

SMART3G-C2-LD

with electrochemical sensor

The 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 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 and three relays. Optionally, the SMART3G-C2-LD can be equipped with serial RS485 communication.

The aluminium enclosure has dimensions 145 x 187 x 108 mm. The enclosure has 3 cable entries 3/4" NPT threaded. The multi-color 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 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-LD is SIL2 hardware and SIL3 software; with a redundant system also the hardware is SIL3.



Sensor

| | |
|---------------------------|---|
| 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 ₂ [0-25% Vol], CO [0-500/1000 ppm], NH ₃ [0-100/200/1000/5000 ppm], H ₂ S [0-50/100 ppm], NO [0 - 100 ppm]; H ₂ [0 - 2000/3000 ppm] |

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 30 Vdc |
| Optical indications | Multi-color LED light ring |
| Acoustic indications | - |

Environmental conditions

| | |
|-----------------------|----------------------------|
| Storage temperature | 0 / +20°C up to 6 months |
| Operating temperature | -30 / +55°C |
| Operating humidity | 15 / 90% RH non condensing |

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 128 mm |
| Weight | 1900 g |
| Cable entries | 3 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 |
| SIL | EN 61508:2010 Part 1, 2, 3, 4, 5, 6, 7 EN50402:2017 |

SMART3G-C2-LD

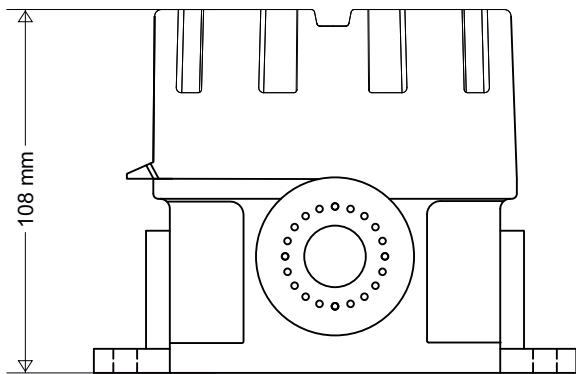
with electrochemical sensor

Product codes

ATEX code

| | | |
|------------|---|-------------------|
| S2641O2-LD | Oxygen (0 - 25% Vol) gas detector | ST / LW / E3 / S3 |
| S2131CO-LD | CO (0-500 ppm) gas detector | ST / LW / E3 / S3 |
| S2586CO-LD | CO (0-1000 ppm) gas detector | ST / LW / E3 / S3 |
| S3225AM-LD | NH ₃ (0-100 ppm) gas detector | ST / LW / E3 / S3 |
| S2133AM-LD | NH ₃ (0-200 ppm) gas detector | ST / LW / E3 / S3 |
| S2135AM-LD | NH ₃ (0-1000 ppm) gas detector | ST / LW / E3 / S3 |
| S3229AM-LD | NH ₃ (0-5000 ppm) gas detector | ST / LW / E3 / S3 |
| S2137HS-LD | H ₂ S (0-50 ppm) gas detector | ST / LW / E3 / S3 |
| S3708HS-LD | H ₂ S (0-100 ppm) gas detector | ST / LW / E3 / S3 |
| S2145NO-LD | NO (0-100 ppm) gas detector | ST / LW / E3 / S3 |
| S3593H2-LD | H ₂ (0-2000 ppm) gas detector | ST / LW / E3 / S3 |
| S4547H2-LD | H ₂ (0-3000 ppm) gas detector | ST / LW / E3 / S3 |

Mechanical Drawings



STG/AD3
Dust adapter

