



ARROW^{WAN} 169 MHz

WM-BUS EXTERNAL RADIO MODULE

169 MHz ISM band 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).

Wireless M-Bus communication protocol which can use the LoRa™ modulation (optional).

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

- 169 MHz ISM band
- Bidirectional communication
- Communication via wireless M-Bus interface
- LoRa™ modulation also available
- Built-in NFC interface for local set-up and activation (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	Wireless M-Bus modulation with N2 mode (2400/4800 bps) Frequency range: 169.400 MHz to 169.475 MHz
Radio transmission modes	Bidirectional communication
Reception sensitivity	Up to -120 dBm
Transmit power	Up to 25 dBm
LoRa™ modulation	The LoRa™ modulation may be enabled to increase the communication range (up to -135 dBm)
Factory settings	1 reading per day and 4 transmission frames (readings of the 3 previous days)
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

- EN 301 489-1
- EN 301 489-3
- EN 300 220-1
- EN 300 220-4
- EN 62311
- EN 50581

DIMENSIONS (mm)

