

OBL Sensor Specification

Type: OOD103-3V

[Änderungsregister / Change log](#)

Revision	Date	Author	Description
0	02.04.2016	Maik Lingies	create
1	13.03.2024	Maik Lingies	sensor cap and customer part number changed and add alternative connector

Product Specification
Oxygen Sensor
OOD103-3V

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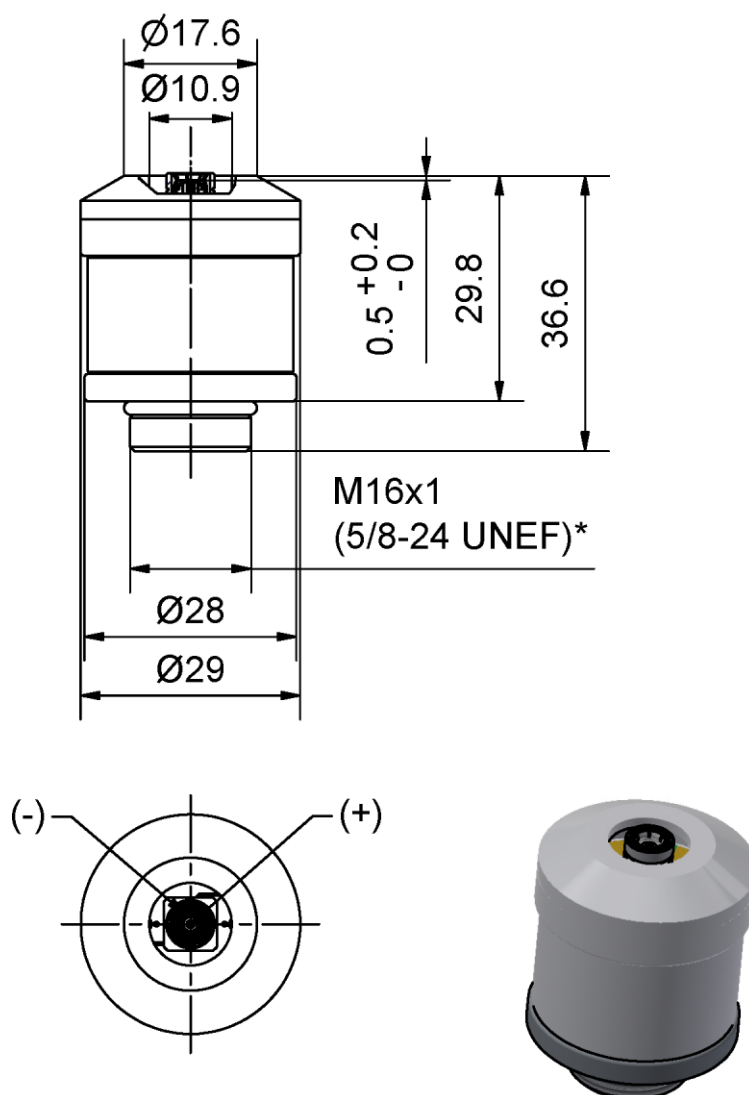
Measurement Range:	0 % ... 100 % oxygen
Output in Ambient Air:	9 to 13 mV
Electrical Interface:	Mini HF RADIAL R 114-425-000 or TE CONSMB006-G
Repeatability:	< 1% vol. O ₂ @ constant temperature and pressure
Linearity error:	0.1 to 1.0 bar ppO ₂ < 3% relative
	0.1 to 2.5 bar ppO ₂ < 5% relative (at ppO ₂ > 1.0 bar after 1 h equilibration time)
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 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.:	OOD103-3V: E1002289 (REF8010028 / Oxygen Sensor - K-22D SMB)

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

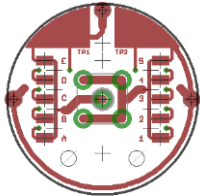
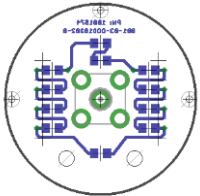
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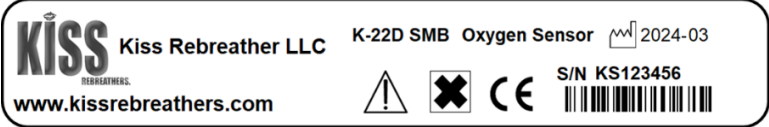
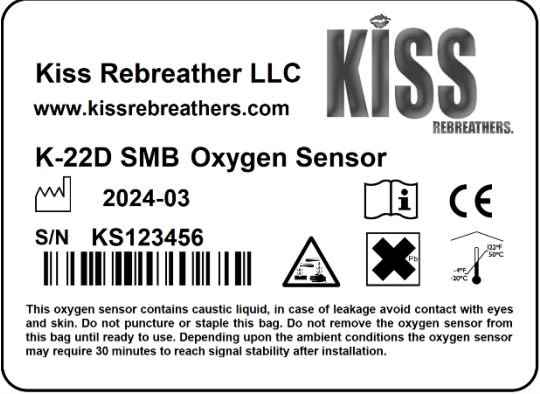
Customized Design Specification:

- 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:

Top	Bottom
	

Product Labeling

OOD103-3V: 1002289 (REF8010028 / Oxygen Sensor - K-22D SMB)	
Label on Sensor (90x15)	Label on Blister- Card (63,5x46,6)
	

Customer Approval

Date:

Signature: