

## Semiconductor probe for methane and combustible gas detection EV-SGS10-M EV-SGS20-M

100% MADE IN ITALY




### Technical features

The EV-SGS10-M and EV-SGS20-M Methane Detection Probes are designed for use in industrial environments and in any location where a leak or abnormal concentration of Methane gas may pose a danger to people and property. The onboard electronics, controlled by a microprocessor, continuously maintain parameters at optimal levels. Periodic checks and self-regulation of measurement zero are performed. Additionally, a specific supervision circuit monitors the status of the catalytic sensor and associated electronics. In case of malfunction, a Fault output is activated.

The sensing element used for these probes is a semiconductor sensor. When the sensor comes into contact with combustible gas, its electrical conductivity varies. This process generates a signal proportional to the gas concentration. The advantages of this type of sensor include high sensitivity, long life, and the ability to withstand prolonged exposure to high gas concentrations without altering the physical characteristics of the device.

The probes are made of a corrosion-resistant lightweight alloy housing, certified CEI and ATEX explosion-proof. Inside, the sensor with its related electronics is installed.

The EV-SGS10-M probe is equipped with microcontroller self-regulation and a 0-5V analog output.

The EV-SGS20-M probe is equipped with microcontroller self-regulation, a 0-5V analog output, and 2 relay outputs with 2 preset thresholds, as well as a fault output.

Optional features include the 4-20mA interface (US-420) and Digital Address (IDP-04), which can be installed directly on board the device.



# EV SGS10-20 M

## Technical Data

Power supply:	12 - 24 Vdc (+/-15%)
Max power dissipation:	2W
Measuring range:	0 - 20% LEL CH4 (5% v/v)
Output signal:	0 - 5V (model EV-SGS10-M)
Output signal:	0 - 5V output with 2 relays associated with 2 intervention thresholds set at 10% and 20% LEL of methane (model EV-SGS20-M)
Self-regulation of the signal and fault output:	Periodic
Sensor average lifespan:	8 years
Linearity:	0 - 5% CH4
Long-term deviation:	< +/-10% signal/month
Zero offset:	< 2% LEL/month
Temperature:	-10 to + 40°C
Humidity:	0 - 95%
Pressure limit:	Ambient (+/-20%)
Response time:	Approx. 10 sec
Stabilization time:	> 20 sec

## Mechanical Data

Enclosure:	Lightweight alloy
Protection index:	IP65
Dimensions:	150x100x70 mm
Weight:	600 gr

## Certification

Costruction:	EN50014 - EN50018 - EN50020 - EN50054 - EN50057 - CEI 64/2
Enclosure certification:	CESI EX - 96.108 X/N
Product certification:	ATEX TUV 05 ATEX 2907 X
Inlet:	3/4" - UNI 6125 - ISO R7 - BS 21