

O2 LF Satellix

Electrochemical Gas Sensor for Oxygen

3-electrode sensor with EPROM for industrial safety applications

Lead free | Long life | High stability

Performance Characteristics / PSDS	
Measurement Range	0 – 25%
Maximum Range	30%
Sensitivity	$4,75 \pm 1,44 \mu\text{A}/\%$
Response Time (T_{90})	$\leq 10 \text{ s}$ at 2 min gas exposure
Baseline (in clean air)	$< \pm 2,38 \mu\text{A}$
Baseline (in clean air) (at midpoint sensitivity)	$< \pm 0.5\%$
Lower Detectable Limit (LDL)	0.0%
Alarm 1	18%
Product Safety Datasheet (PSDS)	Acid Electrolytes

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	-600 mV
Sensor warm-up time	15 min*
Recommended Orientation	sensor front pointing downwards or sideways

Sensorix PN: AN311S11

Lead free replacement for OEM PN: 9602-5501

New Satellix PN: 9602-5555

Compatible with Satellite XT transmitters according to the "Satellix Compatibility Declaration"

No short circuit plug (!)

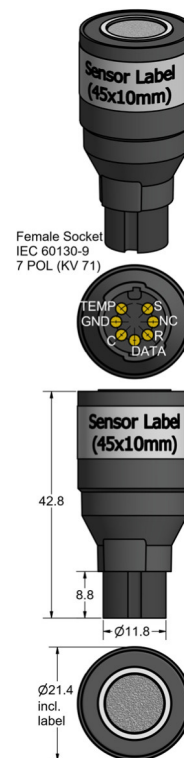
IMPORTANT NOTE:

Connection should be made via PCB sockets only. Soldering to pins will render your warranty void.

All dimensions in mm
($\pm 0.2 \text{ mm}$)

Weight: $\sim 7.0 \text{ g}$

Dimensions



Lifetime

Long Term Output Drift	$< 2\%$ per year
Expected Operating Life	> 36 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.

*If no bias is applied to the sensor, it will be saturated with oxygen, which will be consumed when the bias is applied again. This can lead to significantly increased oxygen readings initially. If stored for a long time without bias, extended warm-up times of up to 1 hour may occur. **Please do not adjust the sensor during warm up.**

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

Normally, other gases do not influence the oxygen reading (% range), as their concentration in workplace environment is too low (ppm range).

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

IMPORTANT NOTE:

- If the sensor is not biased in the meantime, the zero current shifts and the sensor must warm up again for up to 15 minutes.
- To ensure that the sensor functions correctly, the sensor must not be sealed airtight on the backend.
- The O2 LF Satellix is for Satellite XT use only.
The sensor is not compatible with old FMK devices due to the old internal protocol / data used by the FMK instrument.

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.

