ClF3 1 Satellix

Electrochemical Gas Sensor for Chlorine Trifluoride

sensors made in germany

3-electrode sensor with EPROM for industrial safety applications

Class leading stability | Highly selective | Fast response | Very stable baseline

Performance Characteristics / PSDS	
Measurement Range	0 – 1 ppm
Maximum Range	5 ppm
Sensitivity	600 ± 200 nA/ppm
Response Time (T_{90})	≤ 90 s at 4 min gas exposure
Baseline (in clean air)	< ± 15 nA
Baseline (in clean air) (at midpoint sensitivity)	< ± 0.03 ppm
Lower Detectable Limit (LDL)	0.03 ppm
Alarm 1	0.1 ppm
Linearity	< 10% of full scale
Repeatability	< 2%
Product Safety Datasheet (PSDS)	organic gel electrolyte

Operating Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	15% to 90% r.h. non-condensing
Pressure Range	800 – 1200 hPa
Bias Voltage	no
Sensor warm-up time (of sensors with short circuit plug)	5 s
Recommended Orientation	sensor front pointing downwards or sidewards

Sensorix PN: AN215S11
Compatible to OEM PN: 9602-7410

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

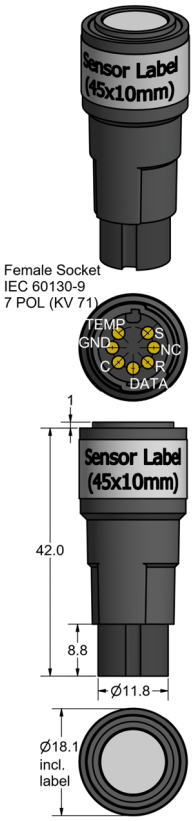
Insert short circuit plug (jumper) in S and R (Remove before installation)

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

All dimensions in mm (± 0.2 mm)

Weight: ~7.0 g

Dimensions



Lifetime	
Long Term Output Drift	< 10% per 6 months
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. The sensor is compatible with the self-test functionality of the Satellite XT Gas Detector Transmitter. In addition to this electrical diagnostic, 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 & Filter	
Gas concentration	Reading after 5 min
Ammonia 10 ppm	0 ppm
Arsine 1 ppm	0 ppm
Carbon Dioxide 5000 ppm	0 ppm
Carbon Monoxide 100 ppm	0 ppm
Chlorine 1 ppm	0.5 ppm
Chlorine Dioxide 1 ppm	1 ppm
Ethanol 1000 ppm	0 ppm
Ethylene 1%	0 ppm
Hydrocarbons (saturated) 1%	0 ppm
Hydrocarbons (unsaturated) 1%	0 ppm
Hydrogen 10000 ppm	0 ppm
Hydrogen Chloride 5 ppm	0 ppm
Hydrogen Cyanide 10 ppm	0 ppm
Hydrogen Fluoride 5 ppm	0 ppm
Hydrogen Sulfide 20 ppm	0 ppm*
Isopropanol 600 ppm	0 ppm
Methanol 1000 ppm	0 ppm
Ozone 0.25 ppm	0.15 ppm
Nitrogen Dioxide 10 ppm	6 ppm
Phosphine 1 ppm	0 ppm
Sulphur Dioxide 2 ppm	0 ppm
Chemical Filter	None

* In the presence of this gas, the sensitivity to ClF3 may be reduced.

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.

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