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 input/output (I/O) controller that is used to expand the number of input and output relays into the VAX system. It provides control of up to 8 I/Os. The controller module is housed in a metal enclosure that can accept up to 7 expanders, for a total of up to 64 I/Os. Additionally, expanders are available in their own enclosure if they need to be installed elsewhere.

The firmware on the board supports inputs and outputs. Based on rules defined in the VAX system setup, solid-state relay outputs are used to react to schedules or pre-defined actions based on dry contact inputs.

Product at a Glance

- Input/output master controller
- Controls up to 8 inputs/outputs
- Expanders available to provide up to 64 inputs/outputs
- Communicates using RS-485 protocol
- Powered by PoE
- Housed in metal enclosure
- Customizable holiday user groups and holiday setup
SPECIFICATIONS

Controller Hardware

**Processor:** 32-bit microprocessor based
**Power:**
- Supply: 802.3af PoE (up to 15.4 W)/PoE+
- Auxiliary Output: 12 VDC 450 mA (for expander boards)
**Network:**
- Speed: 10/100 Mbps
- Modes: Static or DHCP
**I/O on Expander:**
- 8x inputs; 8x solid state outputs
**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 I/Os per master controller (with expander boards)
- 16 input time zones; 16 holiday time zone groups, 50 holidays each
- 64 output time zones; 8 holiday time zone groups, 50 holidays each
**Protection:**
- Configurable photo tamper sensor
**Communications:**
- RS-485 protocol
**Time Keeping:**
- Date/Time: 1x on-board real-time clock (no battery required, maintains up to 1 month)
**Storage:**
- 50,000 events; on-board

Mechanical & Environmental

**Dimensions:**
- W: 11.42 in. (290 mm); H: 17.13 in. (435 mm); D: 2.95 in. (75 mm)
**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:**
- ETL listed (conforms to UL 294), certified to CSA-22.2 no. 205

I/O Controller Diagram

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT/OUTPUT (I/O) CONTROLLER; includes 8 input/output expansion module; complete in metal enclosure; accepts up to 7 expanders to control 64 floors</td>
<td>VAX-IO-STR</td>
</tr>
<tr>
<td>8 FLOOR/I/O EXPANDER; for elevator and I/O controller; in metal enclosure</td>
<td>VAX-IO-EXP8</td>
</tr>
<tr>
<td>16 FLOOR/I/O EXPANDER; for elevator and I/O controller; in metal enclosure</td>
<td>VAX-IO-EXP16</td>
</tr>
<tr>
<td>8 FLOOR/I/O EXPANDER; for elevator and I/O controller; no enclosure</td>
<td>VAX-IO-EXP8-PCB</td>
</tr>
<tr>
<td>Converts controller to wireless network</td>
<td>VAX-WIFI-ABLY</td>
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<tr>
<td>Module to convert lock 12 VDC output to dry contact output</td>
<td>VAX-MOD-DRY</td>
</tr>
<tr>
<td>Module to convert lock power from 12 VDC 500 mA to 24 VDC 250 mA</td>
<td>VAX-MOD-24</td>
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<tr>
<td>Module to expand memory; required for anti-passback</td>
<td>VAX-MOD-MEM</td>
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