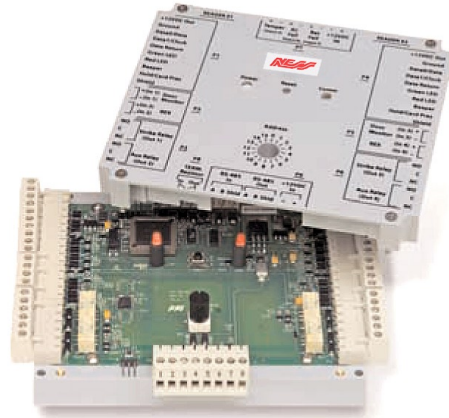


## Ness V100 Door/Reader Sub- Controller



## Overview

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Ness V-Series provide a complete and fully featured hardware/firmware infrastructure for access control software host systems. The V100 Door/Reader Sub-Controller 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 sub-controllers and by handling low-level transactions on the RS-485 network.

## Features

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- 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.

### 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

## Ness V100 Door/Reader Sub- Controller

### Features

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#### 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

#### OPERATING ENVIRONMENT

Indoors, or customer-supplied NEMA-4 Enclosure

TEMPERATURE: 0° to 50° C

HUMIDITY: 5% to 95% relative, non-condensing

#### COMMUNICATION 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 100 Ohm 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** – 150 m, 2-conductor, shielded, using ALPHA 1292C (22AWG) or Alpha 2421C (18AWG)

**Output Circuits** – 150 m, 2-conductor, using ALPHA 1172C

(22AWG) or Alpha 1897C (18AWG)

Minimum wire gauge depends on cable length and current requirements.

### Specifications

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DIMENSIONS: 147.32 mm W x 122.55 mm H x 32.38 mm D)

WEIGHT: 350g

ENCLOSURE MATERIAL: UL94 Polycarbonate

#### POWER SUPPLY REQUIREMENTS

60 mA @ 9-18 VDC (with no readers connected)

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 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 readers.

SYDNEY 02 8825 9222  
sales@ness.com.au

MELBOURNE 03 9875 6400  
nessmelb@ness.com.au

BRISBANE 07 3399 4910  
nessbris@ness.com.au

PERTH 08 9328 2511  
nessper@ness.com.au

ADELAIDE 08 8152 0000  
adelaide@ness.com.au



Security Products

www.ness.com.au

