

Specification Datasheet - 0110710

itg

MLF-16D Lead-free Oxygen Sensor



:: KEY FEATURES ::

Lead free, RoHS compliant, long-life expectancy, 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.%O ₂
Resolution:	15 Bit used (16 Bit processor, 1 Bit for algebraic sign)
Output signal	0 to 32768
Initial Output Signal Range:	2546 to 4455 @ 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:	> 2,000,000 Vol.%O ₂ h
Expected Operating Life:	4 years @ ambient air, depending on application
Response Time t₉₀:	< 7 s
Signal Drift (long term):	< 0.1%/month of sensor output signal @ dry ambient air
Signal Drift (short term):	< 0.1 Vol.%O ₂ / day @ dry ambient air, constant environmental / measurement conditions
Static Temperature Error:	< ±10% @ 40-50 °C < ±1.5% @ 20-40 °C < ±2% @ 10-20 °C < ±10% @ 0-10 °C
Operating Temperature:	0 - 40 °C; intermittent 40 - 50 °C
Ambient Pressure Range:	500 to 1250 mbar
Zero Offset Equivalents:	< 0.3 Vol.%O ₂ @ 100 Vol.%N ₂ applied for 5 min
Linearity Error:	< 3 % @ 100 Vol.%O ₂ applied for 5 min
Influence of Humidity:	- 0.03 % rel. O ₂ reading per % RH
Temperature Compensation:	NTC on sensor PCB
Interferences:	according to DIN EN ISO 80601-2-55
Weight:	approximately 20g
Material in contact with media:	PPS, PTFE, ABS, FPM, stainless steel

:: STORAGE CONDITIONS IN UNOPENED ORIGINAL PACKAGE ::

Temperature Range:	- 20 °C to 40 °C 5 °C to 25 °C recommended 40 °C to 50 °C maximum 1 week
Ambient Pressure Range:	500 to 1250 mbar
Humidity:	up to 100% RH, non condensing
Shelf Life:	< 6 months recommended