Electrochemical NO Density Transmitter via USB
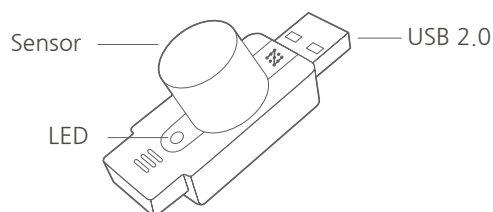
UA54-NO-50

- Real-time NO density, Temp/RH transmitter
- Electrochemical NO gas sensor embedded
- Individual Certificate included
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
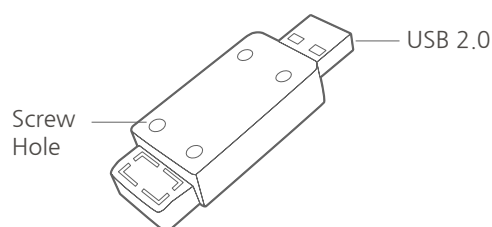- Android Recording App (Tapaculo Mobile)

The UA54-NO-50 device has an electrochemical Nitrogen monoxide(NO) sensor inside. It transmits measured NO 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.
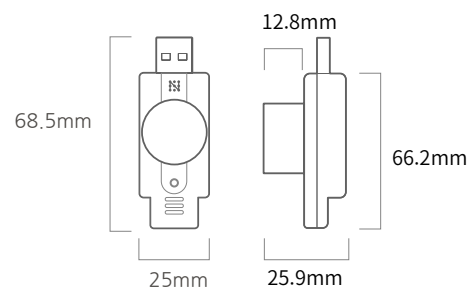
Hardware

Sensor —
USB 2.0
LED

〈Front〉

USB 2.0
Screw Hole

〈Bottom〉

Dimensions

68.5mm
12.8mm
66.2mm
25mm
25.9mm

⚠ CAUTION!

- 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
- master@dekist.com

UA54-NO-50 Specifications

Sensor Channel Info.	• CH1: NO • CH2: Temperature • CH3: Humidity
Gas Sensor Type	Electrochemical Cell
Gas Sensor Filter	Metal Sintering filter
Body Material	PC(Polycarbonate)
Measurement Range	• NO: 0 ~ 50 ppm • Temperature: -40 ~ 50°C • Humidity : 5~95%
Measurement Unit (Selection using SW)	• NO: ppm • Temperature: °C(Default), °F • Humidity: %
Measurement Cycle	1 sec
Sensor Resolution	• NO: 0.2ppm • Temperature: 0.01°C • Humidity: 0.01%
Sensor Accuracy (Repeatability)	• NO: ±2% of measured value • Temperature: ±0.2°C • Humidity: ±2.0%
Baseline Drift	Max ± 3.5 ppm
Long-term Drift	< 2% signal loss / 1 month
Gas Response Time	T90 < 10 secs
Warming up Time	< 1hour after power-on
Operating Condition	• Temperature: -40 ~ 50°C • Humidity: 15 ~ 90% R.H(non condensing)
Lifetime[1]	3 years @ discontinuous measurement

Cross-Sensitivity	Interfering Gas	Cross-Sens. [%]
	H2S	30
	NO2	25

Power Consumption	5V (Max. 110mW)
Calibration Certificate	Individual Certificate. Calibration with 49ppm NO 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 • BLINK RED & GREEN: Warming-up • RED KEEP ON: USB Connection Failed • BLINK GREEN: Measuring
Software Support	• Tapaculo Mobile 3CH recording software on Android devices Download: Google play store • Tapaculo Lite 128CH recording software on PC Download: www.radionode365.com • 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

• Air quality monitoring
• Industrial safety monitoring
• Vehicle exhaust emissions monitoring

Product Components

Model	Component
UA54-NO-50	• UA54-NO-50 (1EA) • USB Extension Cable 1.5m (1EA) • Calibration Certificate (1EA)

Optional Accessories

Type	Model Number	Spec.
Sensor data transmitter via Ethernet	RN171 WC	• Supports cloud monitoring • Supports MODBUS TCP/ HTTP data transmission • Power: PoE 48V, IEEE802.3af/at, DC6V, 1.9W
Sensor data transmitter via WiFi	RN172 WC-D	• Supports cloud monitoring • Supports MODBUS TCP/ HTTP data transmission • Power: DC12V, 5Wv