NX-series Digital I/O Unit NX-ID/IA/OD/OC/MD

A wide range of digital I/O units from general purpose use to high-speed synchronous control

- I/O modules on the NX CPU Unit or EtherCAT[®] Coupler Unit
- Connect to the NJ/NX/NY Controller via EtherCAT





Features

- High-speed I/O refreshing using the EtherCAT coupler
- I/O refreshing synchronized with the control cycle of the controller (synchronous refreshing)
- Time-stamp inputs and outputs anywhere in the EtherCAT network can be independently controlled with sub-microsecond accuracy
- Detachable terminals for easy maintenance
- Screwless Push-In Plus terminal block or MIL/Fujitsu connector speeds up installation
- Compact with a width of 12 mm per unit (connector type: 30 mm)
- 4, 8, 16 or 32 inputs for flexible I/O configuration (NX-ID/IA)
- 2, 4, 8, 16 or 32 outputs for flexible I/O configuration (NX-OD/OC)
- Connect to the CJ PLC using the EtherNet/IP[™] bus coupler

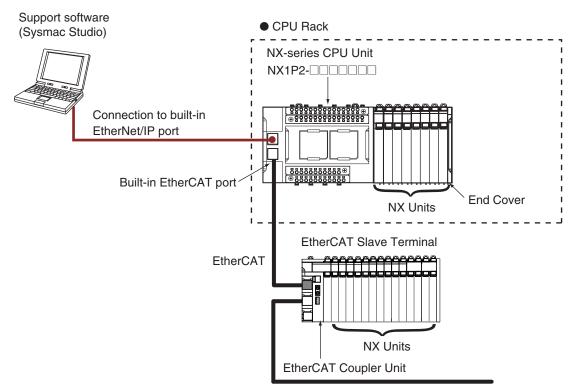
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System Configurations

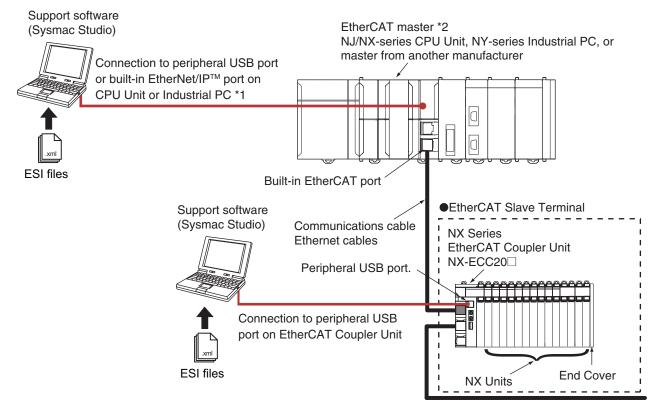
Connected to a CPU Unit

The following figure shows a system configuration when NX Units are connected to an NX-series CPU Unit.



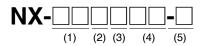
Connected to an EtherCAT Coupler Unit

The following figure shows an example of the system configuration when an EtherCAT Coupler Unit is used as a Communications Coupler Unit.



- *1. The connection method for the Sysmac Studio depends on the model of the CPU Unit or Industrial PC.
- *2. An EtherCAT Slave Terminal cannot be connected to any of the OMRON CJ1W-NC 81/82 Position Control Units even though they can operate as EtherCAT masters.
- Note: To check whether NX Units can be connected to your CPU Unit or Communications Coupler Unit, refer to the user's manual for the CPU Unit or Communications Coupler Unit.

Model Number Structure



(1) Unit type

(1) 0111	()po
No.	Specification
ID	DC input
IA	AC input
OD	Transistor output
OC	Relay output
MD	DC input/Transistor output

(2) Number of points

• •	-
No.	Specification
2	2 points
3	4 points
4	8 points
5	16 points
6	32 points, or 16 points each for inputs and outputs

(3) I/O type

No.	Inputs	Outputs	Mixed I/O (Input, Output)
1	For both NPN/PNP	NPN	For both NPN/PNP, NPN
2		PNP	For both NPN/PNP, PNP
3	NPN		
4	PNP		
6		N.O.	
7		N.O.+N.C.	

(5) External connection terminals

No.	Specification
None	Screwless clamping terminal block
-1	M3 screw terminal block
-5	MIL connector
-6	Fujitsu connector

(4) Other specifications **Digital Input Units**

		ON/OFF res	sponse time	I/O refreshing method		
No.	Input voltage	Exceeds 1 µs	1 μs max.	Free-Run refreshing *1 only or Switching Synchronous I/O refreshing *2 and Free-Run refreshing	Input refreshing with input changed time only	
17	12 to 24 VDC or 240 VAC	Yes		Yes		
42		Yes		Yes		
43	24 VDC		Yes	Yes		
44			Yes		Yes	

*1 Free-Run refreshing*2 Synchronous I/O refreshing

Digital Output Units

			ON/OFF response time		I/O refreshing	Other functions	
No.	Rated voltage	Load current	Exceeds 1 µs	1 μs max.	Free-Run refreshing *1 only or Switching Synchronous I/O refreshing *2 and Free-Run refreshing	Output refreshing with specified time stamp only	Load short-circuit protection
21	12 to 24 VDC	0.5 A	Yes		Yes		
33	or 240 VAC	2 A	Yes		Yes		
53				Yes	Yes		
54				Yes		Yes	
56	24 VDC	0.5 A	Yes		Yes		Yes
57	24 VDC			Yes	Yes		Yes
58	1			Yes		Yes	Yes
68	1	2 A	Yes		Yes		Yes

*1 Free-Run refreshing*2 Synchronous I/O refreshing

Digital Mixed I/O Units

	Input section	Output section							
No.	Dated input		Load	ON/OFF response time			Other functions		
	NO. Rated input voltage	Rated voltage	current	Exceeds 1 μs	1 μs max.	I/O refreshing method	Load short-circuit protection		
21	24 VDC	12 to24 VDC	0.5 A	Yes		Switching Synchronous	Yes		
56	24 VDC	24 VDC	0.5 A	Yes		I/O refreshing and Free-Run refreshing			

Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, CE: EU Directives, RCM: Regulatory Compliance Mark, and KC: KC Registration.
- · Contact your OMRON representative for further details and applicable conditions for these standards.

Digital Input Units DC Input Units (Screwless Clamping Terminal Block, 12 mm Width)

	Product			Specif	ication			
Unit type	name	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	Model	Standards
				12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run	20 μs max./400 μs max.	NX-ID3317	
			NPN		refreshing	100 ns max./	NX-ID3343	
	DC Input Unit	4 points		24 VDC	Input refreshing with input changed time only*	100 ns max.	NX-ID3344	
NX-series Digital Input		4 points PNP	12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 μs max./400 μs max.	NX-ID3417	UC1, N, L, CE, RCM,	
Unit					Input refreshing with input changed time only*	100 ns max./ 100 ns max.	NX-ID3443	КС
							NX-ID3444	
			NPN				NX-ID4342	
		8 points	PNP		Switching Synchronous I/O refreshing and Free-Run	20 μs max./400 μs max.	NX-ID4442	
			NPN		refreshing and Free-Run		NX-ID5342	
		16 points	PNP				NX-ID5442	

* To use input refreshing with input changed time, the NJ-series CPU Unit with unit version 1.06 or later, EtherCAT Coupler Unit with unit version 1.1 or later, and Sysmac Studio version 1.07 or higher are required.

• DC Input Unit (M3 Screw Terminal Block, 30 mm Width)

	name points		Specification					
Unit type	e e	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-serie Digital Input Unit	DC Input Unit	16 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 μs max./ 400 μs max.	NX-ID5142-1	UC1, N, CE, RCM, KC

• DC Input Units (MIL Connector, 30 mm Width)

	Product			Specif	ication			Standards
Unit type	name	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	Model	
	DC Input Unit	16 points	For both	24 VDC	Switching Synchronous I/O refreshing and Free-Run	20 μs max./	NX-ID5142-5	UC1, N, CE, RCM,
Input Unit		32 points	NPN/PNP	24 100	refreshing	400 μs max.	NX-ID6142-5	KC

• DC Input Unit (Fujitsu Connector, 30 mm Width)

	Product		Specification					
Unit type	name	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	Model	Standards
	DC Input Unit							
NX-series Digital Input Unit		32 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 μs max./ 400 μs max.	NX-ID6142-6	UC1, N, CE, RCM, KC

AC Input Unit (Screwless Clamping Terminal Block, 12 mm Width)

	Jnit type Product name Number of points	Specif	ication				
Unit type			Rated input voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series	AC Input Unit						UC1, N,
Digital Input Unit		4 points	200 to 240 VAC, 50/60 Hz (170 to 264 VAC, ±3 Hz)	Free-Run refreshing	10 ms max./40 ms max.	NX-IA3117	CE, RCM, KC

Digital Output Units

• Transistor Output Units (Screwless Clamping Terminal Block, 12 mm Width)

					Spec	ification				
Unit type	Product name	Number of points	Internal I/O common	Maximum value of load current	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards	
		2 points	NPN	0.5 A/point,	24 VDC	Output refreshing with specified time	300 ns max./	NX-OD2154		
		2 points	PNP	1 A/Unit	24 VDC	stamp only*	300 ns max.	NX-OD2258		
				NPN		12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD3121	UC1, N, L,
Transistor Output Unit		INFIN	0.5 A/point,			300 ns max./ 300 ns max.	NX-OD3153	CE, RCM, KC		
				2 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD3256		
Digital Output			PNP				300 ns max./ 300 ns max.	NX-OD3257	-	
Unit				2 A/point, 8 A/Unit		Switching Synchronous I/O refreshing and Free-Run refreshing	0.5 ms max./ 1.0 ms max.	NX-OD3268	UC1, N, CE, RCM, KC	
		0 m alimta	NPN		12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD4121		
		PNP	0.5 A/point,	24 VDC 12 to 24 VDC	0.5 ms max./ 1.0 ms max.	NX-OD4256	UC1, N, L,			
		NPN	4 A/Unit			0.1 ms max./ 0.8 ms max.	NX-OD5121	CE, RCM, KC		
		16 points	PNP		24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD5256	1	

* To use output refreshing with specified time stamp, the NJ-series CPU Unit with unit version 1.06 or later, EtherCAT Coupler Unit with unit version 1.1 or later, and Sysmac Studio version 1.07 or higher are required.

