CO2 Welding Gas Analyzer Frequently Asked Questions

Model #: CM-1650

Device Premise

The CM-1650 CO2 Welding Gas Analyzer is designed to measure the CO2 component of gas mixes, analyze the CO2 component, and provide recorded data. The device is designed to measure CO2 concentrations between 0-100%.

The CM-1650 utilizes multiple nondispersive infrared (NDIR) CO2 sensors to precisely measure and analyze CO2 concentrations.

Additionally, the device logs all the data to a micro-SD card for retrieval and analysis as well as providing the data to an inspector should the data be requested.

Future Models

(CM-1651) CO2 and O2 Gas Analyzer – percentage carbon dioxide and trace oxygen

- Available spring 2024

(CM-1652) CO2 and O2 Gas Analyzer – percentage carbon dioxide and percentage oxygen

- Available early 2024

Please find below a conglomeration of frequently asked questions about the CM-1650 CO2 Welding Gas Analyzer, its application, and use. If you cannot find an answer to your questions, please contact the technical sales team at CO2Meter directly at sales@co2meter.com or by calling **877- 678-4259**.

Why does someone need to know the CO2 concentration in a welding gas?

Knowing the CO2 concentration in welding gas is essential for welding process optimization, weld quality and appearance, material compatibility, safety concerns, cost efficiency, and verification as stated by the AWS welding specifications.

What are the dimensions and weight of the device?

The analyzer is 3.75” x 8.75” x 2.5” and weights 1.3 lbs.

CO2Meter, Inc
105 Runway Drive
Ormond Beach, FL 32174
877-678-4259 | www.CO2Meter.com

The analyzer and all its components are packaged in a black, ballistic case for safekeeping and transportation. The case measures 16.5” x 14.25” x 5.5” and weighs 8.0 lbs.

What is included with the analyzer?

CO2Meter ships each device in a black, ballistic carrying case for its safe keeping. Included in the case are:

- Regulator - to control the flow to 1 liter per minute (2.11 cubic feet per hour)
- 10 feet of plastic tubing – to connect the analyzer to the regulator.
- Lure fittings – to connect tubing to analyzer.
- Particulate Matter Filters – to ensure no foreign matter enters the analyzer that could damage the sensors.
- Micro SD Card – to record all the data.
- Charging Cable – to charge the Li-ion batteries in the device.
- Quick Start Guide – to help you get up and running as fast as possible.
- QR Code for the Manual – access the manual via the QR code.

How does the device measure/work?

The device includes four (4) nondispersive infrared CO2 sensors each calibrated to specific CO2 concentrations. NDIR sensors use light to measure the concentration of the gas accurately and repeatedly.

CO2Meter has preselected and calibrated the device to the most common weld blends based on customer feedback - C2, C15, C25, or C50. The device selects the specific sensor that has been calibrated for the target gas required and begins measuring. The device also allows for a custom blend concentration to be selected if necessary.

Does the analyzer measure both the CO2 and Argon in a mix?

No. The analyzer only measures the CO2 concentration to the AWS specification.

Which American Welding Society specification does the analyzer meet?

2020 AWS 5.32

Does the device also measure oxygen?

The CM-1650 measures only the CO2 concentration.

Future versions (available in 2024) will offer the option to also read percentage or trace oxygen as well.

The percentage oxygen model will be ideal for stainless steel welding (99% Ar and 1% O2), spray arc welding (98% Ar and 2% O2), or carbon steel welding (95% Ar and 5% O2).

The trace oxygen model will be ideal for standard welding gas mixtures as well as other applications besides welding.

CO2Meter, Inc
105 Runway Drive
Ormond Beach, FL 32174
877-678-4259 | www.CO2Meter.com