



METERING SOLUTIONS



APT-MBUS-NA-1

for M-Bus connectivity

The APT-MBUS-NA-1 re-transmitter module is designed to collect readings from water meters and to transmit data using the M-Bus communication standard, according to PN-EN 13757-3. This use of an open communication protocol means full compatibility with the wide range of devices which make up the remote data reading and transmission structure. Includes an event detection and logging module.

The APT-MBUS-NA-1 re-transmitter is based on a microprocessor system, with optical sensors used to read the data from water meters and detect the direction of water flow, for example, which ensures complete consistency of readings and water meter data. Thanks to the integrated emergency power supply battery, the re-transmitter module can function for up to 5 years without a power supply from M-Bus.

INTENDED USE

This module is intended 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+, and JS 90-4,0-02 Smart C+ manufactured by Apator Powogaz S.A.

**TECHNICAL SPECIFICATIONS**

Parameter	
Cable length	depending on re-transmitter model*
Communication protocol	M-Bus
Consumption detection	optical
Primary power source	M-Bus
Emergency power source	3 V lithium battery
Battery capacity	1000 mAh
Protection class	IP65
Battery life	up to 10 years when the module is connected to the MBUS network**
Baud rate	300, 2400, 9600 [b/s]
Cable	YTLY 2 x 0,14 mm ²
Mounting	directly on the water meter
Dimensions	h = 26,2 mm; s = 65,5 mm
Weight	0,065 kg
Operating temperature	0°C + 60°C
Addressing	primary and secondary

* re-transmitters are available with different cable lengths, see the product price list.

** battery life at an ambient temperature of 25°C of up to 5 years .















APT-MBUS-NA-1

KEY FEATURES

- Non-integrating and easy to install on water
- Primary power is supplied from the M-Bus system (re-transmitter current is one load unit, UL=1.5 mA)
- Thanks to the emergency supply, continuity of operation is maintained during any 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
- Measurement data readouts from the water meters are completely resistant to any interference caused by external magnetic fields
- Compatibility with devices used for remote reading and transmission of measurement data, using the M-Bus communication protocol
- IP65 protection rating

EVENT SIGNALLING

-  Maximum Flow
-  Minimum Flow
-  Reverse Flow
-  No flow
-  Leakage
-  Device disconnection
-  Magnetic field detection
-  Strong light detection
-  Low battery voltage
-  Indicator Error
-  Detector failure
-  Processor Reset

DATA FRAME CONTENT

- Device factory number
- Device date and time
- Saved date of readout
- Temporary volume
- Recorded volume
- Measurement time
- Flow
- Current event flags
- Diagnostics function for optics
- Oscillator diagnostics



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