AirIM-200 | Multifunction sensor

LoRaWAN®   WiFi™

GPS

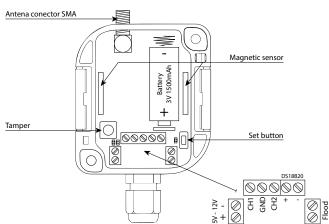| AirIM-200L | LoRaWAN |
AirIM-200LG	LoRaWAN + GPS
AirIM-200LR	LoRaWAN + PIR
AirIM-200W	WiFi
AirIM-200WG	WiFi + GPS
AirIM-200WR	WiFi + PIR

- **AirIM-200** is a wireless multifunction sensor designed for outdoor environments. It features high resistance to weather conditions and can be installed directly in open areas.
- It includes a long-life battery power supply, but it can also be connected to an external 5-12 VDC power supply.
- For communication with the user application, it uses LoRaWAN 868 MHz radio technology (version **AirIM-200L**) or WiFi 2.4 GHz (version **AirIM-200W**).
- In addition, the sensor can be upgraded with a GPS position sensor (versions **AirIM-200LG** and **AirIM-200WG**).
- Version **AirIM-200W** with WiFi is suitable for areas around the home (gardens, cellars, attics), where it can be connected to home WiFi due to its high sensitivity.
- Version **AirIM-200L** with LoRaWAN is suitable for agriculture, forestry, and tracking free-roaming objects due to its signal range of several kilometers and the ability to connect to a global LoRaWAN network operator.

Technical parameters	AirIM-200L	AirIM-200W
Battery power supply		
Battery power:	1 x 3 V 1550 mAh Lithium CR123A	
Battery life according to frequency of communication		
1x 24 hours:	1 year	1 year
Without communication:	2 years	
External power supply		
Supply voltage:	5-12 V DC ± 10 % (at the clamp)	
Standby current consumption:	47 uAh	
Peak current consumption:	280 mA	
Configuration via WiFi AP		
Activation of configuration mode:	long press of the CONFIG button (5s) with external power	
Interface:	WiFi AP	
Application:	web server	
Software:	web browser	
	http://192.168.1.1	
Configuration via LoRa/WiFi Client		
Configuration message:	fine-tune selected configuration settings	
Indicator LED		
Blue:	flashes 1x for LoRa/WiFi communication	
	flashes multiple times if communication was unsuccessful	
Red:	flashes when the battery is inserted or when the battery is low and when communicating	
Orange:	flashes 1x when CONFIG button is pressed	
	lights up when WiFi AP interface is activated	
	flashes when the client is connected to the WiFi AP interface	
Two independent configurable measurement outputs		
Analog measurement:	0 - 10 V	
Battery measurement:	12 V	
Digital input:	5 - 12 V log.1	
Pulse counter:	1 kHz max.	
Magnet sensor detection		
Closed:	15 mm	
Open:	23 mm	
Temperature measurement		
External sensor:	DS18B20	
Measurement range:	-50 to +125 °C ± 0,2 °C	
Connection cable:	2x 0,5 to 1 mm², max length 5 meters	
GPS and motion sensor (LG and WG versions)		
Chip used:	Quectel LC76G	
Supported bands:	GPS, Galileo, Glonass	
Position accuracy:	± 2 m	

Description

Antena conector SMA
Magnetic sensor
Battery 3V 1500mAh
Tamper
Set button
DS18B20
5V - 12V CH1 GND CH2 + - Flood

Technical parameters	AirIM-200L	AirIM-200W
Communication		
Communication standard:	LoRaWAN	WiFi
Communication frequency:	868 MHz	2,4 GHz
Range in open area:	10 km	200 m
Transmit power (max):	25 mW / 14 dBm	20 dBm
Communication message receiver:	LoRaWAN Stack	MQTT Broker
Types of communication messages		
Information message: (state of measured values)	when the device is connected to power	
	on short press of the CONFIG button	
	according to the set interval	
Configuration message: (configuration change)	as a response to the information message	
Alarm message: (at the time of the event)	opening the sensor box (tamper activation)	
	switching on / off the magnet sensor	
	external power failure / start-up	
	flooding / flood cleared	
Other data:		
Operating temperature:	-30 to +60 °C	
	mind the operating temperature of the batteries	
Storage temperature:	-30 to +70 °C	
Operating position:	any	
Mounting:	gluing / screws	
Protection:	IP65	
External power connection:	terminal block, wires 0,5-1 mm²	
Sensor connection:	terminal block, wires 0,5-1 mm²	
Cable gland:	M16 x 1,5 for cable up to 10 mm	
Dimensions:	136 x 62 x 34 mm	
Weight:	110 g	

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User functions

1. **Energy consumption (electricity / water / gas) by counting S0 pulses or using optical / magnetic sensors.**
2. **Battery voltage measurement at 12 V or external technology voltage status.**
3. **Temperature measurement using a DALLAS DS18B20 digital temperature sensor.**
4. **Analog voltage measurement 0-10 V.**
5. **Open detection** - window / door magnetic sensor integrated inside the converter.
   Requires a permanent magnet as an accessory.
6. **Flood detection (flooding / flood cleared).**
   Requires flood contact probes as an accessory.
7. **GPS and motion position sensor.**
   Available only in versions **AirIM-200LG** and **AirIM-200WG**.
8. **Motion detection – PIR sensor.**

iBell air application

iBell air

App for sensors, machines, and technologies
- remote readings from sensors
- position and status tracking
- remote diagnostics and parameterization
- notifications to the app

| MAGNET | ZÁPLAVA | PLYN |

RSSI: -31/-20dBm   BAT: 49%
Aktualizováno: 12.08.2024 12:14:10

| MAGNET | ZÁPLAVA | PLYN |

RSSI: -31/-20dBm   BAT: 49%
Aktualizováno: 12.08.2024 12:14:10

AIR_3
| MAGNET | TEPLOTA |

26.5 °C

RSSI: -118/*dBm   BAT: 2%
Aktualizováno: 19.08.2024 08:29:00

AIR-2EVODA
| MAGNET | VODA |

S: 9.0 m3
T: 0.0 m3

RSSI: -53/0dBm   BAT: 65%
Aktualizováno: 19.08.2024 07:19:41

CRA_3
| MAGNET | ELEKTRO |

0.0 kWh

RSSI: -111/-105dBm   BAT: 0%
Aktualizováno: 30.07.2024 15:22:54

TEST_AIR
| MAGNET | ZÁPLAVA | PLYN |

0.03 m3

RSSI: -31/-20dBm   BAT: 49%
Aktualizováno: 12.08.2024 12:14:10