

O2 25% Satellix

Electrochemical Gas Sensor for Oxygen

2-electrode sensor with EPROM for industrial safety applications

High stability | Fast response

Performance Characteristics / PSDS	
Measurement Range	0 – 25%
Maximum Range	30%
Sensitivity	475 ± 100 µV/%
Response Time (T ₉₀)	≤ 15 s at 2 min gas exposure
Baseline (in clean air)	< ± 300 µV
Baseline (in clean air) (at midpoint sensitivity)	< ± 0.6%
Lower Detectable Limit (LDL)	0.0%
Alarm 1	18%
Product Safety Datasheet (PSDS)	Lead Based Oxygen Sensor

Operating Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	5% to 95% r.h. non-condensing
Pressure Range	800 – 1200 hPa
Bias Voltage	no
Sensor warm-up time	5 s
Recommended Orientation	sensor front pointing downwards or sideways

Sensorix PN: AN271S11 Compatible to OEM PN: 9602-5501	
<p>Compatible with Satellite XT transmitters according to the "Satellix Compatibility Declaration"</p> <p>No short circuit plug (!)</p> <p>IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to pins will render your warranty void.</p> <p>All dimensions in mm (± 0.2 mm)</p> <p>Weight: ~7.0 g</p>	<p>Dimensions</p> <p>Female Socket IEC 60130-9 7 POL (KV 71)</p>

Lifetime	
Long Term Output Drift	< 2% per month < 5% per year
Expected Operating Life	> 18 months in air
Recommended Storage conditions	5 – 20°C in sealed container

Performance and lifetime data are based on conditions at 20°C, 40 ... 60 % r.h. and ambient pressure.

SAFETY NOTE

This sensor is designed to be used in safety critical applications. Sensorix recommends that the function of the sensor is confirmed by exposure to a suitable test gas (bump check) regularly according to national and local regulations. Failure to carry out such tests may jeopardize the safety of people and property.



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Cross Sensitivity

Cross Sensitivities of the O₂ Sensor may occur with such strongly oxidizing gases as for instance NO₂ or Cl₂. Normally, these gases do not influence the oxygen reading (% range), as their concentration in workplace environment is too low (ppm range).

Acid Gases (e.g., CO₂, SO₂) lead to an enhanced oxygen signal (about 0.3% of signal per 1% CO₂).

The sensor should not be used at constant CO₂ concentrations above 25%.

Signals below LDL as well as negative readings will be displayed as zero.

IMPORTANT NOTE:

Interference factors may differ from sensor to sensor, with changing ambient conditions and with lifetime. It is not advisable to calibrate with interference gases. This table does not claim to be complete. The sensor may also be sensitive to other gases.

Temperature performance

Temperature dependence is compensated with microprocessor.

Poisoning

Sensorix cells are designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapors is avoided, both during storage, fitting into instruments, and operation. When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted.

Recycling

At the end of the product's life, do not dispose of any electronic sensor, component, or instrument in the domestic waste, but contact the vendor or Sensorix for disposal instructions. Sensorix will take back sensors for professional recycling.

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Characteristics on this data sheet outline the performance of newly supplied sensors.

