

SPRKM-R

Car park gas sensor



The SPRKM-R are multifunctional parking garages gas sensors which measure temperature, relative humidity, CO and LPG (propane C₃H₈) levels. They are Power over Modbus supplied and all parameters and the output value are accessible via Modbus RTU.

Key features

- Suitable for harsh environments
- Selectable temperature, relative humidity, CO and LPG ranges
- Selectable temperature, relative humidity, CO and LPG alert levels
- Bootloader for updating the firmware via Modbus RTU communication
- Day / Night detection via ambient light sensor with adjustable 'active' and 'standby' level
- RGB LED with adjustable brightness via Modbus register
- Modbus RTU (RS485)
- Replaceable CO and LPG sensor element
- Long-term stability and accuracy

Technical specifications

Supply voltage	24 VDC, Power over Modbus	
Imax	52 mA	
CO / LPG sensor element warm-up time	15 minutes	
Typical range of use	Temperature	-10—50 °C
	Relative humidity	0—95 % rH (non-condensing)
	CO	0—1.000 ppm
	LPG	300—10.000 ppm
Accuracy	Temperature	± 0,4 °C (range -10—50 °C)
	Relative humidity	± 3% rH (range 0—95%)
	CO	± 5% (range 0 -1000 ppm)
Protection standard	IP54 (EN 60529)	

Article codes

	Supply	Connection
SPRKM-R	24 VDC, PoM	RJ45

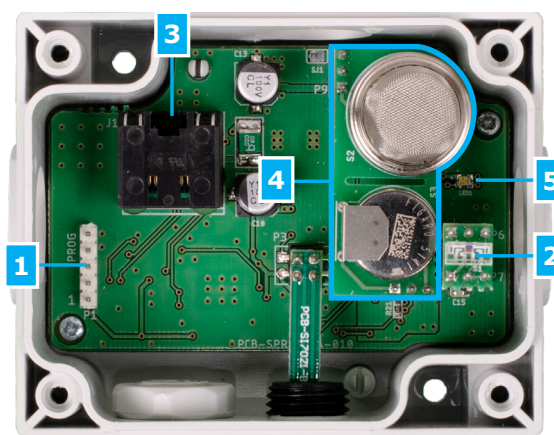
Area of use

- Monitoring gas concentration in underground parking garages and loading docks
- Ventilation control based on temperature, relative humidity and vehicle exhaust fumes - CO and LPG
- Suitable for both indoor and outdoor use (e.g. open-air spaces, multi-storey and subterranean car parks, residential and commercial buildings)

24 VDC	Supply voltage 24 VDC
GND	Ground
A	Modbus RTU communication, signal A
/B	Modbus RTU communication, signal /B



Settings



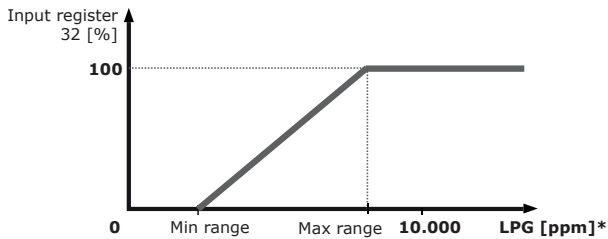
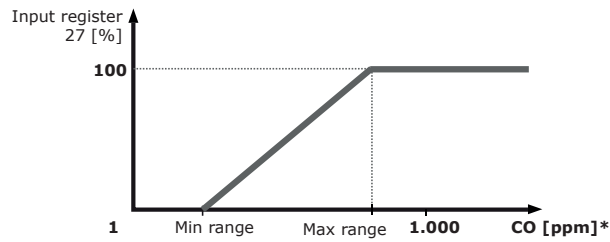
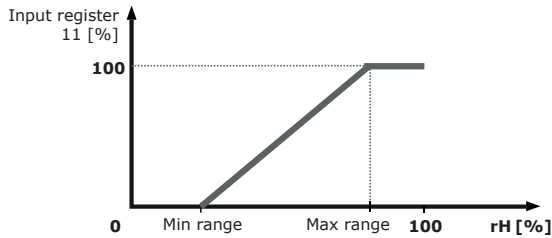
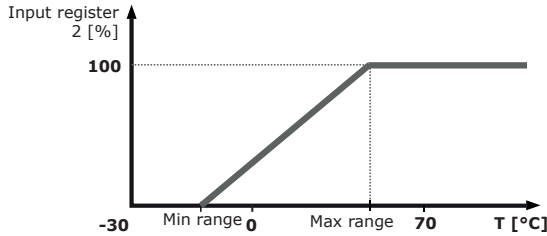
1 - PROG header, P1		Put a jumper onto pins 1 and 2 and wait for at least 5 seconds to reset the Modbus communication parameters
		Put a jumper onto pins 3 and 4 and restart the supply to enter bootloader mode
2 - Ambient light sensor		Low light intensity / Active / Standby
3 - RJ45 Socket		Plug the communication and power cable into the socket
4 - CO / LPG sensor element		Replaceable in case of faulty operation
5 - RGB LED indicator		Indicates device status and alerts

