CO₂ Monitor

The CO₂ monitors are designed to measure carbon dioxide in harsh and humid environments. The ABS plastic housing is dustproof and waterproof to IP65 standards with a choice of several measurement ranges; up to 20% of CO₂. The patented sensor has unique reference measurements capabilities. Its critical parts are made of silicon; giving the sensor outstanding stability over both time and temperature. By lengthening the calibration intervals, the user saves both time and money. The CO₂ monitor’s probes are interchangeable and can be removed and reattached or replaced at any time without the need for calibration and adjustment. The probes can be attached directly to the CO₂ monitor body or, when used with a cable, installed remotely into hard-to-reach places or areas with dangerously high levels of CO₂. This CO₂ monitor is recommended to be used with the universal transmitter node B14-x00 or B16-x00 for Wi-Fi data logging.
B14-101-CO₂ Product Specifications

**Compatibility**
Available with Universal B14-0x00 Wi-Fi transmitter

**Response Time**
< 30 seconds (63%)

**Warranty**
1 year warranty

**Mounting**
Designed to fit on a 0.44 mm chamber tube. Maximum incubator’s tube length: 118.25mm. Separate mounting plates, attach to wall, lock-in transmitter body

**Measurement Range**
0-20% CO₂

**Housing Material**
ABS plastic

**Response Time**
20 seconds (63%)

**Waterproof Rated**
IP65 - protects against dust and spray water

**Output**
0-20mA, 4-20mA (compatible with B14-x00 Universal Transmitter)
0-10V (Compatible with B16-x00 Universal Transmitter)

**Accuracy**
+/- 1.5% of range  +/- 2% of reading

**Ambient Operating Range**
-4°F to 140°F (-20°C to 60°C)

**Cable Length**
6.5 ft (2m) probe

**Power Supply**
100 to 240 VAC, 50 to 60 Hz

**Dimensions**
4.7” x 1.25” x 4.7” (120 mm x 31.8 mm 120 mm) body

**Weight**
280g max

<table>
<thead>
<tr>
<th><strong>Repeatability at</strong></th>
<th>0-8 %CO₂</th>
<th>+/ - 0.1 %CO₂</th>
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<tbody>
<tr>
<td></td>
<td>8-12 %CO₂</td>
<td>+/- 0.2 %CO₂</td>
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<tr>
<td></td>
<td>12-20 %CO₂</td>
<td>+/- 0.4 %CO₂</td>
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</table>

**Non-linearity at 0-20 %CO₂**
+/- 0.1 %CO₂

**Calibration uncertainty at 5 %CO₂**
+/- 0.1 %CO₂

**Temperature dependence**
with compensation at 3 - 12 %CO₂, 20 - 60°C
without compensation (typical)
+/- 0.1 %CO₂
+/- 0.4 % of reading / °C

**Pressure dependence**
with compensation at 3 - 12 %CO₂, 700 - 1100 hPa
without compensation (typical)
+/- 0.015 % of reading / hPa
+/- 0.05 % of reading / hPa

**Humidity dependence**
with compensation at 0 - 20 %CO₂, 0 - 100 %RH
without compensation (typical)
+/- 0.9 % of reading (at 37 ºC)
+/- 0.05 % of reading / %RH

**O₂ dependence**
with compensation at 0 - 20 %CO₂, 0 - 90 %O₂
without compensation (typical)
+/- 0.6 % of reading
+/- 0.06 % of reading / %O₂