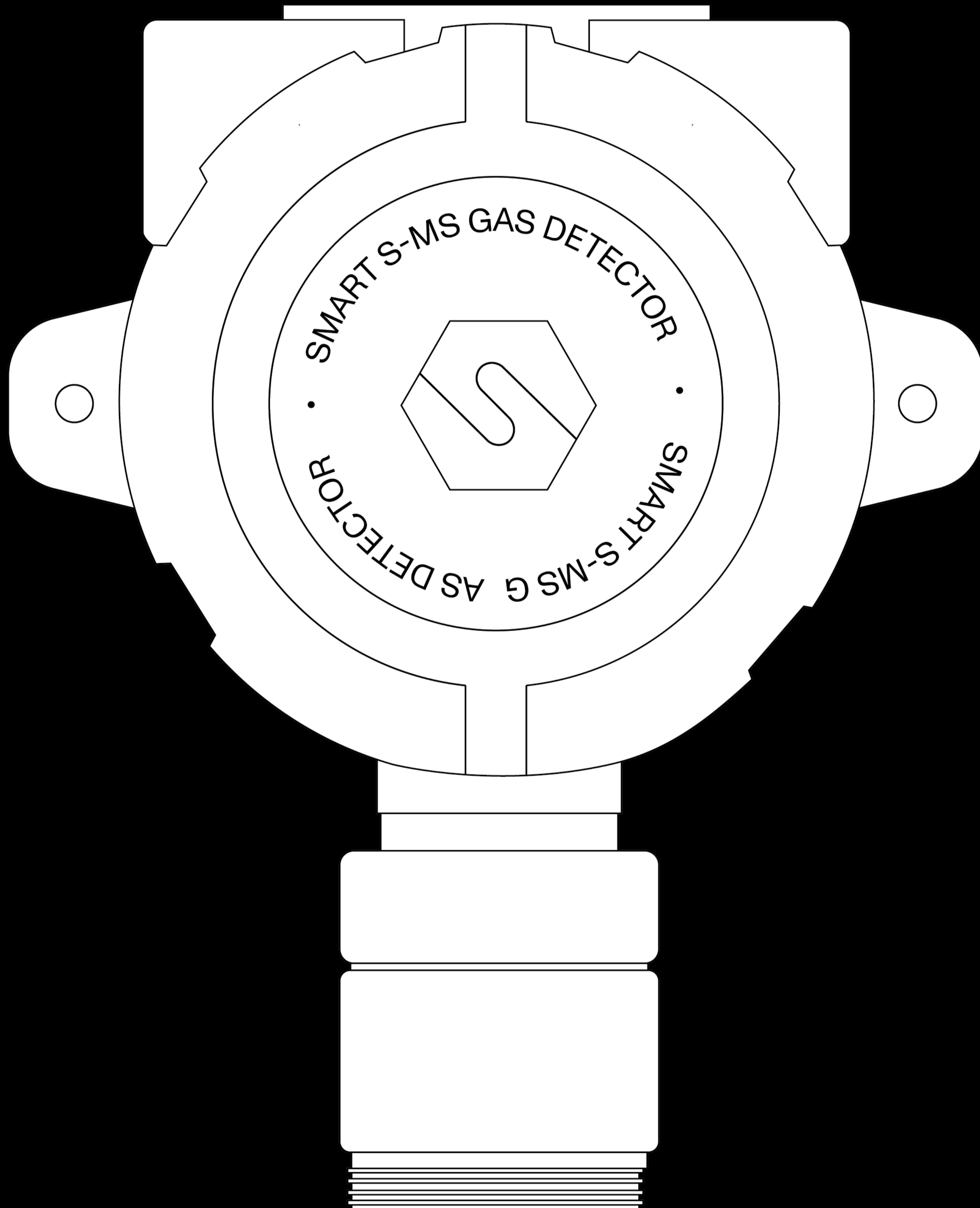


SMART S-MS MED

With catalytic sensor



Datasheet





Designed to meet with the harshest conditions of Marine environments, SMART S-MS MED allows to monitor flammable gas contents.

The pellistor sensors employed for the flammable gas detection show an excellent output linearity up to 100% LEL and fast time of response. The sensing element is housed in the stainless steel head with a 47.5 mm diameter.

The gas detector has a 12-24 Vdc power supply, a 4-20 mA output, a serial RS485 output and it can be equipped with 3 relays.

