



# Sensus CompactRF

## For Sensus residential water meters

### Main Features

- Compatible with most Sensus mechanical meters
- Industry leading uni- and bidirectional radio technology providing superior, reliable communication links
- Regular unidirectional Telegram (BUP\*)
- Active alarm status (backflow, leakage, broken pipe, low battery)
- Extended data upon request using bi-directional LAT\*\*
- Highly granular data thanks to the Data Logger function (2880 steps of 1 min to 24h)
- Battery lifetime 12+ years independent of reading system

\* BUP = Bubble UP Telegram

\*\* LAT = Listen after Talk Technology

### APPLICATIONS

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The Sensus CompactRF provides a solution to integrate Sensus mechanical water meters in a smart metering network using wireless technology.

Designed to securely and automatically transmit the most important meter data at frequent intervals or to enable more detailed information, using mobile data collection devices or a fixed radio network. Besides improved meter reader safety, the utility will be able to gain in operational efficiency.

In addition to providing the meter index, the Sensus CompactRF module enables numerous other smart functions, supporting customer satisfaction programs and NRW initiatives.

The Sensus CompactRF can be mounted and configured in the factory or retrofitted in the field with minimal tools. It uses the proven Sensus HRI pick-up system which ensures a reliable detection of the actual consumption values.

The Sensus CompactRF is also compatible with the most current wireless M-Bus standards, in order to enable data collection by third party equipment suppliers.

It is also possible to combine the Sensus CompactRF with the high power FlexNet solution through the use of a Sensus SmartPoint.

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### Technical Data

#### Mechanical specifications

Dimensions max.: d x h – 98 x 85 mm  
 Weight: 230 g  
 Casing: ABS  
 Colour: Grey  
 Electronics & battery fully sealed

#### Power supply

Lithium battery  
 Battery life: typically 12+ years

#### Radio specification

Radio bands: 868 MHz  
 Radio power: 25 mW

#### Radio protocol

SensusRF protocol bi-directional  
 FlexNet protocol (TFX) bi-directional  
 WM-Bus OMS uni-directional

#### Environmental

Operation: min -10 °C / max +65 °C  
 Storage: min -20 °C / max +65 °C  
 Protection rating: IP68

#### Configuration interface

The module can be configured using SensusRF radio with SIRT and configuration software. Activation by radio or automatically after 10 pulses.

#### Recycling

Recycling acc. to national rules for devices with lithium batteries and battery directives.

#### Norms

CE Declaration  
 EN 62479:2010; EN 60950-1+A2 2013  
 Radio frequency: EN 300-220-1+2 V3.1.1  
 EMC: EN 301-489-1+3 V2.1.1  
 RED approved  
 RoHS, WEEE  
 OMS Generation 4 Security Profile: A/B

### METER COMPATIBILITY

Name	Body	Size
620	Brass	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4; DN25 / Q <sub>3</sub> 6.3; DN32 / Q <sub>3</sub> 10; DN40 / Q <sub>3</sub> 16
620M	Brass	Manifold / Q <sub>3</sub> 2.5
620C	Composite	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4; DN25 / Q <sub>3</sub> 6.3
620MC	Composite	Manifold / Q <sub>3</sub> 2.5
420PC	Brass	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4; DN25 / Q <sub>3</sub> 6.3; DN32 / Q <sub>3</sub> 10; DN40 / Q <sub>3</sub> 16
420	Brass	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4; DN25 / Q <sub>3</sub> 6.3; DN32 / Q <sub>3</sub> 10; DN40 / Q <sub>3</sub> 16
820	Brass	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4
120	Brass	DN15 / Q <sub>3</sub> 2.5; DN20 / Q <sub>3</sub> 4
120C	Composite	DN15 / Q <sub>3</sub> 2.5
220C	Composite	DN15 / Q <sub>3</sub> 2.5

### Data

#### BUP data (automatically every 15 sec)

Radio address  
 Meter Index  
 Alarm flags  
 Signal level (added by the receiving device)  
 Time Stamp (added by the receiving device)

#### LAT data (upon request)

Meter ID	FDR Fixed Date Reading
Current flow	Min/Max flow value and time
Backward volume	Leak start/end
Backflow start/end	Broken pipe start/end
BUP interval	LAT interval
OMS status	OMS interval
Data logger settings	Leakage detection parameters
Alarm activation	Alarm persistence
Broken pipe detection parameters	Remaining battery
Time since low battery detected	

#### Data logger information

(2880 historical data points of 2-13 chosen data parameters)



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