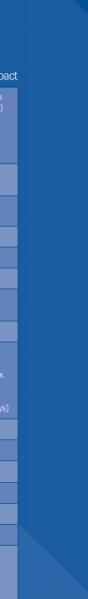
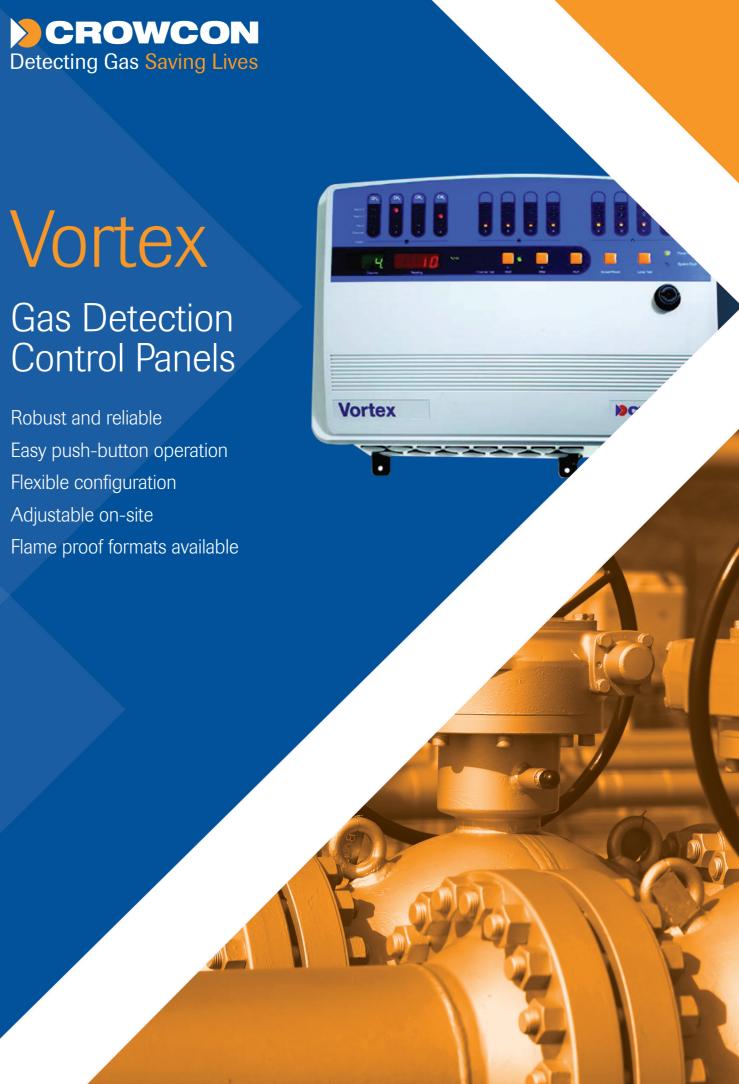
Specification	n	Vortex	Vortex Rack/Panel	Vortex FP	Vortex FP Compact
Size		470 x 306 x 170mm (18.5 x 12 x 6.5 ins)	Rack display: standard 19" 3U Panel display: 441 x 128mm (cut-out 366 x 84.5mm) Modules, PSU and batteries are supplied separately for fitting within a cabinet.	440 x 640 x 332mm (17.3 x 25 x 13 ins)	450 x 330 x 289mm (176 x 13 x 11.4 ins)
Weight		12Kg (27lbs)	Dependant on configuration	70Kgs (154lbs) approx.	37.5kgs (83lbs) approx.
Enclosure material		Back-box: Aluminium Front cover: ABS	Not applicable	LM25 aluminium with poly	ester powder coating
Ingress protection		IP65 Cabinet dependent IP66			
Channels		Up to 12 (1 to 3 4-way input modules)			
Inputs	Gas	2 or 3 wire 4-20mA (sink or source), 0-5V			
	Fire – smoke & heat detectors, manual call-points	Up to 3 loops, Up to 20 devices per loop			
Outputs	External audible visual alarm drive	Via relays, four 24Vdc 0.5A supplies provided			
Relays	Туре	Up to 24 SPCO, contacts rated 6A @ 250Vac (1 to 3 8-way relay modules)	Up to 32 SPCO with bus extension	module Relay limitations: 1 or 2 input modules: 2 relay modules max. (16 relays), 3 input modules: 1 relay module only (8 relays)	
	Assignment - Common	Mains fail, battery low, battery fail		Battery back-up not availab	ble
	Assignment – Voting	Alarms, faults and system events			
	Relay modes	Energised/de-energised, latched/non-latched, time-delayed, pulsed			
Digital communications	DCS/PLC/PC	RS-485 Modbus or Profibus RS-232 (configuration software and lead supplied)			
	Local configuration link				
Logging		Up to 300 alarm, power, fault, system events are stored in Non-Volatile Memory			
Panel indication	Channel number	2-digit 7-segment Green LED 4-digit 7-segment Red LED			
	Gas reading				
	Measurement units	% LEL, ppm, % Vol, Fire			
	Power	Green LED		Indications as per Vortex. Displayed information can be altered and outputs can be inhibited during calibration using a magnetic key	
	Battery OK	Green LED			
	Run/hold indication	Green LED			
	Channel test mode	Flashing Amber LED			
	System fault – integrity watchdog	Amber LED			
Alarm Indication	Audible – internal sounder	Piezo			
	Visual – Alarm	Level 1 & 2, Red LED			
	Visual – Fault	Per channel, Amber LED			
	Visual – Inhibit	Per zone, Amber LED			
Power	AC mains	110/120V & 220/240Vac (switch	able) 50-60hz 3.2A max	110Vac or 240Vac 85 - 264Vac 0.8A max 3.2A max 150W PSU 75W PSU 20 - 30Vdc 20 - 30Vdc	
	DC	20-30Vdc			
	Battery back-up	2Ah internal		Battery back-up not availab	ble
Approvals	Low voltage directive	EN61010-1			
	EMC	Directive 2014/30/EU: EN50270, FCC: CFR47 Part 15, IECES-003			
	ATEX	May be used in a non-hazardous area as part of Intrinsically Safe System conforming to EN60079-25 Baseefa 05Y0090/1 ATEX Ex II 2G D Zone 1, Zone 2, IECEx		one 2, IECEx optional	
Operating temperature		-10°C to +40°C (14°F to 104°F)			
Humidity		0-95% RH non-condensing			
Functional safety		Validated to IEC61508			











