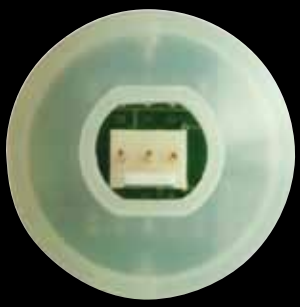
# SC-I22D Oxygen Sensor

## Leading the industry in performance and reliability



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|---|---|
| **ISC part number** | SC-I22D |
| **Output** | 9 – 13 mV |
| **Output connector** | 3 pin Molex |
| **Input** | Threaded M16 x 1mm |
| **Input O ring** | Yes |
| **Range** | 0 – 100% oxygen |
| **Pressure range** | 600 to 2500 mbar |
| **Linearity error** | 0.1 to 1.0 bar < 3% relative<br>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 ºC 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 ºC |
| **Influence of mechanical shock** | < 1% after fall from 1m |
| **Operating temperature range** | 0 – 40 ºC |
| **Storage temperature** | -20 to +50 ºC |
| **Recommended storage temperature** | +5 to +15 ºC |
| **Temperature compensation** | Integrated NTC network |
| **Temperature compensation error** | ±5% of full scale over the operating temperature range. Worst case tracking error (within first hour after maximum temperature step) is ±7.5% of full scale, (gas sample must be brought to ambient temperature). Percent readout is only within ±1% at constant pressure (e.g. a 10% increase in pressure will result in a 10% increase in reading). |
| **Nominal sensor life** | ≥ 33 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 - hydrophobic membrane** | Yes |
| **Conformal coating on PCB** | Yes |
| **Pressure equalization - PCB** | Yes |
| **Weight (approximate)** | 28 g |
| **Packaging** | Gas barrier bag |
| **Warranty period** | 12 months |

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

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