The aluminium enclosure has dimensions 145 x 187 x 108 mm. All the cable entries are 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:

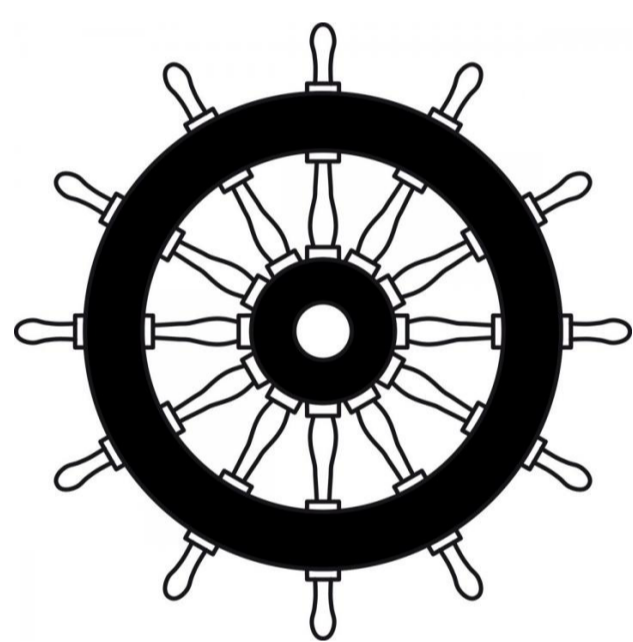
CE 0722 Ex II 2GD Ex db IIC T5 Gb
Ex tb IIIC T5 T100°C Db
IP65

The gas detector is IECEx complaint 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



2923/2022



SMART S-MS MED is SIL2 hardware and SIL3 software; with a redundant system also the hardware is SIL3.

Sensor

Application	Marine environments
Sensing element	Catalytic
Predicted sensor lifetime	4 / 5 years
Gas detected	Flammable gases
Fullscale	0 - 100% LFL

Electrical data

Power supply	12-24 Vdc
Output	Analogue 4-20 mA output ; serial RS485 output; 3 relays output (optional);
Maximum dissipated power	5.4 W
Relays contact ratings	1.0 A a 24 Vdc
Optical indications	-
Acoustic indications	-
Hall effect sensor	-



Environmental conditions

Storage temperature	-40 / +85°C
Operating temperature	-40 / +60°C *
Operating humidity	20 / 90% RH @40°C *
Operating pressure	86 / 120 kPa *
Air velocity	6 m/s *
Time of response	t ₉₀ < 60 s ; t ₅₀ < 20 s *

* Data tested with tests described in EN 60079-29-1 standard

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	1500 g
Cable entries	2 x 3/4" NPT
IP grade	IP65

Compliance

MED	MED Directive 2014/90/EU IEC 60092-504:2016 IEC 60533:2015
CCS	Chapter 3, Part Six of China Classification Society "Rules for Classification of Sea-going Steel Ships" 202 Chapter 1&2, Part Four of China Classification Society Rules for Classification of Sea-Going Steel Ships 2022 Chapter II-2 of SOLAS IEC 60079-29-1: 2020
ATEX	ATEX Directive 2014/34/UE EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014 EN 60079-29-1:2016
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 EN 50402:2017



To order a SMART S-MS MED detector it's required to combine the electronic in the aluminium enclosure and the sensor head.
The ATEX code on the label will be always:

ST | LB | ES | S3

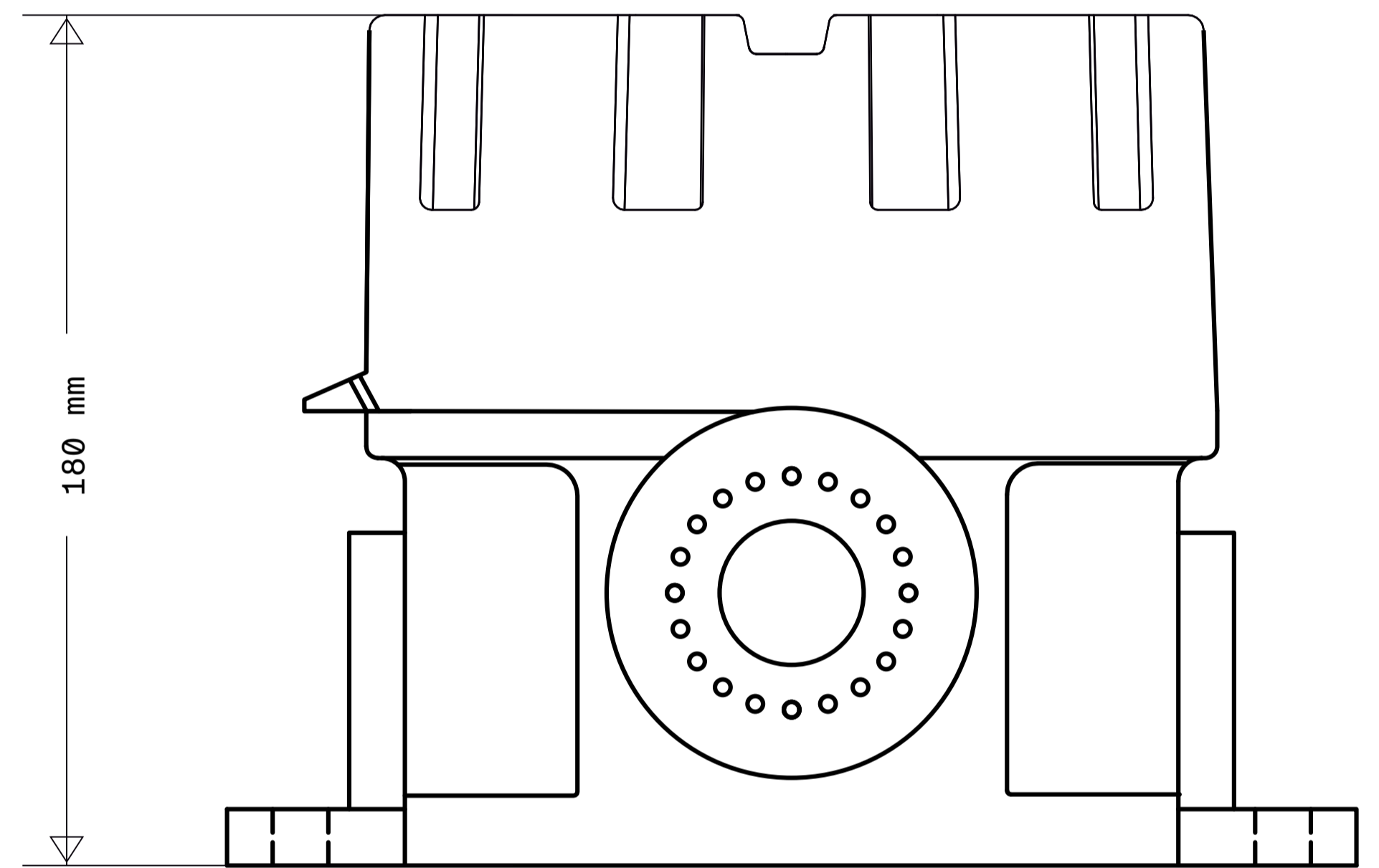
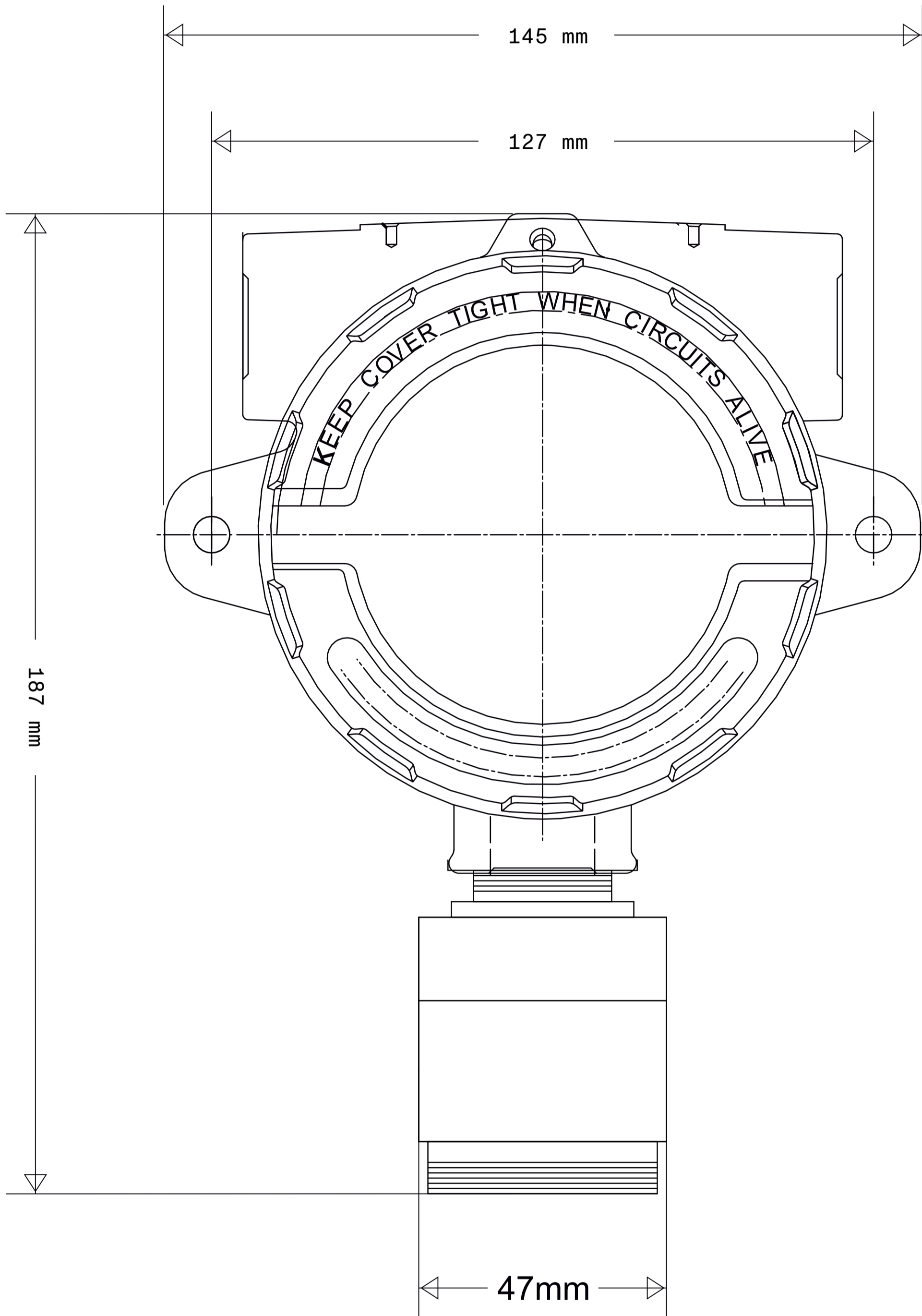
Product codes

