CLD502, CLD505 and CLD510 Chlorine Dioxide Sensors

Amperometric Sensor Technology
Real Time Continuous Measurement
Ranges: 0-2 or 0-10 ppm
Built-In Temperature Compensation
Large Electrolyte Reservoir
Replaceable Membrane and Electrolyte

The CLD series (chlorine dioxide sensors) feature amperometric measurement technology. Designed for disinfection applications in water treatment, for use with chlorine dioxide, pools, etc., these sensors are available in two ranges for detecting ppm level of chlorine dioxide. Choose the CLD502 for 0-2 ppm and CLD510 for 0-10 ppm of chlorine dioxide.

Typical applications include:
- Industrial wastewater
- Cooling water
- Bottle rinsing
- Irrigation water in agriculture

Sensors output a 4-20mA signal scaled to 0-2, 0-5 or 0-10 ppm. Membrane cap and fill solution are easily replaceable to maximize sensor life.

Sensors can be used in new installations with Sensorex flow cell or installed as replacement for other 4-20mA output ClO₂ sensors. (Consult Sensorex for compatibility).

An optional flow meter (FM001) is available to help provide consistent flow for added system stability.

Specifications

<table>
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<tr>
<th>Specifications</th>
<th>Details</th>
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<tbody>
<tr>
<td>Measuring Range</td>
<td>0-2 (CLD-502), 0-5 (CLD-505) or 0-10 ppm (CLD-510) ClO₂</td>
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<tr>
<td>pH Range</td>
<td>4-11</td>
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<tr>
<td>Body Material</td>
<td>PVC</td>
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<tr>
<td>Membrane Cap Material</td>
<td>PVC housing, Proprietary Membrane</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>0 - 45 Degrees C</td>
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<tr>
<td>Maximum Pressure</td>
<td>14.7 psig (1 Bar)</td>
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<tr>
<td>Temp Comp</td>
<td>Integrated</td>
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<tr>
<td>Cable Length</td>
<td>10 feet 2 conductors, tinned leads</td>
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<tr>
<td>Process Connection</td>
<td>flow cell 1/4 inch FNPT threads</td>
</tr>
<tr>
<td>Output</td>
<td>4-20mA</td>
</tr>
<tr>
<td>Flow Range</td>
<td>Min 0.2 gpm (45 l/hr), Max 0.6 gpm (135 l/hr)</td>
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<tr>
<td>Supply Voltage</td>
<td>12-24V DC, 250mA minimum</td>
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<tr>
<td>Cross Sensitivity</td>
<td>Ozone, monochloramine</td>
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Parts covered by this product data sheet include:
CLD502, CLD510, FCLA-5015 thru FCLA-5018, FC72, FM001
CLD502, CLD505 and CLD510 Chlorine Dioxide Sensors

**SENSOR DIMENSIONS**

- Membrane
- Protective feet x4

**FLOW CELL DIMENSIONS**

- O-ring
- Outlet - Barb fitting for 3/8" ID tubing
- Inlet - Barb fitting for 3/8" ID tubing

**FLOW METER FM001 DIMENSIONS**

- Protective feet x4

**SENSOR AND FLOW CELL INSTALLATION DIMENSIONS**

**Ordering Information**

**Sensors**

- **CLD502** 0-2 ppm ClO₂ 4-20mA sensor, includes 2 replacement cap, 2 each 30mL refill, 3 each cathode polishing squares & 2 each pressure relief band
- **CLD505** 0-5 ppm ClO₂ 4-20mA sensor, includes 2 replacement cap, 2 each 30mL refill, 3 each cathode polishing squares & 2 each pressure relief band
- **CLD510** 0-10 ppm ClO₂ 4-20mA sensor, includes 2 replacement cap, 2 each 30mL refill, 3 each cathode polishing squares & 2 each pressure relief band

**Accessories**

- **FC72** Flow Cell, 1/4" FNPT inlet and outlet, includes 2 each 1/4" NPT barbed tube fittings for 3/8" ID tubing.
- **CLDA-5015** ClO₂ fill solution, 30mL, 2 each
- **CLDA-5016** CLD sensor replacement membrane cap, 1 each, pressure relief band, 1 each
- **CLDA-5017** 3 each cathode polishing squares
- **CLDA-5018** Maintenance kit for CLD5 series sensors includes: 1 replacement cap, 2 each 30mL refill, 3 each cathode polishing squares & 1 each pressure relief bands
- **FM001** Flow meter, 0.1-1.0 gpm (0.5-4.0 Lpm) range, 1/4" FNPT & 1/2" MNPT threads plus (2x) 3/8" tube fittings