• Transistor Output Units (M3 Screw Terminal Block, 30 mm Width)

					Spec	ification			
Unit type Produce name		Number of points I/O common		Maximum value of load current	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series Digital	Transistor Output Unit	Output Unit	NPN	0.5 A/point,	12 to 24 VDC	Switching Synchronous I/O refreshing	0.1 ms max./ 0.8 ms max.	NX-OD5121-1	UC1, N, CE,
Output Unit			PNP	5 A/Unit	24 VDC	and Free-Run refreshing	0.5 ms max./ 1.0 ms max.	NX-OD5256-1	RCM, KC

• Transistor Output Units (MIL Connector, 30 mm Width)

					Spec	ification				
Unit type	Product name	Number of points	Internal I/O common	Maximum value of load current	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards	
	Transistor	16 points	NPN	0.5 A/point,	12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD5121-5		
NX-series Digital				PNP	2 A/Unit	24 VDC	Switching Synchronous I/O refreshing	0.5 ms max./ 1.0 ms max.	NX-OD5256-5	UC1, N, CE,
			0.5 Applint,	12 to 24 VDC	and Free-Run refreshing	0.1 ms max./ 0.8 ms max.	NX-OD6121-5	RCM, KC		
				2 A/common, 4 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD6256-5		

• Transistor Output Unit (Fujitsu Connector, 30 mm Width)

					Spec	ification			
Unit type	Product name	Number of points			Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series Digital Output Unit	Transistor Output Unit	32 points	NPN	0.5 A/point, 2 A/common, 4 A/Unit	12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	0.1 ms max./ 0.8 ms max.	NX-OD6121-6	UC1, N, CE, RCM, KC

• Relay Output Units (Screwless Clamping Terminal Block, 12 mm Width)

				Spec	ification			
Unit type	name		Relay type	Maximum switching capacity	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series Digital	Relay Output Unit	put	N.O.	250 VAC/2A (cos¢=1) 250 VAC/2A (cos¢=0.4)		15ms max./	NX-OC2633	UC1, N, L, CE, RCM, KC
Output Unit		2 points	N.O.+ N.C.	24 VDC/2A 4 A/Unit	Free-Run refreshing	15ms max.	NX-OC2733	UC1, N, CE, RCM, KC

● Relay Output Unit (Screwless Clamping Terminal Block, 24 mm Width)

				Spec	ification			
Unit typ	e Product name	Number of points	Relay type	Maximum switching capacity	I/O refreshing method	ON/OFF response time	Model	Standards
NX-serie Digital Output Unit	E	8 points	N.O.	250 VAC/2A (cosø=1) 250 VAC/2A (cosø=0.4) 24 VDC/2A 8 A/Unit	Free-Run refreshing	15ms max./ 15ms max.	NX-OC4633	UC1, CE, RCM, KC

Digital Mixed I/O Units DC Input/Transistor Output Units (MIL Connector, 30 mm Width)

	Product			Specif	ication			
Unit type	name	Number of points	Internal I/O common	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series	DC Input/ Transistor Output Unit	Outputs: 16 points	Outputs: NPN Inputs: For both NPN/PNP	Outputs: 12 to 24 VDC Inputs: 24 VDC	Switching Synchronous	Outputs: 0.1 ms max./0.8 ms max. Inputs: 20 μs max./400 μs max.	NX-MD6121-5	UC1, N, CE,
Digital Mixed I/O Unit		Inputs: 16 points	Outputs: PNP Inputs: For both NPN/PNP	Outputs: 24 VDC Inputs: 24 VDC	I/O refreshing and Free-Run refreshing	Outputs: 0.5 ms max./1.0 ms max. Inputs: 20 μs max./400 μs max.	NX-MD6256-5	RCM, KC

• DC Input/Transistor Output Unit (Fujitsu Connector, 30 mm Width)

	Product			Specif	ication				
Unit type	name	Number of points	Internal I/O common	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards	
NX-series Digital Output Uni	DC Input/ Transistor Output Unit	Outputs: 16 points Inputs: 16 points	Outputs: NPN Inputs: For both NPN/PNP	Outputs: 12 to 24 VDC Inputs: 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	Outputs: 0.1 ms max./0.8 ms max. Inputs: 20 μs max./400 μs max.	NX-MD6121-6	UC1, N, CE, RCM, KC	

Optional Products

Product name		Specif	fication		Model	Standards	
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block:	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)			NX-AUX02		
		Specif					
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards	
	8				NX-TBA082		
Terminal Block	12	A/B	None	10 A	NX-TBA122		
	16				NX-TBA162		

Accessories

Not included.

Pattern	Configuration	Number of connectors	Branching
A	Connecting Cable Connector-Terminal Block Conversion Unit 20 or 40 terminals	- 1	None
В	Connecting Cable with two branches Connector-Terminal Block Conversion Unit 20 terminals 20 terminals		2 branches
С	Connecting Cable Conversion Unit 20 terminals 20 terminals	2	None

Connection Patterns for Connector-Terminal Block Conversion Units

Connections to Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *1	Connector-Terminal Block Conversion Unit	Wiring method	Common terminal	
NX-ID5142-5	16 inputs	1 MIL connector	NPN/ PNP	A	XW2Z-DDX	XW2R-D20GD-T	Depends on model *3	None	
		connector	FINE		XW2Z-DDX	XW2D-20G6	Phillips screw	None	
					A	XW2Z-DDDPM	XW2R-D34GD-C2	Depends on model *3	None
				A	XW2Z-DDK	XW2D-40G6	Phillips screw	None	
				в	XW2Z-DDN	XW2R-□20GD-T (2 Units)	Depends on model *3	None	
NX-ID6142-5	32 inputs	1 MIL connector	NPN/ PNP	в	XW2Z-DDN	XW2C-20G5-IN16 (2 Units) *2	Phillips screw	Yes	
				В	XW2Z-DDN	XW2C-20G6-IO16 (2 Units)	Phillips screw	Yes	
					В	XW2Z-DDN	XW2D-20G6 (2 Units)	Phillips screw	None
				в	XW2Z-DDDN	XW2E-20G5-IN16 (2 Units) *2	Phillips screw	Yes	
				А	XW2Z-DDPF	XW2R-□34GD-C1	Depends on model *3	None	
					А	XW2Z-□□□B	XW2D-40G6	Phillips screw	None
				В	XW2Z-□□□D	XW2R-□20GD-T (2 Units)	Depends on model *3	None	
NX-ID6142-6	32 inputs	1 Fujitsu connector	NPN/ PNP	в	XW2Z-DDD	XW2C-20G5-IN16 (2 Units) *2	Phillips screw	Yes	
				В	XW2Z-□□□D	XW2C-20G6-IO16 (2 Units)	Phillips screw	Yes	
				В	XW2Z-DDD	XW2D-20G6 (2 Units)	Phillips screw	None	
				В	XW2Z-□□□D	XW2E-20G5-IN16 (2 Units) *2	Phillips screw	Yes	
NX-OD5121-5	16 outputs	1 MIL	NPN	А	XW2Z-DDX	XW2R-D20GD-T	Depends on model *3	None	
		connector		Α	XW2Z-□□□X	XW2D-20G6	Phillips screw	None	
NX-OD5256-5	16 outputs	1 MIL	PNP	A	XW2Z-DDX	XW2R-D20GD-T	Depends on model *3	None	
INX-UU5256-5 16	-	connector		Α	XW2Z-□□□X	XW2D-20G6	Phillips screw	None	

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *1	Connector-Terminal Block Conversion Unit	Wiring method	Common terminal	
				А	XW2Z-□□□PM	XW2R-🛛 34GD-C4	Depends on model *3	None	
				А	XW2Z-□□□K	XW2D-40G6	Phillips screw	None	
NX-OD6121-5	32 inputs	1 MIL connector	NPN	В	XW2Z-DDN	XW2R-□20GD-T (2 Units)	Depends on model *3	None	
				В	XW2Z-DDDN	XW2C-20G6-IO16 (2 Units)	Phillips screw	Yes	
				В	XW2Z-DDDN	XW2D-20G6 (2 Units)	Phillips screw	None	
				A XW2Z-□□PF XW2R-□34GD-C3		XW2R-□34GD-C3	Depends on model *3	None	
				A	XW2Z-DDB	XW2D-40G6	Phillips screw	None	
NX-OD6121-6	32 inputs	1 Fujitsu connector	NPN	В	XW2Z-DDL	XW2R-□20GD-T (2 Units)	Depends on model *3	None	
				В	XW2Z-DDDL	XW2C-20G6-IO16 (2 Units)	Phillips screw	Yes	
				В	XW2Z-DDDL	XW2D-20G6 (2 Units)	Phillips screw	None	
		ts 1 MIL connector		А	XW2Z-DDDPM	XW2R-□34GD-C4	Depends on model *3	None	
			4 1 11		Α	XW2Z-DDK	XW2D-40G6	Phillips screw	None
NX-OD6256-5	32 inputs		PNP	В	XW2Z-DDN	XW2R-□20GD-T (2 Units)	Depends on model *3	None	
				В	XW2Z-DDN	XW2C-20G6-IO16 (2 Units)	Phillips screw	Yes	
				В	XW2Z-DDN	XW2D-20G6 (2 Units)	Phillips screw	None	
	16 outputs	s 1 MIL connector	NPN/ PNP	С	XW2Z-□□□X	XW2R-□20GD-T	Depends on model *3	None	
NX-MD6121-5	-		connector	CONNECTOR	FINE	С	XW2Z-□□□X	XW2D-20G6	Phillips screw
NX-WD0121-5	16 outputs	1 MIL connector	NPN	С	XW2Z-□□□X	XW2R-□20GD-T	Depends on model *3	None	
	-	connector		С	XW2Z-□□□X	XW2D-20G6	Phillips screw	None	
				С	XW2Z-□□□A	XW2R-D20GD-T	Depends on model *3	None	
		1 Fuiitsu	NPN/	С	XW2Z-🗆 🗆 A	XW2C-20G5-IN16 *2	Phillips screw	Yes	
	16 outputs	connector	PNP	С	XW2Z-🗆 🗆 A	XW2C-20G6-IO16	Phillips screw	Yes	
NX-MD6121-6				С	XW2Z-🗆 🗆 A	XW2D-20G6	Phillips screw	None	
				С	XW2Z-□□□A	XW2E-20G5-IN16 *2	Phillips screw	Yes	
16		1 Fujitsu		С	XW2Z-□□□A	XW2R-□20GD-T	Depends on model *3	None	
	16 outputs	connector	NPN	С	XW2Z-□□□A	XW2C-20G6-IO16	Phillips screw	Yes	
				С	XW2Z-□□□A	XW2D-20G6	Phillips screw	None	
	16 outputs	1 MIL connector	NPN/ PNP	С	XW2Z-□□□X	XW2R-□20GD-T	Depends on model *3	None	
NX-MD6256 5		Sonneolor		С	XW2Z-□□□X	XW2D-20G6	Phillips screw	None	
NX-MD6256-5	16 outputs	1 MIL	PNP	С	XW2Z-□□□X	XW2R-□20GD-T	Depends on model *3	None	
		connector		С	XW2Z-DDX	XW2D-20G6	Phillips screw	None	

Note: For other models and specifications that are not listed above, refer to the XW2R Series Connector-Terminal Block Conversion Units Catalog (Cat. No. G077) and XW2R Datasheets.

