



GAS 640

GAS DETECTION SYSTEMS

The GAS 640 range of multi-channel control systems offers an incredibly versatile approach whilst ensuring a reliable safety system across all industries and applications. Having the capacity to monitor up to 64 addressable and 16 direct sensors, 8 of which can be converted to accept mV catalytic sensors. Larger system requirements can also be met with over 1000 addressable sensors possible through a networked GAS 640 solution.

Designed to take the user experience to the next level, the GAS 640 can be installed in all customer environments with configurations available as a wall mounted unit, 19" rack system, panel and din rail mount.

GAS 640 features a vast range of optional equipment including GAS 640 software, enabling full data logging facilities with system management, providing real time views showing sensor locations, alarm status and actual gas values.



GAS 640 options

Choosing the gas detection system for your specific requirements

Designed to operate across multiple industries and applications, the unique system architecture offers flexibility with up to six different control panel options. The intuitive user interface sees parameters set via the front panel or alternatively via PC, and detectors supplied pre-calibrated. GAS 640 can be customised to meet your specific requirements, without the need for extensive cabling, providing a comprehensive, highly configurable safety system.

*Dependent on chosen model



GAS 640 / 80

- 1 to 64 addressable sensors
- 1-16 direct 4~20 mA sensors
- 1-8 plug in direct catalytic mV sensor modules
- Network up to 16 controllers enabling up to 1024 addressable sensors + direct sensors



GAS 640 / 64

- 1 to 64 addressable sensors
- Single 4 core sensor network
- 16 controller network



GAS 640 / 16

- 1-16 direct 4~20 mA sensors
- 1-8 plug in direct catalytic mV sensor modules
- 2/3 core sensor cable network
- 16 controller network



**GAS 640 19" Rack System
(GAS 640 / 80, 64, 16)**

- Lightweight aluminium 19" Rack
- 1 to 64 addressable sensors
- 1-16 direct 4~20 mA sensors
- 1-8 plug in direct catalytic mV sensor modules
- 16 controller network



**GAS 640 Din Rail Mount
(GAS 640 / 64)**

- Robust mild steel din rail mount to save time and work
- 1 to 64 addressable sensors
- Single 4 core sensor network

