

## MODEL GEO-CGV121

Gas sensor for combustible gases and vapours  
in the range 0-100% LEL



### **Mode of Operation**

The gas sensor KSP 121 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 potentiometers and the 3.5 mm jack connection for the calibration are accessible from the outside, and permits a "one-man" calibration.

The optical calibration unit type "Calibration Remote Control CRC" is as accessory available, which permits calibration even if the gas-sensors are difficult to reach (or mounted very high).

**Maintenance**

The measurement element with its associated electronics must be checked at least once or twice a year. The gas measurement probe must also be checked if the measurement element has been exposed to a gas concentration (gas alarm).

**Sensor specification (CH<sub>4</sub>)**

Sensitivity: at least 0,1 Vol.% (1000 ppm)  
 Measuring range: max. 10 Vol.%  
 Linearity: to 5 Vol.%  
 Response time t 90: max. 20 sec  
 Operating temperature: -30 °C ... +70 °C  
 Start up after reconditioning: maximal 1 hour  
 Air humidity: no changes  
 Position sensitivity: none  
 Life span by 20 °C: at least 1 year  
 from experience 5-8 year

**Construction specification**

Protection Classification: IP 54  
 (with additional PTFE-Protector IP 65)  
 Material: rust-proof and acid-resistant steel  
 Weight: 594 gr.  
 Tests: CE

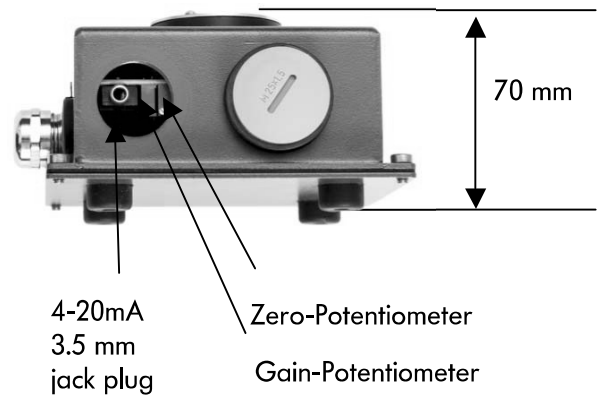
**Sensor electronic specification**

Cable: 3-core cable, shielded  
 Power supply: 16.5...30 VDC  
 Sensor current: max. 110 mA  
 Output signal: 4...20 mA/max. 60 mA  
 Operating temperature: -40 °C ... +85 °C

**Inspection (Maintenance)**

The sensor and the electronic require an inspection. Routine calibration is recommended once or twice a year.

**Side View**



**Interior View**

