



GAS 101

GAS MONITOR



The GAS 101 is a standalone, self-contained single channel control unit for the detection of Toxic, Oxygen or Flammable gases. The control unit is fully configurable for a single input from either a 4~20mA transmitter or a 3 wire mV device, with internal, aspirated or remote sensor options.

The GAS 101 also has the capability to form part of our GAS 640 CANbus addressable network, therefore offering the features of our most advanced gas detection system.



GAS 101 Options

Choosing the gas detection system for your specific requirements



GAS 101

- Suited to a wide range of industries
- Sensor configuration options - remote, internal and aspirated



GAS 101 Panel Mount

- Clean flush finish within an existing panel or door
- Identical functionality as wall mounted version
- Aesthetically appealing design

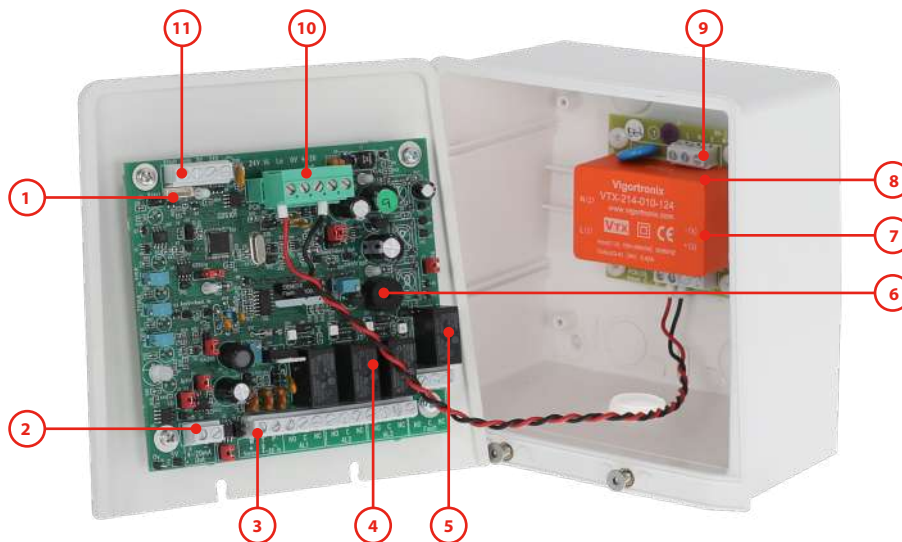


GAS 101 Double Box Arrangement

The GAS 101 double box arrangement is used for the following requirements:

- GAS 101 mains version with aspirated sensor
- GAS 101 mains version with standby battery

GAS 101 Features



GAS 101

1	Serial programming interface	7	24vDC Output (x2)
2	4~20mA Output	8	Power supply
3	Sensor input	9	AC input 85~260v AC
4	Lo, Hi and over range relays	10	24v DC input
5	Fault relay	11	Fault input and 24vDC output
6	Sounder		



