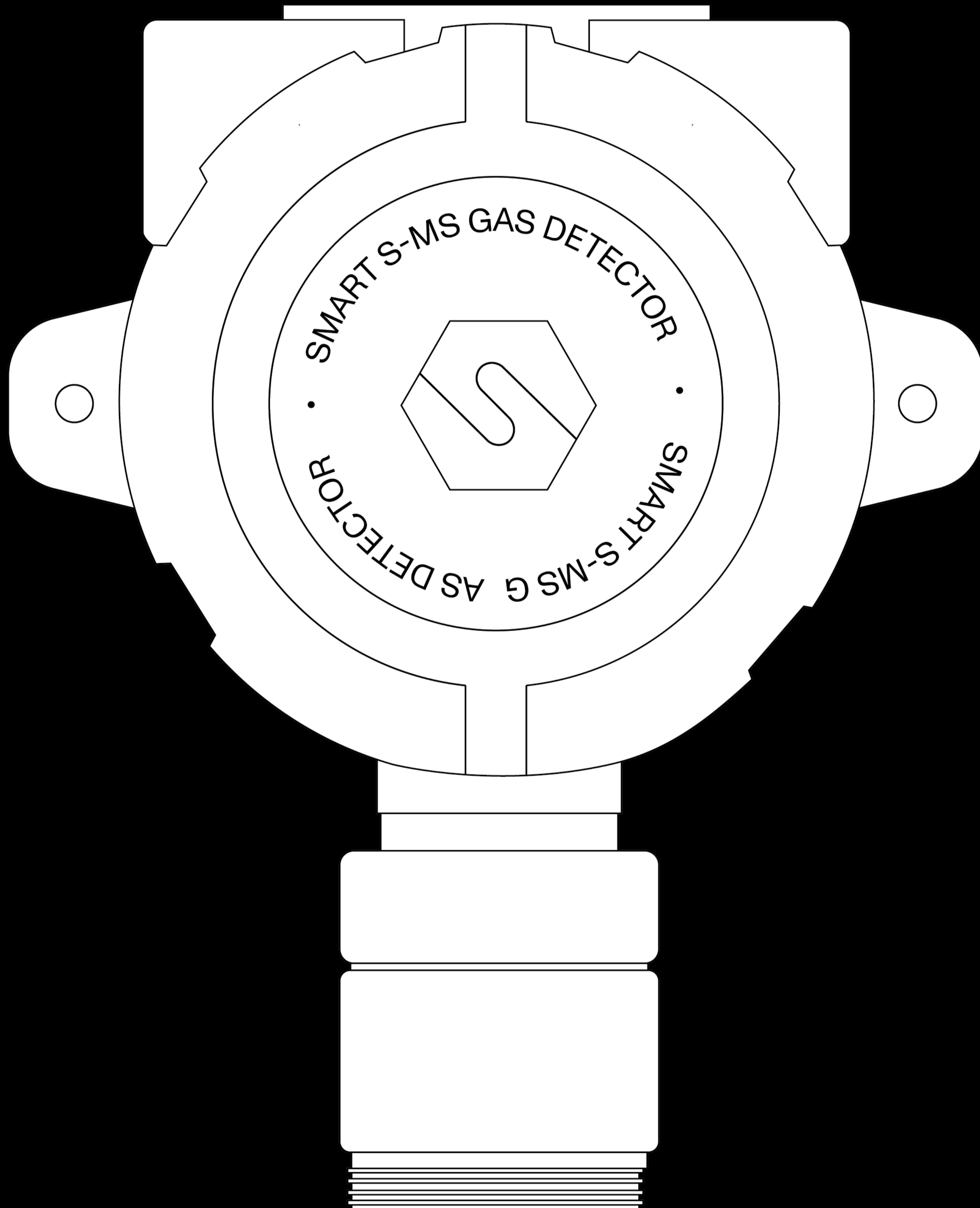


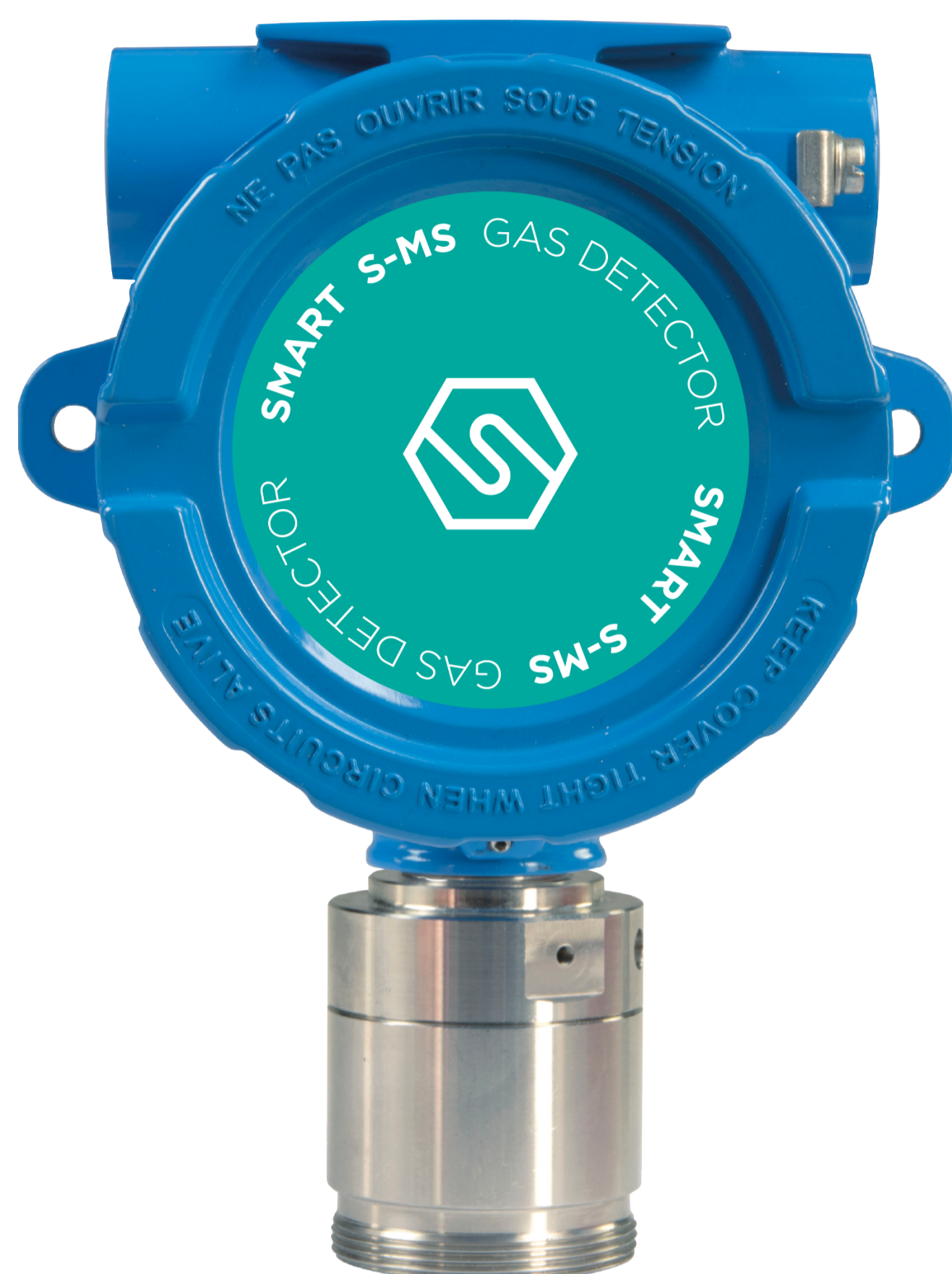
SMART S-MS MED

With infrared sensor



Datasheet





Designed to meet with the harshest conditions of Marine environments, SMART S-MS MED allows to monitor flammable gas contents. The infrared sensors employed for the flammable gas detection are poison free, with high accuracy and a long lifetime. 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

