SRE-Repeater ext. Ant.

Smart rule-based repeater for airConfig tool

Thermokon
Sensortechnik GmbH

Datasheet

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airConfig

enocean alliance
No Wires. No Batteries. No Limits.

Application

> **AirConfig tool is mandatory for SRE Repeater!**
> **All settings must be programmed using airConfig.**

Wireless Repeater which receives telegrams and re-send's them to enhance and increase the signal distance from the transmitter to the receiver. Typically a repeater will be used when the sensor has been mounted too far from the receiver or there are obstacles between sensor and receiver which absorb the signal to the receiver.

It can operate as a Level-1 or Level-2 repeater and selected telegrams can be defined using the airConfig software to identify and select certain telegrams to be repeated. The parameters can be selected for sensor signals only or sensor signals and already repeated signals.

Types Available

SRE-Repeater   Level 1/ Level 2* Radio-Repeater with internal Antenna.
SRE Repeate ext. Antenne   Level 1/ Level 2* Radio-Repeater with external Antenna.

*(to be configured by airConfig tool)

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.

CAUTION! Risk of electric shock due to live components within the enclosure, especially devices with mains voltage supply (usually between 90..265 V).

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

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 EasySens® (radio) / airConfig general usage

Basic information about EasySens® radio and about general usage of our airConfig software, please download from the following link

http://www.thermokon.de/ftp/info/Information_Radio_airConfig_en.pdf

Configuration of SRE-Repeater with airConfig

Level-1 or Level 2 Repeater

SRE-Repeater can be used as Level-1 or Level-2 repeater. Level-1 repeater repeats only telegrams received from a sensor directly, where Level -2 repeater repeats telegrams received from a sensor or a Level-1 repeater. If a telegram will be received from a sensor and a Level repeater, only the signal received first will be repeated.

Level-1 and Level-2 Repeater repeat all telegrams received regardless of their need to be repeated. Therefore the number of telegrams in the air is doubled or tripled, because of a few sensors having range problems.

Smart Level-1 respectively Smart Level-2 Repeater

To repeat selected telegrams instead of all telegrams, Smart-L1 or Smart-L2 must be selected.

This activates a 2nd tab which allows to define up to 10 parameters to identify the telegrams that are to be repeated.

There are 4 different types of parameters available from the drop down menu:

- **Sensor-ID** (EnOcean Radio ID of the sensor)

  Drag and drop the desired sensor (with range problems) into the Filter of the smart repeater.

- **Signal strength** (RSSI-Level)

  All telegrams received at a RSSI level lower than the specified threshold will be repeated.
  Higher RSSI telegrams identify weaker signals, i.e. -80dB is weaker than -60dB.

  The receiver's technical limit is approx. -90..95dB. Signals weaker than this can not be filtered from the ambient noise. To ensure a reliable transmission the signal must be 15..20 dB above the noise level – signals weaker than -75.-80db will not provide sufficient telegram information.

- **RORG** (Telegram-Type)

  Standard EnOcean telegram types are RPS (Switches), 1BS (window contact, window handle), 4BS (4-Byte Sensors), MSC (manufacturer specific), VLD (Variable Length), UTE (Universal Teach-In).

- **Destination-ID** (EnOcean Radio ID)

  Only for addressed telegrams (different to broadcasted telegrams). Sensor telegrams typically will be broadcast type telegrams. Addressed telegrams are included in the EnOcean standard, but rarely used. .

Each parameter can be applied or blocked. Blocking inverts the rule – a certain telegram or a certain type of telegram (RORG) would not be repeated.

