

GAS SENSOR WITH IP65 PROTECTION

Gas sensor GS-300 is intended for detection of explosive gases. It is available in 2 versions - for methane and for LPG.

MAIN APPLICATIONS

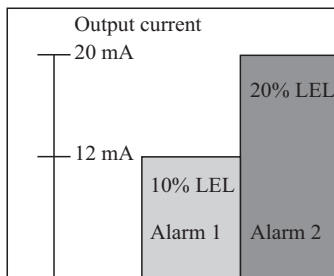
In building automation, fire prevention systems and many industries. Sensor can be connected to any 4-20mA control panel.

TECHNICAL SPECIFICATIONS

Detected gas:	
GS-300.CH4	CH4
GS-300.LPG	LPG
Power supply	12 - 24 VDC
Alarm levels	10% LEL and 20% LEL
Output signal	12mA and 20mA
Visual indication	LED
Working temperature	-20 - 50°C
Weight	0,200kg
Enclosure material	ABS
Ingress protection	IP65
Conform to	EN 50270
Conformity mark	CE

OUTPUT SIGNALS

The sensor output is 2 step current signal as shown on the diagram:



WORKING MODES

Start up

Preheating and initial testing of the gas sensor.

Indication: Red and Green LED's are blinking alternately once a second. This takes 30 seconds.

Current output is not active.

Normal work

In this mode sensor is ready to detect gas concentration.

Indication: Green LED is ON. Current output is not active.

Alarm 1

First alarm level is reached - 10%LEL

Indication: Red LED lights.

Output current is 12mA.

Alarm 2

Second alarm level is reached - 20%LEL

Indication: Red LED lights.

Output current is 20mA.

FAULT

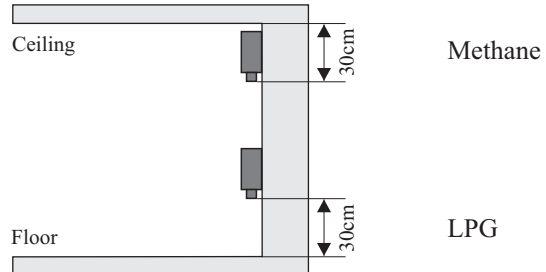
Sensor element fault.

Indication: Orange LED is blinking.

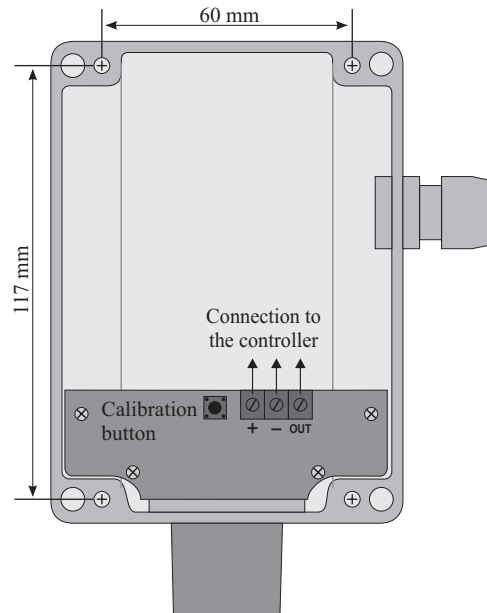
Output current is 0 mA.

MOUNTING

Gas sensor for explosive gases should be installed in a position depending on the relative weight of the detected gas as shown in the picture.



DRILLING AND CONNECTION DIAGRAM



SENSOR CALIBRATION

Gas sensors need to be calibrated and periodically checked to ensure sensor accuracy and system integrity. It is important to install stationary sensors in locations where the calibration can be performed easily.

CALIBRATION PROCEDURE

-To initiate calibration press and hold the tactile button on the PCB and apply the calibration gas 10% LEL.

-After 5sec Red and Green LED's become blinking alternately. Continue holding the button.

-After 30sec Red LED will light permanently. Then release the button and remove the gas. Sensor calibration is completed.

WARNING

Gas sensor must be installed and serviced by qualified technicians. The sensor's proper operation must be checked at least once a year. Do not install the sensor in places where combustible gases and vapors, silicone and corrosive fumes might be present in high concentrations. Do not clean with aerosols and detergents.