

Gas sensors series 400, 500, 600, 700, 800



Perfect for monitoring air quality



Gas Sensor 700 ST-CO₂ LG

Gas sensors series 400, 500, 600, 700 and 800

Series 400 (semiconductor), 500 (heat tone), 600 (electrochemical), 700 (infrared) and 800 (zirconium dioxide) for connection to gas alarm systems (evaluation units) types GW-S, GW-S4 and GWSK. The gas sensors are connected to the corresponding units. The sensors are suitable for dusty and dirty environments.

Depending on the version (measuring principle), they are used to detect inflammable and explosive or toxic gases. All sensors of this series feature a 4–20 mA output signal. The gases and vapours which can be detected comprise: methane, propane, butane, hydrogen, acetylene, ammonia, acetone, alcohol and fuel vapours, CO, CO₂, O₂, etc. Please enquire for calibration for other gases.

Technical specifications

Measured gases

- Toxic gases (in ambient air)
- Inflammable gases and vapours
- Oxygen
- Special gases (on request!)

Measuring ranges

Gas sensor 400ST
0 up to 50 % LEL
Gas sensor 500ST/510 Ex
0 up to 99 % LEL
Gas sensor 600ST-O₂
0 up to 21 % by vol.
Gas sensor 700ST-CO₂
0 up to 5 % by vol.
Gas sensor 700ST-CO₂LG
0 up to 3000 ppm
Gas sensor 800ST-O₂
0.1 to 21 % by vol.

Measuring principle

Gas sensor 400 ST semiconductor
Gas sensor 500 ST/510 Ex heat tone
Gas sensor 600 ST-O₂ electrochemical
Gas sensor 700 ST-CO₂ infrared
Gas sensor 800 ST-O₂ zirconium dioxide basis

Supply voltage: DC 18–28 V

Ambient temperature

Sensor 400/600/700: -10 °C/+40 °C
Sensor 500: -20 °C/+40 °C
Sensor 800: -10 °C/+50 °C

Permissible relative humidity

Sensor 400: 40 % to 50 %
Sensors 500/600/700/800: 15 % to 95 %

Atmospheric pressure

Sensors 500/600/700/800: 900 to 1100hPa
Sensor 510 Ex: 700 to 1300hPa

Protection: IP 40/54 (510 Ex)

Housing/wall mounting: Aluminium

Dimensions: 400/500/600/700/800: 90 x 85 x 65mm (510 Ex) octagonal, H=108 mm, Ø=100 mm

Weight

400/500/600/700/800 approx. 0.4 kg
510 Ex approx. 1.2 kg

Output: 4–20 mA, RS 232 (option)

Connection cable: 3 x 1.5 mm² Cu + protective conductor; screened cable; signal and return conductor max. 100 Ohm cable resistance.

ATEX approval: Sensor 510 Ex

BVS 03 ATEX E 260 X
Ex II 2G EEx d IIC T6



	Part no.	PU	DG:	Price €
Gas sensor 400 ST for detecting explosive gases and vapours, semiconductor	69145	1	H	
Gas sensor 400 ST for special gases, semiconductor	69145S	1	H	on request
Gas sensor 500 ST for detecting explosive gases and vapours, heat tone principle	69109	1	H	
Gas sensor 500 ST für special gases, heat tone principle	69109S	1	H	on request
Gas sensor 510 Ex with digital display, for explosive gases and vapours, heat tone principle, Ex version	69111	1	H	
Gas sensor 510 Ex with digital display for special gases, heat tone principle	69111S	1	H	on request
Gas sensor 600 ST-O₂ for detecting oxygen concentrations (0–21 % by volume O ₂), electrochemical	61179	1	H	
Gas sensor 600 ST-CO for detecting carbon monoxide concentrations (0–300 ppm CO), electrochemical	61180	1	H	
Gas sensor 700 ST-CO₂ for detecting carbon dioxide concentrations, infrared (0–5 % by volume)	69112	1	H	
Gas sensor 700 ST-CO₂ LG application area: e.g. monitoring the air quality in low energy houses	69104	1	H	
Gas sensor 800 ST-O₂ for detecting oxygen concentrations (0,1–25 % by volume), zirconium dioxide	69113	1	H	
Calibration calibration/programming costs for the alarm thresholds for standard gases (methane, propane/butane, hydrogen) per sensor	61177	1	---	
Calibration calibration/programming costs for the alarm thresholds for special gases per sensor	61183	1	---	