

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®
Initial 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 35 Vol.%O ₂ : ± 0.1 Vol.%O ₂ (absolute) or ± 0.5% (relative), whichever is greater
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:	100 Vol.% CO < 20ppm O ₂ response 100 Vol.% CO ₂ < 20ppm O ₂ response 100 Vol.% C ₃ H ₈ < 20ppm O ₂ response 1,000 ppm H ₂ , balance to N ₂ < 20ppm O ₂ response 1,000 ppm Benzene, balance N ₂ < 20ppm O ₂ response 2,000 ppm H ₂ S, balance N ₂ < 20ppm O ₂ response 500 ppm SO ₂ , balance N ₂ < 2500ppm O ₂ response 2000 ppm NO bal. N ₂ < 3700ppm O ₂ response
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-Rev03-2021_0623.doc]

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