



Electrochemical NH3 Density Transmitter via USB

UA54-NH3

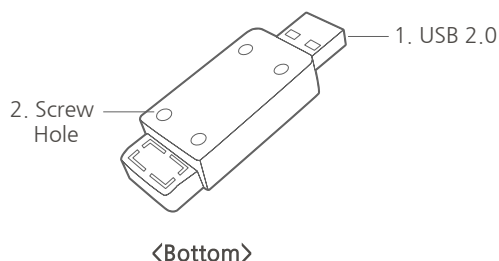
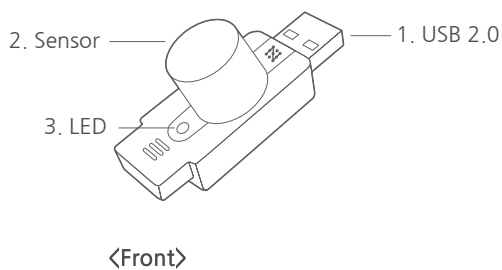
- Real-time NH3 density, Temperature transmitter
- Electrochemical NH3 gas sensor embedded
- Individual Certificate included
- Recording/Monitoring Software on Win/Mac/Linux
- Android Recording App.



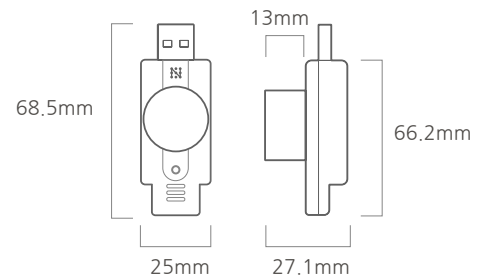
The UA54-NH3 device has an electrochemical Ammonia(NH3) sensor inside. It transmits measured NH3 density and temperature information in real-time via the USB connector.

The UA Series is automatically recognized as a serial port on the operating system and accessed using the AT command. Multiple USB connections of the UA device could compose the multi-channel sensor. The sensor data is not stored in the UA, but recording in PC and Android device. 128CH real time monitoring software on pc, Tapaculo Lite is downloadable on our website(www.radionode365.com). And android real time recording application is also available from google play store. The optional RN17X model helps UA series for you to setup remote web monitoring system.

Hardware



Dimensions



⚠ CAUTION!

- Volatile organic compounds (VOCs) should be avoided in applications where electrochemical sensors are used because they either dissolve in the electrolyte or adsorb onto the sensor's housing.
- Long term exposures and high concentrations may affect the performance characteristics
- Sudden changes in humidity cause short-term transient signals
- Avoid contact with conductors.
- Static electricity can cause distorted values.

Contact Information

- www.radionode365.com
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UA54-NH3 Specifications

| | |
|---------------------------------------|--|
| Sensor Channel Info. | <ul style="list-style-type: none"> • CH1: NH3 • CH2: Temperature |
| Gas Sensor Type | Electrochemical Cell |
| Gas Sensor Filter | Metal Sintering filter |
| Body Material | PC(Polycarbonate) |
| Measurement Range | <ul style="list-style-type: none"> • NH3: 0 ~ 100 ppm • Temperature: -40 ~ 85°C |
| Measurement Unit (Selection using SW) | <ul style="list-style-type: none"> • NH3: ppm • Temperature: °C(Default), °F |
| Measurement Cycle | 1 sec |
| Sensor Resolution | <ul style="list-style-type: none"> • NH3: 1ppm • Temperature: 0.01°C |
| Sensor Accuracy (Repeatability) | <ul style="list-style-type: none"> • NH3: < 3% of measured value • Temperature: ±0.3°C |
| Compensation Logic | Temperature |
| Baseline Drift | Zero ± 3 ppm |
| Long-term Drift | < 5% signal loss / 6 months |
| Gas Response Time | T90 < 40 secs |
| Warming up Time | < 3mins after power-on |
| Operating Condition | <ul style="list-style-type: none"> • Temperature: 10 ~ 40°C • Humidity: 15 ~ 90% R.H(non condensing) |
| Lifetime ¹⁾ | More than 12 months @ discontinuous measurement |
| Humidity-Sensitivity | < 4ppm |
| Cross-Sensitivity | Interfering Gas: SO2, H2S, NO, NO2, Cl2 |
| Power Consumption | 5V (Max. 100mW) |
| Calibration Certificate | Individual Certificate. Calibration with 50ppm NH3 calibration gas mixtures |
| Calibration Method | Two-point Calibration |
| USB Port | USB 2.0 Type A Plug |
| Output Signal | USB digital, CDC Device (AT Command) |
| LED | Device Status Indicator <ul style="list-style-type: none"> • BLINK RED & GREEN: Warming-up • RED KEEP ON: USB Connection Failed • BLINK GREEN: Measuring |
| Software Support | <ul style="list-style-type: none"> • Tapaculo Lite 128CH recording software on PC Download: www.radionode365.com • Tapaculo Mobile 2CH recording software on Android devices Download: Google play store • Calibration Software Calibrator that compensates measuring error. Download: www.radionode365.com |

1) Gas sensors have a longer life when measured discontinuously than when measured continuously.

Application

- Animal Farm
- Industrial safety Monitoring
- Bio-labs
- Sewage Treatment Plant

Product Components

| Model | Component |
|--------------|--|
| UA54-NH3-100 | <ul style="list-style-type: none"> • UA54-NH3-100(1EA) • USB Extension Cable 1.5m(1EA) • Calibration Certificate(1EA) |

Accessories

| Type | Model Number | Spec. |
|------------------------|--------------|---|
| Converter (USB → LAN) | RN171 | <ul style="list-style-type: none"> • Supports cloud monitoring • Supports MODBUS TCP/HTTP data transmission • Power: PoE 48V, IEEE802.3af/at, DC6V, 1.9W |
| Converter (USB → WIFI) | RN172 | <ul style="list-style-type: none"> • Supports cloud monitoring • Supports MODBUS TCP/HTTP data transmission • Power: DC6V, 2.4W |