*1 □□□ in the model number indicates the cable length. Refer to the *XW2Z Datasheet* for details.
*2 The inputs are NPN. For PNP inputs, reverse the polarity of the external power supply connections to the power supply terminals on the Connector-Terminal Block Conversion Unit.

The wiring methods vary depending on the Connector-Terminal Block Conversion Unit. 🗆 in the model number indicates the wiring method. *3 J = Phillips screw

E = Slotted screw (rise up)

P= Push-in spring

Pattern	Configuration	Number of connectors	Branching
A	Connecting Cable	1	2 branches
E	I/O Relay Terminal Connecting Cable	2	None
F	Connecting Cable	1	

Connection Patterns for I/O Relay Terminals

Connections to I/O Relay Terminals

Unit	I/O capacity	Number of connectors	Polarity	Connecti on pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method
NX-ID5142-5 1				F	XW2Z-RO C	G70V-SID16P(-1)	Push-in spring
	16 inputs	1 MIL connector	NPN/PNP	F	XW2Z-RO□C	G7TC-ID16	Phillips screw
				F	XW2Z-RO□C	G7TC-IA16	Phillips screw
				А	XW2Z-RO -D1	G70V-SID16P(-1) (2 Units)	Push-in spring
NX-ID6142-5	32 inputs	1 MIL connector	NPN/PNP	А	XW2Z-RO -D1	G7TC-ID16 (2 Units)	Phillips screw
				А	XW2Z-RO -D1	G7TC-IA16 (2 Units)	Phillips screw
		_		А	XW2Z-RI C-	G70V-SID16P(-1) (2 Units)	Push-in spring
NX-ID6142-6	32 inputs	1 Fujitsu connector	NPN/PNP	А	XW2Z-RI□C-□	G7TC-ID16 (2 Units)	Phillips screw
		connector		А	XW2Z-RI C-	G7TC-IA16 (2 Units)	Phillips screw
			r NPN	F	XW2Z-RO□C	G70V-SOC16P	Push-in spring
				F	XW2Z-RO C	G7TC-OC16	Phillips screw
				F	XW2Z-RO□C	G70D-SOC16	Phillips screw
NX-OD5121-5	16 outputs	1 MIL connector		F	XW2Z-RO C	G70D-VSOC16	Phillips screw
				F	XW2Z-RO□C	G70D-FOM16	Phillips screw
				F	XW2Z-RO C	G70D-VFOM16	Phillips screw
				F	XW2Z-RO□C	G70A-ZOC16-3 and Relay	Phillips screw
			PNP	F	XW2Z-RO□C	G70V-SOC16P-1	Push-in spring
				F	XW2Z-RI⊡C	G7TC-OC16-1	Phillips screw
NX-OD5256-5	16 outputs	1 MIL connector		F	XW2Z-RO□C	G70D-SOC16-1	Phillips screw
				F	XW2Z-RO□C	G70D-FOM16-1	Phillips screw
				F	XW2Z-RO□C	G70A-ZOC16-4 and Relay	Phillips screw

Unit	I/O capacity	Number of connectors	Polarity	Connecti on pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method
				A	XW2Z-RO -D1	G70V-SOC16P (2 Units)	Push-in spring
				Α	XW2Z-RO -D1	G7TC-OC16 (2 Units)	Phillips screw
		1 MIL connector		A	XW2Z-RO -D1	G70D-SOC16 (2 Units)	Phillips screw
NX-OD6121-5	32 inputs		NPN	A	XW2Z-RO -D1	G70D-FOM16 (2 Units)	Phillips screw
17-000121-5	52 inputs	T MIL CONNECTOR		A	XW2Z-RO -D1	G70D-VSOC16 (2 Units)	Phillips screw
				A	XW2Z-RO -D1	G70D-VFOM16 (2 Units)	Phillips screw
				A	XW2Z-RO□-□-D1	G70A-ZOC16-3 and Relay (2 Units)	Phillips screw
				А	XW2Z-RO C-	G70V-SOC16P (2 Units)	Push-in spring
				A	XW2Z-RO C-	G7TC-OC16 (2 Units)	Phillips screw
				Α	XW2Z-RO C-	G70D-SOC16 (2 Units)	Phillips screw
	20 innute	1 Fujitsu		A	XW2Z-RO C-	G70D-FOM16 (2 Units)	Phillips screw
NX-OD6121-6	32 inputs	connector	NPN	A	XW2Z-RO C-	G70D-VSOC16 (2 Units)	Phillips screw
				A	XW2Z-RO C-	G70D-VFOM16 (2 Units)	Phillips screw
				A	XW2Z-RO□C-□	G70A-ZOC16-3 and Relay (2 Units)	Phillips screw
				A	XW2Z-RO -D1	G70V-SOC16P-1 (2 Units)	Push-in spring
				A	XW2Z-RI	G7TC-OC16-1 (2 Units)	Phillips screw
			-	A	XW2Z-RO -D1	G70D-SOC16-1 (2 Units)	Phillips screw
NX-OD6256-5	32 inputs	1 MIL connector	PNP	A	XW2Z-RO -D1	G70D-FOM16-1 (2 Units)	Phillips screw
				A	XW2Z-RO[]-[]-D1	G70A-ZOC16-4 and Relay (2 Units)	Phillips screw
				E	XW2Z-RO C	G70V-SID16P(-1)	Push-in spring
	16 inputs	1 MIL connector	NPN/PNP	E	XW2Z-RO□C	G7TC-ID16	Phillips screw
	·			E	XW2Z-RO C	G7TC-IA16	Phillips screw
				E	XW2Z-RO C	G70V-SOC16P	Push-in spring
				E	XW2Z-RO C	G7TC-OC16	Phillips screw
IX-MD6121-5				E	XW2Z-RO C	G70D-SOC16	Phillips screw
	16 outputs	1 MIL connector	NPN	E	XW2Z-RO□C	G70D-FOM16	Phillips screw
				E	XW2Z-RO C	G70D-VSOC16	Phillips screw
				E	XW2Z-RO C	G70D-VFOM16	Phillips screw
				E	XW2Z-RO□C	G70A-ZOC16-3 and Relay	Phillips screw
				E	XW2Z-R□C	G70V-SID16P(-1)	Push-in spring
	16 inputs	1 Fujitsu	NPN/PNP	E	XW2Z-R□C	G7TC-ID16	Phillips screw
		connector		E	XW2Z-R□C	G7TC-IA16	Phillips screw
				E	XW2Z-R□C	G70V-SOC16P	Push-in spring
				E	XW2Z-R□C	G7TC-OC16	Phillips screw
NX-MD6121-6				E	XW2Z-R□C	G70D-SOC16	Phillips screw
	16 outputs	1 Fujitsu	NPN	E	XW2Z-R C	G70D-FOM16	Phillips screw
		connector		E	XW2Z-R□C	G70D-VSOC16	Phillips screw
				E	XW2Z-R C	G70D-VFOM16	Phillips screw
				E	XW2Z-R C	G70A-ZOC16-3 and Relay	Phillips screw
				E	XW2Z-RO	G70V-SID16P(-1)	Push-in spring
	16 inputs	1 MIL connector	NPN/PNP	E	XW2Z-RO	G7TC-IA16	Phillips screw
				E	XW2Z-RODC	G7TC-ID16	Phillips screw
				E	XW2Z-RI	G70V-SOC16P-1	Push-in spring
NX-MD6256-5				E	XW2Z-RILC	G7TC-OC16-1	Push-in spring Phillips screw
	16 outputs	1 MIL connector	PNP	E	XW2Z-RO_C	G70D-SOC16-1	Phillips screw
				E	XW2Z-RI_C	G70D-FOM16-1	Phillips screw
				1 -			1 mmps sciew

Note: 1. For other models and specifications that are not listed above, refer to the datasheets.
2. The G70V Series includes models that provide internal connections. Refer to the *G70V Datasheet* (Cat. No. J215) for details.
3. The G70A is a socket only. Mountable relays and timers are sold separately.
* □ in the model number indicates the cable length. Refer to the *XW2Z-R Datasheet* (Cat. No. G126) for details.

General Specifications

	Item	Specification
Enclosure		Mounted in a panel
Grounding n	nethod	Ground to 100 Ω or less
	Ambient operating temperature	0 to 55°C
Ambient operating humidity		10% to 95% (with no condensation or icing)
Atmosphere Ambient storage temperature Altitude Pollution degree	Must be free from corrosive gases.	
	-25 to 70°C (with no condensation or icing)	
	Altitude	2,000 m max.
	Pollution degree	2 or less: Conforms to JIS B3502 and IEC 61131-2.
Operating environment	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)
environment	Overvoltage category	Category II: Conforms to JIS B3502 and IEC 61131-2.
	EMC immunity level	Zone B
Vibration resistance *1		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/s ² , 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)
	Shock resistance *1	Conforms to IEC 60068-2-27. 147 m/s ² , 3 times each in X, Y, and Z directions
Applicable s	tandards *2	cULus: Listed (UL508) or Listed (UL 61010-2-201), ANSI/ISA 12.12.01, EU: EN 61131-2 or EN 61010-2-201, C-Tick or RCM, KC: KC Registration, NK, LR

 Applicable standards *2
 EU: EN 61131-2 or EN 61010-2-201, C-Tick or RCM, KC: KC Registration, NK, LR

 *1. For the Relay Output Unit, refer to the Digital Input Unit Specifications.
 *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.

