NX-EIC

Connecting to open industrial network standard EtherNet/IP

- The EtherNet/IP Coupler Unit is the link between the EtherNet/IP multivendor network and the NX-series I/O Units and Safety Units. With wide variety of the I/O Units and Safety Units, the NX-series is the perfect match for the CJ-series and multivendor Controllers.

Features

- Up to 63 NX-IO Units can be connected to one EtherNet/IP Coupler Unit. Standard and high-performance units can be mixed.*
- Each Coupler plus its I/O form just a single EtherCAT node on the network.
- I/O control and safety control can be integrated by connecting Units for safety.
- The IP address can be found on the label on the Unit, without using software.
- Slave configuration by Sysmac Studio can be done centrally via the controller, or on-the-spot using the Coupler's built-in USB port.
* Input per Coupler Unit: Maximum 504 bytes, Output per Coupler Unit: Maximum 504 bytes

System Configuration

System Configuration of Slave Terminals

EtherNet/IP master
CJ-series CPU Unit or master from another manufacturer

EtherNet/IP port

Communications cable
Ethernet cables

NX-series EtherNet/IP
Coupler Unit NX-EIC202

Network Configurator

Peripheral USB port

EDS files

Industrial Switching Hubs
W4S1

EtherNet/IP Unit

End Cover

NX Units *

Sysmac Studio
Support Software

Connection to peripheral USB
port on EtherNet/IP Coupler Unit

Note: Do not make a loop connection in the communications path between Ethernet switches.
* Refer to *Configuration Unit* on page 8 for the NX Units that can be connected to the NX-series EtherNet/IP Coupler Unit.

OMRON

Ordering Information

Applicable standards
Refer to the OMRON website (www.ia.omron.com) or ask your OMRON representative for the most recent applicable standards for each model.

EtherNet/IP Coupler Unit

Product name	Current consumption	Maximum I/O power supply current	Model
EtherNet/IP Coupler Unit	1.60 W or lower	10 A	**NX-EIC202**

Automation Software Sysmac Studio

The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including the NJ/NX-series CPU Units, NY-series Industrial PC, EtherCAT Slave, and the HMI.

For details, refer to your local OMRON website and *Sysmac Studio Catalog* (Cat. No. P138).

Connecting Cable

Peripheral (USB) Port

Use a commercially available USB-certified cable.

Specifications: USB 1.1 or 2.0 cable (A connector - B connector), 5.0 m max.

Recommended EtherNet/IP Communications Cables

For EtherNet/IP, required specification for the communications cables varies depending on the baud rate. For 100BASE-TX/10BASE-T, use a straight or cross STP (shielded twisted-pair) cable of category 5 or higher. For 1000BASE-T, use a straight or cross STP cable of category 5e or higher with double shielding (aluminum tape and braiding).

Cable with Connectors

Item	Appearance	Recommended manufacturer	Cable length (m)	Model
Cable with Connectors on Both Ends (RJ45/RJ45) Standard RJ45 plugs type *1 Wire Gauge and Number of Pairs: AWG26, 4-pair Cable Cable Sheath material: PUR Cable color: Yellow *2 EtherCAT/ EtherNet/IP (10BASE/100BASE)		OMRON	0.3	**XS6W-6PUR8SS30CM-YF**
			0.5	**XS6W-6PUR8SS50CM-YF**
			1	**XS6W-6PUR8SS100CM-YF**
			2	**XS6W-6PUR8SS200CM-YF**
			3	**XS6W-6PUR8SS300CM-YF**
			5	**XS6W-6PUR8SS500CM-YF**
Cable with Connectors on Both Ends (RJ45/RJ45) Rugged RJ45 plugs type *1 Wire Gauge and Number of Pairs: AWG22, 2-pair Cable Cable color: Light blue EtherCAT/ EtherNet/IP (10BASE/100BASE)		OMRON	0.3	**XS5W-T421-AMD-K**
			0.5	**XS5W-T421-BMD-K**
			1	**XS5W-T421-CMD-K**
			2	**XS5W-T421-DMD-K**
			5	**XS5W-T421-GMD-K**
			10	**XS5W-T421-JMD-K**
Cable with Connectors on Both Ends (M12 Straight/M12 Straight) Shield Strengthening Connector cable *3 M12/Smartclick Connectors Wire Gauge and Number of Pairs: AWG22, 2-pair Cable Cable color: Black EtherCAT/ EtherNet/IP (10BASE/100BASE)		OMRON	0.5	**XS5W-T421-BM2-SS**
			1	**XS5W-T421-CM2-SS**
			2	**XS5W-T421-DM2-SS**
			3	**XS5W-T421-EM2-SS**
			5	**XS5W-T421-GM2-SS**
			10	**XS5W-T421-JM2-SS**
Cable with Connectors on Both Ends (M12 Straight/RJ45) Shield Strengthening Connector cable *3 M12/Smartclick Connectors Rugged RJ45 plugs type Wire Gauge and Number of Pairs: AWG22, 2-pair Cable Cable color: Black EtherCAT/ EtherNet/IP (10BASE/100BASE)		OMRON	0.5	**XS5W-T421-BMC-SS**
			1	**XS5W-T421-CMC-SS**
			2	**XS5W-T421-DMC-SS**
			3	**XS5W-T421-EMC-SS**
			5	**XS5W-T421-GMC-SS**
			10	**XS5W-T421-JMC-SS**

