

• 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 |

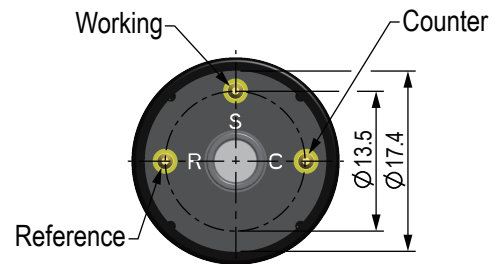
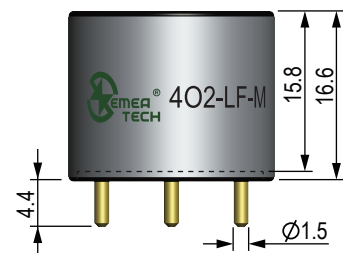
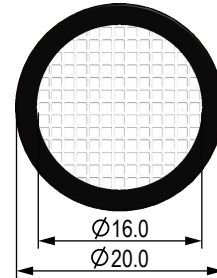
• Physical Characteristics

| | |
|-------------------|----------------|
| 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.