Controller configuration

Remote Sensor



Main Supply



Battery Supply

Mains Supply

Internal Sensor



Main Supply



ASU

Mains Supply

Aspirate Sensor



ASU

Mains Supply



Gases and Ranges

Gas	Relative Density Air =1	Units	Standard Range	Alarm Level 1	Alarm Level 2
Oxygen (O ₂)	1.105	% Vol	0-25%	19%	17%
Carbon Monoxide (CO)	0.96	ppm	0~200ppm	20ppm	100ppm
Sulphur Dioxide (SO ₂)	2.26	ppm	0~5ppm	0.5ppm	1ppm
Nitric Oxide (NO)	1.03	ppm	0~10ppm	2ppm	3ppm
Nitrogen Dioxide (NO ₂)	2.62	ppm	0~5ppm	0.5ppm	1ppm
Chlorine (Cl)	2.41	ppm	0~5ppm	0.3ppm	0.5ppm
Chlorine Dioxide (ClO ₂)	2.33	ppm	0~1ppm	0.1ppm	0.3ppm
Hydrogen (H ₂)	0.06	ppm	0~2000ppm	250ppm	500ppm
Hydrogen Cyanide (HCN)	0.93	ppm	0~10ppm	0.9ppm	4.5ppm
Hydrogen Sulphide (H ₂ S)	1.18	ppm	0~50ppm	5ppm	10ppm
Hydrogen Chloride (HCl)	1.26	ppm	0~10ppm	1ppm	5ppm
Ammonia (NH ₃)	0.58	ppm	0~100ppm	25ppm	35ppm
Ozone (O ₃)	1.66	ppm	0~1ppm	0.1ppm	0.2ppm
Hydrogen Fluoride (HF)	0.7	ppm	0~10ppm	1.8ppm	3ppm
Methane (CH ₄)	0.55	% LEL	0~100%	20%	40%
Propane (C ₃ H ₈)	1.55	% LEL	0~100%	20%	40%
Butane (C ₄ H ₁₀)	2.11	% LEL	0~100%	20%	40%
Pentane (C ₅ H ₁₂)	2.48	% LEL	0~100%	20%	40%
LPG	1.55	% LEL	0~100%	20%	40%
Hydrogen (H ₂)	0.06	% LEL	0~100%	20%	40%
Carbon Dioxide (CO ₂)	1.52	% Vol	0-2%	0.50%	1.50%
Methane (CH ₄)	0.55	% LEL	0~100%	20%	40%
Propane (C ₃ H ₈)	1.55	% LEL	0~100%	20%	40%
Butane (C ₄ H ₁₀)	2.11	% LEL	0~100%	20%	40%
Pentane (C ₅ H ₁₂)	2.48	% LEL	0~100%	20%	40%
LPG	1.55	% LEL	0~100%	20%	40%
Ethanol (C ₂ H ₆ O)	1.51	% LEL	0~100%	20%	40%
Iso-butylene (C ₄ H ₈)	1.94	ppm	200ppm	20ppm	40ppm

Over 700 gas types are available – Contact us with your requests

Specification

	GAS 101	GAS 101 Panel Mount
Channels	Single Channel	
Measurements	Combustible Gas – L.E.L, % Vol. Toxic Gas – ppm, % Vol. Oxygen - % Vol. – Depletion / Enrichment Refrigerant – ppm Any 4~20mA Transmitter	
Sensor Inputs	Bridge type 3 wire mv (Catalytic) 2 or 3 wire 4~20mA (Electrochemical) 4~20mA (Infrared / Catalytic / PID / Semiconductor)	
Outputs	4-20mA - Sink/Source 500mA @ 24v DC CANbus Inhibit active indicator O/C 100mA – 24vDC	
Relays	1, 2, 3 and fault alarm relays (4) – S.P.C.O normally, de-energised – energised option, latched or unlatched All contacts rated 3A-230v AC	
Sensor Cable	3 Core 1.5mm ² screened 1.5km	
Power	24v nominal 18v to 30vDC 85~260v AC 50/60Hz The two voltages may be utilised simultaneously – standby supply 4 Watts – Full Alarm	24v nominal 18v to 30v DC 4 Watts – Full Alarm
Panel Indication	Two line alpha numeric back lit display Power – Green LED Alarms 1, 2, 3 Red LED's Fault – Amber LED Alarms Inhibit – Amber LED	
Audible Alarm	1, 2, 3, and Fault Alarms – Mutable 85dB @ 10cm	
Data Logging	Intervals – Variable Time Rollover / Stop Storage – 2,880 Readings *Requires RS232 Lead, PC or Laptop (dedicated)*. HyperTerminal (download www.gds-technologies.co.uk)	
Operating Temperature	-10 to + 50°C	
Storage Temperature	+5°C to +55°C	
Humidity	0-95 non condensing	
Ingress Protection	IP64	IP50
Dimensions	24vDC Version: H-145 L-145 D-65mm AC Mains Version: H-145 L-145 D-100mm	H-117 W-115 D-53mm Panel Cut Out: W 105 H 90mm
Weight	0.8KG	0.26KG
Enclosure Material	ABS Flame Retardant FR40 – Lid Screws M4SS	
Standards	EMC BS EN 50270 Low Voltage BS EN 61010-1	