Digital Input Unit Specifications

• DC Input Unit (Screwless Clamping Terminal Block, 12 mm Width) NX-ID3317

Unit name	DC Input Unit	Model	NX-ID3317	
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)	
I/O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing		
	TS indicator, input indicator	Internal I/O common	NPN	
	ID3317	Rated input voltage	12 to 24 VDC (9 to 28.8 VDC)	
	■TS ■0 ■1	Input current	6 mA typical (at 24 VDC), rated current	
	=0 =1 =2 =3	ON voltage/ON current	9 VDC min./3 mA min. (between IOV and each signal)	
Indicators		OFF voltage/OFF current	2 VDC max./1 mA max. (between IOV and each signal)	
		ON/OFF response time	20 μs max./400 μs max.	
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation	
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.	
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	No consumption	
Weight	65 g max.			
Circuit layout	Terminal block NX bus connector (left) I/O power supply + I/O power supply - I/O powe			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.	
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OC IOV I OC IOC I 2 to 24 VDC A8 B8	DC Input Unit NX-ID3317 Two- A1 IN0 IN1 IOV0 IOV1 IOG0 IOC1 IN2 IN3 IOV2 IOV3 IOV2 IOV3 A8 B8		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.	

Unit name	DC Input Unit	Model	NX-ID3343
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	
	TS indicator, input indicator	Internal I/O common	NPN
	ID3343	Rated input voltage	24 VDC (15 to 28.8 VDC)
	■TS ■0 ■1	Input current	3.5 mA typical (at 24 VDC), rated current
Indicators	=0 =1 ≡2 ≡3	ON voltage/ON current	15 VDC min./3 mA min. (between IOV and each signal)
indicators		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOV and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	Without filter, 1 µs, 2 µs, 4 µs, 8 µs (factory setting), 16 µs, 32 µs, 64 µs, 128 µs, 256 µs
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		1
Circuit layout	Terminal block IN0 to IN3	rent control circuit	I/O power supply + I/O power supply + I/O power supply –
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 00V IOV 24 VDC A24 VDC A25 VDC A26 VDC A27 VDC	DC Input Unit NX-ID3343 A1 B1 ser IN0 IN1 • IOV0 IOV1 IOG0 IOG1 • IN2 IN3 • IOV2 IOV3 • IOG3 IOG3 • A8 B8	wire Isor Three-wire sensor
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID3344
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
/O refreshing method	Input refreshing with input changed time		•
	TS indicator, input indicators	Internal I/O common	NPN
	ID3344	Rated input voltage	24 VDC (15 to 28.8 VDC)
	TS	Input current	3.5 mA typical (at 24 VDC), rated current
Indicators	■0 ■1 ■2 ■3	ON voltage/ON current	15 VDC min./3 mA min. (between IOV and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOV and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	No filter
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
	Connected to a CPU Unit		
NX Unit power consumption	 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		•
Circuit layout	Terminal block IN0 to IN3	urrent control	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in u • Connected to a Communications Coupl Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1B1 IOIOV_IOV IOV_IOV IOV_IOV IOV_IOV IOV_IOV IOV_IOV IOV_IOV IOV_IOV IOV_IOV IOS_IOS B8		D-wire nsor Three-wire sensor
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID3417		
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator, input indicator	Internal I/O common	PNP		
	ID3417	Rated input voltage	12 to 24 VDC (9 to 28.8 VDC)		
	■TS ■0 ■1	Input current	6 mA typical (at 24 VDC), rated current		
	u 2 u 3	ON voltage/ON current	9 VDC min./3 mA min. (between IOG and each signal)		
Indicators		OFF voltage/OFF current	2 VDC max./1 mA max. (between IOG and each signal)		
		ON/OFF response time	20 μs max./400 μs max.		
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	No consumption		
Weight	65 g max.				
Circuit layout		I control	I/O power supply + NX bus connector (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 OV IOV IOC IOC 12 to 24 VDC IOC IOC IOG IOG A8 B8	DC Input Unit NX-ID3417 IN0 IN1 • IOV0 IOV1 • IOG0 IOG1 IN2 IN3 • IOV2 IOV3 • IOG2 IOG3 • A8 B8	-wire Insor Three-wire sensor		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.		

Unit name	DC Input Unit	Model	NX-ID3443
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	L
	TS indicator, input indicator	Internal I/O common	PNP
	ID3443	Rated input voltage	24 VDC (15 to 28.8 VDC)
	■TS ■0 ■1	Input current	3.5 mA typical (at 24 VDC), rated current
Indicators	= 2 = 3	ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	Without filter, 1 μs, 2 μs, 4 μs, 8 μs (factory setting),16 μs, 32 μs, 64 μs, 128 μs, 256 μs
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		
Circuit layout		Current control circuit	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 I OV IOV IOV IOV IOV IOV IOV IOC IOG IOG IOG IOG IOG IOG IOG IOG	DC Input Unit NX-ID3443 A1 B1 Ser IN0 IN1 • IOV0 IOV1 • IOC0 IOG1 IN2 IN3 • IOC2 IOV3 • IOG2 IOG3 A8 B8	-wire Isor Three-wire sensor
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID3444
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Input refreshing with input changed time		
	TS indicator, input indicators	Internal I/O common	PNP
	ID3444	Rated input voltage	24 VDC (15 to 28.8 VDC)
	TS	Input current	3.5 mA typical (at 24 VDC), rated current
Indicators	■0 ■1 ■2 ■3	ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	No filter
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		
Circuit layout	Terminal block IN0 to IN3 IN0 to IN3 IOG0 to 3 IOG0	Current control	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 I I I I I I I I I I I I I	DC Input Unit NX-ID3444 A1 B1 Sen IN0 IN1 IOV0 IOV1 IOG0 IOG1 IN2 IN3 IOV2 IOV3 IOG2 IOG3 A8 B8	
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID4342	
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)	
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing			
	TS indicator, input indicator	Internal I/O common	NPN	
	ID4342	Rated input voltage	24 VDC (15 to 28.8 VDC)	
	■TS ■0 ■1	Input current	3.5 mA typical (at 24 VDC), rated current	
	■2 ■3 ■4 ■5	ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)	
Indicators	■6 ■7	OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)	
		ON/OFF response time	20 μs max./400 μs max.	
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation	
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOG: 0.1 A/terminal max.	
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	No consumption	
Weight	65 g max.			
Circuit layout		int control	I/O power supply + NX bus connector I/O power supply - (right)	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.	
Terminal connection diagram	Power Supply Unit A1 B1 A1 B1 A1 B1 A1 IC IC IC IC IC IC IC IC IC IC	DV IOV IN4 IOG4 DV IOV		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.	

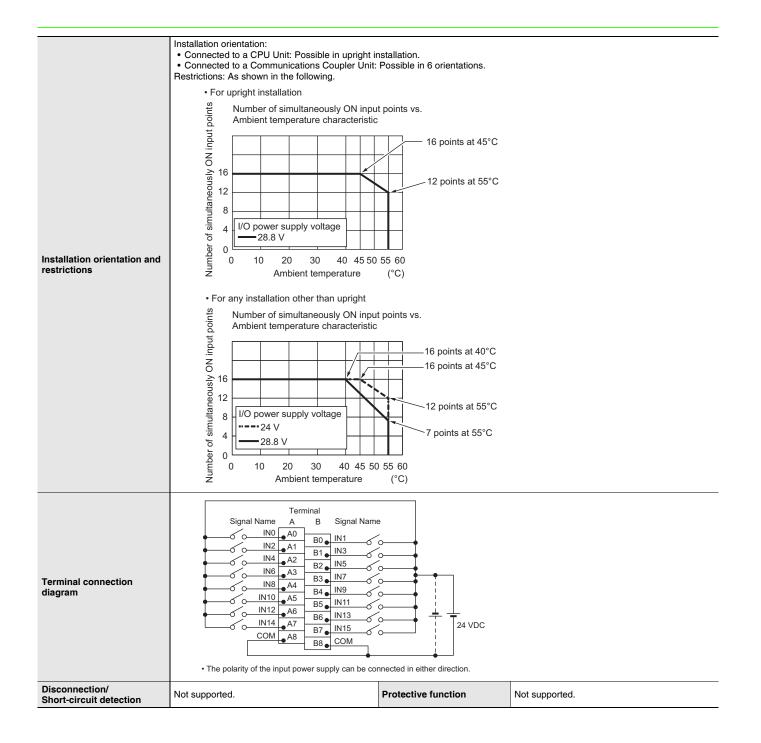
Unit name	DC Input Unit	Model	NX-ID4442
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Free-Run refreshing	,
	TS indicator, input indicator	Internal I/O common	PNP
	ID4442	Rated input voltage	24 VDC (15 to 28.8 VDC)
	■TS	Input current	3.5 mA typical (at 24 VDC), rated current
	=0 =1 =2 =3 =4 =5	ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
Indicators	■6 ■7	OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout		at control	I/O power supply + NX bus connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 IC IC IC IC IC IC IC IC IC IC	IOG IOG IOV0 IC IOG IOG IN2 IOV2 IC IOG IOG IOV2 IC IN4 IOG IOG IOV4 IC IOG IOG IN6 IN6	
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID5342
Number of points	16 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F		
	TS indicator, input indicator	Internal I/O common	NPN
	ID5342	Rated input voltage	24 VDC (15 to 28.8 VDC)
	■TS	Input current	2.5 mA typical (at 24 VDC), rated current
	m0 m1 m2 m3 m4 m5 m6 m7 m8 m9 m10 m11	ON voltage/ON current	15 VDC min./2 mA min. (between IOG and each signal)
Indicators	■12 ■13 ■14 ■15	OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout		ent control circuit	I/O power supply + NX bus connector I/O power supply - (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram	■IOG IOG IOV IOV </th <th></th> <th>DC Input Unit NX-ID5342 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN15 B8 B8</th>		DC Input Unit NX-ID5342 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN15 B8 B8
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID5442
		External connection	Screwless clamping terminal block (16
Number of points	16 points	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Internal I/O common	PNP
	TS indicator, input indicator		
		Rated input voltage	24 VDC (15 to 28.8 VDC)
	■0 ■1 ■2 ■3 ■4 ■5 =6 ■7 ■8 ■9 ■10■11	Input current ON voltage/ON current	2.5 mA typical (at 24 VDC), rated current 15 VDC min./2 mA min. (between IOG and each signal)
Indicators		OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply	Supply from the NX bus	Current capacity of I/O	Without I/O power supply terminals
method		power supply terminal	
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	Current consumption from I/O power supply	No consumption
Weight	65 g max.		•
Circuit layout			I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	IOV IOV <th></th> <th>DC Input Unit NX-ID5442 B1 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN5 B8</th>		DC Input Unit NX-ID5442 B1 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN5 B8
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

