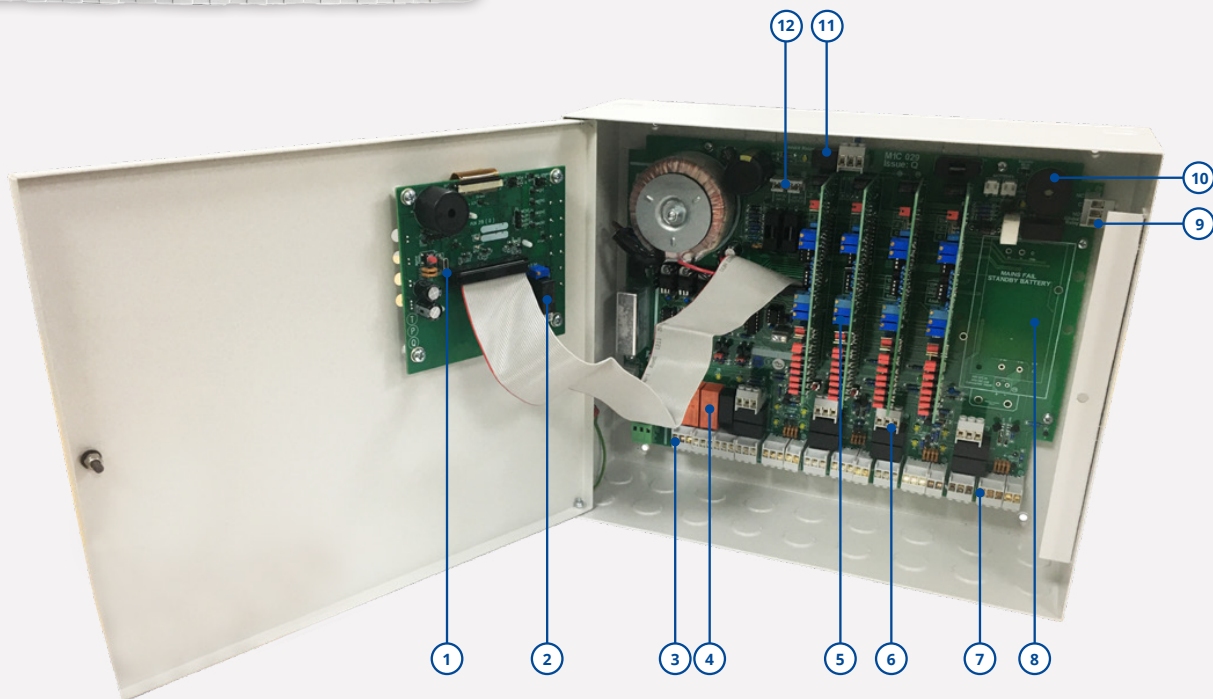


# WATCHGAS 404+

Gas detection system



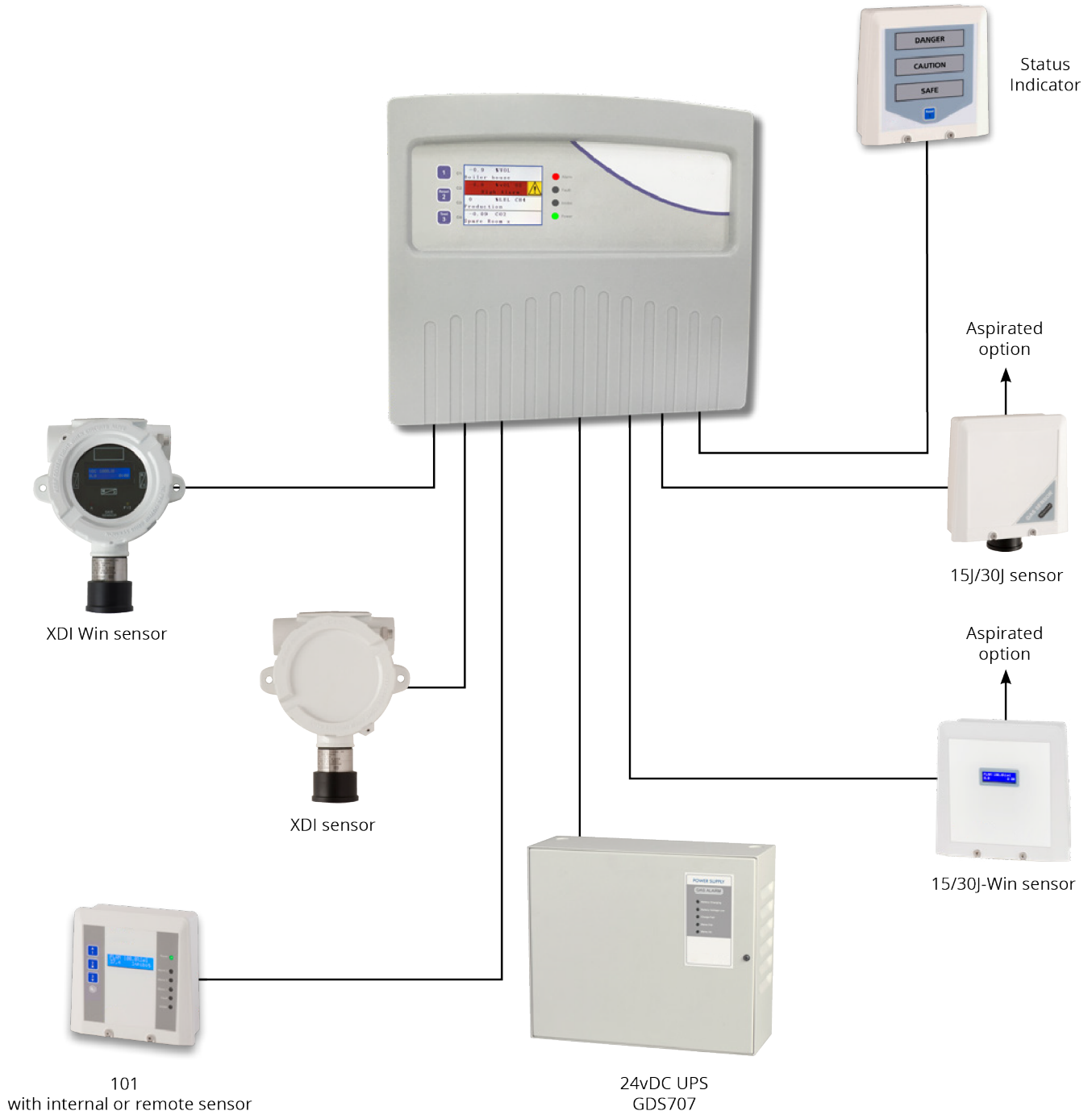
WATCHGAS 404+ is an easily configurable, wall mounted or 19" rack control system that supports up to four channels of gas detection. The versatile configuration approach enables you to take control of your safety system and configure it to meet your needs for a wide range of applications.



WATCHGAS 404+			
1	USB Port	7	Sensor terminals
2	Third alarm relay	8	Optional standby batteries
3	AC Input	9	Global relay alarm
4	Hi, Lo and fault global relays	10	Sounder
5	Plug in alarm channel cards	11	Inhibit relay
6	Hi, Lo channel relays	12	DC Input / Output

# WATCHGAS 404+

Gas detection system



## AVAILABLE GASES

GASES	RELATIVE DENSITY AIR =1	UNITS	STANDARD RANGE	ALARM LEVEL 1	ALARM LEVEL 2
O <sub>2</sub> Oxygen	1.105	% Vol	0-25%	19%	17%
CO Carbon Monoxide	0.96	ppm	0~200 ppm	20 ppm	100 ppm
SO <sub>2</sub> Sulfur Dioxide	2.26	ppm	0~5 ppm	0.5 ppm	1 ppm
NO Nitric Oxide	1.03	ppm	0~10 ppm	2 ppm	3 ppm
NO <sub>2</sub> Nitrogen Dioxide	2.62	ppm	0~5 ppm	0.5 ppm	1 ppm
CL Chlorine	2.41	ppm	0~5 ppm	0.3 ppm	0.5 ppm
ClO <sub>2</sub> Chlorine Dioxide	2.33	ppm	0~1ppm	0.1 ppm	0.3ppm
