

PULSE

Turn all your meters and pulse output into smart equipment.



Periodically upload values from water, electricity and heat meters:

- programming of the precise time of index acquisition
- configurable transmission frequency
- flow monitoring (min/max)



MONITOR

Count the number of cycles of a piece of equipment and anticipate its maintenance.



ALERT

AND/OR Trigger an alarm when:

- a fraud is detected,
- the flow rate exceeds a threshold (high/low),
- a leak is detected.



Additional features:

- 2 configurable pulse inputs
- Fraud and leak detection
- Flow monitoring for a meter
- Data transmission modes: periodic and/or event-triggered
- Over 15 years of autonomy with standard configuration
- Autonomy optimization: data logging
- Local and remote product configuration
- Start-up pulse detection test
- IP68 protection rating



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



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

TECHNICAL SPECIFICATIONS



PULSE

Current versions and associated part number

LoRaWAN	EU863-870	ARF8230ARA
	US902-928	ARF8230BRA
	AU915-928	ARF8230IRA
	AS923	ARF8230JRA
Sigfox	RC1	ARF8230CRA
	RC2	ARF8230DRA
	RC4	ARF8230KRA

General specifications

Weight	103g (battery included)
Dimensions	132 x 62 x 34 mm
Enclosure	IP68, EMERGE™ PC 8731HH grey resin (housing), EMERGE™ PC8430-15 transparent resin (base)
Mounting	DIN rail, tube, wall, collar
Battery Type	Replaceable battery (4000 mAh)
Recommended operating conditions	-25°C / +70°C ; 0 to 85% RH (non-condensing)

Device configuration

Local device configuration	IoT Configurator (Windows/Android)
Remote device configuration	Downlink via the network or via the KARE platform
Configuration and firmware update over-the-air	KARE+ compatible (only for LoRaWAN EU868 and Sigfox RC1)
Security	PIN/PUK code protection

Impulse input

Number of channels	1 or 2 configurable channels (eg: 1 meter with 5 wires or 2 meters with 3 wires)
Equivalent input pull-up	180 kΩ (water), 47 kΩ (gas)
Input frequency	<100 Hz
Compatible pulse output type	S0, dry contact, open collector, reed relay
Start-up pulse detection test	Locally via LED indicators, or remotely via LoRaWAN server

BUNDLE	PART NUMBER
PULSE 6 wired CBL	ARF8230xRA-CBL2



TECHNICAL SPECIFICATIONS



LoRaWAN PULSE

Zone	EU863-870 Mhz		US902-928 Mhz		AS923-1 Mhz		AU915-928 Mhz	
Part number	ARF8230ARA		ARF8230BRA		ARF8230JRA		ARF8230IRA	
Autonomy								
Expected Battery Life	1 index/hour and 1 transmission/3 hours, 2 channels activated, 500 pulses detected per channel per day, pull-up disabled.							
	SF7 SF10 SF12: > 15 years							
Radio/Wireless features								
LoRaWAN spec.	1.0.4							
Wireless Security	AES-128 data encryption							
Class	Class A							
Supported LoRaWAN features	OTAA, ABP, ADR, adaptive channel setup							
Data time-stamping	EPOCH 2013 format (can be activated)	-		-		-		
Joining phase	Can be customised (number of attempts, time between attempts), remote join re-launch							
Network quality test	Performed automatically when the product starts up (via LEDs)						-	
RF transmit power	+ 14 dBm		+ 20 dBm		+ 14 dBm		+ 20 dBm	
Regulations and certifications								
Standard	Directive 2014/53/UE (RED)		US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2		AS/NZS 4268		AS/NZS 4268	

Sigfox PULSE

Zone	RC1		RC2	RC4
Part number	ARF8230CRA		ARF8230DRA	ARF8230KRA
Autonomy				
Expected Battery Life	1 index/hour and 1 transmission/3 hours, 2 channels activated, 500 pulses detected per channel per day, pull-up disabled.			
	7.3 years		>15 years	>15 years
Radio/Wireless features				
Class	Class 0			
RF transmit power	+ 14 dBm		+ 20 dBm	+ 14 dBm
Regulations and certifications				
Standard	Directive 2014/53/UE (RED)	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2		AS/NZS 4268

