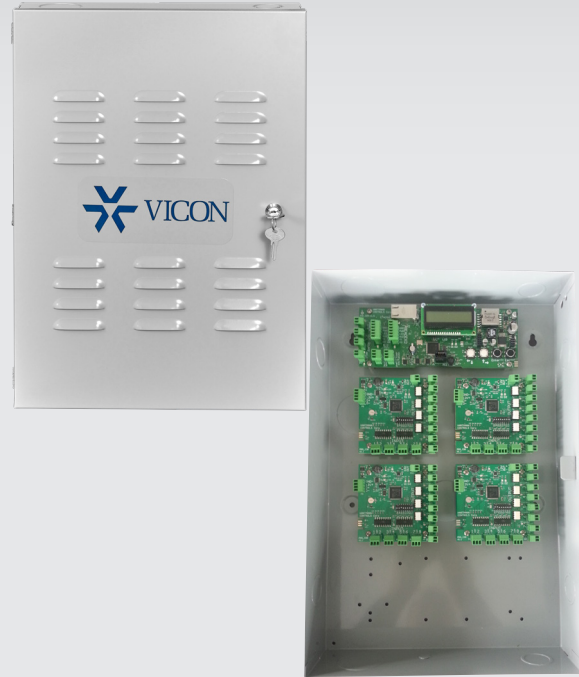## Vicon Access Control
Elevator Controller

Overview

The Vicon Access Control (VAX) system consists of a dedicated Vicon Access Control Server and the edge Controller(s). The Server contains the operating system, database engine, web server, application software and configuration data. The Controller communicates back to the Server over the network and provides an interface to readers, relay outputs, door locks, etc.

Vicon offers an elevator controller that is used to incorporate elevator access into the VAX system. It provides elevator access control to a single elevator cab for up to 8 floors; it can be expanded to two cabs with up to 64 floors (split in intervals of 8 floors) with the addition of 7 VAX-IO-EXP8PCB expansion boards. Additional enclosure (VAX-ENCL-ST-1) is required when adding more than 3 additional VAX-IO-EXP8PCB expansion boards. It supports up to 2 readers and 2 cabs per master controller. LED indicators provide system status.

Based on rules defined in the VAX system setup, access to an elevator and/or which floors can be accessed by any individual can be controlled. Functionally, the credential holder will present their credential to a reader mounted in the elevator cab. The Elevator Controller will then activate/deactivate relays or inputs to enable access to specific floors based on floors/user schedules via relay connection to elevator PLC/controller.

Product at a Glance

▸ Elevator master controller and I/O expander board

▸ Elevator access control to one elevator cab for up to 8 floors

▸ I/O expander boards available to provide elevator access up to 64 floors

▸ Communicates using RS-485

▸ Housed in metal enclosure

▸ Customizable holiday user groups and holiday setup

▸ Powered by PoE/PoE+

Specifications

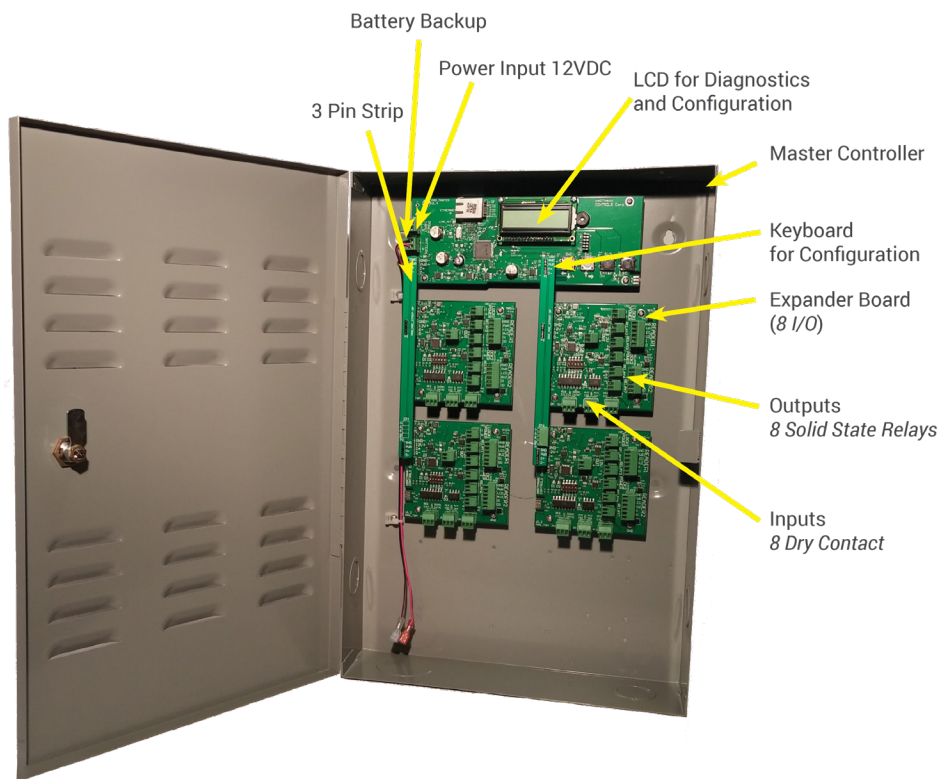| Controller Hardware	
Processor:	32-bit microprocessor based
Power:	Supply: 802.3af PoE (up to 15.4 W)/PoE+ Reader: 12 VDC, 250 mA per port Auxiliary Output: 12 VDC, 200 mA (for expander boards)
Network:	Speed: 1X RJ-45 10/100 Mbps ethernet port Wire Spec: 328 ft (100 m) max distance, Cat5 or better Modes: Static or DHCP MAC: Unique Encrytion (panel-server): 256 bit AES option
I/O on Expander:	Inputs: 8x dry contacts; can be software configured normally closed Outputs: 8x solid state relays which can switch up to 30VDC 500mA; can be software configured normally closed Wire Spec: 500 ft (152 m) max distance; 2 conductors, stranded 22 AWG, shielded
Readers:	Reader Port: 2x Wiegand (D0, D1); 1 per elevator cab Formats: magnetic stripe, biometric, bar code and Wiegand Wire Spec: 500 ft (152 m) max distance; 6 conductors, stranded 24 AWG or thicker, shielded
User Interface:	LEDs: 2x power indicator; 2x Ethernet status indicator LCD Display: 1x 16 channel; 2-line LCD with backlight Push Buttons: 4x tactile switch (keyboard for data entry) Sound: 1x 90 db Piezo
Support:	Up to 64 floors per master controller (with I/O expander boards) 2 elevator cabs per master controller Button or non-button sensing 256 user time zones; 50 user holiday time zone groups, 50 holidays each 64 floor time zones 8 floor holiday time zone groups, 50 holidays each
Protection:	Configurable photo tamper sensor
Communications:	RS-485 protocol between the Master Controller panel and the elevator expander boards
Time Keeping:	Date/Time: 1x on-board real-time clock (no battery required, maintains up to 1 month)
Storage:	Stores up to 100,000 cardholders. Stores up to 50,000 events, first in first out queue

Mechanical and Environmental	
Dimensions:	W: 11.625 in. (295 mm); H: 17.25 in. (438 mm); D: 3.625 in. (92 m)
Weight:	4.1 lb (1.9 kg)
Construction:	Metal enclosure
Operating Temperature:	32 - 122° F (0 - 50° C)
Operating Humidity:	10% to 90% relative humidity, non-condensing
Approvals:	UL; ETL listed (conforms to UL 294); certified to CSA-22.2 no. 205; CE

Ordering information

Model Number	Description
VAX-ELV-STR-1	ELEVATOR CONTROLLER; includes 8 floor module; complete in metal enclosure; accepts up to 7 expanders to control 64 floors
VAX-ENCL-ST	EMPTY METAL ENCLOSURE; for use with expander boards
VAX-IO-EXP8PCB	8 FLOOR/IO EXPANDER; for elevator and I/O controller; no enclosure

Options	
VEVA-MC00N0-00	Vicon Access Control Server; for customized preinstallation of selected VAX software license; desktop model
VEAA-1U00N0-00	Vicon Access Control Server; for customized preinstallation of selected VAX software license; rack-mount model
VAX-PRS-STRIP	Interconnect strip; connects the Master Control Panel to door expansion board or I/O expansion board

Elevator Controller Diagram

Unit may look slightly different but connections will be similar.

Data Sheet Number: V274-93-01
Vicon Data Sheet Number: 8009-7274-93-01

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