

## OXY Series

Zirconia Oxygen Sensors

PRELIMINARY

### FEATURES

- Oxygen pressure range 2 to 3000 mbar
- High accuracy
- No reference gas required
- Rugged stainless steel housing
- Long life, non-depleting technology
- Requires an external interface board to operate

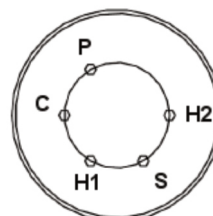


### SPECIFICATIONS

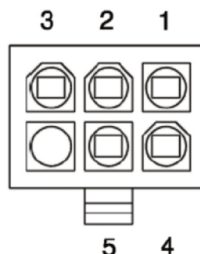
#### Maximum Ratings

Heater supply voltage <sup>1</sup>	4,35±0,1 V <sub>DC</sub>
Standby	2,00 V <sub>DC</sub>
Heater current consumption	1,85 A
Standby	0,85 A
Pump impedance at 700°C <sup>2</sup>	<6 kΩ
Permissible gas temperature	-100...250 °C
Gas flow rate	0...10 m/s
Repetitive permissible acceleration	5 g
Incidental permissible acceleration	30 g

### ELECTRICAL CONNECTIONS



P	Pump
C	Common
H1	Heater 1
S	Sense
H2	Heater 2



Pin	Connection
1	Pump (red)
2	Common (black)
3	Heater 1 (yellow)
4	Sense (blue)
5	Heater 2 (yellow)

#### Notes:

- 1 It is important to measure the heater voltage as close to the sensor as possible due to voltage drops in the supply cable.
- 2 The constant current source used in the pump circuit should be designed to drive a load of up to 6kΩ.

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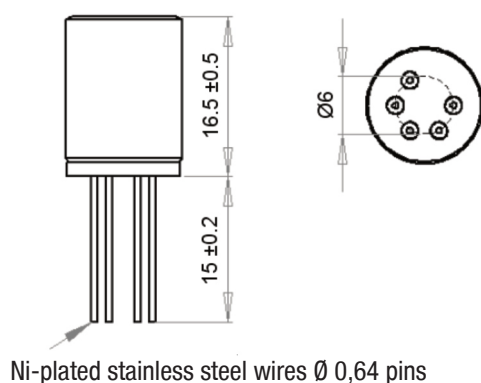
Zirconia Oxygen Sensors

### PERFORMANCE CHARACTERISTICS

Characteristics	Min.	Typ.	Max.	Unit
Oxygen pressure range	2		3000	mbar
Accuracy			5	mbar
Internal operational temperature			700	°C
Response time (10 to 90 %)			4	s
Warm up time (prior to sensor operation)			60	s
Warm up time (from standby)			20	s
Output stabilisation time		180		s

### OUTLINE DRAWING<sup>4</sup>

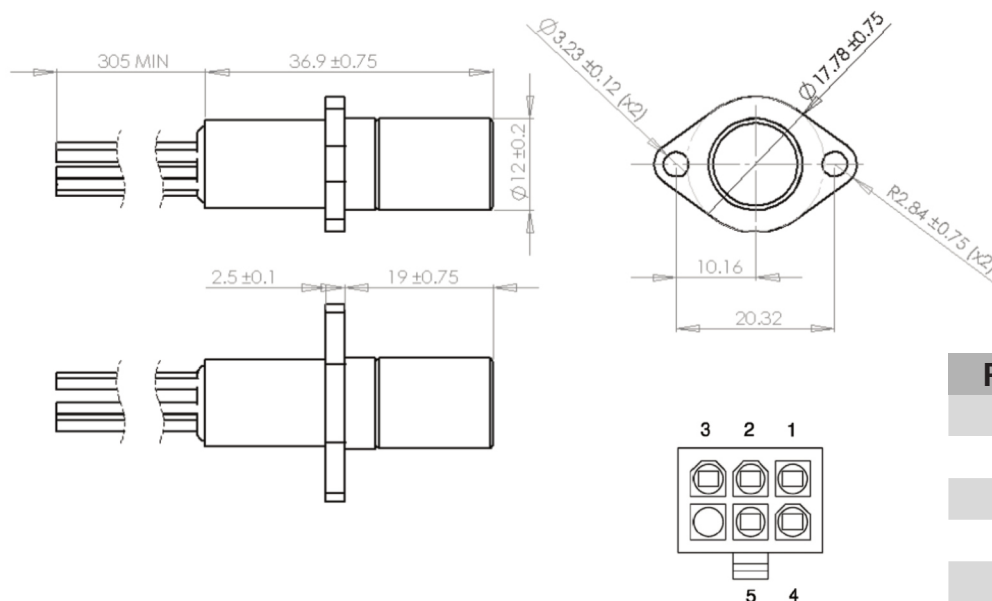
#### OXY-M5-...



