

Supercom 581

Radio Module for Wehrle Modularis water meter



Application

The retrofittable radio module **Supercom 581** is suitable for the large range of water meters of E. Wehrle GmbH:

- Modularis single-jet and multi-jet dry-rotor meters
- Modularis cylindrical piston meters
- and various versions of EAS-Modular measuring capsules

It can be retrofitted at any time without impairing the calibration. The bidirectional Sontex radio system Supercom allows the readout of the consumption data via a mobile radio modem Supercom 636 or over the radio central Supercom 646.

For the Wehrle capsule water counters MTK and MTW, various housings for all types of pipe connections for flush or surface mounting and for valve connection are available. The compatible connection threads for third-party products allow a cost-effective change-over to the retrofittable Modular-EAS-technology at all metering points.

Function

The battery-operated radio module **Supercom 581** scans the volume pulses of the water meter, accumulates them and stores the consumption data in this internal memory.

The scan guarantees a precise and correct detection of the backward and forward modulation indicator motion.

The radio module is equipped with an optical manipulation protection. If the housing of the radio module is removed and/or opened, the electronic manipulation protection triggers an error message.

Stored Data

- Identification number (serial number water meter)
- Medium: cold or warm water
- Serial number (radio module address)
- Current time and date
- Accumulated volume
- 15 monthly values
- Operating hours of battery
- Manipulation protection: storing of the duration of the last manipulation with date and the accumulated duration of all manipulations in minutes
- Magnetic contact detection: with date of the last magnetic contact detection and the accumulated duration of all manipulations.
- Pulse value
- Number of counter resets

Delivery Mode

Ex factory, the radio module is in delivery mode and only the function for date and time (winter time) is activated. All further functions are deactivated until commissioning. Ex factory, the serial number is the same than the identification number. The serial number is **always** identical with the radio address.
In delivery mode, no readout over radio is possible.

Commissioning

The radio module Supercom 581 is mounted onto the water meter in accordance with the installation instruction. The radio module is equipped with an optical and automatic manipulation detection.

- As soon as the radio module is mounted onto the water meter, the contact of the manipulation detection is activated.
- In installation mode, all functions are activated and the radio module can be read out at any time.

Installation mode

The switch from the installation mode to the operating mode will happen automatically when one of the following conditions is met:
The radio module records at least 3 consecutive volume pulses

or

The radio module switches automatically in operating mode after it passed midnight twice.

In operating mode, the radio module can be readout from 6h00 to 20h00 on 7 days a week.

With the radio readout and parameterise software Sontex 916 and Tools 916, the following parameters can be programmed for commissioning:

- Identification number (serial number water meter)
- Date and time
- Medium: cold or warm water
- Initialisation of the start value and of the 15 monthly values
- Reset to delivery mode
- Set to operating mode

When resetting the radio module to delivery mode, the volume and the 15 monthly values are automatically set to zero.

Technical Data

General

Versions

MID : Q3 2.5 - 6.3 m³/h
Q3 10 - 25 m³/h
EWG : Qn 1.5 - 3.5m³/h
Qn 6 - 15m³/h

Pulse value
Operating temperature
Storage temperature

1 l/Imp
5° to 55°C
-20 to 70°C

Housing

Protection class

IP68
Maximum 7 days permanent
Maximum 1 m of water depth static
Temperature range 7°C – 35°C
IP67 outside of the above mentioned conditions

Radio

Method
Frequency
Protocol
Baud rate
Range

CE **Conformity acc. to R&TTE 1999/5/CE**
FSK, bidirectional
433.82 MHz
Radian, EN60870-5 (M-Bus)
2'400 Baud
approx. 30 m*

* Values depend on building-specific particularities and have to be examined if necessary.
Due to physical conditions, the transmission and reception ranges can vary in buildings or be completely impossible.

Data Memory

EEPROM

daily storing

Electronic Data

Current supply
Service life

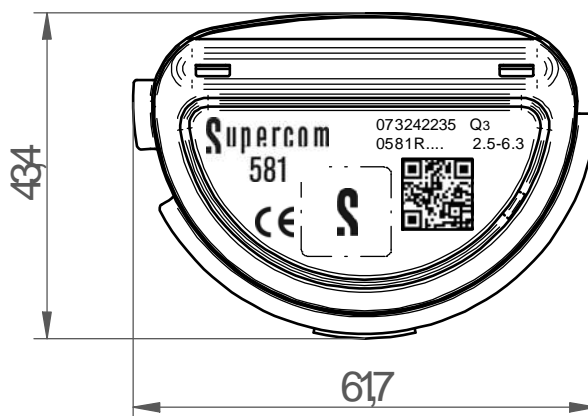
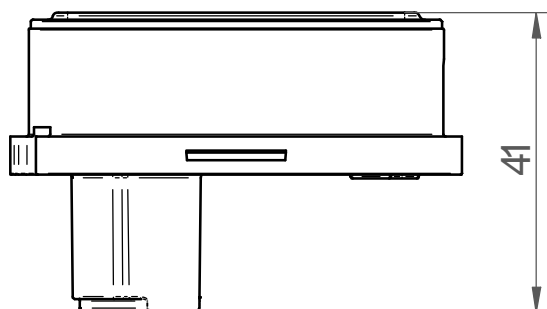
3V long duration lithium battery
Maximum 11 years

Optical Interface

Protocol
Baud rate

EN60870-5 (M-Bus)
2'400 Baud

Dimensional Drawing



Please note

After installation, the radio module has to be protected with user seals to avoid unauthorized access.

Increased humidity, heat or / and cold accumulation influence the service life of the battery enormously.

Sontex expressly points out that the data transmission via mobile radio depends on the radio-technical propagation conditions at the place of installation and that under certain atmospheric or geographic conditions (especially within closed locations or in so-called radio shadows), radio communication cannot be established at any time and at any place.

Operation and Maintenance**Attention**

The lithium battery is not rechargeable.

It is mandatory to dispose of the battery environmental friendly or to return it after use to the manufacturer for appropriate disposal.

The opening or damaging of the housing of the radio module voids all warranty claims.

The user seals may only be removed by authorized personnel for service purposes and have to be renewed afterwards.

Technical Support

For technical support, please contact your local Sontex agent or Sontex SA directly.

Hotline Sontex: sontex@sontex.ch, +41 32 488 30 04



Declaration of conformity acc. to R&TTE 1999/5/CE

The detailed declaration of conformity can be found on our homepage: www.sontex.ch

Technical modifications subject to change without notice

Data Sheet Supercom 581 EN 15-10-2014

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