# **Product** Data Sheet

P/N : S+4OX3

# S+4OX3

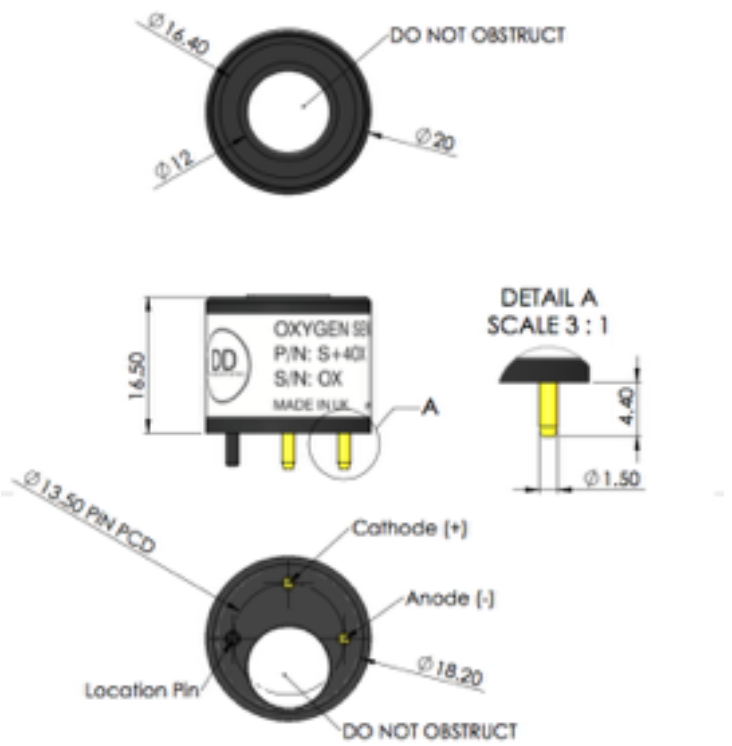
Oxygen Sensor ($O_2$)

**Introduction** The S+4OX is a market leading industrial safety oxygen sensor, ideal for fixed and portable gas detectors.

**Key Features:** Resilient to challenging environments, guaranteed three year life performance, fast response

| Performance Characteristics | |
|---|---|
| Output signal | 0.07 ± 0.02 mA |
| Zero Current (Offset) | < 0.6% vol. O2 (typically <0.3% vol. O2) |
| T90 Response Time | < 10 seconds (typically <5 seconds) |
| Measurement Range | 0 - 25% Oxygen |
| Maximum Overload | 30% Oxygen |
| Linearity | Linear |
| Recommended Load Resistor | 100 ohms |

| Environmental Details | |
|---|---|
| Temperature Range Continuous | -30°C to +50°C |
| Pressure Range | 800 to 1200 mbar |
| Operating Humidity Range | 5% to 95% RH |




Product Dimensions
All dimensions in mm
All tolerances ±0.15 mm

**Important Note:**
All performance data is based on conditions at 20°C, 50%RH and 1 atm, using DD Scientific recommended circuitry.

Sensor performance is temperature dependent, and please contact DD Scientific for temperature performance other than 20°C.

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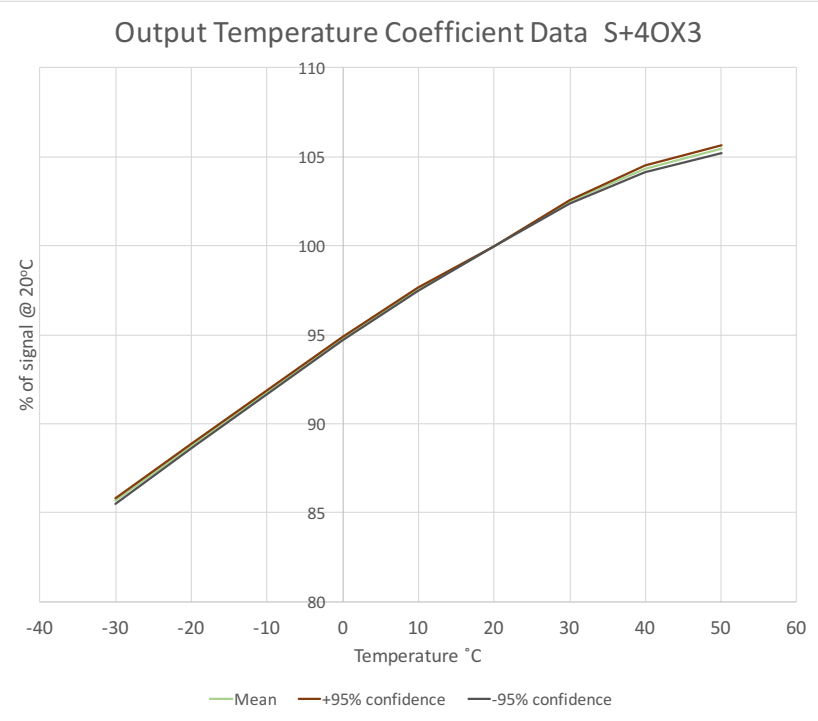
| Lifetime Details | |
|---|---|
| Long Term Output Drift | < 5% per annum |
| Recommended Storage Temp | 0°C to 20°C |
| Expected Operating Life | > 36 months in air |
| Standard Warranty | 36 months from date of dispatch |

| Intrinsic Safety Data | |
|---|---|
| Maximum current in normal operation (pure O2) | 0.01 A |
| Maximum o/c Voltage (10 to 100% O2) | 0.9 V |
| Maximum s/c Current (10 to 100% O2) | 0.5 A |




## Cross Sensitivity Data

Toxic gases at TLV levels will have no cross-sensitivity effect on DD-Scientific oxygen sensors. At very high levels (i.e. percent levels), highly oxidising gases (e.g. ozone, chlorine) will interfere to the extent of their oxygen equivalent, but most other commonly occurring gases will have no effect.

## Acid Gases

IMPORTANT NOTE: Acid gases such as $CO_2$ and $SO_2$ will be absorbed by the electrolyte and tend to increase the flux of oxygen to the electrode. This gives an enhanced oxygen signal of approximately 0.3% of signal per 1% $CO_2$. DD-Scientific oxygen sensors are not suitable for continuous operation in concentrations of $CO_2$ above 25%.