DF-130E Oxygen Analyzer

Standard Features & Specifications

DELTA F

Performance

Accuracy: (at constant conditions)
The greater of +/- 3% Reading or 0.5% of Range Below 2.5 ppm

Response Time
Responds instantaneously to O_2 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
32º to 120º F (0º to 50º C)

Background Gas Compatibility

Standard Sensor:

All inert and passive gases including N_2, H_2, CO, freons, hydrocarbons, etc.

Sensor with Stab-EL Option

Neutralizes trace contaminants including acids such as CO_2, H_2S, Cl_2, NO_X, SO_X, 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 (optimal)
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): 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: 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

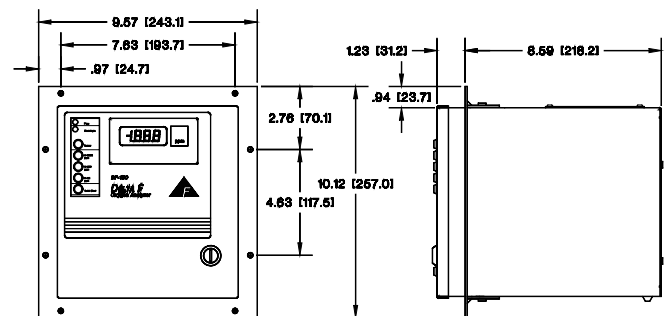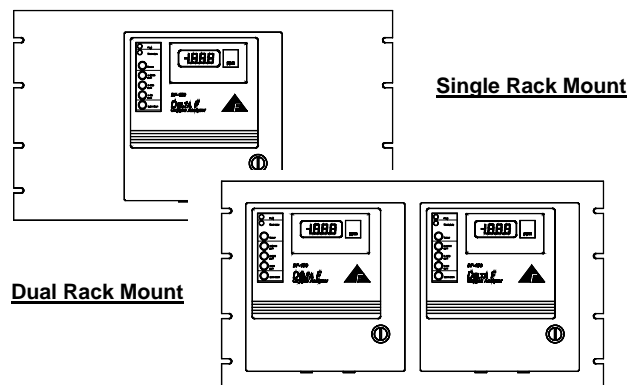|	
Power Input	115 VAC, 50/60 Hz or 230 VAC, 50/60 Hz
Output Signal	0-10 VDC (standard)
	OR 0-1, 0-2, 0-5 VDC (optional) Isolated 4-20 mADC (optional)
Alarm, Visual	Electrolyte Condition (standard)
Alarms, Optional	Low Oxygen or High Oxygen (adjustable set-point, relay contacts only)
Alarm Relay Rating	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:	CE Conformance (optional)

Panel Mount

Dual 19" Rack Mount
Height: 10.46" [26.57 cm]
Depth: Same as Panel Mount (above)

Single Rack Mount

Dual Rack Mount

DF-130E Oxygen Analyzer

Optional Equipment

Base Models

<table>
<tr><td colspan="2">Trace Range Analyzers</td><td></td><td colspan="2">Percent Range Analyzers</td></tr>
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PPM Range	DF-130E Model		% Ranges	DF-130E Model
0 to 5,000	131E-5000		0 to 25%	131E-P25
1,000	131E-1000		10%	131E-P10
500	131E-500		5%	131E-P5
100	131E-100		1%	131E-P1
50	131E-50			
10	131E-10			

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* [NOTE 1]

130-FH *Filter Housing*
(Includes Standard Filter Element)

Indicator

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

Outputs *Choose 1 only of 150-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 H2 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-Lectrolyte Blue Electrolyte

DF RSA Replenishment Solution

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