



APT-MBUS-NA-1

For M-Bus connectivity

The APT-MBUS-NA-1 re-transmitter module is designed for collecting readings from water meters and for data transmission using the M-Bus communication standard, per PN-EN 13757-3. The use of this open communication protocol provides full compatibility with a wide range of devices which make up the remote data reading and transmission environment. It also enables event detection logging.

The APT-MBUS-NA-1 re-transmitter is based on a microprocessor system, while the use of optical sensors enables, for example, data reading from water meters and detection of the direction of the water flow, which provides complete consistency of water meter readings. Thanks to an integrated battery for emergency power supply, the re-transmitter module can operate for up to 5 years without power supply from the M-Bus.













USE

This module is provided for installation on JS Smart line water meters: JS 1,6-02 Smart+, JS 90-1,6-02 Smart+, JS 2,5-02 Smart+, JS 2,5-G1-02 Smart +, JS 90-2,5-02 Smart+, JS 90-2,5-G1-02 Smart+, JS 4,0-02 Smart+, JS 90-4,0-02 Smart+, JS 1,6-02 Smart C+, JS 90-1,6-02 Smart C+, JS 2,5-02 Smart C+, JS 2,5-G1-02 Smart C+, JS 90-2,5-02 Smart C+, JS 90-2,5-G1-02 Smart C+, JS 4,0-02 Smart C+, JS 90-4,0-02 Smart C+.

KEY FEATURES

- Non-integrating and easy to install on water meters
- Primary power is supplied from the M-Bus system (the re-transmitter's current draw is one load unit UL=1.5 mA)
- Emergency power supply ensures continuity of operation in the case of a loss of power supply from the M-Bus system
- Detection, recording and signalling of irregularities in water consumption measurements, and clip-on module operation using event signalling
- Configuration of event thresholds and transmission rate
- Reading measurement information from water meters is fully resistant to any interference caused by external magnetic fields
- Compatibility with devices forming the remote reading and transmission of measurement data environment using the M-Bus communication protocol
- IP65 ingress protection

EVENT SIGNALLING

-  Maximum flow
-  Minimum flow
-  Reverse flow
-  No flow
-  Leakage
-  Device disconnection
-  Magnetic field detection
-  Strong light detection
-  Low battery
-  Tip error
-  Detector fault
-  Processor reset

CONTENTS OF DATA FRAME

- Device factory ID
- Device date and time
- Saved date of readout
- Instantaneous volume
- Saved volume
- Measurement time
- Flow rate
- Current event flags
- Diagnostics function for optics
- Oscillator diagnostics
- Power supply diagnostics



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TECHNICAL SPECIFICATIONS

| Parameter | |
|------------------------|-------------------------------|
| Communication protocol | M-Bus |
| Wear-out detection | optical |
| Basic power supply | from M-Bus |
| Emergency power supply | 3V Li battery |
| Battery capacity | 1000 mAh |
| Ingress protection | IP65 |
| Battery life | up to 10 years* |
| Transmission speeds | 300, 2400, 9600 [b/s] |
| Wiring | YTTY 2 x 0,14 mm ² |
| Wiring lengths | 1,5 m, 2,3 m, 3,0 m, 6,0 m |
| Fixing | directly on a water meter |
| Dimensions | h = 26,2 mm; w = 65,5 mm |
| Weight | 0,061 kg |
| Operating temperature | 0°C ÷ 60°C |
| Addressing | secondary and primary |

* operating time on battery supply at an ambient temperature of 25°C is 5 years

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