

OBL Sensor Specification

Type: OOD103-JJCCR

Änderungsregister / Change log

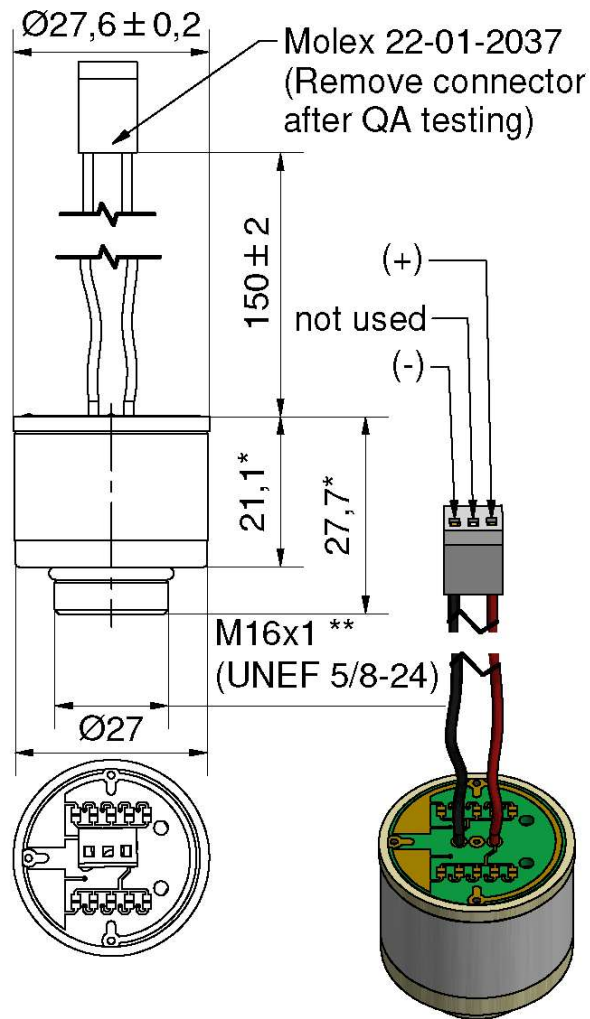
Revision	Date	Author	Description
0	26.01.2021	Maik Lingies	Created

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>Error mBar pO₂</td><td></td></tr><tr><td>mBar pO₂</td><td>Min</td><td>Max</td></tr><tr><td>209</td><td>-4</td><td>4</td></tr><tr><td>1000</td><td>0</td><td>0</td></tr><tr><td>1500</td><td>-30</td><td>30</td></tr><tr><td>2000</td><td>-75</td><td>75</td></tr><tr><td>2300</td><td>-100</td><td>100</td></tr></table> Calibration point Specified Range Over-range capability Hysteresis after use at high pressure according to accuracy specification (Within + / - 3% of reading)		Error mBar pO ₂		mBar pO ₂	Min	Max	209	-4	4	1000	0	0	1500	-30	30	2000	-75	75	2300	-100	100
	Error mBar pO ₂																					
mBar pO ₂	Min	Max																				
209	-4	4																				
1000	0	0																				
1500	-30	30																				
2000	-75	75																				
2300	-100	100																				
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. O ₂ response to: 5% CO ₂ balance N ₂																					
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 +25 °C and +40 °C: 3 % relative error Between 0 °C and +50 °C: 8 % relative error 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:	≥100 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.																					
Packaging	In plastic bag																					
Part No.:	OOD103-JJCCR: tbd (REF tbd)																					

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, tolerances ± 0,2

**Intermediate thread: Metric / Unified Extra Fine
Remove Molex connector after QA testing.

Product Specification
Oxygen Sensor
OOD103-JJCCR

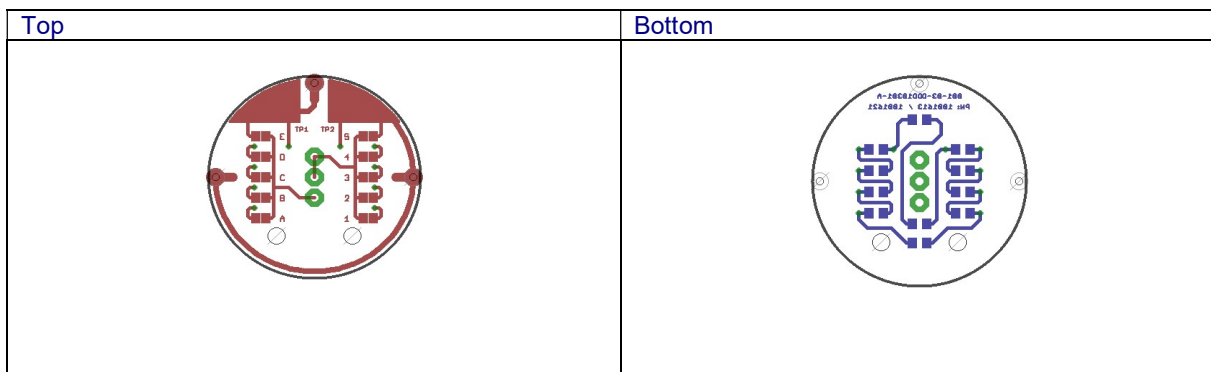
ENVITEC
by Honeywell

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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)
tbd	tbd

Customer Approval

Date:

Signature: