COMPUR Monitors

# The All – Rounder in Gas Detection

## Compur Statox 503

## Control and Common Alarm Module

SIL 2

Functional Safety

# Compur Statox 503

The Statox 503 Control Module works with any sensor head of the Compur Monitors gas detector family. It is at the same time power supply and control module for the sensor heads. It displays the measured value, provides a 4 – 20 mA output and 3 highly rated relays for alarm 1, Alarm 2 and system failure which can interface with peripheral instrumentation. The relays can handle  250 C AC 8 A. The power supply can operate a Wheatstone bridge as used for catalytic sensors, or provide 24 V DC for transmitters. To have an optimum choice of sensor technology, the bridge voltage supply is programmable between 2 and 5,2 V. The bridge voltage supply can even compensate for the voltage drop in the cable.


*The modules are DIN Rail mounted. The optional power rail provides an interface for alarms and power.*

## Gas detection back and forth

No matter if catalytic sensors, infrared sensors, electrochemical sensors or PIDs: This control module can handle any front end. It will display the measured gas and its unit, % vol, % LEL or ppm. The relevant program is selected by push button.

If it is not gas detection: No matter! This module can also operate with instruments of other manufacturers for other applications.

## Control Module or common alarm

The operation mode, control module or common alarm module is programmed by push button. This makes the system extremely flexible and reduces cost for stock.

## Easy installation

The Statox 503 Control Module is mounted on a standard DIN rail. An optional power rail interfaces the 24 V DC power and all alarm signals to each module. This way you can easily select one of the modules to operate as a common alarm module. This module can create group alarms and transmit them to peripheral devices. All electrical contacts run into six pluggable terminal blocks with 4 screw terminals each. This eases not only the first installation, but also later on any module can be removed without any impact on neighbored modules and without removing the cables from the plugs.

## Intuitive user interface

The software is designed to make handling a child´s play: In the upper level of the menu you select the program, which tells the control module with which kind of front end it shall work, or if is intended to operate as a common alarm module. In the same level you can enter a calibration and service menu. You can also read the active program and the serial number of the module. Entering one of these menus you can program the relevant parameters: Alarm thresholds, relays active or passive, calibration, zeroing, bridge voltage, status of the analog output etc.

## SIL 2 with any kind of instrumentation

The Statox 503 Control Module complies with SIL 2 requirements with any SIL sensor head from Compur Monitors, but also with any other SIL instrument. It has been evaluated as a SIL compliant stand – alone SIS (Safety - instrumented - System) with safety integrity level SIL 2. This gives you peace of mind combining it with other SIS.

## Functional Safety

The Statox 503 Control Module complies with all requirements of DIN EN 61508 and 61511. It works in the LOW DEMAND Mode and achieves safety integrity level SIL 2. Of course all relevant calculations of functional safety data have been evaluated by an independent and certified third party.

## This is the economic solution for small and medium applications

In very big plants with more than 50 points of detection, usually the signals of all the sensor heads run directly into a process control system. In smaller installations the 1 : 1 wiring of Statox 503 is the more economic setup which complies with all safety related requirements. One very important argument is how easy to it is to set it up and handle it without special training.

*Pluggable terminals make installation quick and easy.*

# Technical Data
## Compur Statox 503

| | |
|---|---|
| Product name: | Statox 503 Control Module |
| Manufacturer: | Compur Monitors GmbH & Co. KG |
| Application: | Sensor heads with Wheatstone bridge signal 2 to 5,2 V<br>or 24 V / 4 – 20 mA transmitter sink or source |
| Power supply: | 24 ± 2 V DC max. 200 mA |
| Power consumption: | Max. 5 W |
| Operating temperature: | -10° C to +60°C (14°F to 140°F) |
| Storage temperature: | -20°C to +60°C (-4°F to 140°F) |
| Pressure: | 900 to 1100 hPa |
| Humidity: | 0% to 99% r. h. non condensing |
| Display: | Two lines, 16 segments with backlight |
| Housing: | Polyamide, IP 20 |
| Connections: | 24 Screw terminals, max. 2,5 $mm^2$ diameter, divided in<br>6 groups with 4 terminals each |
| Relays: | 2 * Alarm, 1 * system failure |
| Relay contacts: | 250 VAC, 8 A<br>minimal load >/= 12 V, 10 mA, contacts silver / nickel |
| Dimensions: | H: 103 mm W: 45 mm D: 115 mm 4,1 * 1,8 * 4,5 “ |
| System failure relay: | Active in the measuring mode (NO), closed |
| Analog output: | 0 mA during system failure, 2 or 4 mA in the service mode,<br>4 – 20 mA in the measuring mode, 22 mA during over range |
| Max. load: | 700 Ohm |
| Installation: | 35 mm DIN Rail |
| CE Marking: | EN 61326-1:2013 |
| Extra Feature: | Self - test - trigger for Statox 560 |


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