

Vicon Access Control Door Controllers



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 uniquely designed over the door controllers. These controllers are offered in single-door or two-door versions. Their patent-pending single-door design offers Request to Exit (REX) motion sensor, on-board communications, back-up battery and removable terminal blocks for ease of installation. The controllers provide LED indicators for system status and an LCD display and tactile buttons for simple IP configuration and for system diagnostics. Configurable dry contact inputs and relay outputs are supported. The controllers support 2 readers. The cover is standard black; a white cover is available.

Product at a Glance

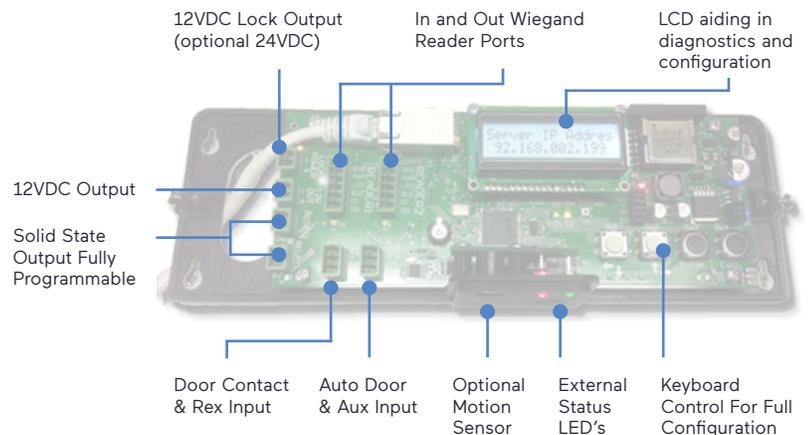
- ▶ Single-door and two-door models
- ▶ Versatile mounting options include convenient over the door location or out of sight electrical rooms
- ▶ Integrated PIR sensor
- ▶ Unique built-in Request to Exit (REX) on selected models
- ▶ Single-board design provides status LEDs, embedded REX sensor, on-board communications, back-up battery and removable terminal blocks
- ▶ Unlimited door time zones
- ▶ Customizable holiday user groups and holiday setup
- ▶ Powered by PoE

Specifications

Controller Hardware	
Processor:	32-bit microprocessor based
Power:	Supply: 802.3af PoE/PoE+ (provides up to 20 W) Lock: Solid state 12 VDC, 500 mA/24 VDC, 250 mA (with optional converter) Auxiliary Output: 12 VDC 200 mA
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
I/O:	Lock Relay: 1x wet contact solid state Auxiliary Relays: 2x dry contract solid state (24 VDC, 1A limit) Inputs: 4x supervisor or digital (REX, door contact, HDCP opener, auxiliary) Wire Spec: 500ft (152 m) max distance; 2 conductors, stranded 22 AWG or thicker, shielded
Readers:	Reader Port: 2x Wiegand (D0, D1, BUZ, LED, VCC, GND) Wire Spec: 500 ft (152 m) max distance; 6 conductors, stranded 24 AWG or thicker, shielded
User Interface:	LEDs: 2x power indicator; 2x reader data flow indicator; 3x relay status indicator; 2x Ethernet status indicator; 2x on-board info; 2x off-board info (PIR) LCD Display: 1x 1.6 channel; 2-line LCD with backlight Push Buttons: 4x tactile switch Sound: 1x 90 db Piezo
Integrated Motion:	Passive PIRs: 5.0 m detection performance, 94° (H)/82° (V) detection area, 64 detection zones, 170 uA consumption, tricolor LED (red, green, orange)
Protection:	PoE: In-rush current limit/overall current limit Over-Current: Strike, relays, 12 VDC output Surge: Strike, readers, inputs Tamper: Photo tamper sensor
Anti-Passback:	Requires that a VAX-MOD-MEM module to be installed onto the PCB. Refer to illustration provided.
Time Keeping:	Date/Time: 1x on-board real-time clock (no battery required, maintains up to 1 month)
Memory:	Flash Memory: 8.0 Mb
House and Back Plate:	Molded ABS plastic; removable cover for quick access; flat surface mount back plate with cabling port
Options:	24 VDC Converter: converts 12 VDC to 24 VDC Dry Contact Converter: converts wet to dry contact Expansion Port: supports WiFi, serial, extra memory, I/Os for future expansion
Storage:	Stores up to 100,000 cardholders. Stores up to 50,000 events, first in first out queue.