*1. Cables with standard RJ45 plugs are available in the following lengths: 0.2 m, 0.3 m, 0.5 m, 1 m, 1.5 m, 2 m, 3 m, 5 m, 7.5 m, 10 m, 15 m, 20 m. Cables with rugged RJ45 plugs are available in the following lengths: 0.3 m, 0.5 m, 1 m, 2 m, 3 m, 5 m, 10 m, 15 m.
For details, refer to the *Industrial Ethernet Connectors Catalog* (Cat. No. G019).

*2. Cables colors are available in blue, yellow, or Green.

*3. For details, contact your OMRON representative.

Cables / Connectors

Item			Recommended manufacturer	Model
Products for EtherNet/IP (100BASE-TX)	Wire Gauge and Number of Pairs: AWG24, 4-pair Cable	Cables	Kuramo Electric Co.	**KETH-SB *1**
		RJ45 Connectors	Panduit Corporation	**MPS588-C *1**
Products for EtherNet/IP (100BASE-TX)	Wire Gauge and Number of Pairs: AWG22, 2-pair Cable	Cables	Kuramo Electric Co.	**KETH-PSB-OMR *2**
			JMACS Japan Co., Ltd.	**PNET/B *2**
		RJ45 Assembly Connector	OMRON	**XS6G-T421-1 *2**

*1. We recommend you to use above cable for EtherNet/IP and RJ45 Connector together.
*2. We recommend you to use above cable for EtherNet/IP and RJ45 Assembly Connector together.

Optional Products

Product name	Specification				Model
Unit/Terminal Block Coding Pins	Pins for 10 Units (30 terminal block pins and 30 Unit pins)				**NX-AUX02**

Product name	Specification				Model
	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	
Terminal Block	8	A/B	Provided	10 A	**NX-TBC082**

Accessories

End Cover (NX-END01)

One End Cover is provided together with the EtherNet/IP Coupler Unit.

Protrusions for removing the Unit

Unit hookup guide →

Unit hookup guide →

Protrusions for removing the Unit
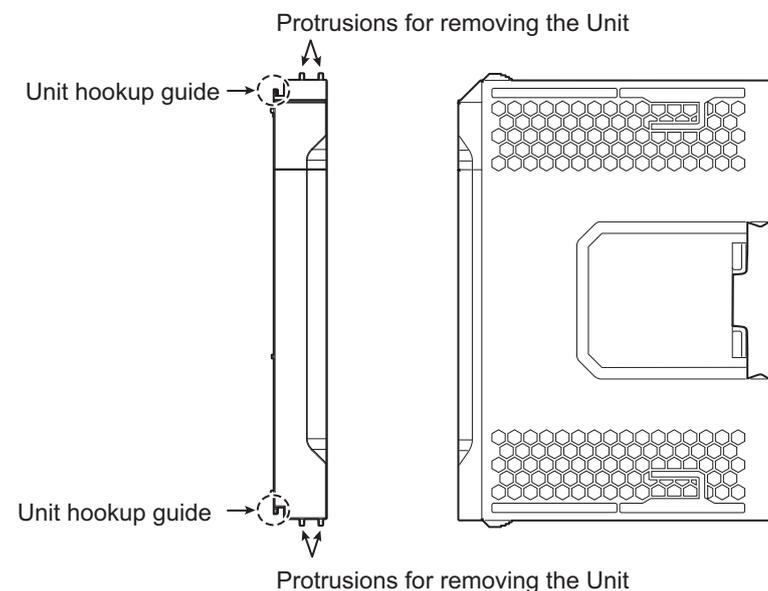
General Specification

Item		Specification
Enclosure		Mounted in a panel
Grounding method		Ground to 100 Ω or less
Operating environment	Ambient operating temperature	0 to 55°C
	Ambient operating humidity	10% to 95% (with no condensation or icing)
	Atmosphere	Must be free from corrosive gases.
	Ambient storage temperature	−25 to 70°C (with no condensation or icing)
	Altitude	2,000 m max.
	Pollution degree	Pollution degree 2 or less: Meets IEC 61010-2-201.
	Noise immunity	Conforms to IEC 61000-4-4. 2 kV (power supply line)
	Overvoltage category	Category II: Meets IEC 61010-2-201.
	EMC immunity level	Zone B
	Vibration resistance	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5-mm amplitude, 8.4 to 150 Hz, acceleration of 9.8 m/s², 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total) *1
	Shock resistance	Conforms to IEC 60068-2-27. 147 m/s², 3 times each in X, Y, and Z directions *1
Applicable standards *2		cULus: Listed UL508, ANSI/ISA 12.12.01 EU: EN 61131-2, C-Tick or RCM, KC: KC Registration

*1. Refer to the *NX-series Digital I/O Units User's Manual* (Cat. No. W521) for the vibration and shock resistance specifications of the Relay Output Unit.
*2. Refer to the OMRON website (http://www.ia.omron.com/) or consult your OMRON representative for the most recent applicable standards for each model.

