

Product Specification of:

O₂ - Industrial Sensor / Type I-01



.: KEY FEATURE .:

Sensor contains acid electrolyte to withstand high CO₂ concentrations, shows high resistivity to acid gases, a short response time and long lifetime.

All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa.

Measurement Range:	0.5 to 35 Vol.%												
Expected Operating Life:	~ 1,200,000 Vol.% h												
Sensor Lifetime:	< 6 years @ ambient air												
Electrical Connector:	3-pin Molex®												
Intitial Output Signal:	9.0 to 13.0 mV @ dry ambient air												
Output Signal Range:	5.0 to 20.0 mV @ dry ambient air												
Response Time t₉₀:	< 5 s												
Drift:	< 3 % per month, averaged across 12 months												
Linearity Error:	0 to 2 Vol.% O ₂ : ± 0.1 absolute 2.1 to 35 Vol.% O ₂ : ± 0.5 relative												
Repeatability:	± 1 % Vol. O ₂ @ 100 Vol.% O ₂ applied for 5 min												
Zero Offset Voltage:	< 200 µV in 100 % N ₂ applied for 5 min												
Operating Temperature:	0 to 50 °C												
Pressure Range:	700 to 1250 hPa												
Influence of Humidity:	- 0.03 % rel. O ₂ reading per % RH												
Recommended Load Resistor:	> 1 MOhm												
Temperature Compensation:	NTC												
Interferences:	<table><tr><td>< 20 ppm O₂ response to:</td><td>< 20.000 ppm O₂ response to:</td></tr><tr><td>100 Vol.% CO</td><td>3,000 ppm NO, balance to N₂</td></tr><tr><td>100 Vol.% CO₂</td><td>1,000 ppm H₂, balance to N₂</td></tr><tr><td>100 Vol.% C₃H₈</td><td>500 ppm SO₂, balance N₂</td></tr><tr><td>1,000 ppm Benzene, balance N₂</td><td></td></tr><tr><td>2,000 ppm H₂S, balance N₂</td><td></td></tr></table>	< 20 ppm O ₂ response to:	< 20.000 ppm O ₂ response to:	100 Vol.% CO	3,000 ppm NO, balance to N ₂	100 Vol.% CO ₂	1,000 ppm H ₂ , balance to N ₂	100 Vol.% C ₃ H ₈	500 ppm SO ₂ , balance N ₂	1,000 ppm Benzene, balance N ₂		2,000 ppm H ₂ S, balance N ₂	
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2,000 ppm H ₂ S, balance N ₂													
Weight:	approximately 25 g												
Material in Contact with Media:	ABS, PVC, PPS, PTFE, stainless steel												



.: STORAGE CONDITIONS .:

Temperature Range:	recommended: 5 to 30 °C maximum: - 20 to 50 °C
Humidity:	up to 100 % RH
Ambient Pressure:	600 to 1250 hPa
Shelf Life:	< 6 months recommended

.: RELATED PRODUCTS .:

Product	Part-No.	Housing Colour
O ₂ - Sensor I-01	48 00 14	white

This data sheet is subject to change without prior notice. [I-01-Rev_022012.doc]

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