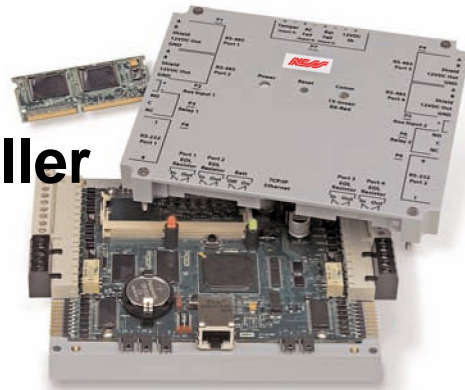


Ness V1000 IP Access - Network Controller



Overview

Ness V-Series products provide a complete and fully featured hardware/ firmware infrastructure for access control software host systems. The V1000 can communicate via industry standard TCP/IP protocol, over 10/100 Mbps Ethernet LAN and has a 32-bit RISC processor. 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 sub-controllers 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 sub-controllers 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 sub-controllers (up to 64 doors) and 5,000 cardholders with expansion capability up to 10,000 cardholders.
- The access control system sub-controllers with combinations of devices with a maximum of:
 - 32 Door/Reader Sub-Controllers (up to 64 doors/readers) or
 - 32 Input Monitor Sub-Controllers (up to 512 monitor points) or
 - 32 Output Control Sub-Controllers (up to 384 control relays)
- Reports supervised inputs/alarms with 255 priorities.
- 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.
- UL 294 and UL 1076 recognized component.

Ness V1000 Network Controller

Features

MOUNTING

Mount to any wall surface, using four screws. For UL compliance, one or more controllers can be mounted inside a locking NEMA-4 rated enclosure with:

- DC supply with battery back-up
- Enclosure tamper switch
- All connections made through conduit

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

- RJ-45 connector for Ethernet TCP/IP
 - Quick-disconnect screw terminal connectors:
 - Four RS-485 connections to interfaces
 - 2 supervised analog inputs for general purpose applications
 - 2 non-latching output relays for local alarm annunciation (rated 2A @ 30 VDC)
 - DC Power input
 - Tamper input*
 - AC Power Fail input*
 - Battery Fail input*
- * Can be configured as a general purpose input

HARDWARE

- 32-bit RISC CPU, 100 MHz

MEMORY

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

Specifications

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

WEIGHT: 350g

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.

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 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 (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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