



CO₂, Temperature and Humidity Sensor 868MHz/915MHz Connectivity Solution for IoT



CO868LR - COUS915LR

General Description

CO868LR and COUS915LR are CO₂, Temperature and Humidity sensors with LCD for indoor air quality applications.

The radio transmission is based on the new disruptive LoRa™ long range technology at 868MHz and 915MHz.

These types of sensor have been designed in order to monitor CO₂, T and RH values in a room, meeting room or any generic indoor location. No CO₂ calibration is needed.

One or two thresholds for each physical characteristics can be set from remote.

The sensor can also display on the LCD five rows of text messages, 21 characters each.



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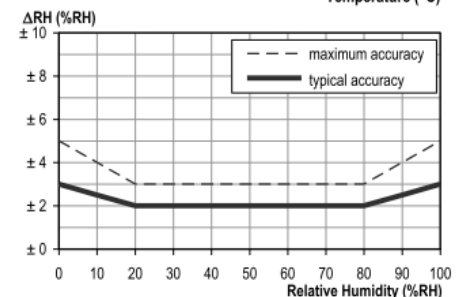
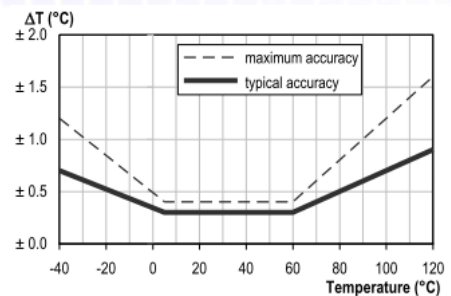




Technical Features

- Dual wavelength NDIR (non dispersive infrared technology)
- Accuracy at 25°C and 1013mbar of 5000ppm
- No CO₂ calibration needed
- Temperature range $-10^{\circ}\text{C} < T < +55^{\circ}\text{C}$ with typical accuracy tolerance $\pm 0.3^{\circ}\text{C}$
- Humidity range $0 < \text{RH} < 100\%$
- LoRa™ long range 868MHz and 915MHz radio module
- LoRAWAN v1.0.2 class A compliant
- Programmable Alive signal
- One or two thresholds for each CO₂, T and RH programmable from remote
- CO₂ timing measurement programmable from remote
- Graphic LCD resolution 128x64
- Up to 5 five messages of 21 character each can be displayed on 5 rows on the LCD
- Buzzer for low battery indication
- Buzzer for acoustic signaling
- lithium-thionyl 6.0 Ah, C size
- Temperature range $-10^{\circ}\text{C} < \dots < +55^{\circ}\text{C}$
- Easy Installation

Frequency	868MHz – 915MHz
RF power	14dBm EIRP
Modulation	LoRa™
Network Protocol	LoRaWAN v1.0.2
RX sensitivity	-138dBm
Battery	3.6V lithium-thionyl chloride (Li-SOCl ₂)
Temperature range	$-10^{\circ} < T < +55^{\circ}\text{C}$
Antenna	PCB printed
Power supply	Min 2,1V / Max 3,6V Typ. 3,0V
Consumption standb	Typ. 15uA
Dimension	97 x 38 x 25 mm
Reference standards	EN 301 489-3 EN 300 220-1 EN 60950



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