EtherNet/IP Coupler Unit Specifications

Item		Specification	
Model		NX-EIC202	
Number of connectable NX Units		63 Units max.*1	
Communications protocols		EtherNet/IP	
		UDP/IP and TCP/IP (Message Services)	Number of buffers (sockets): • 8 message buffers for server • No message buffers for client • Shared buffers for UDP/IP messages and TCP/IP messages Maximum message size: • Request: 492 bytes • Response: 496 bytes Maximum NX output data size: • 490 bytes Maximum NX input data size: • 496 bytes
Modulation		Baseband	
Link speed		100 Mbps	
Physical layer		100BASE-TX (IEEE 802.3)	
Received Packet Interval (RPI, refresh cycle)		4 to 1,000 ms	
Allowed communications bandwidth addressing to the local node		1,000 pps	
Topology		Line, Tree, Star	
Ethernet Switch		Layer 2 Ethernet switch	
Transmission media		Category 5 or higher twisted-pair cable (Recommended cable: double-shielded cable with aluminum tape and braiding)	
Transmission distance		Distance between nodes: 100 m or less	
NX bus I/O data size		Input: 512 bytes max. (including input data, status, and unused areas) Output: 512 bytes max. (including output data and unused areas)	
EtherNet/IP I/O connection size		Input: 504 bytes max. (including input data, status, and unused areas) Output: 504 bytes max. (including output data and unused areas)	
Refreshing methods		Free-Run refreshing	
Unit power supply *2	Power supply voltage	24 VDC (20.4 to 28.8 VDC)	
	NX Unit power supply capacity	10 W max. (Refer to *Installation orientation and restrictions* for details.)	
	NX Unit power supply efficiency	70%	
	Isolation method	No isolation between NX Unit power supply and Unit power supply terminals	
	Current capacity of power supply terminals	4 A max.	
I/O power supply *2	Power supply voltage	5 to 24 VDC (4.5 to 28.8 VDC) *3	
	Maximum I/O power supply current	10 A (Refer to *Installation orientation and restrictions* for details.)	
	Current capacity of power supply terminals	10 A max.	
NX Unit power consumption		1.60 W max.	
Current consumption from I/O power supply		10 mA max. (for 24 VDC)	

*1. Refer to the *NX-series Safety Control Unit User's Manual* (Cat. No. Z930) for the number of Safety Control Units that can be connected.
*2. Refer to the *NX-series EtherNet/IP™ Coupler Unit User's Manual* (Cat. No. W536) for procedures for designing the Unit power supply system and I/O power supply system.
*3. Use a voltage that is appropriate for the I/O circuits of the NX Units and the connected external devices.

