

Specification Datasheet - 0110750

itg

I-103 Lead-free Oxygen Sensor



.: KEY FEATURES .:

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

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

Measurement Range:	0 to 100 Vol.%	
Expected Operating Life:	~ 1,200,000 Vol.% h	
Sensor Lifetime:	< 6 years @ ambient air, depending on application	
Electrical Connector:	3-pin Molex®	
Initial Output Signal:	9.0 to 14.0 mV @ dry ambient air	
Output Signal Range:	5.0 to 15.0 mV @ dry ambient air	
Response Time t_{90} :	< 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 Voltage:	< 200 µV in 100 % 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	
Recommended Load Resistor:	> 1 MOhm	
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
	approximately 25 g	
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	
Ambient Pressure:	600 to 1250 hPa	
Shelf Life:	< 6 months recommended	