Product Specification of:
O₂ - **leadfree** Medical Sensor / Type MLF - 16D

.: KEY FEATURES :.

Lead free, RoHS compliant, long-life expectancy, digital sensor output signal.

All characteristics are based on conditions at 25℃, 50% RH and 1013 hPa and gas flow ≥ 2.5 L/min. All digital values are based on a gain factor of 1 (AD-Converter).

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 Digits
Initial Output Signal Range:	2546 to 4455 Digits @ dry ambient air (gain factor AD-Converter 1)
Electrical connector	4-pin Molex (digital sensor output signal, I^2C interface)
Power Consumption:	< 15 mW @ dry ambient air
Supply Voltage:	+3.3 V (verified), +5.0 V (possible), > 5.5 V (PCB damage)
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 t_{90}:	< 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:	< $\pm$10% @ 40-50 °C; < $\pm$1.5% @ 20-40 °C
	< $\pm$ 2% @ 10-20 °C; < $\pm$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

.: RELATED PRODUCTS :.

Product	Part-No.	Housing Colour	Other Specifics
O2-Sensor MLF-16	47 03 16	white	RoHS compliant, lead free, analog sensor output signal
O2-Sensor MLF-16D	47 11 16	white	RoHS compliant, lead free, digital sensor output signal
O2-Sensor MLF-16DE	47 14 16	white	RoHS compliant, lead free, digital sensor output signal, EEPROM and temperature sensor on PCB

This data sheet is subject to change without prior notice. [MLF-16D-Rev07-2020_1201.doc]