

SMART 3G-C2

SIL2 Gas Detector

Offers optional relay output, RS485 interface, ATEX IICGD approval, ongoing self-diagnosis, and a wide range of sensor options.



The SMART3G-C2 is designed to meet industrial requirements, providing reliable monitoring of toxic, flammable, and refrigerant gases in both industrial environments and classified areas. Featuring one-man calibration through the STS/CKD+ calibration keypad, it simplifies maintenance and adjustment. The SMART3G-C2 accurately monitors flammable compounds, toxic gases, refrigerants in ppm, as well as oxygen and CO₂ levels by % volume.

REFRIGERANTS

REFRIGERANT	SENSOR TYPE
R152A	Infrared
R454B	Infrared
R32	Infrared
R134A	Infrared
SF6	Infrared
R125	Infrared
R1234YF	Infrared
R404A	Infrared
R407A	Infrared
R407F	Infrared
R449A	Infrared
R507	Infrared
R410A	Infrared
R417A	Infrared

GASES

GAS	SENSOR TYPE
Acetic Acid (CH ₃ COOH)	Catalytic
Acetone (C ₃ H ₆ O)	Catalytic / Infrared
Acetylene (C ₂ H ₂)	Catalytic
Ammonia (NH ₃)	Catalytic / Electrochemical
Benzene (C ₆ H ₆)	Catalytic
Butadiene (C ₄ H ₆)	Infrared
Butane (C ₄ H ₁₀)	Catalytic / Infrared
Carbon Dioxide (CO ₂)	Infrared
Carbon Monoxide (CO)	Electrochemical
Chlorine (CL ₂)	Electrochemical (intrinsically safe detector)
Cyclohexane (C ₆ H ₁₂)	Catalytic / Infrared
Cyclopentane (C ₅ H ₁₀)	Catalytic
Dimethyl ether (CH ₃ OCH ₃)	Infrared
Ethane (C ₂ H ₆)	Catalytic / Infrared
Ethanol (C ₂ H ₆ O)	Catalytic / Infrared
Ethyl Acetate (C ₄ H ₈ O ₂)	Catalytic / Infrared
Ethyl Ether ((C ₂ H ₅) ₂ O)	Catalytic

GASES CONTINUED

GAS	SENSOR TYPE	GAS	SENSOR TYPE
Ethylene (C ₂ H ₄)	Catalytic	Methyl Ethyl Ketone (MEK)	Catalytic
Ethylene Oxide (C ₂ H ₄ O)	Catalytic	Nitric Oxide (NO)	Electrochemical
Hydrogen (H ₂)	Catalytic	Nitrogen Dioxide (NO ₂)	Electrochemical (intrinsically safe detector)
ISO Butane (C ₄ H ₁₀)	Catalytic / Infrared	Nonane (C ₉ H ₂₀)	Catalytic
ISO Butyl Alcohol ((CH ₃) ₂ CHCH ₂ OH)	Catalytic	Oxygen (O ₂)	Electrochemical
ISO Pentane (C ₅ H ₁₂)	Catalytic	Pentane (C ₅ H ₁₂)	Catalytic / Infrared
ISO Propyl Alcohol (C ₃ H ₈ O)	Catalytic / Infrared	Petrol Vapours	Catalytic / Infrared
Isobutylene (C ₄ H ₈)	Infrared	Propane (C ₃ H ₈)	Catalytic / Infrared
JP ₈	Catalytic	Propyl alcohol (C ₃ H ₈ O)	Catalytic
LPG	Catalytic / Infrared	Propylene (C ₃ H ₆)	Catalytic / Infrared
Methane (CH ₄)	Catalytic / Infrared	Styrene (C ₈ H ₈)	Catalytic
Methanol (CH ₃ OH)	Catalytic		

SPECIFICATIONS

	WITH CATALYTIC SENSOR	WITH ELECTROCHEMICAL SENSOR	INTRINSICALLY SAFE DETECTOR
SIZE	H120 x W184 x D90 mm (4.7 x 7.2 x 3.5ins)		H138 x W200 x D119 mm (5.4 x 7.9 x 4.7ins)
WEIGHT	1.25kg		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		
ELECTRICAL OUTPUT	Analogue 4-20 mA output; 1 or 3 relay board (optional); serial RS485 output (optional)		
OPERATING TEMPERATURE	-40 / +60°C	-30 / +55°C	-20 / +50°C
HUMIDITY	20 / 90% RH @40°C	15 / 90% RH non condensing	15 / 90% RH non condensing
RESPONSE TIME	t90 < 60 s ; t50 < 20 s		

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.

For more information:

t: +44 (0)1235 557700
e: info@crowcon.com
w: www.crowcon.com

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