

.: KEY FEATURES .:

Lead free sensor, RoHS conform, long life-expectancy, fully CO₂ resistant, digital sensor output signal.

All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa and gas flow > 2.5 L/min.

Measurement Range:	0.01 to 100 Vol.%
Resolution:	15 Bit used (16 Bit processor, 1 Bit for algebraic sign)
Output signal	0 to 32768
Initial Output Signal:	2864 to 4455 @ dry ambient air
Output Signal Range:	1591 to 4773 @ dry ambient air
Electrical Connector:	4-pin Molex (digital sensor output signal, I ² C interface)
Power Consumption:	< 15 mW @ dry ambient air
Mechanical Mating Connector:	fits for M16x1 DIN 13 or 5/8-24 UNEF
Nominal Sensor Life:	~ 1,200,000 Vol.% h
Expected Operating Life:	< 6 years @ ambient air, depending on application
Response Time t₉₀:	< 10 s
Drift:	< 1 % per month, averaged across 12 months
Linearity Error:	0 to 2 Vol.% O ₂ : ± 0.1 absolute 2.1 to 100 Vol.% O ₂ : ± 0.5 relative
Repeatability:	± 1 % Vol. O ₂ @ 100 Vol.% O ₂ applied for 5 min
Zero Offset Equivalents:	< 0.3 Vol.% O ₂ @ 100 Vol.% N ₂ applied for 5 min
Operating Temperature:	0 to 45 °C
Pressure Range:	700 to 1250 hPa
Influence of Humidity:	- 0.03 % rel. O ₂ reading per % RH
Temperature Compensation:	NTC on sensor PCB
Interferences:	< 20 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 2,000 ppm H ₂ S, balance N ₂ 1,000 ppm Benzene, balance N ₂ 500 ppm SO ₂ , 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 (≤ 10h): -20 to 50 °C
Humidity:	up to 100 % RH, non-condensing
Ambient Pressure:	600 to 1250 hPa
Shelf Life:	< 6 months recommended

.: RELATED PRODUCTS .:

Product	Part-No.	Housing Colour	Other Specifics
O ₂ -Sensor I-103D	48 15 14	white	RoHS compliant, lead free, digital sensor output signal
O ₂ -Sensor I-103	48 03 14	white	RoHS compliant, lead free, analog sensor output signal