LoRaWAN / Sigfox

adeunis
IOT PRODUCTS & SOLUTIONS

TEMP - TEMP2S

Measure and monitor temperature evolutions

1 ambient + 1 remote probe
or **2 remote probes**

MEASURE

- Monitor temperatures periodically.
- Identify temperature losses.

ALERT

AND/OR Trigger an alarm if: high and/or low temperature threshold(s) exceeded.

Additional features:

- **2 product versions:**
  - 1 ambient probe + 1 remote probe
  - 2 remote probes
- **Data transmission modes:** periodic and/or event-triggered
- **Autonomy optimization:** data logging
- **Local and remote** product configuration

Monitor the temperature of the domestic hot water at the start and end of the circuit.

Check the temperature of a storage area for sensitive products.

Monitor the temperature of the road surface in order to optimise the triggering of winter services.

TECHNICAL SPECIFICATIONS

TEMP / TEMP2S

Current versions and associated part number			
		TEMP (ambient + remote probe)	**TEMP2S** (2 remote probes)
LoRaWAN	US902-928	ARF8180BRA	ARF8180BRB
	AU915-928	ARF8180IRA	ARF8180IRB
	AS923	ARF8180JRA	ARF8180JRB
Sigfox	RC2	ARF8181DRA	ARF8181DRB
	RC4	ARF8181KRA	ARF8181KRB

General specifications	
Weight	TEMP: 148g (battery included) | TEMP2S: 185g (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, clamp
Probe length	2 meters
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
Recommanded 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

Ambiant temperature sensor	
Sensor technology	NTC
Range	-25°C to +70°C
Precision [0°C/+60°C]	± 0.2°C
Precision [-25°C/0°C]	± 0.5°C

Remote temperature sensor	
Sensor technology	NTC
Range	-30°C to +105°C
Precision [0°C/+60°C]	± 0.2°C
Precision [-30°C/0°C]	± 0.5°C
Precision [+60°C/+105°C]	± 2°C

TECHNICAL SPECIFICATIONS

LoRaWAN TEMP/TEMP2S

Zone	US902-928 Mhz	AS923-1 Mhz	AU915-928 Mhz
Part number TEMP	ARF8180BRA	ARF8180JRA	ARF8180IRA
Part number TEMP2S	ARF8180BRB	ARF8180JRB	ARF8180IRB
Autonomy			
Expected Battery Life 1 scan and transmission/ hour, 2 probes activated	SF7: > 15 years SF12: > 15 years	SF7: > 15 years SF12: > 13.3 years	SF7: > 15 years SF12: > 8.4 years
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 Canada: RSS-247 Issue 2	AS/NZS 4268	AS/NZS 4268

Sigfox TEMP/TEMP2S

Zone	RC2	RC4
Part number TEMP	ARF818DRA	ARF8181KRA
Part number TEMP2S	ARF8181DRB	ARF8181KRB
Autonomy		
Expected Battery Life 1 scan and transmission/ hour, 2 probes activated	10 years	10 years
Radio/Wireless features		
Class	Class 0	
RF transmit power	+ 20 dBm	+ 14 dBm
Regulations and certifications		
Standard	US: FCC- Title 47 CFR Part 15 Canada: RSS-247 Issue 2	AS/NZS 4268