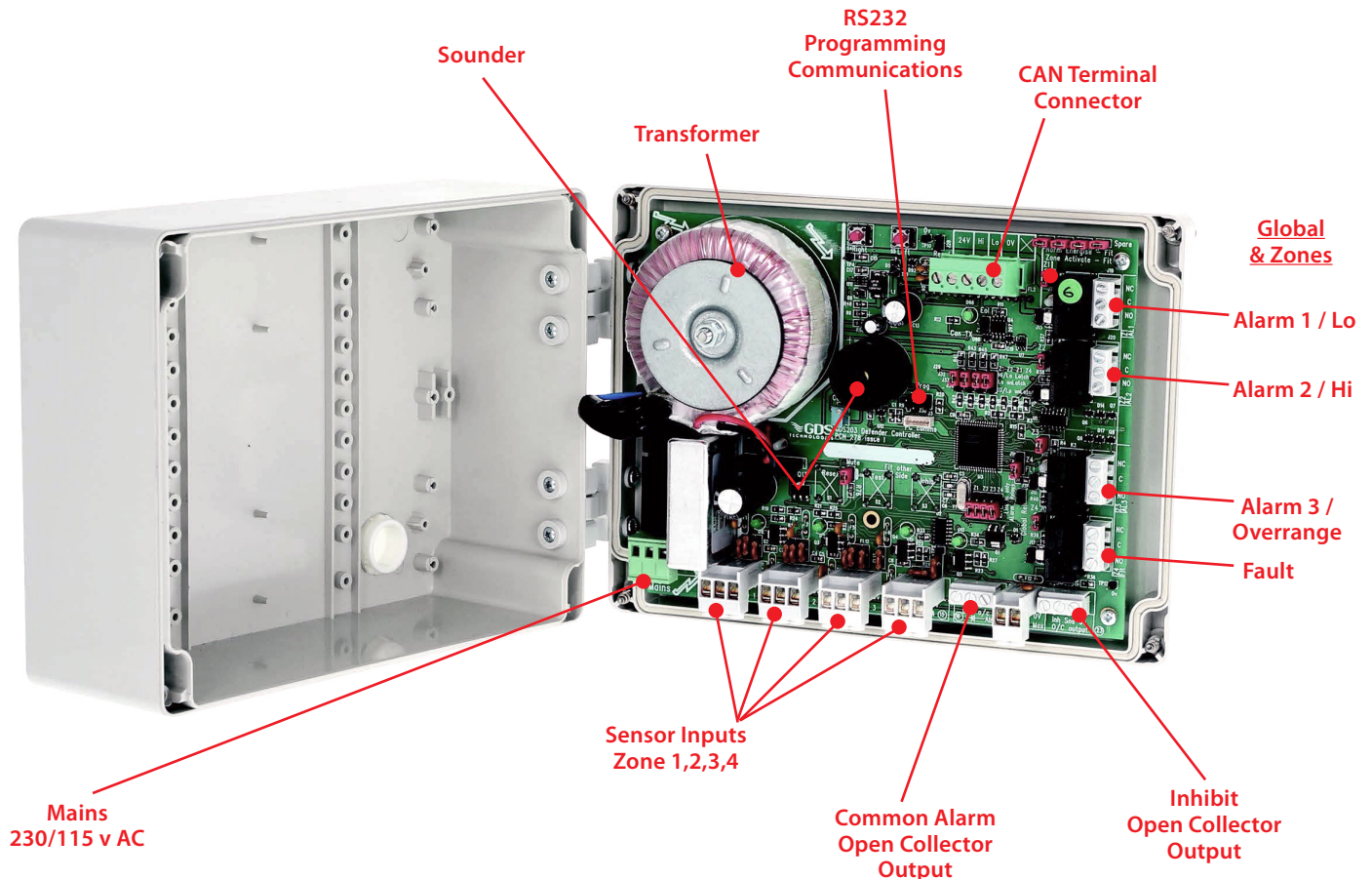


The WatchGas Defender is our most cost effective gas detection solution. The control unit has an advanced design using the latest technology, with versatility to accommodate numerous environments such as swimming pools, breweries and car parks. The WatchGas Defender also has the capability to form part of our Combi CANbus addressable network, therefore offering the features of our most advanced gas detection system.



