IWM-LR3

LoRaWAN Radio module for pre-equipped multi jet water meters

IWM-LR3 has been designed to allow wireless remote reading in different types of applications from the residential sector to the commercial and industrial sectors.

The radio module thanks to the presence of the inductive target into the meter dial allows the reading of the volume consumption without any constraints of access to the site thanks to the Long Range LoRa radio technology and the compliance to the LoRaWAN standard can be intergated into multi-service networks.

Consumption analysis with reverse flow compensation that provides an always perfect alignment between the counter and the counter clock.

Fraud control (removal of the radio module, application of external magnetic field, reverse flow, identification of system loss). Magnetic tampering at the counter and removal are recorded and reported to the receiving system via radio transmission. The presence of reverse flow is recorded in an additional register that allows to calculate the amount of water passed in reverse. The loss function can be monitored at the time of reading or by the AMR system if a timely update is desired.

IP68 protection* allows the use of the module also for meters installed in difficult environments.

NFC interface allows configuration and commissioning of the device with the use of a simple smartphone app.

TECHNICAL FEATURES

Radio interface	LoRaWAN @ 868MHz ≤ 25 mW
Network joining methods	OTAA / ABP
Frequency of transmission	6 per day
Coverage	Up to 5 Km*
Compatible water meters	GMDM-I, GMB-RP-I, GMB-I
Pulse output minimum value (K)	1 litre
Configuration	NFC (with Android app)
Energy supply	Non-replaceable lithium battery, maximum lifetime 10 years**
Protection class	IP68***
Weight	124 g
Size (l x p x h)	88 x 75 x 60 mm
Working temperature	+1° ÷ +55°C
Transmitted data	Volume (consumption), total of backward flow, alarms
Alarms	Discharged battery, module removal, magnetic fraud attempt, backward flow, leakage detection
Module programming requirements	Android device (smartphone, tablet, etc.) with an NFC interface and the NFC IWM Config APP freely downloadable from GOOGLE PLAY

* In optimal signal transmission conditions

** The battery life strongly depends on the working time window, set during the configuration process, and on the environmental conditions

*** IP68: maximum 24 hours of continuous submersion at 1 m depth

DESIGNING, PRODUCING AND DISTRIBUTING SOLUTIONS FOR OVER 25 YEARS

B METERS is an Italian company that has been designing, producing and distributing instruments and solutions for measuring the consumption of water and thermal energy used for heating and cooling, for over 25 years.
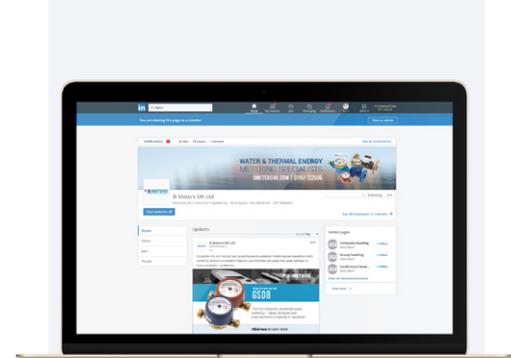
The yearly production currently exceeds 2M units, putting B METERS in a leading position both at national and European level.

The product range includes turbine (velocity) type single and multi-jet water meters with mechanical or magnetic transmission, Woltmann meters, irrigation meters, flow meters, thermal energy meters and heat cost allocators with direct reading, or complete with integrated modules for the remote transmission of the consumption data.

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