



Electrochemical EO Density Transmitter via USB

UA54-EO-10

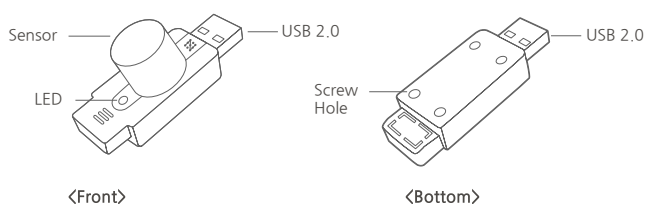
- Real-time C₂H₄O density, Temp/RH transmitter
- Electrochemical C₂H₄O gas sensor embedded
- Individual Certificate included
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
- Android Recording App. (Tapaculo Mobile)



The UA54-EO-10 device has an electrochemical Ethylene Oxide(C₂H₄O) sensor inside. It transmits measured EO 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.

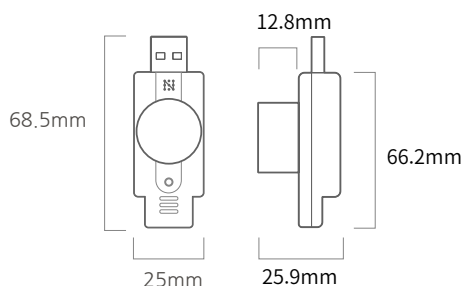
Hardware



⚠ 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.

Dimensions



Contact Information

- www.radionode365.com
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UA54-EO-10 Specifications

Sensor Channel Info.	<ul style="list-style-type: none"> • CH1: EO (Ethylene Oxide),(2H4O) • CH2: Temperature • CH3: Humidity 		
Gas Sensor Type	Electrochemical Cell		
Gas Sensor Filter	Metal Sintering filter		
Body Material	PC(Polycarbonate)		
Measurement Range	<ul style="list-style-type: none"> • C2H4O: 0 ~ 10 ppm • Temperature: -40 ~ 50°C (-40 ~ 122°F) • Humidity : 5~95% 		
Measurement Unit (Selection using SW)	<ul style="list-style-type: none"> • C2H4O: ppm • Temperature: °C(Default), °F • Humidity: % 		
Measurement Cycle	1 sec		
Sensor Resolution	<ul style="list-style-type: none"> • EO: 0.05ppm • Temperature: 0.01°C • Humidity: 0.01% 		
Sensor Accuracy (Repeatability)	<ul style="list-style-type: none"> • EO: < 2% of measured value • Temperature: ±0.2°C • Humidity: ±2.0% 		
Baseline Drift	Zero ± 1 ppm		
Long-term Drift	< 2% signal loss / month		
Gas Response Time	T90 < 100 secs		
Warming up Time	< 3mins after power-on		
Operating Condition	<ul style="list-style-type: none"> • Temperature: -40 ~ 50°C (-40 ~122°F) • Humidity: 15 ~ 90% R.H(non condensing) 		
Lifetime ¹⁾	More than 12 months @ discontinuous measurement		
Cross-Sensitivity	Interfering Gas	Concentration [ppm]	Reading [ppm]
	Acetone (C3H6O)	300	~2
	Benzene (C6H6)	100	~10
	CO	100	20±10
	Ethanol (C2H5OH)	30	21
	Formic Acid (HCOOH)	42	42±3
	H2S	20	40±2
	Methyl Mercaptan (MM,CH3SH)	10	~12
	ureureTert-Butyl Mercaptan (TBM,(CH3)3CSH)	10	~11
	Toluene (C7H8)	30	6
	Xylene (C8H10)	25	5
Power Consumption	5V (Max. 90mW)		
Calibration Certificate	Individual Certificate Calibration with 50ppm CO(Interfering Gas) calibration gas mixtures		

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

Calibration Method	Two point Calibration Mode Manual Zero Calibration Mode
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 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

Application

- Disinfection and Sterilization
- Medical
- Industrial Safety Monitoring
- Bio-labs.

Product Components

Model	Component
UA54-EO-10	<ul style="list-style-type: none"> • UA54-EO-10(1EA) • USB Extension Cable 1.5 m(1EA) • Calibration Certificate(1EA)

Optional Accessories

Type	Model Number	Spec.
Sensor data transmitter via Ethernet	RN171 WC	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Supports cloud monitoring • Supports MODBUS TCP/ HTTP data transmission • Power: DC12V, 5W