# HRL-C-G3

Radio | Radio Module





## APPLICATION

The HRLc G3 radio module integrates  $\ensuremath{\mathsf{LoRaWAN}}\xspace^{\ensuremath{\$}}$  technology for remote reading solutions.

HRLc G3 can be easily clipped onto all modular Diehl Metering meters in the inductive range (Ha+Ti or Ti) equipped with a grey or red ring. HRLc G3 has a built-in inductive sensor that makes it insensitive to magnetic fraud. Furthermore, it can be used with any pulse-emitting meter when combined with our IZAR BE PULSE interface.

### **FEATURES**

- Compact radio transmitter for mechanical water meter
- Designed for LoRaWAN<sup>®</sup> fixed networks (operated or private)
- Available in 868 MHz
- Main Functions: Midnight index, Hourly consumption, Return flow volume, Minimum and maximum flow values
- Main Alarms: Fraud, Battery, Blocked meter, Temperature, Backflow, Overflow, Leak
- Insensitive to magnetic fraud
- Battery lifetime up to 15 years
- ▶ IP 68



## **OPERATING PRINCIPLE**

HRLc G3 includes an electronic circuit that collects the data coming from a Diehl Metering water meter and transmits all the meter information every 12 hours in LoRaWAN® fixed network mode.

## LoRaWAN<sup>®</sup> fixed network:

Data are collected through the operated network to which the customer has subscribed or through a private network specifically deployed by the customer. Depending on the needs of each customer, it is possible to access the data either via the IZAR@NET 2 software or directly via the network operator interface (usually REST or MQTT API interfaces).

## **TECHNICAL DATA**

	HRL-c-G3
Fixed Network Radio Protocol	LoRaWAN® Class A
Walk-by Radio Protocol	not available
Frequency	863 868 MHz
Encryption	Individual key - AES-128/CTR
Transmission power	25 mW (14 dBm)
Transmission mode	Bi-directional
Radio range	Several km (LoRaWAN®) depending on network coverage
Standards	EN 300220   RED 2014/53/EU   RoHS 2011/65/EU   EN 60950   EN 62311:2008   EN 62479:2010   EN 301489   EN 50581:2012
Certification	LoRa Alliance®, Inc - According specification v1.0.1
Power supply	Lithium battery 3.6 V - Li/SOCI2
Battery lifetime	Up to 15 years*

\*Standard conditions of use and temperature. Theoretical life, with no guarantee.

#### **AMBIENT CONDITIONS**

		HRL-c-G3
Ambient operating temperature	°C	-10 +55
Storage temperature	°C	-20 +65
Ambient humidity	%	0 100
Degree of protection		IP 68

#### CONFIGURATION

	HRL-c-G3
Local interface	Bi-directional radio
Functions	Midnight index   Hourly consumption   Backflow volume   Minimum and maximum flow values
Alarms management	Fraud   Low battery   Meter stopped   Temperature   Backflow   Overflow   Leak

#### COMPATIBILITY

	HRL-c-G3
Meters	Diehl Metering Ha+Ti or Ti inductive modular range . Pulse weight DN15 to DN40 (1 liter)   Pulse weight DN50 to DN125 (10 liters)   Pulse weight DN150 to DN300 (100 liters)   CORONA MWi (D3/D4) DN15 to DN20(25) (1 Liter) DN25 to 50 (10 Liter)

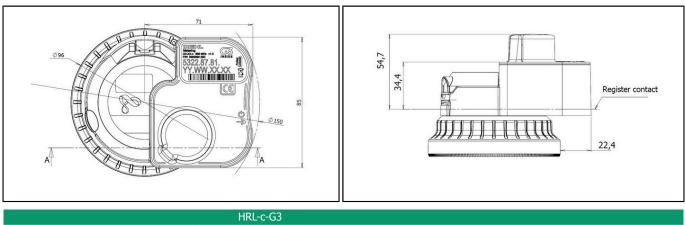
## ACCESSORIES

- IZAR BE PULSE (interface for external radio module)
- IZAR PULSE i + IZAR BE PULSE KIT (pulse emitter + interface for external radio module)
- G3 LORA CONFIGURATION KIT (including Bluetooth® receiver, magnet, smartphone & configuration app.)

## HRL-C-G3

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## DIMENSIONS



Length	mm	110
Height	mm	59
Width	mm	85
Total mass	g	214.2
EEE mass (2012/19/UE)	g	188.2
Battery & accumulator mass		
(2006/66/CE)	g	26
Lithium mass	g	0.9



