

DELTA P

Monitoring the operation of a ventilation box, air handling unit or air network of a building.

Functions: **differential pressure meter, 2 dry contact inputs/ outputs, analogue input 0-10V**



MEASURE

Measure a delta pressure

- Between the atmospheric pressure and the inside of the ventilation box
- On both sides of an element (e.g.: filter)

Collect data of a 0-10V sensor

- e.g. ammeter clamp for distinguishing a power failure



ALERT

Alert on exceeding low/high threshold(s)
Pressure difference or 0-10V input

Alert on digital input events (channel 1 / 2)
e.g.: indication of a machine fault



ACT

Control the dry contacts outputs

Additional features:



- **Periodic and/or event mode**
- **Autonomy optimization:** historization
- **Error or Default management:** hardware error, configuration inconsistency and low battery alert
- **Trigger a pressure delta measurement with the magnet** (e.g. on-site maintenance)



Monitor the proper operation of the system, and alert in the event of a malfunction.



To identify filter clogging and anticipate an intervention.

TECHNICAL SPECIFICATIONS



LoRaWAN ARF8283AA | Sigfox ARF8283CA

Mechanical specifications

Weight	145 g (battery included)
Dimensions	200 x 63.5 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	-20°C / +70°C
Humidity	0 to 85% RH (non-condensing)

Device Power Supply

Battery Type	1 connectorized battery pack
Expected Battery Life	For one frame every 2 hours (12 frames per day) : - Sigfox: 4.1 years (scan every 30 minutes) - LoRaWAN SF12 or SF7: > 10 years (polling every 10 minutes)

Device configuration

Local device configuration	IoT Configurator
Remote device configuration	Downlink via the network or via the KARE platform
Configuration and Firmware update over-the-air	KARE+ compatible
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	-137 dBm LoRaWAN @SF12 -120 dBm Sigfox

Regulations and certifications

Standard	Directive 2014/53/UE (RED)
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SENSOR Delta pressure

Sensor technology	Piezoresistive pressure sensor
Range	-500/+500 Pa
Precision	+/- 30 Pa
Resolution	1 Pa

0-10V channel

Range	0 - 10264 mV (Max: 15 000 mV)
Resolution	1 mV
Precision	+/- 1 %max <1000 mV +/-0.2 %max 1000 to 10 000 mV

