

OEM Specification Datasheet - 8010003

VR Technology Ltd. VR1700 Oxygen Sensor



© Vandagraph Sensor Technologies

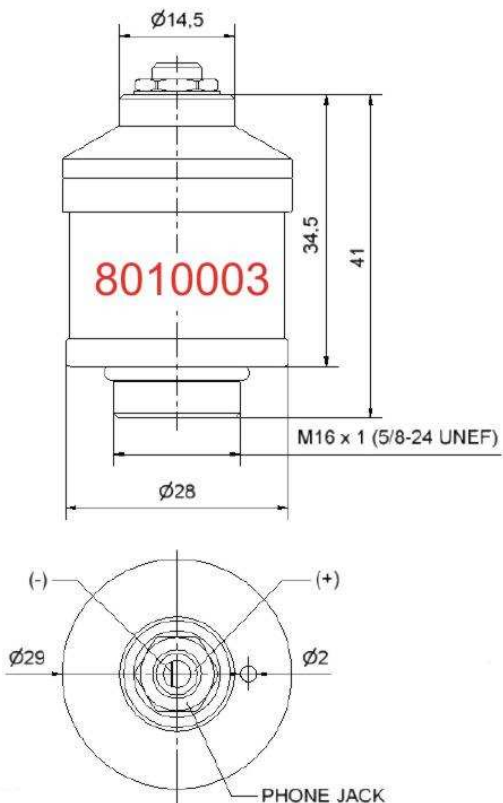
v1.3
26/10/10

Specifications

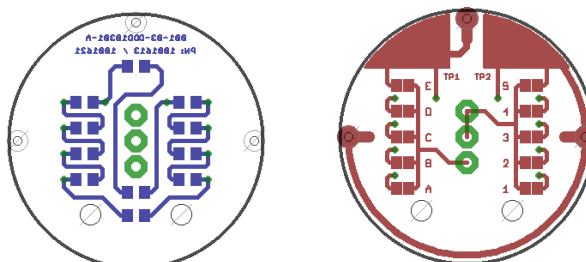
VST part number	8010003
OEM model number	VR1700 Oxygen Sensor
Output	9 – 13 mV
Output connector	Switcraft 0.141" (3.57mm) range miniature phone jack, type No. 41
Input	Threaded M16 x 1mm
Input O ring	Yes
Input casing cap	8030101
Sensor body casing	8030200
Output casing cap	8030301
Range	0 – 2 bar PPO ₂
Pressure range	600 to 2500 mbar
Linearity error	0.1 to 1.0 bar < 3% relative 0.1 to 2.5 bar < 5% relative
Warm up time	< 30 minutes after sensor installed
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
Response time	< 6 s for 90% of final value.
Operating humidity	0 – 99% R.H. (non-condensing).
Influence of humidity	- 0.03% relative per % R.H. at 25 °C.
Influence of mechanical shock	< 1% after fall from 1m
Operating temperature range	0 – 40 °C
Storage temperature	-20 to +50 °C
Recommended storage temperature	+5 to +15 °C
Temperature compensation	Integrated NTC network
Temperature compensation error	0 °C to 40 °C, 5% relative error
Average sensor life	36 months in air at 25°C and 50% R.H.
Long term output drift	< 1% vol oxygen per month, typically < -15% over sensor lifetime.
Shelf life	24 months
Load required	≥ 10 K Ohms
Input - membrane protection grille	No
Input - hydrophobic membrane	Yes - Zitex®
Conformal coating on PCB	Yes – Kontakt Chemie Plastik 70
Pressure equalization - PCB	Yes – 2 x 3mm holes
Pressure equalization - output cap	Yes – 1 x 2mm hole
Weight (approximate)	28 g
Flow diverter	No
Packaging	Gas barrier bag - transparent
Warranty period	12 months from date of sales invoice
All specifications are applicable at standard conditions: 1013 mbar, 25°C dry ambient air.	

Specifications subject to change

Drawings/images



PCB layout



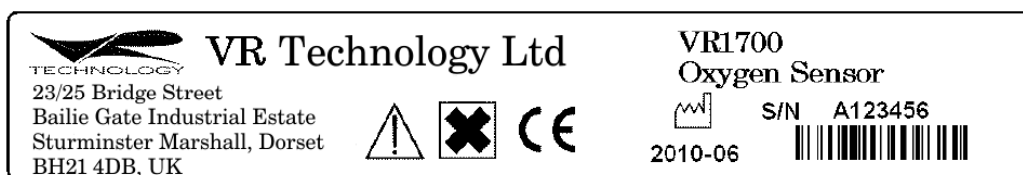
Labelling

Oxygen sensor label 90.0mm x 15.0mm

White vinyl label, text & graphics - black

Font: **Century Schoolbook Greek BT (True Type)**

Font file name: **GrCnskn**



Gas barrier bag label 63.5mm x 46.6mm

White label, text & graphics – black

Font: **Century Schoolbook Greek BT (True Type)**

Font file name: **GrCnskn**

