GDS101
GAS MONITOR

GDS TECHNOLOGIES

PRODUCT DESCRIPTION:

The GDS101 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 GDS101 also has the capability to form part of our Combi CANbus addressable network, therefore offering the features of our most advanced gas detection system.

GDS101 OPTIONS

Choosing the gas detection system for your specific requirements

GDS101

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

GDS101 Panel Mount

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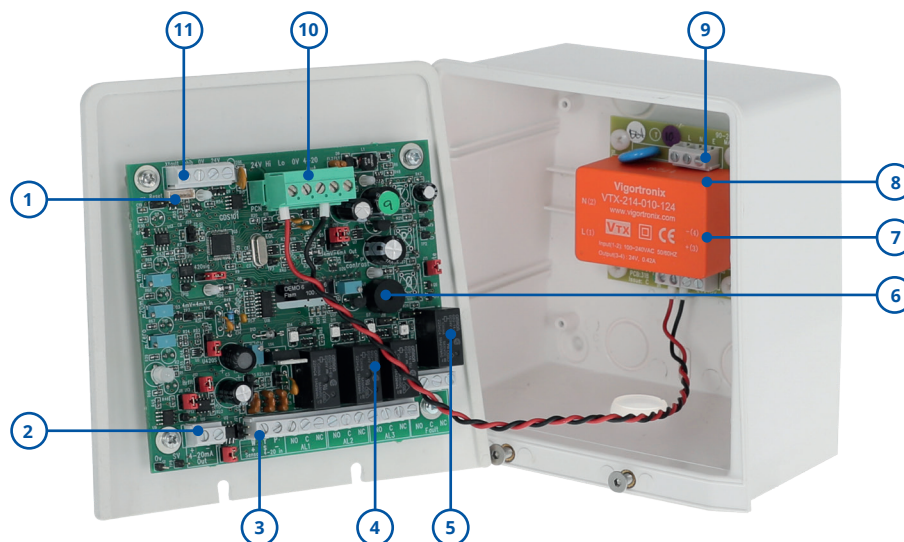- Aesthetically appealing design

GDS101 Double Box Arrangement

The GDS101 double box arrangement is used for the following requirements:

- GDS101 mains version with aspirated sensor
- GDS101 mains version with standby battery

GDS101 FEATURES

GDS101			
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

| XDI-Win | XDI | 15/30J-Win | 15J | XDI-Win | XDI | 15/30J-Win | 15J |

Mains Supply

Battery Supply

Mains Supply

INTERNAL SENSOR

Mains Supply

Battery Supply

Mains Supply

ASPIRATED SENSOR

ASU

Mains Supply

Other configuration options available for DC operation.

E: sales@gds-technologies.co.uk   **T:** +44 (0)113 286 0166

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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_2S)	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_3H_8)	1.55	% LEL	0~100%	20%	40%
Butane (C_4H_{10})	2.11	% LEL	0~100%	20%	40%
Pentane (C_5H_{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_3H_8)	1.55	% LEL	0~100%	20%	40%
Butane (C_4H_{10})	2.11	% LEL	0~100%	20%	40%
Pentane (C_5H_{12})	2.48	% LEL	0~100%	20%	40%
LPG	1.55	% LEL	0~100%	20%	40%
Ethanol (C_2H_{60})	1.51	% LEL	0~100%	20%	40%
Iso-butylene (C_4H_8)	1.94	ppm	200ppm	20ppm	40ppm

Over 700 gas types are available – Contact our sales department with your requests - sales@gds-technologies.co.uk

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SPECIFICATION

	GDS101	GDS101 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 1.5mm² 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	

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