



Technical Guide FM2.5

# Cyble 5

Multi-connectivity RF Module for IoT LoRaWAN and Sigfox data collection.

The Cyble 5 is a unique solution helping utilities engage in the ongoing digitalization of their water and gas distribution networks. Designed to transform mechanical meters into communication data points, Cyble 5 enables IoT data collection using LoRaWAN or Sigfox networks allowing for improved billing efficiency, customer service and more.

## FEATURES AND BENEFITS

### 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.

### Robust under severe conditions.

Conceived to resist water, contaminants, corrosion, rough handling, and temperature cycling for a preserved reliability over time. Adaptable to water and gas environment, Cyble 5 is also IP68.

### 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 & c-Series gas meters.



Interoperable with open standards  
(LoRaWAN/Sigfox)

## INTEROPERABLE WITH OPEN-STANDARDS.

With out-of-the-box connectivity options, Cyble 5 modules operate with open standard IoT network protocols (LoRaWAN /Sigfox).



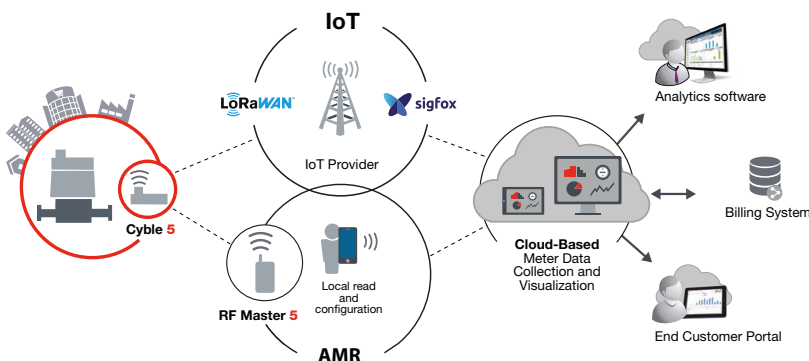
### IoT Networks (LoRaWAN™ or Sigfox®)

Connect smart water meters to networks dedicated to the Internet of Things (IoT) using LoRaWAN™ or Sigfox® technologies.



### Wireless read and configuration

Wirelessly read and configure Cyble 5 on the spot using Itron's RF Master 5.



## EXTENDED DATA SET FOR WATER AND GAS UTILITIES

Supporting digital transformation, Cyble 5 helps utilities engage in their key operational challenges by transforming data collection through IoT. Delivering timely, relevant, and extensive sets of data in water and gas, Cyble 5 allows for a better understanding 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 15min resolution



### Flow Distribution

Precise monitoring of the distribution flow



### Backflow / Reverse Flow

Detection and quantification of backflow to help assess water quality and/or sanitary risk

### Alerts

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



- » Leakage at customer side
- » Tamper, blocked meter, reversed meter
- » Backflow, peak flow
- » Oversize/undersize
- » Temperature high, temperature low

### Diagnostics

Good system performance is ensured via monitoring of:



- » Battery level
- » Configuration settings
- » Clock synchronization in LoRaWAN

## Technical Specifications

### Radio Frequency Features

Protocol	LoRaWAN™AS923, Sigfox® RC4, proprietary Mobile AMR
Modulation	CSS (LoRa®), BPSK (Sigfox®), FSK
Frequency carrier	915-928 MHz
Radiated power	≤ 25 mW (LoRa®, Sigfox® RC4), ≤ 3 mW (Mobile AMR)
Battery lifetime	Up to 14 years*

### Functional Specifications

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



Aquadis+ equipped with the Cyble 5 module



TD8 equipped with the Cyble 5 module

## Compliance

- » IP68 certified according to EN 60529
- » AS/NZS 62368-1
- » AS/NZS 4268
- » AS/NZS CISPR32
- » EN 300 220, EN 300 328, FCC Part 15

## Connectivity Certifications

- » LoRaWAN R1.0.2
- » Sigfox V2.6.0



Scan for more information

**Disclaimer:** While every effort has been made to ensure that the information in this document is correct and accurate, users of Hygrade Water product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hygrade Water unless expressly stated in any sale and purchase agreement entered into between Hygrade Water and the user.

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