

Environment-resistive Remote Terminal NXR-series IO-Link Master Unit for EtherCAT® NXR-ILM08C-ECT

**Streamline commissioning and maintenance of production equipment.
Simple, easy, and quick - Reduce Availability Loss and Quality Loss!**

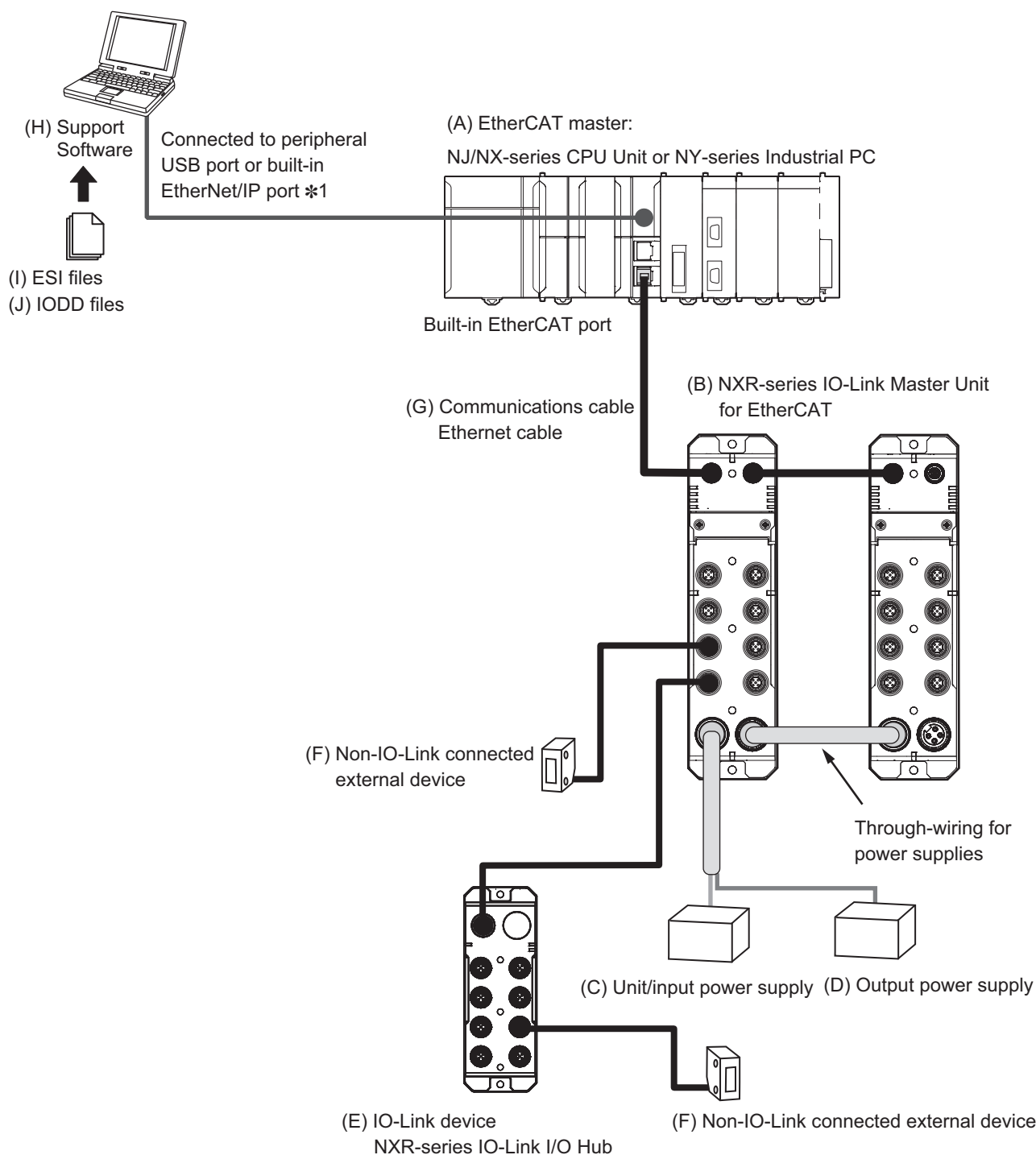


Features

- IP67 protection
- Commissioning and Replacement without software
 - I/O port quick settings eliminates the need for software
- Communication quality of IO-Link
 - Records the total number of lost frames which allows checking communication quality
- Location of short circuits
 - Detects and protects from short circuits in connection to IO-Link devices or standard devices
- Power supply voltage monitoring
 - Monitors power supply voltage for the unit and inputs and power supply voltage for outputs
- Power OUT connector for through-wiring for power supply
- IO-Link device parameter backup and restore
 - IO-Link device parameters can be backed up to the NXR manually via software or via the controller
 - Broken sensor parameters are automatically restored when replaced with a new one

System Configuration

An example of a system configuration for an NXR-series IO-Link Master Unit for EtherCAT is shown below. The example uses an NJ/NX-series CPU Unit and an NY-series Industrial PC.



*1. The connection method depends on the model of the NJ/NX-series CPU Unit or NY-series Industrial PC.

The description of each item is given below.

Letter	Item	Description
(A)	EtherCAT master	The EtherCAT master manages the EtherCAT network, monitors the status of the slaves, and exchanges I/O data with the slaves.
(B)	NXR-series IO-Link Master Unit for EtherCAT	A device that outputs the data that is received from the EtherCAT master to a connected external device and sends the data that is input from a connected external device to the EtherCAT master through the EtherCAT network. The NXR-series IO-Link Master Unit for EtherCAT is an EtherCAT slave that provides IO-Link master functions. You can connect IO-Link devices and non-IO-Link connected external devices to the NXR-series IO-Link Master Unit for EtherCAT. It exchanges data with IO-Link devices through IO-Link communications.
(C)	Unit/input power supply	The Unit/input power supply provides power to the IO-Link Master Unit for operation and interface with input devices. Connect an external power supply to the power supply connector (input). *1
(D)	Output power supply	The output power supply provides power for interface with output devices. Connect an external power supply to the power supply connector (input). *1
(E)	IO-Link device: NXR-series IO-Link I/O Hub	The IO-Link device is a sensor, actuator, or other device that performs IO-Link communications with the IO-Link master. The NXR-series IO-Link I/O Hub is an OMRON IO-Link device. It exchanges data with the NXR-series IO-Link Master Unit for EtherCAT in IO-Link communications. You can connect non-IO-Link connected external devices to the NXR-series IO-Link I/O Hub.
(F)	Non-IO-Link connected external device	The non-IO-Link connected external device is a sensor, actuator, or other device that handles ON/OFF signals that are not supported by IO-Link.
(G)	Communications cable	Use a double-shielded cable with aluminum tape and braiding of category 5 (100BASE-TX) or higher, and use straight wiring.
(H)	Support Software *2	The Support Software configures and monitors the Controller, IO-Link Master Unit, and IO-Link devices. The Support Software depends on the Controller that you use. OMRON provides the following Support Software. <ul style="list-style-type: none"> • Sysmac Studio: The Support Software for configuring the EtherCAT master and IO-Link Master Unit, creating user programs, monitoring, troubleshooting, and configuring the IO-Link master. • CX-ConfiguratorFDT: The Support software for configuring and monitoring IO-Link devices that are connected to the IO-Link Master Unit.
(I)	ESI (EtherCAT Slave Information) files	The ESI files contain information that is unique to EtherCAT slaves in XML format. You can load an ESI file into the EtherCAT master Configuration Software to easily allocate slave process data and make other settings. The ESI files for OMRON EtherCAT slaves are already installed in the Sysmac Studio. You can update the Sysmac Studio to get the ESI files for the most recent models.
(J)	IODD files	These files contain IO-Link device definitions. The IODD files for OMRON's IO-Link devices are automatically installed when you install the CX-ConfiguratorFDT. OMRON IO-Link device files are available for download from the OMRON website.

