

Product Specification
Oxygen Sensor
OOD103-JFD

Confidential - For Vandagraph only!

ENVITEC
by Honeywell

Measurement Range:	0 % ... 100 % oxygen																												
Output in Ambient Air:	6.5 to 9 mV																												
Electrical Interface:	Flying leads with 3 pin female connector (Molex® 22-01-2037)																												
Repeatability:	< 1% vol. O ₂ @ constant temperature and pressure																												
Linearity error:	0.1 to 1.0 bar ppO ₂ < 3% relative 0.1 to 2.5 bar ppO ₂ < 5% relative (at ppO ₂ > 1.0 bar after 1 h equilibration time)																												
Accuracy at constant temperature, pressure and humidity	Accuracy – Within + / - 3% of reading (or ±5 mBar Oxygen whichever is greater) up to specified range, when calibrated using 100% oxygen at known atmospheric pressure and 25 °C Acceptable limits are <table><tr><td></td><td colspan="2">Error mBar pO2</td><td></td></tr><tr><td>mBar pO2</td><td>Min</td><td>Max</td><td></td></tr><tr><td>209</td><td>-4</td><td>4</td><td></td></tr><tr><td>1000</td><td>0</td><td>0</td><td>Calibration point</td></tr><tr><td>1500</td><td>-30</td><td>30</td><td></td></tr><tr><td>2000</td><td>-75</td><td>75</td><td>Specified Range</td></tr><tr><td>2300</td><td>-100</td><td>100</td><td>Over-range capability</td></tr></table> Hysteresis after use at high pressure according to accuracy specification (Within + / - 3% of reading)		Error mBar pO2			mBar pO2	Min	Max		209	-4	4		1000	0	0	Calibration point	1500	-30	30		2000	-75	75	Specified Range	2300	-100	100	Over-range capability
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Response time:	< 5 sec. to 90% of final value																												
Zero Offset Voltage:	< 0.5% oxygen reading in 100% nitrogen @ 25 °C after 36 seconds																												
Cross Interference:	< 0.5% vol. O2 response to: 5% CO2 balance N2																												
Influence of Humidity:	- 0.03% rel. per % RH at 25 °C																												
Pressure Range:	600 to 2500 mbar																												
Influence of Mechanical Shock:	< 1% relative after a fall from 1m																												
Operating Temperature:	0 °C to 50 °C																												
Temperature Compensation:	Built-in NTC compensation																												
Effect of Temperature Compensation (steady state):	Between 0 °C and +50 °C: 5% relative error																												
Operating Humidity:	0 - 99% RH non-condensing																												
Long Term Output Drift:	< 1% vol. oxygen per month, Typically < -15% relative over lifetime																												
Storage Temperature:	-20 °C to +50 °C																												
Recommended Storage:	+5 °C to +15 °C																												
Recommended Load:	≥10 kOhms																												
Warm-Up Time:	< 30 minutes, after replacement of sensor																												
Nominal Sensor Lifetime:	500,000% vol oxygen hours																												
Weight:	Approximately 28 grams																												
Warranty Period:	15 months (including 3-month shelf life)																												
Typical Lifetime	20 to 24 months from shipment (including shelf life) in air at 25 °C.																												
Electrical output	30-60 Microamperes in air @ 25 °C sea level																												
Packaging	In plastic bag																												
Part No.:	OOD103-JFD: 1002461 (REF DB200381)																												

