RADIONODE®

The most innovated data logger

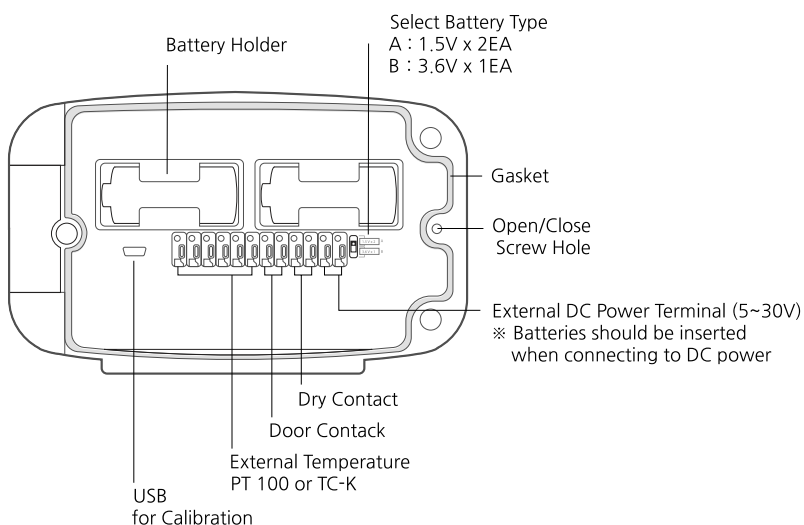## Extended Multi-Function Temp/RH Data Logger via WiFi

RN400-H2EX

- WiFi support b/g/n 2.4GHz
- Internal Temp/RH sensor
- 2CH. Temp Input (PT100 or TC-K, TC-T)
- 1CH. Door Input (Wake Up when Open)
- 1CH. Alarm Output (Max Load 1A)
- Fast Detection of Power Outage
- Fast Switch to Battery in Power Outage
- Cloud Storage / HTTP Output via WiFi
- C Type Battery / DC 5~30V
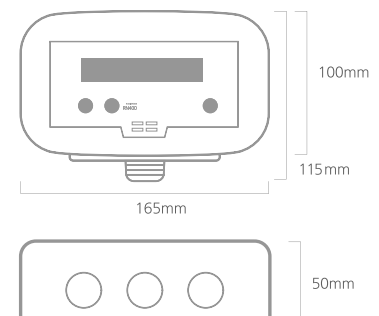- OLED Display / micro SD / Backup FRAM

RN400-H2EX is designed to measure internal temp/RH and 2CH ext. temperature sensor with 3 wire PT100 or TC-K and to check the magnetic door sensor. All the measured data would be transferred to the destination. While RN400 is in sleep mode, it could be wake with the door open or keypad. Also, it has an alarm output with the range threshold values. Especially RN400-H2EX could detect DC power outage and then switch it to battery mode with reporting to the destination immediately. The destination would be an information system such as public cloud, local server, and even PC. Premium RN400 H2 series have IP65 for protection, OLED screen for cold outdoor, F-RAM memory for instant backup and micro-SD card for CSV backup.

Hardware

Battery Holder

Select Battery Type
A : 1.5V x 2EA
B : 3.6V x 1EA

Gasket

Open/Close
Screw Hole

External DC Power Terminal (5~30V)
※ Batteries should be inserted
   when connecting to DC power

Dry Contact

Door Contack

External Temperature
PT 100 or TC-K

USB
for Calibration

Dimensions

100mm

115mm

165mm

50mm

Application

- Food storage sites(refrigerators, freezers)
- Bio-labs
- Building energy usage monitoring
- Medicine and medical goods storage sites
- Semiconductor production lines

Contact Information

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Extended Multi-Function Temp/RH Data Logger via WiFi

RN400-H2EX Specifications

Communication Method	• 2.4GHz IEEE 802.11 b/g/n up to WPA2-Enterprise • HTTP Get/Post (Radionode V2 Protocol)
Internal Temp/RH sensor	• CH1: Temp (-20 ~ 60℃(-4 ~140°F)) • CH2: RH (0 ~ 95%RH) **CH1:Temp** **CH2:RH**
External Temp Sensor Input	• CH3: PT100, TC-K, TC-T • CH4: PT100, TC-K, TC-T **CH3 : ex-temp** **CH4: ex-temp**
Accuracy	• Temp. Accuracy: ± 0.3 ℃ (0~ 90 ℃) • RH Accuracy: ± 2.0 %RH (10~ 90%RH) • TC-K, PT100 Accuracy: ±0.5℃ (typical)
Resolution	• Temp/RH: 0.01℃ , 0.01%RH • EX-Temp: 0.1 ℃ (typical)
Supported Temp. Range	• PT100：-200℃ ~ 300℃ (-328 ~ 572°F) • TC- K：-30℃ ~ 300℃ (-22 ~ 572°F) • TC- T：-100℃ ~ 50℃ (-148~122°F)
Door Sensor Input	NC Door Sensor (Normal Close) **CH5: door status** **99=open, 0=close**
Alarm Relay Output	Relay On-Off controlled by user-defined range threshold setting(DC 40V 1A). CH4: Dry Contact **CH6: Dry Contact**
Operating Condition	-20 ~ 60 ℃ (-4 ~140°F) / 0 ~ 95 %RH (non-condensing)
Display Type	OLED 20X2 CHAR (Yellow or White)
Sensing Interval	10secs, 1min, 5mins, 10mins, 20mins, 30mins **10 Seconds Mode is supported when customer server mode**
Sending Interval	10secs, 30secs, 60secs, 5mins,10mins, 20mins, 30mins, 40mins, 60mins **10 Seconds Mode is supported when customer server mode**
Internal Memory	32KByte F-RAM (Automatic Sample Backup available when no wifi) **1,100 Samples /CH**
External Memory	Option (16GB microSD, Permanent logging)
Battery / Life Span	C Type 1.5V X 2EA OR 3.6V Li-SOCL2 X 1EA / 6 month with 1.5V X 2EA @ 10min sensing
Protection	IP65
External Power / UPS	5~30V DC / YES (When DC Power Shutdown, the source is changed into the Battery immediately)
How To Setup	PC Setup Software via USB Cable
Wall Mount Types	Magnet & Screw Hole
Weight	352 g

Product Components

• RN400-H2EX Extended Multi-Function Temp/RH Datalogger
• 2 Type Cable Glands (PG9 1EA/ PG11 2EA)

Optional Accessories

Type	Magnet DOOR Sensor	
Model Number	AP-D1	
Length	1 M	
Spec	NORMAL CLOSE(N.C)	
Sensor Values	99.0 : Open 0.0 : Closed	

Type	Warning Strobe-Horn	
Model Number	AP-W1	
Length	30cm	
Spec	12V, LED, 85dbA	

Type	12V DC Power Adapter	
Model Number	AP-P1	
Length	3 M	
Spec	12V 500mA	

Type	PT100	
Model Number	PR-P1-3	PR-P1-15
Cable Length	3M	15M
Size of Sensor Tips	Diameter: 4.8 ø Length: 60.0mm	

Type	TC-K	
Model Number	PR-K1-3	PR-K1-15
Cable Length	3M	15M
Size of Sensor Tips	Diameter: 3.2 ø Length: 60.0mm	

Type	TC-T	
Model Number	PR-T1-3	PR-T1-15
Cable Length	3M	15M
Size of Sensor Tips	Diameter: 3.2 ø Length: 50.0mm	