



CO2 Gas Density Transmitter via USB

UA58-CO2-U

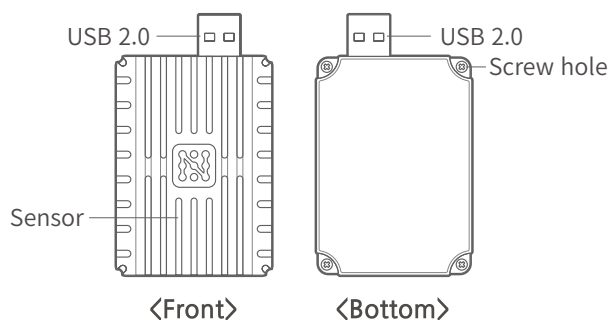
- Real-time Four Channel Gas Transmitter
- Compact Size Sensor for Indoor Air Quality
- NDIR sensor for CO2 measurement
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (nest)
- Android Recording App (nest Mobile)



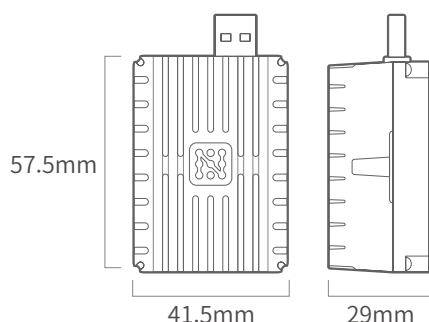
The UA58-CO2-U device has NDIR gas(Carbon dioxide) inside. It transmits measured CO2 density up to 15000ppm and temperature information in real-time via the USB connector.

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 recorded in PC and Android device. 128CH real time monitoring software on pc, nest is downloadable on our website(www.radionode365.com). Android real time recording application nest mobile is also available from google play store. The optional RN17X model helps the UA series for you to setup remote web monitoring system.

Hardware



Dimensions



⚠ CAUTION!

- Avoid shocks, as impacts may alter NDIR sensor characteristics.
- Do not use it in areas with water or moisture; consult beforehand if necessary.
- Significant errors may occur outside the recommended temperature range or in areas with strong airflow; consult if needed.
- Use a protective case to prevent dust and contamination.
- Minimal cross-sensitivity may occur due to partial absorption band overlap from other gases or contamination on optical components over time.

Contact Information

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



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UA58-CO2-U Specifications

Sensor Channel Info.	<ul style="list-style-type: none"> • CH1: CO2 (Carbon dioxide) • CH2: Temperature • CH3: Humidity
Gas Sensor Type	NDIR Optical sensor
Body Material	PC(Polycarbonate)
Measurement Range	<ul style="list-style-type: none"> • CO2: 400~15000ppm • Temperature: -30 ~ 55°C • Humidity : 5~95%
Measurement Unit (Selection using SW)	<ul style="list-style-type: none"> • CO2: ppm • Temperature: °C(Default), °F • Humidity: %
Measurement Cycle	2 sec
Sensor Resolution	<ul style="list-style-type: none"> • CO2: 1ppm • Temperature: 0.01°C • Humidity: 0.01%
Sensor Accuracy (Repeatability)	<ul style="list-style-type: none"> • CO2: ±50ppm+5% of measured value • Temperature: ±0.2°C • Humidity: ±2.0%
Baseline Drift	Automatic Background Calibration
Long-term Drift	NONE
Gas Response Time	T90 < 30 secs
Warming up Time	< 3mins after power-on
Operating Condition	<ul style="list-style-type: none"> • Temperature: -10 ~ 50°C • Humidity: 15 ~ 90% R.H(non condensing)
Lifetime ¹⁾	less than 24 month @ discontinuous measurement
Power Consumption	5V (Max.156mW)
Calibration Certificate	Individual Certificate.
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"> • nest > 128CH recording software on PC > Download: www.radionode365.com • nest Mobile > 2CH recording software on Android devices > Download: Google play store • Calibration Software > Calibrator that compensates for measuring error. > Download: www.radionode365.com

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

Application

- Industrial safety Monitoring
- Air Ventilation System

Product Components

Model	Component
UA58-CO2-U	<ul style="list-style-type: none"> • UA58-CO2-U (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