

SR65 DI LS ... BAT

Wireless digital leakage sensor

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

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» APPLICATION

Wireless leakage sensor with external sensor or flexible, full length sensitive sensor cable for the detection of drinking or waste water.

» TYPES AVAILABLE

Wireless digital leakage sensor

- SR65 DI LS ext BAT (cable with sensor unit mounted at the end)
- SR65 DI LS flex BAT (sensor cable (plastic mesh with two integrated wires), full length sensitive)

» WARNING – DISCLAIMER



Hard wired connections are more reliable than radio transmitting devices. Thermokon Sensortechnik GmbH will not accept liability for late or non-received radio signals resulting in potential water damage.

» SECURITY ADVICE – CAUTION

The installation and assembly of the device 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 can be found on our website <https://www.thermokon.de/>

» GUIDELINES FOR DEVICES WITH SOLAR ENERGY STORAGE

Due to the energy-optimized EnOcean radio technology used in "EasySens" wireless sensors, the devices can work without batteries and self-charge themselves using electric energy generated by integrated solar cells. This makes the devices almost maintenance free and environmentally sound due to not having to replace batteries.

For optimum use, the device should be mounted in a location with sufficient ambient brightness. Minimum illumination of 200 lx (artificial light or ambient) is required for at least 3 to 4 hours each day. (The health and safety regulations at work require a minimum illumination of 500 lx for office workplaces).

The solar cell should be mounted facing towards the window direction if possible. If the device has a temperature sensor, then even periodic direct sun radiation should be avoided due to incorrect false temperature readings.

The mounting position should be selected so that the device will not be obstructed in the future: for example by placement areas, additional furniture or roll-fronted cupboards.

The sensor is supplied in an operational state. If the sensor has been stored in darkness for longer periods, the internal solar energy storage will most likely need to be recharged. This would normally happen automatically during commissioning or during initial start-up in ambient light. If the initial charge is not sufficient, the sensor will reach its full operating state up to 3 to 4 days, if the requirements for minimum illumination per day are met. The sensor will then transmit continuously in darkness as specified f (2/3 days on factory default telegram timing). Depending on the application it is also possible for the devices to operate in darker rooms (with brightness <100 lx) by using the battery back-up option. Batteries to be used are listed in accessories.

The operating time when using batteries will depend on the transmission frequency as well as the component aging and the self-discharge of the battery. Standard operating time will be 5-10 years on factory default telegram timing. Changing of the device from solar to battery operation is done automatically by simply adding a battery to the device.

» 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.

» INFORMATION ABOUT EASYSSENS® (RADIO) / AIRCONFIG GENERAL USAGE



EasySens® - airConfig

Basic information about EasySens® radio and about general usage of our airConfig software, please download from our website.

» OVERVIEW OF THE RADIO TELEGRAMS



EEP

The structure of the data contained in the telegram can be found in the EEP (EnOcean equipment profile) list provided by the EnOcean Alliance.

» OVERVIEW OF AIRCONFIG SELECTABLE RADIO TELEGRAMS

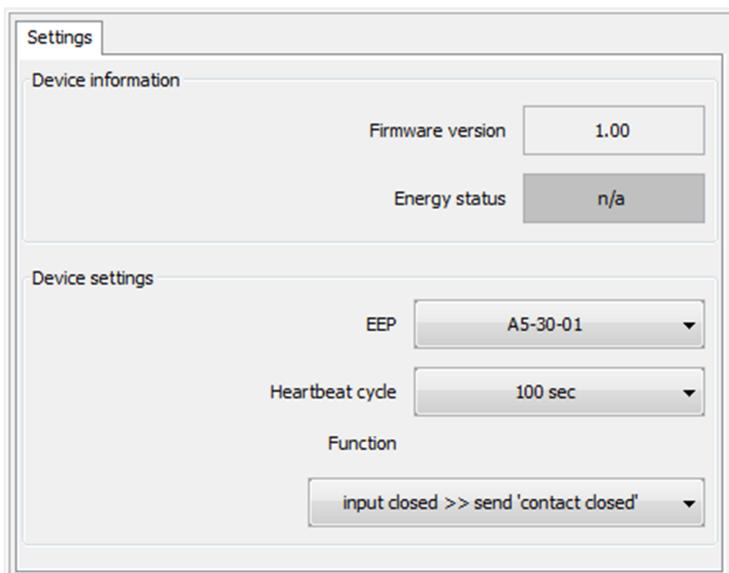
A5-30-01 (standard)					
A5-30-02	F6-02-xx, F6-03-xx	F6-04-01	D5-00-01	A5-07-01	A5-07-02

» **TECHNICAL DATA**

Radio technology	EnOcean (IEC 14543-3-10), transmission power <10 mW	
Frequency	902 Mhz	
Power supply	solar cell, internal super cap and battery LS14250	
Transmission interval	configured via airConfig, default: Heartbeat cycle = 100 sec	
Inputs	Leakage sensor for drinking or waste water	
Sensor <i>(type dependent)</i>	Ext with external sensor (PVC, L=5 m 16.4 ft.)	Flex PVC hose wrapped with PBT braiding, L= 2m 6.6 ft.
Enclosure	PA6.6, pure white with quick lock screws	
Protection	IP65 according to EN60529	
Switching threshold conductivity	ca. 1 µS	
Ambient condition	32..+149 °F, max. 85% rH, no condensation	
Weight	Ext 250 g 8.82 oz	Flex 189 g 6.67 oz
Shipment	1x battery LS14250	

» **CONFIGURATION WITH AIRCONFIG**

NO airConfig needed if default settings will be used. airConfig and a EnOcean USB transceiver (i.e. USB300) will be mandatory if the default EEP and other settings shall be changed.