Item	Specification
Dielectric strength	510 VAC for 1 min, leakage current: 5 mA max. (between isolated circuits)
Insulation resistance	100 VDC, 20 MΩ min. (between isolated circuits)
External connection terminals	Communications Connector For EtherNet/IP communications. • RJ45 × 2 (shielded)
	Screwless Clamping Terminal Block For Unit power supply, I/O power supply, and grounding. Removable.
	Peripheral USB Port For Sysmac Studio connection. • Physical layer: USB 2.0-compliant, B-type connector • Transmission distance: 5 m max.
Dimensions	46 × 100 × 71 mm (W×H×D)
Weight	150 g max.
Installation orientation and restrictions	Installation orientation: 6 possible orientations Restrictions: • Used in the upright installation orientation. (Graph: Unit power supply [W] vs Ambient temperature [°C] — 10 W output, 40°C; 8.5 W output, 55°C) • Used in any other orientation than the upright installation orientation. (Graph: Unit power supply [W] vs Ambient temperature [°C] — 10 W output, 40°C; 6.0 W output, 55°C) (Graph: I/O power supply [A] vs Ambient temperature [°C] — 10 A current, 45°C; 6 A current, 55°C)
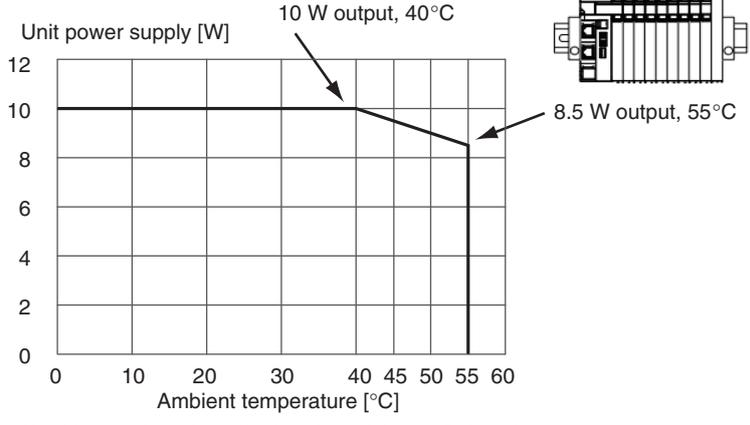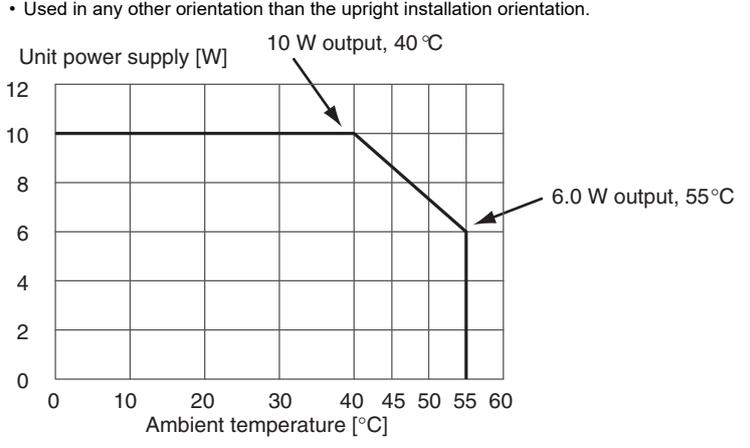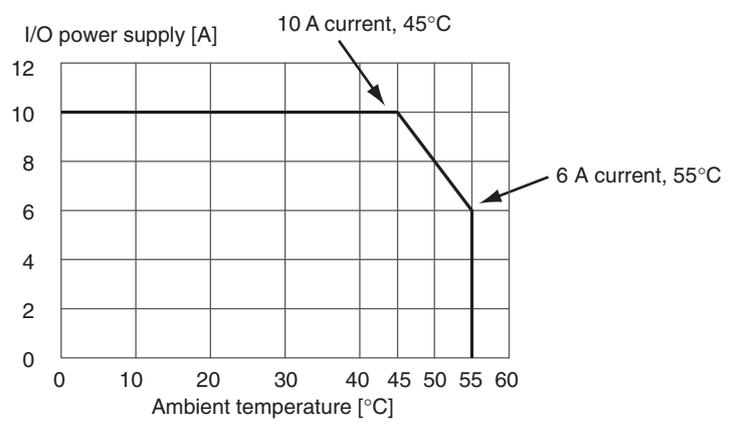
Item	Specification
Circuit layout	Peripheral USB port IN communications connector OUT communications connector Terminal block — UV, UV, UG, UG, IOV, IOG Internal circuits Non-isolated power supply circuits UNIT PWR LED I/O PWR LED NX Unit power supply + NX Unit power supply − I/O power supply + I/O power supply − NX bus connector DIN Track contact plate
Terminal arrangement	A1 — UV — UV — B1 Unit power supply (24 VDC) UG — UG Through-wiring for unwired terminals. I/O power supply (5 to 24 VDC) IOV — IOG A8 — B8 Ground to 100 Ω or less.
Accessory	End Cover (NX-END01): 1

Configuration Unit

Refer to the user's manuals for information on the NX Units that can be connected to the NX-series EtherNet/IP Coupler Unit.

EtherNet/IP Coupler Unit

Unit	Model
EtherNet/IP Coupler Unit	NX-EIC202

I/O Units

Unit	Model				
	2-point Units	4-point Units	8-point Units	16-point Units	32-point Units
Digital Input Unit	–	NX-ID3317 NX-ID3343 NX-ID3417 NX-ID3443 NX-IA3117	NX-ID4342 NX-ID4442	NX-ID5142-1 NX-ID5142-5 NX-ID5342 NX-ID5442	NX-ID6142-5 NX-ID6142-6 NX-ID6342 NX-ID6442
Digital Output Unit	NX-OC2633 NX-OC2733	NX-OD3121 NX-OD3153 NX-OD3256 NX-OD3257 NX-OD3268	NX-OD4121 NX-OD4256 NX-OC4633	NX-OD5121 NX-OD5121-1 NX-OD5121-5 NX-OD5256 NX-OD5256-1 NX-OD5256-5	NX-OD6121 NX-OD6121-5 NX-OD6121-6 NX-OD6256 NX-OD6256-5
Digital Mixed I/O Unit	–	–	–	NX-MD6121-5 NX-MD6121-6 NX-MD6256-5	–
Analog Input Unit	NX-AD2603 NX-AD2604 NX-AD2608 NX-AD2203 NX-AD2204 NX-AD2208	NX-AD3603 NX-AD3604 NX-AD3608 NX-AD3203 NX-AD3204 NX-AD3208	NX-AD4603 NX-AD4604 NX-AD4608 NX-AD4203 NX-AD4204 NX-AD4208	–	–
Analog Output Unit	NX-DA2603 NX-DA2605 NX-DA2203 NX-DA2205	NX-DA3603 NX-DA3605 NX-DA3203 NX-DA3205	–	–	–
Temperature Input Unit	NX-TS2101 NX-TS2102 NX-TS2104 NX-TS2201 NX-TS2202 NX-TS2204	NX-TS3101 NX-TS3102 NX-TS3104 NX-TS3201 NX-TS3202 NX-TS3204	–	–	–
Heater Burnout Detection Unit	–	NX-HB3101 NX-HB3201	–	–	–

