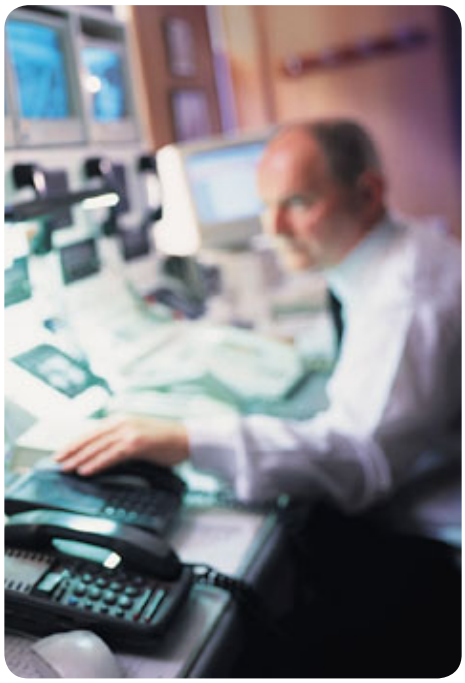
NETWORKED ACCESS SOLUTIONS

VertX™ V1000 Network Controller



ACCESS CONTROL PROCESSING AND HOST INTERFACE FOR UP TO 32 DOOR/READER INTERFACE, INPUT MONITOR, OR OUTPUT CONTROL UNITS. • 71000

- 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.
- Enables 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.
- Enables fallback communications via dialup or RF modem if TCP/IP network communication is lost.
- UL® 294 and UL® 1076 recognized component.

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 enables 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.

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 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 auxiliary input circuits
  - AC Fail Monitor*
  - Battery Fail Monitor*
  - Enclosure Tamper*

*Can be configured as a general purpose input

HARDWARE:

32-bit RISC CPU, 100 MHz

POWER DISTRIBUTION:

The user should supply 12 VDC 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.

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: 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 @ 12–18 VDC; Recommended: Supervised linear power supply with battery backup, input surge protection, and AC Fail and Battery Low contact outputs.
Operating Environment	Indoors, or customer-supplied NEMA-4 Enclosure
Operating Temperature	32° to 122° F (0° to 50° C)
Operating Humidity	5% to 95% relative, non-condensing
Communications 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 (22 AWG) 2-twisted pair, shielded 100 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 (22 AWG) or Alpha 2421C (18 AWG); Output Circuits–500 feet (150 m), 2-conductor, using ALPHA 1172C (22 AWG) or Alpha 1897C (18 AWG). Minimum wire gauge depends on cable length and current requirements.

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