Supercom W2-R / W2-L

Radio modules for Honeywell (Elster) water meters

The radio modules of the *Supercom W2* (SMW2) family are adapted to Honeywell (Elster) Picoflux water meters with flow rates from Q3 2.5 m3/h to 4 m3/h. The water meters can be retrofitted at any time.

The module is available in the following two radio versions:

- *Supercom W2-R* - replacing the *Supercom 582* radio module - with bidirectional SONTEX radio system
- *Supercom W2-L* with the bidirectional LoRaWAN® (LoRaWAN® certified)

The radio module Supercom *W2-R* is suitable for walk-by readout via the radio modem *Supercom 636* or *Superlink C* gateways . The Supercom *W2-L* module is read by a LoRaWAN® gateway. Both radio modules can be integrated into the *Sonexa Superlink* platform and are equipped with an optical interface for parameterization.

Sontex
your link to innovative metering

Features

- Recording of the counting pulses (inductive measuring principle) of the mechanical water meter and transmission via a corresponding radio system
- Backflow detection
- Fraud detection: dismantling, magnetic interference
- Storage of current and historical consumption data, set day values and errors
- Automatic activation after adjustable volume
- Simple parameterization of the devices via optical interface with *Superprog Windows V1.4.0* or higher
- *Supercom W2-R*: readout via walk-by or integration with gateway *Superlink C* in the *Sonexa Superlink* platform
- *Supercom W2-L*: integration into any LoRaWAN® network or into the *Sonexa Superlink* platform over a LoRaWAN® gateway
- Password protection for secure programming access

Technical Data

	Supercom W2-R **Sontex Radio**	***Supercom W2-L*** **LoRaWAN®**
	General	
Continuous flow rate according to MID	Q3 2.5 m3/h – 4 m3/h	
Nominal flow rate EWG	Qn 1.5 m3/h – 16 m3/h	
Operating temperature	5°C to 55°C (< 95% relative humidity)	
Transport temperature	-20°C to +70°C (< 95% relative humidity)	
Storage temperature	-20°C to +70°C (< 95% relative humidity)	
Parameterization and Baud rate	■ Optical interface (Protocol EN 60870-5) ■ 2'400 Baud	
Protection Class	IP68	
Weight	56 g (without packaging)	
	Energy supply	
Battery type	2/3A Lithium (lithium content ≤ 1g)	
Operating voltage	3V DC	
Battery life	Up to 10+1 years[1)]	12+1 years[2)]
	Radio	
Radio protocol	Radian V1.0	LoRaWAN® (Spec. V1.0.2)
Transmission mode / class	n.a.	Class A
Encryption mode	AES-128 CBC	AES-128 - AppKey
Encryption options	■ Individual key ■ General key ■ Unencrypted	■ Individual key
Radio frequency	433.82 MHz	ISM Frequency band EU863-870
Transmission power	■ Max. 10 mW (10 dBm) ■ Typ. -3 dBm	■ Max. 25 mW (14 dBm) ■ Typ. 5 dBm
Communication	Bidirectional	Bidirectional
Radio telegrams	■ Telegram 1 (current data) ■ Telegram 2 (historical data)	■ Telegram L (SF7-9): 113 byte ■ Telegram S (SF10-12): 49 byte
Transmission intervals [3)]	When calling (after wake-up)	Programmable ■ SF7-9: 30 - 540 min (60 min) ■ SF10: 30 - 540 min (120 min) ■ SF11: 30 - 540 min (240 min) ■ SF12: 30 - 540 min (360 min)
Radio activity	Configurable via calendar function	No calendar function
Radio activity standard [3)]	Daily, (06:00 up to 19:59 h)	Periodic dispatch according to transmission intervals

Type of reading		
Mobile (Walk-by)	Radio modem *Supercom 636*	n.a.
Automatic Meter Reading	■ Data concentrator *Supercom 646* ■ Gateway *Superlink C*	Commercially available LoRaWAN® Gateway

Conformities		
CE Conformity	■ RED Directive 2014/53/EU ■ RoHS Directive 2011/65/EU	
Certifications	n.a.	■ LoRaWAN® Certified^{CM} Product (acc. to Specification V1.0.2) ■ LoRaWAN® Swisscom IoT Qualified Product

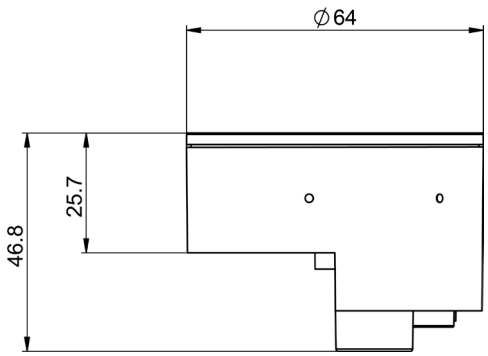
1) Condition for 10+1 years: One readout per week with max. 500 devices

2) Condition for 12+1 years: Compliance with the standard transmission intervals according to the data sheet

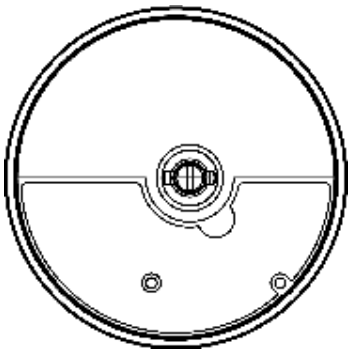
3) Default value in brackets

Dimension drawing

W2-R and W2-L



Side view [mm]



Top view

Installation & configuration

Further information on installation and confirguration can be found on the following website:

Technical support

For technical support, please contact your local Sontex representative or Sontex SA directly.
The detailed declarations of conformity can be found on our homepage: www.sontex.ch.

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