

# 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).



### 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<sub>2</sub> sensor for diagnostic purposes
- Can be calibrated in normal air (20.7% O<sub>2</sub>) or in any other known O<sub>2</sub> 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

## Technical Specifications

### Performance

<b>Measurement technology</b>	Zirconium Dioxide
<b>Gas</b>	Oxygen
<b>Measurement range</b>	0-25% or 0-100%
<b>Output resolution</b>	0.01 V, 0.01 mA or 0.01% O <sub>2</sub>
<b>Accuracy (0-25%)</b>	< 0.5% O <sub>2</sub>
<b>Accuracy (0-100%)</b>	< 1% O <sub>2</sub>
<b>Response time (T90)</b>	< 5 seconds
<b>Repeatability</b>	< 0.5%
<b>Sample flow rate</b>	0 to 10 m/sec
<b>Sample Flow Effect (calibrated @ 0.5 l/min)</b>	±0.1% O <sub>2</sub> (0 to 1 l/min)
<b>Sample pressure</b>	Atmospheric*
<b>Sample temperature</b>	Up to +400°C (752 °F)
<b>Background gas</b>	Air, N <sub>2</sub> , CO <sub>2</sub> , Ar or Combustion Gas

#### Warning: Probe tip gets hot, do not touch

\* The XZR200 is designed to be operated at atmospheric pressures. However, it is possible to measure in the range 0 to 25% O<sub>2</sub> 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

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

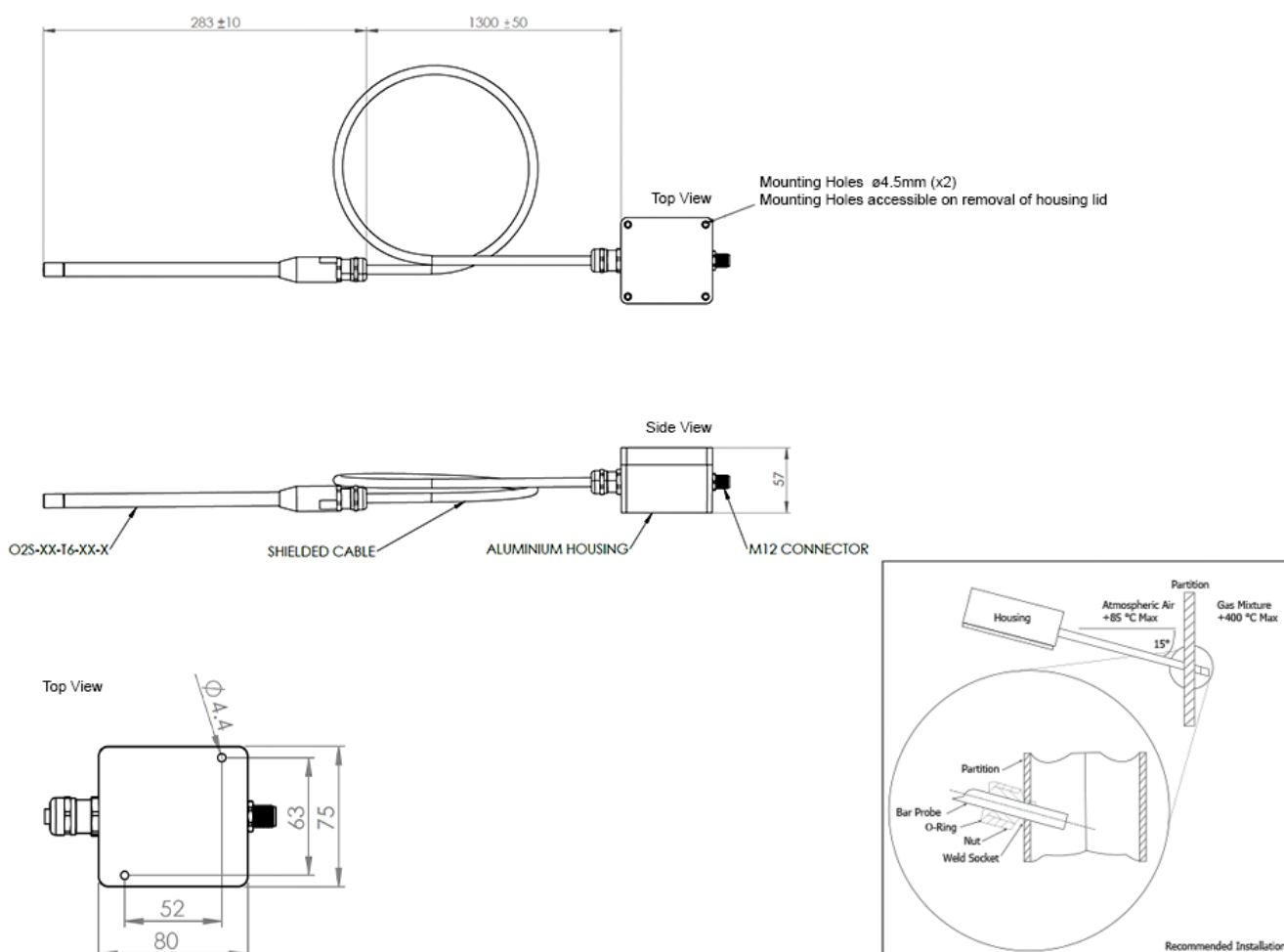
### Operating Conditions

<b>Ambient temperature</b>	-10 °C to +85 °C (14 °F to +185 °F)
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### Mechanical Specifications

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

## Dimensions



**Rotronic Instruments Corp.** 135 Engineers Road, Suite 150, Hauppauge NY 11788

Tel: 631 427 3898, Email: [us.info@michell.com](mailto:us.info@michell.com), Web: [www.michell.com/us](http://www.michell.com/us)

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

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