SENSITRON
A Halma Company

SMART 3G-D3
Datasheet

DS4831
SENSITRON S.R.L. - All rights reserved - www. sensitron.it

Datasheet

SMART 3G-D3

with infrared sensor

SMART 3G
GAS DETECTOR

Datasheet

SENSITRON
A Halma Company

DS4831
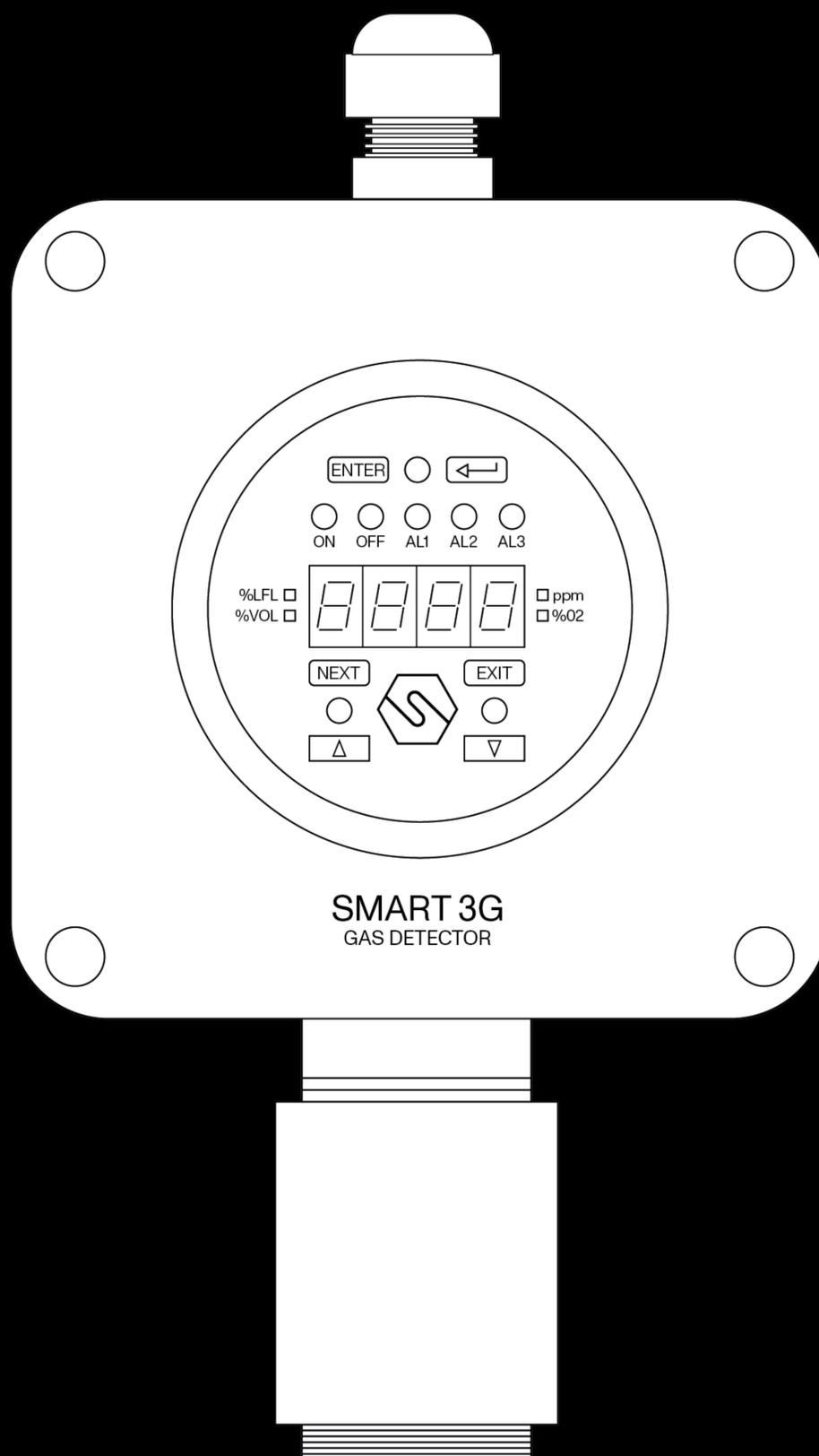SMART 3G-D3

Datasheet (EN)
P. 2/5

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 infrared sensors employed for the flammable and refrigerant gas detection are poison free, with high accuracy and a long lifetime.
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 can be ATEX marked as follows:

