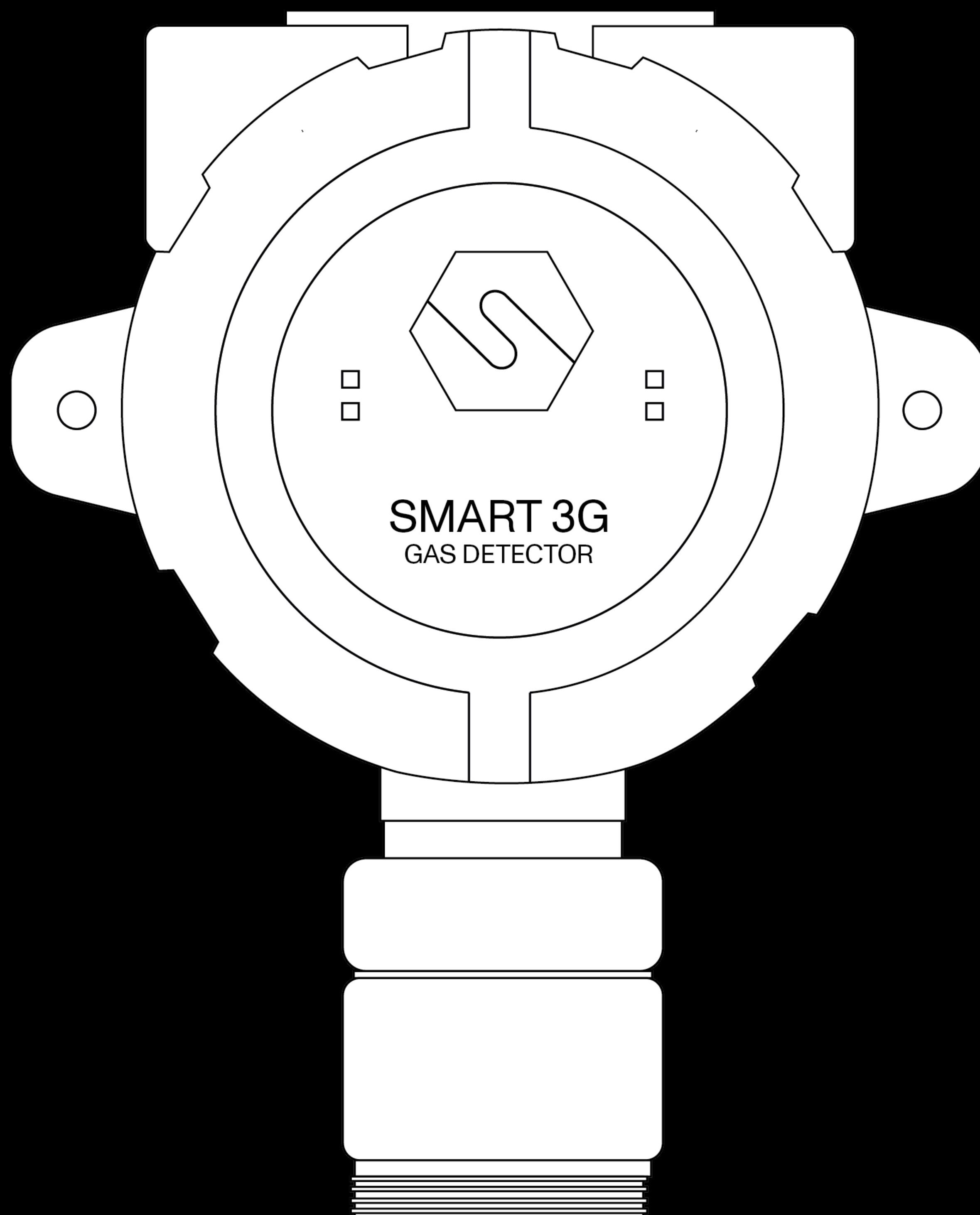


SMART3G-C2-LD

With photoionizator sensor



Datasheet





SMART3G-C2-LD gas detector is designed to meet industrial requirements; the enclosure is explosion proof and can be installed in ATEX Zone 1 and, when equipped with dust adapter, in Zone 21.