WatchGas Defender Features



OPTIONAL EQUIPMENT

Stand Alone Single Sensor Power Supply (13A socket-jack plug)

Defender Power Supply 2.5A @ 24v DC for 16-35 sensors

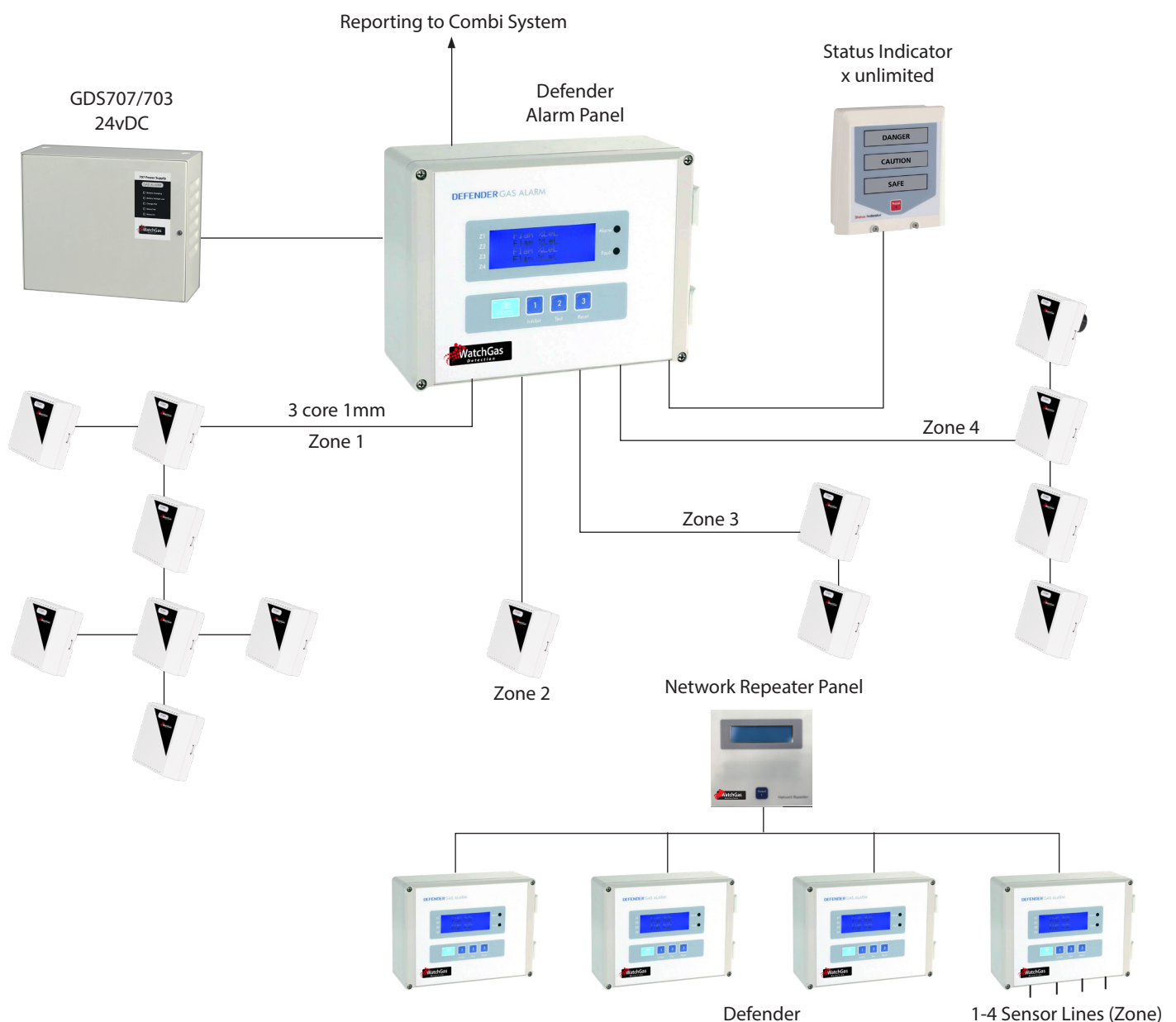
WatchGas 707 Power Supply 11A @24v DC for -> 64 sensors