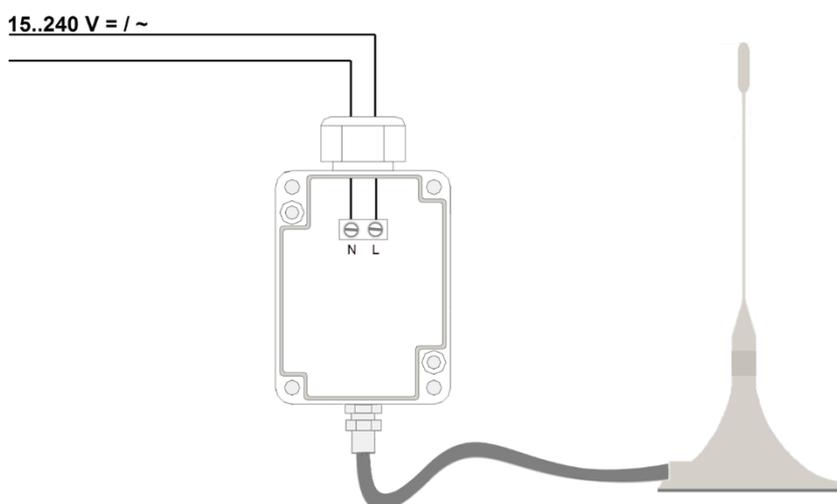In case of multiple conditions / the parameters can be AND or OR scenario

Select OR for all telegrams and parameters to be processed independently. When selecting AND the telegram will be repeated only if all conditions are met.

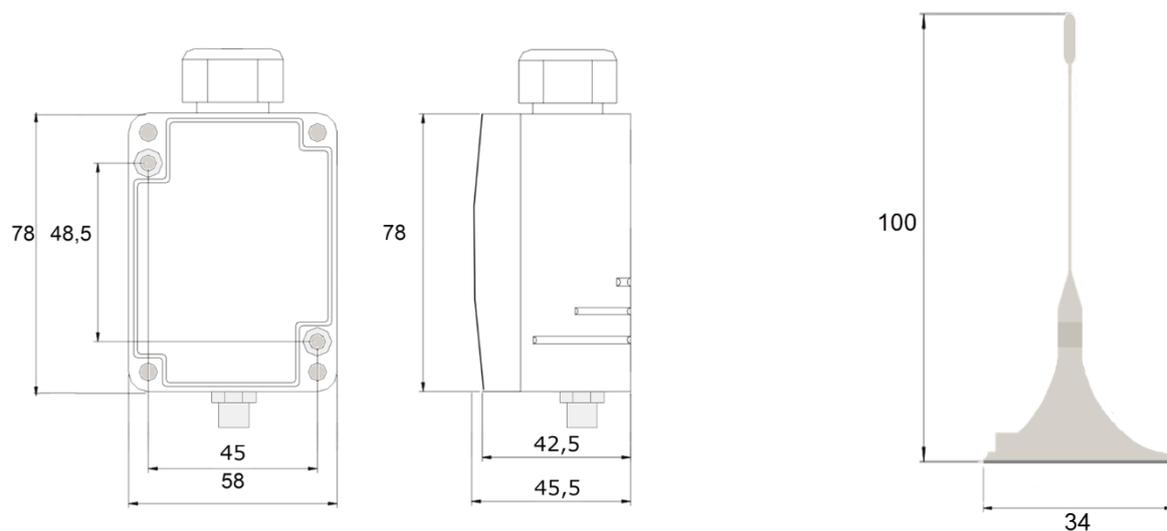10 parameters / conditions can be selected in total.

Technical Data

Radio technology	EnOcean (IEC 14543-3-10)
Frequency	868 MHz
Antenna	internal, external transmitting- / receiving antenna 2,5 m optional
Data transmission	bidirectional
Power supply	flex. 15..240 V =/~ (±10%)
Power consumption	typ. 1 VA (15..240 V =/~)
Functions	Level-1, Level-2, Smart-mode, rule-based, max. 10 rules
Enclosure	PA6.6, pure white, cover PC transparent, with quick lock screws
Protection	IP65 according to EN 60529
Connection electrical	terminal block, max. 1,5 mm²
Ambient condition	-20..+60 °C, max. 70% rH, non-condensing
Weight	ca. 110 g

Connection plan

15..240 V = / ~

N L

Dimensions (mm)

Accessories

Antenna extension 10 m	Art.-Nr.: 257206
Antenna extension 20 m	Art.-Nr.: 257213
Antenna holder form L, 180x180 mm	Art.-Nr.: 255097
Rawl plugs and screws	Art.-Nr.: 102209