*1. You can use through-wiring to supply power from the Unit/input power supply and output power supply to other IO-Link Master Units. It is also possible to supply power directly to each Unit. Refer to *Power Supply System* on page 20 for details on the power supply system.

*2. Refer to *Applicable Support Software* on page 4 for details on the Support Software used for systems with IO-Link Master Units.

Applicable Support Software

The following table shows support software that can be used in the system configured with the NXR-series EtherCAT IO-Link Master Unit. The Support Software used depends on the scope of the applicable system. For versions of support software, refer to *Version Information* on page 13.

Destination to which IO-Link Master Unit is connected		Applicable Support Software			
Controller	EtherCAT master	Creating the user program	Setting the PDO mapping	Setting up IO-Link Master Unit	Setting and monitoring IO-Link devices
NJ/NX-series CPU Unit or NY-series Industrial PC	Built-in EtherCAT ports on NJ/NX-series CPU Unit or NY-series Industrial PC	Sysmac Studio	Sysmac Studio	Sysmac Studio	CX-ConfiguratorFDT
Controller from another company	EtherCAT master from another company	Software from another company	Software from another company	Software from another company	*1

*1. From the controller from another company, make settings through message communications. Or use a commercially-available IO-Link USB master to make settings from the CX-ConfiguratorFDT. For the commercially available IO-Link USB master, the following models are recommended.

Model	Manufacturer
USB-2-IOL-0002	TURCK
IO-Link-Master02-USB	Pepperl+Fuchs

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.

NXR-series IO-Link Master Unit for EtherCAT

Product name	Number of IO-Link ports	Degree of protection	I/O connection terminals	Model
IO-Link Master Unit for EtherCAT	8	IP67	M12 connector A-coding, female	NXR-ILM08C-ECT

NXR-series IO-Link I/O Hub

Product name	Number of IO-Link ports	Input/Output	Degree of protection	I/O connection terminals	Model
IO-Link I/O Hub	8	16 digital inputs	IP67	M12 connector A-coding, female	NXR-ID166C-IL2
		16 digital inputs/outputs			NXR-CD166C-IL2

Automation Software Sysmac Studio

Please purchase a DVD and required number of licenses the first time you purchase the Sysmac Studio. DVDs and licenses are available individually. Each model of licenses does not include any DVD.

Product name	Specifications	Media		Model
		Number of licenses	Media	
Sysmac Studio Standard Edition Ver.1.□□	The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including NJ/NX-series CPU Units, NY-series Industrial PC, EtherCAT Slaves, and HMI. The Sysmac Studio Standard Edition DVD includes CX-ConfiguratorFDT to set up IO-Link devices.	--- (Media only)	Sysmac Studio (32 bit) DVD	SYSMAC-SE200D
			Sysmac Studio (64 bit) DVD	SYSMAC-SE200D-64
		1 license *1	---	SYSMAC-SE201L

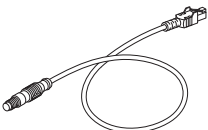
Note: For details, refer to the Sysmac Studio Ver.1.□□ datasheet, visit your local OMRON website.

*1. Multi licenses are available for the Sysmac Studio (3, 10, 30, or 50 licenses).

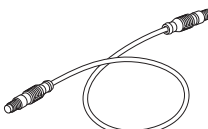
EtherCAT Communications Cables

Ethernet communications cables to connect the IO-Link master unit.

Connection Cables between IO-Link Master Unit and EtherCAT Master or EtherCAT Slave with RJ45 Connectors

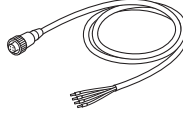
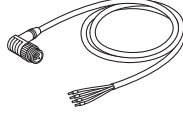


Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
Industrial Ethernet Connectors with Cable 	OMRON	M12 plug (D-coding, male) to RJ45	4	Screw connector	Straight/straight	0.5 m	XS2W-T421-BMC-SS
						1 m	XS2W-T421-CMC-SS
						2 m	XS2W-T421-DMC-SS
						3 m	XS2W-T421-EMC-SS
						5 m	XS2W-T421-GMC-SS
						10 m	XS2W-T421-JMC-SS

Connection Cables between IO-Link Master Units

Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
Industrial Ethernet Connectors with Cable 	OMRON	M12 plug (D-coding, male) to M12 plug (D-coding, male)	4	Screw connector	Straight/straight	0.5 m	XS2W-T421-BM2-SS
						1 m	XS2W-T421-CM2-SS
						2 m	XS2W-T421-DM2-SS
						3 m	XS2W-T421-EM2-SS
						5 m	XS2W-T421-GM2-SS
						10 m	XS2W-T421-JM2-SS

Power Supply Cables

Power supply cables to connect the IO-Link master unit


Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
Connector with Cable (Socket on One End, Straight) 	HARTING K.K.	7/8 inch socket (female) to discrete wire	4	Screw connector	Straight	1 m	72MNf4010
2 m						72MNf4020	
5 m						72MNf4050	
10 m						72MNf4100	
Connector with Cable (Socket on One End, Right-angle) 					Right-angle	1 m	72MNfL4010
						2 m	72MNfL4020
						5 m	72MNfL4050
						10 m	72MNfL4100
Connectors with Cable (Socket on One End, Plug on Other End, Straight) 	7/8 inch socket (female) to 7/8 inch plug (male)	4	Screw connector	Straight	1 m	72MNf4MNm4010	
2 m					72MNf4MNm4020		
5 m					72MNf4MNm4050		
10 m					72MNf4MNm4100		
Connectors with Cable (Socket on One End, Plug on Other End, Right-angle) 				Right-angle	1 m	72MNfL4MNmL4010	
					2 m	72MNfL4MNmL4020	
					5 m	72MNfL4MNmL4050	
					10 m	72MNfL4MNmL4100	

Note: 1. Contact HARTING K.K. for details.

