



Gas Sensor GSP 121 Ex for combustible gases and vapours in the range 0-100 % LEL



Mode of operation

The gas sensor GSP 121 Ex is used for the detection of explosive gas/vapour/air mixtures.

The principle of the measurement element used is based on the catalytic combustion caused by the detected gas/vapour/air mixture. The reaction heat that is released causes an increase in the temperature of the platinum wire to which the catalyst is attached. The current flowing through the platinum wire increases, and is proportional the measured gas concentration up to approx. 10 Vol. % methane. The signal then reduces again as a result of the shortage of oxygen.

Depending on the use and the application, the required measurement element will be integrated into the measurement probe, i.e., various measurement elements are available, which must be taken into account when replacing them.

The calibration unit type "Calibration Remote Control CRC Ex" is as accessory available, which permits a "one-man" calibration without opening the gas-sensor.

Danger of poisoning

The measurement element can be destroyed by silicon vapours. Many different silicon components are contained in the paints that are applied to walls and equipment.

For the above-mentioned reasons, it is essential to remove the gas measurement probe when using these kinds of paints, and to only reinstall it once the paint has dried.

The measurement elements will not be replaced through the guarantee.

Inspection (Maintenance)

The sensor element and its associated electronic section must be checked at least once to twice a year. The gas sensor has also to be checked after the sensor element has been subjected to a gas concentration, which causes a gas alarm.

Electrical data sensor element*

Sensitivity:	minimum 0,1 vol.% (1000 ppm)
Gas concentration:	maximum 10 vol.% CH ₄
Linearity:	up to 5 vol.% CH ₄
Response time (t) 90:	maximum 20 seconds
Operating temperature:	-20 °C ... +50 °C
Start up after reconditioning:	maximum 1 h
Air humidity:	no change
Location sensitivity:	none
Life-span at 20 °C:	at least 1 year acc. experience 5-8 yrs.

*Different elements are deliverable acc. application

Electrical data sensor electronics

Power connection:	3-core cable, shielded
Supply voltage:	15...24 VDC
Current consumption:	maximum 110 mA
Output signal:	4...20 mA/ maximum 60 mA
Operating temperature:	-20 °C ... +60 °C

Explosion-proof construction

Test sheet Atex No.: in certification

Dimensions

Height:	170 mm
Width:	110 mm
Depth:	63 mm

Accessory: Calibration Remote Control „CRC Ex“



Calibration unit „CRC Ex“
for „one-man“ calibration of a
gas sensor GSP 121 Ex