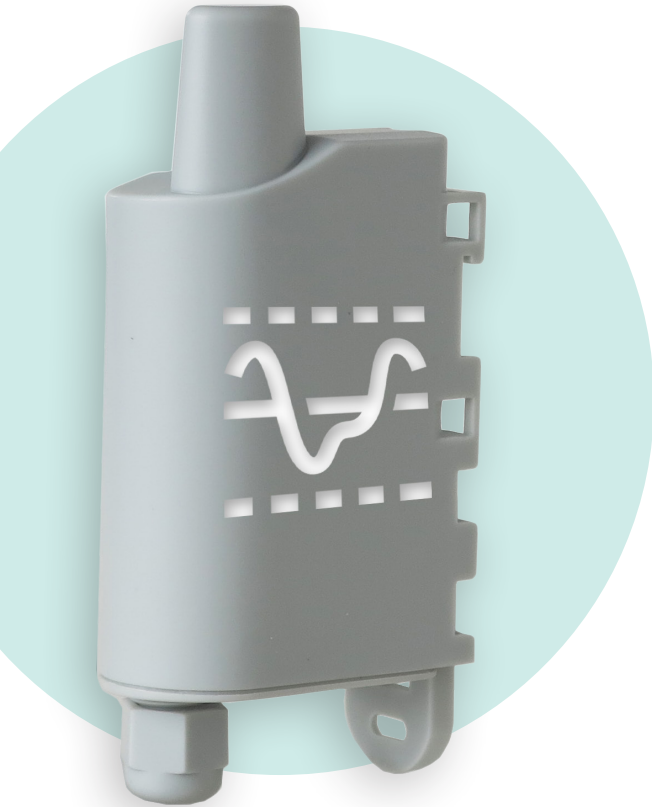


ANALOG

Give connectivity to wired analog sensors (0-10V or 4-20mA).

Functions: **2 analog inputs**



MEASURE

Continuously monitor the values of 0-10V or 4-20 mA equipment or sensors (clamp ammeter, temperature, rain gauge, pressure, humidity, speed, etc.).



ALERT

AND/OR Trigger an alarm if: high and/or low threshold(s) exceeded, event on one of the 2 dry contact inputs.

Additional features:



- 2 versions available:
 - replaceable internal battery
 - external power supply
- 2 analog inputs independently configurable as 0-10 V or 4-20 mA
- 2 digital inputs associated with analog inputs
- Data transmission modes: periodic and/or event-driven

- Minimum scan period of 30 seconds with a sampling period of 30 seconds
- Data logging (up to 24 samples per frame)
- Configurable lifetime frame
- Timestamp
- Network test on start-up
- Customisable join phase
- Data accessibility: redundancy
- Local or remote configuration



Monitor the electrical consumption of an equipment via a current clamp.



Measure the continuous filling level of a tank.



Giving IoT connectivity to industrial sensors already installed on a production site.

TECHNICAL SPECIFICATIONS



ANALOG LoRaWAN ARF8190BA | ANALOG PWR LoRaWAN ARF8200AA

General specifications

Weight	70 g (battery included), 49 g (powered version)
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
Power supply	Replaceable battery (2600 mAh capacity) External power supply on 2-pin terminal block: input range 6-24V - max. current 90 mA
Recommended operating conditions	25°C / +70°C for battery-powered version -25°C / +40°C for external power supply version 0 to 85% RH (non-condensing)

Expected battery life

Expected battery life (ANALOG) 2 inputs activated and configured as 0-10V	For 1 scan every 5 min and 1 transmission every 30 min: SF7 >15 years SF12 = 5 years
	For 1 scan every 10 min and 1 transmission every 60 min: SF7 >15 years SF12 = 9.1 years

Device configuration

Local device configuration	IoT Configurator (Windows/Android)
Remote device configuration	Downlink via the network or via the KARE platform and KARE platform

Radio/wireless features

Supported region	LoRaWAN EU863-870
Wireless security	AES-128 data encryption
Class	Class A
Supported features	OTAA, ABP, ADR, adaptive channel setup
Data time-stamping	EPOCH 2013 format (function can be activated)
Joining phase	Can be customised (number of attempts, time between attempts), remote join re-launch, etc.
Network quality test	Performed automatically when the product starts up (via LEDs)
RF transmit power	+14 dBm

Regulations and certifications

Standard	Directive 2014/53/UE (RED)
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Interface characteristics

Interface	4-20mA	Interface	0-10V
Equivalent input impedance	99,8 (+/-0.1%) Ω	Equivalent input impedance	337,3 (+/-0.2%) kΩ

Digital inputs for triggering

Voltage	0-24V
Equivalent input resistance	500 kΩ
Input frequency	10 Hz

OTHER REFERENCES

	50 A	100 A	500 A
Current sensor	ARF8190BA-B01	ARF8190BA-B02	ARF8190BA-B03

