



DF-370E

The DF-370E is a Coulometric sensor based oxygen analyser designed for installation in areas classified as hazardous, and is designed to measure trace and percent level oxygen in a variety of background gases. The DF-370E is microprocessor driven for easy configuration and maintenance, and improved accuracy.

FEATURES

- Non-depleting sensor with 5 year sensor warranty
- Factory calibrated
- Minimum maintenance
- Fast response time and recovery from upset condition
- Suitable for multiple background gases with a single unit
- Low detection limit and high accuracy
- NEMA 7 Enclosure for control unit and remote sensor

APPLICATIONS

- Hydrogen production
- Polypropylene production
- Polyethylene production
- Oil refining and petrochemical applications

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KEY FEATURES

Low Cost of Ownership

Sensor is highly stable and requires annual SPAN calibration only. No programmed cell replacement required. Sensor warranty of 5 years as standard.

Highly Sensitive

Lower detection limit (LDL) of 10 ppb when operating on 0-1 ppm or lower range.

ELECTRICAL SAFETY

Electrical safety to IEC 61010-1: Ed 2.

The product is rated for "Installation Category II" in accordance with IEC 60664-1.

The product is rated for "Pollution Degree 2" in accordance with IEC 60664-1.

EC DIRECTIVE COMPLIANCE

The DF-370E is in compliance with:

Low Voltage Directive (2002/73/23EEC).

EMC Directive (2001/89/336/EEC).

DESCRIPTION

Power lead:

There are 3 options for the Power lead:
22-28V dc, 1Amp (max)
100-120V ac
220-240V ac

Outputs:

Analyser supplied with a 0-10V dc output as standard

Mounting:

The DF-370E comes standard with a benchtop cabinet, but can be panel and rack mounted

User manual:

Options

- American
- Voltage output
- Benchtop
- English

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SPECIFICATIONS

Gas Type:	O ₂
TECHNOLOGY	Coulometric non-depleting electrochemical sensor
PERFORMANCE	
Operating ranges:	0-0.5ppm up to 0-25% * Any range between these ranges
Smallest recommended output range:	0-0.5ppm
Intrinsic error (accuracy):	+/- 3% of reading or +/- 0.5% FSD for standard models +/- 3% of reading or +/- 0.02% FSD for high resolution models +/- 3% of reading or 50ppb for 0-100ppm high resolution model +/- 3% of reading or 10ppb for 0-50ppm high resolution model
Response time (T ⁹⁰) at sample flow rate:	<10 seconds at 0.75l/min
Zero drift/month:	Negligible
Span drift/month:	Negligible
Remote mount sensor mounted in NEMA 7 enclosure:	Mounted up to 300 meters from the control unit
OUTPUTS/INPUTS	
Output:	Non isolated 0-5V dc or 0-10V dc
Output range:	Any range between 0-0.5ppm to 0-25%. *configuration dependent
Alarm:	Electrolyte condition
OPTIONS	
Stab-El sensor system:	Enables operation with trace levels of acid gases or ionic contamination. Samples containing trace samples of acidic components must use the Stab-el option
Concentration alarms:	Up to 4 audible/visual concentration alarms
Low flow alarm:	1 audible/visual flow alarm
Relay contacts:	Up to 4 independently assignable contacts rated at 0.3Amps at 30V dc
Analogue output:	Isolated 4-20mA dc output or Isolated 4-20mA output which reads 2mA when sensor is off or disconnected
Serial communication:	RS232 or RS 485 Two-Way Serial Communications
Dual scale range:	Up to 2 calibrated ranges on 4-20mA output with range ID
Mounting:	Wall mount
Pump:	Integral diaphragm pump for negative pressures to 2psig (1.05mm Hg) vacuum or vent pressures to 3psig (155mm Hg)
Sample pressure regulator:	316LSS Pressure regulator with 3000psig inlet and 28 in Hg to 15psig output. Standard or high purity version. Supplied mounted or loose
High purity inlet:	VCR welded sample inlet (standard on 0-50ppm high resolution model)
Stainless steel outlet:	Recommended for flammable samples
Sample filter:	Stainless steel filter with standard or fine filter element (not available with VCR welded sample inlet)
Flow control valve:	Integral upstream flow control valve (not available on 0-50ppm range model or with VCR welded sample inlet)
Gas scale factor:	Background gas compensation for gases other than N ₂ or Ar
SAMPLE GAS	
Temperature:	-18°C to 65°C (0°F to 150°F)
Dew point:	5°C (9°F) below minimum ambient
Condition:	Oil free, non-corrosive, non-condensing, non-flammable
Particulates:	Filtered to 2µm
Vent:	Vent to atmosphere +/- 5psig (260mm Hg)
Sample flow:	0.5 to 1.4l/min
Sample pressure:	0.2 to 1psig (50 to 150mm Hg)

NOTE: For samples containing above trace levels of acidic components contact Servomex for sample preconditioning options

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SPECIFICATION CONT.

Ambient Conditions

Temperature: +0°C to +45°C (Stable)
Relative humidity: 0 to 95% RH non-condensing
Altitude: 2000 meters above sea level

UTILITIES REQUIRED

Power 22-28V dc, 1Amp (max) 110V ac or 220V ac 50/60Hz, 35 Watt maximum consumption
ZERO Gas Not required
SPAN Gas Any blend of O₂ in N₂ within the operating range of the sensor

SAMPLE WETTED MATERIALS

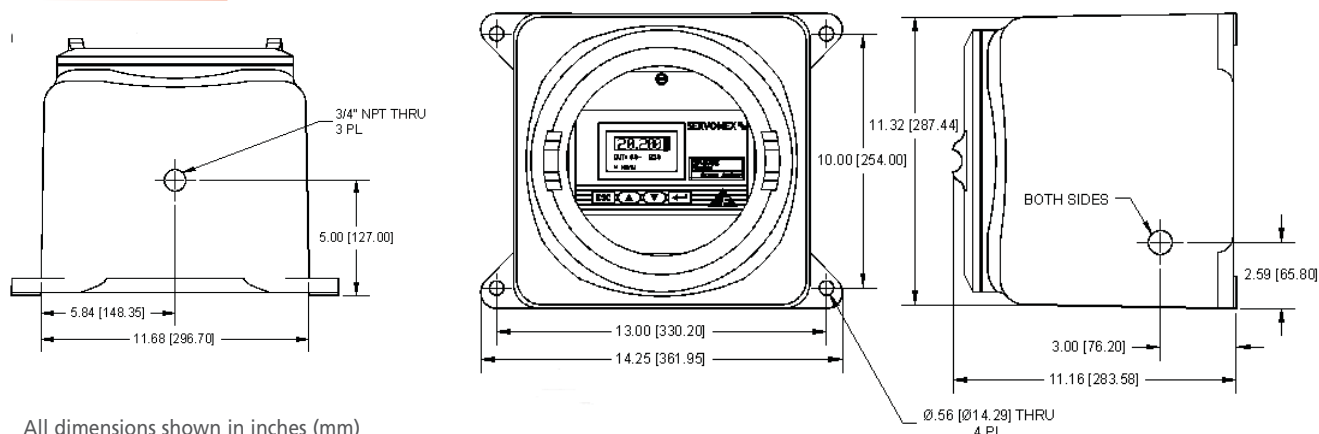
Analyser fitted with:

Stainless steel
G10 Epoxy
Polypropylene
Tygon

SERVICE & SUPPORT

For new installations and replacement of older Servomex and competitor products, we will work with you to develop a bespoke service and support package, ensuring full measurement availability and plant operation within your timescales and budget.

DIMENSIONS



All dimensions shown in inches (mm)

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