



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



CM868LRTH - CMUS915LRTH

General Description

CM868LRTH and CMUS915LRTH are magnetic contact sensors available to detect opening or closure of doors and windows and to measure the ambient temperature and humidity. The radio transmission is based on the new disruptive LoRa™ long range technology at 868MHz and 915MHz.

Three different operational modes are available in order to transmit to the server the information of openings and closings based on the desired behavior.

Up to two programmable thresholds for both T and RH to trigger the transmission of the measured value.

Low battery consumption.



Technical Features

- Double reed contact
- Double balanced auxiliary input
- Temperature range $-10^{\circ}\text{C} < \dots < +55^{\circ}\text{C}$ with typical accuracy tolerance $\pm 0.3^{\circ}\text{C}$
- Humidity range $0 < \text{RH} < 100\%$
- Low power consumption
- Buzzer for low battery indication
- Tamper
- LoRa™ long range 868MHz and 915MHz radio module
- LoRAWAN v1.0.2 class A compliant
- Programmable Alive signal
- Cover activated tamper
- Three operational programmable modes based on opening and/or timing thresholds:
 - ✓ Signal transmitted at every reed switch opening
 - ✓ Signal transmitted once a programmed reed switch opening threshold is reached
 - ✓ Signal transmitted once a programmed reed switch opening number threshold, when timing threshold is reached, when one or two T thresholds are reached or when one or two RH thresholds are reached
- Total detection counter resettable from remote
- One or two T and RH thresholds programmable from remote.
- 1pz AA 3.6V lithium-thionyl 2700mA
- Alive messages
- 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	$-10^{\circ}\text{C} < T < +55^{\circ}\text{C}$
Antenna	PCB printed
Power supply	Min 2,1V / Max 3,6V Typ.3,0V
Consumption standb	Typ. 9uA
Dimension	98 x 38 x25 mm
Reference standards	EN 301 489-3 EN 300 220-1 EN 60950



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