Temperature Control Units

Unit	Model		
	2CH	4CH	8CH
Temperature Control Unit	NX-TC2405, NX-TC2406, NX-TC2407, NX-TC2408	NX-TC3405, NX-TC3406, NX-TC3407, NX-TC3408, NX-HTC3510-5	NX-HTC4505-5

Load Cell Input Unit

Unit	Model
Load Cell Input Unit	NX-RS1201

Position Interface Units

Unit	Model	
	1CH	2CH
Incremental Encoder Input Unit	NX-EC0112, NX-EC0122, NX-EC0132, NX-EC0142	NX-EC0212, NX-EC0222
SSI Input Unit	NX-ECS112	NX-ECS212
Pulse Output Unit	NX-PG0112, NX-PG0122	–

Communications Interface Units

Unit	Model
Communications Interface Unit	NX-CIF101, NX-CIF105, NX-CIF210

System Units

Unit	Model
Additional NX Unit Power Supply Unit	NX-PD1000
Additional I/O Power Supply Unit	NX-PF0630, NX-PF0730
I/O Power Supply Connection Unit	NX-PC0010, NX-PC0020, NX-PC0030
Shield Connection Unit	NX-TBX01

IO-Link Master Unit

Unit	Model
IO-Link Master Unit	NX-ILM400

Safety Control Units

Unit	Model
Safety CPU Unit	NX-SL3300 *1
Safety Input Unit	NX-SIH400 *2, NX-SID800
Safety Output Unit	NX-SOH200, NX-SOD400

*1. Safety CPU Unit Ver.1.1 or higher.
*2. Safety Input Unit Ver.1.1 or higher.

Version Information

Depending on the type and model of the Unit, some Units do not have all of the versions given in the corresponding versions. If a Unit does not have the specified version, support is provided by the oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

The versions of each unit and support tool listed in the Corespnding unit version/version indicate whether the EtherNet/IP Coupler Unit can be connected or configured.

Connection to the NJ/NX-series CPU Unit or NY-series Industrial PC

NX-series CPU Unit or NY-series Industrial PC

EtherNet/IP Coupler Unit		Corresponding unit version/version			
Model	Unit version	Unit version of CPU Unit or Industrial PC	Sysmac Studio version	Network Configurator for EtherNet/IP version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.14	Ver.1.19	Ver.3.21	Ver.2.4 *
	Ver.1.0	Not possible.	Not possible.	Not possible.	Not possible.

* The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.

NJ-series CPU Unit

EtherNet/IP Coupler Unit		Corresponding unit version/version					
Model	Unit version	Unit version of CPU Unit	Unit version of CJ1W-EIP21S	Unit version of CJ1W-EIP21	Sysmac Studio version	Network Configurator for EtherNet/IP version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.14	Ver.1.0 (Lot number 241001□ or later)	Ver.2.1	Ver.1.19	Ver.3.21	Ver.2.4 *
	Ver.1.0	Not possible.	Not possible.	Not possible.	Not possible.	Not possible.	Not possible.

* The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.

Connection to CS/CJ/CP-series CPU Unit

CS1G/CS1H/CJ1H/CJ1M * CPU Units

* Final order entry date for CJ1M:The end of March, 2021

EtherNet/IP Coupler Unit		Corresponding unit version/version					
Model	Unit version	Unit version of CPU Unit	Unit version of CS1W-EIP21S	Unit version of CS1W-EIP21/ CJ1W-EIP21	Network Configurator for EtherNet/IP version	NX-IO Configurator version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.3.0	Ver.1.0	Ver.2.1	Ver.3.00	Ver.1.00	Ver.2.4 *1
	Ver.1.0					Ver.1.00 *2	Ver.2.2

*1. The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.
*2. You can connect only to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect with any other path.

CJ2H-CPU6□/CJ2M-CPU1□/CP1H CPU Unit

EtherNet/IP Coupler Unit		Corresponding unit version/version					
Model	Unit version	Unit version of CPU Unit	Unit version of CJ1W-EIP21S	Unit version of CJ1W-EIP21	Network Configurator for EtherNet/IP version	NX-IO Configurator version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.0	Ver.1.0	Ver.2.1	Ver.3.00	Ver.1.00	Ver.2.4 *1
	Ver.1.0					Ver.1.00 *2	Ver.2.2

*1. The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.
*2. You can connect only to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect with any other path.

