



# Cyble™ M-Bus

Cyble technology for water meter remote reading with M-Bus protocol

Cyble communication modules have been designed to fulfil requirements of all water management utilities willing to remote read their water meters. As water meters are an important investment for utilities, all Itron water meters are pre-equipped considering actual or future evolutions towards remote reading technologies. The Cyble M-Bus facilitates the integration of Itron water meters into a M-Bus network. This module offers advanced reading functionality that enables the utilities to offer additional services to their customer.

## FEATURES & BENEFITS

» The Cyble M-Bus suits to remote reading applications through M-Bus networks in residential, commercial and industrial uses. It provides all relevant data according to EN 1434-3 and EN 13757-3.

### Cyble Compatibility

The Cyble M-Bus is completely compatible with all Itron water meters equipped with the Cyble target.

- » It can be easily retrofitted and installed on meters already on the field.
- » With a few easy installation steps, the meter seal and protective cap do not need to be broken or dismantled.
- » It can be shipped already mounted (and configured) on the meter.

### High Reliability

With the proven and patented Cyble detection technology the electronic index of the Cyble M-Bus is always the mirror image of the mechanical index.

The integrity and reliability of this data is key for use in billing applications.

- » Magnetic tampering is impossible since the non-magnetic target is not influenced by an external magnet.
- » As the detection is by change of induction the unit can be operate in flooded pits.
- » It is designed to withstand harsh environments (IP68).
- » The Cyble M-Bus complies with E.M.C. standards for protection against electromagnetic disturbances.

### Powerful and Advanced Features

Transmission of standardized data:

- » Date and time.
- » Primary and secondary address.
- » Volume and back flow indexes.
- » Alarms: tampering detection and low battery.
- » Customer ID (10 digit alpha-numerical).
- » Peak flow management (memorization over the last 13 months).
- » Monthly Fixed Date Reading (FDR) of volume over the previous 13 months: Tariff applications, Tenant change, ...

- » Leakage Detection above 2 thresholds recorded over the previous 13 months.
- » Backflow detection (temporary or permanent) records over the previous 13 months.

### Standards Compliance

- » M-Bus according to EN1434-3 and 13757-3 in the scope of the CEN TC 294 WG4.
- » Leap years integrated up to 2031.
- » EEC marking.



Pre-equipped register with the Cyble Target

### M-Bus features

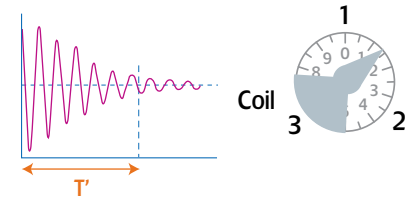
Compliant with	EN1434-3 and EN 13757-3
Baud rate	300 to 2400 bps
Cable	2 wires, non polarized cable

### Functional Specifications

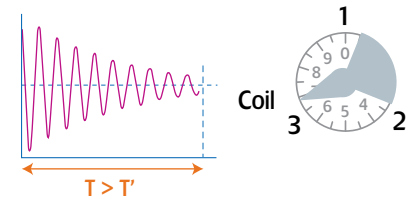
Operating temperature	-10 °C/+55 °C
Storage temperature	-20 °C/+55 °C
Case protection	IP68
Power source	Lithium battery
Battery life time*	12 years (Note: since the M-Bus communication is powered by the bus, the number of readings does not affect the battery life time)
Cable dimensions	3 m two wire cable, 2 x 0,25 mm <sup>2</sup>

\* Under normal applications within the specified working temperature range

### TARGET PRINCIPLE



Target present

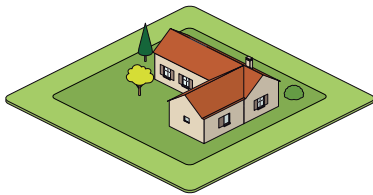


Target absent

### ACCESSORIES AND REMOTE READING SYSTEMS

To complete your M-Bus installation a broad range of accessories and remote reading systems are available.

### APPLICATIONS



- » Individual properties
- » Multiple properties

- » Combined properties
- » Commercial buildings
- » Industrial application

### Delivered with

- 3 m cable
- Fixing screw
- Plastic seal

Our company is the world's leading provider of smart metering, data collection and utility software systems, with over 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water.

To realize your smarter energy and water future, start here: [www.itron.com](http://www.itron.com)

For more information, contact your local sales representative or agency:

### ITRON WATER METERING

9, rue Ampère  
71031 Mâcon cedex  
France

**Phone:** +33 3 85 29 39 00

**Fax:** +33 3 85 29 38 58