

CURRENT SENSOR

Measuring power intensity

Existing versions: 50 A, 100 A and 500 A



MONITOR

- Control energy production
- Monitor and analyse consumption



ALERT

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

Additional features:



- 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



Monitoring the operation of equipment in order to anticipate malfunctions or know the time of use.



Monitor the intensity thresholds and avoid exceeding consumption according to the subscribed intensity.

TECHNICAL SPECIFICATIONS

CURRENT SENSOR 50A LoRaWAN ARF8190BA-B01
 CURRENT SENSOR 100A LoRaWAN ARF8190BA-B02
 CURRENT SENSOR 500A LoRaWAN ARF8190BA-B03

ANALOG

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
Power supply	Replaceable battery (2600 mAh capacity)
Recommended operating conditions	25°C / +70°C 0 to 85% RH (non-condensing)

Expected battery life

Expected Battery Life	1 scan / 5 min and 1 transmission / 30 min: SF7 >15 years SF12 = 5 years
2 inputs activated and configured as 0-10V	1 scan / 10 min and 1 transmission / 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

Supported regions	LoRaWAN EU863-870
Wireless Security	AES-128 data encryption
Class	Class A
Supported LoRaWAN 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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CURRENT TRANSDUCER	50 A	100 A	500 A
Operating transducer		-25°C to +60°C	
Fire resistance		UL94-V0	
Nominal output		10 V DC	
Precision		+/-2%	
Communication		0-10 V	
Cable length		1 m	
Frequency of measured current		50 ~60 Hz	
Max input detection	75 A (max 1min)	150 A (max 1min)	750 A (max 1min)
Max sampling resistance	>10 kΩ	>7 kΩ	
Max cable section	10 mm	16 mm	63 mm
Size of the current probe	26 x 34 x 50 mm	33.5 x 38 x 55 mm	66 x 48,5 x 92 mm