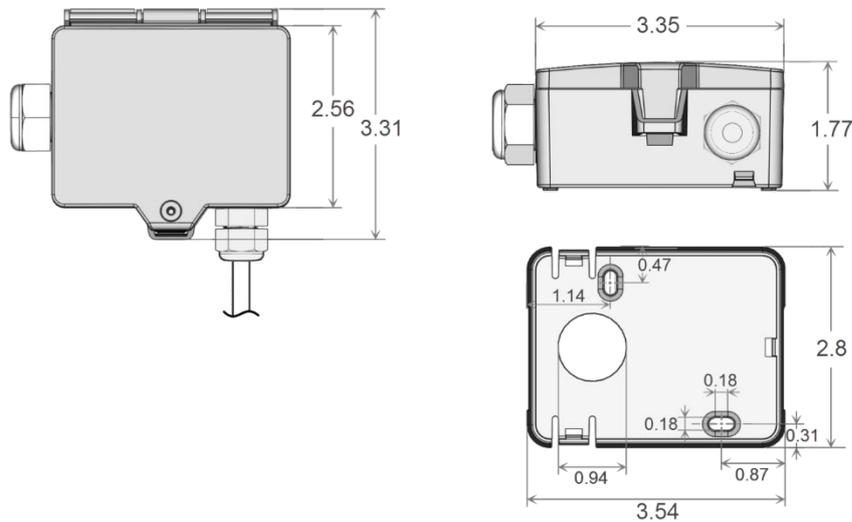
If necessary, the sensor cable can be individually shortened on the clamping side of the housing. If the sensor cable is shortened, the tinned copper wires must be put back on the terminal. Protruding fibers of the plastic braiding can be shortened and fixed around the PVC core with insulating tape or shrink tubing. After shortening and connecting the sensor cable, a functional test must be performed.

The sensor cables can be fixed to a surface with the self-adhesive holders (see accessories). Make sure that the surface to be glued is dry and free of dirt.

» MAINTENANCE/INSPECTION

- ▶ Carry out a functional check at least once a year. In this case, immerse the end of the sensor rod in a container of water and check the switching process of the relay.
- ▶ If heavily soiled, disassemble and clean the sensor housing and sensor rod.
- ▶ After a leakage, the sensor must also be tested again for function.

» DIMENSIONS (IN.)



» ACCESSORIES (INCLUDED IN DELIVERY)

Mounting base enclosure USE pure white
 Holder for sensor cable, self-adhesive (PU 5 pieces)
 Mounting kit universal
 • Cover screw + screw cover • 2 Rawlplugs • 2 Screws (countersunk head) • 2 Screws (rounded head)

Item No. 616430
 Item No. 778596
 Item No. 698511

» ACCESSORIES (OPTIONAL)

Sealing insert M20 USE white, 2x Ø=0.28 in. (for 2 wire; PU 10 pieces)

Item No. 641333