

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°C, 50% RH and 1013 hPa and gas flow > 2.5 L/min.

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| 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 (gain amplifier 1) |
| Initial Output Signal Range: | 2546 to 4455 Digits @ 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 |

:: RELATED PRODUCTS ::

| Product | Part-No. | Housing Colour | Other Specifics |
|---------------------------------|----------|----------------|---|
| O ₂ -Sensor MLF-16 | 47 03 16 | white | RoHS compliant, lead free, analog sensor output signal |
| O ₂ -Sensor MLF-16D | 47 11 16 | white | RoHS compliant, lead free, digital sensor output signal |
| O ₂ -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-Rev06-2019_0529.doc]