# CD – 3A Carbon Dioxide Analyzer



#### **Introduction**

The Model CD-3A Carbon Dioxide Analyzer provides a continuous and accurate measurement of gases containing up to 15% CO<sub>2</sub>. The Model CD-3A has the rapid response necessary for breath-by-breath analysis during respiration It is also ideal for laboratory applications requiring high accuracy and sensitivity

#### **Features:**

- \* Wide range of Gas Detection 0 to 15% CO<sub>2</sub>
- \* High accuracy  $\pm$  0.02 carbon dioxide
- \* Very high Sensitivity  $\pm 0.001\%$  over the entire 0 15% CO<sub>2</sub> range
- \* Extremely rapid 25 millisecond response Needed for accurate breath-by-breath measurements
- \* End Tidal CO<sub>2</sub> Displayed at the touch of a button
- \* Reliable, low maintenance operation
- \* The Standard for Respirator Gas Measurement for over 45 years

#### **Capabilities**

A complete Model CD-3A consists of a sensor, readout/control unit, and cable. When the sample gas is passed through the sensor, a voltage that is a function of the carbon dioxide concentration of the gas is generated. This voltage is fed to the readout/control unit via a connecting cable.



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## Model CD - 3A Specification:

### **Specifications for CD-3A Carbon Dioxide Analyzer:**

Speed of Response: To 90% of final value in less than 25 milliseconds for a step change in carbon dioxide concentration; the lag or transport time (time needed for sample to travel from source to sensor), and possible mixing of sample gas front, will be greater with increase in sample line length and diameter, and with decrease in flow rate.

**Accuracy:**  $\pm$  0.02% carbon dioxide or 1% of the reading, whichever is larger

**Sensitivity:**  $\pm$  0.01% carbon dioxide

**Resolution:** Digital Display:  $\pm 0.01\%$  carbon dioxide

Working Range: 0-15% carbon dioxide

**Stability:**  $\pm$  0.02% carbon dioxide at 5% in 8 hours maximum drift

**Analog Output:** Buffered 0 to 15% CO<sub>2</sub> - (0 to 7.5 Volts)

**Ambient Temperature:** 0-40°C

Sample Flow Rate: 10-1000 ml/min

**Display:** Continuous display of CO<sub>2</sub> concentration or End Tidal for each breath

Sensor Tubing Connections: (IN/OUT) 1/8 / 0.071 inch O.D. stainless steel

**Voltage:** 120 VAC OR 240 VAC



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