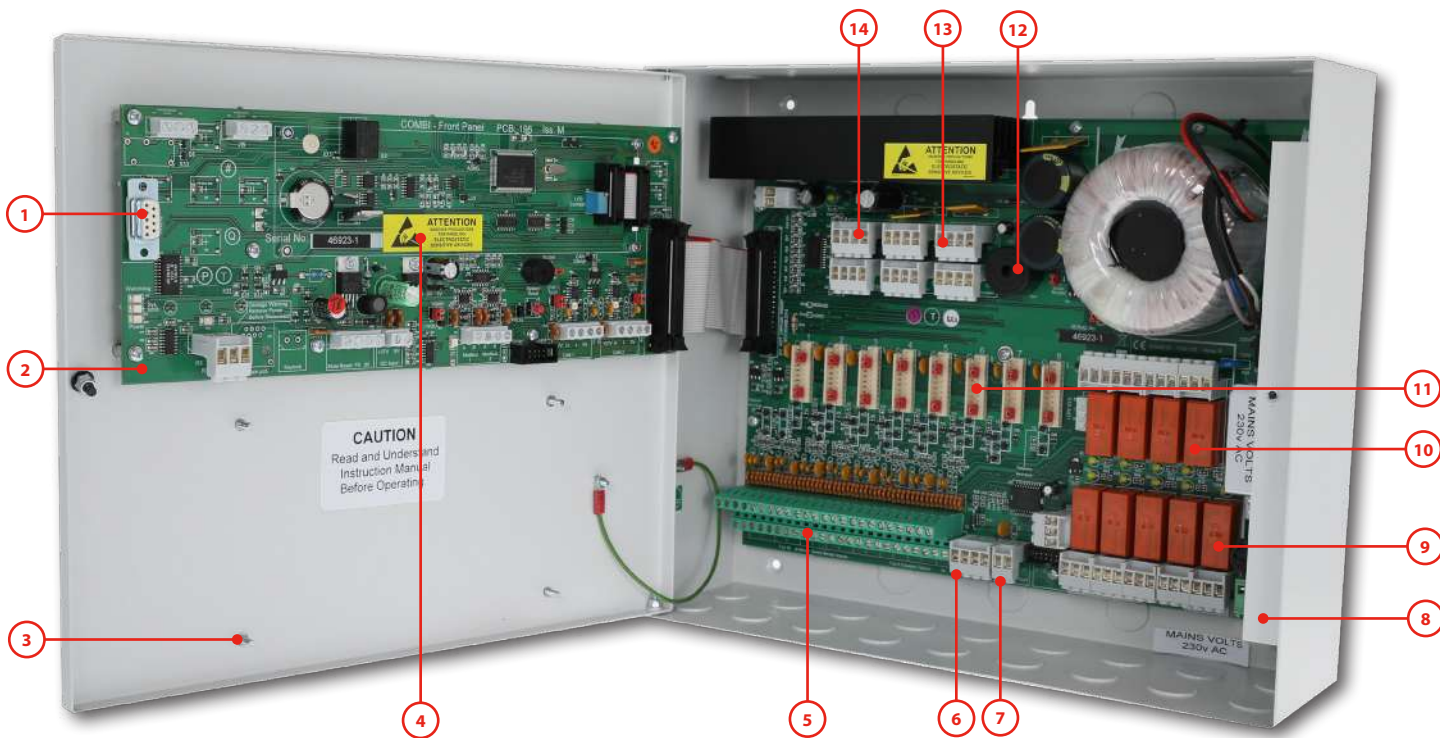


**GAS 640 Panel Mount
(GAS 640 / 64)**

- Clean, flush finish within an existing panel or door
- 1 to 64 addressable sensors
- Single 4 core sensor network



