OY1310 LoRaWAN Single-jet smart water meter

Product datasheet

LoRaWAN sensor designed to function in combination with B Meters' mechanical water meters. Complete package measures water flow in pipes automatically. Simply mount the LoRaWAN unit on top of a B Meters' GSD8-RFM mechanical water meter and integrate the meter into your IoT system.

Versions

OY1310 LoRaWAN Smart water meter module IP68	Compliant with B Meters' GSD8-RFM (Single-jet water meter)

Operations

Operating temperature	0°C to +55°C

Connectivity

Network	LoRaWAN
Frequency bands	868 MHz
Provisioning	Over the air & personalization

Security

Algorithms	AES-128
Hardware	Cryptographic co-processor
Features	Secure boot
	Secure firmware upgrade

Hardware based ultra-secure key storage

Weight

Weight	85g

Battery life

Battery life length	10 years (at 3 hour intervals, at SF12)
Primary cell	Lithium-Manganese 3V
Capacity	2.2 Ah

Method

Optical readout	Using infrared diodes

Configuration

Transmission intervals	15 minutes, configurable over the air
Starting value	Configurable over the air

Unique App EUI available upon request

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Alarm functions

1. Module removal
2. Flow exceeding threshold value continuously (configurable)
3. Magnetic fraud attempt
4. Leak detection (configurable)

Enclosure

IP68

Certifications

RoHS compliant

CE

LoRaWAN

Professional, high security for billing applications

Talkpool's smart water meters are designed for individual tenant invoicing applications. Therefore, the meters come with anti-fraud and meter reliability features that can't be found in many other IoT meters. The most apparent of these is the fact that the IoT module only works on B METERS' water meters. This is a conscious design choice for an IoT module and a mechanical meter which are an exact fit together and is the result of the great collaboration between B METERS and Talkpool, each with their domain expertise.

As opposed to universal meter reading solutions, such as camera solutions that can be retrofitted on top of any brand of water meter, Talkpool's smart water meter cannot be tampered with. The module is locked and sealed on to the meter. Module removal or magnetic fraud attempts are directly reported by the module to the network servers, so that appropriate follow-up action can be taken. The sensor has a maintenance free battery life of 10 years and the battery can withstand the high temperatures of a warm water pipe.

Specifications compatible water meters

GSD8-RFM

Manufacturer	B Meters
Water meter type	Single jet water meter

AMR method

Type	360° rotating lid, dry dial
Functionality	Anti-magnetic fraud protection
Reading	Direct reading on 8 numerical rolls

Versions

Cold water	0°C-50°C (T50)
Hot water	30°C-90°C (T30/90)
Pipe dimensions	DN15 (1/2") and DN20 (3/4")

Certifications

MID 2004 /22/CE up to the range R160-H/R50-V

ISO 4064 and OIML R49 compliant

Talkpool offers the full smart water meter (IoT module + mechanical water meter) in the following versions:

Versions

OY1310 LoRaWAN Single-jet smart water meter DN15 T50

OY1310 LoRaWAN Single-jet smart water meter DN15 T30/90

OY1310 LoRaWAN Single-jet smart water meter DN20 T50

OY1310 LoRaWAN Single-jet smart water meter DN20 T30/90