The device information shows the installed **Firmware version** and the current **Energy status** of the device.

It is necessary to ensure that the device is full charged or a battery is inserted. The Energy status must be OK to configure the device.

Clicking on the drop-down menu **EEP** to choose the desired profile.

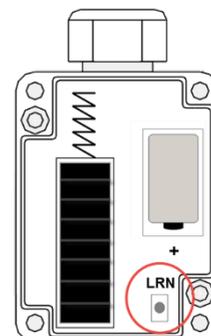
Heartbeat cycle defines the time between 2 transmissions. Receivers monitor this interval to detect missing sensor signals.

Function defines the contact state should be sent to to the receiver, when input is closed.

Right-click on the device icon and send configuration to initiate the transfer of the new settings. As the sensor will be sleeping it will need to be woken up by pressing the LRN button. Once the configuration has been transferred successfully into the device the sensor will be highlighted in green. Highlighted in Red indicates a problem during the transmission.

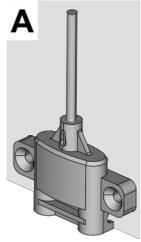
Note:
Ensure during configuration transfer that the input is not closed.

The more frequently a device is programmed to wake up, measure and send data, the more energy is being consumed, which can lead to insufficient energy charge of the sensor by ambient illumination.



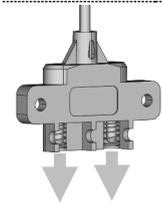
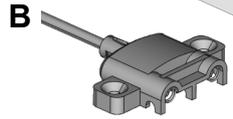
» MOUNTING ADVICE

SR65 DI LS Ext Bat

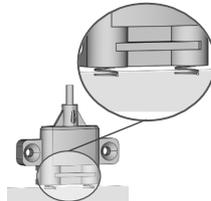


Mounted on the wall (A) or directly on the floor or drip tray (B).

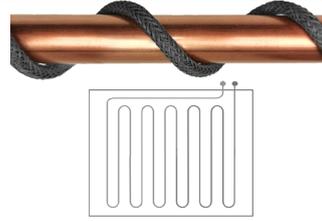
The sensor-unit is mounted by using the included screws.



In order to establish contact with the monitoring surface, adjust the springs to the appropriate height. To do this, stretch the length of the spring by hand. If the height is not adjusted, the leakage protection may not function.



SR65 DI LS Flex Bat



To detect leaks, the sensor cable can be laid in a spiral around the respective pipeline or in a meandering pattern on surfaces.



Fix the sensor cables to a surface with self-adhesive holders. (Accessories)

Always make sure that the surface to be glued is dry and free of dirt



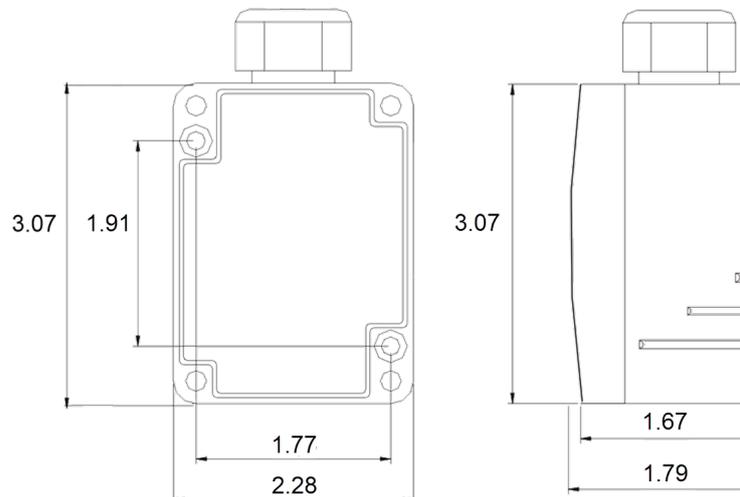
Aggressive and solvent-containing atmospheres can attack and damage the electrodes, sensor unit, or sensor cable depending on their type and concentration.

The sensor housing and cable must be kept clean and dust-free. Contamination layers on the electrodes can negatively influence the triggering of the sensor.

» MAINTENANCE/ INSPECTION

- ▶ Carry out a functional check at least once a year. Short-circuit the sensor electrodes and check the switching process of the relay.
- ▶ If heavily soiled, disassemble and clean the sensor housing.
- ▶ After a leakage, the sensor must also be tested again for function.

» DIMENSIONS (IN.)



» ACCESSORIES (OPTIONAL)

Ext | Flex

Battery LS14250

Raw plugs and screws (each 2 pieces)

Item No. 315098

Item No. 102209

Flex

Holder for sensor cable, self-adhesive (PU 10 pieces)

Item No. 778596