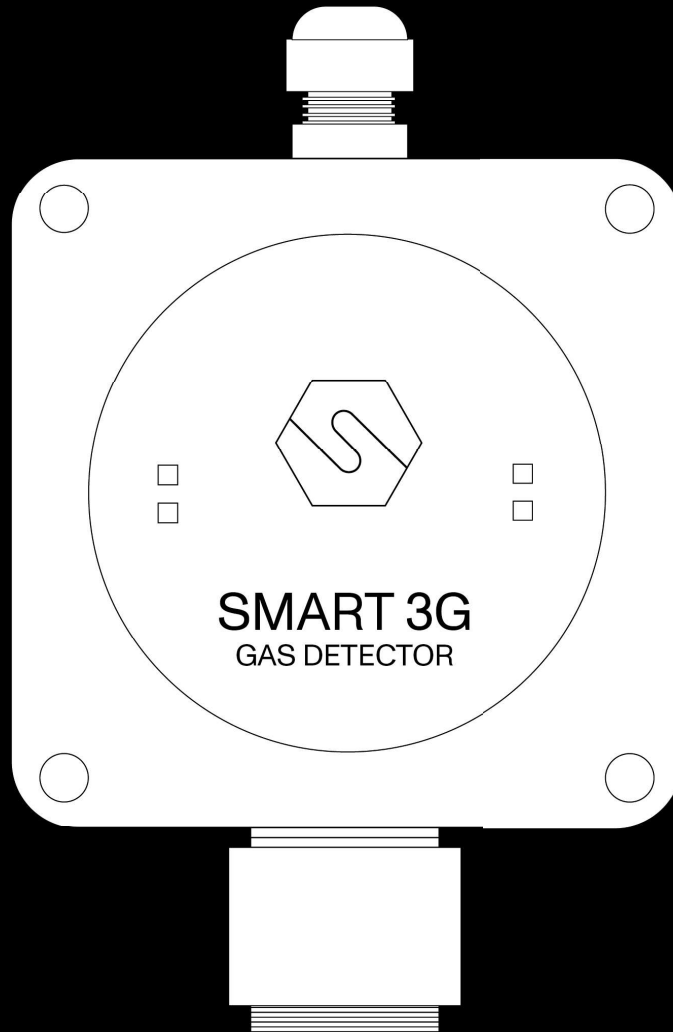


SMART 3G-C3

With photoionizator sensor



Datasheet





SMART3G-C3 gas detector is designed to meet industrial requirements; the enclosure is explosion proof and can be installed in ATEX Zone 2 and, when equipped with dust adapter, in Zone 22.

The sensing element is placed in the stainless steel head with 47.5 mm diameter. The PID sensors employed for the Volatile Organic Compound are able to detect lower gas concentration than most of other technologies.

The gas detector has a 12-24 Vdc power supply and a standard 4-20 mA 3-wires output. Optionally, the SMART3G-C3 can be equipped with serial RS485 communication and a 1 or 3 relays board.

The enclosure has dimensions 106 x 106 x 62 mm, on the upper side there's a M20 cable gland.

The gas detector is certification pending and it can be ATEX marked as follows:
CE 0722 Ex II 2G Ex db IIC T5 Gb

Or, when equipped with dust adapter:
CE 0722 Ex II 2GD Ex db IIC T5 Gb
Ex tb IIIC T100°C Db
IP65

SMART3G-C3 is SIL2 hardware and SIL3 software; with a redundant system also the hardware is SIL3.

Sensor

| | |
|---------------------------|---|
| Application | Industrial area, ATEX Zone 2 e Zone 22 (when equipped with dust adapter, optional) |
| Sensing element | Photoionizator (PID) |
| Predicted sensor lifetime | >5 years |
| Lamp lifetime | Versions with FS 20 and 200 ppm: 10000 hours Versions with FS 2000 ppm: 6000 hours |
| Gas detected | Volatile Organic Compounds (VOC) having photoionization potential up to 10.8 eV |
| Full scale | 0 - 20 ppm (Isobutylene) 0 - 200 ppm (Isobutylene) 0 - 2000 ppm (Isobutylene) |

Electrical data

| | |
|--------------------------|--|
| Power supply | 12-24 Vdc |
| Output | Analogue 4-20 mA output; 1 or 3 relay board (optional); serial RS485 output (optional) |
| Maximum dissipated power | 5.4 W |
| Relays contact ratings | 1.0 A at 24 Vdc (optional board) |
| Optical indications | - |
| Acoustic indications | - |
| Hall effect sensor | - |



Environmental conditions

| | |
|--|--|
| Operating and storage temperature | Versions with FS 20 and 200 ppm: -40 / +65°C Versions with FS 2000 ppm: -20 / +60°C |
| Operating humidity (non condensing) | Versions with FS 20 and 200 ppm: 5 / 95% RH Versions with FS 2000 ppm: 5 / 90% RH @40°C |

