Z1030 Oxygen Analysers

Zirconia sensor analysers for oxygen

- **Proven technology from gas analyser experts**
- **Remote sensor – great flexibility**
- **Fast response sensor**
- **ppm to % O_2 levels**
- **Non-depleting, long life sensor**
- **Bi-directional RS232**

APPLICATIONS

- **Nitrogen generators**
- **Inert gas systems**
- **Air separation**
- **Soldering systems**
- **Reflow ovens**
- **Packaging**

The Z range of oxygen analysers features sensors based on zirconium oxide technology. They have the advantages of fast response times, excellent accuracy at ppm levels and a non-depleting sensor for long life. A range of different configurations and internal sample systems are available – so we can find the product that is right for you.

The competitively priced Z1030 is the workhorse panel mount analyser. The sensor is supplied in a remote housing complete with flowmeter and valve giving more versatility to the user. Sensor and analyser can be mounted separately - where you want them. The analyser features bi-directional RS232 allowing remote calibration and datalogging. There is a choice of outputs and both outputs and alarms are user programmable.

Not all zirconia sensors are the same. Eaton manufacture zirconia sensors in-house. Careful choice of raw materials and our manufacturing 'know how' result in a fast responding, robust sensor with excellent specification and a very fast warm-up time. Different sample systems are available for applications involving long sample paths and high pressure. Bespoke designs are also available according to the application.

Oxygen is measured in a wide variety of processes to confirm the presence or the absence of it. The most common application is to measure oxygen as the impurity in other gases, e.g. nitrogen generators. Oxygen is required in aerobic processes and situations that require user intervention, e.g. to ensure that it is safe to enter a chamber for maintenance work. Some processes require the absence of oxygen to be efficient, e.g. furnace atmospheres, others just require a low level of oxygen for safety reasons, e.g. inert gas blanketing.

Eaton offer a number of different solutions for oxygen measurement dependent on the application. Our technical sales engineers will be pleased to advise the system that is right for you.

The Z range from Eaton – the last word in fast, ppm oxygen measurement.

Powering Business Worldwide

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SPECIFICATION

Display
Multi-digit LCD - characters 12.7mm

Display range
0.01ppm to 100%, auto ranging

Display Resolution

From 10.0% to 99.9%	0.1%
From 1.00% to 9.99%	0.01%
From 0.100 to 0.999%	0.001%
From 100ppm to 999ppm	1ppm
From 10.0ppm to 99.9ppm	0.1ppm
From 0.00ppm to 9.99ppm	0.01ppm

Accuracy

100ppm to 25%	±2% of reading or better
10 - 99ppm	±1ppm
0 - 9.9ppm	±0.1ppm

Stability
Better than 2% of reading
or 0.5ppm/month

Sample flow
Between 100 and 500 ml/min for optimum operation

Speed of response
T90 less than 4 seconds at 500 ml/min sample flow

Sample inlet pressure
10mbarg to 8barg

Sample temperature
100°C maximum at the analyser

Sampling system material
Stainless steel, platinum, zirconia, nickel-plated brass and nylon

Sample connections
Dependent upon sampling system:
Nickel plated brass (captive seal suitable for 6mm/0.25" O.D. pipe)

Analogue output - isolated
0 to 5 volts – minimum load 10k ohms or
4 to 20mA – maximum load 500 ohms
Programmable for full scale values of between 1ppm and 100% oxygen and zero scale values of between 0ppm and 90%

Alarm outputs
2 alarms each user-programmable for:
Mode - HIGH, LOW or OFF
Level - full range of instrument
Hysteresis - 0% to 10% of set point
Volt free C/O contacts rated at 48V 0.5A AC or DC, normally energised

Serial Communication Port
RS232 interface, 9600 baud, ASCII protocol

Environment
Operating: 0°C to +45°C, RH 0-90% (non-condensing)

Power requirement
24V DC from 100-240V AC 50/60 Hz power unit.

Weight
Z1030 analyser: 0.40kg

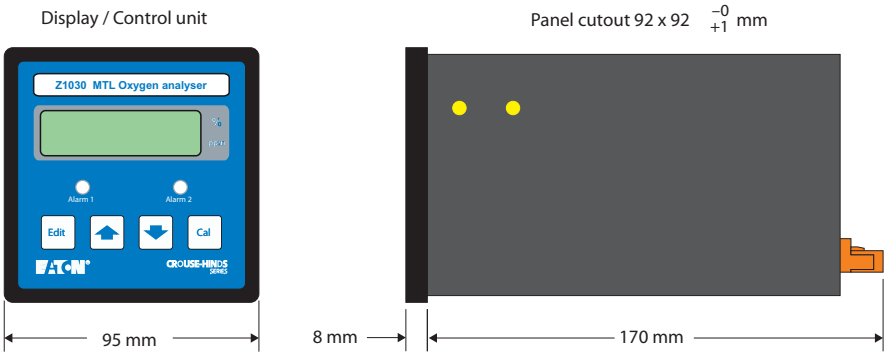
Remote sensor enclosure: 1.25kg

ORDERING INFORMATION

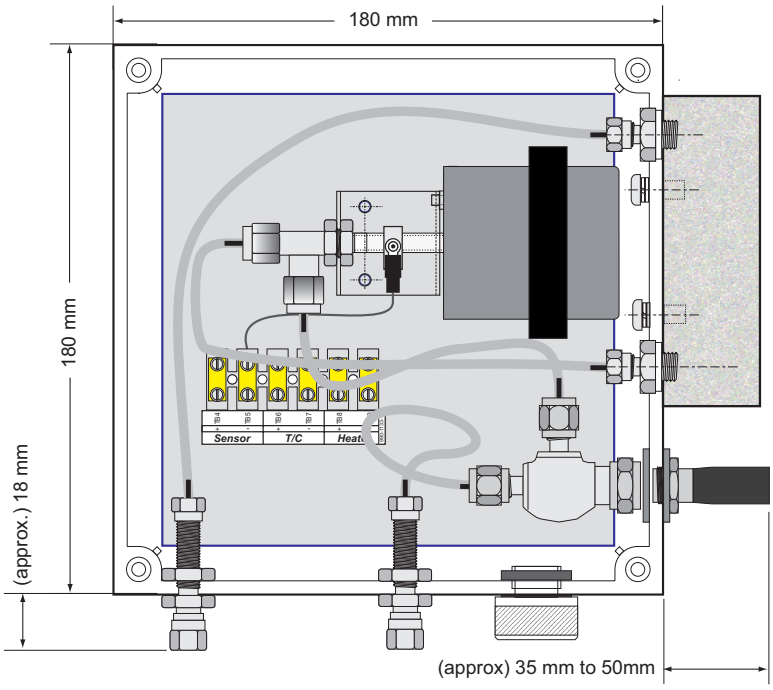
Part no.	Model no.	Description
825-9002	Z1030	Panel mount oxygen analyser with remote sensor assembly, 4-20mA or 0-5V output
Options		Double ferrule sample connectors in brass or stainless steel
		Terminal interface software to provide datalogging

Contact Eaton's MTL product line for further details

Electronics enclosure - showing dimensions



Sensor enclosure - showing internal details and dimensions



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