

GP-SA-2

Geopal GP-SA-2 Stand-alone detector

The Geopal GP-SA-2 stand-alone detector is designed for industry and marine.

The GP-SA-2 detector uses an integrated microprocessor for continuously monitoring the gas concentration, whether it is in the 0-100% LEL range (lower explosion level) or the 0-40,000 ppm range, for e.g. refrigerants.

The signals of the Geopal GP-SA-2 detector are converted to a linear output signal of 4-20 mA or 0-5/10V. The detector is equipped with alarm relays for low alarm, high alarm and system fault.

Service function

The "service button" is used to prevent alarms to be transmitted to the external system to stop the system e.g. by calibration, service and refill of coolant. Using the service button the alarm relays are deactivated, the fault relay is activated and the analog output switches to 2 mA.

Features

Easy to calibrate

The servicing of Geopal GP-SA-2 requires no special tools or equipment, only a test gas with the given gas concentration. The actual calibration can be carried out by one person in less than 10 minutes, using a simple push-button system with associated light indicators.

Simple installation

For the external wiring of the detector a three-conductor cable is normally all you need. Depending on how many relay functions are required, the number of conductors would be increased accordingly.

Linear output

Based on a mathematic analysis of the characteristic formed by the semiconductor sensor, the detector generates a model, which results in an analogue output that will be linear in the entire detection range.



Geopal GP-SA-2 is also available as gas alarm monitor for connection of one detector (option).



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EA 3606HE



PENDING



ITS-I 23ATEXQ36745



DBI APPROVED INSTALLATION COMPANY
AGA: 233.301



DIC444QMS

GP-SA-2

Geopal GP-SA-2 Stand-alone detector

With external detector

The GP-SA-2 with an external detector is used in areas with high ceilings where access from a ladder is impossible or impractical.

During the annual service of gas detectors at our customers' premises, it is crucial that our technicians can easily access the equipment for calibration with calibration gas. To avoid costs for scaffolding, lifts, etc., at every service, the detector is mounted high up under the ceiling, and the control unit is placed somewhere with more convenient access.

We have developed three standard variants of this solution specifically for NH₃:

Variant 1

- GP-SA-2 with external detector including an electrochemical sensor
- Measurement range 4-20 mA = 0-3000 ppm NH₃
- Alarm threshold 1: 200 ppm, Alarm threshold 2: 3000 ppm

Variant 2

- GP-SA-2 with external EX detector including an electrochemical sensor
- Measurement range 4-20 mA = 0-3000 ppm NH₃
- Alarm threshold 1: 200 ppm, Alarm threshold 2: 3000 ppm

Variant 3

- GP-SA-2 with external EX detector including an electrochemical sensor
- Measurement range 4-20 mA = 0-30.000 ppm NH₃
- Alarm threshold 1: 30.000 ppm, Alarm threshold 2: 30.000 ppm

With EX detector



With external standard detector



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GP-SA-2

Supply voltage	85 to 264 VAC, 24VDC
Power consumption	100 W max. (depended on connected flash/sounder)
Available gases	Methane (CH ₄), Propane (C ₃ H ₈), Butane (C ₄ H ₁₀), Hydrogen (H ₂), Hexane (C ₆ H ₁₄), Benzene (C ₆ H ₆), Ethane (C ₂ H ₆), Carbon Monoxide (CO), Pentane (C ₅ H ₁₂), Ethylene (C ₂ H ₄), Ammonia (NH ₃), R404A, R407C, R417A, R245fa, R134a, etc.
Detection range	0-40,000 ppm, 0-100 % LEL
Response time T90	< 5 seconds depending on gas type
Repeatability	+/- 5 % of FS range
Long-term stability	< 5 % FS / 12 months
Self-diagnostics	Continuous
Electrical output	4-20 mA / (2 mA fault) or 1-5 V / (0,5 V fault) or 2-10 V / (1 V fault), 0-5 V, 0-10 V
Relay outputs	2 relay outputs for alarm 1 and alarm 2 1 relay output for fault Signal contact 230 V / 6 A
Material housing	Polycarbonate, black
IP rating	IP 65 DIN 60529
Weight	0,75 kg
Mechanical dimensions	180x170x60 mm
Max operating conditions	Temperature -25 °C to +55 °C Humidity 15 %RH to 90 %RH not condensing Pressure 1013 mbar ±10%
Storage	Temperature -25 °C to +55 °C Humidity 0 %RH to 95 %RH
Approvals (Directives and Standards)	Electromagnetic Compatibility Directive (EMC) 2014/30/EU Low Voltage Directive 2014/35/EC EN 60 204-1; EN 61 010-1; EN 61 326-1 (2013); EN 61 000-6-2 (2005); EN 61 000-6-3 (2012); EN 50 270 (2015)
Quality	ISO 9001:2015



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