I/O Cables

- Conversion Cable


The following cable converts connections from an IO-Link device or non-IO-Link connected external device with an M8 plug.

Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
XS3W Socket and Plug on Cable Ends (M8 (Socket)/M12 (Plug)) 	OMRON	M8 socket (A-coding, female) to M12 plug (A-coding, male), DC type	4	(M8) screw connector, (M12) Smartclick connector *1	Straight	0.2 m	XS3W-M42C-4C2-A

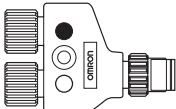
*1. Connectors for the IO-Link Master Unit are not Smartclick connector. Use a torque wrench for the I/O cable to tighten the connector. The Smartclick connector of the I/O cable can also be used as a screw connector.

- Direct connection or extension Cables

Extension cables, which connect an IO-Link device or standard external device with an M12 plug, can also be used to connect directly to an IO-Link device with an M12 plug.

Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
XS2W Socket and Plug on Cable Ends (M12 (Socket)/M12 (Plug)) 	OMRON	M12 socket (A-coding, female) to M12 plug (A-coding, male), DC type	4	Screw connector	Straight/straight	1 m	XS2W-D421-C81-F
						2 m	XS2W-D421-D81-F
						3 m	XS2W-D421-E81-F
						5 m	XS2W-D421-G81-F
						10 m	XS2W-D421-J81-F

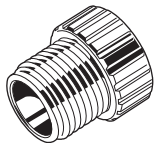
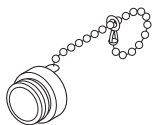
- Branching

Name and appearance	Manufacturer	Specification	No. of cable conductors	Connector	Cable connection direction	Cable length	Model
XS5R Y-Joint Plug/Socket Connector 	OMRON	M12	---	Smartclick Connector *1	---	---	XS5R-D426-1

*1. Connectors for the IO-Link Master Unit are not Smartclick connector. Use a torque wrench for the I/O cable to tighten the connector.

Waterproof Cover for Connectors

A waterproof cover for unused M12 connectors. When you use this waterproof cover, you can maintain the IP67 protective structure.

Name and appearance	Manufacturer	Specification	Connector	Model
M12 Waterproof Cover 	OMRON	M12	Screw connector	XS2Z-22
7/8 inch Waterproof Cover 	Molex	7/8 inch	Screw connector	1302011110

General Specifications

Item		Specification
Degree of protection		IP67
Operating environment	Ambient operating temperature	-10 to 55°C
	Ambient operating humidity	25% to 85% (with no condensation)
	Ambient operating atmosphere	Must be free from corrosive gases.
	Storage temperature	-25 to 65°C
	Storage humidity	25% to 85% (with no condensation)
	Altitude	2,000 m max.
	Pollution degree	3 or less: Conforms to IEC 61010-2-201.
	Noise immunity	2 kV on power supply line (Conforms to IEC 61000-4-4.)
	Overvoltage category	Category II: Conforms to IEC 61010-2-201.
	EMC immunity level	Zone B
	Vibration resistance	10 to 60 Hz with amplitude of 0.35 mm, 60 to 150 Hz and 50 m/s ² for 80 minutes each in X, Y, and Z directions.
	Shock resistance	150 m/s ² , 3 times each in 6 directions along X, Y, and Z axes
	Dielectric strength	600 VAC (between isolated circuits)
	Insulation resistance	20 MΩ min. (between isolated circuits)
Applicable standards *1		cULus: Listed (UL61010-2-201) EU: EN 61131-2, RCM KC: KC Registration UKCA IO-Link conformance EtherCAT conformance

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

EtherCAT Communications Specifications

Item	Specification
Communications protocols	EtherCAT protocol
Modulation	Baseband
Link speed	100 Mbps
Physical layer	100BASE-TX (IEEE802.3)
Connectors	M12 (D-coding, female) x 2 (shielded) CN IN: EtherCAT input CN OUT: EtherCAT output
Topology	Depends on the specifications of the EtherCAT master *1*2
Transmission media	Category 5 or higher twisted-pair cable (Recommended cable: doubleshielded cable with aluminum tape and braiding)
Transmission distance	Distance between nodes (slaves): 50 m or less
Noise immunity	Conforms to IEC 61000-4-4, 1 kV or more
Node address setting method	Setting with hexadecimal ID switch or Configuration Software
Node address range *3	<ul style="list-style-type: none"> Setting with hexadecimal ID switch: 01 to FF hex (1 to 255) Setting with Configuration Software: 0001 to FFFF hex (1 to 65,535)
Indicators	L/A IN (Link/Activity IN) x 1 L/A OUT (Link/Activity OUT) x 1 RUN x 1 ERR x 1
Process data	Variable PDO mapping
PDO size/node	Input: 1 to 270 bytes Output: 2 to 258 bytes
Mailbox	Emergency messages, SDO requests, and SDO responses
Synchronization type	Free-Run Mode (Asynchronous)

*1. The IO-Link Master Unit conforms to the EtherCAT standards. Confirm the specifications of the connected EtherCAT master for the supported topology. Note that the IO-Link Master Unit supports the ring topology.

*2. For the ring topology, the minimum value of the supported communications cycle is 125 μ s. Allowing the IO-Link Master Unit to operate with a shorter communications cycle than the minimum value may cause the loss of EtherCAT communications frames or a communications stop.

*3. The setting range of the node address depends on the specifications of the connected EtherCAT master. Check the specifications of the EtherCAT master for the supported node address setting range of the EtherCAT master.