The sensing element is placed in the stainless steel head. 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-C2-LD can be equipped with serial RS485 communication and a 1 or 3 relays board. The aluminium enclosure has dimensions 145 x 187 x 108 mm.

The enclosure has 3 cable entries 3/4” NPT threaded. The multi-colour LED light ring assures an immediate visual indication of the detector status.

The gas detector 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

The gas detector is IECEx compliant and can be marked as follows:
Ex db IIC T5 Gb

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

Sensor	
Application	Industrial area, ATEX Zone 1 e Zone 21 (when equipped with dust adapter, optional)
Sensing element	Photoionizator (PID)
Predicted sensor lifetime	>5 years
Lamp lifetime	10000 hours
Gas detected	Volatile Organic Compounds (VOC) having photoionization potential up to 10.6 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 (optional board)	1.0 A at 24 Vdc
Optical indications	Multi-colour LED light ring
Acoustic indications	-

Environmental conditions	
Operating and storage temperature	Versions with FS 200 ppm: -40 / +65°C Versions with FS 20 and 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
Response Time	t ₉₀ < 40 s ; t ₅₀ < 15 s

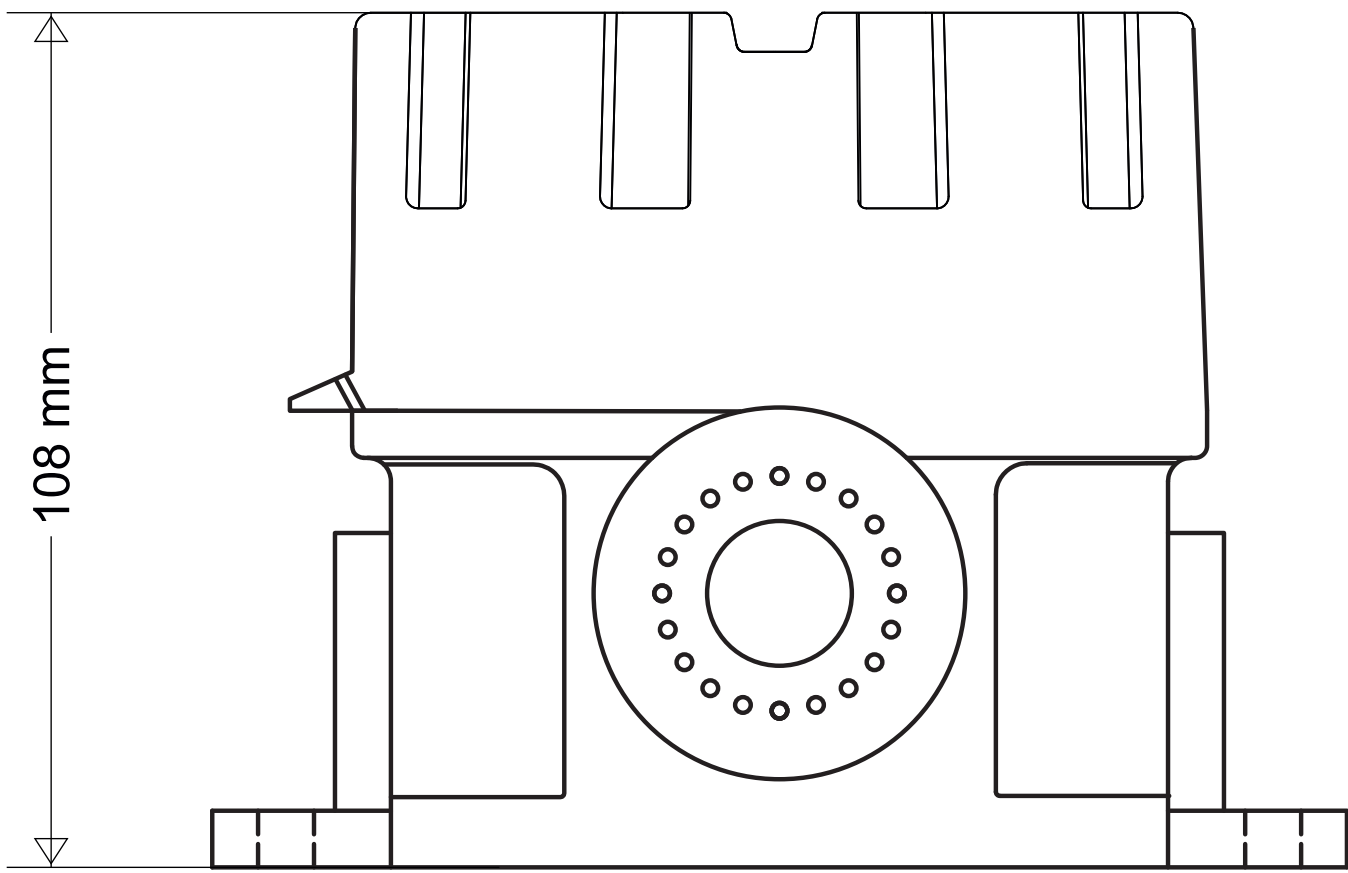
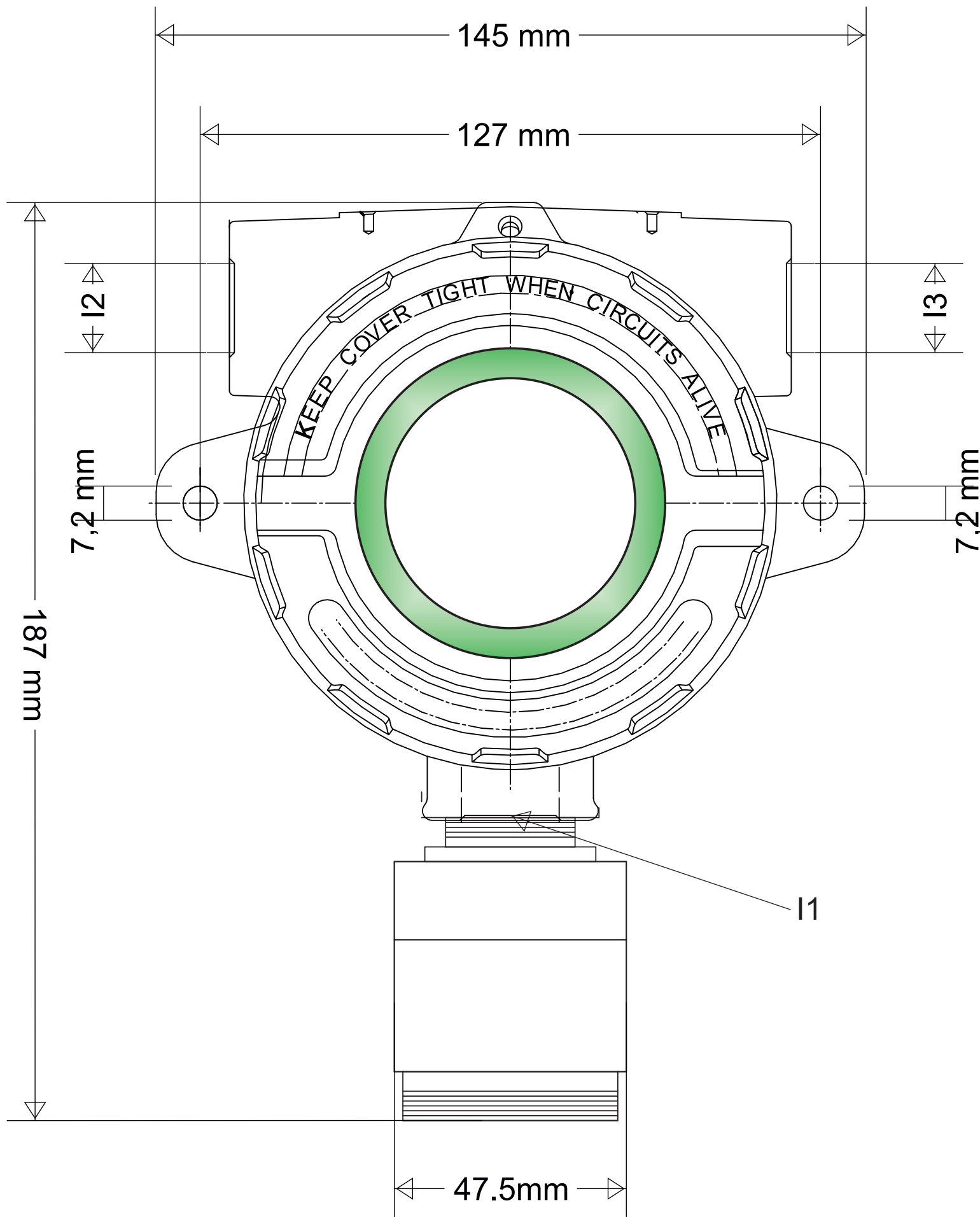
External case	
Material	Enclosure: aluminium pressure die-casting with epoxy paint chromating and chemically resistant Sensor head: stainless steel
Protection mode	Ex d : Explosion proof enclosure Ex t : Equipment dust ignition protection by enclosure (when equipped with dust adapter, optional)
Dimensions	145 x 187 x 108 mm
Weight	1900 g
Cable entries	2 x 3/4" NPT
IP grade	IP65

