

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
Nominal Sensor Life:	6 years @ ambient air
Electrical Connector:	3-pin molex [®]
Output Signal Range:	5.0 to 20.0 mV, dry ambient air
Output Signal Delivery Condition:	10.5 to 13.5 mV, dry ambient air
Response Time t₉₀:	< 5 s
Drift:	< 3 % per month
Operating Temperature:	0 to 50 °C
Pressure Range:	750 to 1250 hPa
Linearity Error:	0 to 2 Vol.% O ₂ : ± 0.1 absolute 2.1 to 35 Vol.% O ₂ : ± 0.5 relative
Zero Offset Voltage:	< 200 µV in 100 % N ₂ applied for 5 min
Repeatability:	± 1 % volume O ₂ @ 100 % O ₂ applied for 5 min
Influence of Humidity:	- 0.03 % rel. O ₂ reading per % RH
Recommended Load Resistor:	> 1 MOhm
Interferences:	
< 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	



:: STORAGE CONDITIONS ::

Temperature Range:	recommended: 5 to 30 °C maximum: - 15 to 60 °C
Humidity:	up to 100 % RH
Shelf Life:	< 6 month
Weight:	approximately 25 g
Material in Contact with Media:	ABS, PVC, PPS, PTFE, stainless steel

:: RELATED PRODUCTS ::

Product	Part-No.	Housing Colour	Other Specifics
O ₂ -Sensor I-01	48 00 14	white	none
O ₂ -Sensor I-103	48 03 14	white	low cross interferences, lead free

This data sheet is subject to change without prior notice. [i-01-date-of-issue-2007-01.doc]

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