Unit Specifications

Item		Specification
IO-Link specifications	IO-Link connector type	Class A
	Communications protocol	IO-Link protocol
	Number of ports	8
	Baud rate	COM1: 4.8 kbps COM2: 38.4 kbps COM3: 230.4 kbps
	Topology	1:1
	Compliant standards	<ul style="list-style-type: none"> IO-Link Interface and System Specification Version1.1.2 IO-Link Test Specification Version1.1.2
	Cable specifications	<ul style="list-style-type: none"> Cable type : Unshielded Cable length : 20 m max. Electrostatic capacity between lines : 3 nF max. Loop resistance : 6 Ω max.
Unit/input power supply voltage		24 VDC (20.4 to 26.4 VDC)
Output power supply voltage		24 VDC (20.4 to 26.4 VDC)
Maximum power supply current		9 A Sum of Unit/input power supply current and output power supply current
Number of connected Units when supplying power with through-wiring		No restrictions if power supply specifications are met.
Mounting method		Mounting with M5 screws
Mounting strength		100 N
Installation orientation and restrictions		Installation orientation: 6 possible orientations Restrictions: No restrictions
Connector types		<ul style="list-style-type: none"> EtherCAT communications connectors : M12 (D-coding, female) × 2 Power supply connectors : 7/8 inch (male) × 1, 7/8 inch (female) × 1 I/O connectors : M12 (A-coding, female) × 8
Connector strength		30 N Applicable to all connectors
Screw tightening torque		<ul style="list-style-type: none"> EtherCAT communications connectors and I/O connectors (M12 screw) : 0.5 to 0.6 N·m Power supply connectors (7/8 inch screw) : 1.5 to 1.7 N·m Unit mounting (M5 screw) : 1.47 to 1.96 N·m Rotary switch cover (M3 screw) : 0.4 to 0.6 N·m Waterproof covers for EtherCAT communications connectors (M12 screw) : 0.5 to 0.6 N·m Waterproof covers for power supply connectors (7/8 inch screw) : 1.5 to 1.7 N·m
Maximum port current		4 A/port Total available current between pin 1 and pin 4
Device power supply *1 in IO-Link Mode or SIO (DI) Mode	Power supply used	Unit/input power supply
	Rated voltage	24 VDC (20.4 to 26.4 VDC)
	Maximum load current	2 A/pin
	Short-circuit protection	Provided *2
	Short-circuit detection	Provided *2
Digital inputs for pin 4 or digital inputs for pin 2 (in SIO (DI) Mode)	Power supply used	Unit/input power supply
	Rated voltage	24 VDC (20.4 to 26.4 VDC)
	Internal I/O common	PNP
	Input current	<ul style="list-style-type: none"> Digital inputs for pin 2: 3.0 mA (at 24 VDC) Digital inputs for pin 4: 6.3 mA (at 24 VDC)
	ON voltage/ON current	<ul style="list-style-type: none"> Digital inputs for pin 2: 15 VDC min., 2 mA min. Digital inputs for pin 4: 15 VDC min., 3 mA min.
	OFF voltage/OFF current	5 VDC max., 1 mA max.
	ON/OFF response time	1.0 ms max.
	Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
	Short-circuit protection	Provided *2
	Short-circuit detection	Provided *2

NXR-ILM08C-ECT

Item		Specification
Digital outputs for pin 4 or digital outputs for pin 2 (in SIO (DO) Mode)	Power supply used	Output power supply
	Internal I/O common	PNP
	Output type	Open-drain
	Rated voltage	24 VDC (20.4 to 26.4 VDC)
	Maximum load current	2 A/pin
	Leakage current	0.1 mA max.
	Residual voltage	1.5 V max.
	ON/OFF response time	1.0 ms max.
	Short-circuit protection	Provided *3
	Short-circuit detection	Provided *3
Current consumption	Unit/input power supply	60 mA
	Output power supply	100 mA
Weight		440 g
Dimensions		240 × 24.2 × 62 mm (W × H × D) (The height is 38 mm when the connectors are included.)
Isolation method		No isolation
Circuit layout		

*1. Used as a power supply for IO-Link devices or non-IO-Link input devices. Supplies power from the Unit/input power supply of the IO-Link Master Unit to external devices through I/O connectors.

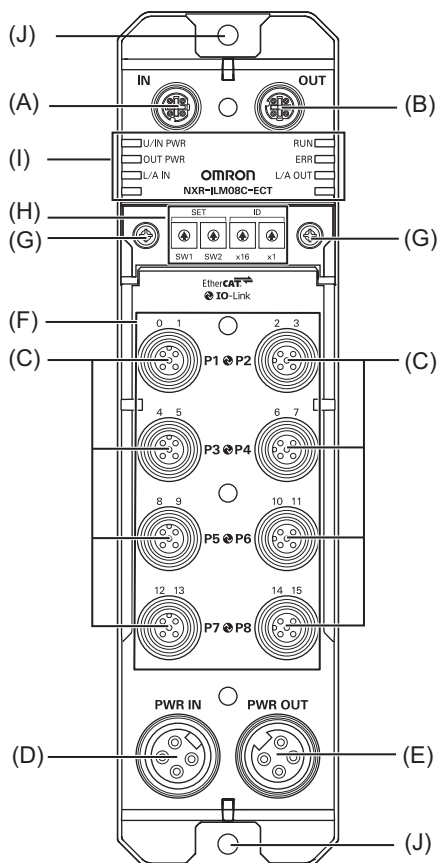
*2. Detects a short-circuit that occurred between pin 1 and pin 3 to protect the IO-Link Master Unit.

*3. Detects a short-circuit that occurred between pin 2 and pin 3 and between pin 4 and pin 3 to protect the IO-Link Master Unit.

Version Information

The following table describes the relationship between the unit version of the IO-Link Master Units and the versions of the Support Software. With a combination of the following unit version or later and the following version or higher, you can use all of the functions that are supported by that unit version of the IO-Link Master Unit.