GAS 640 features

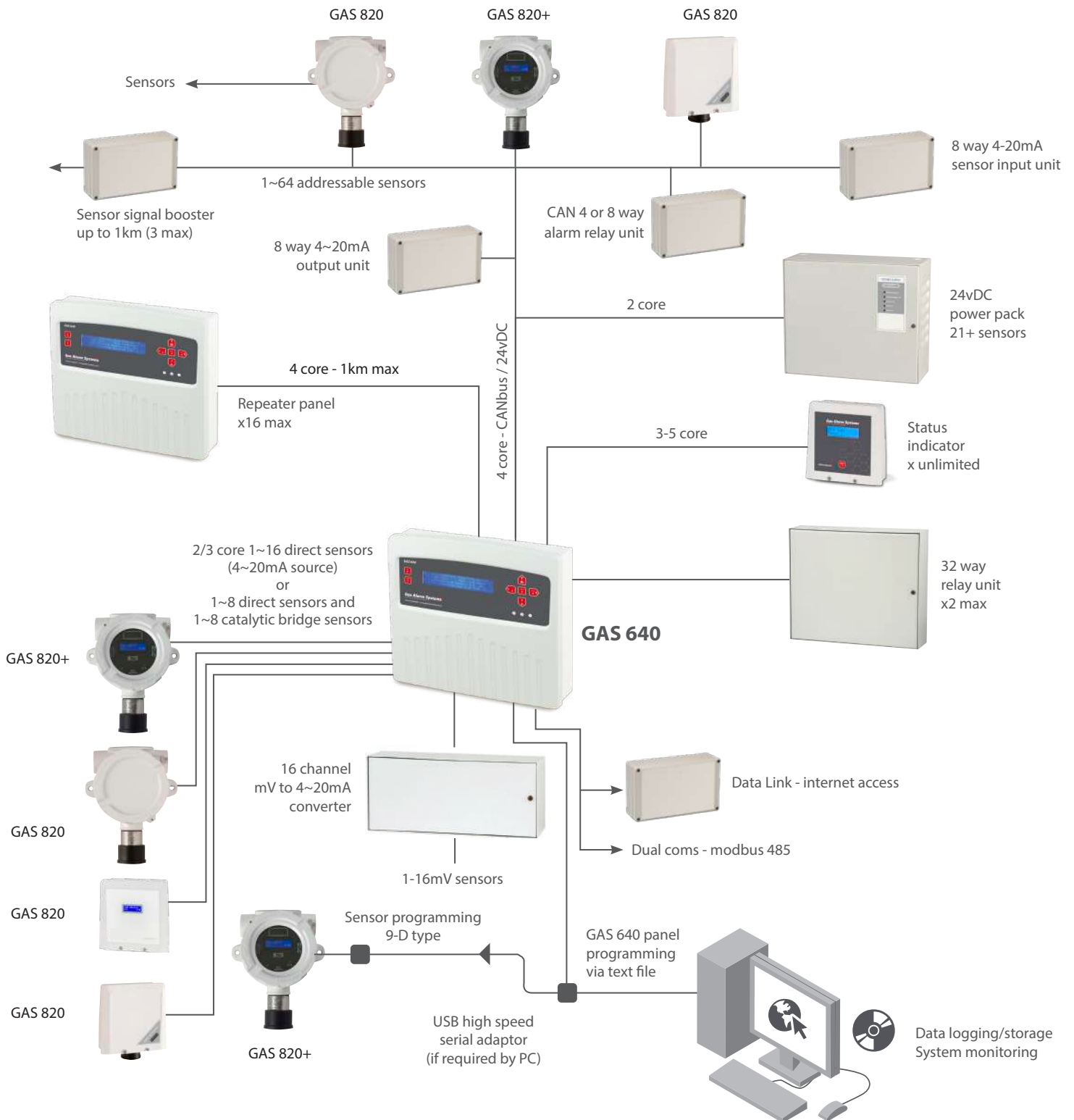


GAS 640 80 Control Unit			
1	RS232 Programmable Input	8	AC Input
2	Front Panel Status LCD's	9	Global Sounder Relay
3	Optional Battery back up mounting	10	Standard 8 Relays
4	Front Panel Display PCB	11	Optional 1~8 plug in catalytic module ports
5	1~16 4~20mA Direct Detector Input Connections	12	Sounder
6	DC Input	13	64 Addressable CANbus Detector Input Connections
7	DC Output	14	MODbus Connections

Optional Equipment	
Network Controller	8 Way 4~20mA Output Unit
Repeater Panel	4 Way Alarm Relay Unit
CAN Status Indicator	8 Way Alarm Relay Unit
GAS 640 Soft	32 Way Alarm Relay Unit
Data Link	Sensor Signal Booster 1K+
1~8 Plug In Catalytic Modules	Weatherproof Over housing IP66
16 Way mV Catalytic Converter - 4~20mA Outputs	Battery Back-Up 5A @ 24v DC to 13A @ 24v DC
8 Way 4~20mA Input CAN Signal Converter	

