

## **OBL Sensor Specification**

**Type: OOD103-4V** 

## Änderungsregister / Change log

Revision	Date	Author	Description
0	09.01.2025	Dilp. Ing. (FH) Maik Lingies	Initial specification

# Product Specification Oxygen Sensor OOD103-4V





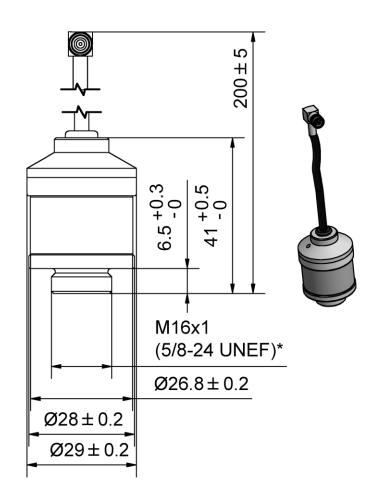
Initial Output Signal in Ambient Air   9 to 13 mV
Repeatability:  Linearity error:  0.1 to 1.0 bar ppO2 < 3% relative  0.1 to 2.5 bar ppO2 < 5% relative (at ppO2 > 1.0 bar after 1 h equilibration time)  Response time:  < 5 sec. to 90% of final value Zero Offset Voltage: < 0.5% oxygen reading in 100% 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
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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.: OOD103-4V: E1002935 (REF 8010054 / R17 MURO)

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





Mechanical draft:



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

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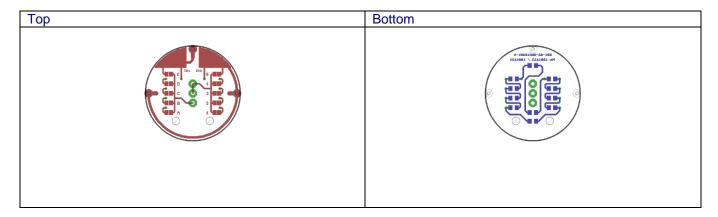


## Confidential - For Vandagraph only!

## **Customized Design Specification:**

- Integration of additional Zitex membrane in sensor gas diffusion way
- 2 mm hole drilled in sensor cap near the connector
- 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**

OOD103-4V: E1002935 (REF 8010054 / R17 MURO)					
Label on Sensor (90x15)	Label on Blister- Card (63,5x46,6)				
MURO-CCR ApS R17 MURO Oxygen Sensor Industrivej 15 DK-8830 Tjele Denmark	MURO-CCR ApS Industrivej 15 DK-8830 Tjele Denmark  R17 MURO Oxygen Sensor  2024-07 S/N M123456  This oxygen sensor contains caustic liquid, in case of leakage avoid contact with eyes and skin. Do not puncture or staple this bag. Do not remove the oxygen sensor from this bag until ready to use. Depending upon the ambient conditions the oxygen sensor may require 30 minutes to reach signal stability after installation.				

### **Customer Approval**

Date:

Signature: