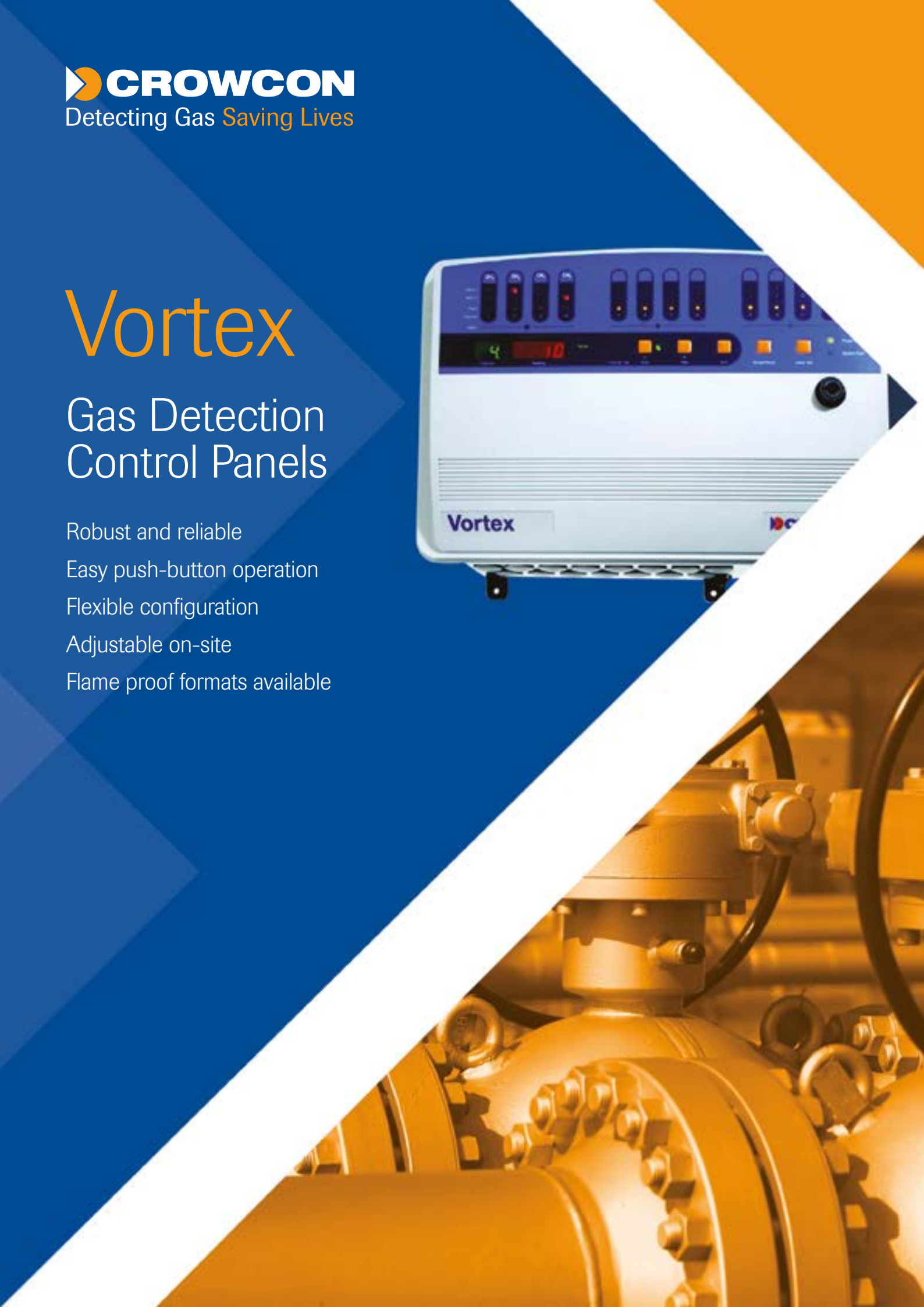
CROWCON
Detecting Gas Saving Lives

Vortex

Gas Detection Control Panels

- Robust and reliable
- Easy push-button operation
- Flexible configuration
- Adjustable on-site
- Flame proof formats available



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.

* dependent on model chosen

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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

Specification

		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 (17.6 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 polyester 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	Type	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 available	
	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			
	Local configuration link	RS-232 (configuration software and lead supplied)			
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		Indications as per Vortex. Displayed information can be altered and outputs can be inhibited during calibration using a magnetic key	
	Gas reading	4-digit 7-segment Red LED			
	Measurement units	% LEL, ppm, % Vol, Fire			
	Power	Green LED			
	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 (switchable) 50-60hz 3.2A max		110Vac or 240Vac 3.2A max 150W PSU 20 - 30Vdc	85 - 264Vac 0.8A max 75W PSU 20 - 30Vdc
	DC	20-30Vdc			
	Battery back-up	2Ah internal		Battery back-up not available	
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 optional	
Operating temperature		-10°C to +40°C (14°F to 104°F)			
Humidity		0-95% RH non-condensing			
Functional safety		Validated to IEC61508			

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sales@norrscope.com