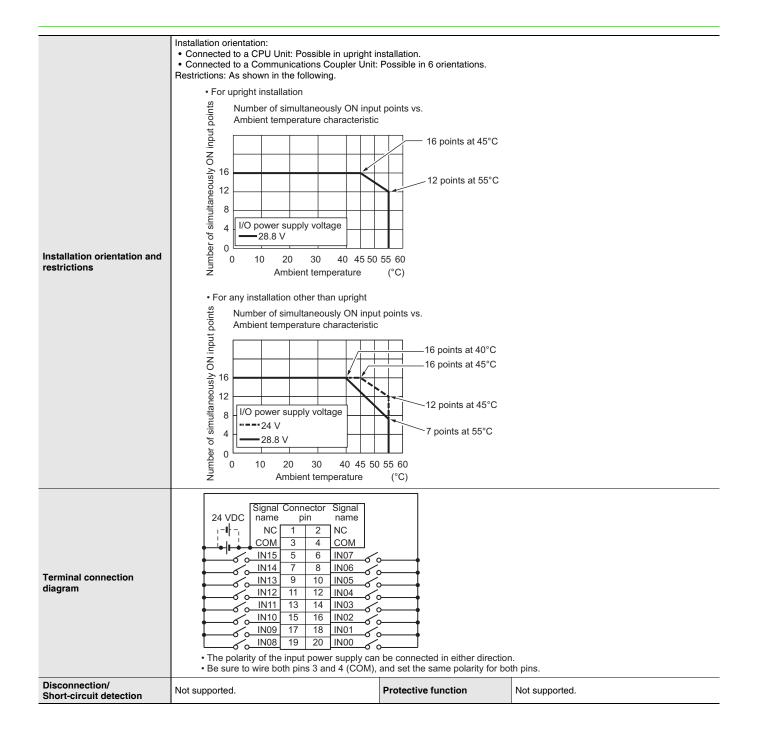
• DC Input Unit (M3 Screw Terminal Block, 30 mm Width) NX-ID5142-1

Unit name	DC Input Unit	Model	NX-ID5142-1
Number of points	16 points	External connection terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F	Run refreshing	
	TS indicator, input indicators	Internal I/O common	For both NPN/PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
	ID5142-1	Input current	7 mA typical (at 24 VDC)
Indicators	■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7	ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)
Indicators	■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
		ON/OFF response time	20 μs max./400 μs 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
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 0.85 W max. Connected to a Communications Coupler Unit 0.55 W max. 	Current consumption from I/O power supply	No consumption
Weight	125 g max.		1
Circuit layout	Terminal block NX bus connector (left) IN0 IN0 Terminal block IN0 to IN15 COM COM COM COM L COM COM L COM COM L COM	supply + c	IX bus onnector ight)



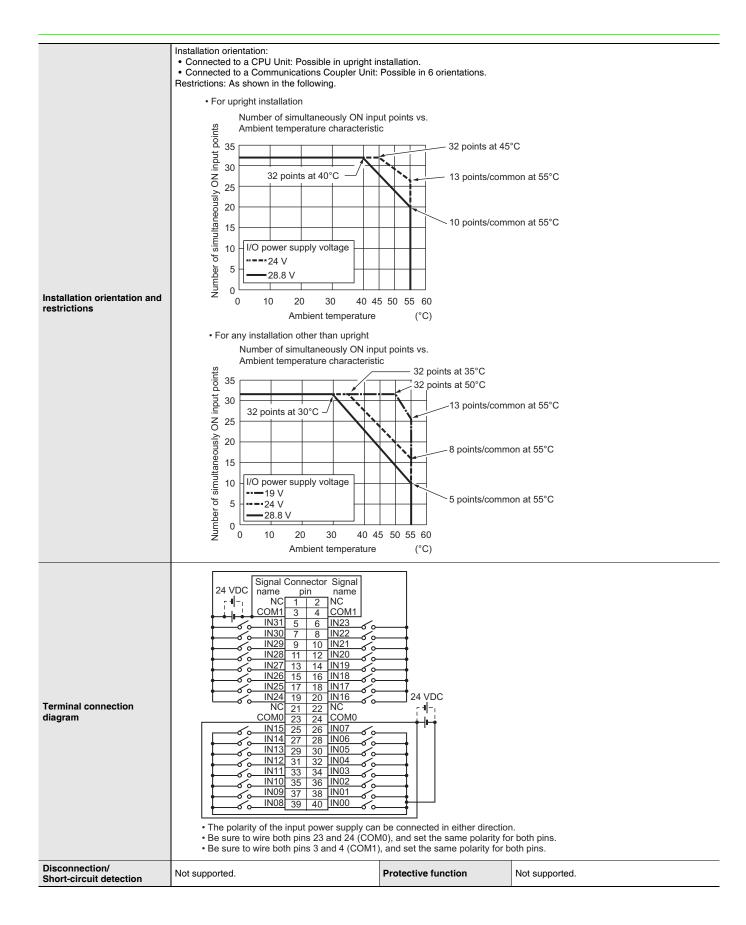
• DC Input Unit (MIL Connector, 30 mm Width) NX-ID5142-5

Unit name	DC Input Unit	Model	NX-ID5142-5		
Number of points	16 points	External connection terminals	MIL connector (20 terminals)		
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing				
	TS indicator, input indicators	Internal I/O common	For both NPN/PNP		
	ID5142-5	Rated input voltage	24 VDC (15 to 28.8 VDC)		
	■ TS	Input current	7 mA typical (at 24 VDC)		
	■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7 ■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15	ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)		
Indicators		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)		
		ON/OFF response time	20 μs max./400 μs 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		
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	Connected to a CPU Unit 0.85 W max. Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/ O power supply	No consumption		
Weight	85 g max.				
Circuit layout	Connector IN0 to IN15 COM COM NX bus connector (left) I/O power supply + I/O power supply - NX bus connector (left) I/O power supply - I/O power supply -		nector		



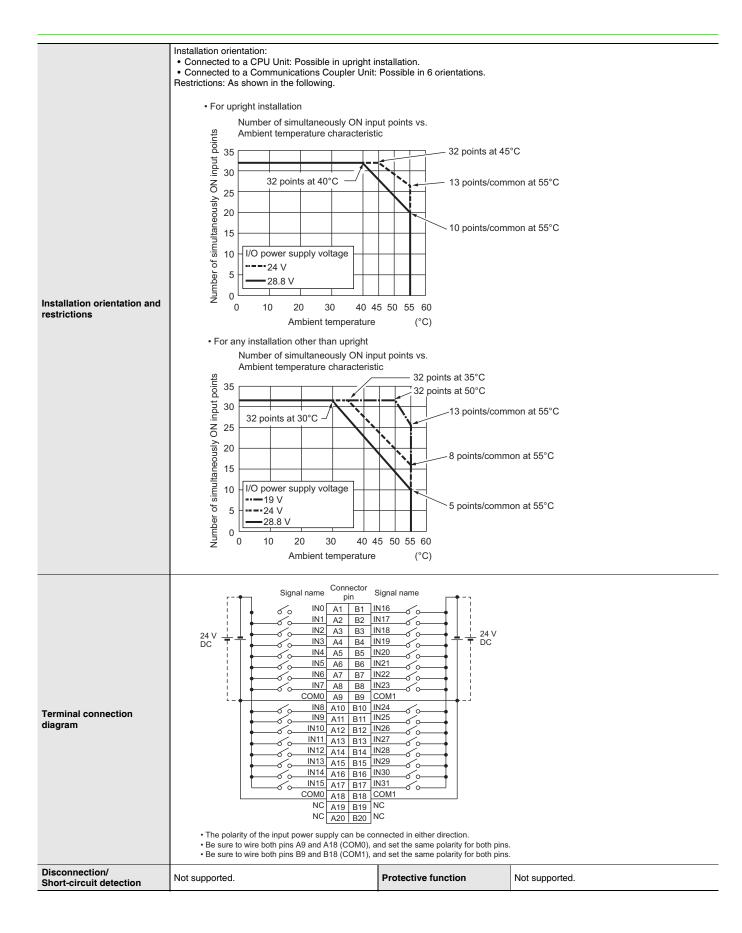
NX-ID6142-5

Unit name	DC Input Unit	Model	NX-ID6142-5		
Number of points	32 points	External connection terminals	MIL connector (40 terminals)		
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing				
	TS indicator, input indicators	Internal I/O common	For both NPN/PNP		
	ID6142-5	Rated input voltage	24 VDC (19 to 28.8 VDC)		
	TS	Input current	4.1 mA typical (24 VDC)		
	E 0 E 1 E 2 E 3 E 4 E 5 E 6 E 7 E 8 E 9 E 10 E 11 E 12 E 13 E 14 E 15	ON voltage/ON current	19 VDC min./3 mA min. (between COM and each signal)		
Indicators	■ 16 ■ 17 ■ 18 ■ 19 ■ 20 ■ 21 ■ 22 ■ 23 ■ 24 ■ 25 ■ 26 ■ 27 ■ 28 ■ 29 ■ 30 ■ 31	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)		
		ON/OFF response time	20 μs max./400 μs 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		
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.60 W max. 	Current consumption from I/O power supply	No consumption		
Weight	90 g max.		1		
Circuit layout	Connector NX bus connector NX bus connector NX bus connector (left) NX bus connector NX bus connector LN0 Supply + Supply + Supply - LN0 LN0 Supply - LN0 LN0 Supply - LN0 LN0 LN0 Supply - LN0 LN0 LN0 Supply - LN0 LN0 LN0 LN0 LN0 LN0 LN0 LN0	I/O power supply + I/O power supply - NX bus connector (right)			



• DC Input Unit (Fujitsu Connector, 30 mm Width) NX-ID6142-6

Unit name	DC Input Unit	Model	NX-ID6142-6		
Number of points	32 points	External connection terminals	Fujitsu connector (40 terminals)		
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing				
	TS indicator, input indicators	Internal I/O common	For both NPN/PNP		
	ID6142-6	Rated input voltage	24 VDC (19 to 28.8 VDC)		
		Input current	4.1 mA typical (24 VDC)		
Indicators	■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7 ■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15	ON voltage/ON current	19 VDC min./3 mA min. (between COM and each signal)		
	■16 ■17 ■18 ■19 ■20 ■21 ■22 ■23 ■24 ■25 ■26 ■27 ■28 ■29 ■30 ■31	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)		
		ON/OFF response time	20 μs max./400 μs 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		
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	Connected to a CPU Unit 0.95 W max. Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	No consumption		
Weight	90 g max.		1		
Circuit layout	Connector (left) IN0 IN15 COM0 IN15 COM0 IN15 COM0 IN15 COM0 IN15 COM0 IN16 IN15 COM0 IN16 IN15 COM0 IN16 IN15 COM0 IN16 IN15 COM0 IN16 IN15 COM0 IN16 IN15 IN16 IN16 IN16 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17 IN16 IN17	I/O power supply + V/O power supply - NX bus connector (right)			



