Model MLF-16 LEAD-Free O2 Sensor (Medical) P/N : 47 03 16

A wide range of LEAD-FREE Galvanic Oxygen Sensor as a direct replacement with major Anesthesia machines, Respiratory ventilators, Incubators, CPAP machines and other O2 Therapy units available in market. Supreme performances and outstanding longevity from the NEW patented LEAD-FREE Galvanic O2 sensor technology with extended warranty time up to 4 years of operations.

MLF-16

OEM Equipment:

- **Covidien** 740,760, 840
- **Puritan Bennet** PB 2000 Tester
- **Versamed** iVent

Replacement for:

Maxtec: MAX-16	**City Technology**: MOX-1
EnviteC: OOM-101-Air	**Analytical Industries**: PSR-11-917-M

Highlights

Response Time	<7 s
Nominal Sensor Life	> 2,000,000 Vol.% O_2 hr.
Expected Operating Life in Air	4 years @ ambient air, depending on application
Electrical Connector	3-pin Molex
Initial Signal Output	9 to 13 mV @ dry ambient air
Warranty	25 months

In typical medical applications with Hospital settings and Homecare use, due to the oxygen consumption, electrochemical galvanic sensors commonly suffer on lifetime at high oxygen exposition over time.
In addition, 1) High Gas Flow rates and, in some cases, 2) the presence of CO2 and other gases are interfering the sensor lifetime. Each of the Lead-Free sensor features and extended life-time and superior long-term signal stability even when exposed to high oxygen concentration

Key features

Superior Lifetime
While the Leaded sensor ends of its' life approx. at 2600 days after start to use, the Lead-Free sensor still keeps on running with stable output voltage signal

Fast Response Time T90
At higher temperature test and 100% O2, the Lead-Free sensor shows 2.5 times faster response T90 compared to the leaded sensor. It shows the Response Time T90, constant in +/- 1.5 sec. interval even after 3 years in use

Stable Output Drift
In average output voltage drift test within a period of 12 months at Room Temperature in Ambient Air, it shows the Lead-Free sensor is much more stable and much less output voltage drift by the factor of 4.5 compared to the Leaded sensor

Lowest Linearity Error
At test with higher temperature and 100% O2, the Lead-Free sensor shows linearity error lower than 1.5% for 3 Years in use

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Lead free, RoHS compliant, long-life expectancy.

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

Technical Specifications

Measurement Range	0 to 100 Vol.%O_2
Expected Operating Life	4 years @ ambient air, depending on application
Nominal Sensor Life	> 2,000,000 Vol.% O_2 h
Electrical Connector	3-pin Molex
Mechanical Mating Connector	fits for M16 x 1 DIN 13 or 5/8-24 UNEF
Initial Output Signal Range	9 to 13.0 mV @ dry ambient air
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	< ±1.5% @ 20-40 °C <± 2% @ 10-20 °C <±10% @ 0-10 °C / 40 – 50 °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
Recommended Load Resistor	≥ 1MOhm
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 Product

Product	Part Number	Housing Color	Other Specifics
O2-Sensor MLF-16	47 03 16	white	RoHS compliant, lead free

**This data is subject to change without a prior notice.*

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