

# CONTACT SENSOR

**Monitor openings and closing events.**



**ACT**

Control equipment in response to a change of state.

Activate or restart equipment remotely at any time.



**ALERT**

Alert on events:

- report faults,
- control access, detect intrusion,
- Prevent beyond a certain number of openings / closings



**MONITOR**

- open / close status of objects (doors/ windows,...)
- the number of events over a period
- the time spent in the open or closed state

**Additional features:**



- Four configurable digital inputs/outputs:
  - Control an output based on the change in state of an input
  - Remote and in near-real time control of an output - **LoRaWAN Class C**
  - Track the time spent in a given state
- Data transmission modes: periodic and/or event-triggered
- Local and remote product configuration



Detect an intrusion (technical room, server room, hatches, windows...).



Know the time spent in an open state for a refrigerator.



Detect the opening of a smoke extraction hatch.

# TECHNICAL SPECIFICATIONS



## CONTACT-SENSOR

### Current versions and associated part number

|         |           |                |
|---------|-----------|----------------|
| LoRaWAN | US902-928 | ARF8170BRA-B01 |
|         | AU915-928 | ARF8170IRA-B01 |
|         | AS923     | ARF8170JRA-B01 |
| Sigfox  | RC2       | ARF8170DRA-B01 |
|         | RC4       | ARF8170KRA-B01 |

### General specifications

|  |  |
|--|--|
| Weight   | 128g (battery included)  |
| Dimensions   | 132 x 62 x 34 mm   |
| Enclosure  | IP68, EMERGE™ PC 8731HH grey resin (housing), EMERGE™ PC8430-15 transparent resin (base)   |
| Mounting   | DIN rail, tube, wall, collar   |
| Battery Type   | Battery power: replaceable battery (4000 mAh)<br>External power supply (not supplied): input range 4.5 - 6.5V - Max current 200mA<br>USB power supply: supply voltage 5V nominal - Max current 200mA |
| Recommended operating conditions with battery supply | -25°C / +70°C ; 0 à 85% RH (non-condensing)  |

### Device configuration

|                             |   |
|-----------------------------|---|
| Local device configuration  | IoT Configurator (Windows/Android)                |
| Remote device configuration | Downlink via the network or via the KARE platform |
| Security                    | PIN/PUK code protection                           |

| INPUTS                      |                          | OUTPUTS                             |                          |
|-----------------------------|--------------------------|-------------------------------------|--------------------------|
| Number                      | up to 4 by configuration | Number                              | up to 4 by configuration |
| Voltage                     | 0 - 24 V                 | Voltage                             | 0 - 24 V                 |
| Equivalent input resistance | 500 kΩ                   | Recommended dissipation max current | 150 mA                   |
| Input frequency             | 10 Hz                    | Output frequency                    | 10 Hz                    |

## PROXIMITY SENSOR

|  |                  |
|--|------------------|
| Detection  | Magnetic switch  |
| Cable Length                                     | ≈ 1.2 meter      |
| Dimension  | 14 x 38 x 8.7 mm |
| Casing   | IP67             |
| Max distance between the 2 magnets for detection | 15 mm            |
| Operating temperature                            | -10°C to +85°C   |



# TECHNICAL SPECIFICATIONS



## LoRaWAN CONTACT-SENSOR

| Zone  | US902-928 Mhz  |  | AS923-1 Mhz    | AU915-928 Mhz  |
|---|--|--|----------------|----------------|
| Part number   | ARF8170BRA-B01   |  | ARF8170JRA-B01 | ARF8170IRA-B01 |
| Autonomy  |  |  |                |                |
| Expected Battery Life   | SF7: > 15 years<br>SF12: > 15 years  |  |                |                |
| 1 transmission/4 hours, 4 inputs in default «open» state and 100 events per day |  |  |                |                |
| Radio/Wireless features   |  |  |                |                |
| LoRaWAN spec.   | 1.0.4  |  |                |                |
| Wireless Security   | AES-128 data encryption  |  |                |                |
| Class   | Class A and Class C (if external power supply connected)                             |  |                |                |
| Supported LoRaWAN features  | OTAA, ABP, ADR, adaptive channel setup   |  |                |                |
| Joining phase   | Can be customised (number of attempts, time between attempts), remote join re-launch |  |                |                |
| Network quality test  | Performed automatically when the product starts up (via LEDs)                        |  |                | -              |
| RF transmit power   | + 20 dBm   |  | + 14 dBm       | + 20 dBm       |
| Regulations and certifications  |  |  |                |                |
| Standard  | US: FCC- Title 47 CFR Part 15<br>Canada: RSS-247 Issue 2                             |  | AS/NZS 4268    | AS/NZS 4268    |

## Sigfox CONTACT-SENSOR

| Zone  | RC2  | RC4            |
|---|--|----------------|
| Part number   | ARF8170DRA-B01   | ARF8170KRA-B01 |
| Autonomy  |  |                |
| Expected Battery Life   | >15 years  | >15 years      |
| 1 transmission/4 hours, 4 inputs in default «open» state and 100 events per day |  |                |
| Radio/Wireless features   |  |                |
| Class   | Class 0  |                |
| RF transmit power   | + 20 dBm   | + 14 dBm       |
| Regulations and certifications  |  |                |
| Standard  | US: FCC- Title 47 CFR Part 15<br>Canada: RSS-247 Issue 2 | AS/NZS 4268    |

