



P9227

Z-OX IV OXYGEN ANALYSER



APPLICATIONS

Measurement of oxygen concentration in clean process gases from trace quantities of oxygen to 100% oxygen in various oxygen containing atmospheres, and in inert gases.

- ◆ On line sampling of nitrogen and inert gas production facilities.
- ◆ Monitoring of inert gas shields for:-
 - Pharmaceutical
 - Food packaging
 - Ceramics manufacture
 - Semiconductor manufacture
- ◆ Cylinder gas quality monitoring
- ◆ Monitoring air separation plant
- ◆ Monitoring environmental chambers

FEATURES

- ◆ Zirconia oxide based oxygen analyser
- ◆ Advanced microprocessor controlled instrument
- ◆ Auto ranging digital display of oxygen concentration
- ◆ Response time less than 0.5 seconds for 90% change
- ◆ RS232 output
- ◆ Programmable 4-20 mA analogue output
- ◆ Two user configurable concentration alarms
- ◆ Bargraph and digital display of sample flow rate
- ◆ Pre-set flow alarm

DESCRIPTION

Cussons P9227 Z-OX IV Oxygen Analyser is an advanced microprocessor controlled analyser designed to measure oxygen concentrations from 0.1ppm up to 100% in clean process gases. The alpha-numeric display of concentration is fully auto-ranging, eliminating the need to change ranges manually. Based on a zirconia oxide transducer the analyser benefits from a wide dynamic range, excellent stability and minimal interference from other gases. The cell and heater design provides fast warm up, rapid response and long cell life with infrequent calibration requirement.

Two concentration alarms are provided which may be configured by the user from the front panel to act as either low or high alarm function and with variable hysteresis band. The sample flow is monitored by a built in electronic flow meter with the flow rate shown on the main display. A flow alarm provides both a visual and a voltage free contact to warn of a sample flow failure. A fully isolated 4-20mA high level output is provided which can be programmed to cover any range from a decade upwards. An RS232 port is provided for computer communications.

TENDER SPECIFICATION

RANGES

Auto ranging to cover concentrations from 0.1ppm to 100%

DISPLAY

Graphics LCD and backlight

DISPLAY RESOLUTION

10% to 100%	0.1%
0.5% to 9.99%	0.01%
10ppm to 5000ppm	1ppm
0.1ppm to 9.9ppm	0.1ppm

ACCURACY

100ppm to 100%	+/-2% of reading
99ppm to 10ppm	+/- 1ppm
0.1ppm to 9.9ppm	+/-0.2ppm

STABILITY

Better than 2% of reading or 0.5ppm per month, whichever is the greater

SPEED OF RESPONSE

Speed of response of the primary zirconia sensor in clean inert atmospheres:

% levels	Less than 0.5 seconds for 90% change
1000ppm to 100ppm	Less than 5 seconds for 90% change
Less than 10ppm	Less than 30 seconds for 90% change

SAMPLE CONDITIONS

Pressure 0.5 bar gauge to 8 bar gauge	Normal restrictor
Pressure 0.1 bar gauge to 1 bar gauge	Large restrictor
Temperature	100°C
Flow through cell	Nominal 200m1/min, alarm at 75m1/min

ANALOGUE OUTPUT

4 to 20mA isolated Fully programmable from front panel over complete range down to one decade span

ALARM OUTPUT

Alarms 1 and 2 Voltage free change over contacts (maximum rating 48V AC/DC at 500mA)
Alarm configuration Fully programmable from front panel including hysteresis

STATUS RELAY

Change over contacts to indicate if sample flow or cell temperature are out of limits (maximum rating 48V AC/DC at 500mA)

SAMPLING SYSTEM MATERIALS

Materials include: nickel, brass, aluminium, stainless steel, platinum, zirconia, alumina, PTFE and nitrile rubber

THE SAMPLE MUST NOT CONTAIN EXPLOSIVE OR FLAMMABLE GASES OR GAS MIXTURES, AND SAMPLES CONTAINING METAL VAPOURS, HALOGEN OR SILICON COMPOUNDS MUST BE AVOIDED.

SAMPLE CONNECTIONS

Captive seal compression fittings suitable for 1/4" (and 6mm) OD tubing, located on rear panel of instrument

ELECTRICAL

CE marked for industrial users
110V/220V/240V 50/60Hz 100 VA

MOUNTING

Stove enamelled mild steel/aluminium enclosure with polycarbonate front panel overlay, designed for 19" rack mounting, 3U high, of dimensions 493mm wide x 320mm deep x 133mm high, weight 7kg.

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