CJ2H-CPU6□-EIP CPU Unit

EtherNet/IP Coupler Unit		Corresponding unit version/version					
Model	Unit version	Unit version of CPU Unit	Unit version of CJ1W-EIP21S	Unit version of CJ1W-EIP21	Network Configurator for EtherNet/IP version	NX-IO Configurator version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.5	Ver.1.0	Ver.2.1	Ver.3.00	Ver.1.00	Ver.2.4 *1
	Ver.1.0					Ver.1.00 *2	Ver.2.2

*1. The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.
*2. You can connect only to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect with any other path.

CJ2M-CPU3□ CPU Unit

EtherNet/IP Coupler Unit		Corresponding unit version/version					
Model	Unit version	Unit version of CPU Unit	Unit version of CJ1W-EIP21S	Unit version of CJ1W-EIP21	Network Configurator for EtherNet/IP version	NX-IO Configurator version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.0	Ver.1.0	Ver.2.1	Ver.3.21	Ver.1.00	Ver.2.4 *1
	Ver.1.0					Ver.1.00 *2	Ver.2.2

*1. The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.
*2. You can connect only to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect with any other path.

Connection to the Sysmac Gateway

Sysmac Gateway

EtherNet/IP Coupler Unit		Corresponding unit version/version			
Model	Unit version	Sysmac Gateway version	Network Configurator for EtherNet/IP version	NX-IO Configurator version	CX-ConfiguratorFDT version
NX-EIC202	Ver.1.2	Ver.1.31	Ver.3.50	Ver.1.00	Ver.2.4 *1
	Ver.1.0			Ver.1.00 *2	Ver.2.2

*1. The CX-ConfiguratorFDT with version 2.2 or later can be used if it is connected to the peripheral USB port on the EtherNet/IP Coupler Unit.
*2. You can connect only to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect with any other path.

External Interface

EtherNet/IP Coupler Unit NX-EIC202
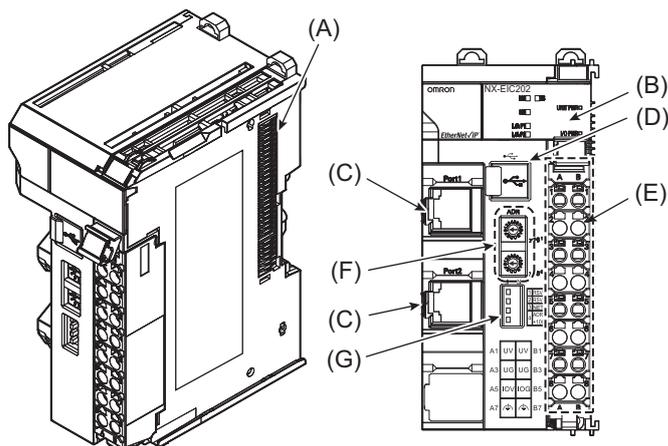
Letter	Name	Function
(A)	NX bus connector	This connector is used to connect the EtherNet/IP Coupler Unit to the NX Unit on the right of the Coupler Unit.
(B)	Indicators	The indicators show the current operating status of the Unit and the status of the power supply.
(C)	Communications connectors	These connectors are connected to the communications cables of the EtherNet/IP network.
(D)	Peripheral USB port	This port is used to connect to the Sysmac Studio.
(E)	Terminal block	The terminal block is used to connect to the power supply cables and ground wire.
(F)	Rotary switches	The rotary switches are used to set the last octet of the IP address of the EtherNet/IP Coupler Unit as an EtherNet/IP Slave. The address is set in hexadecimal.
(G)	DIP switch	The DIP switch is used to set the default node address of the EtherNet/IP Coupler Unit as an EtherNet/IP slave.

Terminal Block
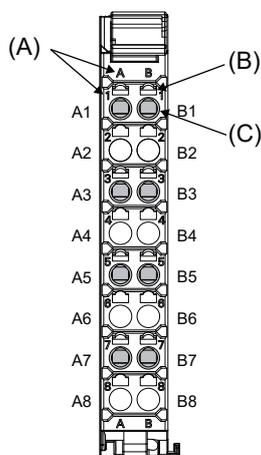
Eight-terminal Block

Symbol	Name	Function
(A)	Terminal number indications	The terminal numbers (A1 to A8 and B1 to B8) are displayed. The terminal number indicators are the same regardless of the number of terminals on the terminal block, as shown above.
(B)	Release holes	Insert a flat-blade screwdriver into these holes to connect and remove the wires.
(C)	Terminal holes	The wires are inserted into these holes.

Applicable Wires

Using Ferrules

If you use ferrules, attach the twisted wires to them.
Observe the application instructions for your ferrules for the wire stripping length when attaching ferrules.
Always use plated one-pin ferrules. Do not use unplated ferrules or two-pin ferrules.

