

SensusRF Radio Repeater

(Standard 868 MHz, optional 433 MHz)



Application

Bidirectional, compact, radio module for automatic meter reading (fixed network or Walk by/Drive by) that can interface with:

- Sensus radio endpoints like iPERL
- Repeater to Repeater communication
- Repeater to Sensus SIRT communication
- Repeater to Sensus Gateway communication

Designed to collect meter data at periodic intervals or communicate on demand to a fixed radio transceiver or gateway.

Critical events such as alarms are sent automatically through the radio network in less than 20 minutes when immediate alarms are supported by the radio endpoints.

Repeaters work as a relay station for the received radio transponder modules and forward the data over longer distances to the handheld or gateway.

The overall performance depends on the associated components and available software.

The maximum number of repeater hops in a chain can be up to 7; the maximum number of radio endpoints per repeater is 298.

The Sensus Radio Repeater uses an internal lithium battery and does not need an external power supply. The Repeater can transmit over a long distance due to its higher radio output power.

The distance to the first repeater is set by the meter endpoint or the reading device and is line of sight 500 m, under normal conditions outside a building 100 m to 200 m, hard conditions e.g. pit installation 20 m to 100 m.

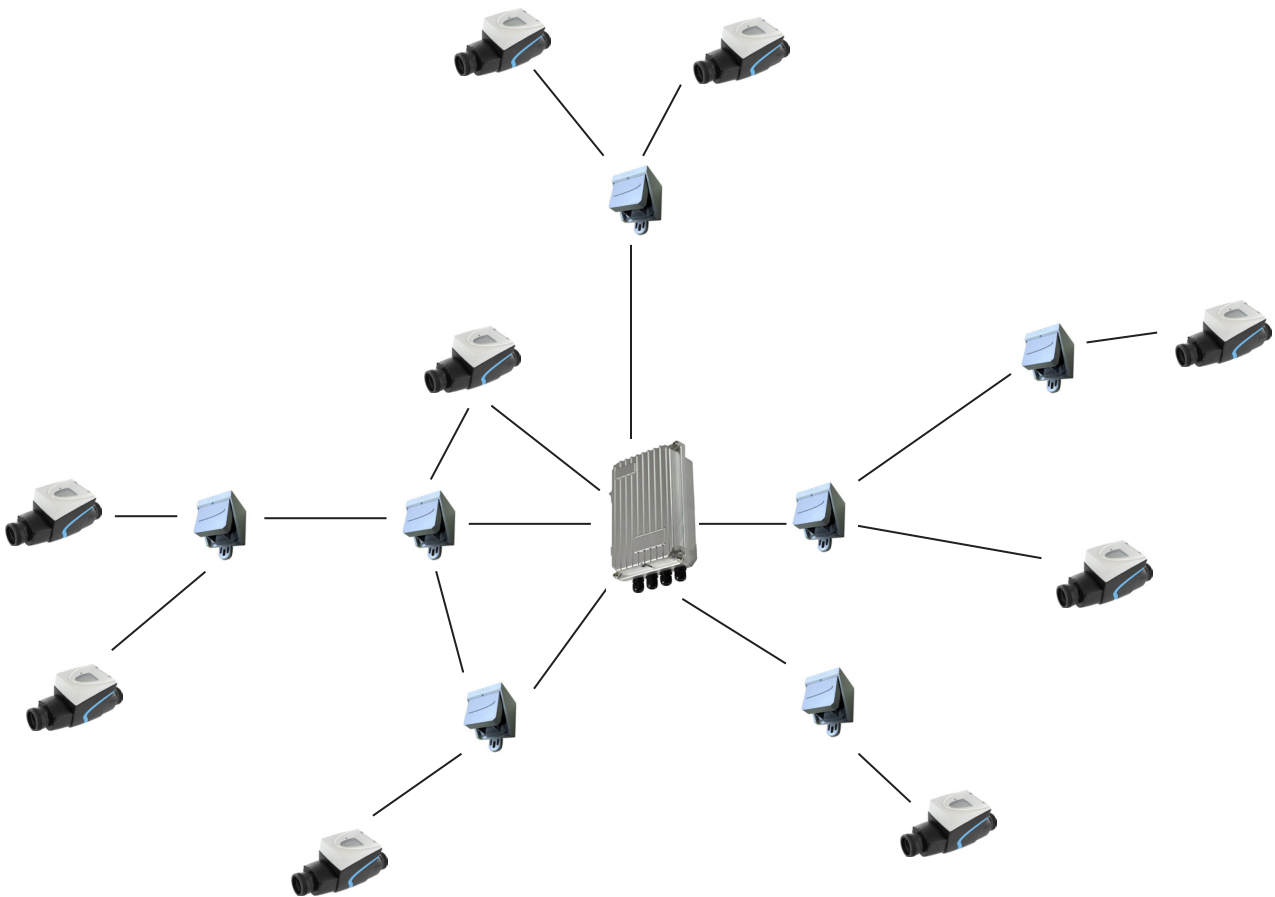
Repeater to Repeater or Repeater to Gateway is min. 1000m line of sight.

The output power depends on the frequency according the regulations for the available spectrum.

There are two versions of frequencies and equipment that can be utilised: Standard 868 MHz and optional 433 MHz. All components need to be operating on the same frequency to ensure interoperability and communications.

Features

| | |
|---------------------------|--|
| Input | Sensus RF Radio protocol 868 MHz (433 MHz) |
| Number of inputs | 298 |
| Output | Radio protocol 868 MHz (433 MHz) |
| Housing | IP68, 145 x 80 x 80mm, 430g (540g incl. packaging) |
| Installation | Fixing on a pole/wall with screws back support. Orientation as in the picture |
| Power supply | Internal battery expected battery lifetime: 12 years |
| Radio Power | Endpoint <=> Repeater 25mW (868 MHz) Repeater <=> Repeater/Sirt up to 100 mW (868 MHz) Repeater <=> Gateway up to 100mW (868 MHz) In 433 MHz all are 10mW |
| Transmission interval | 4 times a day (default, latest reading of the endpoints) Alarms are transferred immediately (in max. 20 min) On demand reading at any time (1 time a day considered) |
| Configuration Interface | bi-directional via radio |
| Environmental temperature | -20... 60 °C operating and storage |
| Environment | Attention on hard environment, cold, dirty, wet. Outdoor installation with direct sunshine |
| Compliance | CE (RED, EMC, LVD, RoHS, ...) |
| Recycling | WEEE |



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