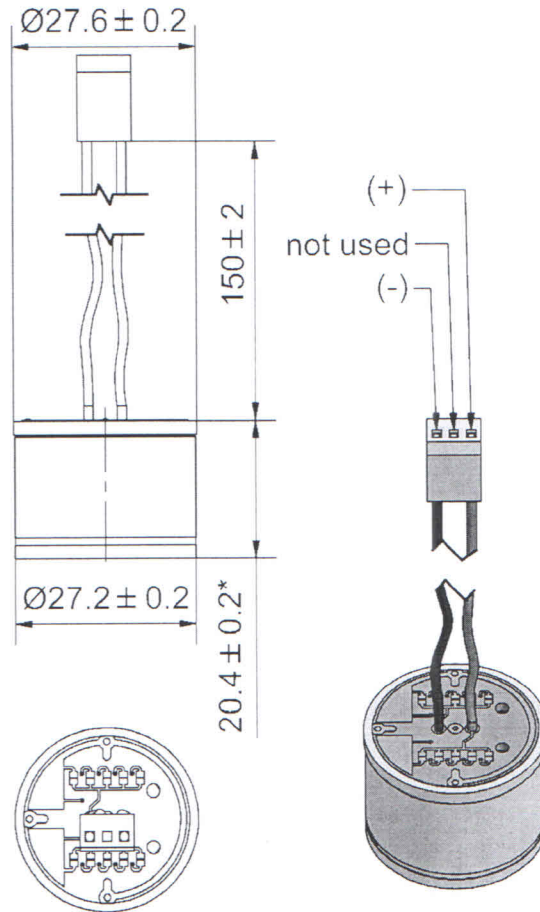
All specifications are applicable at standard conditions: 1013 mbar, 25 °C dry ambient air.

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Mechanical draft:



General tolerances ISO 2768-c

*Sensor housing without PCB

Remove Molex connector after QA testing.

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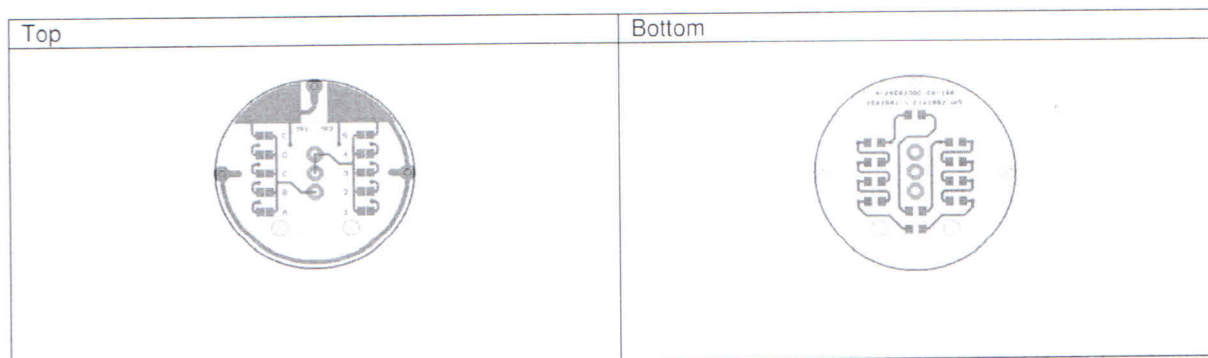
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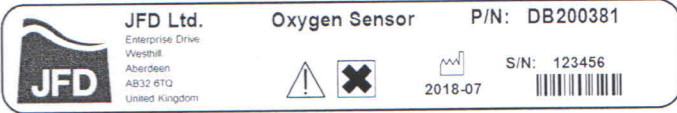
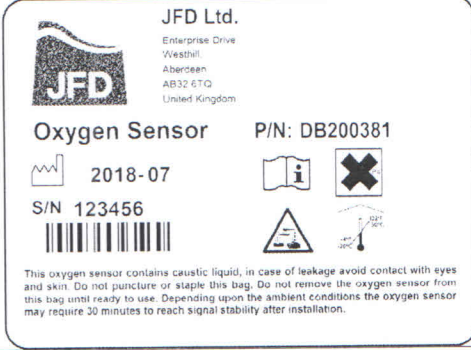
Customized Design Specification:

- Integration of additional Zitex membrane in sensor gas diffusion way
- using of non magnetic components for the sensor
- Conformal coating on the sensor PCB with PLASTIK 70
- 2 x 2mm holes drilled in the sensor PCB
- No information about EnviteC on PCB top / bottom sides, information for ordering process and traceability only.

PCB Layout:



Product Labeling

OOD103-JFD: 1002461 (REF DB200381)	
Label on Sensor (90x15)	Label on Blister- Card (63,5x46,6)
	

Customer Approval

Date: 3rd January 2019

Signature:

