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DN-6914 • A0-810

NION-232B

Serial Network Input/Output Node

Section: Network Systems

GENERAL

The **NION-232B** (Network Input Output Node) is the second-generation EIA-232 interface used with **UniNet™ 2000** integrated facilities monitoring network and the **Building Communications Interface (BCI)** product lines. All UniNet™ 2000 system components are based on LonWorks™ technologies.

Using protocol translation modules, the NION-232B provides transparent or interpreted communications between the UniNet™ workstation and control panels on the UniNet™. The NION-232B interprets standard network messages and sends corresponding messages to the control panel in its native protocol. Similarly, the NION-232B interprets native protocol messages from the control panel, then sends standard network messages to the workstation. This communication method allows panels of different manufacturers, technologies, and generations to operate on the same network. For a complete list of available interfaces, contact NOTIFIER.

The printer NION-232B allows an event printer to be placed anywhere on the UniNet™ network.

The NION-232B employs several methods of protection.

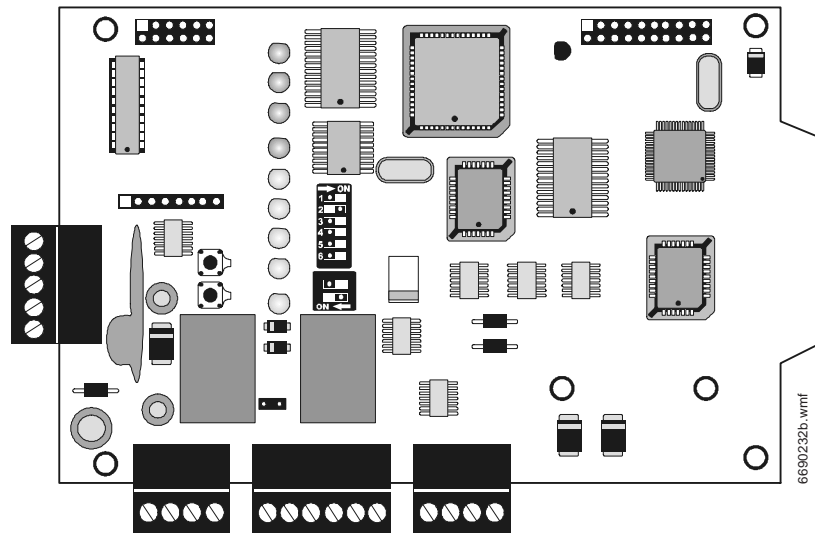
FEATURES

- Provides transparent or interpreted EIA-232 communications.
- Field-selectable baud rate settings.
- Powered from the monitored panel or auxiliary UL-Listed power supply.
- Low current consumption.
- Status, power, diagnostic, and I/O LEDs.
- Opto-isolated (optional) EIA-232 connection.
- Two dry-contact inputs and control relay outputs.
- Transformer-coupled network connection when Category 5 wire is used.
- Transient protection on all terminals.
- Standard wall-mount enclosure, or optional rack-mount enclosure with a capacity of up to four modules.



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NION-232B Board Layout

- Underwriters Laboratories Listed as a component of an 864 Proprietary Receiving System.

APPLICATIONS

The NION-232B is used with the UniNet™ integrated facilities monitoring network and Building Communications Interface (BCI) products. The NION-232B is used to provide a gateway to the UniNet™. It provides translation between native protocol messages from the control panels and standard UniNet™ messages. The ability to have the UniNet™ operate with standard messages and the translation being handled at the NION-232B allows control panels of different manufacturers, generations, and technologies to operate on the same network.

UniNet™ is a trademark of NOTIFIER. Echelon® is a registered trademark and LonWorks™ is a trademark of Echelon Corporation.

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact NOTIFIER. Phone: (203) 484-7161 FAX: (203) 484-7118



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INSTALLATION

The NION-232B can be mounted in the standard wall-mount enclosure adjacent to the control panel. Optionally, a rack-mount enclosure (**CHS-4L**) will accommodate up to four NIONS. Two connections are required to enable the NION-232B to establish network communication: the UniNet™ via an appropriate SMX transceiver and 24 VDC power. The power can come from either the monitored equipment or an auxiliary UL-Listed power supply. EIA-232 connection is made via standard screw terminals.

SPECIFICATIONS

- Listed to UL 864.
- **Power requirements:** 24 VDC @ 0.080 A.
- **Power from:** monitored control panel or UL-Listed auxiliary power supply.
- Field-selectable **baud rates** from 600 to 9600 baud.
- **Communicates** on LonWorks™-based network operating at 78.5 K baud over twisted-pair wiring and multi-mode optical fiber; or 1.2 Mbps for bi-directional fiber-optic.
- Two SPDT **control output relays** rated at 5 A @ 30 VDC.
- Two normally open, **dry contact inputs**.
- **Operating temperature range:** 0°C to 49°C (32°F to 120°F).
- **Storage temperature range:** -40°C to +80°C (-40°F to 176°F).
- **Network and EIA-232 connections** via standard screw terminals.
- **Mounts** in **NISCAB-1** enclosure: 9.25" (23.495 cm) wide x 12.25" (31.115 cm) high x 2.75" (6.985 cm) deep; or rack-mount in **CHS-4L** with **CAB-3/-4 Series** enclosure.

ORDERING INFORMATION

Order a NION-232B, one SMX transceiver (FTXC, S7FTXC, FOXC, DFXC), and one interface protocol.

Opto-isolated EIA-232 (OI232DB) and EIA-485 output (RS485DB) are optional.

NION-232B: Network input/output node, EIA-232 interface.

FTXC: SMX transceiver, network media interface for NION, for wire-based FT-10 topology.

S7FTXC: SMX transceiver, network media interface for NION, for **Style 7** wire-based FT-10 topology.

FOXC: SMX transceiver, network media interface for NION, for fiber-optic-based FT-10 topology.

DFXC: SMX transceiver, network media interface for NION, for bidirectional fiber-optic-based FO-10 topology.

EP-PANL *-FT: UniNet™ 2000 interface protocol for FT-10 and point-to-point fiber-optic media. Panel code must be specified; see note/example below.

EP-PANL *-DF: UniNet™ 2000 interface protocol for bi-directional fiber-optic media. Panel code must be specified; see note/example below.

***INTERFACE EXAMPLE: 2020** = AM2020 (i.e., EP-2020-FT or EP-2020-DF). For a list of available interfaces, refer to the NOTIFIER price list or contact NOTIFIER. Custom interfaces are also available.

Options:

OI232DB: Used when opto-isolation for the EIA-232 port is required to isolate potential ground fault conditions. Typical applications are industrial and environmental control system EIA-232 ports. The OI232DB is an add-on daughter board for the NION-232B. No external power or connections are required.

RS485DB: Provides a gateway to control panels that have an EIA-485 compatible port instead of an EIA-232 port. It is used with some conventional and addressable fire alarm control panels that do not have EIA-232 communications capability. RS485DB is an add-on daughter board for the NION-232B. This option is **not** UL Listed.

NISCAB-1: 16-gauge sheet metal enclosure 9.25" (23.495 cm) wide x 12.25" (31.115 cm) high x 2.75" (6.985 cm) deep; *order separately.*