The applicable ferrules, wires, and crimping tool are given in the following table.

Terminal types	Manufacturer	Ferrule model	Applicable wire (mm² (AWG))	Crimping tool
Terminals other than ground terminals	Phoenix Contact	AI0,34-8	0.34 (#22)	Phoenix Contact (The figure in parentheses is the applicable wire size.) CRIMPFOX 6 (0.25 to 6 mm², AWG 24 to 10)
		AI0,5-8	0.5 (#20)	
		AI0,5-10		
		AI0,75-8	0.75 (#18)	
		AI0,75-10		
		AI1,0-8	1.0 (#18)	
		AI1,0-10		
		AI1,5-8	1.5 (#16)	
		AI1,5-10		
Ground terminals		AI2,5-10	2.0 *1	
Terminals other than ground terminals	Weidmuller	H0.14/12	0.14 (#26)	Weidmueller (The figure in parentheses is the applicable wire size.) PZ6 Roto (0.14 to 6 mm², AWG 26 to 10)
		H0.25/12	0.25 (#24)	
		H0.34/12	0.34 (#22)	
		H0.5/14	0.5 (#20)	
		H0.5/16		
		H0.75/14	0.75 (#18)	
		H0.75/16		
		H1.0/14	1.0 (#18)	
		H1.0/16		
		H1.5/14	1.5 (#16)	
		H1.5/16		

*1. Some AWG 14 wires exceed 2.0 mm² and cannot be used in the screwless clamping terminal block.

When you use any ferrules other than those in the above table, crimp them to the twisted wires so that the following processed dimensions are achieved.

8 to 10 mm

1.6 mm max.
(Terminals other than ground terminals)

2.0 mm max.
(Ground terminals)

2.4 mm max.
(Terminals other than ground terminals)

2.7 mm max.
(Ground terminals)
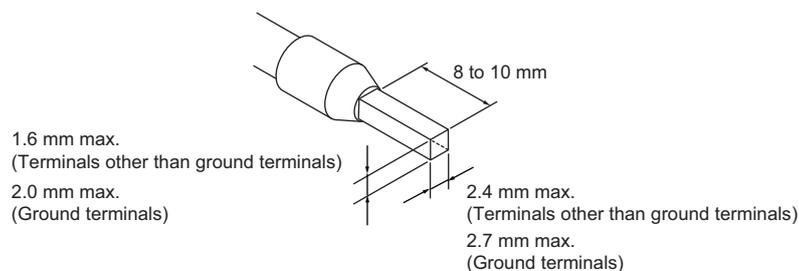
Using Twisted Wires/Solid Wires

If you use the twisted wires or the solid wires, use the following table to determine the correct wire specifications.

Terminals		Wire type				Wire size	Conductor length (stripping length)
		Twisted wires		Solid wire			
Classification	Current capacity	Plated	Unplated	Plated	Unplated		
All terminals except ground terminals	2 A max.	Possible	Possible	Possible	Possible	0.08 to 1.5 mm² AWG28 to 16	8 to 10 mm
	Greater than 2 A and 4 A or less		Not Possible	Possible *1	Not Possible		
	Greater than 4 A	Possible *1		Not Possible			
Ground terminals	---	Possible	Possible	Possible *2	Possible *2	2.0 mm²	9 to 10 mm

*1. Secure wires to the screwless clamping terminal block. Refer to the Securing Wires in the USER'S MANUAL for how to secure wires.
*2. With the NX-TB☐☐☐1 Terminal Block, use twisted wires to connect the ground terminal. Do not use a solid wire.
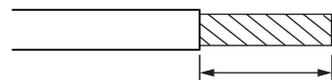
Conductor length (stripping length)

<Additional Information> If more than 2 A will flow on the wires, use plated wires or use ferrules.

Dimensions

(Unit: mm)

