



SGX-70X

Industrial Oxygen Sensor

Application : Fixed Gas Detectors

PERFORMANCE

Range	0-25% Oxygen
Zero Current (Offset)	< 0.6 %vol O ₂
Output Signal	0.20 ± 0.03 mA
Linearity	Linear
Response Time, t ₉₀	<15 s
Maximum Overload	30% Oxygen
Long-term Output Drift	<5% per annum
Recommended Load Resistor	100 ohms
Warranty	2 years

OPERATING CONDITIONS

Temperature Range	-30 to +50°C
Operating Humidity	5 – 95% RH (non-condensing)
Pressure Range	800 mbar to 1200 mbar
Recommended Storage Temperature.....	0°C to 20°C
Expected Operating Life	>2 years in air

INTRINSIC SAFETY DATA

Maximum current in normal operation (Pure O ₂)..	0.01 A
Maximum o/c Voltage (10 to 100% O ₂)	0.9 V
Maximum s/c Current (10 to 100% O ₂)	<0.5 A

ACID GASES

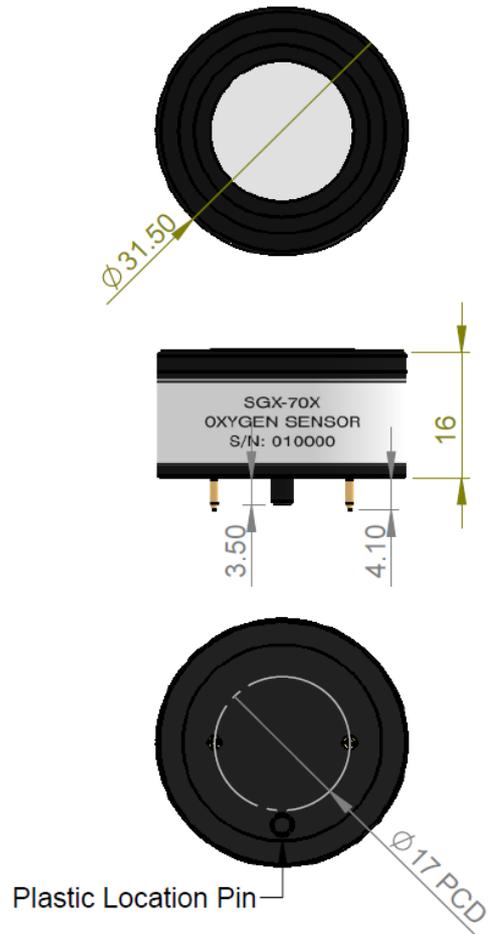
IMPORTANT NOTE: Acid gases such as CO₂ and SO₂ will be absorbed by the electrolyte and tends to increase the flux of oxygen to the electrode. This gives an enhanced oxygen signal of approximately 0.3% of signal per 1%CO₂. The SGX-70X sensors are not suitable for continuous operation in concentrations of CO₂ above 25%.

CROSS SENSITIVITY DATA

Toxic gases at TLV levels will have no cross-sensitivity effect on SGX 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.

PRODUCT DIMENSIONS

All dimensions in mm
All tolerances ±0.15 mm



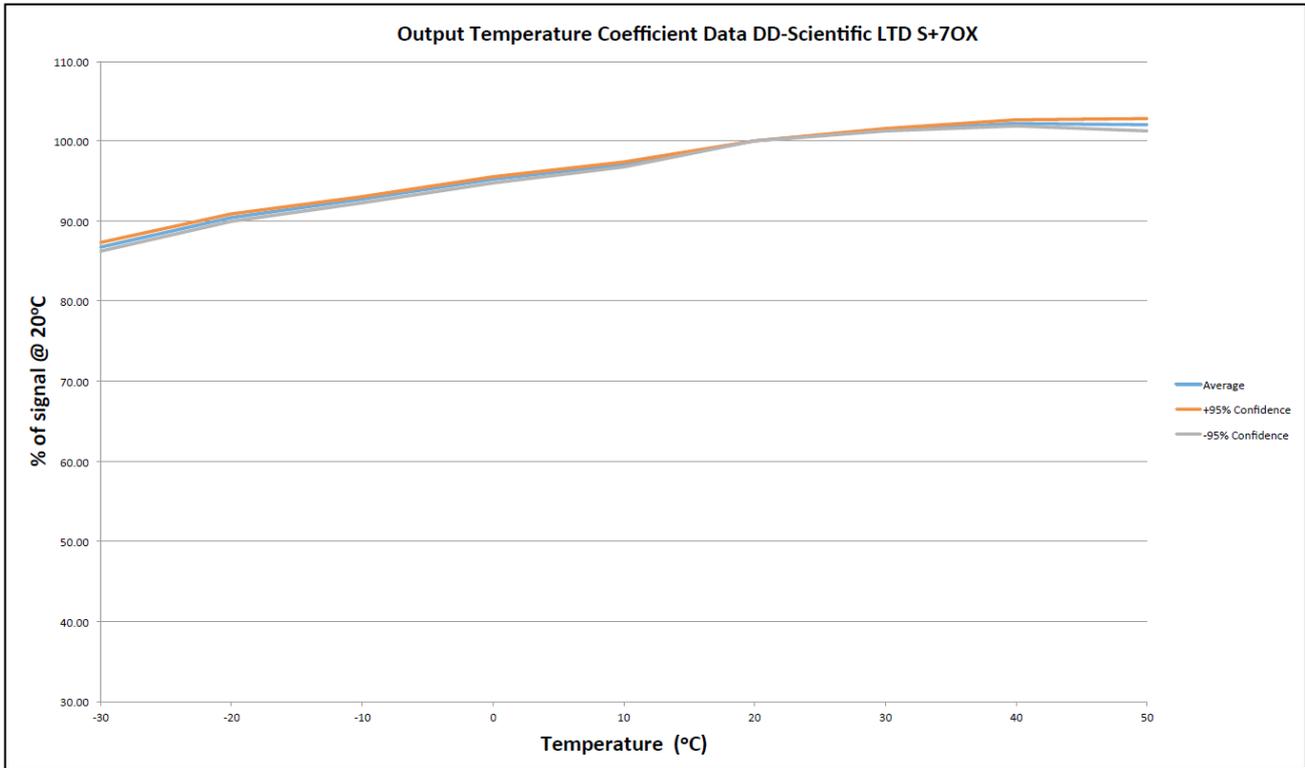
IMPORTANT NOTES

All performance is based on conditions at 20°C, 50% RH and 1 atm, using SGX recommended circuitry.

Sensor performance is temperature dependant; please contact SGX for temperature performance other than 20°C.

Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.

Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.



POISONING

SGX sensors are designed to operate in a wide range of harsh environments and conditions. However it is important that exposure to high concentrations of solvent vapours is avoided during storage, fitting into instruments and operation. When using sensors on printed circuit boards (PCBs), degreasing agents should be used prior to the sensor being fitted.