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**IVN-8561**

SPECIFICATIONS

# IVN-8561

## 100BASE-T1 Media Converter

### Definitions

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*Warranted* specifications describe the performance of a model under stated operating conditions and are covered by the model warranty.

The following characteristic specifications describe values that are relevant to the use of the model under stated operating conditions but are not covered by the model warranty.

- *Typical* specifications describe the performance met by a majority of models.
- *Nominal* specifications describe an attribute that is based on design, conformance testing, or supplemental testing.

Specifications are *Typical* unless otherwise noted.

### Conditions

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Specifications are typical at 25 °C unless otherwise noted.

### Ethernet Characteristics

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Network interface

|                    |            |
|--------------------|------------|
| Ports 1 & 3        | 100BASE-T1 |
| Ports 2 & 4        | 100BASE-TX |
| Communication rate | 100 Mbps   |

### Power Requirements

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|                       |                               |
|-----------------------|-------------------------------|
| Input voltage range   | 5 VDC nominal; USB 3.0 Type C |
| Max power consumption | 2.8 W                         |

# Physical Characteristics

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Dimensions           | 143 mm × 95 mm × 38 mm (5.6 in. × 3.7 in. × 1.5 in.) |
| Weight               | 391 g (13.8 oz)                                      |
| I/O connectors       |                                                      |
| Ports 1 & 3          | 2-position terminal block; Automotive Ethernet       |
| Ports 2 & 4          | RJ-45; Ethernet                                      |
| Power                | USB Type C                                           |
| Front-panel LEDs     |                                                      |
| Power                | Green                                                |
| Ports 1 & 3          | Link/Activity, Green                                 |
| Ports 2 & 4          | Link/Activity, Green                                 |
| 100 Mbps             | Green                                                |
| DIP switches         |                                                      |
| Ports 1 & 3          | Master/Slave                                         |
| Measurement Category | 1 <sup>1</sup>                                       |



**Caution** Do not use the IVN-8561 for connections to signals or for measurements within Categories II, III, or IV.



**Caution** The protection provided by the IVN-8561 can be impaired if it is used in a manner not described in this document.



**Caution** Clean the hardware with a soft, nonmetallic brush. Make sure that the hardware is completely dry and free from contaminants before returning it to service.

<sup>1</sup> Measurement Categories CAT I and CAT O are equivalent. These test and measurement circuits are not intended for direct connections to the MAINS building installations of Measurement Categories CAT II, CAT III, CAT IV.

# Environmental

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## Operating Environment

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Ambient temperature range | -20 °C to 55 °C (Tested in accordance with IEC 60068-2-1 and IEC 60068-2-2.) |
| Relative humidity range   | 10% to 90%, noncondensing (Tested in accordance with IEC 60068-2-56.)        |
| Maximum Altitude          | 2,000 m (800 mbar)                                                           |
| Pollution Degree          | 2                                                                            |

Indoor use only.

## Storage Environment

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Ambient temperature range | -20 °C to 70 °C (Tested in accordance with IEC 60068-2-1 and IEC 60068-2-2.) |
| Relative humidity range   | 5% to 95%, noncondensing (Tested in accordance with IEC 60068-2-56.)         |

## Safety

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This product is designed to meet the requirements of the following electrical equipment safety standards for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA C22.2 No. 61010-1



**Note** For UL and other safety certifications, refer to the product label or the [Online Product Certification](#) section.

## Electromagnetic Compatibility

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This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326-1 (IEC 61326-1): Class A emissions; Industrial immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- EN 55022 (CISPR 22): Class A emissions
- EN 55024 (CISPR 24): Immunity
- AS/NZS CISPR 11: Group 1, Class A emissions
- AS/NZS CISPR 22: Class A emissions

- FCC 47 CFR Part 15B: Class A emissions
- ICES-001: Class A emissions



**Note** In the United States (per FCC 47 CFR), Class A equipment is intended for use in commercial, light-industrial, and heavy-industrial locations. In Europe, Canada, Australia and New Zealand (per CISPR 11) Class A equipment is intended for use only in heavy-industrial locations.



**Note** Group 1 equipment (per CISPR 11) is any industrial, scientific, or medical equipment that does not intentionally generate radio frequency energy for the treatment of material or inspection/analysis purposes.



**Note** For EMC declarations and certifications, and additional information, refer to the [Online Product Certification](#) section.

## CE Compliance C €

This product meets the essential requirements of applicable European Directives, as follows:

- 2014/35/EU; Low-Voltage Directive (safety)
- 2014/30/EU; Electromagnetic Compatibility Directive (EMC)

## Online Product Certification

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and the DoC for this product, visit [ni.com/certification](https://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

## Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the *Minimize Our Environmental Impact* web page at [ni.com/environment](https://ni.com/environment). This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

## Waste Electrical and Electronic Equipment (WEEE)



**EU Customers** At the end of the product life cycle, all NI products must be disposed of according to local laws and regulations. For more information about how to recycle NI products in your region, visit [ni.com/environment/weee](https://ni.com/environment/weee).

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Visit [ni.com/register](http://ni.com/register) to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

A Declaration of Conformity (DoC) is our claim of compliance with the Council of the European Communities using the manufacturer's declaration of conformity. This system affords the user protection for electromagnetic compatibility (EMC) and product safety. You can obtain the DoC for your product by visiting [ni.com/certification](http://ni.com/certification). If your product supports calibration, you can obtain the calibration certificate for your product at [ni.com/calibration](http://ni.com/calibration).

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