XZR200

Oxygen Analyzer

A cost effective zirconium-dioxide analyzer to measure percentage level oxygen in combustion processes, ambient air monitoring and many more applications. The unit is configurable to measure either 0-25% or 0-100% oxygen and offers manual or automatic calibration to suit the customer's needs. Two probe lengths are available (210mm & 400mm) as well as two maximum sample temperatures (250°C & 400°C) for greater flexibility.

Highlights

- Configurable outputs: 4-20 mA and 0 to 10 V DC or RS232 comms interface
- Cycling 3.3 V DC logic output allows direct monitoring of the O_2 sensor for diagnostic purposes
- Can be calibrated in normal air (20.7% O_2) or in any other known O_2 concentration
- Selectable output filtering allows fast and dynamic or slow and stable output
- Externally triggered automatic or manual calibration
- Diecast aluminium case IP65 with stainless steel probe
- Sample temperature up to +400°C

Applications

- Combustion control including oil, gas and biomass boiler applications
- Laboratory & building air quality monitoring including confined space personnel safety
- Composting
- Scientific applications including respiratory studies of a community or an organism, plants and animals
- Food and beverage packaging

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Technical Specifications

Performance

Measurement technology	Zirconium Dioxide
Gas	Oxygen
Measurement range	0-25% or 0-100%
Output resolution	0.01 V, 0.01 mA or 0.01% O_2
Accuracy (0-25%)	< 0.5% O_2
Accuracy (0-100%)	< 1% O_2
Response time (T90)	< 5 seconds
Repeatability	< 0.5%
Sample flow rate	0 to 10 m/sec
Sample Flow Effect (calibrated @ 0.5 l/min)	±0.1% O_2 (0 to 1 l/min)
Sample pressure	Atmospheric*
Sample temperature	Up to +250°C or +400°C
Sensor temperature	+700°C (+1292°F)
Background gas	Air, N_2, CO_2, Ar or Combustion Gas

Warning: Probe tip gets hot, do not touch without PPE

* The XZR200 is designed to be operated at atmospheric pressures. However, it is possible to measure in the range 0 to 25% O_2 at pressures up to 3 barg (43.5 psig) without damage to the unit. The unit will require calibration at the operating pressure and a separate pressure transducer feeding into the control system may be required.

Electrical Input/Output

Power supply	24 V DC, ±10%
Power consumption	500 mA maximum @ 24 V DC
Analog outputs	4-20 mA and 0 to 10 V DC
Output ranges	0-25% or 0-100%
Digital communications	RS232 (not available if 4-20 mA output selected)

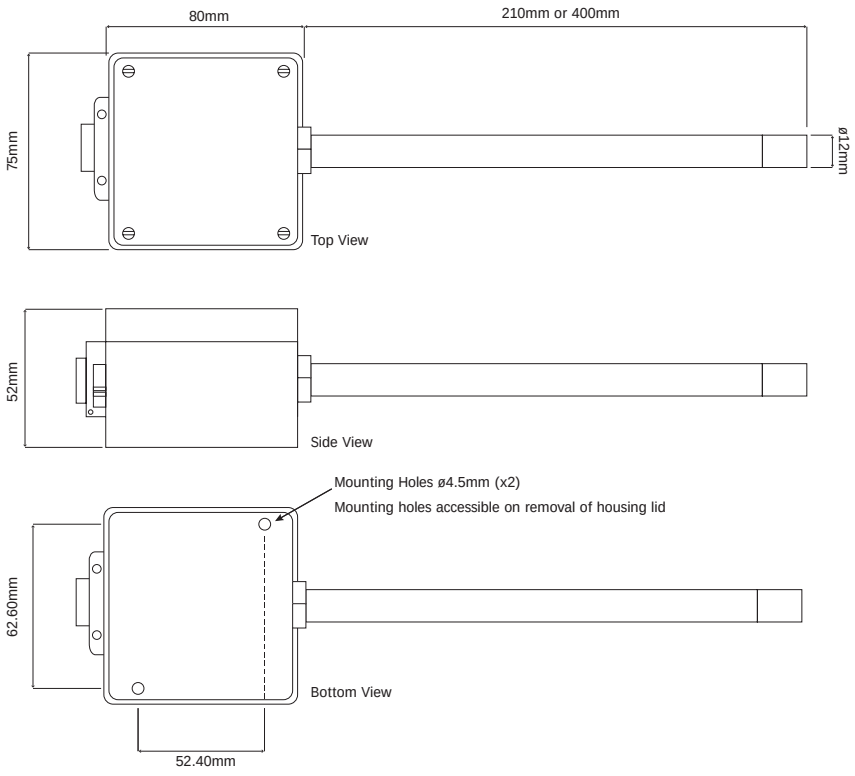
Operating Conditions

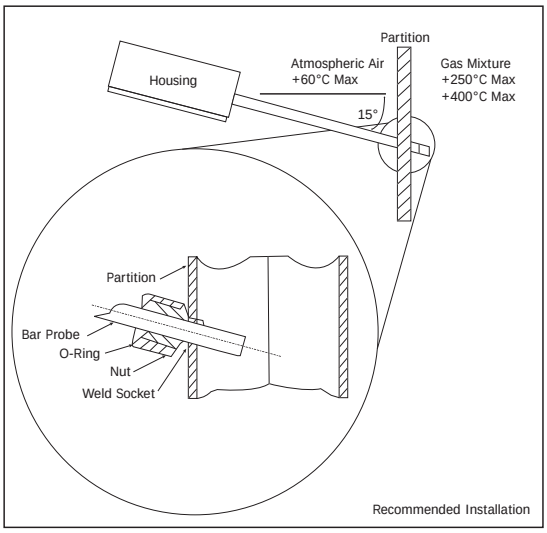
Ambient temperature	-10 to +85°C (14 to +185°F)

Mechanical Specifications

Warm Up time	Approx. 10 minutes
Stabilization time	Included in the above
Dimensions	52 x 75 x 80mm (h x w x d) excluding probe
Probe dimensions	210 or 400mm (length) ø12mm
Weight	< 0.5kg
Wetted materials	Stainless steel
Process connection	12mm Swagelok® compression fitting or equivalent required
Ingress protection	IP65
Housing material	Waterproof die-cast aluminium housing

Dimensions





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Michell Instruments adopts a continuous development programme which sometimes necessitates specification changes without notice.
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