

Sensus PulseRF

Radio Transponder



The Sensus PulseRF provides a solution to integrate meters with pulse output into the SensusRF Radio Network. The solution is mainly used with C&I water meters, but also other meters with pulse output as thermal energy, gas or electricity meters can be implemented.

It is designed to transmit meter data in intervals or readout further information with mobile readout devices or a fixed radio network transceiver.

The Sensus PulseRF creates data from incoming pulses and transmits them to an external data management system (for example meter index, alarms or additional information as Fixed Date Reading or Data Logger).

In addition to transmitting the meter index, the Sensus PulseRF transponder allows numerous other smart functions which provide added customer value.

FEATURES

- Transmission of consumption values
- Data Logging (by steps of 1 min to 24h)
- Active alarm status (cable cut or removal, leakage, broken pipe, reverse flow, low battery)
- Pulse Input
- Flow Direction Input
- Units for Energy and Volume

DATA SENSUSRF

- Meter ID
- Meter Reading
- Alarms (leak, cable cut*, reverse flow*, broken pipe, internal errors, low battery)
- Fixed Date Reading (up to 8 years monthly data)
- Data Logger (Counter, Alarms, reverse Counter, Max Flow, Time Max Flow, Peak Flow, Time of Peak Flow, Average Flow, Broken Pipe, Time of Broken Pipe, Min. Flow, Time of Min. Flow, Fwd Counter)

Pulse Interface

Meters with a pulse output, as open collector or reed switch, can be connected. The Sensus PulseRF has one 4 wire input enabling the following functions

- Pulse Input (+) (white)
- Cable cut (green)*
- Direction (yellow)*
- Ground (-) (brown)

Min. pulse length	32 ms
Min. pulse pause	60 ms
Max. pulse frequency	10 Hz
Detection for closed	(0....0.7) V
Detection for open	(2.0.....2.5) V
Max. cable capacity	10 nF
Max. bouncing time (Reed)	2,5 ms
Internal pull up resistance	10 kOhm
Internal pull up voltage	2.5 V

* Depending on the connected pulse device

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TECHNICAL SPECIFICATIONS

General	Dimensions max.: 45 x 115 x 40 mm Weight: 230 g Casing: ABS Colour: Grey Electronics & battery sealed Cable length: 2.5 m Max. cable length: 15 m
Environmental Conditions	Operation: Min -20 °C, Max +60 °C Storage: Min -20 °C, Max +70 °C Protection Class: IP68
Power supply	Lithium battery Battery life: typically 15+ years depending on usage profile
Radio specification	433 MHz at 10mW 868 MHz at 25mW
Radio protocol	SensusRF radio protocol bi-directional FlexNet protocol (TFX) bi-directional wM-Bus OMS unidirectional
Mounting bracket	The transponder can be fixed on a wall with a mounting bracket which is part of the consignment
Recycling	The device has to be recycled according to national rules for electronic devices with lithium batteries.
Applied Standards	2014/53/EU (RED) 2011/65/EU (RoHS 2) WEEE EN 300 220-1 V3.1.1 EN 300 220-2 V3.1.1 EN 301 489-1 V2.1.1 EN 301 489-3 V2.1.1 IEC 60950-1:2005 (2nd Ed.) + Am1:2009 + Am2:2013 EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 EN 62479:2010 EN 60529:1991 + A1:2000 + A2:2013 OMS Generation 4 Security Profile: A/B
Configuration interface	The transponder can be configured using SensusRF radio with SIRT and configuration software. Activation via radio or automatically through first 10 pulses.

Accessories

To connect Sensus PulseRF to a meter with pulse unit we recommend:

Jointing sleeve IP 68, order no. 18 17 84

Connector IP68 for two cables up to 5 wires



Assembly versions

For Sensus mechanical water meters prepared for HRI or HRI-Mei pick-up an assembly with connected pulser exists.



PulseRF-A3



PulseRF-Mei



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