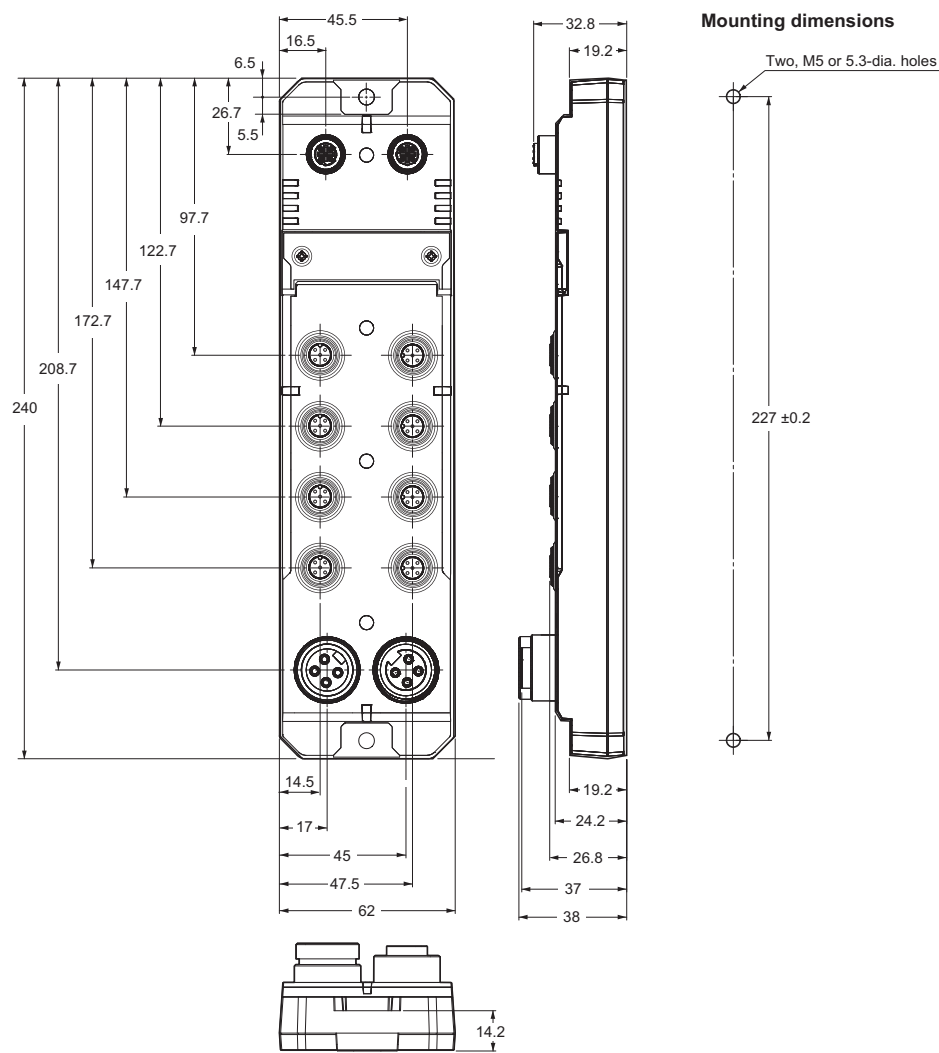
Unit version	Corresponding version of Support Software	
	Sysmac Studio	CX-ConfiguratorFDT
Ver.1.0	Ver.1.57	Ver. 3.01, or Ver. 2.59 with automatic update as of January 2024 applied



Letter	Name	Function
(A)	EtherCAT communications connector (input)	The connector for EtherCAT port (input). • M12 connector (D-coding, female) Connect a communications cable.
(B)	EtherCAT communications connector (output)	The connector for EtherCAT port (output). • M12 connector (D-coding, female) Connect a communications cable.
(C)	I/O connectors	The connectors for connecting IO-Link devices or non-IO-Link connected external devices. They are called "ports." • M12 connectors (A-coding, female) Connect I/O cables.
(D)	Power supply connector (input)	The connector for supplying Unit/input power and output power. • 7/8 inch connector (male) Connect the power supply cable to an external power supply.
(E)	Power supply connector (output)	The connector for supplying Unit/input power and output power from the local node to another node. Use this connector when the power supply method is power supply with through-wiring. • 7/8 inch connector (female) Connect the power supply cable to an additional IO-Link Master Unit.
(F)	I/O indicators	The indicators that show the I/O status of pin 4/pin 1 and pin 2 for each port.
(G)	Cover mounting holes	The screw holes for mounting the rotary switch cover. They are provided in two locations. The above figure shows the holes when the cover is mounted with screws.
(H)	Rotary switches	The switches for setting the Explicit Device ID and for the I/O port quick settings.
(I)	Status indicators	The indicators that show the current operating status of the Unit.
(J)	Unit mounting holes	The holes for mounting the Unit. They are provided in two locations. Mount the Unit with M5 screws.

Dimensions

(Unit: mm)



Wiring Example for I/O connectors

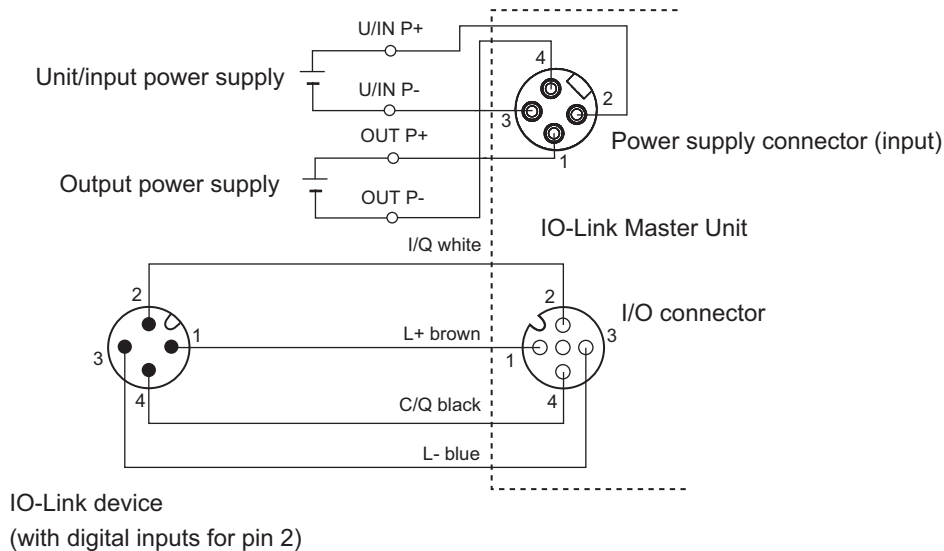
Wiring Example for IO-Link Devices

Wiring Example for IO-Link Devices (with Digital Inputs for Pin 2)

A wiring example for an IO-Link device with digital inputs for pin 2 is shown below.

In this example, the port is used in the following communications modes.

