

# V1000 Network Controller

Access Control Processing and Host Interface for up to 32 Door/Reader Interface, Input Monitor, or Output Control Units. • 71000



## ACCESS opportunity.

The HID VertX™ 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. The V1000 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 V1000 connects up to 32 Door/Reader, Input Monitor, or Output Control Interfaces via two independent RS-485 networks, each network having two sets of input connections for optimum system topology. 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

- ▶ Stores a complete access control and configuration database for up to 32 Reader Interfaces (up to 64 doors) and 44,000 cardholders with expansion capability up to 250,000 cardholders.
- ▶ The access control system interfaces with combinations of devices with a maximum of:
  - 32 Door/Reader interfaces (up to 64 doors/readers) or
  - 32 input monitor interfaces 9 (up to 512 monitor points) or
  - 32 output control interfaces (up to 384 control relays)
- ▶ Reports supervised inputs/alarms with 255 priorities.
- ▶ Includes an HTTP API, Windows® DLL API, and direct communication API.
- ▶ Allows local connection of a laptop computer for diagnostics and configuration.
- ▶ Connects to the host and other devices on a 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.
- ▶ Allows fallback communications via dialup or RF modem if TCP/IP network communication is lost.
- ▶ UL 294 and UL 1076 recognized component.

## Features

<b>Configuration</b>	Attractive polycarbonate enclosure protects components from damage, and all connections and indicators are fully identified by silk-screened nomenclature on the cover.
<b>Mounting</b>	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: <ul style="list-style-type: none"><li>• DC supply with battery back-up</li><li>• Enclosure tamper switch</li><li>• All connections made through conduit</li></ul> 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.
<b>Visual Indicators</b>	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.
<b>Easily Interfaced</b>	<ul style="list-style-type: none"><li>• RJ-45 connector for Ethernet TCP/IP</li><li>• Quick-disconnect screw terminal connectors:<ul style="list-style-type: none"><li>• Four RS-485 connections to interfaces</li><li>• 2 supervised analog inputs for general purpose applications</li><li>• 2 non-latching output relays for local alarm annunciation (rated 2A @ 30VDC)</li></ul></li><li>• DC Power input</li><li>• Tamper input*</li><li>• AC Power Fail input*</li><li>• Battery Fail input*</li></ul> *Can be configured as a general purpose input
<b>Power Distribution</b>	The user should supply 12VDC to connected interfaces. Separate supervised DC supplies with battery back-up are recommended for door locking or relay activated devices, HID MaxiProx® readers, and larger systems.
<b>Hardware</b>	<ul style="list-style-type: none"><li>• 32-bit RISC CPU, 100 MHz</li></ul>
<b>Memory</b>	<ul style="list-style-type: none"><li>• 8 MB onboard Flash memory</li><li>• 16 MB / 32 MB memory expansions available</li><li>• 32 MB SDRAM</li><li>• 256k SRAM</li></ul>
<b>Warranty</b>	Warranted against defects in materials and workmanship for 18 months. (See complete warranty policy for details.)
<b>Part Number</b>	Base Part Number: 71000

## 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

140 mA @ 12-18VDC

Recommended: Supervised linear power supply with battery backup, input surge protection, and AC Fail and Battery Low contact outputs.

Separate supervised DC supply with battery back-up recommended for relay activated devices.

### Operating Environment

Indoors, or customer-supplied NEMA-4 Enclosure

### Temperature

32° to 122° F (0° to 50° C)

### Humidity

5% to 95% relative, non-condensing

### Communication Ports

RS-485 – two wire.

TCP-IP – one port, 10 or 100 Mbps

### 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

RS-485 – 4000 feet per network (two independent

RS-485 networks) using Belden 3105 (22AWG) 2-twisted pair, shielded 100Ω cable

TCP/IP – 300 feet (100 m) to next device, using

Category 5 cable, Alpha 9504C or 9504F

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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MKT-V1000\_DS\_EN



**ACCESS** experience.

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