H <sub>2</sub> Hydrogen	0.06	ppm	0~2000 ppm	250 ppm	500 ppm
HCN Hydrogen Cyanide	0.93	ppm	0~10 ppm	0.9 ppm	4.5 ppm
H <sub>2</sub> S Hydrogen Sulphide	1.18	ppm	0~50 ppm	5 ppm	10ppm
HCL Hydrogen Chloride	1.26	ppm	0~10 ppm	1 ppm	5 ppm
NH <sub>3</sub> Ammonia	0.58	ppm	0~100 ppm	25 ppm	35ppm
O <sub>3</sub> Ozone	1.66	ppm	0~1 ppm	0.1 ppm	0.2ppm
HF Hydrogen Fluoride	0.7	ppm	0~10 ppm	1.8 ppm	3 ppm
CH <sub>4</sub> Methane	0.55	% LEL	0~100%	20%	40%
C <sub>3</sub> H <sub>8</sub> Propane	1.55	% LEL	0~100%	20%	40%
C <sub>4</sub> H <sub>10</sub> Butane	2.11	% LEL	0~100%	20%	40%
C <sub>5</sub> H <sub>12</sub> Pentane	2.48	% LEL	0~100%	20%	40%
H <sub>2</sub> Hydrogen	0.06	% LEL	0~100%	20%	40%
CO <sub>2</sub> Carbon Dioxide	1.52	% Vol	0-2%	0.50%	1.50%
CH <sub>4</sub> Methane	0.55	% LEL	0~100%	20%	40%
C <sub>3</sub> H <sub>8</sub> Propane	1.55	% LEL	0~100%	20%	40%
C <sub>4</sub> H <sub>10</sub> Butane	2.11	% LEL	0~100%	20%	40%
C <sub>5</sub> H <sub>12</sub> Pentane	2.48	% LEL	0~100%	20%	40%
LPG	1.55	% LEL	0~100%	20%	40%
C <sub>2</sub> H <sub>60</sub> Ethanol	1.51	% LEL	0~100%	20%	40%
C <sub>4</sub> H <sub>8</sub> Iso-butylene	1.94	ppm	200 ppm	20 ppm	40 ppm

