



# DF-130E Oxygen Analyzer

## Standard Features & Specifications

### Performance

**Accuracy:** (at constant conditions)  
The greater of +/- 3% Reading or 0.5% of Range

**Response Time**  
Responds instantaneously to O<sub>2</sub> change.  
Typically less than 10 seconds to read 90% of a step change.

**Range** Ranges are available from 0-10 ppm to 25%

**Ambient Operating Temperature**  
32° to 120° F (0° to 50° C)

**Background Gas Compatibility**  
*Standard Sensor:*

All inert and passive gases including N<sub>2</sub>, H<sub>2</sub>, CO, freons, hydrocarbons, etc.

*Sensor with Stab-EL Option*

Neutralizes trace contaminants including acids such as CO<sub>2</sub>, H<sub>2</sub>S, Cl<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, etc. (Consult Delta F for concentration limits)

### Gas Sample Conditions

#### Sample Pressure

Operating limits:

- 0.2 to 1.0 psig (1.03 to 1.08 BarA) - Standard
- 2.0 psi vacuum to 0.2 psig (.88 to 1.03 BarA) use pump
- 1.0 to 10 psig (1.08 to 1.72 BarA) use valve or regulator
- 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 (.67 BarA)

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

**Temperature** (Gas Sample): 0° to 150° F (-17.8° to 66°C)

**Moisture:** No limits (avoid condensation)

**Oil/Solvent Mist:** < 0.5 mg/ft<sup>3</sup> (standard)  
> 0.5 mg/ft<sup>3</sup> – use filter

**Solid Particles:** < 2 mg/ft<sup>3</sup> (standard)  
> 2 mg/ft<sup>3</sup> use filter

### Gas Flow System

**Construction Materials:** 304 and 316 SS

**Gas Connections:** 1/8" compression tube fittings

### Construction

**Enclosure:** NEMA 1

**Weight:** 15 lbs. (7 kg.)

**Dimensions:** 7.75" W x 8.5" H x 10" D  
(19.7 cm W x 21.6 cm H x 25.4 cm D)

### Electrical

**Power Input** 115 VAC, 50/60 Hz or 230 VAC, 50/60 Hz

**Output Signal** 0-10 VDC (standard)  
**OR** 0-1, 0-2, 0-5 VDC (optional)  
Isolated 4-20 mA DC (optional)

**Alarm, Visual** Electrolyte Condition (standard)

**Alarms, Optional** Low Oxygen or High Oxygen (adjustable set-point, relay contacts only)

**Alarm Relay Rating** SPDT - 5 amps at 110 or 220 VAC  
CE version: 3 Amps at 30 VDC  
Failsafe Action

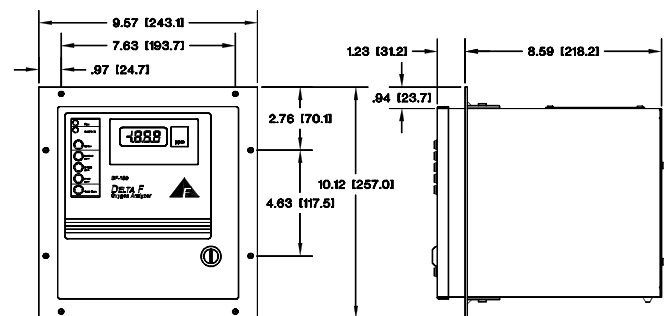
**Indicator, optional** Sensor Off (contacts only)  
No Failsafe Action

**Indicator Contact Rating** SPST – 0.5 amps at 24 VDC

**Display:** 3.5 Digit LCD  
4.5 Digit LCD (range dependent)

**Certifications:** ETL CSA Equivalent Certification  
CE Conformance (optional)

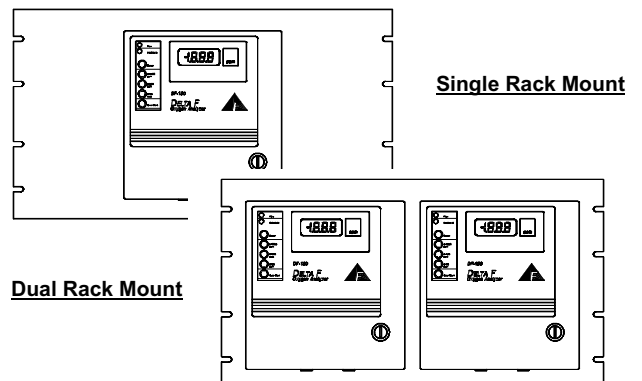
#### Panel Mount



#### Dual 19" Rack Mount

Height: 10.46" [26.57 cm]

Depth: Same as Panel Mount (above)



# DF-130E Oxygen Analyzer

## Optional Equipment

### Base Models

#### Trace Range Analyzers

PPM Range	DF-130E Model
0 to 5,000	131E-5000
1,000	131E-1000
500	131E-500
100	131E-100
50	131E-50
10	131E-10

#### Percent Range Analyzers

% Ranges	DF-130E Model
0 to 25%	131E-P25
10%	131E-P10
5%	131E-P5
1%	131E-P1

### Options

#### **Base Options**

**130-S Stab-El Acid Gas System**

**130-220 220 VAC Line Voltage** (110 VAC is standard)

**130-CE CE Conformance**

Provides added EMI/RFI and conducted interference immunity

**Alarms** *Choose only 1 alarm option*

**130-OAL Oxygen Alarm - Low**

**130-OAH Oxygen Alarm - High**

#### **Cabinet**

**130-PM Panel Mount**

**130-SRM Single Rack Mount**

**130-DRM Double Rack Mount**

#### **Plumbing**

**130-P Pump with Down Stream Control Valve**

On-board diaphragm pump for negative pressures to 2.0 psi vacuum (0.88 BarA), or outlet vent back pressure to 3.0 psig (1.2 BarA)

(Not compatible with NT-SSOL)

**130-GPR Gauge Pressure Regulator**

Out-board 316 Stainless Steel Pressure Regulator, 3000 psig (208 BarA) inlet capacity; 0-10 psig (1.7 BarA) adjustable outlet pressure.

Requires 5 psig (1.36 Bar) minimum inlet pressure

**130-APR Absolute Pressure Regulator**

Vacuum to 500 psig (35.5 BarA) inlet capacity; 4 psia to 25 psia (-10 to +10 psig) (0.32 BarA to 1.7 BarA) adjustable outlet pressure

**130-FCV Flow Control Valve**

Up stream control for pressures less than 10 psig (1.7 BarA)

**130-SSOL Stainless Steel Outlet Line** <sup>NOTE 1</sup>

**130-FH Filter Housing**

(Includes Standard Filter Element)

#### **Indicator**

**130-SOI Sensor Off Indication** (SPST contacts only)

#### **Outputs**

*Choose 1 only of 130-SAOA, B, or C*

**130-SAOA Special Analog Output 0 to 1 VDC**

**130-SAOB Special Analog Output 0 to 2 VDC**

**130-SAOC Special Analog Output 0 to 5 VDC**

**130-420 4 to 20 mA Isolated Output**

#### **Miscellaneous**

**130-GSF Gas Scale Factor**

Required for accurate read-out of Oxygen in one additional background gas. Nitrogen is standard. He and H<sub>2</sub> require the GSF. For other Gases, contact Delta F.

**130-SFE Standard Filter Element** (> 1 micron)

**130-FFE Fine Filter Element** (<1 micron)

**DF E-lectrolye Blue Electrolyte**

**DF RSA Replenishment Solution**

#### **Notes:**

1. Suggested for flammable gases. Not available with on-board pump, 130-P.