RADIONODE®

The most innovated data logger
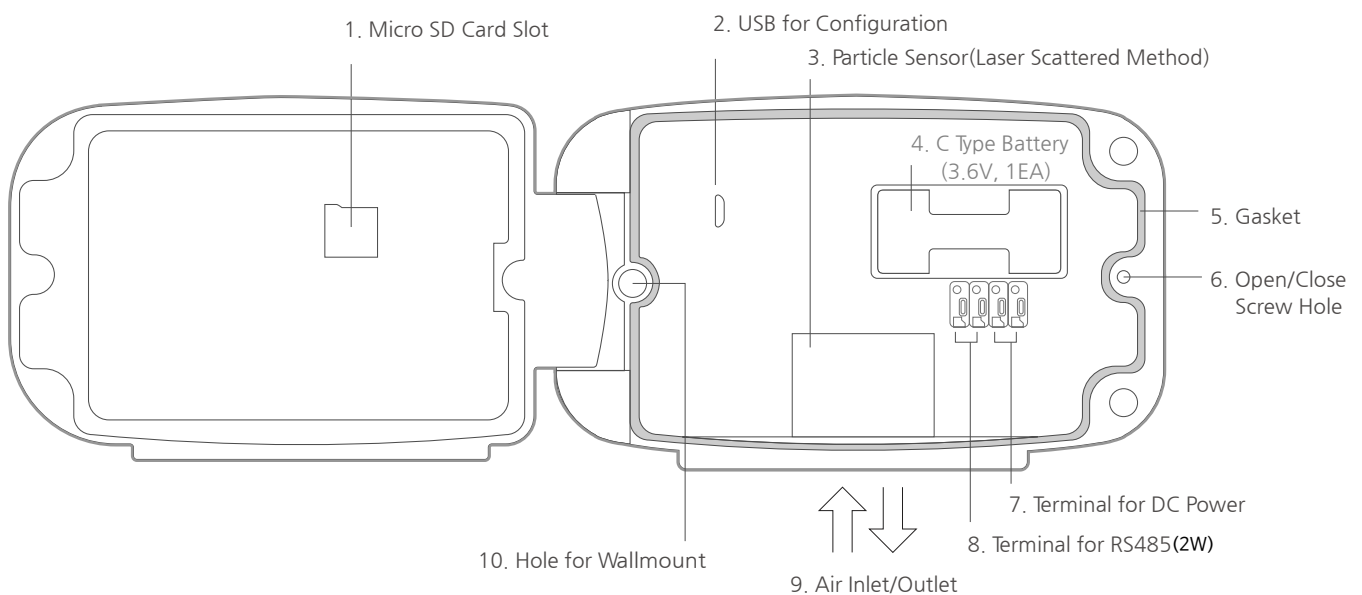
Particle Counter Data Logger via WiFi

RN400-T2PM

- WiFi support b/g/n 2.4GHz(WPA2-ENT)
- PM0.5 / 1.0 / 2.5 / 4.0 / 10.0 Support
- High Accuracy(± 10μm/m3)
- RS485 Output MODBUS RTU
- Cloud Storage / HTTP Output via WiFi
- C-Type 3.6V Battery / DC 12V
- OLED Display / Micro SD / Backup F-RAM

RN400-T2PM is designed to measure particles in the air. It uses the laser scattered technology to measure the number of particle and the mass of particle. RN400-T2PM supported μg/m³, #/m³, #/ft³ and #/m³ as a measuring unit. all the particle data are transferred to the destination via WiFi connection. The destination would be an information system such as public cloud, local server and even PC. For high level security, it supports up to WPA2-Enterprise protocol. In addition to WiFi, RN400-T2PM can send the measured data to other traditional industrial devices such as PLC, industrial recorder and others through RS485 output. Premium RN400 T2 series have IP65 for protection, OLED screen for cold outdoor, F-RAM memory for instant backup and micro-SD card for CSV backup.
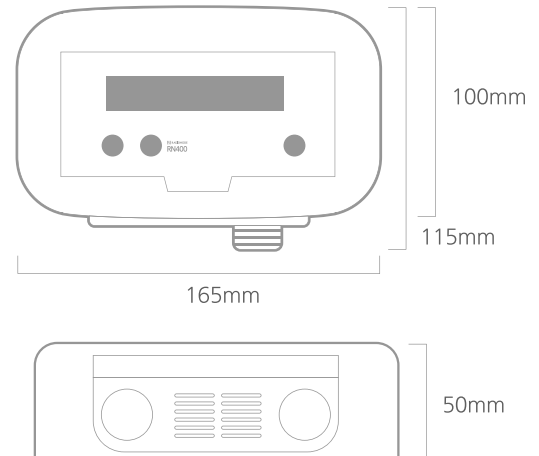
Hardware

