wM-Bus Cyble OMS

Radio Module for Remote Water Meter Reading According to the European Standard EN 13757-4

wM-Bus Cyble has been designed to fulfill requirements of all water management utilities willing to remotely read their water and gas meters according to the radio protocol defined in the European standard EN 13757-4. This protocol is based on the M-Bus standard which is well proven and has been operational for several years throughout Europe.The standard protocol is key for system integration into manufacturer-independent Multi Utility Communication Controllers called MUC or standard wireless M-Bus receivers. Data reliability and security as well as advanced service data are key factors that have been taken into account by Itron to guarantee operational efficiency and reliability.

FEATURES AND BENEFITS

» Ease of installation
» Consistent Reliablility
» Standard wireless M-Bus protocol

Benefits of Wireless Solution

Automatic radio meter reading reinforces the reading reliability and significantly increases the data acquisition speed.

Using radio for reading also provides access to all meters even in hard to read locations or if the customer is absent.

wM-Bus Cyble Working Technologies

The proven, Itron patented Cyble technology guarantees the reliability of the index transmitted. The wM-Bus Cyble is a further development of the Itron Cyble product family which has been used worldwide for over 15 years. The wireless M-Bus module opens the way of interoperability for Itron water and gas meter thanks to the standard M-Bus radio protocol.

Ease of Installation

The wM-Bus Cyble is completely compatible with all Itron water meters (from 15 to 500 mm) and gas meters equipped with a Cyble target. This compact module can be easily fixed directly on the meter, without requiring any wiring nor wall mounting. It can be shipped from the factory mounted (and configured) on the meter. But it can also be quickly retrofitted to meters installed in the field without breaking any seals.

Consistent Reliability

The Cyble concept ensures the perfect correlation between the meter register and the internal electronic index (taking accidental backflows into account). The module is encapsulated and potted for protection from harsh environment and water immersion effects.

Advanced Functions

The wM-Bus Cyble combines the one-way T1 RF mode as well as the two way T2 mode according to the EN 13757-4 in a unique way. Depending on the frame of acknowledgement by the RF receiver during the installation process, the Cyble automatically switches to T1 or T2 mode.

knowledge to **shape your future**

Radio Side	
Protocol	Wireless M-Bus according to EN 13757-3 & EN 13757-4
Operation mode	T1 / T2
Frequency band	Typ. 868,95 MHz
Duty cycle	0,1%
Chiprate	Typ. 100 kcps
Encryption	AES 128, Mode 5

Functional Specifications	
Dimensions	92 x 57 x 50 mm
Power source	Lithium batteries
Battery lifetime (min)*	14 years
Case protection	IP68 submersible
Relative humidity	0 to 100%
Operating temperature	-20°C / +55°C
Accidental temperature	-20°C / +70°C
Conformity	CE certified, in accordance with the European R&TTE directive (1999/5/EC)

* Under normal applications within the specified reference operating conditions.

** Operation: +5°C to +35°C | Storage: +5°C to +35°C
Min. operational temperature: -20°C (< 15 days/year) | Transport: Min. -20°C (< 72 hours continuous)
Max. operational temperature: +55°C (< 15 days/year) | Max. +70°C (< 72 hours continuous)

wM-Bus Cyble

wM-Bus Cyble fitted on Commercial and Industrial water meter

APPLICATION
FIELD INSTALLATION KIT

The wM-BUS Cyble is suitable for various applications for residential, commercial and industrial customers and is applicable to multiple wireless M-Bus and open-metering-system environments. The combined RF operation modes T1 and T2 represent the key for interoperability to standard one-way systems as well as two-way smart metering applications.

To support the installation process in field, the wM-Bus Cyble is supplied with a powerful field installation kit composed of:

» A special "Mag Switch" to easily start the RF installation protocols [SND_IR] for integration into wireless M-Bus receivers or MUC controller.

» A USB-key as local wM-Bus transceiver for notebooks and PCs.

» The wM-Bus Configuration Tool-Software supporting all special functions to read and configure the wM-Bus Cyble.
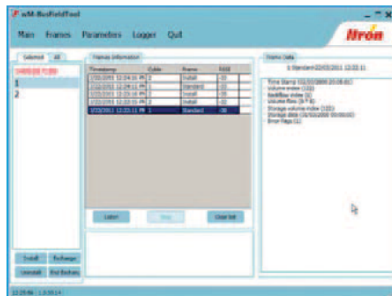
wM-Bus Configuration Tool frame information

Advanced Functions

The wM-Bus Cyble provides powerful smart functions adding value for customers, in particular a dedicated index for backflow volumes in order to monitor the quality and functionality of the backflow valve in residential metering applications. Following data fields are included in the standard M-Bus protocol:

- Date and Time
- Removal alarm
- Current Index
- Daily Leakage
- Backflow Register
- Daily BackFlow
- Instant Flow
- Index at set date
- Battery life
- Magnetic Tamper