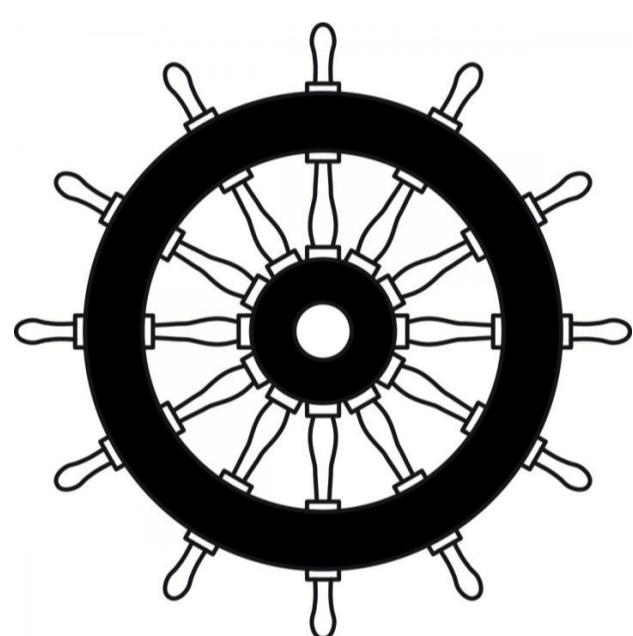
The gas detector is IECEx complaint and can be marked as follows:

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

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



2923/2022



Sensor

Application	Marine environments
Sensing element	Infrared
Predicted sensor lifetime	> 5 years
Gas detected	Flammable gases and refrigerant gases
Fullscale	0 - 100% LFL flammable gases 0 - 2000 ppm refrigerant gases

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 EN50402:2017



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

Sensor head codes (flammable gases 0-100% LFL)