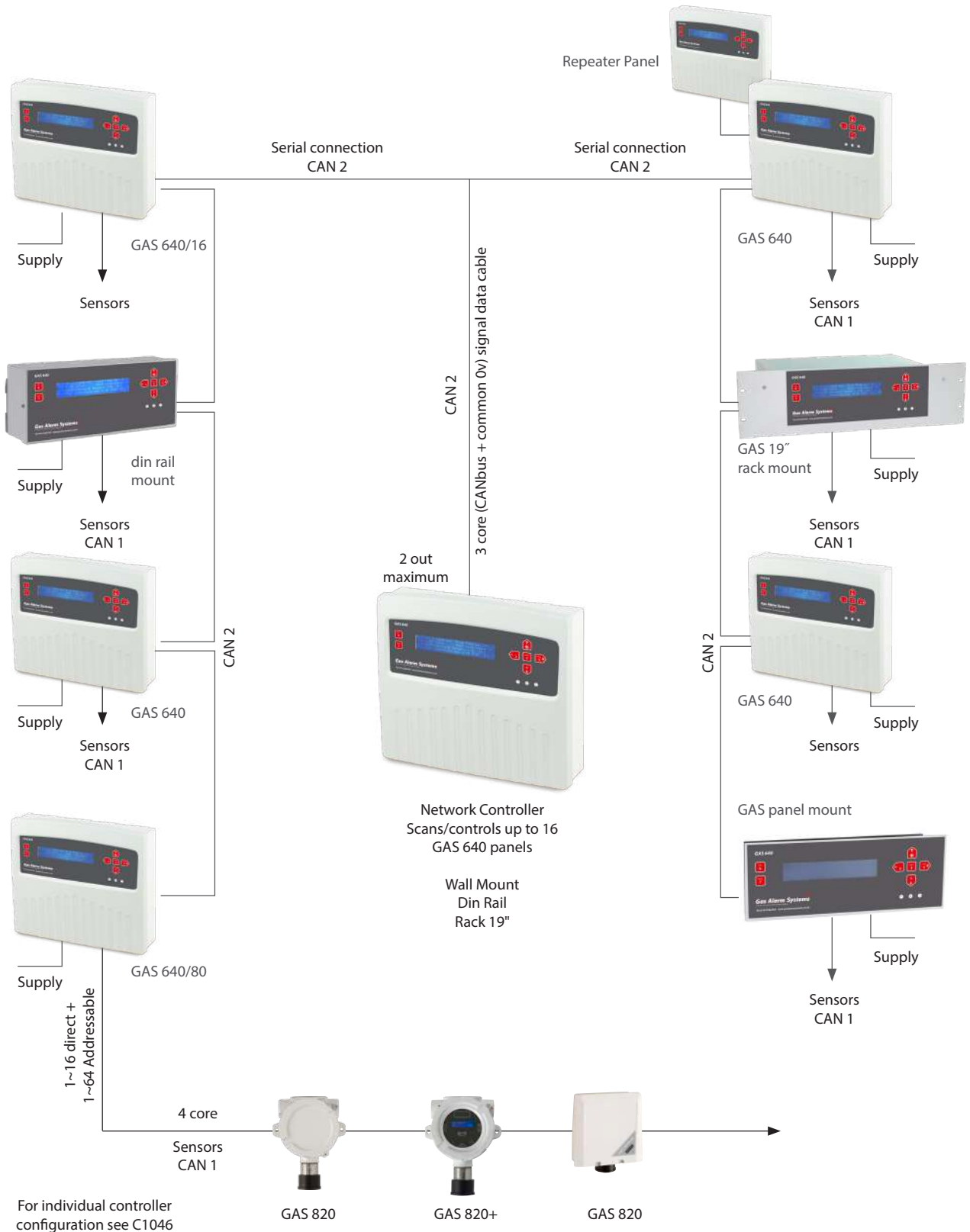


GAS 640 controller configuration





GAS 640 network controller configuration





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 ₆₀)	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 640 80	GAS 640 64	GAS 640 16	GAS 640 Din Rail Mount	GAS 640 Panel Mount	GAS 640 19" Rack
Sensors	1-64 addressable 4 wire 16 direct 4~20mA - 3 wire 1~8 optional mV bridge inputs 3 wire	1-64 addressable 4 wire	16 direct 4~20mA 1~8 optional mV bridge inputs 3 wire		1-64 addressable 4 wire	1-64 addressable 4 wire 16 direct 4~20mA - 3 wire 1~8 optional mV bridge inputs 3 wire
Measurements	Combustible Gas – L.E.L, % Vol. Toxic Gas – ppm Oxygen - % Vol. – Depletion / Enrichment Refrigerant – ppm Any 4~20mA Transmitter					
Sensor Types	Catalytic, Electrochemical, Infrared, PID, Semiconductor					
Control Panels Available	Wall Mount Unit 19" Rack System	Wall Mount Unit 19" Rack System Panel Mount Din Rail Mount	Wall Mount Unit 19" Rack System		Wall Mount Unit 19" Rack System Panel Mount Din Rail Mount	Wall Mount Unit 19" Rack System
Outputs	MODbus 8 User Selectable Relays Optional: 4~20mA / Up to 64 Relays					
Relays	Global relay S.P.C.O - Inhibit relay S.P.C.O 8 user selectable relays Type: 2 D.P.C.O/6 S.P.C.O rated @ 5A-230v AC Relay Modes: NE/ND Delay			See options		Global relay S.P.C.O Inhibit relay S.P.C.O
Power	230/115v AC or 24v DC ± 15% Control unit 7.5w quiescent 17w full alarm Sensor – 1.25w Internal power supply 20 sensors max					
Panel Indication	Dot matrix LCD 4 line 40 character-indicates sensor location, gas type, alarm status, system fault, sensor line fault, sensor fault, inhibit, real time clock, event memory Red LED – global alarm Amber LED – global fault Amber LED - inhibit					
Audible Alarm	Alarm / Fault – Permanent Mute Option 68dB @ 1m					
Digital Communications	RS232 Data Log / Event Log RS485 x 2 – MODbus					
Event Logging	GAS 640 Soft – Full data logging management tool Individual sensor logging – 1-60 min storage readings Data Link – Remote logging					
Operating Temperature	-10°C to +50°C					
Storage Temperature	+5°C to +55°C					
Humidity	0-95 non condensing					
Ingress Protection	IP52 *IP65 available with over housing*			IP52	IP50	IP50
Dimensions	315W x 265H x 95D			295W x 120H x 80D	310W x 115H x 50D	19" x 3U x 300mm
Weight	5.5KG	4.5KG	5.5KG	1.5KG	0.7KG	6KG
Enclosure	Ash Grey BSA02, Mild Steel Powder Coat				Brushed Aluminium	
Standards	EMC BSEN 50270 Low Voltage BS EN 61010-1					

