

# PULSE

Make all your meters or pulse output equipments communicate.



MONITOR

Monitor values from water, gas and electricity meters

- Periodic transmission of the index
- Periodic monitoring of flow rates (min/max), fraud and leakage



ALERT

Alert when the flow rate exceeds a threshold

Additional features:



- Periodic and/or event mode
- **Autonomy optimization:** historization
- **Accessibility of the data:** redundancy
- **Error or Default management:** Hardware error, configuration inconsistency and low battery alert
- **Timestamp of the frame (LoRaWAN)**
- **Network Quality Test at start-up (LoRaWAN)**



Monitoring energy consumption in a building (water, electricity, etc.).



Count the number of cycles of an equipment to anticipate its maintenance.

# TECHNICAL SPECIFICATIONS



## PULSE LoRaWAN ARF8230ABA | Sigfox ARF8230CRA

### Mechanical specifications

Weight	103 g (battery included)
Dimensions	132 x 62 x 34 mm
Enclosure	IP68, EMERGE™ PC 8731HH grey resin (casing), EMERGE™ PC 8430-15 transparent resin (sole)
Mounting	DIN Rail, Tube, Wall, Collar

### Operating conditions

Temperature	-25°C / +70°C
Humidity	0 to 85% RH (non-condensing)

### Device Power Supply

Battery Type	1 connectorized battery pack
Expected Battery Life	Eg: 1 index/hour and 1 transmission/3 hours, 2 channels activated, 500 pulses detected per channel per day, pull-up deactivated 7.3 years in Sigfox >10 years in LoRaWAN SF12   >10 years in LoRaWAN SF7

### Device configuration

Local device configuration	IoT Configurator
Configuration and firmware update from the air	KARE+ compatible
Remote device configuration	Downlink via the network or via the KARE platform
Security	PIN/PUK Code protection

### Radio/Wireless

Supported regions	LoRaWAN EU863-870 / Sigfox RC1
Wireless Security	AES-128 data encryption (LoRaWAN only)
Class	LoRaWAN: Class A   Sigfox: Class 0
Supported LoRaWAN features	OTAA, ABP, ADR, adaptive channel setup
RF transmit power	14 dBm
Sensitivity	-132 dBm LoRaWAN @SF12 <-130 dBm Sigfox

### Regulations and certifications

Standard	Directive 2014/53/UE (RED)
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### Impulse input

Number of channels	1 or 2 channels configurable (eg: 1 counter with 5 wires or 2 counters with 3 wires)
Equivalent input pull-up	180 kΩ (water), 47 kΩ (gas)
Input frequency	<100 Hz

BUNDLE	LoRaWAN	Sigfox
PULSE 2 cables of 3 wires CBL	ARF8230ABA-CBL2	ARF8230CRA-CBL2