External case

| | |
|-----------------|---|
| Material | Enclosure: Aluminium Sensor head: stainless steel |
| Protection mode | Ex e: Increased safety protection mode Ex nC: Enclosed equipment protection mode Ex d : Explosion proof enclosure Ex t : Equipment dust ignition protection by enclosure (when equipped with dust adapter, optional) |
| Dimensions | 106 x 106 x 62 mm |
| Weight | 1023 g |
| Cable entries | 1 x M20 |
| IP grade | IP55 (certification pending) |

Compliance

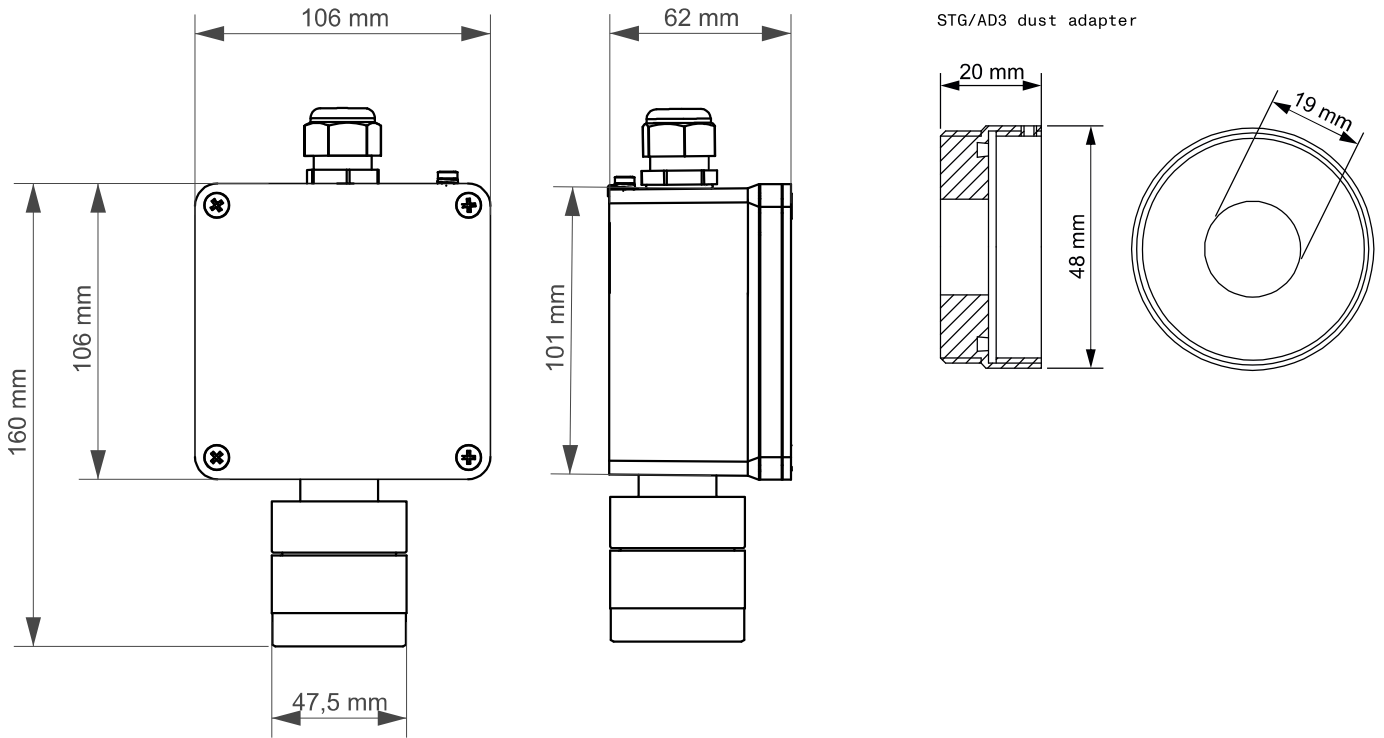
| | |
|---------------------------------|--|
| EMC | EN 61000-6-3:2007 + A1:2011; EN 50270:2015 |
| ATEX (certification pending) | ATEX directive 2014/34/EU EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-7:2015 EN 60079-15:2010 EN 60079-31:2014 |
| SIL | EN 61508:2010 Parts 1, 2, 3, 4, 5, 6, 7 EN50402:2017 |

Product codes

| | |
|---|---------------------------------------|
| Volatile Organic Compounds detectors, 12-24 Vdc | |
| S3540IL | Isobutylene (0-20 ppm) gas detector |
| S3544IL | Isobutylene (0-200 ppm) gas detector |
| S5121IL | Isobutylene (0-2000 ppm) gas detector |



Mechanical drawings



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