1. Micro SD Card Slot
2. USB for Configuration
3. Particle Sensor(Laser Scattered Method)
4. C Type Battery (3.6V, 1EA)
5. Gasket
6. Open/Close Screw Hole
7. Terminal for DC Power
8. Terminal for RS485(2W)
9. Air Inlet/Outlet
10. Hole for Wallmount

Particle Counter Data Logger via WiFi

RN400-T2PM Specifications

Communication Method	• 2.4GHz IEEE 802.11 b/g/n up to WPA2-Enterprise • HTTP Get/Post (Radionode V2 protocol) • RS485 MODBUS RTU(2W) *RS485 need to use DC power adapter
Particle Sensor Channel Info.	Laser Scattered Method • CH1: PM 2.5 • CH2: PM10.0 • CH3: PM0.5 • CH4: PM1.0 • CH5: PM4.0 • CH6: Size um
Channels For Display	• CH1: PM 2.5 • CH2: PM10.0 • CH3: PM0.5
Particle Size	0.5µm ~ 10.0 µm (PM 0.5 ~ PM 10.0)
Flow Rate	0.3L / min

Fan Working Time	• Battery mode :
	  15sec before measurement
	• DC power mode :
	  Continuous working with Auto cleaning (24h)

Particle Unit	µg/m³, #/cm³, #/ft³, #/m³ (#:number)
Sampling Mode	Cumulative PM 0.5 : 0.3 µm ~ 0.5 µm PM 1.0 : 0.3 µm ~ 1.0 µm PM 2.5 : 0.3 µm ~ 2.5 µm PM 4.0 : 0.3 µm ~ 4.0 µm PM 10.0: 0.3 µm ~ 10 µm Differential (Norm.) PM 0.5 : 0.3 µm ~ 0.5 µm PM 1.0 : 0.5 µm ~ 1.0 µm PM 2.5 : 1.0 µm ~ 2.5 µm PM 4.0 : 2.5 µm ~ 4.0 µm PM 10.0 : 4.0 µm ~ 10 µm Even if Mass Unit is selected, PM 0.5 is displayed as # / cm³.
Mass Concentration Accuracy	• 0 to 100 µg/m³ ± 10 µg/m³ • 100 to 1,000 µg/m³ ± 10 %³
Operating Condition	-10 ~ 60 °C (-14 ~ 140°F) / 0 ~ 95 %RH (non-condensing)
Display Type (Color)	OLED 20X2 CHAR (Y or W)
Sensing Interval	1min, 5mins, 10mins, 20mins, 30mins
Sending Interval	5mins,10mins, 20mins, 30mins, 40mins, 60mins
Internal Memory	32KByte F-RAM (Automatic Sample Backup available when no wifi) **860 Samples/CH**
External Memory	Option (16GB microSD, Permanent logging)
Data Storage	Cloud Storage in Radionode365
Battery / Lifespan	3.6V Li-SOCL2 X 1EA / 3 month (C Type 3.6V 1EA @10mins sensing)
Protection	Rubber Gasket Surrounded except air inlet & outlet
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
Air Inlet/Outlet	Bottom side of the product

Dimensions

100mm
115mm
165mm
50mm

Application

• Centralized Particle Monitoring System
• Big Data Analysis System
• Remote Alert System / HVAC Control System

Product Components

• RN400-T2PM
• Cable Glands (PG11 1EA)
• C Type Battery

Optional Accessories

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

Contact Information

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