CE $\langle Ex \rangle$ II 3G
Ex db ec nC IIC T6 Gc

Or, when equipped with dust adapter:

CE $\langle Ex \rangle$ II 3D
II 3G
Ex db ec nC IIC T6 Gc
Ex tc IIIC T85°C Dc   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 e Zone 22 (equipped with dust adapter, optional)
Sensing element	Infrared
Predicted sensor lifetime	>5 years
Gas detected	Flammable, refrigerant and CO_2
Full scale	0 - 100% LFL flammable gas 0 - 2000 ppm refrigerant gas 0-2%Vol; 0-5%Vol; 0-30%Vol; 0-100%Vol CO_2
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 / +45°C
Operating humidity	0 / 90% RH

SENSITRON
A Halma Company

DS4831
SMART 3G-D3

Datasheet (EN)
P. 3/5

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 160 x 81 mm
Weight	1210 g
Cable entries	1 x M20
IP grade	IP65 (with dust adapter)

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 60079-7:2015 EN 60079-15:2010 EN 60079-31:2014
SIL	EN 61508:2010 Parts 1, 2, 3, 4, 5, 6, 7 EN50402:2017

Product codes

Flammable gas detectors 0-100% LFL, 12-24 Vdc

S2625ME	Methane (0-100%LFL) gas detector
S2601PR	Propane (0-100%LFL) gas detector
S2601BU	Butane (0-100%LFL) gas detector
S2601GP	LPG (0-100%LFL) gas detector
S4434R454B	R454B (0-100%LFL) gas detector
S3426R32	R32 (0-100%LFL) gas detector
S3430R1234YF	R1234YF (0-100%LFL) gas detector
S3435R1234ZE	R1234ZE (0-100%LFL) gas detector

