Cyble™ 5

Transformation. Without Disruption.

As a water utility, a reliable metering solution is imperative to protecting revenue and managing operations. Itron's Cyble 5 module provides long-term value, as it is built to last for 15 years even in the harshest environments. Its low-maintenance design and fewer replacements reduce operating costs, while simultaneous AMR/AMI connectivity makes Cyble 5 compatible with any smart meter deployment program.
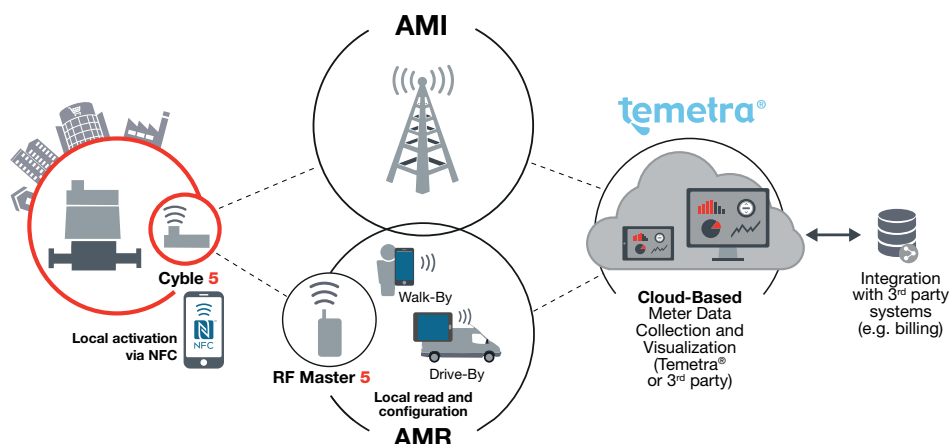
DATA-DRIVEN SAVINGS

Non-revenue water in Europe is estimated to average 25% of total water distributed. Cyble 5 supports smarter water conservation strategies and helps reduce non-revenue water by capturing, storing and transmitting hourly consumption data and critical alarm events.

» **An end-to-end water solution:** Cyble 5 provides information to help you better manage your entire water distribution system and accelerate leak resolution. Itron's powerful cloud-based platform Temetra is designed to support utilities in achieving these goals.

» **More insights, better customer service:** With more data on your distribution system, your team can proactively provide consumption and leak data to customers.

More data, more often

» Cyble 5 delivers the ideal balance of frequent data transmission and extended battery life. With up to 4.4 LoRaWAN frames per day and wM-Bus messages every 16 seconds, water utilities gain real-time insights while minimizing maintenance and maximizing deployment longevity.

» Comprehensive dataset including indexes, meter sizing and leakage data.

INTEROPERABLE COMMUNICATIONS VIA OPEN PROTOCOLS

Cyble 5 modules operate with open standard protocols in mobile data collection systems using wM-Bus or multi-purpose IoT networks (LoRaWAN/Sigfox/OMSv4 technologies). Cyble 5 can be activated locally via NFC.

MORE OPERATIONAL DATA

Cyble 5 helps utilities overcome key operational challenges by transforming data collected through AMR and/or AMI. Delivering timely, relevant, and extensive data sets, Cyble 5 allows for a better visibility of resource use and improved customer relationships.

Billing index & consumption data logging

Daily billing and custom billing functions along with precise consumption-data logging up to 15-min.

Meter sizing

Precise monitoring of the distribution flow including periodic minimum and maximum values help detect meter sizing errors.

Alerts

Alarms are generated when important events are detected, such as:

» Customer premise leaks (continuous flow)

» Tamper attempt (dismantling)

» Blocked meter (zero consumption)

» Oversize/undersize

» Water quality (high temperature)

» Low battery

» Time synchronisation failure

Technical Specifications

Radio Frequency Features	
Protocol	wM-Bus T2/C2, LoRaWAN™, Sigfox®, OMS v4
Modulation	FSK, BPSK (Sigfox®), CSS (LoRa®)
Frequency carrier	868 MHz ISM Band
Radiated power	< 25 mW
Battery lifetime	Up to 15 years*

Functional Specifications	
Power source	Lithium batteries
Protection	IP 68
Relative humidity	0 to 100% - submersible
Operating temperature**	-10°C / +55C***
Accidental temperature	-20°C / +70°C

* in standard conditions of use and temperature, theoretical lifetime without guarantee, depends on connectivity mode and reporting interval.
** Under normal applications with the specified reference operating conditions.
*** Operation: +5°C to +35°C / Storage: +5°C to +35°C / Transport: Min -20°C (<24 hours continuous), Max. +70°C (<24 hours continuous), / Min. operational temperature: -10°C (< 15 days/years) / Max operational temperature: +55°C (<15 days/years).

Dimensions (mm)

PROVEN VALUE

The first version of Itron radio modules have been in the field since 2001 and are still operating reliably today. Worldwide, we have deployed more than 200 million communication modules, including 2 million Cyble 5 units in Europe.

Cyble 5 is the latest evolution of our AMR modules, proven to deliver exceptional quality and return on investment.

» **Designed for the field**
Easy to connect through a clip-on design with no wiring or wall mounting required, Cyble 5 is compact with an integrated antenna allowing for use in a wide range of existing meter-box installations.

No field visit or reconfiguration needed to move from AMR to AMI.

» **Robust under severe conditions**
Designed to resist water, contaminants, corrosion, rough handling, and temperature cycling for reliability over time. Cyble 5 comes standard with IP68 certification.

» **Fine-tuned by decades of industry expertise**
Cyble's patented technology ensures a perfect correlation between the mechanical meter register and the digital index for sustained accuracy. Compatible with Itron's Cyble-ready range of mechanical water meters.

COMPLIANCE

» IP68 certified according to EN 60529

» Compliant with 2002/95/EC on non usage of hazardous substances in electrical and electronic equipment

» RoHs, WEEE2, CE, ATEX

» Compliant with Directive 2014/53/EU on RF Spectrum usage

CONNECTIVITY CERTIFICATIONS

» LoRaWAN R1.0.4

» Sigfox V2.6.0

» OMS V4.1.2

Aquadis+ equipped with the Cyble 5 module