• AC Input Unit (Screwless Clamping Terminal Block, 12 mm Width) NX-IA3117

Unit name	AC Input Unit	Model	NX-IA3117
Number of points	4 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)
Capacity	Free-Run refreshing		
	TS indicator, input indicator	Internal I/O common	No polarity
	IA3117 ■TS	Rated input voltage	200 to 240 VAC, 50/60 Hz (170 to 264 VAC, ±3 Hz)
	■0 ■1 ■2 ■3	Input current	9 mA typical (at 200 VAC, 50 Hz) 11 mA typical (at 200 VAC, 60 Hz)
Indicators		ON voltage/ON current	120 VAC min./4 mA min.
		OFF voltage/OFF current	40 VAC max./2 mA max.
		ON/OFF response time	10 ms max./40 ms max. 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
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	Between each AC input circuit: 20 M Ω min. (at 500 VDC) Between the external terminals and the functional ground terminal: 20 M Ω min. (at 500 VDC) Between the external terminals and internal circuits: 20 M Ω min. (at 500 VDC) Between the internal circuit and the functional ground terminal: 20 M Ω min. (at 100 VDC)	Dielectric strength	Between each AC input circuit: AC3700V VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and functional ground terminal: 2300 VAC for 1 min at a leakag current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage curren of 5 mA max. Between the internal circuit and the functional ground terminal: 510 VAC for 1 min at a leakage current of 5 mA max.
I/O power supply method	Supplied from external source.	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	Connected to a CPU Unit 0.80 W max. Connected to a Communications Coupler Unit 0.50 W max.	Current consumption	No consumption
Weight	60 g max.		
Circuit layout	Terminal block		I/O power supply + I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright i • Connected to a Communications Coupler Unit: Restrictions: No restrictions		
Terminal connection diagram	200 to 240 VAC IN1 C1		
Disconnection/		Protective function	

Digital Output Unit Specifications

• Transistor Output Unit (Screwless Clamping Terminal Block, 12 mm Width) NX-OD2154

Unit name	Transistor Output Unit	Model	NX-OD2154
		External connection	Screwless clamping terminal block
Number of points	2 points	terminals	(8 terminals)
I/O refreshing method	Output refreshing with specified time stamp		
	TS indicator, output indicator	Internal I/O common	NPN
	OD2154	Rated voltage	24 VDC
	■TS ■0 ■1	Operating load voltage range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
	Connected to a CPU Unit		
NX Unit power consumption	 0.85 W max. Connected to a Communications Coupler Unit 0.45 W max. 	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply +	push-pull output circuit.	IOV0 to 1 OUT0 to OUT1 IOG0 to 1 I/O power supply + I/O power supply – NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram Disconnection/	Additional I/O Power Supply Unit A1B1 ● IOV IOV 24 VDC IOV IOV IOV IOV IOV IOV A8B8	Transistor Output Unit A1	re type Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

	Transistar Outsut Unit	Model	NX-OD2258
Unit name	Transistor Output Unit	External connection	Screwless clamping terminal block
Number of points	2 points	terminals	(8 terminals)
I/O refreshing method	Output refreshing with specified time stamp TS indicator, output indicator	Internal I/O common	PNP
	OD2258	Rated voltage	24 VDC
		Operating load voltage	
	=0 =1	range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.85 W max. Connected to a Communications Coupler Unit 0.50 W max. 	I/O current consumption	40 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply +	push-pull output circuit.	OUT0 to OUT1 OUT0 to OUT1 Terminal block IOG0 to 1 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC IOV IOV IOV IOV IOV IOV A8 B8	Transistor Output Unit NX-OD2258 Two-w OUT0_OUT1_ IOV IOV IOG IOG NC NC A8 B8	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3121
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	-
	TS indicator, output indicator	Internal I/O common	NPN
	OD3121	Rated voltage	12 to 24 VDC
	■1 ■0 ■1 ■2 ■3	Operating load voltage range	10.2 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
nsulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply -		IOV0 to 3 OUT0 to OUT3 Terminal block IOG0 to 3 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 00V IOV 12 to 24 VDC IOV IOV IOV IOV A8 B8	Transistor Output Unit NX-OD3121 B1 Two-wi A1 B1 Two-wi OUT0 OUT1 IOUT0 IOV0 IOV1 IOUT0 IOG0 IOG1 IOUT2 IOV2 IOV3 IOG2 IOG2 IOG3 IOG3 A8 B8 B8	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model External connection	NX-OD3153
Number of points	4 points	terminals	Screwless clamping terminal block (12 terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	, j	
	TS indicator, output indicator	Internal I/O common	NPN
	OD3153 ■TS	Rated voltage Operating load voltage	24 VDC
	■0 ■1 ■2 ■3	range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
.		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
	Connected to a CPU Unit One Wireser		
NX Unit power consumption	 0.90 W max. Connected to a Communications Coupler Unit 0.50 W max. 	I/O current consumption	30 mA max.
Weight	70 g max.		<u> </u>
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply – This unit uses a push-	pull output circuit.	OUT0 to OUT3 Terminal block IOG0 to 3 I/O power supply + I/O power supply – NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1B1 OVIOGIOG 24 VDCIOGIOG IOVIOV IOGIOG IOGB8B8	Transistor Output Unit NX-OD3153 B1 Two-wi OUT0 OUT1 Image: Constraint of the second	re type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD3256
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	
-	TS indicator, output indicator	Internal I/O common	PNP
	OD3256	Rated voltage	24 VDC
	■TS ■0 ■1 ■2 ■3	Operating load voltage range	15 to 28.8 VDC
ndicators	-2 -3	Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
nsulation resistance	$20 \text{ M}\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	
Weight	70 g max.		
Circuit layout	NX bus connector (left) //O power supply +		IOV0 to 3 Terminal block OUT0 to OUT3 IOG0 to 3 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 00V IOV 00G IOG 24 VDC IOV IOV IOV IOV 00G IOG 10G IOG 10G IOG 10G IOG 10G IOG 10G IOG 10G IOG	Transistor Output Unit NX-OD3256 B1 Two-w A1 B1 Two-w OUT0 OUT1 IOUT IOV0 IOV1 IOUT IOG0 IOG1 IOUT3 IOV2 IOV3 IOG2 IOG2 IOG3 B8	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3257
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F		terminais)
<u>,</u>	TS indicator, output indicator	Internal I/O common	PNP
	OD3257	Rated voltage	24 VDC
	■TS ■0 ■1	Operating load voltage	15 to 28.8 VDC
	u 2 u 3	range Maximum value of load	
Indicators		current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage ON/OFF response time	1.5 V max. 300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 M Ω min. between isolated circuits (at	Dielectric strength	510 VAC between isolated circuits for 1
	100 VDC)	•	minute at a leakage current of 5 mA max
/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
	Connected to a CPU Unit	Perior exppr) termina	
NX Unit power	0.85 W max. Connected to a Communications 	I/O current consumption	40 m 4 mov
consumption	Coupler Unit	NO current consumption	40 mA max.
	0.50 W max.		
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply - This unit uses a push- Installation orientation:	-pull output circuit.	OUT0 to OUT3 IOG0 to 3 I/O power supply + I/O power supply – I/O power supply –
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1B1 IOV IOV IOG IOG 24 VDC A8B8	Transistor Output Unit NX-OD3257 A1B1Two-wi IOV0 IOV1 IOV0 IOV1 IOG0 IOG1 OUT2 OUT3 IOV2 IOV3 IOG2 IOG3 A8B8	re type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3268
Number of points	4 points	External connection terminals	Screwless clamping terminal block (16 terminals)
/O refreshing method	Switching Synchronous I/O refreshing and	Free-Run refreshing	
	TS indicator, output indicator	Internal I/O common	PNP
	00000	Rated voltage	24 VDC
	OD3268	Operating load voltage range	15 to 28.8 VDC
Indicators	=2 =3	Maximum value of load current	2 A/point, 8 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	IOV: 2 A/terminal max., IOG: 2 A/terminal max., COM (+V): 4 A/terminal max., 0V: 4 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.85 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	20 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left)		V 0 to IOV 3 DM (+V) JT 0 to OUT 3 G 0 to IOG 3 D power pply + D power pply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in u • Connected to a Communications Coupl Restrictions: No restrictions		ions.
Terminal connection diagram	Transistor Output Unit NX-OD3268 A1 B1 OUT0 OUT1 IOV0 IOV1 IOG0 IOG1 OUT2 OUT3 IOV2 IOV3 IOG2 IOG3 COM (+V) COM (+V) A8 B8 OV 0V 0V A8 B8 OV 10V 10V OV 10V IOV2 IOV3 IOV2 IOV3 IOV2 IOV3 IOV2 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV2 IOV3 IOV3 IOV3 IOV3 IOV3 IOV3 IOV3 IOV3		
Disconnection/			I

