



Main Features

- RN-30-ND01: Single sensor port for NEXCOM Smart Staff Gauge or compatible sensor connection
- RN-30-ND02: Dual sensor ports for NEXCOM Smart Staff Gauge or compatible sensor connection
- Provide pre-installed NEXCOM Smart Staff Gauge data acquisition RS-485 MODBUS API
- Support NB-IoT & LoRa wireless data transmitting
- Support both AGPS & GNSS
- Provide 14400 mAh Lithium Battery
- DC 12V, 3-pin IP67 connector
- IP67 design

Product Overview

Leveraging Internet-of-Things (IoT) technologies, the data acquisition system delivers powerful capabilities for efficient and accurate monitoring and analysis of hydrological data, including water levels, sediment levels, and meteorological parameters. Paired with NEXCOM Smart Staff Gauge, it enables near real-time EC profile data collection and transmission at multiple depths in specific locations within a water body. These EC variations, combined with concurrent water-level changes, provide early and reliable indicators of river dynamics.

Specifications

Wireless

- NB-IoT: All regions
- Bands: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B85
- NB-IoT Antenna Gain: 2 dBi
- LoRa: 863~928MHz
- LoRa Antenna Gain: 1.6 dBi
- GPS AGPS & GNSS
- GPS Antenna Gain: 22 dBi

Data Transmission Interval

- 5~60 minutes, user define

I/O Interface

- Sensor port: M12 A-Coded 5-pin female connector
- Power On/Off switch
- Solar panel or DC input
- SIM card socket
- SD card socket
- Antenna: NB-IoT, LoRa, and GPS

User Setting Item

- Device ID, Database IP, SIM card, APN
- Data transmission interval, LoRa ID
- Staff Gauge type, Height origin, etc.

Battery

- 14400 mAh Lithium Battery
- Support 28 days of operation with one RN-30-SG02, transmitting data at ten-minute intervals

Power Supply

- DC 12V, 3-pin IP67 connector
- Typical power consumption:
 - Sleep mode: 440mW
 - Active mode: 860mW
 - Wireless transmission: 1100mW

Mechanical

- 438 (L) x 257 (W) x 90 (H) mm / 17.2 (L) x 10.1 (W) x 3.5 (H) inches
- Aluminum alloy chassis
- IP67 design

Mounting

- Mounting holes: 60mm x 60mm
- Screw: M6 x 12 mm, 4 pcs
- Robust pole mount kit with adjustable angle (optional accessory)

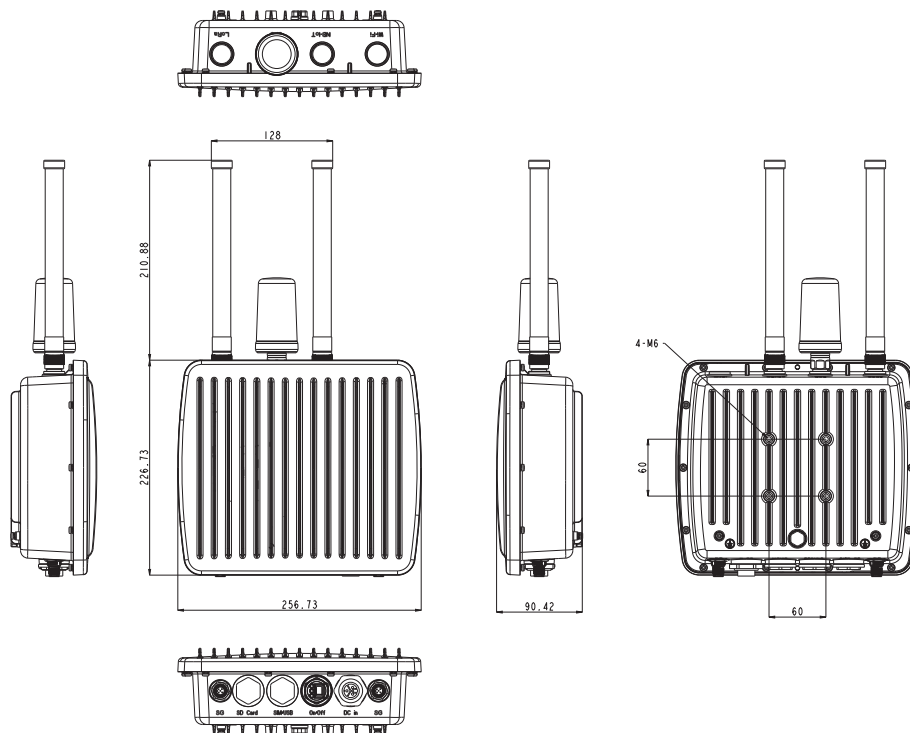
Environment

- Operating temperature: Ambient with air flow: -10°C~60°C (14°F~140°F)
- Storage temperature: -20°C~80°C (-4°F~176°F)
- Relative humidity: 10%~90% (non-condensing)
- Vibration protection: Random: 1.15 Grms@1~200Hz

Certifications

- CE
- FCC

Dimension Drawing



Ordering Information

- RN-30-ND01 (P/N: 10RA000RN02X0)**
 Data acquisition system, NB-IoT, LoRa and GPS
 Single sensor port for Smart Staff Gauge Connection
- RN-30-ND02 (P/N: 10RA000RN03X0)**
 Data acquisition system, NB-IoT, LoRa and GPS
 Dual sensor ports for Smart Staff Gauge Connection
- Optional: RN-30-AY01 (P/N: 10RA000RN05X0)**
 Solar panel continuously charges the battery to maintain stable system power.
 36 watts Solar Power Panel, Vmpp 11.75 V, Imp 3.07 A, cable length 280 CM
- Optional: Robust pole mount kit with adjustable angle (P/N: 5040450166X00)**
 Adjustable-angle mounting kit for directional alignment and stable installation.
 Mounting hole: 60 x 60 mm, Screw: M6 x 12 mm, 4 pcs
- Optional: SD card (P/N: 73AE032G11X00)**
 RN-30-ND01 / RN-30-ND02 comes bundled with a 32GB SD card.
 Additional cards available as optional accessories for backup.
 32GB Industrial grade, -25 ~ 85°C