CAN Status Repeater 1~16 Defender Alarm Panels

Network Repeater Panel

(centralised panel – inputting up to 20 Defender units)

WATCHGAS DEFENDER CONTROLLER CONFIGURATION



SPECIFICATION

WatchGas Defender Panel

Sensors	1-4 Zones 1 to 16 sensors (Standard) 1 to 64 Sensors (4 Zones, 16 per Zone) Additional Power Supply Required
Measurements	Combustible Gas – L.E.L, % Vol. Toxic Gas – ppm, % Vol. Oxygen - % Vol. – Depletion / Enrichment Refrigerant – ppm Any 4~20mA Transmitter
Sensor Types	Catalytic, Electrochemical, Infrared, PID, Semiconductor
Relays	Four Selectable Relays S.P.C.O. 3A @ 230v AC N/E – N/D Latched / Unlatched Each Zone A1/A2/A3 or A2/A3 only or Global (All Zones 1-4)
Sensor Cable	3 Core 1mm ² Cable Length – 200m Max x4
Power	115/230v AC or/and 24v DC ± 15% 50/60Hz 3Watts – Full Alarm
Panel Indication	<p>Alarm Red LED / Sounder Display Text A1, A2, A3</p> <p>Fault Amber LED / Sounder Display Text Flt (Fault)</p> <p>Display As above + 4 Line User Text</p> <p>Inhibit Amber LED Display text Inh (Inhibit)</p>
Audible Alarm	Internal 85dB @ 30cm Open Collector Driver Output – 100mA @24 v DC (follows internal sounder operation)
Digital Communications	CANbus (When used with the GDS Combi Controller)
Operating Temperature	-10°C to + 50°C
Storage Temperature	+5°C to +55°C
Humidity	0-95 %RH non condensing
Ingress Protection	IP65
Dimensions	(H) 150mm x (L) 200mm x (D) 80mm
Weight	920 g
Enclosure Material	Polycarbonate
Standards	EMC BS EN 50270 Low Voltage BS EN 61010-1

[Beacon sounder optional](#)

WatchGas Defender Sensor

(Not for use in potentially explosive atmospheres – Zoned Areas)

Measurements	Combustible Gas – LEL, % Vol. Toxic Gas – ppm, % Vol. Oxygen - % Vol. – Depletion / Enrichment Refrigerant – ppm Any 4~20mA Transmitter
Sensor Types	Catalytic, Electrochemical, Infrared, PID, Semiconductor
Relays	1 S.P.C.O. 3A @ 230v AC Global A1 / A2 / A3 A2 / A3 Only Option Latched / Unlatched – Selectable N/E – N/D
Power	24v nominal / 18 to 30v DC Optional 90~260v AC Mains 1.2 Watts - Full Alarm
Indicators	Power - Green LED Gas Alarm - Green LED to Red A1 – Slow Flash A2 – Rapid Flash A3 – Constant Fault – Amber
Audible Alarm	85dB @ 10cm
Operating Temperature	-10°C to + 50°C
Storage Temperature	-5°C to + 55°C
Ingress Protection	IP42 – Standard IP64 – Weatherproof
Dimensions	(H) 83mm x (L) 83mm x (D) 36mm – Standard (H) 145mm x (L) 145mm x (D) 60mm – Weatherproof
Options	Duct Sensor Probe – 27 x 28mm Diameter

