



### LoRaWAN™ EXTERNAL RADIO MODULE

868 MHz ISM band LoRa™ external radio module designed for water meters featuring a pulse sensor.

Compatible with all Maddalena meters in sizes from DN 15 to DN 200

Available in a version equipped with a static pulser (depending on the meter model).

Communication protocol compliant with LoRaWAN™ standard.

It guarantees a long range transmission both in urban and suburban areas (depending on the environment).

Battery powered, service life up to 15 years (depending on configuration and number of readings/transmission frames).

Activation and set-up take place via the local NFC interface and relevant Android app.

### MAIN FEATURES

- 868 MHz ISM band LongRange™
- Bidirectional communication
- Low power communication protocol based on the LoRa™ modulation
- Communication protocol compliant with LoRaWAN™ standard.
- NFC interface for installation and set-up (Android app)
- Low power pulse meter interface
- Omnidirectional internal antenna
- Service life up to 15 years
- Protection rating IP68
- Three different mounting options: wall, vertical or horizontal pipes

### TECHNICAL SPECIFICATIONS

Built-in radio interface	868 MHz ISM band LongRange™ (frequency range from 863 MHz to 876 MHz)
Radio transmission modes	LoRaWAN™ v. 1.02, class A (bidirectional communication)
Reception sensitivity	Up to -136 dBm (maximum)
Transmit power	Up to 14 dBm (25 mW)
Factory settings	1 reading every 2 hours and 4 transmission frames (12 readings on a two-hourly basis)
Data	Reading indexes (depending on configuration)
Alarms	Maximum flow rate exceeded (threshold can be set), backflow, leakage, magnetic tampering, mechanical tampering
Operating temperature range	-20 °C to +55 °C
Protection rating	IP68
Meter interface	4 wires: ground, pulse, flow direction and tampering Meter types supported: open drain transistor switch, reed switch or any open/close switch type Maximum pulse frequency: 8 Hz nominal (configurable to 250 Hz) Minimum pulse width: 35 ms nominal (configurable to 10 ms) Cable length: 2 m nominal
User interfaces	NFC interface (installation sequence and set-up) Contactless standard interface: ISO 15693 (frequency: 13.56 MHz)
Battery service life	Up to 15 years (depending on configuration)

## CONFORMITY TO STANDARDS

- ISO 4064-2
- ETSI EN 300 220-1
- ETSI EN 301 489-1
- EN 301 489-3
- EN 62479
- EN 50581

## DIMENSIONS (mm)

