

OBL Sensor Specification

Type: OOD103-1

Änderungsregister / Change log

Revision	Date	Author	Description
0	20.04.2016	Maik Lingies	Created
1	23.03.2023	Maik Lingies	Change Label form Vobster Marine Systems to Nammu Tech

Product Specification
Oxygen Sensor
OOD103-1

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Measurement Range:	0 % ... 100 % oxygen
Output in Ambient Air:	9 to 13 mV
Electrical Interface:	3.5mm phone jack (Switchcraft type 41)
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.:	OOD103-1: 1001580 (REF 8010005 / VST1700)
	OOD103-1: 1001580 (REF 8010017 / N-T1700)
	OOD103-1: 1001580 (REF 8010003 / VR1700)

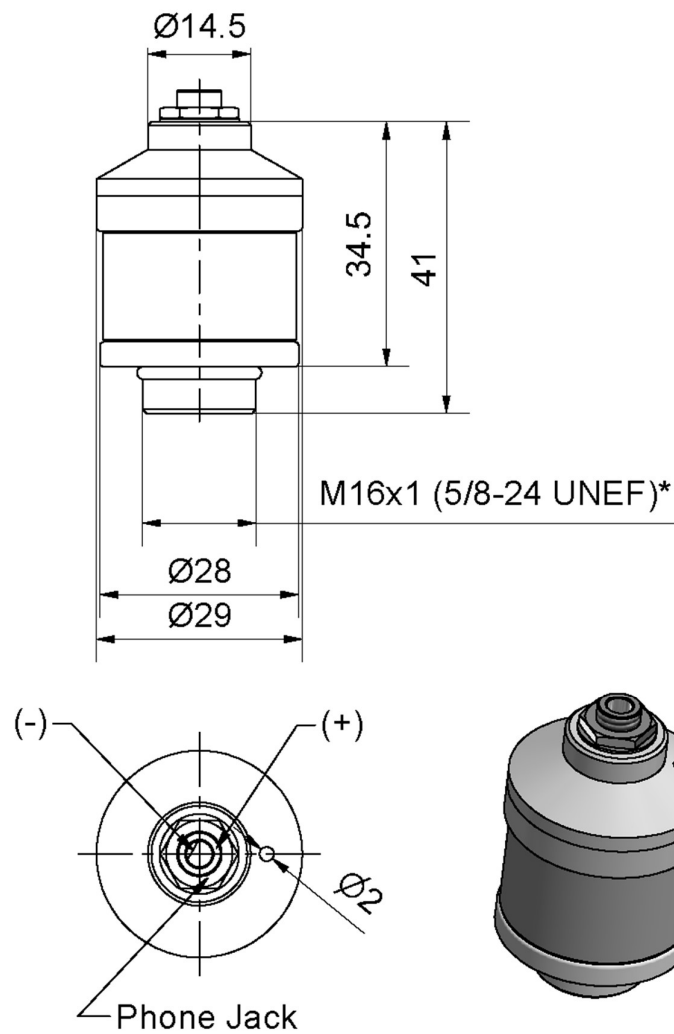
All specifications are applicable at standard conditions: 1013 mbar, 25°C dry ambient air.

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Mechanical draft:



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

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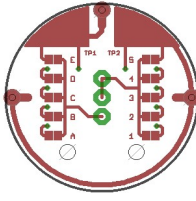
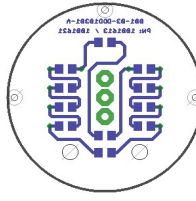
Honeywell

Healthcare Solutions GmbH

























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:

Top	Bottom
	

Product Labeling

OOD103-1: 1001580 (REF 8010005 / VST1700)	
Label on Sensor (90x15)	Label on Blister- Card (63,5x46,6)
 Vandagraph Sensor Technologies 15 Station Road, Cross Hills Keighley, West Yorkshire BD20 7DT, United Kingdom     2011-01 S/N VS123456 	 Vandagraph Sensor Technologies e-mail: info@vandagraphst.com 15 Station Road, Cross Hills Keighley, West Yorkshire BD20 7DT, United Kingdom Tel. +44 (0)1535 634900 VST1700 Oxygen Sensor  2011-01 S/N VS123456      <small>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.</small>
OOD103-1: 1001580 (REF 8010017 / N-T1700)	
Label on Sensor (90x15)	Label on Blister- Card (63,5x46,6)
NAMMU T E C H Nammu-Tech Ltd. Unit 1A-1B, Upton Business Centre, Worcester WR8 0SW, UK www.nammu-tech.io     2023-03 S/N NT123456 	NAMMU T E C H Nammu-Tech Ltd. Unit 1A-1B, Upton Business Centre, Welland Road, Worcester WR8 0SW, United Kingdom www.nammu-tech.io +44 (0)330 043 0761 N-T1700 Oxygen Sensor  2023-03 S/N NT123456      <small>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.</small>

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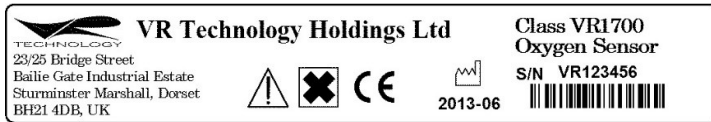
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Honeywell

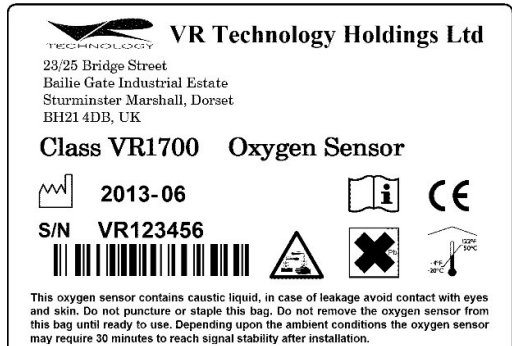
Healthcare Solutions GmbH

OOD103-1: 1001580 (REF 8010003 / VR1700)

Label on Sensor (90x15)



Label on Blister- Card (63,5x46,6)



Customer Approval

Date:

Signature: