

VELOX 4000 SERIES

Intelligent Analog Fire Alarm Control Panels

Features

- Kite Mark approved to EN54 part 2 & 4
- Modular 2, 4, and 8 loops configuration
- Up to 200 peer to peer redundant network of panel
- Up to 1000 zones in a network
- Up to 1000 event logs
- Up to 240 devices on a single loop
- Automatic and Manual Addressing of the loop devices
- User friendly menu and navigation keys.
- Complex Cause & Effect for large size installations.
- Fully integrated with the ATEIS Public Address and Voice Alarm

Both Decentralized and Centralized Intelligence

The VELOX fire detection and alarm system, with its unique features reside at the apex of detection technology in the market. While the true intelligent analogue addressable detectors and devices connected to its loop, with its own decentralized intelligence; the VELOX panels gathers all the analogue values of these devices, and decide how to manage the alarm and 'cause & effect' of the entire installation.

The panel shall capture all the detectors and devices parameters such as, smoke obscuration, any faults reported by the detectors, temperature values, and process all these information against the programmed 'cause & effect' to decide how the action shall take place.

Powerful Construction

Each panel consist of a modulator 2, 4, and 8 loop cards. Each VELOX panel is equipped with all the necessary sounder circuits' outputs, auxiliary relays. Apart from that, each panel is equipped with powerful logic inputs and outputs that can be configured as needed



to control external equipment or to pick up activation switches, further enhancing the integration features of each panel. Each panel can host several external peripherals connected on the on-board RS485 port. This shall allow extra local integration when needed.

Each panel is equipped with powerful EN54 part 4 power supply capable of delivering 500mA per loop drive. Hence, all the devices such as detectors, modules, sounders, are powered from the same loop.

Powerful event memory of 1000 events can be stored on each Fire Alarm Control Panel. All the range of VELOX panels can be fitted with a thermal printer.

Mega Installations Demands Mega Network Capabilities

The powerful VELOX secure network can drive 200 panels, repeater panels, mimic panels, smoke management control panels on a single 20Km ring topology on a peer-to-peer communication sharing 1000 zones across the network.

This powerful feature insures that only one zone number is available on the network, this shall minimize any confusion on zone numbering across a large network structure. With this powerful network, programming of 'cause & effect' can't be simpler.

Peer-to peer communication means that information

about the complete network will be available on all the panels if programmed as master panels, however option is also available to have master-slave configuration between two or more selected panels.

Each panel can be spaced up to 1.5km using 2 core copper cable, and if single mode fiber optic cables are used, then up to 40km between panels can be achieved.

Cost Effective Installation is Added Benefit

Subject to the loop load calculations, 240 devices can be connected on the VELOX 2Km loop length using 1.5mm² cable, were all the devices are powered from the same loop. This exceptional feature shall drop the cost dramatically, and make the installation faster and easier task to achieve.

Zero Downtime

Each device on the VELOX loops is equipped with in-built short circuit isolator, in case of a single fault, no device shall be lost on the loop. This shall only provide higher reliability to the performance as well easy installation to comply with the latest standards and regulations.

Commissioning is Never Easier

VELOX wants to make it easy to the installer, no dip or rotary switches are required to address the detectors nor barcode scanners or other difficult methods of installation are needed.

Automatic addressing is an added benefit to the many other of VELOX technology, where the fire alarm control panel addresses each device in a sequential manner, and make sure that no duplicate addresses are allowed. Furthermore when needed to assign an address in a non-sequential fashion, the manual programming via the VELOX detector programming tool is utilized.

The VELOX panel is equipped with advanced diagnos-

tic features, such as measuring the in and out voltage drop and current consumption on each loop card, as well measuring the exact earth leakage whether its positive or negative. As well, communication diagnostics features of the loop communication shall provide at glance all the necessary information to the commissioning engineer.

Powerful Cause and Effect

Each VELOX panel shall support up to 200 zones and 200 groups per panel. Functions such as day – night sensitivity change, unlimited delay blocks for the different outputs, linking the groups / zones virtually via the network are all standard features of the VELOX technology.

Add to it, complex three tier of AND / OR / NOR logic design are fully programmable. Different styles of sounder programming, as well as each output on the VELOX network is individually controlled, such as sounders, input / output modules, as well as remote alarm on each detector.

Physical Construction and Assembly

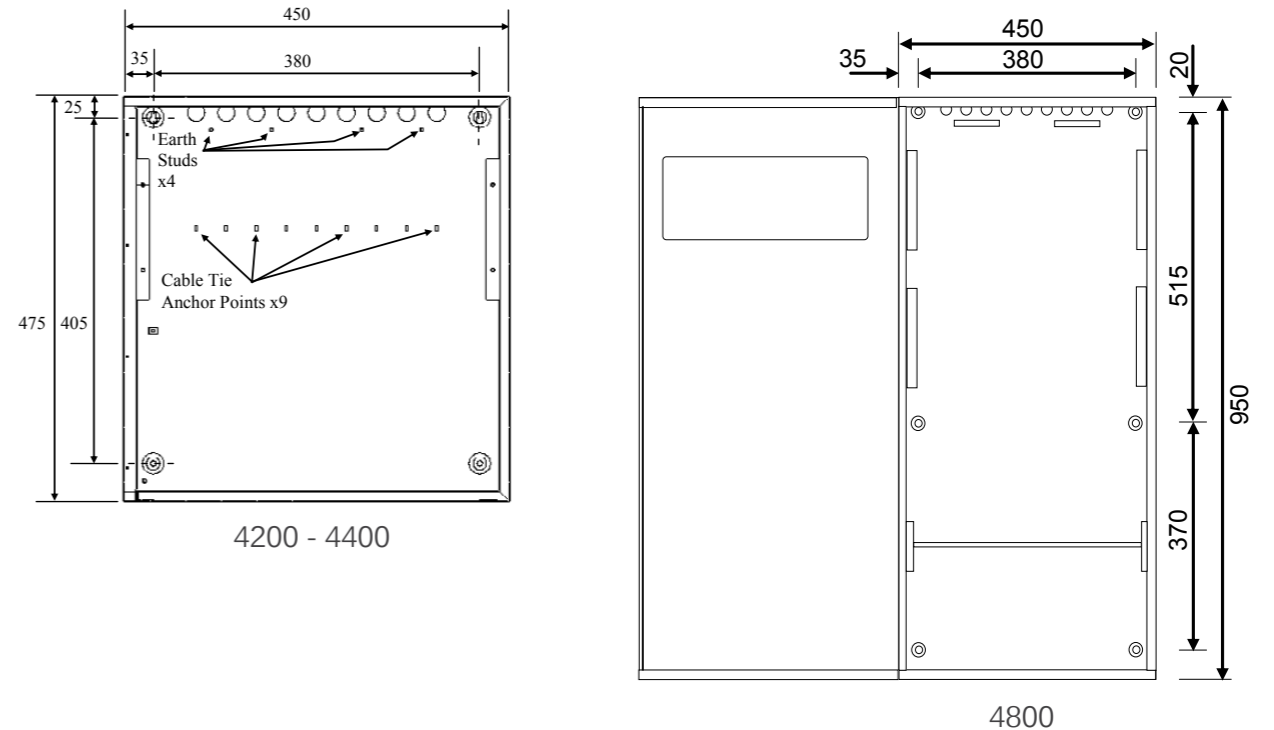
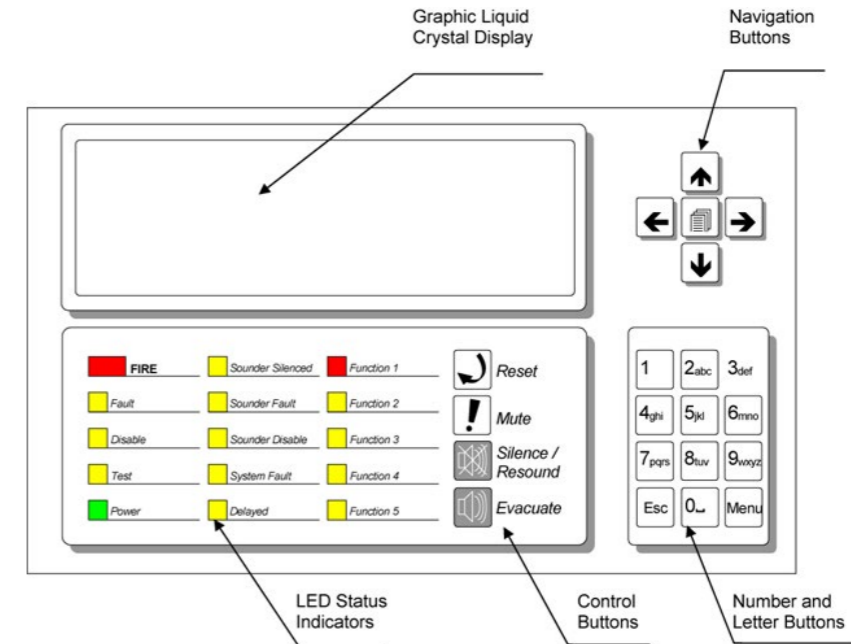
The VELOX 4000 panels are supplied with metal enclosures, and it is either with front transparent protection door or without. As well two main sizes to fit the 24 hour battery or 72 hour battery backup as and when needed.

The VELOX 4000 INT, host several integrated systems all in one, such as Fire Telephone System, the ATEIS legendary Public Address and Voice Alarm Systems. All the enclosures can be flushed or surface mounted.

Approvals & Compliance to Standards

The VELOX 4000 range is fully approved and certified to EN54 part 2 and 4, and it is holding the Kite Mark Certificate of quality. All the VELOX panels and peripherals has passed rigid testing and certification programs to ensure that high performance of the equipment during the toughest alarm conditions.

General Overview



Technical Specifications

Item	4200	4400	4800
Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'PuLSE' communications & programmable languages		
Display	Backlit 240x64 Graphical LCD		
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)		
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate		
Protocols	VELOX		
Number of Fire Zones	1000		
Number of Loops	1 – 2. Expandable via individual plug-in loop driver	1 – 4. Expandable via individual plug-in loop driver	2 – 8. Expandable via individual plug-in loop driver
Devices per loop	240		
Loop Current	500mA		
On Board Sounder circuits	2 x 1 Amp Programmable	4 x 1 Amp Programmable	8 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable		4 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA		2 x 24v 500mA
Open Collector / Logic Outputs	8 x Programmable		16 x Programmable
Programmable Switch Inputs	8 Volt Free Digital Inputs		16 Volt Free Digital Inputs
On Board Power Supply	4 Amp High Efficiency Switched Mode	5 Amp High Efficiency Switched Mode	2 x 5 Amp High Efficiency Switched Mode
Mains Supply	110 - 230 V AC (+10%, -15% tolerance) 50 / 60 Hz 1.9 Amp	110 - 230 V AC (+10%, -15% tolerance) 50 / 60 Hz 1.7 Amp	110 - 230 V AC (+10%, -15% tolerance) 50 / 60 Hz 2 Amp
Battery Capacity	24v 18 Ah internal. 24v 48Ah external		2 sets of 24v 18 Ah internal. 24v 48Ah external
Charger Current	2.0 Amp DDP monitored, temperature compensated integral charger	2.2 Amp DDP monitored, temperature compensated integral charger	2.2 Amp DDP monitored, temperature compensated integral charger
Serial ports	1 RS232 Onboard for PC, Modem or External Printer		2 RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools		
Event Log	1000 Fire & Event + Diagnostic		
Networking	Optional plug in Network card		
Printer (Option)	Optional on-board or External Serial Printer		
Enclosure / Colour	RAL 7016 / Anthracite Grey		
Cable Entry	20mm Knock-outs. 18 x top, 9 x top rear and 2 x bottom		
Size H x W x D mm / Weight	475 x 450 x 115 / 10 Kg 475 x 450 x 188 / 10.5Kg (/D Deeper Enclosure) Back Box Only (When Recessing) 475 x 450 x 100 Deeper Back Box Only (when Recessing) 475 x 450 x 173		950x 450 x 188 / 23 Kg
Metalwork Options	Flushing Bezel, Ancillary Enclosure & Battery Box		Semi Flushing Bezel
Approvals	BS EN 54 Part 2:1997 +A1 & AC and BS EN 54 Part 4:1998 +A1 & A2 , / KM 591678		

Order Codes

Part No.	Description
4200	1-2 loop (without glass door)
4200GLZ	1-2 loop (with glass door)
4400	1-4 loop (without glass door)
4400GLZ	1-4 loop (with glass door)
4800	2-8 loop (without glass door)
4800GLZ	2-8 loop (with glass door)
4001	Loop driver card
VELOX 4030 - 4035 (ON-BOARD AND PORTABLE PRINTERS)	
4030	On-board printer for 4200 /4400 - Fitted
4031	On-board printer for 4200 /4400 (Retro-fit)
4032	External boxed panel printer for 4200 /4400
4033	Spare shrink wrap battery pack for 4031 printer
4034	Spare paper roll for 4031 printer (pack of 10)
4035	Portable Thermal Printer c/w re-chargeable battery & leads
CARDS & ACCESSORIES (NETWORK CARDS)	
4420	Standard network card
4421	Fault-tolerant network card
4120	BMS/graphics interface card (standard network interface)
4121	BMS/graphics interface card (fault-tolerant network interface)
4124	IP gateway with standard network interface (boxed)
4125	IP gateway with fault-tolerant network interface (boxed)
4130	BACNET/IP/MODBUS Integrator
CARDS & ACCESSORIES (PERIPHERAL CARD)	
OUTPUT CARDS	
4042	2-way programmable relay output card
4048	8-way programmable relay output card
Input Card	
4148	8-way programmable relay input card
Peripheral Bus Adaptor Card	
4060	Peripheral bus interface adaptor
General Routing Interface Card	
4061	Fire alarm routing interface card (monitored I/O)
Programmable Relay Card	
4064	4-way relay card
4065	4-way relay card with 1.5A PSU (boxed)
Programmable Sounder Card	
4062	4-way sounder card
4063	4-way sounder card with 4A PSU (boxed)

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice

Ref. 4400&4200&4800/FP/R1/N2/110514