

INTRUSION SENSOR RPS1M



■ MAIN PURPOSE

REACOM's Intrusion Sensor RPS1M can be used to detect whether a door, window, gate, hatch or any another premises is opened or closed using a magnetic detection mechanism.

■ PRINCIPLE OF OPERATION

The RPS1M is a magnetic contact sensor that use new disruptive LoRa long range technology. It transmits information and data to the server depending on existing condition (open/close), based on pre-configured algorithm. It's low battery consumption device is long lasting which ensures optimum usage. Thanks to small sizes, it can be installed everywhere and will occupy a minimum space. The transmission is direct to a central server that can be programmed to trigger an alarm system. Thanks to innovation, this wireless sensor is more reliable and precise and can be used for different applications.

MAIN FEATURES

1. Open/Close alarm event
2. Open/Close heartbeat status
3. Environmental temperature status
4. Battery voltage status
5. Event archive (future implementation)
6. Wireless range up to 10 km*
7. LoRaWANTM Class A compatible
8. Improved interference immunity
9. Improved power management for longer battery life
10. Encrypt-RF™ Security (Diffie-Hellman Key Exchange +AES-128 CBC for sensor data messages)
11. Battery Life: up to 10 years**

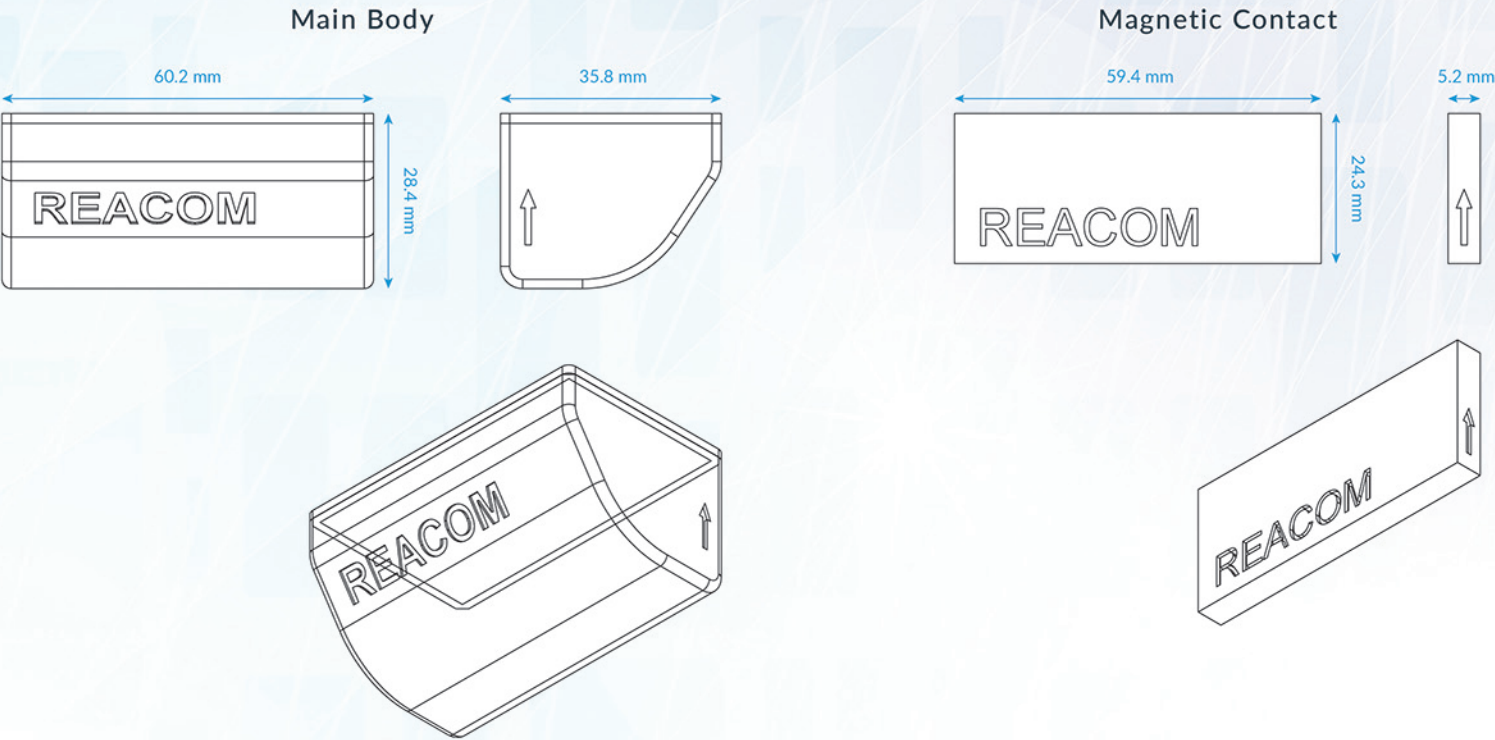
EXAMPLE OF APPLICATIONS

1. Residential and Commercial door, window, gates access
2. Bank's owned closure properties access monitoring
3. IT server rooms and closets
4. Freezer and cooler doors
5. Shipping cargo bay door monitoring
6. Garage door monitoring
7. Restricted area monitoring
8. Heat Alarm

*Conditions: no obstacles, direct line-of-sight

**Conditions: temperature ~25° C, 20 triggers/day, txpower=13 dBm, LoRa spreading factor SF=10

The RPS1M Sensor can be preconfigured optionally with REACOM's proprietary software, that is user friendly and can be easily integrated to any Third-Party online monitoring and notification System to view data, set alerts, etc.***



TECHNICAL SPECIFICATIONS

ELECTRIC		PHYSICAL	
Input Power.....	1x3.6V Li-SOCl 2 battery	Main Body Dimension.....	60x36x29mm
Working Voltage.....	DC 2.4V~3.6V	Magnet Dimension.....	59x24.3x5.2mm
Standby Current.....	4uA/3.0V	Weight.....	43.8 g
Transmitting Current (max)....	33 mA / 3.0V / 13 dBm	Operating Temperature.....	-20° C ~ 55° C
Receiving Current (max).....	15 mA / 3.0V	Environment Humidity Range....	<90% RH (No condensation)
Low Voltage Threshold	2.4V	Storage Temperature.....	-40° C ~ 85° C
Battery Voltage			
Measurement Accuracy.....	± 0.1V		
FREQUENCY			
TX Power.....	13 dBm ± 1d Bm	Communication Range.....	10 km (line-of-sight, the actual transmission distance depends on the environment)
Rx Sensitivity.....	-133 dBm		
	(LoRa, Spreading Factor=7-12	Spread Technique.....	LoRa/FSK
	Bit Rate=5470-293 bps)	Available Frequency.....	EU863-870
Antenna Type.....	Build-in antenna		Other regional bands can be optionally configured before shipment
Data Transfer Rate.....	0.3 kbps~50 kbps		

***Optional