● EtherCAT Coupler Unit Only

● With Cables Connected
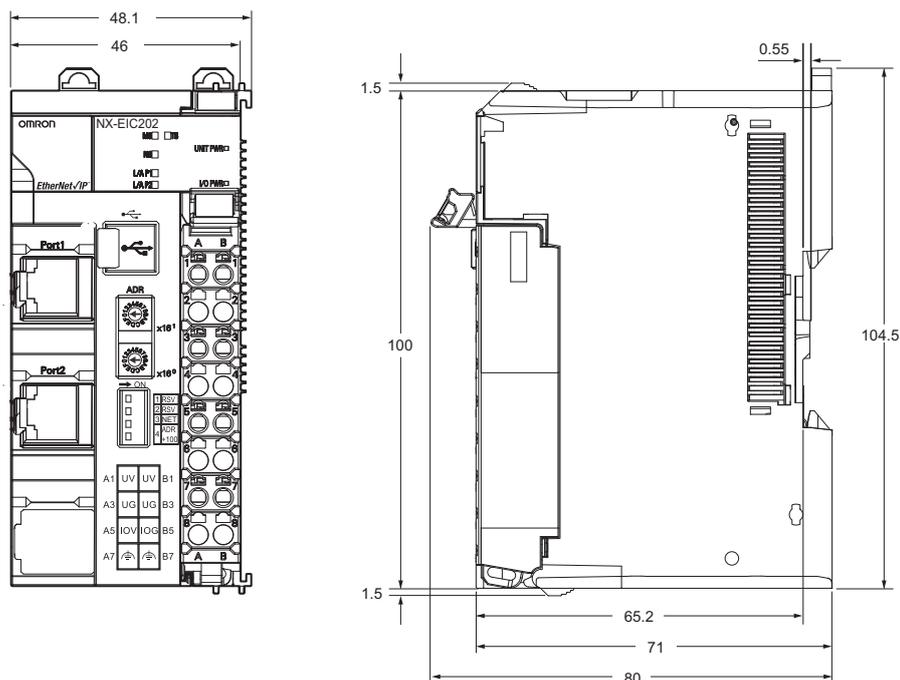
USB cable

Communications cable
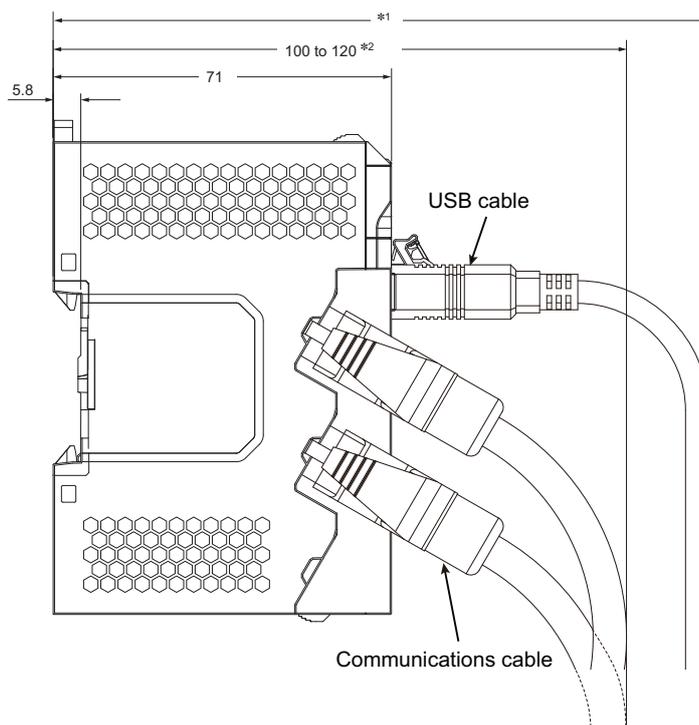
*1. This dimension depends on the specifications of the commercially available USB-certified cable. Check the specifications of the USB cable that is used.

*2. This is the dimension from the back of the Unit to the communications cables.
   • 100 mm: When an MPS588-C Connector is used.
   • 120 mm: When an XS6G-T421-1 Connector is used.

● **End Cover**
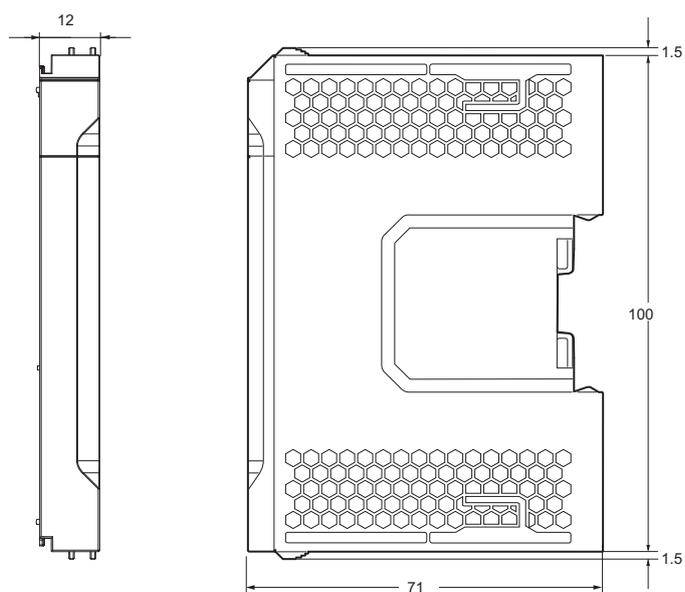
Related Manuals

Man. No	Model	Manual	Application	Description
W536	NX-EIC□□□	NX-series EtherNet/IP Coupler Unit User's Manual	Learning how to use an NX-series Ether-Net/IP Coupler Unit and EtherNet/IP Slave Terminals	Introduces the system, configuration methods, Unit hardware, setting methods, and functions of EtherNet/IP Slave Terminals that consist of an EtherNet/IP Coupler Unit and NX Units.

Terms and Conditions Agreement