The All-Rounder in Gas Detection
Compur Statox 502
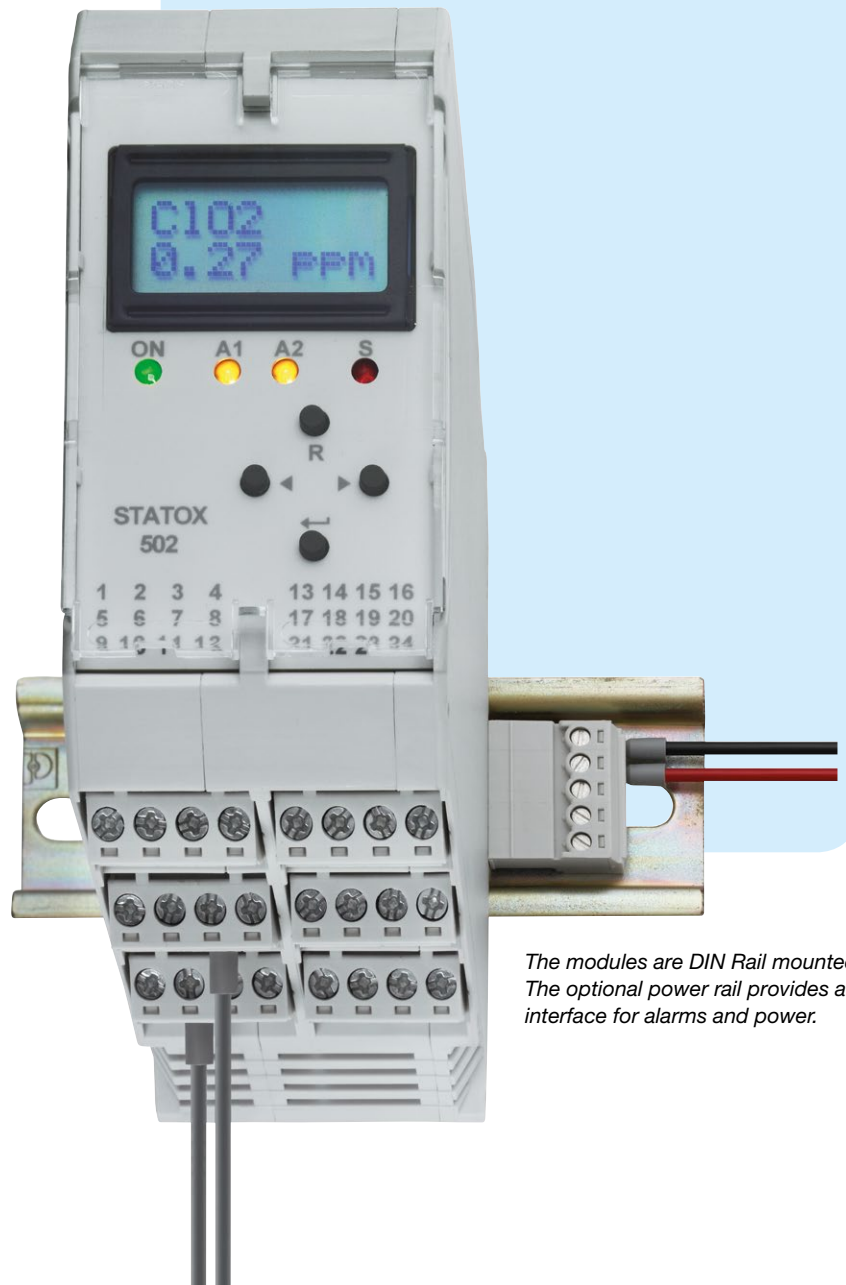## Control- and Common Alarm Module

SIL 2

Functional Safety

Compur Statox 502

No matter if you want to detect toxic or combustible gases: This control module works with any sensor head. It provides the power supply and processes the signal. Three highly rated relays and a 4-20 mA output are the interfaces to peripheral instrumentation.

Potential front ends may be the Statox 501 or Statox 505 transmitters with electrochemical or infrared sensors, or sensor heads with a Wheatstone bridge signal such as Statox 501 PID, catalytic or the Statox 501 LC and MC series with infrared sensors.

Just by the push of a button you can program the module to handle 4-20 mA sink or source. Even the bridge voltage can be set to any value between 2 and 5.2 V, it even works with sensor heads of other manufacturers. So there is no restriction at all when selecting the appropriate sensor head for your application. With its two "sense" lines it can even compensate the voltage drop in the cable for very remote sensor heads or if there are extreme temperature variations.