GASES AND RANGES

Gas	Relative Density Air =1	Sensor Type	Units	Standard Range	Alarm Level 1	Alarm Level 2
Carbon Monoxide (CO)	0.96	Electrochemical	ppm	0-200ppm	20ppm	100ppm
Sulphur Dioxide (SO ₂)	2.26	Electrochemical	ppm	0-5ppm	0.5ppm	1ppm
Nitric Oxide (NO)	1.03	Electrochemical	ppm	0-10ppm	2ppm	3ppm
Nitrogen Dioxide (NO ₂)	2.62	Electrochemical	ppm	0-5ppm	0.5ppm	1ppm
Chlorine (Cl ₂)	2.41	Electrochemical	ppm	0-5ppm	0.3ppm	0.5ppm
Chlorine Dioxide (ClO ₂)	2.33	Electrochemical	ppm	0-1ppm	0.1ppm	0.3ppm
Hydrogen (H ₂)	0.06	Electrochemical	ppm	0-2000ppm	250ppm	500ppm
Hydrogen Cyanide (HCN)	0.93	Electrochemical	ppm	0-10ppm	0.9ppm	4.5ppm
Hydrogen Sulphide (H ₂ S)	1.18	Electrochemical	ppm	0-50ppm	5ppm	10ppm
Hydrogen Chloride (HCl)	1.26	Electrochemical	ppm	0-10ppm	1ppm	5ppm
Ammonia (NH ₃)	0.58	Electrochemical	ppm	0-100ppm	25ppm	35ppm
Ozone (O ₃)	1.66	Electrochemical	ppm	0-1ppm	0.1ppm	0.2ppm
Hydrogen Fluoride (HF)	0.7	Electrochemical	ppm	0-10ppm	1.8ppm	3ppm
Methane (CH ₄)	0.55	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
Propane (C ₃ H ₈)	1.55	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
Butane (C ₄ H ₁₀)	2.11	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
Pentane (C ₅ H ₁₂)	2.48	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
LPG	1.55	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
Hydrogen (H ₂)	0.06	Pellistor	% LEL	0-100% LEL	20% LEL	40% LEL
Methane (CH ₄)	0.55	IR	% LEL	0-100% LEL	20% LEL	40% LEL
Propane (C ₃ H ₈)	1.55	IR	% LEL	0-100% LEL	20% LEL	40% LEL
Butane (C ₄ H ₁₀)	2.11	IR	% LEL	0-100% LEL	20% LEL	40% LEL
Pentane (C ₅ H ₁₂)	2.48	IR	% LEL	0-100% LEL	20% LEL	40% LEL
LPG	1.55	IR	% LEL	0-100% LEL	20% LEL	40% LEL
Ethanol (C ₂ H ₆ O)	1.51	IR	% LEL	0-100% LEL	20% LEL	40% LEL
Iso-butylene (C ₄ H ₈)	1.94	PID 10.6eV	ppm	200ppm	20ppm	40ppm

Over 700 gas types are available – Contact our sales department with your requests - info@watchgas.com

WATCHGAS DEFENDER ENVIRONMENTS



Sensor Options



Surface Mount - Standard



Surface Mount with Duct Mount Probe



Surface Mount - Weatherproof

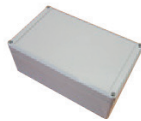


Duct Mount (probe) - Weatherproof

Accessories



Network
Repeater
Panel



Defender power
supply 2.5A @ 24vDC
for 16-35 sensors



Stand alone
sensor power
supply - 24vDC



WatchGas703 auxiliary
power supply 11A
@ 24vDC for 35+ sensors



Mains
Sensor



Beacon Sounder



For more information

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