NX-0D4121			
Unit name	Transistor Output Unit	Model	NX-OD4121
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	-	
	TS indicator, output indicator	Internal I/O common	NPN
	OD4121 ■TS	Rated voltage	12 to 24 VDC
	= 15 =0 =1 =2 =3	Operating load voltage range	10.2 to 28.8 VDC
Indicators	■4 ■5 ■6 ■7	Maximum value of load current	0.5 A/point, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply –		IOV0 to 7 OUT0 to OUT7 Iterminal block OUT0 to OUT7 I/O power supply + I/O power supply + I/O power supply - I/O power supply -
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I DOV IOV I DOV IOV I DOV IOV I DOV IOV I DOV IOV I DOV I DOV A88 B8 B8 A88 B8 I DO A88 B I DO A	Connection Unit NX. 10G 10G 10G 10G	0 IOV1 2 OUT3 2 IOV3 4 OUT5 4 IOV5
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD4256
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F		
	TS indicator, output indicator	Internal I/O common	PNP
	OD4256	Rated voltage	24 VDC
	■TS ■0 ■1 ■2 ■3	Operating load voltage range	15 to 28.8 VDC
Indicators	=2 =3 =4 =5 =6 =7	Maximum value of load current	0.5 A/point, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOG: 0.5 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 1.00 W max. Connected to a Communications Coupler Unit 0.65 W max. 	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply - I/O power supply - I/O power supply -		OUT0 to OUT7 Terminal block IOG0 to 7 I/O power supply + I/O power supply - I/O power supply - (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 Col A1 B1 A1 Col B1 Col B1 Col Col Col Col Col Col Col Col	DV IOV DV IOV	B1 Two-wire type G1 •
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD5121
Number of points	16 points	External connection terminals	Screwless clamping terminal block (16 terminals)
O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	
	TS indicator, output indicator	Internal I/O common	NPN
	OD5121 ■TS	Rated voltage	12 to 24 VDC
	=13 =0 =1 =2 =3 =4 =5 =6 =7	Operating load voltage range	10.2 to 28.8 VDC
ndicators	=8 =9 =10 =11 =12 =13 =14 =15	Maximum value of load current	0.5 A/point, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
nsulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
/O power supply nethod	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 1.00 W max. Connected to a Communications Coupler Unit 0.65 W max. 	I/O current consumption	20 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) //O power supply +		OUT0 to OUT15 Terminal block
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram		V IOV IOG IOG V IOV IOG IOG	Transistor Output Unit NX-OD5121 B1 Two-wire type A1 B1 Two-wire type OUT0 OUT1 OUT2 OUT2 OUT3 OUT4 OUT6 OUT7 OUT8 OUT10 OUT1 Three-wire type OUT10 OUT11 OUT10 OUT11 OUT12 OUT13 OUT14 OUT15 OUT14 OUT15 OUT14 OUT15 A8 B8
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model External connection	NX-OD5256		
Number of points	16 points	terminals	Screwless clamping terminal block (16 terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator, output indicator	Internal I/O common	PNP		
	OD5256 ■TS	Rated voltage	24 VDC		
	10 1 2 3 4 5 6	Operating load voltage range	15 to 28.8 VDC		
Indicators	8 9 10 1 1 1 2 1 3 1 4 1 5	Maximum value of load current	0.5 A/point, 4 A/Unit		
		Maximum inrush current	4.0 A/point, 10 ms max.		
		Leakage current	0.1 mA max.		
		Residual voltage	1.5 V max.		
		ON/OFF response time	0.5 ms max./1.0 ms max.		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
	Connected to a CPU Unit				
NX Unit power consumption	 1.10 W max. Connected to a Communications Coupler Unit 0.70 W max. 	I/O current consumption	40 mA max.		
Weight	70 g max.				
Circuit layout	NX bus connector (left) // O power supply +		OUT0 to OUT15 Terminal block		
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.		
Terminal connection diagram	●IOG IOG IOV I 24 VDC IOV IOV IOV I IOV IOV IOV I IOV I IOV IOV IOV I IOV I IOV IOV IOV I IOV I IOG IOG IOG IOV I I	Unit Connection Unit B1A1 B1 A1 OV IOG IOG OV IOG IOG	B1 Two-wire type OUT0 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8 OUT9 Three-wire type OUT10 OUT11 OUT12 OUT13 OUT14 OUT15 OUT14 OUT15 B8		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.		

• Transistor Output Unit (M3 Screw Terminal Block, 30 mm Width) NX-OD5121-1

Unit name	Transistor Output Unit	Model	NX-OD5121-1	
Number of points	16 points	External connection	M3 screw terminal block (18 terminals)	
I/O refreshing method	Switching Synchronous I/O refreshing and	terminals Free-Bun refreshing		
	TS indicator, output indicator	Internal I/O common	NPN	
		Rated voltage	12 to 24 VDC	
	OD5121-1 TS 0 1 2 3 4 5 6 7	Operating load voltage range	10.2 to 28.8 VDC	
Indicators		Maximum value of load current	0.5 A/point, 5 A/Unit	
		Maximum inrush current	4.0 A/point, 10 ms max.	
		Leakage current	0.1 mA max.	
		Residual voltage	1.5 V max.	
		ON/OFF response time	0.1 ms max./0.8 ms max.	
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation	
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from the external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	 Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.60 W max. 	Current consumption from I/O power supply	30 mA max.	
Weight	125 g max.			
Circuit layout	NX bus connector (left) [//O power supply + //O power supply -	COM V/O powe Supply + V/O powe Supply -	Terminal block	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions			
Terminal connection diagram	Terminal Signal name A B Signal name OUT0 A0 B0 OUT1 L OUT2 A1 B1 OUT3 L OUT4 A2 B2 OUT5 L OUT6 A3 B3 OUT7 L OUT6 A3 B3 OUT7 L OUT8 A4 B4 OUT9 L OUT10 A5 B5 OUT11 OUT12 A6 B6 OUT13 COM A8 B8 +V 12 to 24 VDC			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.	

NX-OD5256-1

NX-OD5256-1	Transistor Output Unit	Model	NX-OD5256-1
		External connection	
Number of points	16 points	terminals	M3 screw terminal block (18 terminals)
/O refreshing method	Switching Synchronous I/O refreshing and		
	TS indicator, output indicator	Internal I/O common	PNP
	OD5256-1	Rated voltage	24 VDC
	TS 0 =1 =2 =3 =4 =5 =6 =7	Operating load voltage range	20.4 to 28.8 VDC
Indicators	■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15	Maximum value of load current	0.5 A/point, 5 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 0.95 W max. Connected to a Communications Coupler Unit 0.65 W max. 	Current consumption from I/O power supply	30 mA max.
Weight	125 g max.		
Circuit layout	NX bus connector (left)	VO VO VO VO VO VO VO VO VO VO VO VO VO V	M (+V) To to OUT15 power poply + power oply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Terminal Signal name A B Signal name L OUT0 A0 B0 OUT1 L OUT2 A1 B1 OUT3 L OUT4 A2 B2 OUT5 L OUT6 A3 B3 OUT7 L OUT8 A4 B4 OUT9 L OUT10 A5 B5 OUT11 L OUT14 A7 B7 OUT15 0V A8 B8 COM (+V) 24		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

• Transistor Output Unit (MIL Connector, 30 mm Width) NX-OD5121-5

Unit name	Transistor Output Unit	Model	NX-OD5121-5
Number of points	16 points	External connection	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-	terminals	
vo renesning method	TS indicator, output indicator	Internal I/O common	NPN
	OD5121-5	Rated voltage	12 to 24 VDC
		Operating load voltage	10.2 to 28.8 VDC
Indicators	■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7 ■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15	range Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	Connected to a CPU Unit 0.95 W max. Connected to a Communications Coupler Unit 0.60 W max.	Current consumption from I/O power supply	30 mA max.
Weight	80 g max.	-	
Circuit layout	NX bus connector (left) Installation orientation:		P +V P OUT0 to OUT15 Connector Connector P COM COM D I/O power supply + NX bus connector NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in upright Connected to a Communications Coupler Uni Restrictions: No restrictions	t: Possible in 6 orientations.	
	12 to 24 VDC	Signal name	
	+V 1 2	+V COM	
Terminal connection	L OUT13 9 10		
diagram	OUT12 11 12	OUT04	
	OUT11 13 14		
	OUT10 15 16		
	OUT09 17 18		
	OUT08 19 20		
	Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V).		

NX-OD5256-5

Unit name	Transistor Output Unit	Model	NX-OD5256-5
Number of points	16 points	External connection terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-	Run refreshing	
-	TS indicator, output indicator	Internal I/O common	PNP
	OD5256-5	Rated voltage	24 VDC
	OD5250-5 TS TO =1 =2 =3 =4 =5 =6 =7	Operating load voltage range	20.4 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute a leakage current of 5 mA max.
I/O power supply method	Supplied from external source.	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	Connected to a CPU Unit 1.00 W max. Connected to a Communications Coupler Uni 0.70 W max.	Current consumption from I/O power supply	40 mA max.
Weight	85 g max.		
Circuit layout	NX bus connector (left) // O power supply +		Connector OUT0 to OUT15 OV OV I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright • Connected to a Communications Coupler Un Restrictions: No restrictions		
Terminal connection diagram	Signal name Connector pin 24 VDC COM (+V) 1 2 0V 3 4 0V 3 4 0UT15 5 6 L OUT14 7 8 L OUT13 9 1 L OUT12 11 1 L OUT10 15 1 L OUT09 17 1 L OUT08 19 2 • Be sure to wire both pins 1 and 2 (COM (+V)). • • •	name 2 COM (+V) 4 OUT07 5 OUT06 6 OUT05 6 OUT03 1 L 6 OUT02 1 L	
	Be sure to wire both pins 1 and 2 (COM (+V)). Be sure to wire both pins 3 and 4 (0V).		
Disconnection/Short-circuit	Not supported.	Protective function	With load short-circuit protection.

NX-OD6121-5

Number of points /O refreshing method	32 points Switching Synchronous I/O refreshing and Free-F TS indicator, output indicator OD6121-5 TS 0 =1 =2 =3 =4 =5 =6 =7 =8 =9 =10 =11 =12 =13 =14 =15 =7 = 5 = 6 =7 =8 =9 =10 =11 =12 =13 =14 =15 =7 = 5 = 6 =7 =8 =9 =10 =10 = 10 = 10 = 10 =10 =10	Internal I/O common Rated voltage Operating load voltage	MIL connector (40 terminals) NPN 12 to 24 VDC
	TS indicator, output indicator OD6121-5 =0 =1 =2 =3 =4 =5 =6 =7 =8 =9 =10 =11 =12 =13 =14 =15	Internal I/O common Rated voltage Operating load voltage	
ndicators	OD6121-5 S S S S S S S S S S	Rated voltage Operating load voltage	
ndicators	= 15 =0 =1 =2 =3 =4 =5 =6 =7 =8 =9 =10 =11 =12 =13 =14 =15	Operating load voltage	12 to 24 VDC
ndicators	= 15 =0 =1 =2 =3 =4 =5 =6 =7 =8 =9 =10 =11 =12 =13 =14 =15		
ndicators		range	10.2 to 28.8 VDC
	■16 ■17 ■18 ■19 ■20 ■21 ■22 ■23	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
nsulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute a a leakage current of 5 mA max.
/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	Connected to a CPU Unit 1.00 W max. Connected to a Communications Coupler Unit 0.80 W max.	Current consumption from I/O power supply	50 mA max.
Veight	90 g max.		
Circuit layout		+V0 +V0 OUT0 to OUT15 COM0 COM0 +V1 +V1 +V1 OUT16 to OUT30 COM1 COM1	Connector
nstallation orientation and estrictions	NX bus connector (left) //O power supply + //O power supply - Installation orientation: • Connected to a CPU Unit: Possible in upright i • Connected to a Communications Coupler Unit	I/O powe	connector

