Installation Instructions

ControlNet-to-DeviceNet Linking Device

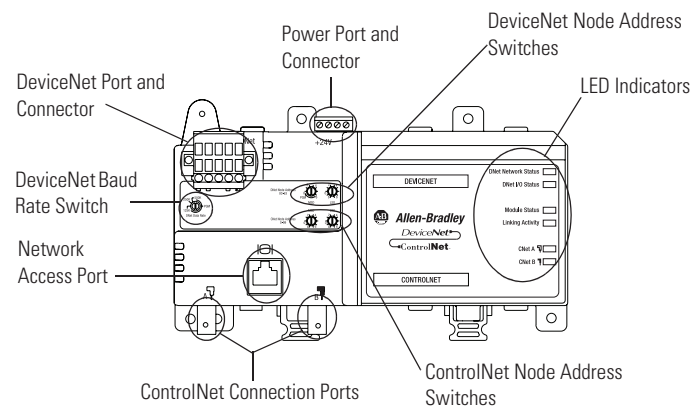Catalog Number 1788-CN2DN

About the CN2DN Linking Device

Use following graphic to identify the components of your ControlNet-to-DeviceNet linking device.

CN2DN Linking Device Components

The DeviceNet connection port is located on the top left corner of the device. See the section titled Connect the CN2DN Device to a DeviceNet Network for more information.

Rotary switches to set the ControlNet node address, DeviceNet node address, and the DeviceNet communication rate are located just below the power and DeviceNet ports. See the section titled Uninstall the CN2DN Linking Device for more information.

⚠ ATTENTION	The Network Access Port (NAP) is intended for local temporary programming use only. It is not for permanent connection. Use only specified NAP cable to the network.

Located below the rotary switches, the ControlNet network access port allows for easy access of the ControlNet network using a laptop and 1784-PCC card. Use 1786-CP connection cable to access the ControlNet network using the NAP port.

Two ControlNet connection ports are located on the bottom left side of the device and provide the availability to connect a redundant network. See the section titled Connect the CN2DN Device to a ControlNet Network on page 16 for more information.

For more information about the power port and connector, see the section titled Wire a Power Supply to the CN2DN Device on page 13.

For more information about the LED indicators, see the section titled Interpret the LED Indicators on page 21.

Parts List

The following parts are included with the 1788-CN2DN linking device.

1788-CN2DN Parts
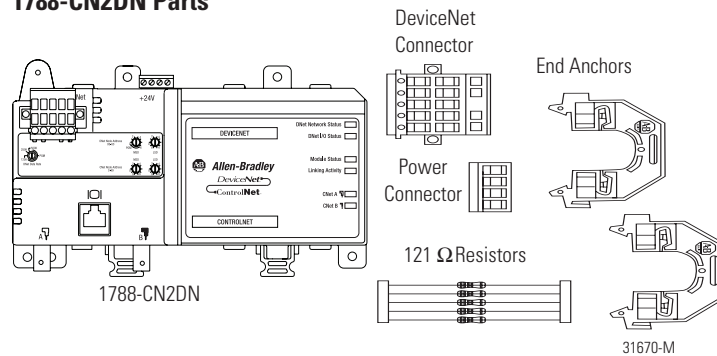
- One 1788-CN2CN linking device
- One power input connector
- One DeviceNet 10-pin linear connector
- Five 121 Ω resistors
- Two end anchors

Required System Components

In order to install your 1788-CN2DN device, you will need the following system components.

- A 24V dc power supply
  and
- A securely installed zinc-plated, yellow-chrome steel, DIN rail, panel, or other suitable fixture.

Install the CN2DN Device

Complete the following tasks to install the CN2DN Linking Device.

- Mount the CN2DN Device on a DIN Rail
- Mount the CN2DN Device on a Panel or Other Fixture
- Wire a Power Supply to the CN2DN Device
- Uninstall the CN2DN Linking Device
- Set the Node Addresses and Communication Rate
- Connect the CN2DN Device to a ControlNet Network
- Connect the CN2DN Device to a DeviceNet Network

Environmental Specifications

Attribute	Value
Conducted RF Immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz…80 MHz
EFT/B Immunity	IEC 61000-4-4: ±4 kV at 2.5 kHz on power ports ±2 kV at 5 kHz on communications ports
Emissions	CISPR 11: Group 1, Class A
ESD Immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF Immunity	IEC 61000-4-3: 10V/m with 1 KHz sine-wave 80% AM from 30...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz
Relative Humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% noncondensing
Shock, Non-Operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 50 g
Shock, Operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Surge Transient Immunity	IEC 61000-4-5: ±2 kV line-earth(CM) on communications ports

Environmental Specifications

Attribute	Value
Temperature, Operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): 0…60 °C (32…140 °F)
Temperature, Storage	IEC 60068-2-1 (Test Ab, Unpackaged Non-operating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Non-operating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Non-operating Thermal Shock): -40...85 °C (-40...185 °F)
Vibration	IEC 60068-2-6 (Test Fc, Operating): 2 g @ 10…500 Hz

Certifications

The following certifications apply when the product is marked.

Certification[1]	Value
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810
CE	European Union 89/336/EEC EMC Directive, compliant with: EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
CI	ControlNet Int'l conformance tested to ControlNet specifications.
CSA	CSA Certified Process Control Equipment. See CSA File LR54689C. CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations. See CSA File LR69960C.
EEx	European Union 94/9/EC ATEX Directive, compliant with: EN 60079-15; Potentially Explosive Atmospheres, Protection "n" (Zone 2)
ODVA	ODVA conformance tested to DeviceNet specifications.

[1]   See the Product Certification link at http://www.ab.com for Declarations of Conformity, Certificates, and other certification details.