

Allows a safety system to be monitored from Ethernet.

- The safety system can be remotely operated with a personal computer.
- The safety system can also be monitored by an Ethernet-compatible PLC of another brand.
- UDP packet messages supported.



Ordering Information

Name	Model	Unit version
Ethernet/IP-DeviceNet Router	NE1A-EDR01	1.0

Note: The standard NE1A-EDR01 is equipped with spring-cage terminal blocks, but screw terminal blocks are available if desired, e.g., to replace previous terminals.

Specifications

Certified Standards

Certification body	Standard
UL	UL508, ANSI/ISA 12.12.01 CSA22.2 No.142, CSA22.2 No.213

Specifications

DeviceNet communications power supply voltage		11 to 25 VDC (supplied via DeviceNet communications connector)
Internal circuit power supply voltage		20.4 to 26.4 VDC (24 VDC $-15\%/+10\%$)
Current consumption	DeviceNet communications power supply	24 VDC, 15 mA
	Internal circuit power supply	24 VDC, 230 mA
Overvoltage category		II
Noise immunity		Conforms to IEC 61131-2.
Vibration resistance		10 to 57 Hz: 0.35 mm, 57 to 150 Hz: 50 m/s ²
Shock resistance		150 m/s ² : 11 ms
Mounting method		35-mm DIN Track (IEC 60715 TH35-7.5/TH35-15)
Ambient operating temperature		-10 to 55°C
Ambient operating humidity		10 to 95% (with no condensation)
Ambient storage temperature		-40 to 70°C
Degree of protection		IP20
Weight		220 g max.

DeviceNet Communications Specifications

Communications protocol	DeviceNet compliant			
Connection form	Multi-drop system and T-branch system can be combined (for trunk line and branch lines)			
Communications speed	500/250/125 kbps			
Communications media	Special cable, 5 conductors (2 for communications, 2 for power supply, 1 for shielding)			
Communications distance	Communi-cations speed	Max. network length	Branch length	Total branch length
	500 kbps	100 m max. (100 m max.)	6 m max.	39 m max.
	250 kbps	250 m max. (100 m max.)	6 m max.	78 m max.
	125 kbps	500 m max. (100 m max.)	6 m max.	156 m max.
	Note: Figures in parentheses () indicate values when a thin cable is used.			
Communications power supply	11 to 25 VDC			
No. of connectable nodes	64 (including Master)			

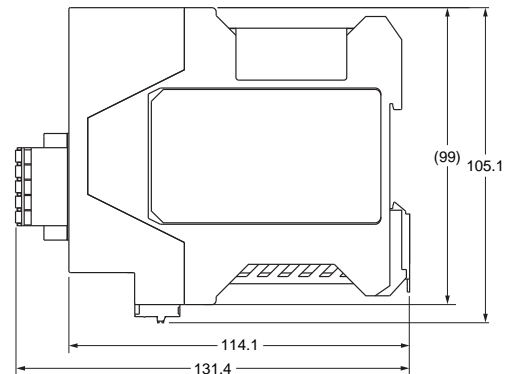
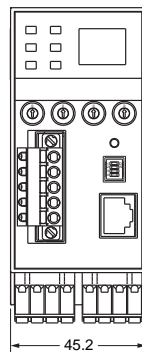
Ethernet/IP Communications Specifications

Media access method	CSMA/CD
Modulation method	Baseband
Transmission path type	Star
Transmission speed	10 Mbps (10BASE-T) 100 Mbps (100BASE-TX)
Transmission media	Shielded twisted pair cable (STP) : Category 5, 5e
Transmission distance	100 m (distance between hub and node)
No. of cascade-connectable Units	No limit when a switching hub is used.

Dimensions

(Unit: mm)

NE1A-EDR01



Safety Precautions

Refer to the "Safety Precautions for All DeviceNet Safety Systems" for precautions.

Be sure to read the following user's manual for precautions and other details required for correct use of the Safety Network Controller.

Ethernet/IP-DeviceNet Router User's Manual (Cat. No. Z912)

Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

(a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.

(b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See <http://www.omron.com/global/> or contact your Omron representative for published information.

Limitation on Liability; Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

Errors and Omissions.

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.