GSP 300

GSP 300

Gas Detector pellistor

Gas detector with pellistor sensor suitable for indoor and outdoor use. The GSP 300 is optimized for flammable gas concentrations.

Low cross sensitivity with a high variety of gas types and measuring ranges. GSP 300 can be used in all industrial sectors

Features

- Monitoring for flammable gas concentrations
- Low cross-sensitivity to other gases
- Can be used in dusty and dirty environments
- High accuracy
- Available in EX version
- IP54, IP67, IP69K variants available

Sensor Technology

Gas Sensor GSP 300 is designed for monitoring the presence of flammable gases in 0-100% LEL range

We have a selection of our standard gas types listed below.
Measuring ranges and design of the gas sensor should always be adapted to the application and ambient conditions.

Sensor Connection

We recommend a stable 24 V DC power supply to operate the gas sensors GSP 300. The allowed voltage range is 18 to 36 V DC. The sensor may be connected using a shielded cable with two twisted pairs, i.e. ÖLFLEX® CLASSIC 110 4G1, using the wires:

1.	+24 V DC, Terminal 1
2.	Sensor output 4 - 20 mA, Terminal 2
3.	0 V, Terminal 3
Yellow/ Green	PE/Shield, Terminal 4

We recommend twisting the supplementary earth wire and the yellow wire at the control unit and connecting those two to sensor terminal 4 (PE).

At the sensor end the supplementary wire is to be connected to the enclosure, making sure that the bare wire does not touch any of the electronic parts.

If the sensor box is mounted on a steel structure connected to PE, the supplementary wire and terminal 5 should not be connected to the enclosure.

Adjustment Instructions

Pellistor sensors require a 24 hour warm up period prior to adjustment. Please refer to the Operating Instructions regarding this. The test gas must be at ambient temperature i.e. the same temperature as the sensor.

The adjustment of the gas sensor may only be carried out by suitably qualified persons. In order to adjust and calibrate any SCENTY® Gas Warning System and Gas Sensors, the corresponding Software modules are required.

Safety Instructions

Careful handling of the gas sensors and their use in areas where monitoring is required needs specialist knowledge and procedures, which can be found in the relevant Instruction Manual.

It is theretofore imperative that the section in the manual titled "Safety Instructions for Installers and Operators" is read and strictly observed!

We control GASES - since 1978

GSP 300

Special requirements require special solutions

Due to a waterproof but gas-permeable construction, a diffusion measuring head specially developed for the application, robust technology and a housing specially adapted for SCENTY® gas sensors in the food industry, the sensor technology is virtually insensitive to high-pressure cleaners and water.

Due to the high demands on the protection class - especially in the food industry - we had checked the protection class IP67 and IP69K of the SCENTY® gas detection again. The test was performed by an accredited test institute and the protection classes have been reconfirmed.

The SCENTY® gas sensors are waterproofed and reliably protect against the dangers of toxic and flammable gases.

Information for the Englisch Version:

Our notes on German regulations do not necessarily apply in your country. The respective National Regulations for the safe handling of gases and the use of gas warning systems should be strictly observed. Worldwide we only work with authorized sales and service partners. Regular training and instruction ensure optimum safety and quality. We will be happy to put you in touch with our partners in your country.

Technical rules for hazardous substances - Occupational exposure limit values TRGS 900

The current occupational exposure limit values (OELs) can be found in the Table contained within the Data Sheet. The limit values were defined by TRGS900 and may change.
Please check the valid workplace limit values before defining the limit values.

https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/pdf/TRGS-900.pdf?__blob=publicationFile

The Technical Rules for Hazardous Substances (TRGS) represent the state of the art in technology, occupational medicine, occupational hygiene and other scientific evidence for activities involving hazardous substances, including their classification and labelling.
They are drawn up by the Committee for Hazardous Substances (AGS) and are updated by it in line with developments. The TRGS are published by the Federal Ministry of Labour and Social Affairs (BMAS) in the Joint Ministerial Gazette (GMBl).

Installation

The gas sensor is suitable for wall or ceiling mounting. Before mounting, the gas type and its density relative to air must always be taken into account. Our recommendations can be found in the table below. The installation site should only be diagnosed and determined by a specialist.

Commissioning

All sensors are factory calibrated by HTK. The setting of the sensor must be checked during commissioning by means of a gas test. For this purpose, appropriate software modules are required.

Maintenance

Maintenance at certain intervals is required in order to maintain functional reliability.
The maintenance interval can be found on the test sticker on the control panel. For SCENTY® Series Pellistor Sensors this should be carried out every six months. The maintenance interval must be determined and set in the risk assessment and the recommendations of HTK Hamburg. Please note the maintenance requirements according to T021/T023 of the BG. For Maintenance of SCENTY® Gas Detection Systems and Gas Sensors are corresponding software modules required.

Decommissioning

If the sensor is out of operation for longer than 4 weeks, it must be checked after one week of operating time with test gas and recalibrated if necessary.

We control GASES - since 1978

HTK® HAMBURG

GSP 300

Gas detection systems and accessories

Everything at a glance

Evaluation units, signal transmitters, other sensors and accessories can be found quickly and easily on our website.

Your direct way to us:

www.scenty.de

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Technical Data

Housing	Glass fibre reinforced plastic housing/
Dimensions	90 x 80 x 80 mm (L x W x H)
Protection class	IP54 (Sandard), IP67 (Option), IP69K (Option)
Measuring principle	Pellistor
Service life	Depending on gas type and measuring range
Gas inlet	Diffusion
Target gas	See table below
Measuring range	On request
Humidity	15-99% rH, non-condensing
Temperature range	-20°C ... +50°C
Output signal	4 - 20 mA, 3-wire, temperature compensated
Power supply	18 - 36 V DC
Connecting cable	up to 600 m e.g. IY(St)Y 2 x 2 x 0,8 above 600 m e.g. 4 x 1.5 mm² shielded

Gas types and measuring ranges

Medium	Formula	OELs [ppm]	Mounting Location	Note
Acetone	C3H6O	500	Floor	
Acetylene	C2H2		Ceiling	
Ammonia	NH3	20	Ceiling	
Gas			Floor	
Butane	C4H10	1000	Floor	
Cyclohexane	C6H12	200	Floor	
Dimethyl ether	C2H6O	1000	Floor	
Ethane	C2H6		Floor	
Ethanol	C2H5OH	200	Floor	
Ethyl acetate	C4H8O2	200	Floor	
Ethylbenzene	C8H10	20	Floor	
Ethylene	C2H4		Ceiling	
Heptane	C7H16		Floor	
Hexane	C6H14		Floor	
Isopropanol	C3H8O		Floor	
Methane	CH4		Ceiling	
Methanol	CH3OH	200	Floor	
Methyl ethyl ketone	C4H8O		Floor	
Nonane	C9H20		Floor	
Propane	C3H8	1000	Floor	
Tetrahydrofuran	C4H8O	50	Floor	
Hydrogen	H2		Ceiling	

Data without guarantee

Highest reliability and maximum performance, various measuring ranges and special designs for special applications in a compact housing.

The list is not exhaustive. Further sensors for gas types are available on request.

Please contact us if you cannot find your target gas!

We control GASES - since 1978

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