

Statox 506

Gas Detector SIL 2

SIL 2

Functional Safety



Reliability is the Name of the Game

Stattox 506 detects oxygen and toxic gases in ambient air. Compur Monitors is using proprietary sensor technology.

These electrochemical sensors are sensitive enough to even detect extremely toxic gases which have a very low alarm threshold in the ppb range.

The sensor signal is processed by state – of the art electronics. Of course it has many safety – features such as „Heart – Beat“ - sensor monitoring, “Smart Sensor” technology and a sound hard – and software monitoring.



Stattox 506 gas detector for toxic gases

Functional safety

The standard IEC 61508 helps to define the reliability of a product. Every sensor, each and every mechanical part, every electronic part and of course the software is permanently monitored for its probability to fail. Out of these reliability data in total, the so – called functional safety is calculated. This is the probability of your gas detector to fail exactly in the moment there is a gas leak. It is called “pfd” (probability of failure on demand).

There is another important figure, the “sff” (safe failure fraction). This figure tells you which portion of dangerous failures will go unnoticed.

These two figures give you exact information how high the probability of an unnoticed failure in case of a gas leak will be. Both figures of the Stattox 506 are way better than required by the standard. They give you information how long you can have peace of mind when you leave your gas detector alone, and in which time interval a system test (proof test) is required.

User - friendly Plug – and – Play technology

The sensor head itself is not gas specific. All relevant parameters are stored in an F – RAM on board of the sensor. As soon as the sensor is plugged in, it communicates all important data with the sensor head electronics. These are gas, measuring range, calibration history and even the total exposure (when it is a used sensor).

You plug the sensor in, and a few minutes later your sensor head goes into the measuring mode. Additionally you can read out any information about the system, including the next due date of the calibration or a proof test.

Normally you will never have to open the sensor head. An intuitive menu helps to set parameters or perform maintenance work.

Easy installation

Statox 506 comes ready for wall mounting. With an optional stainless steel plate and pipe - clamps you can install it on a vertical or horizontal pipe.

Calibration in nasty weather? Not with Statox 506

All important parameters are stored in the sensor F – RAM. So, if you do not feel like performing a calibration in the field, e. g. in nasty weather, just take it to the shop for calibration and then just plug it in again. As long as the sensor is in the shop for calibration, the protective cap stays in the field in order to protect the sensor head from weather impact.



Technical Data - Transmitters parameters

Instrument name. type:	Stattox 506 Transmitter Type 5376
Manufacturer:	COMPUR Monitors GmbH & Co. KG, D-81539 München
Measuring principle:	electrochemical
Operation temperature:	-30°C to +60°C Ambient air temperature
Storage temperature:	-30°C to +60°C
Humidity:	0 to 99% r.F. (non condensing)
Pressure:	900 to 1100 hPa
Accuracy at calibration concentration:	± 10%
Power supply:	24 VDC (12 -28 VDC)
Connections:	2- or 3-wire operation
Terminal width:	0,25 – 2,5 mm ² (AWG 24 – 12)
Output:	0 – 22 mA, max. load 545 Ohm
• Service mode:	2 or 4 mA adjustable
• System failure:	0 mA 3-wire operation, 2 mA 2-wire operation
• Overrange:	22 mA
Display:	8-digits, 14 segments
Dimensions (HxWxD):	180 x 111 x 81 mm
Weight:	ca. 1200 g
Housing material:	Cast aluminium, enameled / stainless steel
Ingress protection EN 60529:	IP 66
Installation:	Sensor downwards
EMV:	EN 50270
ATEX marking:	Ex ib IIB T4 Gb
Application:	II 2G
Approval:	BVS 18 ATEX E 066 X / N1 *)
Power supply Ui :	max. 28 VDC
Current Ii :	max 93 mA
Power Pi :	max. 650 mW
Internal capacity Ci :	24 nF
Internal Inductivity Li :	neglectable
Functional safety:	SIL 2 compliant with IEC 61508

Sensors

Ammonia NH ₃	0 – 150 ppm	-20°C to +50°C
Hydrogen cyanide HCN	0 – 20 / 100 ppm	-20°C to +50°C
Chlorine Cl ₂	0 – 5 / 100 ppm	-20°C to +50°C
Carbon monoxide CO	0 – 300 ppm	-20°C to +50°C
Hydrogen fluoride HF	0 – 10 ppm	-20°C to +50°C
Oxygen O ₂	0 – 35 %	-20°C to +50°C
Hydrogen sulphide H ₂ S	0 – 20 / 100 ppm	-20°C to +50°C
Ozone O ₃	0 – 1 ppm	-20°C to +50°C
Nitrogen dioxide NO ₂	0 – 5 / 10 ppm	-20°C to +50°C
Hydrogen H ₂	0 – 150 / 1000 ppm	-20°C to +50°C
Hydrogen chloride HCl	0 – 50 / 100 ppm	-20°C to +50°C
Hydrazine N ₂ H ₄	0 – 1 ppm	-20°C to +50°C
Phosgene COCl ₂	0 – 0,5 / 1 / 20 / 100 ppm	-20°C to +50°C
Tetrahydrothiophene THT	0 – 100 ppm	-20°C to +50°C

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