DF-370E Process Oxygen Analyze
Standard Features & Specifications

Effective: January 1, 2007

Performance

Accuracy: (at constant conditions)
Standard Models: the greater of +/-3% Reading or 0.5% of Range
High Resolution Models: the greater of +/-3% of Reading or 0.02% of Range (except for 370E-H00100: +/-3% Reading or 50 ppb)

Oxygen Sensitivity:
Minimum Detectable Change: 50 ppb (370E-H0100 Modem)
Low Detection Limit: 50 ppb (370E-H0100 Modem)

Response Time
Responds instantaneously to O2 change. Typically less than 10 seconds to read 90% of a step change.
(Equilibrium time depends on specific conditions.)

Range:
Ranges are available from 0.5 ppm to 25%

Ambient Operating Temperature:
32º to 113ºF (0º to 45ºC)

Background Gas Compatibility
Basic Sensor:
All inert and passive gases including N2, H2, CO, freons, hydrocarbons, etc.
Sensor with Stab-EL Option:
Neutralizes trace contaminants including acids such as CO2, H2S, Cl2, NOX, SOX, etc. (Consult Delta F for concentration limits)

Electrical

Power Input:
22-28 VDC, 1 Amp (max) or 110 VAC or 220 VAC

Output Signals:
Isolated 0-5, 10 VDC
Isolated 4 to 20 mA (optional)
User adjustable to 10% of Full Scale to Full Scale (Std Res)
User adjustable to 1% of Full Scale to Full Scale (High Res)
User selectable Output Freeze during Calibration

Alarms, audible/visual:
4 Oxygen (optional)
(adjustable set-point)
Electrolyte Condition (standard)
Temperature (optional)
Low Flow (optional)

Alarm Relays:
4 independently assignable to Alarms, In-Calibration, Sensor Off and Expanded Range Scale

Alarm Relay Rating:
0.3 Amps at 30 VDC
Failsafe Action

Back Lighted Display:
Supertwist LCD graphics

Certifications:

Gas Sample Conditions

Sample Pressure
Operating Limits:
0.2 to 1.0 psig (1.03 to 1.08 BarA) - Standard
15-25 psig with welded sample inlet (orifice restricted)
2.0 psi vacuum to 0.2 psig (0.88 to 1.03 BarA) use pump
1.0 to 10 psig (1.08 to 1.7 BarA) use valve (optional) or regulator (optional)
Above 10 psig (1.7 BarA) use regulator

Sensor overpressure damage limit: 10 psig (1.7 BarA)

Return Pressure:
Atmospheric Vent (optional)

Limits:
+5 psig (1.36 BarA) to -5 psig (0.67 BarA)

Flow Rate:
1.0 to 3.0 SCFH (0.5 to 1.5 slpm)

Temperature (Gas Sample):
0º to 150º F (-17.8º to 66ºC)

Moisture:
No limits (avoid condensation)

Oil/Solvent Mist:
<0.5 mg/ft3 (standard)
>0.5 mg/ft3 - use filter

Solid Particles:
<2 mg/ft3 (standard)
>2 mg/ft3 - use filter

Gas Flow System

Construction Materials:
300 Series stainless steel
Gas Connections:
1/8" compression tube fittings

Construction

Enclosure:
NEMA 7

Weight:
50 lbs. (22.73 kg)

Dimensions:
14.5" W x 11.5" H x 11.5" D
(36.8 cm W x 29.2 cm H x 29.2 cm D)

Electrical

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### DF-370E Process Oxygen Analyzer Configurations and Options

#### Range Options

**PPM Ranges**

<table>
<thead>
<tr>
<th>PPM Range</th>
<th>Standard Resolution</th>
<th>Price</th>
<th>High Resolution</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10,000</td>
<td>S10000</td>
<td>H10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 5,000</td>
<td>S05000</td>
<td>H05000</td>
<td></td>
<td></td>
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<tr>
<td>0 to 1,000</td>
<td>S01000</td>
<td>H01000</td>
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<tr>
<td>0 to 500</td>
<td>S00500</td>
<td>H00500</td>
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<tr>
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<td>0 to 50</td>
<td>S00050</td>
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</table>

**Percent Ranges**

<table>
<thead>
<tr>
<th>% Ranges</th>
<th>Standard Resolution</th>
<th>Price</th>
<th>High Resolution</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>0 to 25%</td>
<td>S00P25</td>
<td>H00P25</td>
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<td>0 to 10%</td>
<td>S00P10</td>
<td>H00P10</td>
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<tr>
<td>0 to 5%</td>
<td>S00P5</td>
<td>H00P5</td>
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<tr>
<td>0-50</td>
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#### Alarms (Audible/Visual only)

- 370-OA2 Two Oxygen Alarms
- 370-OA4 Four Oxygen Alarms
- 370-FA Low Flow Alarm
- 370-TA Temperature Alarm

#### Relay Contacts

- Note 3 (Independently assignable)

#### Plumbing

- 370-P Pump w/ Down Stream Control Valve
  - Diaphragm pump for negative pressures to 2.0 psi vacuum (0.88 Bar), or outlet vent back pressure to 3.0 psig (1.2 Bar) (not compatible with NT-SSOL)
- 370-PR Pressure Regulator
  - Out-board 316L Stainless Steel Pressure Regulator, 3000 psig inlet capacity; 28 in Hg vac-15 psig adjustable outlet pressure
- 370-HPR High Purity Pressure Regulator

#### Sensor Options

- **Choose Only 1 Option**
  - B Basic Sensor
  - S Stab-EL Sensor System

#### Sensor Mounting Options

- Note 1)

#### Power Input Options

- 024 22-28 VDC Input, 1Amp (max)
- 110 110 VAC, 50/60 Hz
- 220 220 VAC, 50/60 Hz

#### Outputs

- 370-RS232 RS232 Two-Way Serial Communications
- 370-RS485 RS485 Two-way Serial Communications
- 370-4-20 Isolated 4-20mA DC output
- 370-2-20 Isolated 4-20mA DC output with a live zero at 4 mA and sensor off or disconnected at 2mA
- 370-ERS-OUT Expanded Range Scale

Additional user selectable range scale for analog output once primary range is exceeded. (Requires optional relay contact for Range ID)

#### Notes:

1. Remote sensors not available with CE Certification
2. Recommended when measuring combustible gases, such as H2
3. For use with system status indicators and optional alarms
4. Not available with on-board pump, 310-P

Build your analyzer by selecting one option from numbers 1-4, then add on part numbers for all additional options.