FIXED SYSTEMS

VORTEX

Gas detection control panel

Robust and reliable, easy push-button operation and flexible configuration

Even for large, complex sites with a variety of detection needs, the Vortex provides streamlined management of up to 12 devices, including 3 for fire, making it easy for you to have full visibility and control of your site.

Each channel has 1 fault level and 3 alarm levels, which can be combined in any pattern to trigger up to 32 output relays. Designed with flexibility in mind, while the Vortex will initially be configured to suit your operational needs, channels and alarms can be easily customised by you, if requirements change, making the Vortex an adaptable solution.

Vortex Rack & Panel formats comprise just the essential input, output and controller modules mounted on a DIN rail, with an optional display module available in panel-mounting and 19" Rack formats. This configuration is ideal for incorporation into a variety of specialist enclosures, such as 19" format or those with high ingress protection.

FEATURES

Channels & Display

- Up to 12 devices can be monitored (inc. 3 for fire) 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
- Initially configured to suit your operational needs, channels/alarms are easily customised by you if requirements change
- LED display panel lights mean faults are easily seen and the whole system can be checked at a glance.

Installation & Maintenance

- Modbus compatibility with no extensive cabling required
- Uses industry standard communication links, making it simple to integrate into existing control systems
- Any adjustments are performed electronically with minimal maintenance required and no drift from adjustable potentiometers
- Separate zones can be individually inhibited, allowing you to work on specific areas without affecting the rest of the system
- Modular construction means replacement parts (if required) can be simply plugged straight in.

Compliance & Reliability

- Validated to IEC 61508 (SIL 1) for system dependability
- System monitors relay continuously, with coil faults identified immediately so you can act quickly
- Internal battery pack means you're protected even during power outage
- System is operational at all times.

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SPECIFICATIONS

		VORTEX	VORTEX RACK/P ANEL
SIZE		470 x 306 x 170mm (18.5 x 12 x 6.5ins)	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
WEIGHT		12Kg (27lbs)	Dependant on configuration
ENCLOSURE MATERIAL		Back-box: Aluminium Front cover: ABS	N/A
INGRESS PROTECTION		IP65	Cabinet dependant
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
	Assignment – Common	Mains fail, battery low, battery fail	
	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 (requires additional hardware interface)	
	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	
	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	
	DC	20-30Vdc	
	Battery back-up	2Ah internal	
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	
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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Disclaimer

Due to ongoing research and product improvement, specifications are subject to change without notice. While every effort has been made to ensure accuracy in this document, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This document is not intended to form the basis of a contract.

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