Mechanical and Environmental	
Dimensions:	W: 10.0 in. (254 mm); H: 2.0 in. (51 mm); D: 3.25 in. (83 mm)
Weight:	0.9 lb (0.4 kg)
Operating Temperature:	32 - 122° F (0 - 50° C)
Operating Humidity:	10% to 90% relative humidity, non-condensing
Approvals:	UL; CE

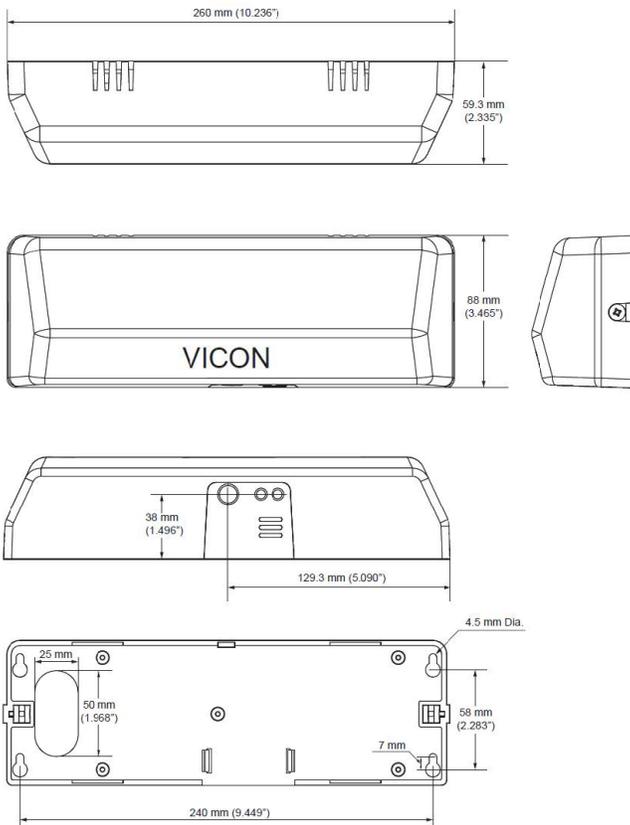
Controller PCB Diagram



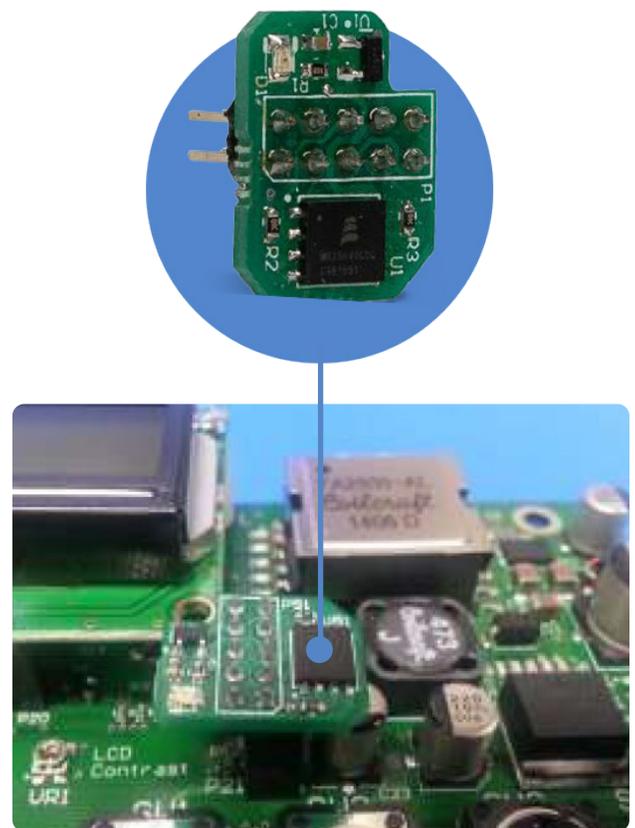
Ordering Information

Model	Description
VAX-1D-REX-1	SINGLE DOOR CONTROLLER; integrated PIR/REX; supports back to back readers; black enclosure
VAX-2D-1	TWO DOOR CONTROLLER; without integrated PIR/REX; supports two doors with one reader at each door; black enclosure
Options	
VPVA-SF000D-N00	Vicon Access Control Server; for customized preinstallation of selected VAX software license; small form factor
VPCA-2U000D-N00	Vicon Access Control Server; for customized preinstallation of selected VAX software license; 2U rack-mount model
VAX-BK-BOX	BACKING PLATE; for mounting on concrete walls
VAX-MOD-DRY	Module to convert lock 12 VDC output to dry contact output
VAX-MOD-24	Module to convert lock power from 12 VDC 500 mA to 24 VDC 250 mA
VAX-MOD-MEM	Module to expand memory; required for anti-passback
VAX-ENCL-W	Optional white exposure

Dimensional Drawing [mm (in.)]



VAX-MOD-MEM Installation



Data Sheet Number: V274-23-01
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