

Specification Datasheet - 8010010

Rebreather Lab

RBL-23D Oxygen Sensor



v1.2

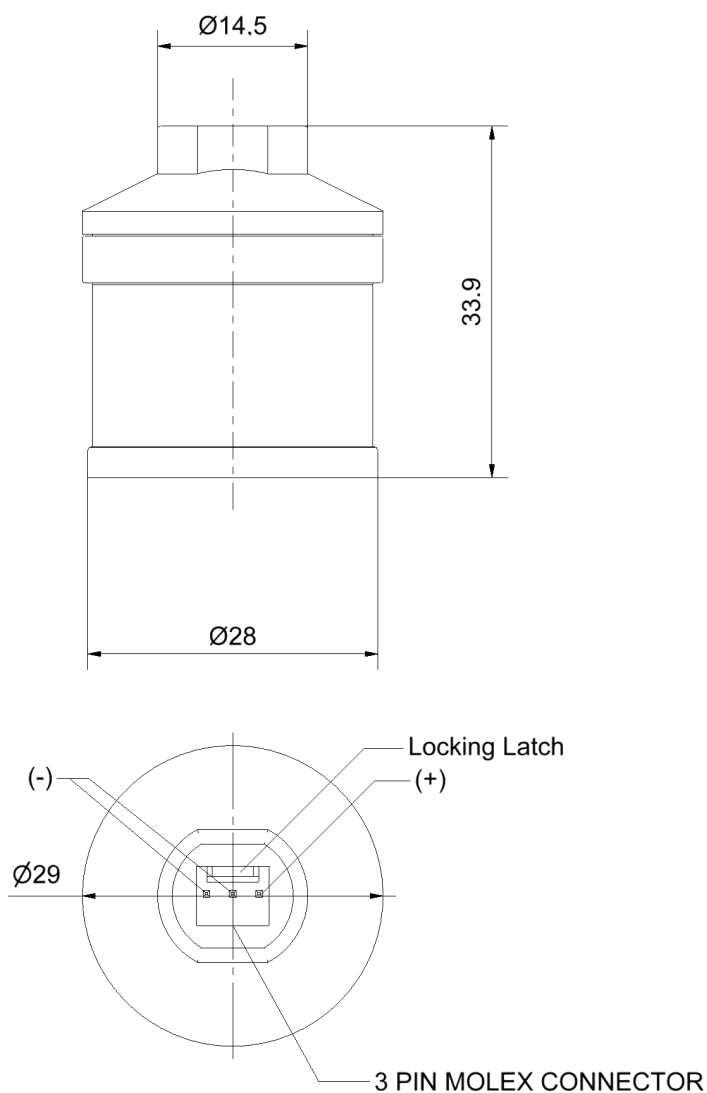
27/02/12

Specifications

VST part number	8010010
OEM model number	RBL-23D Oxygen Sensor
Output	9 – 13 mV
Output connector	3 pin Molex
Input	Open input – Threaded M16 x 1mm removed and input cap face reduced by 0.6 mm.
Input O ring	N/A
Range	0 – 100% Oxygen
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	< 5 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
Nominal sensor life	≥ 500,000 % oxygen hours
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
Conformal coating on PCB	Yes
Pressure equalization - PCB	Yes
Pressure equalization - output cap	None
Weight (approximate)	24.6 g
Flow diverter	N/A
Packaging	Gas barrier bag - clear
Warranty period	12 months from date of sales invoice

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

Drawings



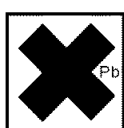
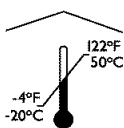
Dimensions are in mm

Labelling

Oxygen sensor label 90.0mm x 15.0mm
White vinyl label, text & graphics – black

 Rebreather Lab Co. Ltd. 53/10 Moo 3 Bophut Koh Samui 84320 Surat Thani, Thailand	  	 2012-01	RBL-23D Oxygen Sensor S/N RBL123456
			

Gas barrier bag label 63.5mm x 46.6mm
White paper label, text & graphics – black

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	RBL-23D Oxygen Sensor		
 2012-01	 		
S/N RBL123456 	  		
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.			

Serial number format: **RBL1xxxxx**

Images