Pin 4: IO-Link Mode, pin 2: SIO (DO) Mode

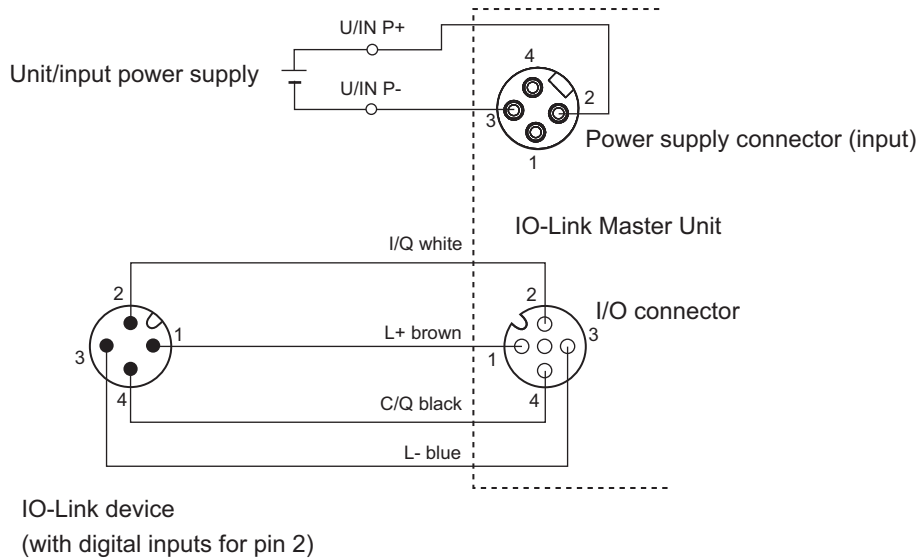


Wiring Example for IO-Link Devices (with Digital Outputs for Pin 2)

A wiring example for an IO-Link device with digital outputs for pin 2 is shown below.

In this example, the port is used in the following communications modes.

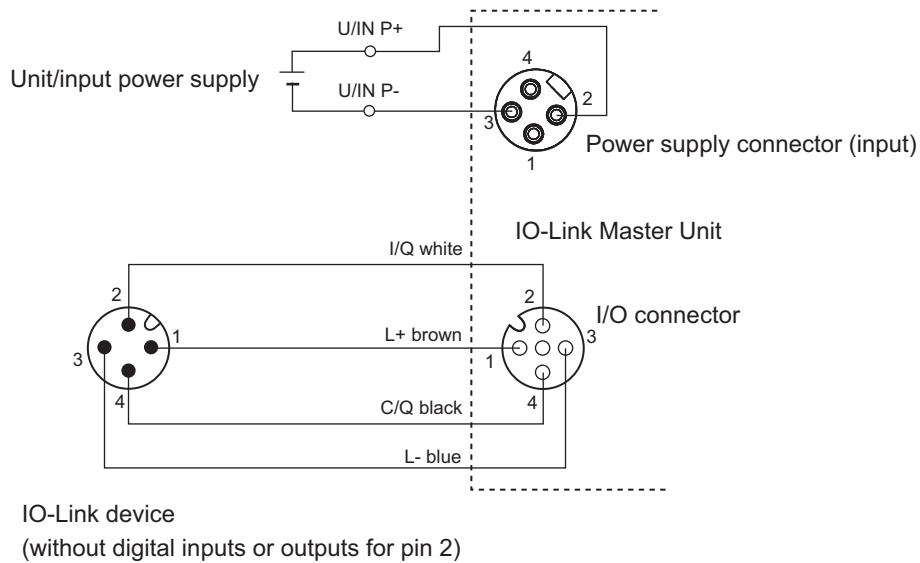
Pin 4: IO-Link Mode, pin 2: SIO (DI) Mode



Wiring Example for IO-Link Devices (without Digital Inputs and Outputs for Pin 2)

A wiring example for an IO-Link device without digital inputs and outputs for pin 2 is shown below.
In this example, the port is used in the following communications modes.

Pin 4: IO-Link Mode, pin 2: Disabled

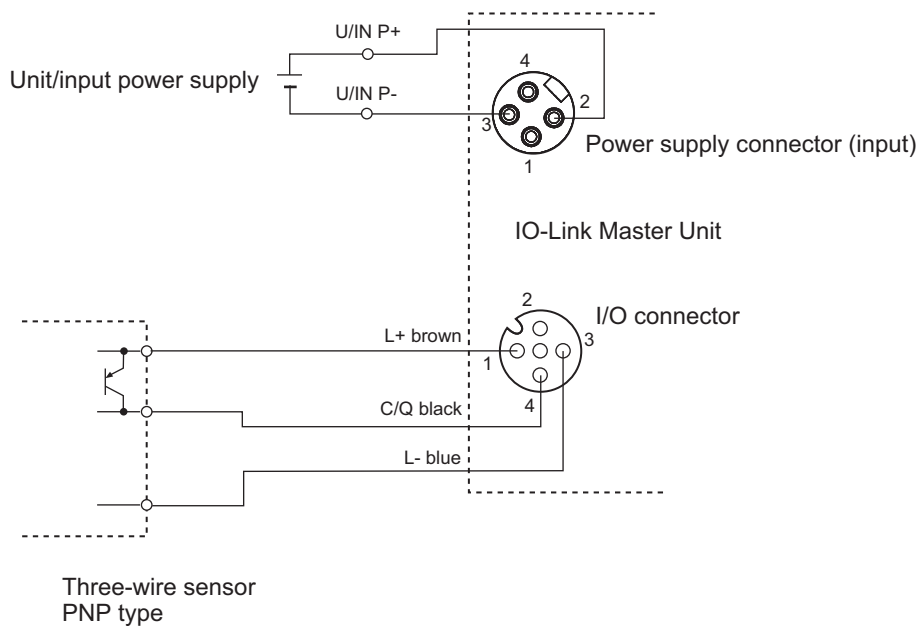


Wiring Example for Non-IO-Link Input Devices

Wiring Example for Three-wire Sensors

In this example, the port is used in the following communications modes.

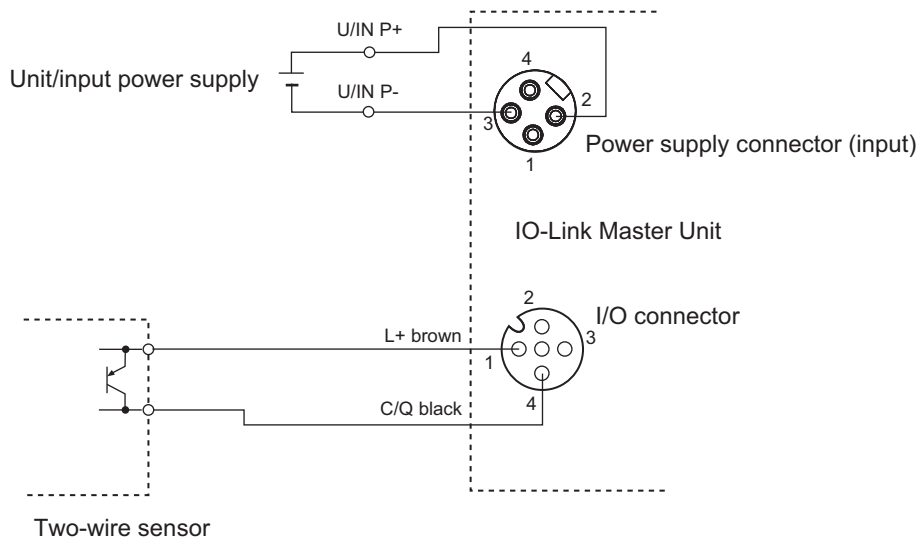
Pin 4: SIO (DI) Mode, pin 2: Disabled



Wiring Example for Two-wire Sensors

In this example, the port is used in the following communications modes.

