

SMART 3G-D2

SIL2 Gas Detector with Display

Standard 4-20mA and 3 relay output

Optional RS485 interface for
Modbus communication

Stainless Steel and remote sensor options

Non-intrusive one-man calibration



Specification

	with catalytic sensor	with electrochemical sensor	with infrared sensor	intrinsically safe detector
Size	H145 x W187 x D108 mm (5.7 x 7.4 x 4.25ins)			H138 x W200 x D119 mm (5.4 x 7.9 x 4.7ins)
Weight	1.9kg			2.7kg
Enclosure material	Aluminium pressure die-casting with epoxy paint chromating and chemically resistant			
Ingress Protection	IP65			
Connection	3 x 3/4" NPT			
Power	12-24 Vdc			
Display	7-segment display, 5 status LED and 4 intelligent LED			
Electrical output	Analogue 4-20 mA output; 3 relay board; serial RS485 output (optional)			Analogue 4-20 mA output; 1 or 3 relay board (optional); serial RS485 output (optional)
Operating temperature	-40 / +60°C	-30 / +55°C	-40 / +60°C	-20 / +50°C
Humidity	20 / 90% RH @40°C	15 / 90% RH non condensing	20 / 90% RH @40°C	15 / 90% RH non condensing
Response time	t90 < 60 s ; t50 < 20 s		t90 < 60 s ; t50 < 20 s	
Performance	Tested in accordance with EN 60079-29-1 standard		Tested in accordance with EN 60079-29-1 standard	
Functional safety	SIL2 hardware and SIL3 software			
Approvals	EMC, ATEX, IECEx			

Refrigerants

Refrigerant	Sensor type	Refrigerant	Sensor type
R152A	Infrared sensor	R404A	Infrared sensor
R454B	Infrared sensor	R407A	Infrared sensor
R32	Infrared sensor	R407F	Infrared sensor
R134A	Infrared sensor	R449A	Infrared sensor
SF6	Infrared sensor	R507A	Infrared sensor
R125	Infrared sensor	R410A	Infrared sensor
R1234YF	Infrared sensor	R417A	Infrared sensor
R1234ZE	Infrared sensor	R448	Infrared sensor

Gases

Gas	Sensor type	Gas	Sensor type
Acetic Acid (CH ₃ COOH)	Catalytic sensor	ISO Butyl Alcohol ((CH ₃) ₂ CHCH ₂ OH)	Catalytic sensor
Acetone (C ₃ H ₆ O)	Catalytic sensor / Infrared sensor	ISO Pentane (C ₅ H ₁₂)	Catalytic sensor
Acetylene (C ₂ H ₂)	Catalytic sensor	ISO Propyl Alcohol (C ₃ H ₈ O)	Catalytic sensor / Infrared sensor
Ammonia (NH ₃)	Catalytic sensor / Electrochemical sensor	Isobutylene (C ₄ H ₈)	Infrared sensor
Benzene (C ₆ H ₆)	Catalytic sensor	JP8	Catalytic sensor
Butadiene (C ₄ H ₆)	Infrared sensor	LPG	Catalytic sensor / Infrared sensor
Butane (C ₄ H ₁₀)	Catalytic sensor / Infrared sensor	Methane (CH ₄)	Catalytic sensor / Infrared sensor
Carbon Monoxide (CO)	Electrochemical sensor	Methanol (CH ₃ OH)	Catalytic sensor
Cyclohexane (C ₆ H ₁₂)	Catalytic sensor / Infrared sensor	Methyl Ethyl Ketone (MEK)	Catalytic sensor
Cyclopentane (C ₅ H ₁₀)	Catalytic sensor	Nitric Oxide (NO)	Electrochemical sensor
Dimethyl ether (C ₂ H ₆ O)	Infrared sensor	Nonane (C ₉ H ₂₀)	Catalytic sensor
Ethane (C ₂ H ₆)	Catalytic sensor / Infrared sensor	Oxygen (O ₂)	Electrochemical sensor
Ethanol (C ₂ H ₆ O)	Catalytic sensor / Infrared sensor	Pentane (C ₅ H ₁₂)	Catalytic sensor / Infrared sensor
Ethyl Acetate (C ₄ H ₈ O ₂)	Catalytic sensor / Infrared sensor	Petrol Vapours	Catalytic sensor / Infrared sensor
Ethyl Ether ((C ₂ H ₅) ₂ O)	Catalytic sensor	Propane (C ₃ H ₈)	Catalytic sensor / Infrared sensor
Ethylene (C ₂ H ₄)	Catalytic sensor	Propyl alcohol (C ₃ H ₈ O)	Catalytic sensor
Ethylene Oxide (C ₂ H ₄ O)	Catalytic sensor	Propylene (C ₃ H ₆)	Catalytic sensor / Infrared sensor
Heptane (C ₇ H ₁₆)	Catalytic sensor / Infrared sensor	Styrene (C ₈ H ₈)	Catalytic sensor
Hexane (C ₆ H ₁₄)	Catalytic sensor / Infrared sensor	Toluene (C ₇ H ₈)	Catalytic sensor
Hydrogen (H ₂)	Catalytic sensor / Electrochemical sensor	Tri-Methylbenzene (C ₉ H ₁₂)	Catalytic sensor
Hydrogen Sulphide (H ₂ S)	Electrochemical sensor	Vinyl Acetate (C ₄ H ₆ O ₂)	Catalytic sensor
ISO Butane (C ₄ H ₁₀)	Catalytic sensor / Infrared sensor	Xylene (C ₈ H ₁₀)	Catalytic sensor