

MODEL GEO-407/02

Gas Sensor for detection of Oxygen O₂



Mode of operation

Through the diffusion of Oxygen O₂ into the inside of the measurement cell, a reaction with the electrode will take place. The product at the working electrode then oxidises. The oxygen molecule used for this is replaced from the ambient air. This results in the very long service life of the measurement cell, which, from experience, can operate for several years.

The measured gas concentration is linear to the electric output signal of the gas sensor. The potentiometers and the Jack 3,5 mm connector are located at the side of the sub case on the sensor housing. This design allows a „one-man“ calibration.

When the sensor is mounted in a sampling system (Pump system), the lifetime can be shorter because the flow absorbs the electrolyte. The cell is sensitive to solvent vapours.

For a maximum accuracy the detector should be calibrated using a gas mixture containing 75% of the measuring range; the carrier gas has to be synthetic air.

Performance Characteristics

Measuring range:	max. 30 Vol. % / linear
Standard calibration:	0...25 Vol. %
Response time t 95:	max. 15 sec
Operating temperature:	-20 °C ... +50 °C
Start up after reconditioning:	max. 1 h
Pressure range:	atmospheric ± 10%
Air humidity:	15...99% non condensing
Position sensitivity:	none
Long term output drift:	< 5% / year
Life span at 20 °C:	two years in air

Sensor electronic specification

Cable:	2-core cable, shielded
Power supply:	13.5...30 VDC (AC as option)
Sensor current:	max. 60 mA
Output signal:	4...20 mA/max. 60 mA
Operating temperature:	-40 °C ... +85 °C

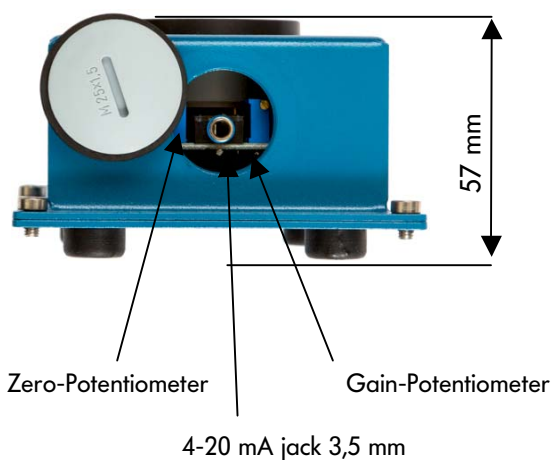
Construction specification

IP Protection Classification:	IP 54 (with additional PTFE-Protector IP 65)
Material:	rust-proof and acid-resistant steel
Weight:	410 gr.
Tests:	CE

Inspection (Maintenance)

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

Side view



Electronic/ Dimensions

