# V2000 Reader Interface/Network Controller

Access Control Processing and Host Interface for Two Readers/Doors • 72000

Hold Care

Door His 34

Monitor His 34

Line 44

P5

ACCESS opportunity.

The HID VertX<sup>™</sup> products provide a complete and fully featured hardware/firmware infrastructure for OEM access control software host systems, communicating via industry standard TCP/IP protocol, over 10/100 Mbps Ethernet, or the Internet. It can also interface with a Windows<sup>®</sup> DLL.The V2000 boasts a 32-bit RISC processor running the Linux Operating System. On-board flash memory allows program updates to be downloaded via the network.The V2000 connects to two access control card readers via Wiegand or Clock-and-Data interface controlling either one or two doors. This architecture takes advantage of the existing corporate LAN and the existing CAT-5 cable.

### **Features**

- ▶ Connects with and stores a complete access control and configuration database for one or two controlled doors and 44,000 cardholders with expansion capability to 250,000 cardholders.
- Processes access control decisions.
- ▶ Reports supervised inputs/alarms with 255 priorities.
- Includes an HTTP API, Windows® DLL-based API, and a direct communication API.
- Allows local connection of a laptop computer for diagnostics and configuration.
- ▶ Connects to the host and to other devices on the TCP/IP network.
- Receives and processes real time commands from the host software application.
- Reports all activity to the host
- Controls and communicates with all connected devices.
- ▶ Buffers offline transactions and uploads to the host when communication is restored.
- UL 294 and UL 1076 recognized components.

### Features

## **Specifications**

#### Configuration

Attractive polycarbonate enclosure protects components from damage and all connections and indicators are fully identified by silk-screened nomenclature on the cover.

#### Mounting

Mount to any wall surface, using four screws. For UL compliance, one or more gateways 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

Power LED indicates that sufficient DC voltage is being provided to the unit. RS-485 communications LED: solid green indicates successful communications to downstream devices, red flash indicates a failed communications attempt, solid red indicates no communications.

#### **Easily Interfaced**

- RI-45 connector for Ethernet TCP/IP
- Ouick-disconnect screw terminal connectors
- 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 offline (comms down),or general purpose

#### Hardware

- 32-bit RISC CPU, 100 MHz
- Microcontroller

#### Memory

- 8 MB onboard Flash memory
  - 16 MB / 32 MB memory expansions available
- 32 MB SDRAM
- 256K SRAM

#### Warranty

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

Part Numbers

Base Part Number: 72000

#### Dimensions

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

Weight: 13.6 oz (.38 kg)

Enclosure Material: UL94 Polycarbonate

#### **Power Supply Requirements**

160 mA @ 12-18 VDC (with no readers connected) Recommended: Supervised linear power supply with battery backup, input surge protection, and AC Fail and battery low contact outputs. V2000 can supply

350 mA @ I2VDC to two connected readers.

Separate supervised DC supply 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

#### **Communication Ports**

TCP/IP - 10 or 100 Mbps

SIA standard Wiegand/Clock-and-Data - two 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

#### **Cable Distance**

TCP/IP - 300 feet (100 m) to next device using Category 5 cable, Alpha 9504C or 9405F

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)

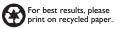
Input Circuits – 500 feet (150 m), 2-conductor, shielded, using

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.

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