

# Sensus Radio Repeater Radio Module

(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 – Repeater
- Repeater – Sensus Sirt
- Repeater – Sensus Gateway

Designed to collect meter data in periodical interval or communicate on demand to a fixed radio transceiver or gateway.

Critical events like alarms are lead 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 also depends on all components and available software.

The maximum number of repeaters in a chain can be up to 7 hops; the maximum number of radio endpoints per repeater is 100.

The Sensus Radio Repeater uses an integral lithium battery and doesn't need external supply voltage. It can transmit over a longer distance because its higher output power.

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

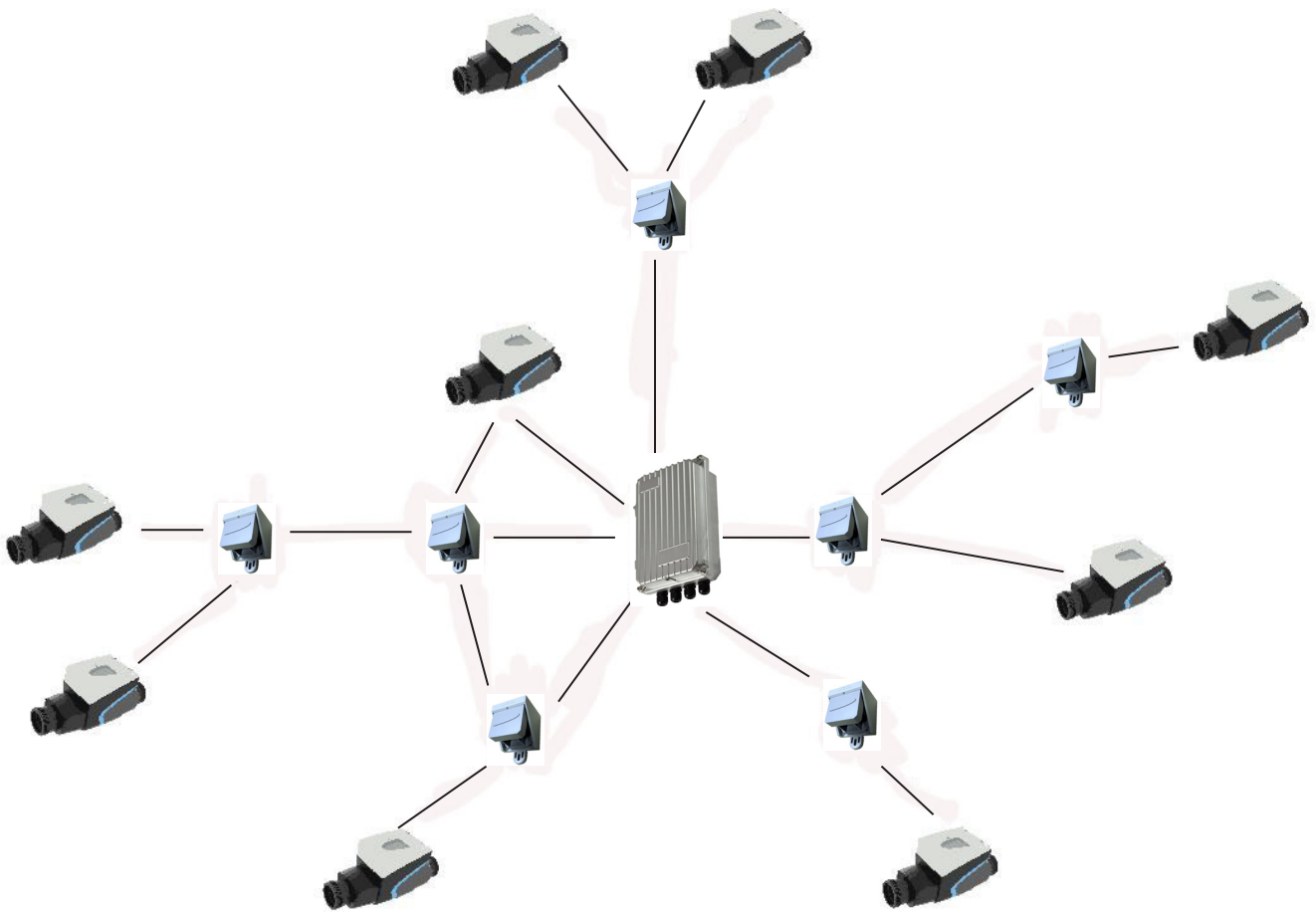
Repeater to Repeater or Repeater to Gateway is min. 1000m line of sight.

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

There are two versions of frequencies:  
Standard 868 MHz, optional 433 MHz (all components should be the same frequency).

# Features

Input	Sensus RF Radio protocol 868 MHz (433 MHz)
Number of inputs	100
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
Norms	CE Radiofrequency: EN 300-220-3/-1 EMC: EN 301-489-/-3 V1.4.1
Recycling	RoHS compatible, Lithium Battery



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