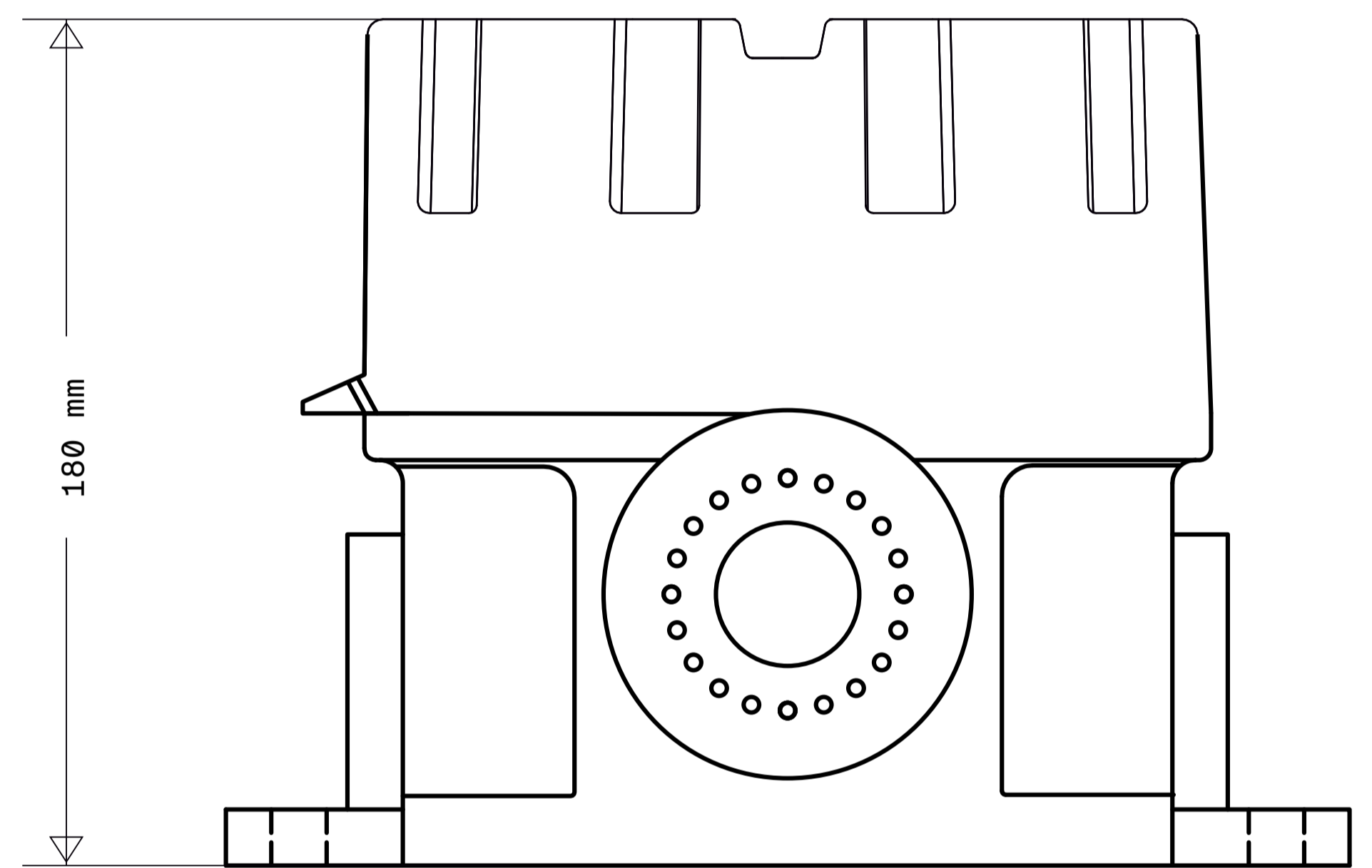
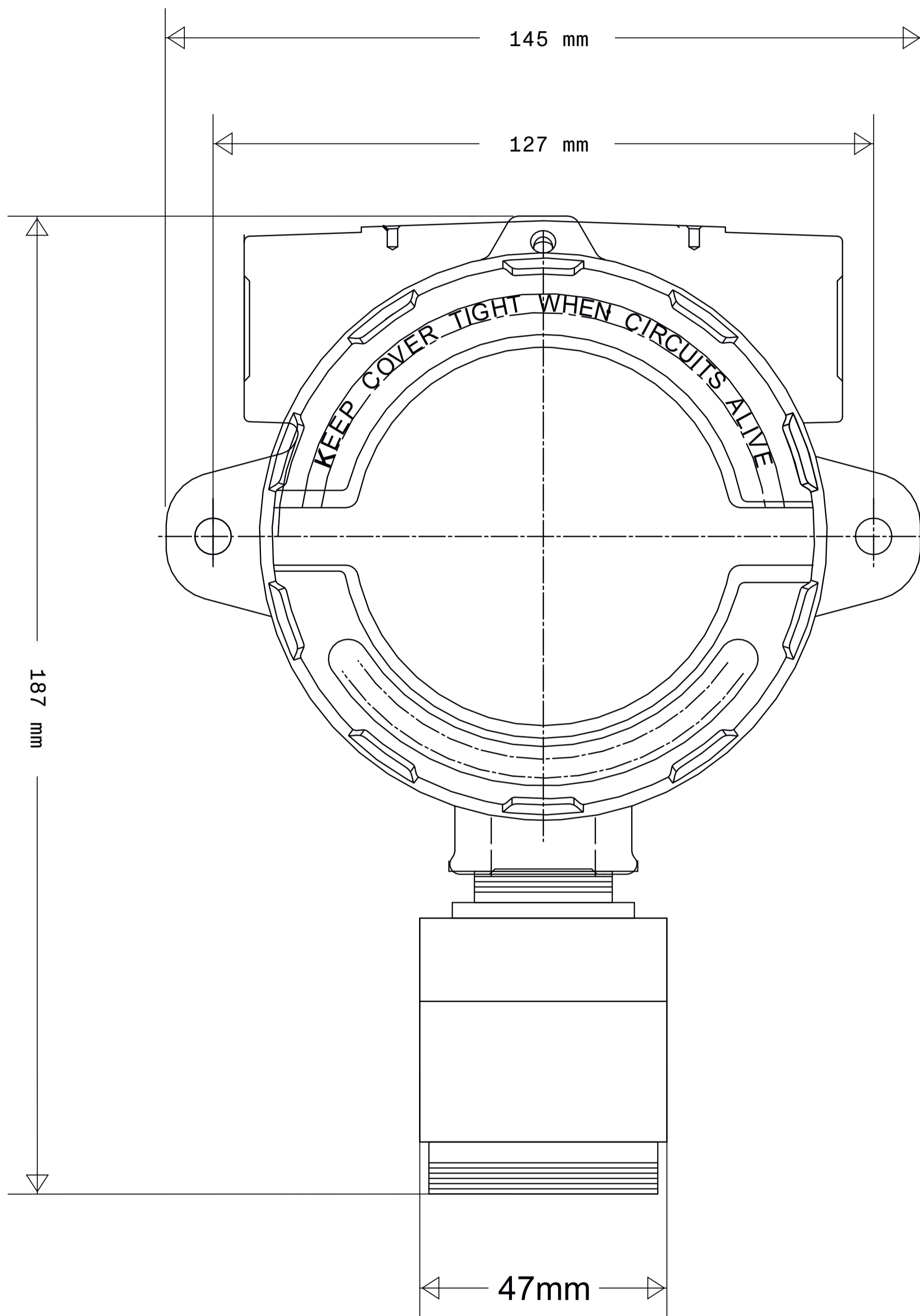
S4019ME	METHANE
S4004PR	PROPANE
S4004BU	BUTANE
S4004AT	ACETONE
S4004DT	DIMETHYL ETHER
S4004ET	ETHYL ALCOHOL
S4004PE	PENTANE
S4004PP	PROPYLENE
S4065R32	R32
S4066R1234YF	R1234yf
S4067R1234ZE	R1234ze