Pin	Connection
P	Pump
C	Common
H1	Heater 1
S	Sense
H2	Heater 2

Note: Sensor pins must NOT be soldered. Connections should be crimped onto the pins.

#### OXY-FM-...



Pin	Connection
1	Pump (red)
2	Common (black)
3	Heater 1 (yellow)
4	Sense (blue)
5	Heater 2 (yellow)

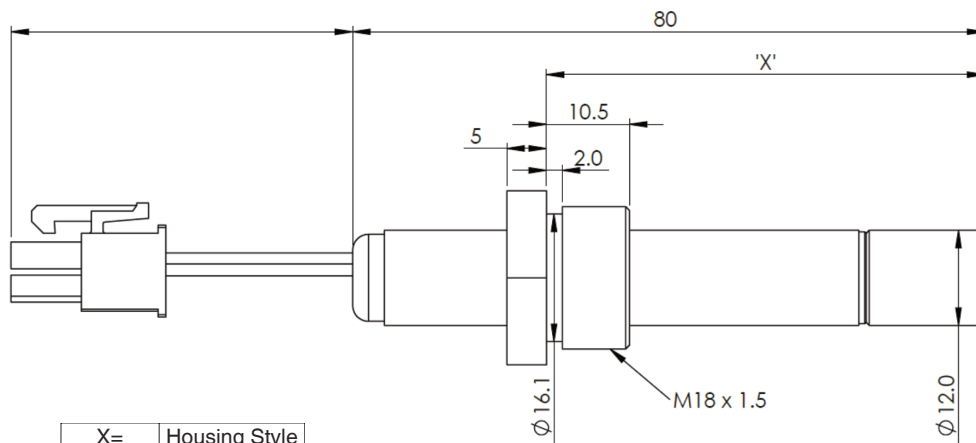
Dimension in mm

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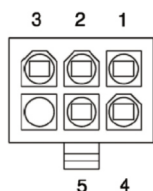
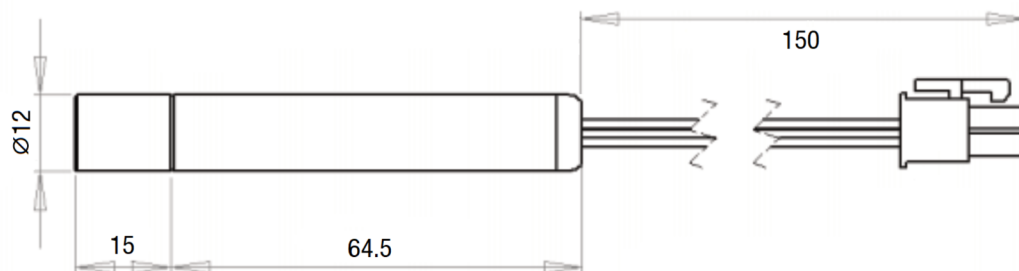
### OUTLINE DRAWING

#### OXY-C1/R1/E1-...



X=	Housing Style
28	C1
45	R1
55	E1

#### OXY-P1-...



Molex mating connector:  
39-01-2061 (plastic plug)  
39-00-0041 (pins)

Pin	Connection
1	Pump (red)
2	Common (black)
3	Heater 1 (yellow)
4	Sense (blue)
5	Heater 2 (yellow)

Dimension in mm

## OXY Series

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### ■ ORDERING INFORMATION

Series	Housing Style	Temperature Range	Response Time
<b>OXY-</b>	<b>FM-</b> Flange Mount with wires <b>M5-</b> Miniature Porous Cap <b>C1-</b> 28 mm Screw-Fit, 15cm wires <b>R1-</b> 45 mm Screw-Fit, 15cm wires <b>E1-</b> 55 mm Screw-Fit, 15cm wires <b>P1-</b> 80 mm Probe, 15cm wires	<b>S-</b> -100 ... 250 °C	<b>F</b> <4 sec

Order code example: OXY-M5-S-F

For all devices MOQ of 10 pieces applies.

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