rpr-IoT-T01

Temperature Node

▶ **Low Power Wireless Sensor Node.**

▶ **Compatible with The Things Network LoRaWAN**

▶ **±0.5⁰C accuracy 0.1⁰C resolution**

▶ **Long battery life.**

Overview

The rpr-IoT-T01 is a battery powered temperature sensor node that communicates using long range radio compatible with LoRaWAN and the Things Network. The low power electronics are housed in a rugged IP67 enclosure suitable for outdoor and industrial applications. A sealed connector is used for the temperature probe allowing a number of probe options.

Data is stored on The RPR WeatherFile.com cloud for long-term storage and access. Readings can also be accessed by or sent in real time to your IoT dashboard of choice.

Applications

The rpr-IoT-T01 has a wide range of applications where temperature must be monitored.

- ✓ Building energy management
- ✓ Goods storage
- ✓ Warehousing
- ✓ Working conditions
- ✓ Food Production
- ✓ Personnel safety and comfort
- ✓ Education and research projects
- ✓ Sports halls
- ✓ Museums
- ✓ Agriculture and Horticulture

RPR Products

Richard Paul Russell Ltd offers a range of IoT systems, weather instrumentation and data loggers. Please contact us for more information.
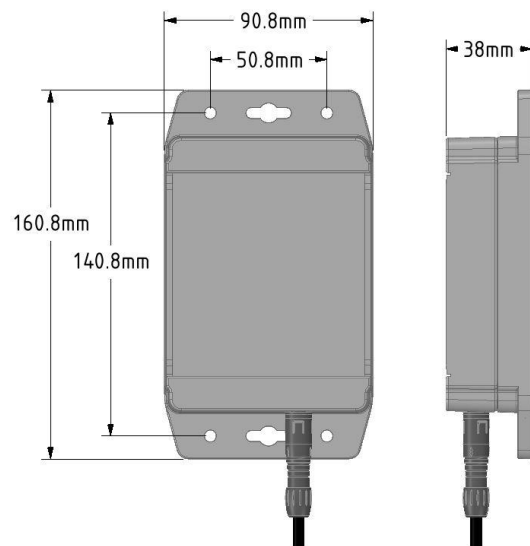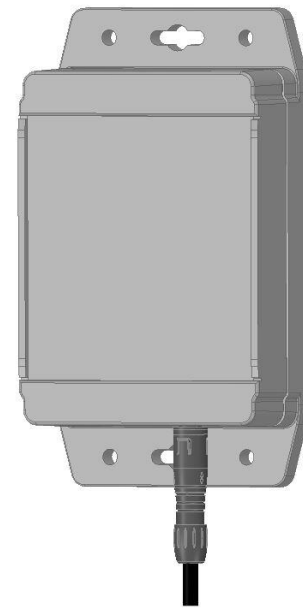
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rpr-IoT-T01

Specification

Physical	
Enclosure dimensions including flanges but excluding sensor	160.8mm x 90.8mm x 38 mm
Mounting holes	4 off 5 mm dia. 140.8 mm x 50.8 mm
Mounting key holes	2 off 8.5 mm dia. 4.6 mm slot, 140.8 spacing
Flange thickness	6.5 mm
Enclosure material	Polycarbonate, Light Gray (RAL 7035)
Enclosure flammability rating	UL94 5VA @ 3mm
Weight	245g
Temperature Sensor	
Sensor type	DS18B20 digital
Sensor Accuracy	±0.5°C Accuracy from -10°C to +85°C ±1°C Accuracy from -30°C to +100°C
Resolution	0.1°C
Sensor temperature range	-55°C to +125°C
Sensor Identification	Each sensor has a unique 64-bit serial code
Time constant	TBD
Sample rate	1 per second to 1 per 12 hours
Wireless/network Connectivity	
Frequency band	863-870 MHz
LoRa Channel	EU868
Networking Protocol	LoRaWAN, Class A
Aerial	Internal Meandering Monopole circuit board mounted
Uplink Message Interval	Selectable between 1 minute and 1 day
Range	Up to 10km Line of sight dependent on environment
Power	
Battery type	A size Lithium Thionyl Chloride (LiSOCl2)
Nominal Battery Capacity	4000mAh
Nominal Battery Voltage	3.6V
Environmental	
Temperature range	Operating: -10°C to +60°C, Storage: -40°C to +70°C
Relative Humidity	0% to 100%
Enclosure protection	IP67
Compliance	UKCA, CE

The manufacturer reserves the right to amend the specification and therefore the information in this document may be subject to change.