

OBL Sensor Specification

Type: OOD103-1V

Änderungsregister / Change log

Revision	Date	Author	Description
0	15.04.2016	Dipl. Ing. (FH) Maik Lingies	creat
1	04.11.2025	Dipl. Ing. (FH) Maik Lingies	Change label design for OOD103-1V: 1001581 (REF 8010007 / NaNS01) Change parameter "Output in Ambient Air" to "Initial output signal range in ambient air"

Product Specification Oxygen Sensor OOD103-1V





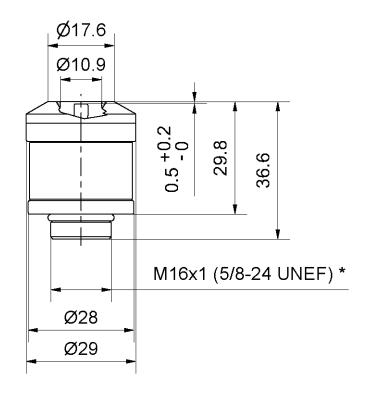
Measurement Range:	0 % 100 % oxygen
Initial output signal range in ambient air	9 to 13 mV
Electrical Interface:	Mini HF (RADIALL R114.426.000)
Repeatability:	< 1% vol. O2 @ constant temperature and pressure
Linearity error:	0.1 to 1.0 bar ppO2 < 3% relative
	0.1 to 2.5 bar ppO2 < 5% relative (at ppO2 > 1.0 bar after 1 h equilibration time)
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)
Part No.:	OOD103-1V: 1001581 (REF 8010007 / NaNS01)

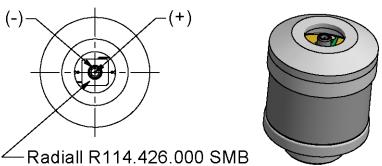
All specifications are applicable at standard conditions: 1013 mbar, 25°C dry ambient air.



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Mechanical draft:





General tolerances ISO 2768-c
*Intermediate thread: Metric / Unified Extra Fine

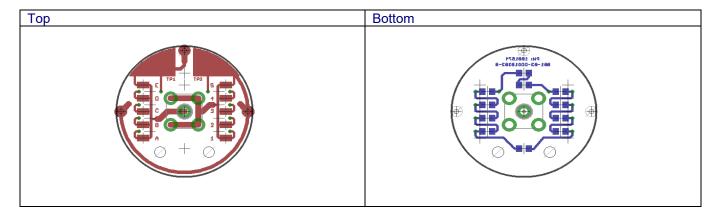


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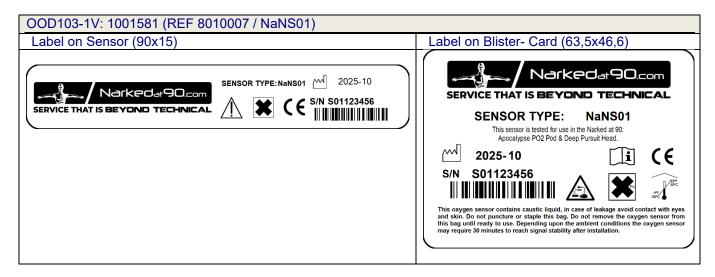
Customized Design Specification:

- Integration of additional Zitex membrane in sensor gas diffusion way
- 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



Customer Approval

Date: 11/10/2025

Signature: Steve Nixon

Steve Nixon (Nov 10, 2025 12:34:31 GMT)