

Product Specification of:  
**O<sub>2</sub> - leadfree Medical Sensor / Type MLF-650**



**.: KEY FEATURES .:**

**Lead free, ROHS compliant, fast response time for time resolved O<sub>2</sub> measurements.**

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

<b>Measurement Range:</b>	0 to 100 Vol.% O <sub>2</sub>
<b>Expected Operating Life:</b>	2 years @ ambient air, depending on application
<b>Nominal Sensor Life:</b>	> 1, 000, 000 Vol.% O <sub>2</sub> h
<b>Electrical Pin Assignment:</b>	3-pin Molex 1: (+) 2: (-) 3: (-)
<b>Mechanical Mating Connector:</b>	fits for M16x1 DIN 13 or 5/8-24 UNEF
<b>Initial Output Signal Range:</b>	9 - 14mV @ dry ambient air
<b>Response Time <math>t_{90}</math>:</b>	< 650ms @ 0 to 20.95 Vol.% O <sub>2</sub> (dry ambient air, 200mL/min, optimised gas tracking system, small dead spaces)
<b>Signal Drift (long term):</b>	< 0.1%/month of sensor output signal @ dry ambient air
<b>Signal Drift (short term):</b>	< 0.1 Vol.%O <sub>2</sub> /day @ dry ambient air, constant environmental / measurement conditions
<b>Static Temperature Error:</b>	< ± 3 % @ 10-40 °C, < ± 10 % @ 0-10 °C / 40-50 °C
<b>Operating Temperature:</b>	0 - 40 °C; intermittent 40 - 50 °C
<b>Ambient Pressure Range:</b>	500 to 1250 mbar
<b>Zero Offset Equivalents:</b>	< 0.3 Vol.%O <sub>2</sub> @ 100% N <sub>2</sub> applied for 5 min
<b>Linearity Error:</b>	< -10 % @ 100 Vol.%O <sub>2</sub> applied for 5 min
<b>Influence of Humidity:</b>	- 0.03 % rel. O <sub>2</sub> reading per % RH
<b>Temperature Compensation:</b>	NTC on sensor PCB
<b>Recommended Load Resistor:</b>	> 1 MOhm
<b>Weight:</b>	approximately 20g
<b>Material in contact with media:</b>	PPS, PTFE, ABS, FPM, stainless steel



**.: STORAGE CONDITIONS IN UNOPENED ORIGINAL PACKAGE .:**

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

**.: RELATED PRODUCTS .:**

Product	Part-No.	Housing Colour	Other Specifics
O <sub>2</sub> -Sensor MLF-650	41 00 33	white	RoHS compliant, lead free

*This data sheet is subject to change without prior notice. [mlf-650-Rev02-2018\_1219.doc]*