



METERING SOLUTIONS



AT-MBUS MODULES

FOR M-BUS CONNECTIVITY

The AT-MBUS modules support serial M-Bus connectivity according to PN-EN 13757-3. The modules are based on a microprocessor chip. The open data communication system enables connectivity of water meters equipped with the modules with the existing M-Bus networks from third-party manufacturers. The modules are components of remote water meter reading transmission systems. The basic component of the system is the module, installed directly on the water meter. The optical scanning of the counter reflective indicator eliminates the drawbacks of the reed switch pulse transmitter, while assuring reliable and accurate reading. The modules are immune to magnetic disturbances and resist strong external EM fields.

APPLICATION

The modules can be installed on water meter counters which support the AT-MBUS modules in standard versions. The M-Bus modules are widely applied in wired reading systems, especially with water meters installed in large shopping centres or residential buildings.



KEY FEATURES

- Compatible with supported water meters.
- Easy installation: requires no tampering with the verification marks of water meters.
- Immune to external EM fields.
- IP65 protection rating.
- Battery life: 10 years.
- Configurable event thresholds and data transmission speed: 300 or 2400 baud.
- Data transmission with universal information fields: compatible with universal reading systems.

Table 1. SPECIFICATION

AT-MBUS- module	AT-MBUS-01	AT-MBUS-02	AT-MBUS-03a	AT-MBUS-03b	AT-MBUS-04	
Water meter DN [mm]	DN15 - DN20	25 - 40	15 - 32	40	DN40 - DN125	DN150 - DN300
Supported water meter type	JS 1.6 - 4.0	JS 6.3 - 16	SV-RTK 2.5 - 16		MWN 40 - 300; MP 40 - 100; JS 50 - 100	
Minimum reading resolution [dm ³]	1	100	1	10	100	1000
Connection cable	2-wire, standard length: 1.5 m					
Operating temperature range	0.1 - 60°C					
Storage temperature range	-10 - 70°C					
Power supply	Main: M-Bus / stand-by: Li-ion battery					
Addressing	Primary and secondary (ref. PN-EN 13757-3)					

EVENTS AND ALARMS

- No flow
- Low battery
- Processor reset
- Optical detector failure
- Min/max flow indication
- Reverse flow
- Strong ambient light (module removal)
- Water leak
- External magnetic field detection

BASIC DATA FRAME CONTENTS

- Serial number
- Device date and time
- Current volume
- Current flow rate
- Logged volume with time stamp
- Event and alarm flags
- Module operation time