Compliance	
EMC	EN 61000-6-3:2007 + A1:2011; EN 50270:2015
ATEX	ATEX directive 2014/34/EU EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014
IECEX	IEC 60079-0:2011 IEC 60079-1:2014 IEC 60079-31:2013

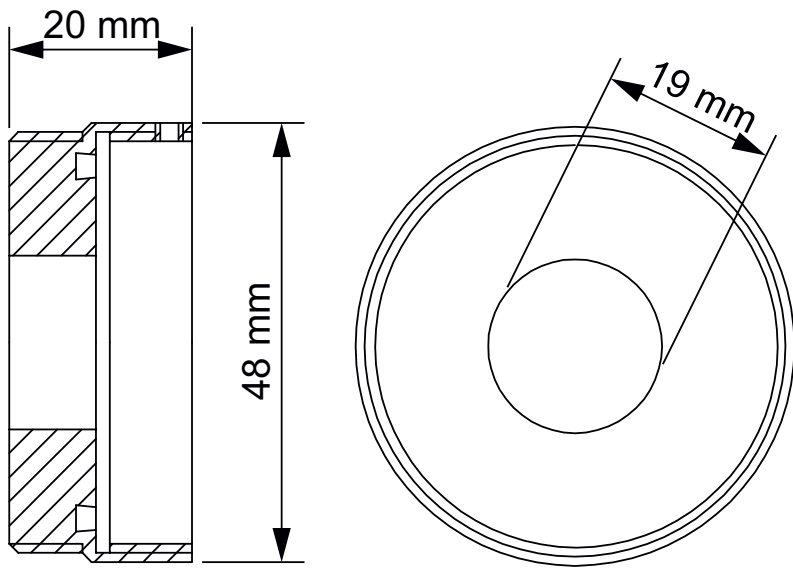


Product codes		ATEX code
Volatile Organic Compounds detectors, 12-24 Vdc		
S3541IL-LD	Isobutylene (0-20 ppm) gas detector	ST / L / E3 / S3
S3545IL-LD	Isobutylene (0-200 ppm) gas detector	ST / L / E3 / S3
S5122IL-LD	Isobutylene (0-2000 ppm) gas detector	ST / L / E3 / S3
S5021TO-LD	Toluene (0-10 ppm) gas detector	ST / L / E3 / S3
S5025TO-LD	Toluene (0-100 ppm) gas detector	ST / L / E3 / S3
S5029TO-LD	Toluene (0-1000 ppm) gas detector	ST / L / E3 / S3
S5021BZ-LD	Benzene (0-10 ppm) gas detector	ST / L / E3 / S3
S5025BZ-LD	Benzene (0-100 ppm) gas detector	ST / L / E3 / S3
S5029BZ-LD	Benzene (0-1000 ppm) gas detector	ST / L / E3 / S3

Mechanical drawings



STG/AD3
Dust adapter



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