For maximum flexibility the measuring range is user programmable. You can also select the unit, no matter if it is ppb, ppm, % LEL or % volume.

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

Easy installation

The control module is mounted on a standard DIN rail. With an optional power rail you can interface the 24 V DC power and the alarm signals. This way you can program one of the modules to operate as a common alarm module. Even this function can be programmed just by push button. The application of a control module as a common alarm module is a very useful feature. It displays when any of the modules goes into Alarm 1, 2 or system alarm, and controls peripheral alarm devices.

All electrical contacts are located easily accessible on the front side. The terminals for alarm signals, analog output, sensor head connection run into 6 pluggable terminal blocks. This makes not only the first installation quick and easy, but also any service event or system modification. A module can easily be removed out of its row, without interrupting its neighbors or disconnecting wires.

Intuitive User Interface

You want a gas detection system that needs little or no attention. No matter if setting the initial parameters or performing scheduled calibrations or proof tests: The handling shall be safe, quick and easy. The password-protected Statox 502 software structure is so clear that most menu items are self-explanatory. The "Reset" button brings you back into the measuring mode at any time. Even if you have to interrupt your work and forget to reset, the watchdog function returns the system into the measuring mode, if no button has been pushed for a while.

Functional safety paired with utmost system flexibility

The Statox 502 complies with the standards DIN EN 61508 and 61511 functional safety, level SIL 2. In context with the Statox 505 transmitters, or the HRC or ARE sensor heads you can create a complete gas detection system for toxic and combustible gases complying with SIL 2 standard.

In larger installations signals of gas detectors often run into SIL certified process control systems, in smaller plants there is a need for a control module complying with SIL requirements.

As any combination sensor head / control module forms a complete gas detection system, this system closes the gap. It is expandable without limits, and there is no restriction to the mix of sensor heads connected.

Connecting other front ends

The versatility of the Statox 502 does not end with gas detection. You can connect any front end providing a 4-20 mA analog signal or a Wheatstone bridge signal. So you can create your own compact control system for a variety of sensors with just one type control device.
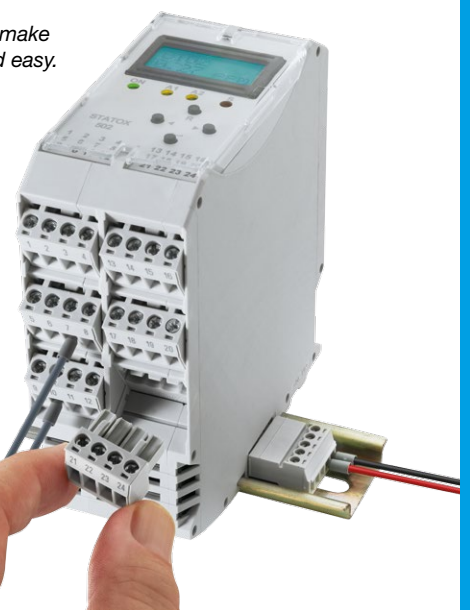
Accessories

Useful accessories such as calibration adapters, intrinsically safe repeaters, power supplies etc. complete the system.

The keys are well protected against unintended operation by a cover.

Pluggable terminals make installation quick and easy.

Technical Data
Compur Statox 502

Product name:	Statox 502 Control Module
Manufacturer:	COMPUR Monitors GmbH & Co. KG, D-81539 Munich
Operating with:	Sensor heads with Wheatstone bridge 2 to 5.2 V 24 V / 4 - 20 mA Transmitters source 24 V / 4 - 20 mA Transmitters sink
Power supply:	24 ±2 VDC Max. 200 mA
Power consumption:	Max. 5 W
Temperature of operation:	-10° C to +60° C (14°F to 140°F)
Storage temperature:	-30°C to +60°C (-22°F to 140°F)
Pressure:	900 to 1100 hPa
Humidity:	0% to 99% r. H. (non condensing)
Display:	Two lines, 16 segments
Connections:	2- , 3- , or 4- wire (current mode) 3- or 5-wire (voltage mode)
Relays:	2 x Alarm; 1 x System failure
Relays rating:	250 VAC, 8 A Min. breaking capacity ≥ 12 V, 10 mA; Silver-Nickel 90/10
System failure relay:	Nomally active (coil energized)
Analog output:	0 mA in case of a failure 2 or 4 mA in service mode, programmable 4 - 20 mA in measuring mode, tolerance ±2 % at -10°C to +50°C 22 mA at over range
Max. Burdon:	700 Ohm
Installation:	35 x 7,5 mm DIN-Rail
Dimensions (H x W x D):	45 x 99 x 114,5 mm
CE-Marking:	EN 61326-1:2013