



Electrochemical O2 Density Transmitter via USB

UA54-O2

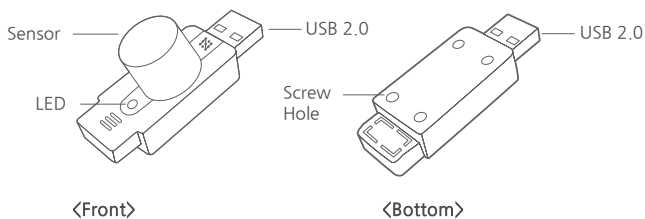
- Real-time O2 density, Temp/RH transmitter
- Electrochemical O2 gas sensor embedded
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
- Android Recording App. (Tapaculo Mobile)



The UA54-O2-4 device has an electrochemical Hydrogen(O2) sensor inside. It transmits measured O2 density to 20% 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



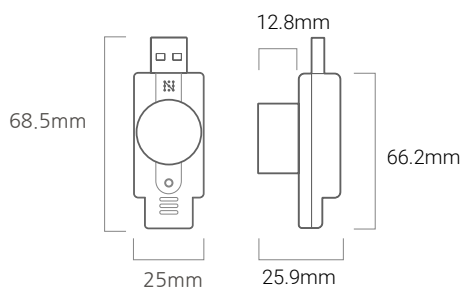
⚠ CAUTION!

- Acetone and MEK (Methyl Ethyl Ketone) can damage oxygen sensors.
- Sensitive to temperature, humidity, and pressure changes

Contact Information

- www.radionode365.com
- master@dekist.com

Dimensions





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UA54-O2-21 Specifications

Sensor Channel Info.	<ul style="list-style-type: none"> • CH1: Oxygen (O2) • 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"> • O2: 0~25% • Temperature: -30 ~ 55°C • Humidity : 5~95%
Measurement Unit (Selection using SW)	<ul style="list-style-type: none"> • O2: % • Humidity: %
Measurement Cycle	1 sec
Sensor Resolution	<ul style="list-style-type: none"> • O2: < 1 % • Humidity: 0.01%
Sensor Accuracy (Repeatability)	<ul style="list-style-type: none"> • O2: < 2% of measured value • Temperature: ±0.2°C • Humidity: ±2.0%
Long-term Drift	< 2% signal loss / 3month
Gas Response Time	T90 < 13 secs
Warming up Time	< 1min after power-on
Operating Condition	<ul style="list-style-type: none"> • Temperature: -30 ~ 55 °C • Humidity: 15 ~ 90% R.H(non condensing) • Pressure : 80 to 120 kPa
Lifetime ¹⁾	36 month until 85% original output in 20.9% O2
Cross-Sensitivity	<ul style="list-style-type: none"> • Humidity sensitivity : < 95% RH @ 40°C • CO2 sensitivity : Measured at 5% CO2 • Pressure sensitivity : Measured at 20kPa
Power Consumption	5V (Max. 116mW)
Calibration Certificate	Individual Certificate. Calibration with 10% O2 calibration gas mixtures
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 <ul style="list-style-type: none"> • Tapaculo Lite 128CH recording software on PC Download: www.radionode365.com <ul style="list-style-type: none"> • 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

- Industrial Safety Monitoring
- Semiconductor Quality Control
- Air Ventilation System
- Bio Laboratory

Product Components

Model	Component
UA54-O2	<ul style="list-style-type: none"> • UA54-O2(1EA) • USB Extension Cable 1.5m(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