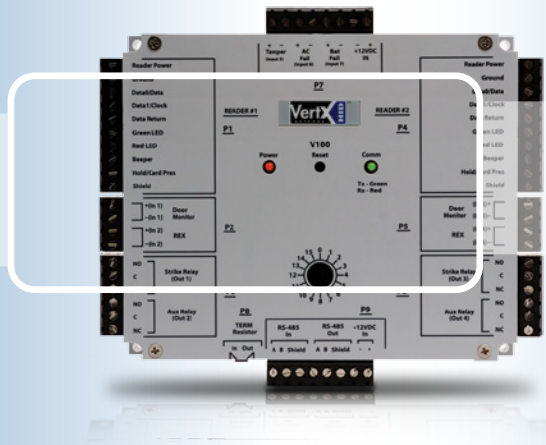


VertX™ V100 Door/ Reader Interface



ACCESS CONTROL PROCESSING FOR TWO READERS/ TWO DOORS • 70100

- 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.

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, enabling 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.

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 2A @ 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
Operating Temperature	32° to 122° F (0° to 50° C)
Operating Humidity	5% to 95% relative, non-condensing
Storage Temperature	-67° to 185° F (-55° to 85° C)
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	RS-485 — 4000 feet (1220 m) to host using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable; Wiegand — 500 feet (150 m) to reader using ALPHA 1299C 22 AWG, 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 (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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2016-07-26-vertx-v100-controller-ds-en PLT-00558

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VertX™ V200 Input Monitor Interface



ALARM INPUT PROCESSING FOR UP TO 16 ZONES • 70200

- Reports supervised or unsupervised alarm circuits.
- Off-normal condition programmable for each input point (NO or NC alarm devices may be used).
- Connects to the V1000 via RS-485.
- Receives and processes real-time commands from the V1000.
- Reports all activity to the V1000.
- Enables complex input/output linking when used with the V1000 and V300 Output Control Interface.
- Attractive polycarbonate enclosure protects components from damage.
- All connections and indicators are fully identified by silk-screened nomenclature on the cover.
- UL® 294 and UL® 1076 recognized components.

The HID VertX™ products provide a complete and fully featured hardware/firmware infrastructure for access control software host systems. The V200 input monitor interface connects up to 16 supervised input circuits. Each input point monitors and reports normal, off-normal, and alarm states. The V200 features on-board flash memory, enabling program updates to be downloaded through the network.

The V200 connects to the V1000 via 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.

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:
 - 16 input circuits
 - AC Fail Monitor*
 - Battery Fail Monitor*
 - Enclosure Tamper*

*Can be configured as a general purpose input

NON-LATCHING RELAY OUTPUTS (RATED 2A @ 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	50 mA @ 9-18 VDC. Recommended: Supervised linear power supply with battery back-up, 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 rated enclosure
Operating Temperature	32° to 122° F (0° to 50° C)
Operating Humidity	5% to 95% relative, non-condensing
Storage Temperature	-67° to 185° F (-55° to 85° C)
Communications Ports	RS-485 — two wire
Certifications	UL* 294 and UL* 1076 Recognized Component for the US, CSA 205 for Canada, FCC Class A Verificatio, 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 (1220 m) to host, using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable. Input Circuits — 500 feet (150 m), two-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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2016-07-29-vertx-v200-controller-ds-en PLT-00570

VertX™ V300 Output Control Interface



OUTPUT CONTROL PROCESSING FOR UP TO 12 DEVICES • 70300

- Off-normal status programmable for each input point (NO or NC alarm devices may be used).
- 12 latching Form-C relays, contacts rated at 2A @ 30VDC.
- Connects to the V1000 via RS-485.
- Receives and processes real-time commands from the V1000.
- Reports all activity to the V1000.
- Enables complex input/output linking when used with the V1000 and V200.
- Attractive polycarbonate enclosure protects components from damage.
- All connections and indicators are fully identified by silk-screened nomenclature on the cover.
- UL® 294 and UL® 1076 recognized component.

The HID VertX™ products provide a complete and fully featured hardware/firmware infrastructure for access control software host systems. The V300 output control interface contains 12 latching Form-C relays, which can connect up to 12 devices controllable by simple contact closures, such as logic inputs for process equipment, HVAC and elevator control panels, CCTV switchers, etc. Loads exceeding 2A @ 30 VDC should be controlled via interposing relays.

The V300 features on-board flash memory, enabling program updates to be downloaded via the network. The V300 connects to the V1000 through a high speed RS-485 network. The V1000 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.

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.

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

LOCAL PROCESSING

- Basic input/output linking for outputs 1 and 2, and auxiliary inputs 1 and 2

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.

WARRANTY

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

PART NUMBERS

Base Part Number: 70300



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	13.6 oz (.38 kg)
Enclosure Material	UL94 Polycarbonate
Power Supply Requirements	60 mA @ 9-18 VDC; 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.
Relay Rating	2A @ 30 VDC maximum load
Operating Environment	Indoors, or customer-supplied NEMA-4 rated enclosure
Operating Temperature	32° to 122° F (0° to 50° C)
Operating Humidity	5% to 95% relative, non-condensing
Storage Temperature	-67° to 185° F (-55° to 85° C)
Communications Ports	RS-485: two wire.
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 (1220 m) to host using Belden 3105A, 22 AWG twisted pair, shielded 100Ω cable 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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PLT-00581