

# DOUBLE LEVEL SENSOR

Monitor the evolution of a fluid level.



Dry Contacts  
IP68

Dual  
level  
sensor



ACT

Control equipment in response to a change of state.  
Activate or restart equipment remotely at any time.



ALERT

Alert on events:

- warn when the level rises or down,
- anticipating an overflow,
- prevent the end of the tank.



MONITOR

- Count the time spent in a 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



Monitor the level of a basin (retention, evacuation) or a tank.



Monitor the water level in a drainage nozzle to avoid overflows.

# TECHNICAL SPECIFICATIONS



## DOUBLE LEVEL SENSOR

### Current versions and associated part number

LoRaWAN	US902-928	ARF8170BRA-B02
	AU915-928	ARF8170IRA-B02
	AS923	ARF8170JRA-B02
Sigfox	RC2	ARF8170DRA-B02
	RC4	ARF8170KRA-B02

### 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) External power supply (not supplied): input range 4.5 - 6.5V - Max current 200mA 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

### DOUBLE LEVEL SENSOR

Detection	Contact detection
Cable Length	≈ 1 meter
Dimension	215 mm total length
Casing	Stainless steel 304
Liquid	Compatible with all types of non corrosive fluids
Typical operating pressure	1 Mpa (Max 5MPa)
Operating temperature	up to +120°C



# TECHNICAL SPECIFICATIONS



## LoRaWAN DOUBLE-LEVEL SENSOR

Zone	US902-928 Mhz	AS923-1 Mhz	AU915-928 Mhz
Part number	ARF8170BRA-B02	ARF8170JRA-B02	ARF8170IRA-B02
<b>Autonomy</b>			
Expected Battery Life	SF7: > 15 years SF12: > 15 years		
1 transmission/4 hours, 4 inputs in default «open» state and 100 events per day			
<b>Radio/Wireless features</b>			
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
<b>Regulations and certifications</b>			
Standard	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2	AS/NZS 4268	AS/NZS 4268

## Sigfox DOUBLE-LEVEL SENSOR

Zone	RC2	RC4
Part number	ARF8170DRA-B02	ARF8170KRA-B02
<b>Autonomy</b>		
Expected Battery Life	>15 years	>15 years
1 transmission/4 hours, 4 inputs in default «open» state and 100 events per day		
<b>Radio/Wireless features</b>		
Class	Class 0	
RF transmit power	+ 20 dBm	+ 14 dBm
<b>Regulations and certifications</b>		
Standard	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2	AS/NZS 4268

