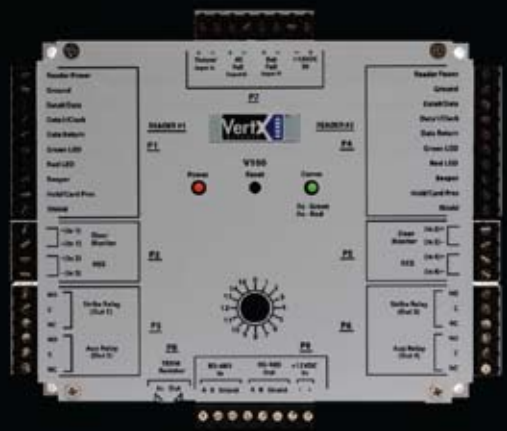
VertX™ V100 Door/Reader Interface

Access Control Processing for Two Readers/Two Doors • 70100



ACCESS opportunity.

The HID VertX™ products provide a complete and fully featured hardware/firmware infrastructure for access control software host systems. The V100 Door/Reader interface connects two access control card readers via Wiegand or Clock-and-Data interface controlling either one or two doors. The V100 features on-board flash memory, allowing program updates to be downloaded via the network. The V100 connects to the V1000 through a high speed RS-485 network. The V1000, in turn, communicates with the system host via industry standard TCP/IP protocol over 10/100 Mbps Ethernet or the Internet. This architecture minimizes the impact on corporate LANs by using only one TCP/IP address for every 32 interfaces and by handling low-level transactions on the RS-485 network.

Features

- Reports supervised inputs.
- Connects to the V1000 via RS-485.
- Receives and processes real time commands from the V1000.
- Reports all activity to the V1000.
- Attractive polycarbonate enclosure protects components from damage.
- All connections and indicators are fully identified by silk-screened nomenclature on the cover.
- Processes off-line access control decisions based on facility code.
- UL 294 and UL 1076 recognized components.

Features

Mounting

Mount to any wall surface, using four screws. For UL compliance, one or more interfaces can be mounted inside a locking customer-supplied NEMA-4 rated enclosure with:

- DC supply with battery back-up
- Enclosure tamper switch
- All connections made through conduit

The unit should be installed indoors, inside a secure area, such as in an IT or telecommunications room, utility closet or on a wall above a suspended ceiling.

Visual Indicators

Communications LED flashes green for "transmit to host" and red for "receive from host." Power LED indicates that sufficient DC voltage is being provided to the unit.

Easily Interfaced

- Quick-disconnect screw terminal connectors
- Rotary address switch (0-15)
- Inputs for:
  - 2 readers
  - 2 door monitor switches,
  - 2 Request-to-Exit switches
  - AC Fail Monitor*
  - Battery Fail Monitor*
  - Enclosure Tamper*

*Can be configured as a general purpose input

Non-latching relay outputs (rated 2 A @ 30 VDC):

- 2 door strikes (configurable)
- 2 auxiliary devices: door held/forced alarm, alarm shunt, host off-line (comms down), or general purpose

Local Processing

- Alarm shunt and strike relay timing and latching functions
- Access control decisions based on facility code (degraded mode)
- Basic input/output linking
- LED/beeper control during card + PIN, scheduled unlock, and other transactions

Microcontroller

Warranty

Warranted against defects in materials and workmanship for 18 months. (See complete warranty policy for details.)

Part Numbers

Base Part Number: 70100

Specifications

Dimensions
5.8" W x 4.825" H x 1.275" D
(147.32 mm x 122.55 mm x 32.38 mm)

Weight
12.4 oz (.35 kg)

Enclosure Material
UL94 Polycarbonate

Power Supply Requirements
60 mA @ 9-18 VDC (with no readers connected)
Recommended: Supervised linear power supply with battery backup, input surge protection, and AC fail and battery low contact outputs. When VertX™ is supplying power to readers the requirements are 600 mA @ 9-18 VDC. The V100 can supply 500 mA to two readers.

Separate supervised DC supplies with battery back-up recommended for door locking or relay activated devices, or for HID MaxiProx® readers.

Operating Environment
Indoors, or customer-supplied NEMA-4 rated enclosure

Temperature
32° to 122°F (0° to 50°C)

Humidity
5% to 95% relative, non-condensing

Communications Ports
RS-485 – two wire. Two SIA standard Wiegand/Clock-and-Data ports

Certifications
UL 294 and UL 1076 Recognized Component for the US
CSA 205 for Canada
FCC Class A Verification
EMC for Canada, EU (CE Mark), Australia (C-Tick Mark), New Zealand, Japan
EN 50130-4 Access Control Systems Immunity for the EU (CE Mark)

Cable Distance
RS485 – 4000 feet (1220 m) to host, using Belden 3105A, 22AWG twisted pair, shielded 100Ω cable
Wiegand – 500 feet (150 m) to reader – using ALPHA 1299C 22AWG, 9-conductor, stranded, overall shield (Fewer conductors needed if all control lines are not used).
Input Circuits – 500 feet (150 m), 2-conductor, shielded, using ALPHA 1292C (22AWG) or Alpha 2421C (18AWG)
Output Circuits – 500 feet (150 m), 2-conductor, using ALPHA 1172C (22AWG) or Alpha 1897C (18AWG)
Minimum wire gauge depends on cable length and current requirements.

MKT-V100_DS_EN

HID

ACCESS experience.

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