RADIONODE®

The most innovated data logger

Optical Oxygen Density Transmitter via USB (Flow-Through Type)
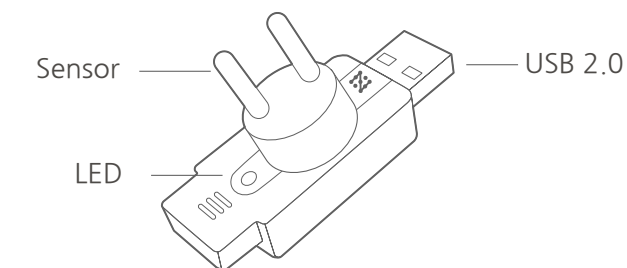
UA52-O2-25-F

- Real-time Oxygen, Barometric pressure transmitter
- Long Lifetime with Optical Sensor
- High accuracy / Low drift
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
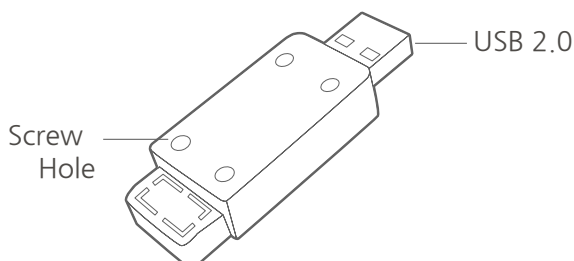- Android Recording App. (Tapaculo Mobile)

The UA52-O2-25-F has an optical Oxygen(O2) sensor(flow-through type) inside. It transmits measured oxygen and barometric pressure 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.
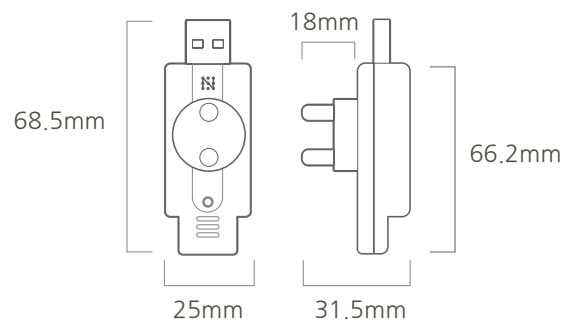
Hardware

⟨Front⟩

⟨Bottom⟩

Dimensions

⚠ CAUTION!

- Use in a non-condensing environment.
  Otherwise, distorted measurements are read.
- DO NOT use chemical cleaning agents.

Contact Information

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

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UA52-O2-25-F Specifications

Sensor Channel Info.	• CH1: O2 • CH2: Barometric Pressure
Gas Sensor Type	Blue Optical sensor
Gas Sensor Filter	Metal Sintering filter
Body Material	PC(Polycarbonate)
Measurement Range	• Oxygen: 0~25 % • Barometric pressure : 500 ~ 1200 mBar
Measurement Unit (Selection using SW)	• Oxygen [%(Default), ppm, mBar] • Barometric pressure [mBar(Default), mmH2O]
Measurement Cycle	1 sec
Sensor Resolution	• O2: 0.1% • Barometric pressure: 1 mBar
Sensor Accuracy (Repeatability)	• Oxygen < 2% FS • Barometric pressure: ±5 mBar
Gas Response Time	T90 < 30 secs
Warming up Time	30 secs after power-on
Operating Condition	• Temperature: -30 ~ 60°C (-22 ~ 140°F) • Humidity: 0 ~ 99%RH
Lifetime	5 Years @ Clean Air
Power Consumption	5V (Max. 185mW)
Calibration Certificate	Bulk Calibration Certificate Calibration with 10.0% O2 calibration gas mixtures
Calibration Method	Offset adjustment
USB Port	USB 2.0 Type A Plug
Output Mode (Selection using SW)	Default mode: MODE1 • MODE1: [Oxygen(%), Baro (mBar)] • MODE2: [Oxygen(mBar), Baro (mBar)] • MODE3: [Oxygen(ppm), Baro (mmH2O)] • MODE4: [Oxygen(%), Baro (mBar)] • MODE5: [Oxygen(%), NONE]
Output Signal	USB digital, CDC Device (AT Command)
LED	Device Status Indicator • RED KEEP ON: USB Connection Failed • BLINK GREEN: Measuring
Software Support	• Tapaculo Mobile 2CH 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

• O2 Incubator
• Airline industry
• Food storage sites(refrigerators, freezers)
• Bio-labs
• Building energy usage monitoring
• Medicine and medical goods storage sites

Product Components

Model	Component
UA52-O2-25-F	• UA52-O2-25-F(1EA) • USB Extension Cable(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	• Supports cloud monitoring • Supports MODBUS TCP/ HTTP data transmission • Power: DC6V, 2.4W