



Product Data Sheet

ELECTROCHEMICAL O2-LF-M SENSOR (4 SERIES) (PN: 053-0200-000)

• Description

This lead-free O2 sensor delivers a higher signal output than the widely used 4O2-LF sensor. Its output, as detailed in this datasheet, is expressed in oxygen %, whereas the 4O2-LF provides a comparable output, but referenced to air (20.9% oxygen) in its datasheet.

• Performance Characteristics

Nominal Range:	0 ~ 30% vol oxygen
Maximum Overload:	100% vol oxygen
Output Signal (20°C):	90 ± 24 µA/% vol oxygen
Response Time (T90):	≤ 15 s
Zero Signal (20°C):	0.1% vol oxygen
Resolution:	0.05% vol oxygen
Linearity:	Theoretical formula: $K \cdot \ln(1/(1-c))$ The error is <±5%FS or <0.3%vol, whichever is the less.
Bias Voltage:	-600 mV
Repeatability:	< ±5%

• Environmental

Temperature Range:	-40°C ~ 50°C
Pressure Range:	1 ± 0.1 atm
Humidity Range:	15% ~ 90%RH non-condensing

• Life Time

Long Time Output Drift:	< 5% signal/year
Recommended Storage Temp:	10°C ~ 30°C
Expected Operating Life:	5 years in clean air
Storage Life:	12 months in original packaging
Warranty:	36 months

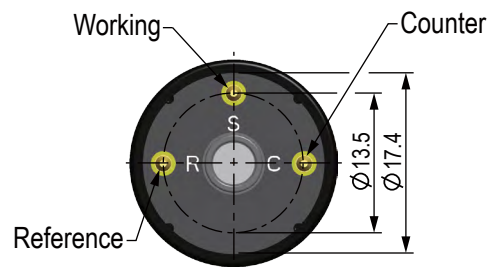
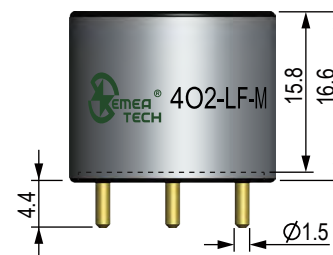
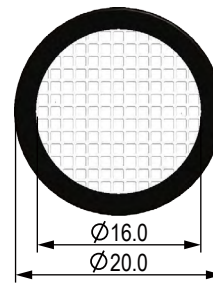
• Physical Characteristics

Housing Material:	ABS
Weight (Nominal):	5 g
Orientation:	None
RoHS Compliance:	RoHS Compliant

• Installation

Output signals from the sensor pins are different. Inappropriate use of the pins in product design will affect the sensor functionality. Exposure to high concentrations of solvent vapors should be avoided under any condition. Mechanical overstress may cause deformation or cracks of the plastic enclosure of the sensor. If the sensor is used in extreme environmental conditions, please contact us for more details.

• Product Dimensions



All dimensions in mm
All tolerances ±0.20mm unless otherwise stated

• Note

The performance data in this document are conducted by using SemeaTech recommended test circuitry and test environment at 20°C, 50%RH and 1 atm. Sensor performance varies under different environmental conditions. Please contact us if you need more details.