Refrigerant gas detectors 0-2000 ppm, 12-24 Vdc

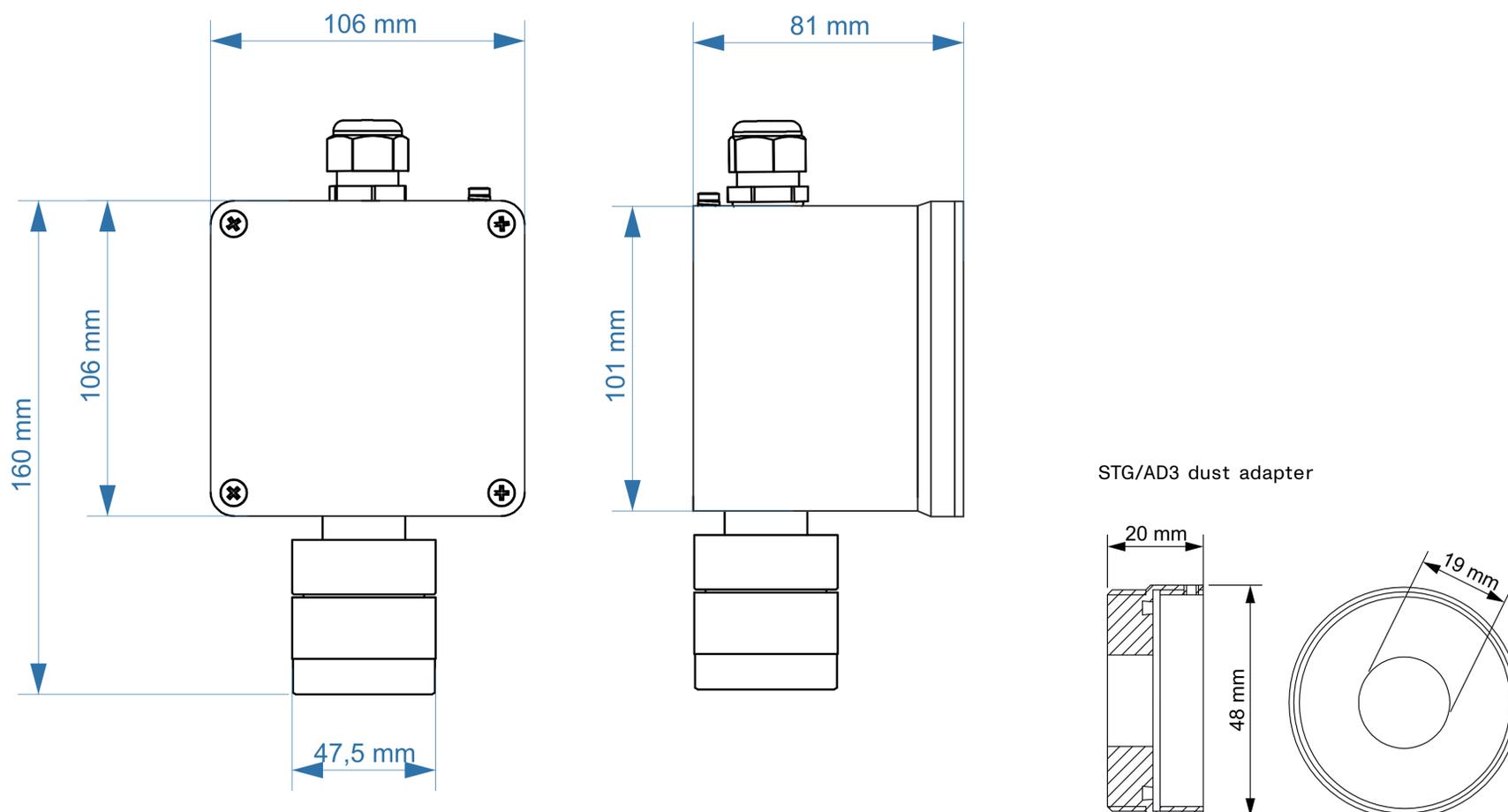|	
S3943R32	R32 (0 - 2000 ppm) gas detector
S3597R134A	R134A (0 - 2000 ppm) gas detector
S3600SF6	SF6 (0 - 2000 ppm) gas detector
S3651R125	R125 (0 - 2000 ppm) gas detector
S3652R1234YF	R1234YF (0 - 2000 ppm) gas detector
S3947R1234ZE	R1234ZE (0 - 2000 ppm) gas detector
S3653R404A	R404A (0 - 2000 ppm) gas detector

SENSITRON
A Halma Company

DS4831
SMART 3G-D3

Datasheet (EN)
P. 4/5

Product codes

S3654R407A	R407A (0 - 2000 ppm) gas detector
S3919R407F	R407F (0 - 2000 ppm) gas detector
S3922R449A	R449A (0 - 2000 ppm) gas detector
S3655R507A	R507 (0 - 2000 ppm) gas detector
S3672R410A	R410A (0 - 2000 ppm) gas detector
S3951R417A	R417A (0 - 2000 ppm) gas detector
S3955R448	R448 (0 - 2000 ppm) gas detector
Carbon dioxide gas detectors, 12-24 Vdc	
S2448CO2	CO_2 (0-5000 ppm) gas detector
S2631CO2	CO_2 (0-2% Vol)gas detector
S2632CO2	CO_2 (0-5% Vol) gas detector
S2447CO2	CO_2 (0-30% Vol) gas detector
S2633CO2	CO_2 (0-100% Vol) gas detector

Mechanical drawings

STG/AD3 dust adapter

Contatti/Contacts

Viale della Repubblica, 48
20007 Cornaredo (MI) – ITALY

+39 0293548155
sales@sensitron.it
sensitron.it

Sensitron S.r.l.

DS4831
Sensitron S.r.l., Viale della Repubblica 48, Cornaredo (MI)
sales@sensitron.it
TEL. +390293548155 FAX. +390293548089