Series 500 Oxygen Monitor
The Series 500 Breathing Air Monitor

The Delta F Series 500 eliminates the problems of inaccurate oxygen readings due to drift or low false readings. These types of problems can cause personnel to ignore or turn off the monitor. With Delta F’s non-depleting sensor technology and unique Sentry Circuit, every Series 500 monitor provides years of consistent, reliable and accurate operation.

Most oxygen sensors experience a relatively short life span due to sensor degradation. Conventional sensors are used up as they measure the oxygen and therefore require periodic or frequent replacement. As they age and lose sensitivity, they tend to exhibit low readings and must be more frequently calibrated to eliminate these false low readings. High maintenance, frequent sensor calibrations and sensor replacements can quickly more than double the cost of your oxygen monitor. Also, the false low readings associated with other oxygen sensors can lead personnel to disregard an actual low oxygen warning as well as cost you time and money by disrupting personnel and impacting productivity.

For more information about Delta F sensor Technology and the thousands of companies that use Delta F oxygen analyzers, ask for the Delta F Difference brochure.

The Series 500 offers:

- **Reliability** – The Sensor does not decay over time. There are NO FALSE LOW READINGS.
- **Stability** – The non-depleting sensor REQUIRES LITTLE OR NO RECALIBRATION OVER TIME.
- **Environmental Sensitivity** – The Sentry Circuit technology automatically adjusts to minor changes in relative humidity and barometric pressure WITHOUT AFFECTING TRUE OXYGEN DEFICIENCY response.
- **Failsafe Operation** – The battery backup picks up where AC power stops so that you WILL ALWAYS BE SAFE.

Series 500 Specifications

**Range**

0-25% Oxygen

**Accuracy (at constant temperature)**

+/- 1% of Full Scale

**Response Time**

Responds instantaneously to O2 change. Equilibrium depends on specific conditions Typically <30 seconds to read 90% of a step change.

**Miscellaneous**

15.9/cm W x 20.9 H x 12.2 D 4.52 kg. (6.25”W x 8.25”H x 4.81”D, 10 lbs.) Operate between 0°C and 50°C ambient (32° and 122°F) 90-125 VAC, 220-250 VAC or 24 VDC input power

SERIES 500 OXYGEN MONITOR

ORDERING AND PRICE INFORMATION

How to Order a Monitor
To determine the model number of the oxygen analyzer desired, fill in the following blank form making the appropriate choice of Identification Code from the (6) parameter lists below:

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>5 0 0 - - - -</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER SOURCE</td>
<td>1</td>
</tr>
<tr>
<td>MOUNTING</td>
<td>2</td>
</tr>
<tr>
<td>OUTPUT SIGNAL</td>
<td>3</td>
</tr>
<tr>
<td>REMOTE SENSOR MOUNTING</td>
<td>6</td>
</tr>
<tr>
<td>ALARMS</td>
<td>5</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>4</td>
</tr>
</tbody>
</table>

SERIES 500 OXYGEN MONITOR

<table>
<thead>
<tr>
<th>POWER SOURCE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-125 VAC, 50-60 Hz</td>
<td>1</td>
</tr>
<tr>
<td>220-250 VAC, 50-60 Hz</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOUNTING</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall</td>
<td>W</td>
</tr>
<tr>
<td>Panel</td>
<td>P</td>
</tr>
<tr>
<td>Benchtop/Portable</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OUTPUT SIGNAL</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 VDC</td>
<td>1</td>
</tr>
<tr>
<td>4-20 mADC</td>
<td>2</td>
</tr>
<tr>
<td>RS232/Current Loop</td>
<td>3</td>
</tr>
<tr>
<td>4-20 mADC plus RS232/Current Loop</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISPLAY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD</td>
<td>L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REMOTE SENSOR MOUNTING</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-With Open Diffuser Sensor (No gas inlet &amp; outlet fittings)</td>
<td>R</td>
</tr>
<tr>
<td>-With Extractive Sample Sensor (With gas inlet &amp; outlet fittings)</td>
<td>RB</td>
</tr>
<tr>
<td>-With Extractive Sample Sensor, and Flowmeter with Integral Flow Control Valve</td>
<td>RBFC</td>
</tr>
<tr>
<td>-With Extractive Sample Sensor, Flowmeter with Integral Flow Control Valve and AC Pump</td>
<td>RBP</td>
</tr>
</tbody>
</table>

[Note: No battery backup is supplied on units using AC Pump]

500-EW 5-Year Full Sensor Warranty

All Pricing is in U.S. Dollars. Prices are subject to change without notice.
Performance

Range: 0-25%
Accuracy: +/- 1% of Full Scale
Response Time: 30 seconds for a 90% Response
Sensor Type: Non-depleting coulometric
Sensor Warranty: 3-Year Full Warranty
5-Year Full Warranty (Optional)
Monitor Warranty 1-Year Full Warranty
Electronics: Microprocessor-based
Display: 3.5 digit LCD
Resolution: 0.1% Oxygen
Power Requirements: 90-125 VAC, 50/60 Hz
220-250 VAC, 50/60 Hz
Weight: 8 lbs. (3.62 kg)
Operating Temperature: 32º to 122º F (0º to 50º C)
Enclosure: General purpose NEMA 1 suitable for wall mounting
Optional panel mounting or portable versions available
Oxygen Alarm Relays:
Two fully adjustable setpoints with Form C relay contacts (SPDT) rated 0.3 amp at 125 VAC/110 VDC, 1 amp at 30 VDC.
Built-in Audible Alarm:
Activates on the following alarm conditions:
Oxygen alarm (sounds continuously)
Low battery (sounds intermittently)
Check battery (sounds intermittently)
Check electrolyte (sounds intermittently)
Sentry Circuit alert (sounds intermittently)
Instrument Condition Alarm Relay:
Third Form C relay contact output for either Low battery; Check battery; Check electrolyte, or Sentry Circuit alert
Oxygen Alarm Status Indicators:
Two front panel LEDs for Alarm 1 and Alarm 2

Power Management and Sentry Alert Status Indicators:
Front panel LEDs indicate Battery operation, Low battery, Check battery, and Sentry Circuit alert.
TTL or open collector output signal is available when monitor is on battery power
Sensor Status Indicator:
Check electrolyte
Front panel LED alerts user if sensor maintenance is required
Battery Backup:
Built in NiCd batteries are maintained on trickle charge
Battery Recharge Time:
20 hours from a full discharge
Battery charging starts automatically during AC operation
Output Signals:
0-10 VDC standard
4-20 mA DC and RS232/20 mA current loop optional (compliance voltage for the optional 20 mA current loop provided by the user)
Remote Sensor
(Bracket Mounting)
Open diffuser sensor (no gas inlet and outlet fittings)
Extractive sample sensor (with gas inlet and outlet fittings)
Extractive sample sensor with flowmeter with integral flow control valve
Extractive sample sensor with flowmeter, integral control valve, and AC pump

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