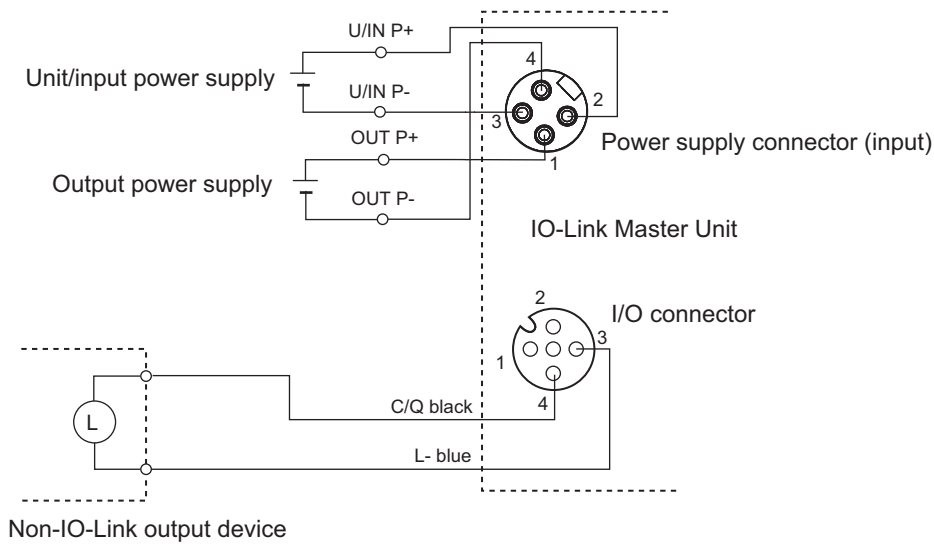
Pin 4: SIO (DI) Mode, pin 2: Disabled



Wiring Example for Non-IO-Link Output Devices

A wiring example between the IO-Link Master Unit and a non-IO-Link output device is shown below.
In this example, the port is used in the following communications modes.

Pin 4: SIO (DO) Mode, pin 2: Disabled

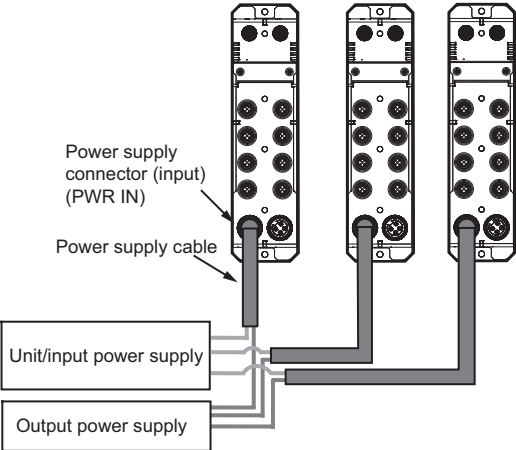


NXR-ILM08C-ECT

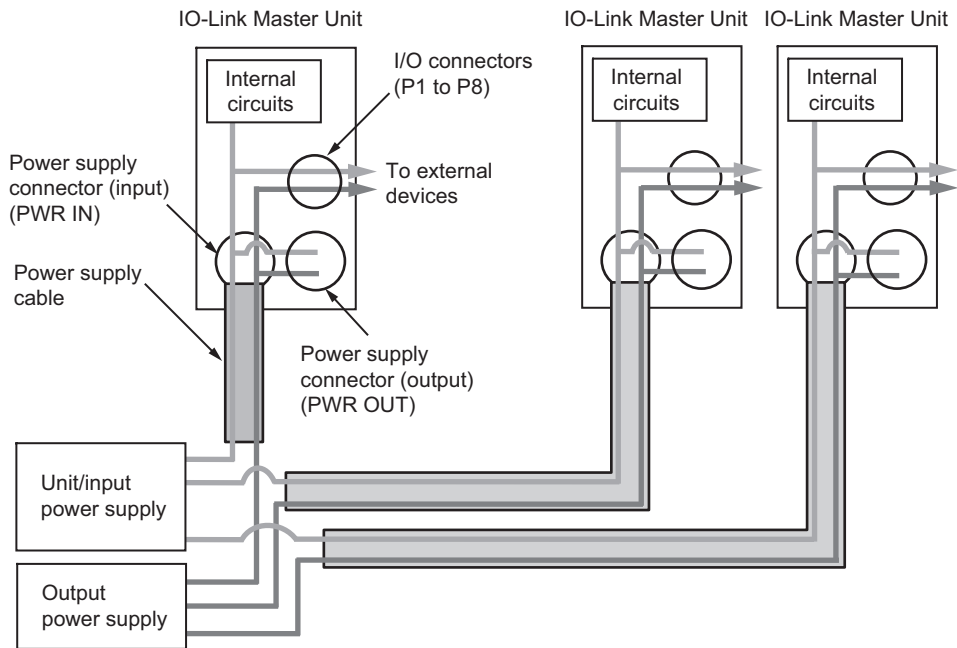
Power Supply System

There are two methods to supply power to IO-Link Master Units as shown below.

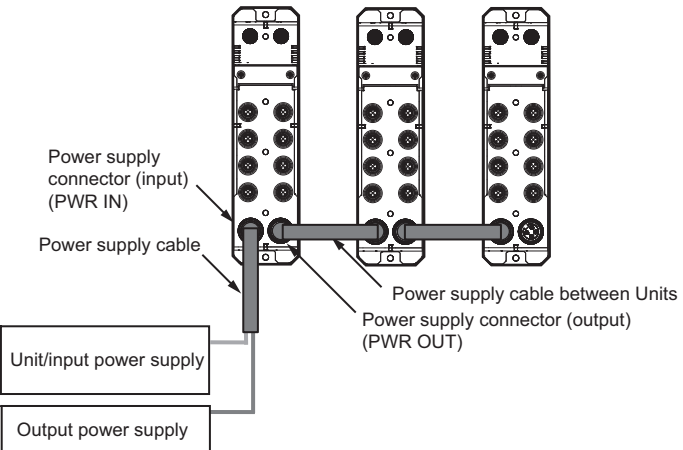
Direct power supply

Description	Feature
<p>Connect the external power supplies to the power supply connector (input) of each IO-Link Master Unit. The power supply connector (output) is not used.</p> 	<p>This method does not cause voltage drop in through-wiring cables or due to connection through IO-Link Master Units.</p>

An example is shown below.
 Connect the external power supplies to the power supply connector (input) of each IO-Link Master Unit.



