

SMART P-2

gas detection in car parks

The SMART P-2 gas detector is designed to be installed in car parks and simultaneously detect CO and NO₂ gases or CO and petrol vapors. It is compliant with the EN 50545-1 standard, which defines the requirements for the detection of CO and NO₂ in car parks and tunnels.

For the detection of toxic gases (CO and NO₂) the electrochemical cell is used and is housed in the polycarbonate head. The catalytic sensor is used to detect petrol vapors, which guarantees excellent linearity up to 100% LFL. This sensor is placed in an aluminum head, which can be removed with a maximum distance of 1.5m. The EN 50545-1 standard describes the values of the alarm thresholds for CO and NO₂, moreover the activation of the alarms is a function of the time-weighted average of the detected gas concentration.

The SMART P-2 has a 12-24 Vdc power supply and an RS485 digital signal output. The polycarbonate enclosure has a total size of 106 x 117 x 54 mm, on the upper side it has two M20 cable glands.



Sensor

Application	Car parks
Sensing element	Catalytic sensor for petrol vapours Electrochemical cell for CO and NO ₂
Predicted sensor lifetime	Catalytic: 4 / 5 years EC: 2 / 3 years
Gas detected	Petrol vapours, CO, NO ₂
Fullscale	Petrol vapours: 0 - 100% LFL CO: 0 - 300 ppm, NO ₂ : 0 - 30 ppm

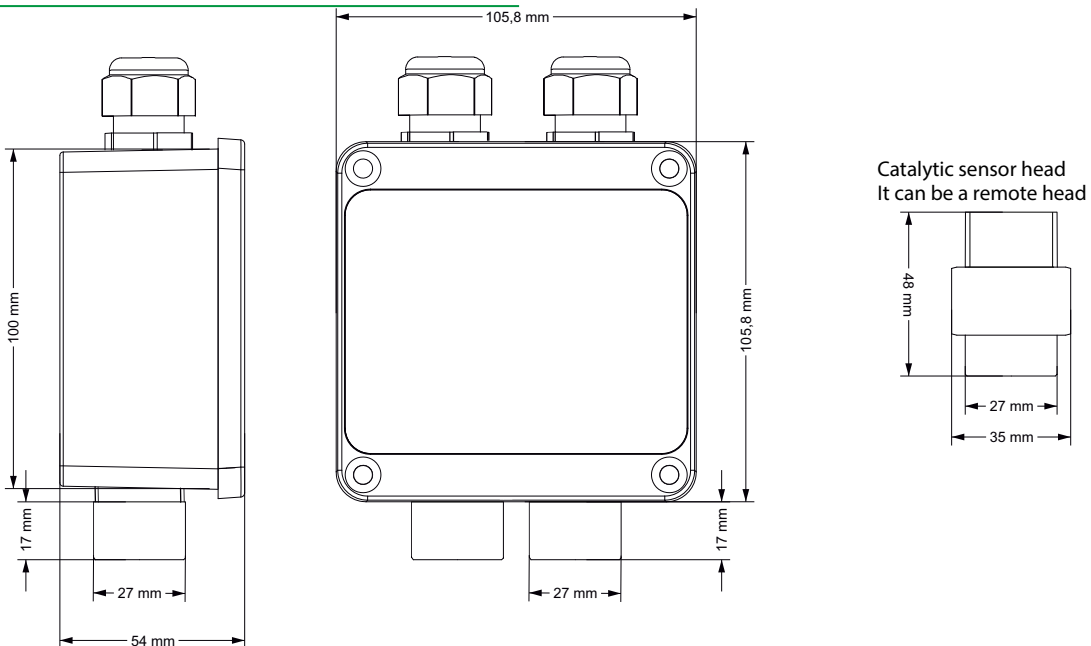
Electrical data

Power supply	12-24 Vdc
Output	RS485 serial output
Absorption	S2400CO-ND: 32 mA at 24 Vdc S2400CO-VB: 63 mA at 24 Vdc
Optical indications	-
Acoustic indications	-
Hall effect sensor	-

Environmental conditions

Storage temperature	0 / +20°C up to six months
Operating temperature	-20 / +50°C
Operating humidity	15 / 90 %RH

Mechanical drawings



External case

Material	Enclosure: Polycarbonate Sensor head: Polycarbonate or aluminum
Dimensions	Box: 100 x 100 x 52 mm Cover: 105.8 x 105.8 x 7.8 mm
Weight	250 g
Cable entries	2 x M20
IP grade	IP55
Remote head cable length	1.5 m

Compliance

EMC	EN 50270:2015
Car park standard	EN 50545-1:2011

Product codes

S2400CO-ND	CO (0-300 ppm) and NO ₂ (0-30 ppm) gas detector
S2400CO-VB	CO (0-300 ppm) petrol vapours (0-100% LFL) gas detector