

Ribble Enviro
...everything gas detection

Data Sheet

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SMART S-MS

SIL2 Gas Detector with HART®

Made for heavy industries, SMART S-MS offers multiple enclosure options and a wide range of sensors to suit a variety of needs.



The SMART S-MS from Sensitron is a SIL2 certified fixed gas detector, built for the demanding needs of the refining and petrochemical industries. Designed for flammable and toxic gas detection, it offers customizable options, including aluminium or stainless-steel enclosures, HART® communication, and a 3-relay board. Engineered for reliability, it meets the highest industrial safety standards in harsh environments.

GASES

GAS	SENSOR TYPE
Acetone (C ₃ H ₆ O)	Catalytic pellistor
Acetylene (C ₂ H ₂)	Catalytic pellistor
Ammonia (NH ₃)	Catalytic pellistor / Electrochemical
Butane (C ₄ H ₁₀)	Catalytic pellistor
Carbon Monoxide (CO)	Electrochemical
Cyclopentane (C ₅ H ₁₀)	Catalytic pellistor
Ethane (C ₂ H ₆)	Catalytic pellistor
Ethanol (C ₂ H ₆ O)	Catalytic pellistor
Ethyl Acetate (C ₄ H ₈ O ₂)	Catalytic pellistor
Ethylene (C ₂ H ₄)	Catalytic pellistor
Heptane (C ₇ H ₁₆)	Catalytic pellistor
Hexane (C ₆ H ₁₄)	Catalytic pellistor
Hydrogen Sulphide (H ₂ S)	Electrochemical
Hydrogen (H ₂)	Catalytic pellistor / Electrochemical
ISO Butane (C ₄ H ₁₀)	Catalytic pellistor
JP8	Catalytic pellistor
LPG	Catalytic pellistor

GASES CONTINUED

GAS	SENSOR TYPE
Methane (CH ₄)	Catalytic pellistor
Methanol (CH ₃ OH)	Catalytic pellistor
Methyl Ethyl Ketone (MEK)	Catalytic pellistor
Nitric Oxide (NO)	Electrochemical
Oxygen (O ₂)	Electrochemical
Pentane (C ₅ H ₁₂)	Catalytic pellistor
Petrol Vapours	Catalytic pellistor
Propane (C ₃ H ₈)	Catalytic pellistor
Propyl Alcohol (C ₃ H ₈ O)	Catalytic pellistor
Propylene (C ₃ H ₆)	Catalytic pellistor
Styrene (C ₈ H ₈)	Catalytic pellistor
Toluene (C ₇ H ₈)	Catalytic pellistor
Xylene (C ₈ H ₁₀)	Catalytic pellistor

SPECIFICATIONS

SIZE	H145 x W187 x D108mm (5.7 x 7.4 x 4.25ins)
WEIGHT	1.5kg
ENCLOSURE MATERIAL	Die-cast aluminium with colour and chemically resistant epoxy paint
INGRESS PROTECTION	IP65
CONNECTION	2 or 3 x 3/4" NPT
POWER	12-24 Vdc
DISPLAY	None
ELECTRICAL OUTPUT	Analogue 4-20 mA output; RS485 serial output; 3 relay board (optional); HART® modem (optional)
OPERATING TEMPERATURE	-40 / +65°C (catalytic sensor); -30 / +55°C (electrochemical sensor)
HUMIDITY	20 / 90% RH @40°C (catalytic sensor); 15 / 90% RH non-condensing (electrochemical sensor)
RESPONSE TIME	t90 < 60s; t50 < 20s
PERFORMANCE	Tested in accordance with EN 60079-29-1 standard
FUNCTIONAL SAFETY	SIL2 hardware and SIL3 software
APPROVALS	ATEX, IECEx
CERTIFICATION	Ex db IIC T5 Gb

Disclaimer

Due to ongoing research and product improvement, specifications are subject to change without notice. While every effort has been made to ensure accuracy in this document, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This document is not intended to form the basis of a contract.

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