Sensor head codes (refrigerant gases 0-2000 ppm)

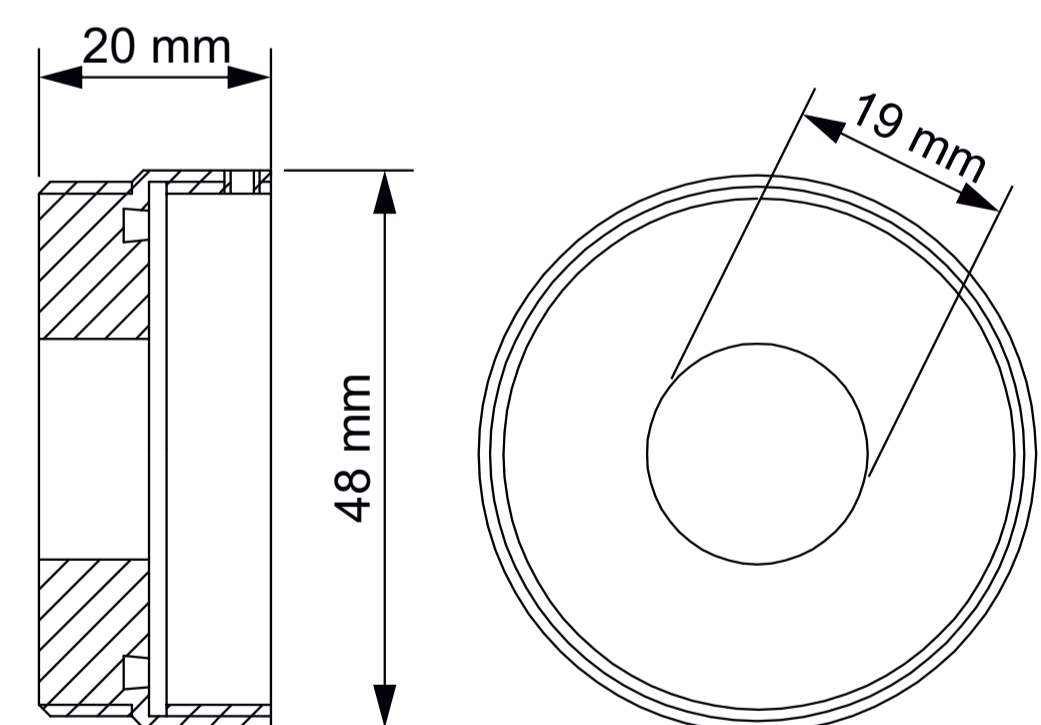
S4152R32	R32
S4026R134A	R134A
S4031R125	R125
S4033R404A	R404A
S4034R407A	R407A
S4034R407F	R407F
S4154R449A	R449A
S4035R507A	R507A
S4036R410A	R410A
S4155R417A	R417A



Disegni meccanici



Adattatore per polveri STG/AD3



Contatti/Contacts

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

+39 0293548155
sales@sensitron.it
sensitron.it

Sensitron S.r.l.

