

SMART S-MS MED

with catalytic sensor

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 T100°C Db
IP65

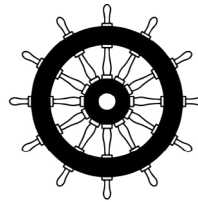
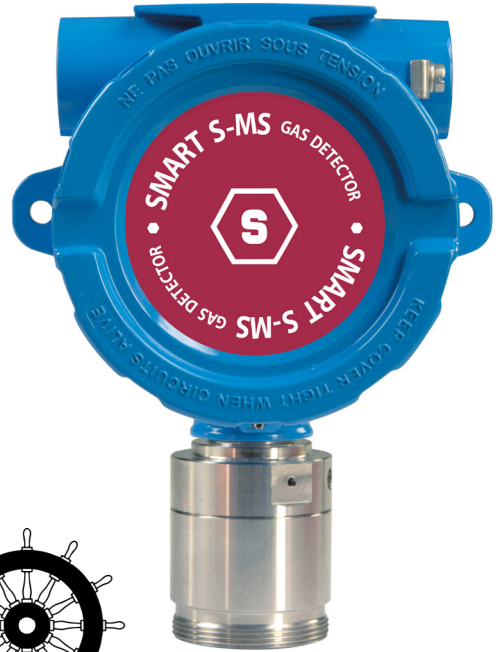
The gas detector is IECEx complaint and can be marked as follows:

Ex db IIC T5 Gb

Or, when equipped with dust adapter:

Ex db IIC T5 Gb
Ex tb IIIC 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	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
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

SMART S-MS MED

with catalytic sensor

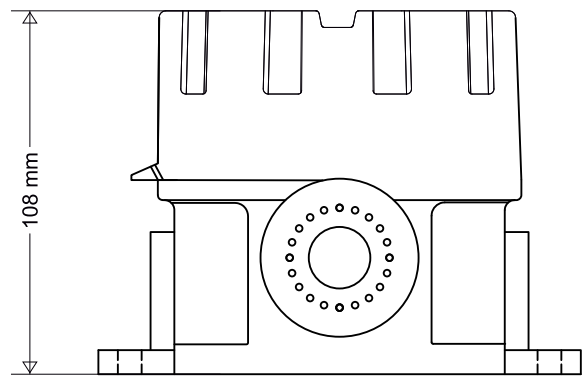
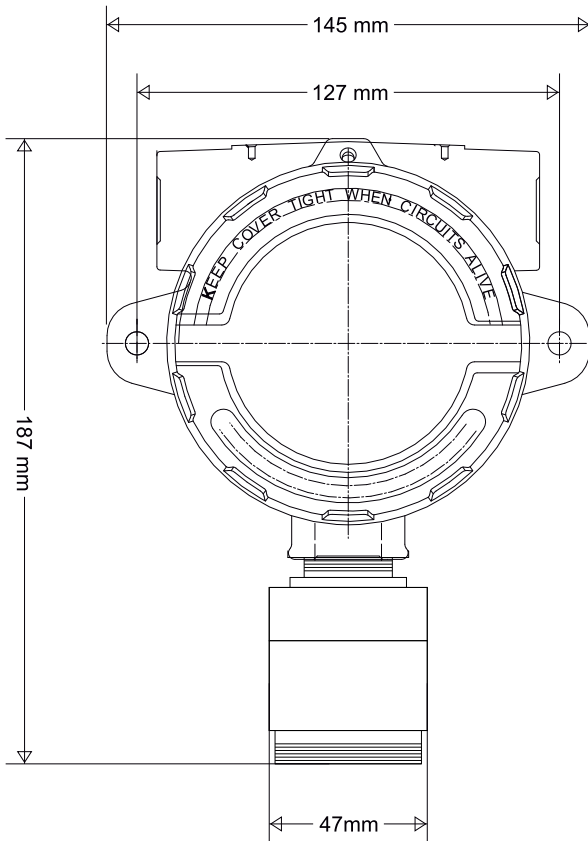
To order a SMART S-MS MED detector it's required to combine the electronic in the aluminium enclosure and the sensor head.

The ATEX code on the label will be always ST / LB / ES / S3

Product codes

SMS3A11MED	Electronic with 1 output RS485 and 4-20 mA
SMS3A13MED	Electronic with 1 output RS485 and 4-20 mA, 3 relays
S4003ME	Methane sensor head
S4003PR	Propane sensor head
S4003BU	Butane sensor head
S4003PE	Pentane sensor head
S4003NN	Nonane sensor head
S4003H2	Hydrogen sensor head

Mechanical drawings



Dust adapter
STG/AD3