## SPECIFICATION

CHANNELS	1-4	
MEASUREMENTS	Combustible gas – LEL, % Vol. Toxic gas – ppm 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) 3 wire 4~20mA (Infrared / Catalytic / PID / Semiconductor)	
CHANNEL OUTPUTS	Analogue output 4~20mA into 200 ohms max load	
RELAYS	<p><b>Common Relays</b></p> <ul style="list-style-type: none"> <li>• Low Alarm RL1 – D.P.C.O. normally energised or de-energised– default set ND</li> <li>• High Alarm RL2 – D.P.C.O normally energised or de-energised– default set ND</li> <li>• Latched or Unlatched – default set latched</li> <li>• Latched or Unlatched – default set latched</li> <li>• Third Alarm RL4 – D.P.C.O normally energised or de-energised- default set ND</li> <li>• Fault Alarm RL3 – S.P.C.O. normally energised or de-energised– default set ND</li> <li>• Latched or Unlatched – default set latched</li> <li>• Latched or Unlatched – default set latched</li> <li>• Global Alarm Relay RL5 – S.P.C.O. changes on all alarms and is resettable at all times</li> <li>• All contacts rated 3A/230v AC</li> <li>• Inhibit Indicator - RL6 - S.P.C.O contacts 1A@24v DC</li> </ul> <p><b>Channel Relays</b></p> <ul style="list-style-type: none"> <li>• High and Low Alarm relays S.P.C.O. normally energised or de-energised– default set ND</li> <li>• Latched or Unlatched – default set latched</li> <li>• All contacts rated 3A/230v AC</li> </ul>	
SENSOR CABLE	3 Core 1.5mm <sup>2</sup> screened 1.5km	
POWER	230/115v AC or 24v DC 12 Watts – Full Alarm Quiescent – 0.5A	
PANEL INDICATION	Power – Green LED Mains Fail – Power Indicator change Green to Amber – when battery fitted Alarms – Red LED and display channel with alarm text Fault – Amber LED Display – Gas Readout, alarm status, gas type, location System Test – Alarm LED's Flashing / Relay Changeover Alarm Relays Inhibit – LED	
AUDIBLE ALARM	Lo, Hi, OR and Fault 68dB @ 1m Permanent Mute Option	
OPERATING TEMPERATURE	-10 to + 50° C	
HUMIDITY	Humidity	
INGRESS PROTECTION	IP52 *IP65 available with over housing*	<b>19" Rack System:</b> IP 50
DIMENSIONS	GDS404+ Standard: 315W x 265H x 95D GDS404+ Industrial Box 1: 386W x 280H x 137D GDS404+ Industrial Box 2: 386W x 500H x 137D	19" x 3U X 300mm
WEIGHT	3.6 KG	<b>19" Rack System:</b> 4 KG
ENCLOSURE	Mild Steel Finish - Powder coat Ash Grey BSA01	<b>19" Rack System:</b> Brushed Aluminium
STANDARDS	EMC BS EN 50270 Low Voltage Directive BS EN 61010-1	
MISCELLANEOUS	Remote Accept / Reset System Lamp Test Enclosure – 20mm Cable Entry – Base / Rear Optional Battery Backup – 1 hour Delay to Alarm Option 10s, 30s, 10m	