SPRKM-R

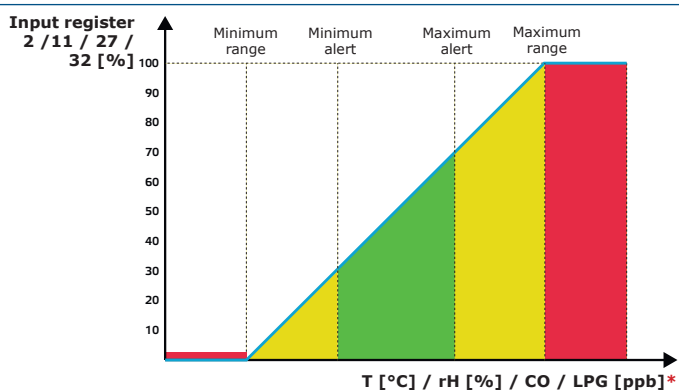
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Operational diagrams

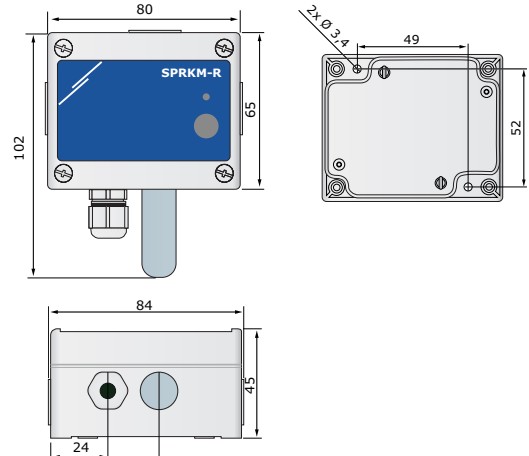


*CO / LPG measurements will return 0 ppm during warm-up time.



* LED indications - T, rH, CO or LPG (default)

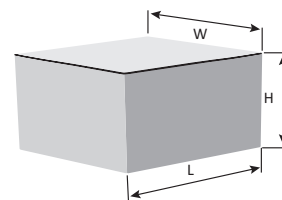
Fixing and dimensions



Standards

- Low Voltage Directive 2014/35/EC:
 - EN 61010-1:2010 Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements
 - EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
- EMC Directive 2014/30/EC:
 - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light industrial environments
 - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments Amendments A1:2011 and AC:2012 to EN 61000-6-3
 - EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
 - EN 61326-2-3:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria
- RoHS Directive 2011/65/EC

Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
SPRKM-R	Unit (1 pc.)	120	95	55	0,125 kg	0,160 kg
	Box (80 pcs.)	590	380	280	10,00 kg	13,26 kg

Global trade item numbers (GTIN)

Packaging	SPRKM-R
Unit	05401003018088
Box	05401003503812