

PULSE ATEX



Make your meters communicate in ATEX zone 1.



ALERT

Alert when the flow rate exceeds a threshold



MONITOR

Reading of water and gas meters:

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

Additional features:

- **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)**

ATEX

- **Gas & steam**
Zone 1: immediate proximity to the sensitive area
Groupe IIC: hydrogen gases and vapors, acetylene...
- **Dunst**
Zone 21: immediate proximity to the sensitive area



Monitor your energy consumption in the immediate proximity of your meter.



Count the opened / closed status or filling volume of a grain silo, placed on a SEVESO site.

TECHNICAL SPECIFICATIONS



LoRaWAN ARF8230FA | Sigfox ARF8230GA

Mechanical specifications

Weight	70 g (battery included)
Dimensions	105 x 50 x 27 mm
Enclosure	IP67, 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 soldered battery
Expected Battery Life	For 1 index per hour and 1 transmission every 4 hours (6 frames/day), 10,000 pulses and Pull-Up activated: Sigfox: 4.7 years LoRaWAN SF12: 9.3 years LoRaWAN SF7: >10 years

Device configuration

Local device configuration	IoT Configurator
Remote device configuration	Downlink via the network or via the KARE platform
Configuration and firmware update from the air	KARE+ compatible (only with LoRaWAN)
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 <-122 dBm Sigfox

Regulations and certifications

Standard	Directive 2014/53/UE (RED)
ATEX	2014/34/UE ATEX II 2 G D Ex ib IIC T4 Gb Ex ib IIIC T135°C Db -20°C < Tamb < +40°C Uo ≤ 3.9V; Io ≤ 6.1mA; Po ≤ 6mW; Co ≤ 440µF; Lo ≤ 930mH Ui ≤ 15V; Ii ≤ 1000mA; Pi ≤ 3750mW; Ci = 0µF; Li = 126nH

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 + BINDER	ARF8230FA-B01	ARF8230GA-B01
PULSE + GAZPAR	ARF8230FA-B02	ARF8230GA-B02