Vortex



Gas Detection Control Panels 1 to 12 Channels

Choosing the control panel for your needs

With 5 options available, and customisable solutions, we have a Vortex panel to suit your requirements.

Vortex offers all the flexibility you will need while still being simple to operate. All the day to day operations can be completed via push buttons on the front panel. With up to 12 channels*, including up to 3 for fire, Vortex can be customised to meet your site requirements, however complex, without the need for extensive cabling.







Wall mounted: Vortex

A standalone unit for surface mounting on walls, the display panel shows the fault and alarm levels for all the channels, but the LEDs only light when a hazard or fault is detected. This means the whole system can be checked at a glance. Setting adjustments can be made at the enclosure without the need for additional equipment.

Panel mounted: Vortex Panel

For fitting into an existing panel or door and offering wide range of PSU and battery options.

19 inch rack mounted: Vortex Rack

A flexible option where modules, PSU and batteries can be supplied separately for fitting within an existing 19 inch enclosure, permitting multi-rack systems to be created.

Vortex Flameproof:

Vortex flameproof (FP) systems are designed for use in ATEX Zones 1 & 2, with IP66 ingress protection, Unlike many other flameproof systems, all day-to-day operations can be undertaken without opening the enclosure, removing the need for hot work permits.

Vortex FP

With up to 24 relays, the enclosure is capable of accommodating up to 4 intrinsically safe (I.S.) barriers for interfacing with I.S. detectors and alarms.

Vortex FP Compact

Not every location can accommodate a Vortex FP unit, so when space is restricted (see dimensions on back page), Vortex FP Compact is an ideal choice. With up to 16 output relays. Intrinsically safe barriers for interface with I.S. detectors and alarms must be housed in a separate enclosure.

Channels and displays

1 to 12 channels (including 3 for fire)	Up to 12 devices can be monitored by reviewing just one control panel – saving time and manpower	
Each channel has 1 fault level and 3 alarm levels which can be combined in any pattern to trigger up to 32 output relays.	Flexibility built in; initially configured to suit your operational needs, then channels/alarms are easily customised by you if requirements change	
Can be factory set to your requirements. Then when in situ, can easily be configured to suit your requirements using Panels Pro software.		
Push buttons on front display	Day to day operations are easily undertaken	
LED display panel lights	Faults are easily seen and whole system can be checked at a glance	

Installation and maintenance

Modbus compatibility	No extensive cabling required; cable connections within the unit are easy	
Space within units for access to cable terminals		
Uses industry standard communication links	Simple to integrate into existing control systems	
Any adjustments are performed electronically	Minimal maintenance – no drift from adjustable potentiometers	
Separate zones can be individually inhibited	You can work on specific areas without affecting the rest of the system	
Modular construction	Replacement parts if required just plug straight in	

Compliance and reliability

Provides analogue, relay and Modbus outputs	Demonstrates system dependability
System monitors relays continuously	Coil faults are identified immediately without input from you
Internal battery pack*	Power outs are not a problem
	Internal battery pack continuously monitored for charge levels and connection
	System is operational at all times

^{*} Not available on flameproof versions

Disclaime

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement Crowcon Detection Instruments Limited reserves the right to make product changes without notice. The products are routinely subject to a programme of testing which may result in some changes in the characteristics quoted. Technical information contained in this document or otherwise provided by Crowcon are based upon records, tests, or experience that the company believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed.

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As the products may be used by the client in circumstances beyond the knowledge and control of Crowcon Detection Instruments Limited, we cannot determine the relevance of these to an individual customer's application. It is the clients' sole responsibility to carry out the necessary tests to evaluate the usefulness of the products and review all applicable regulations and standards to ensure their safety of operation in a particular application.

^{*} dependent on model chosen