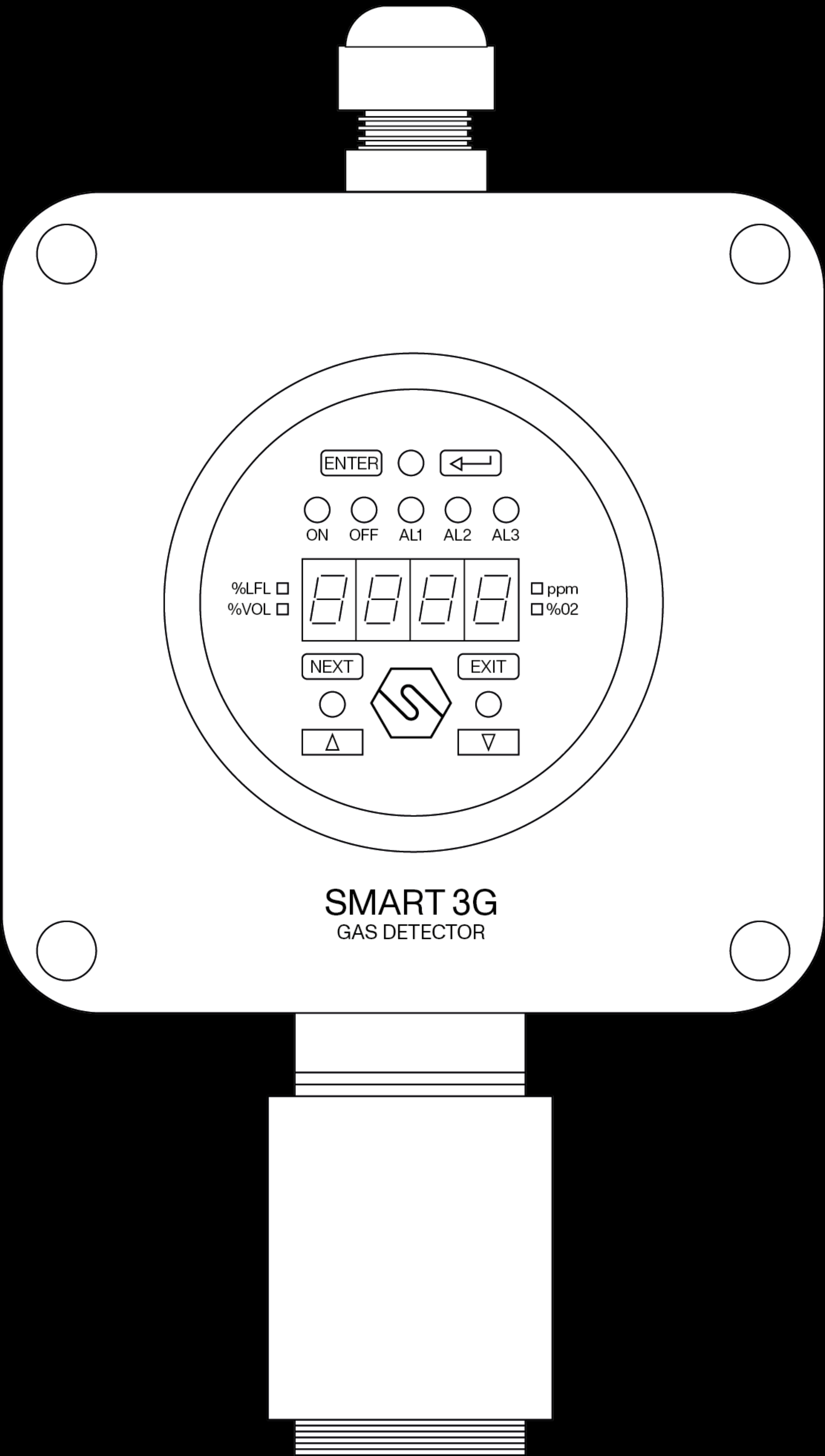


# SMART 3G-D3

with catalytic sensor



Datasheet





SMART3G-D3 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 pellistor sensors employed for the flammable gas detection show an excellent output linearity up to 100% LEL and fast time of response. 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-D3 can be equipped with serial RS485 communication. The enclosure has dimensions 106 x 160 x 81 mm, on the upper side there's a M20 cable gland. The SMART3G-D3 features a 7-segment display for real-time concentration visualization and Hall effect sensors for non-intrusive field calibration.

The gas detector is certification pending and it can be ATEX marked as follows:  
CE 0722 Ex II 3G Ex db ec nC IIC T5 Gb

Or, when equipped with dust adapter:  
CE 0722 Ex II 3GD Ex db ec nC IIC T5 Gb  
Ex tb IIIC T100°C Db  
IP65

SMART3G-D3 is SIL2 hardware and SIL3 software; with a redundant system also the hardware is SIL3.

| Sensor                    |  |
|---------------------------|--|
| Application               | Industrial area, ATEX Zone 2 and Zone 22 (when equipped with dust adapter, optional) |
| Sensing element           | Catalytic  |
| Estimated sensor lifetime | 4 / 5 years  |
| Gas detected              | Methane, LPG, Propane, Butane, Petrol Vapours  |
| Full scale                | 0 - 100% LFL   |
| Electrical data           |  |
| Power supply              | 12-24 Vdc  |
| Output                    | Analogue 4-20 mA output; 3 relays; serial RS485 output (optional)                    |
| Maximum dissipated power  | 5.4 W  |
| Relays contact ratings    | 1.0 A at 24 Vdc  |
| Optical indications       | 7-segment display, 5 status LED and 4 intelligent LED                                |
| Acoustic indications      | -  |
| Hall effect sensor        | Three sensors for calibration by magnet  |
| Environmental conditions  |  |
| Storage temperature       | -40 / +85°C  |
| Operating temperature     | -40 / +60°C  |
| Operating humidity        | 0 / 90% RH   |



External case

|                 |   |
|-----------------|---|
| Material        | Enclosure: Aluminium<br>Sensor head: stainless steel  |
| Protection mode | Ex e: Increased safety protection mode<br>Ex nC: Enclosed equipment protection mode<br>Ex d : Explosion proof enclosure<br>Ex t : Equipment dust ignition protection by enclosure (when equipped with dust adapter, optional) |
| Dimensions      | 106 x 160 x 81 mm   |
| Weight          | 1210 g  |
| Cable entries   | 1 x M20   |
| IP grade        | IP55 (certification pending)  |

Product codes

|         |  |
|---------|--|
| S2156ME | Methane gas detector, 12-24 Vdc        |
| S2156GP | LPG gas detector, 12-24 Vdc            |
| S2156PR | Propane gas detector, 12-24 Vdc        |
| S2156BU | Butane gas detector, 12-24 Vdc         |
| S2156VB | Petrol vapours gas detector, 12-24 Vdc |

Compliance

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



Mechanical drawings

