

# SMART3G-C2

with electrochemical sensor

SMART3G-C2 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 with a 48 mm diameter. The electrochemical cell is used to detect toxic gas, due to the optimal performance in these applications.

The gas detector has a 12-24 Vdc power supply and a standard 4-20 mA 3-wires output. Optionally, the SMART3G-C2 can be equipped with serial RS485 communication and a 1 or 3 relays board .

The aluminium enclosure has dimensions 120 x 184 x 90 mm, with 3 cable entries 3/4" NPT threaded.

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 T5 T100°C Db  
IP65

The gas detector is IECEx compliant and can be marked as follows:

II 2G Ex db IIC T5 Gb

Or, when equipped with dust adapter:

II 2GD Ex db IIC T5 Gb  
Ex tb IIIC T5 T100°C Db  
IP65

SMART3G-C2 is SIL2 hardware and SIL3 software; with a redundant system also the hardware is SIL3.



<b>Sensor</b>	
Application	Industrial area, ATEX Zone 1 and Zone 21 (when equipped with dust adapter, optional)
Sensing element	Electrochemical cell
Predicted sensor lifetime	2 / 3 years
Gas detected	O <sub>2</sub> [0-25% Vol], CO [0-500/1000 ppm], NH <sub>3</sub> [0-100/200/1000/5000 ppm], H <sub>2</sub> S [0-50/100 ppm], NO [0 - 100 ppm]; H <sub>2</sub> [0 - 2000/3000 ppm]
<b>Electrical data</b>	
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 30 Vdc
Optical indications	-
Acoustic indications	-
Hall effect sensor	-
<b>Environmental conditions</b>	
Storage temperature	0 / +20°C up to 6 months
Operating temperature	-30 / +55°C
Operating humidity	15 / 90% RH non condensing

<b>External case</b>	
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	120 x 184 x 90 mm
Weight	1250 g
Cable entries	3 x 3/4" NPT
IP grade	IP65
<b>Compliance</b>	
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
SIL	EN 61508:2010 Parti 1, 2, 3, 4, 5, 6, 7 EN50402:2017

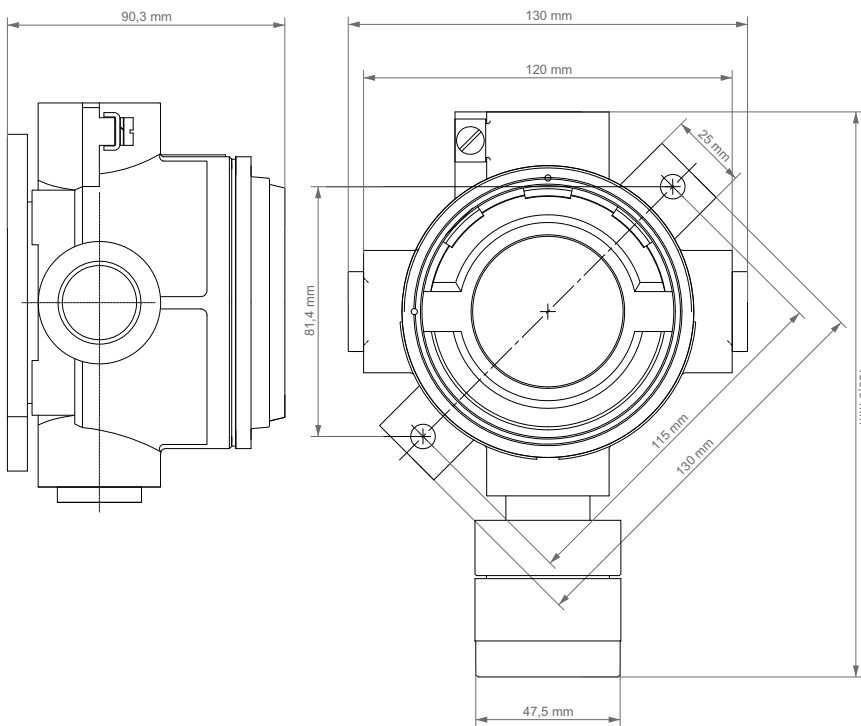
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## Product codes

Product codes		ATEX code
S2641O2	Oxygen (0 - 25% Vol) gas detector	ST / L / E3 / S3
S2131CO	CO (0-500 ppm) gas detector	ST / L / E3 / S3
S2586CO	CO (0-1000 ppm) gas detector	ST / L / E3 / S3
S3225AM	NH <sub>3</sub> (0-100 ppm) gas detector	ST / L / E3 / S3
S2133AM	NH <sub>3</sub> (0-200 ppm) gas detector	ST / L / E3 / S3
S2135AM	NH <sub>3</sub> (0-1000 ppm) gas detector	ST / L / E3 / S3
S3229AM	NH <sub>3</sub> (0-5000 ppm) gas detector	ST / L / E3 / S3
S2137HS	H <sub>2</sub> S (0-50 ppm) gas detector	ST / L / E3 / S3
S3708HS	H <sub>2</sub> S (0-100 ppm) gas detector	ST / L / E3 / S3
S2145NO	NO (0-100 ppm) gas detector	ST / L / E3 / S3
S3593H2	H <sub>2</sub> (0-2000 ppm) gas detector	ST / L / E3 / S3
S4547H2	H <sub>2</sub> (0-3000 ppm) gas detector	ST / L / E3 / S3

## Mechanical Drawings



STG/AD3  
Dust adapter