SMS3A11MED	Electronic with1 output RS485 and 4-20 mA MED certified
SMS3A11CCS	Electronic with1 output RS485 and 4-20 mA CCS certified
SMS3A13MED	Electronic with1 output RS485 and 4-20 mA, 3 relays MED certified
SMS3A13CCS	Electronic with1 output RS485 and 4-20 mA, 3 relays CCS certified
S4003ME	Methane sensor head
S4003PR	Propane sensor head
S4003BU	Butane sensor head
S4003PE	Pentane sensor head
S4003NN	Nonane sensor head
S4003H2	Hydrogen sensor head
S4003VB	Petrol Vapour sensor head

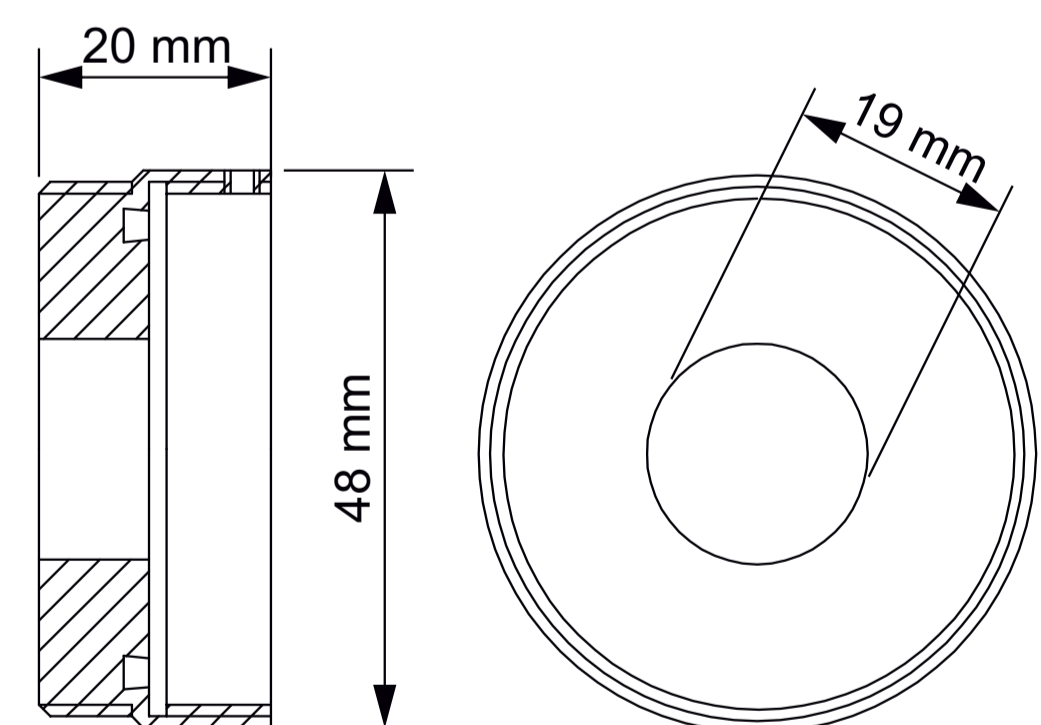
Other sensor heads for gasses of same family may be available upon request



Mechanical drawings



Dust adapter STG/AD3



Contatti/Contacts

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