Power supply with through wiring

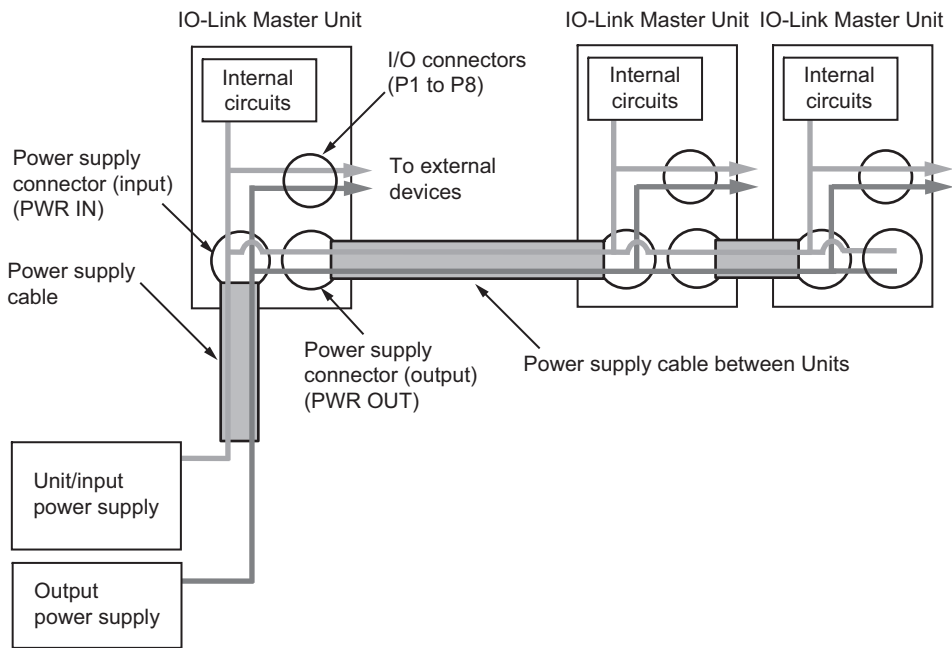
Description	Feature
<p>Connect the external power supplies to the power supply connector (input) of one IO-Link Master Unit. Then, connect the power supply connector (output) of the Unit to the power supply connector (input) of another IO-Link Master Unit with a power supply cable. In this way, supply power with through-wiring between the subsequent Units with power supply cables. The power supply connector (output) is used.</p> 	<p>Through-wiring can reduce the overall length of the power supply cables used in the system.</p>

An example is shown below.

Connect the external power supplies to the power supply connector (input) of one IO-Link Master Unit.

Then, connect the power supply connector (output) of the Unit to the power supply connector (input) of another IO-Link Master Unit with a power supply cable.

In this way, connect a power supply cable between the subsequent Units with through-wiring one after another.



NXR-ILM08C-ECT

Related Manuals

Manual	Cat. No	Model	Application	Description
NXR-series IO-Link Master Unit for EtherCAT User's Manual	W640	NXR-ILM08C-ECT	Learning how to use an NXR-series IO-Link Master Unit for EtherCAT.	Describes the hardware, setup methods, and functions of the NXR-series IO-Link Master Unit for EtherCAT.
NXR-series IO-Link I/O Hub User's Manual	W620	NXR-□□□□□□-IL□	Learning how to use an NXR-series IO-Link I/O Hub.	Describes the hardware, setup methods, and functions of the NXR-series IO-Link I/O Hub.
NJ/NX-series CPU Unit Built-in EtherCAT Port User's Manual	W505	NX701-□□□□ NX502-□□□□ NX102-□□□□ NX1P2-□□□□ NJ501-□□□□ NJ301-□□□□ NJ101-□□□□	Using the built-in EtherCAT port on an NJ/NX-series CPU Unit.	Explains the built-in EtherCAT port. An overview is provided and the configuration, functions, and setup are described.
Sysmac Studio Version 1 Operation Manual	W504	SYSMAC-SE2□□□	Learning about the operating procedures and functions of the Sysmac Studio.	Describes the operating procedures of the Sysmac Studio.
NJ/NX-series Instructions Reference Manual	W502	NX701-□□□□ NX502-□□□□ NX102-□□□□ NX1P2-□□□□ NJ501-□□□□ NJ301-□□□□ NJ101-□□□□	Learning detailed specifications on the basic instructions of an NJ/NX-series CPU Unit.	The instructions in the instruction set (IEC 61131-3 specifications) are described.
IO-Link Sensor Index List	9541795-1	E3Z-□8□-IL□	Learning the vendor IDs, device IDs, I/O data (process data), and objects (service data).	Describes the following details for OMRON's IO-Link sensors. • IO-Link physical layer • Device IDs • Process data • Service data • Event functions
	9540292-0	E2E(Q)-□-IL□		
	9539397-1	E3S-DCP21-IL□		

Sysmac is a trademark or registered trademark of OMRON Corporation in Japan and other countries for OMRON factory automation products. EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

EtherNet/IP™ is a trademark of ODVA.

Other company names and product names in this document are the trademarks or registered trademarks of their respective companies.

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.

Note: Do not use this document to operate the Unit.

OMRON Corporation Industrial Automation Company

Kyoto, JAPAN

Contact : www.ia.omron.com

Regional Headquarters

OMRON EUROPE B.V.

Wegalaan 67-69, 2132 JD Hoofddorp
The Netherlands
Tel: (31) 2356-81-300 Fax: (31) 2356-81-388

OMRON ASIA PACIFIC PTE. LTD.

438B Alexandra Road, #08-01/02 Alexandra
Technopark, Singapore 119968
Tel: (65) 6835-3011 Fax: (65) 6835-3011

OMRON ELECTRONICS LLC

2895 Greenspoint Parkway, Suite 200
Hoffman Estates, IL 60169 U.S.A.
Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

OMRON (CHINA) CO., LTD.

Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-6023-0333 Fax: (86) 21-5037-2388

Authorized Distributor:

©OMRON Corporation 2023-2025 All Rights Reserved.
In the interest of product improvement,
specifications are subject to change without notice.

CSM_2_1

Cat. No. P165-E1-02 0825 (1223)