Terminal connection diagram	Signal name 24 VDC +V1 COM1 L OUT31 L OUT30 L OUT29 L OUT29 L OUT26 L OUT27 L OUT26 L OUT27 L OUT26 L OUT27 L OUT26 L OUT21 OUT14 OUT13 L OUT12 L OUT12 L OUT11 L OUT11 L OUT10 L OUT10	Connector pin Signal name 1 2 +V1 3 4 COM1 5 6 OUT23 L 7 8 OUT22 L 9 10 OUT21 L 9 10 OUT21 L 11 12 OUT20 L 13 14 OUT19 L 15 16 OUT18 L 17 18 OUT17 L 19 20 OUT16 L 21 22 +V0 Z 23 24 COM0 L 24 COM0 L L 25 26 OUT07 L 29 30 OUT05 L 31 32 OUT04 L 33 34 OUT03 L 35 36 OUT02 L 37 38 OUT01 L <	• Be sure to wire both pins 21 and 22 (+V0).
		35 36 OUT02 L	 Be sure to wire both pins 21 and 22 (+V0). Be sure to wire both pins 23 and 24 (COM0). Be sure to wire both pins 1 and 2 (+V1). Be sure to wire both pins 3 and 4 (COM1).
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD6256-5

Unit name	Transistor Output Unit	Model	NX-OD6256-5	
Number of points	32 points	External connection terminals	MIL connector (40 terminals)	
/O refreshing method	Switching Synchronous I/O refreshing and Free-F			
	TS indicator, output indicator	Internal I/O common	PNP	
	OD6256-5	Rated voltage	24 VDC	
	TS 0 1 2 3 4 5 6 7	Operating load voltage range	20.4 to 28.8 VDC	
Indicators	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit	
	■24 ■25 ■26 ■27 ■28 ■29 ■30 ■31	Maximum inrush current	4.0 A/point, 10 ms max.	
		Leakage current	0.1 mA max.	
		Residual voltage	1.5 V max.	
		ON/OFF response time	0.5 ms max./1.0 ms max.	
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation	
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	Connected to a CPU Unit 1.30 W max. Connected to a Communications Coupler Unit 1.00 W max.	Current consumption from I/O power supply	80 mA max.	
Weight	95 g max.			
Circuit layout	Thermal circuits	Short-circuit protection	COM0 (+V) COM0 (+V) OUT0 to OUT15 OV0 COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V)	
Installation orientation and restrictions	NX bus connector (left) I/O power supply + O I/O power supply - O Installation orientation: • Connected to a CPU Unit: Possible in upright • Connected to a Communications Coupler Unit	installation. t: Possible in 6 orientations.	I/O power supply + I/O power supply - I/O power supply - I/O power supply -	

	Signal Connector Signal name pin name
	COM1 (+V) 1 2 COM1 (+V) 24 VDC
	OUT27 13 14 OUT19
Terminal connection	
diagram	OUT24 19 20 OUT16
	COM0 (+V) 21 22 COM0 (+V) 24 VDC
	• Be sure to wire both pins 21 and 22 (COM0 (+V)).
	OUT08 39 40 OUT00 • Be sure to wire both pins 1 and 2 (COM1 (+V)).
	Be sure to wire both pins 23 and 24 (0V0). Be sure to wire both pins 3 and 4 (0V1).
Disconnection/Short-circuit detection	Not supported. Protective function With load short-circuit protection.

• Transistor Output Unit (Fujitsu Connector, 30 mm Width) NX-OD6121-6

Unit name	Transistor Output Unit	Model	NX-OD6121-6		
Number of points	32 points	External connection terminals	Fujitsu connector (40 terminals)		
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F	.,,			
	TS indicator, output indicator	Internal I/O common	NPN		
	OD6121-6 TS TS TO T1 T2 T3 T4 T5 T6 T7	12 to 24 VDC 10.2 to 28.8 VDC			
Indicators	■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15 ■16 ■17 ■18 ■19 ■20 ■21 ■22 ■23	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit		
		Maximum inrush current	4.0 A/point, 10 ms max. 0.1 mA max.		
		Leakage current Residual voltage	1.5 V max.		
		ON/OFF response time	0.1 ms max./0.8 ms max.		
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	 Connected to a CPU Unit 1.10 W max. Connected to a Communications Coupler Unit 0.80 W max. 	Current consumption from I/O power supply	50 mA max.		
Weight	90 g max.				
Circuit layout	NX bus connector (left) NX bus	ctor s ctor			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright i • Connected to a Communications Coupler Unit Restrictions: No restrictions				
Terminal connection diagram	<pre>12 to 24 VDC Signal name pin name 12 to 24 VDC name 0UT10 A1 B1 OUT16 L U OUT1 A2 B2 OUT17 L U OUT3 A4 B4 OUT19 L U OUT3 A4 B4 OUT19 L U OUT3 A6 B6 OUT20 L U OUT6 A7 B7 OUT22 L U OUT6 A7 B7 OUT22 L U OUT7 A8 B8 OUT23 L U OUT3 A1 B11 OUT24 L U OUT3 A1 B11 OUT24 L U OUT3 A1 B10 V125 L U OUT1 A13 B13 OUT26 L U OUT14 A17 B17 OUT30 L U OUT14 A17 B16 OUT29 L U OUT14 A18 B18 OUT29 L U OUT14 A17 B17 OUT30 L U OUT14 A18 B18 OUT31 L U OUT14 A17 B19 COM1.</pre>				
Disconnection/ Short-circuit detection	Be sure to wire both pins B10 and B20 (+V1). Not supported.	Protective function	Not supported.		

• Relay Output Unit (Screwless Clamping Terminal Block, 12 mm Width) NX-OC2633

Unit name	Relay Output Units Model NX-OC2633						
Number of points	2 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)				
I/O refreshing method	Free-Run refreshing						
	TS indicator, output indicator	N.O. contact					
Indicators	OC2633 TS 0 =1	Maximum switching capacity	250 VAC/2 A (cosφ = 1), 250 VAC/2 A (cosφ = 0.4), 24 VDC/2 A, 4 A/Unit				
		Minimum switching capacity	5 VDC, 1 mA				
Relay service life	Electrical: 100,000 operations* ON/OFF response time 15 ms max./15 ms max.						
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Relay isolation				
Insulation resistance	Between A1/B1 terminals and A3/B3 terminals: 20 M Ω min. (500 VDC) Between the external terminals and internal circuits: 20 M Ω min. (500 VDC) Between the internal circuit and GR terminal: 20 M Ω min. (100 VDC) Between the external terminals and GR terminal: 20 M Ω min. (500 VDC)	Dielectric strength	Between A1/B1 terminals and A3/B3 terminals: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and GR terminal: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and GR terminal: 510 VAC for 1 min at a leakage current of 5 mA max.				
Vibration resistance	Conforms to IEC60068-2-6. 5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s ² 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	Shock resistance	100 m/s ² , 3 times each in X, Y, and Z directions				
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals				
NX Unit power consumption	 Connected to a CPU Unit 1.20 W max. Connected to a Communications Coupler Unit 0.80 W max. 	I/O current consumption	No consumption				
Weight	65 g max.		·				
Circuit layout	NX bus connector (left) // O power supply + // // // D power supply - // You cannot replace	ply	0 to 1 Terminal block C0 to C1 I/O power supply + I/O power supply - NX bus connector (right)				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions						
Terminal connection diagram	$ \begin{array}{c} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$						
Disconnection/ Short-circuit	Not supported. Protective function Not supported.						

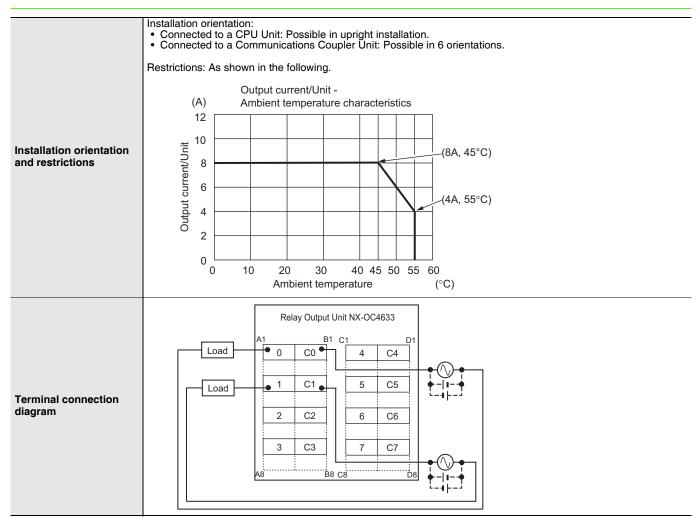
* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

NX-OC2733

Unit name	Relay Output Unit	Model	NX-OC2733			
Number of points	2 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)			
I/O refreshing method	Free-Run refreshing TS indicator, output indicator 0C2733 ITS ITS 0.0 Maximum switching capacity 250 VAC/2 A (cos\$\u039 = 1), 250 VAC/2 A (cos\$\u039 = 0.4), 24 VDC/2 A, 4 A/Unit					
		Minimum switching capacity	5 VDC, 10 mA			
Relay service life	Electrical: 100,000 operations Mechanical: 20,000,000 operations	ON/OFF response time	15 ms max./15 ms max.			
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Relay isolation			
Insulation resistance	Between A1/3, B1/3 terminals and A5/7, B5/7 terminals: 20 M Ω min. (at 500 VDC) Between the external terminals and functional ground terminal: 20 M Ω min. (at 500 VDC) Between the external terminals and internal circuits: 20 M Ω min. (at 500 VDC) Between the internal circuit and the functional ground terminal: 20 M Ω min. (at 100 VDC)	Dielectric strength	Between A1/3, B1/3 terminals and A5/7, B5/7 terminals: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and the functional ground terminal: 2300 VAC for min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and the functional ground terminal: 510 VAC for min at a leakage current of 5 mA max.			
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals			
NX Unit power consumption	 Connected to a CPU Unit 30 W max. Connected to a Communications Coupler Unit 95 W max. 	Current consumption from I/O power supply	No consumption			
Weight	70 g max.					
Circuit layout			NO0 to NO1 C0 to C1 NC0 to NC1 Terminal block			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 orienta	tions.			
Terminal connection diagram	Relay Output Unit NX-OC2733 B1 Load •NO0 NC0• C0 C0 • NO1 NC1 • C1 C1 C1 A8 B8 •					
Disconnection/Short-						

• Relay Output Unit (Screwless Clamping Terminal Block, 24 mm Width) NX-OC4633

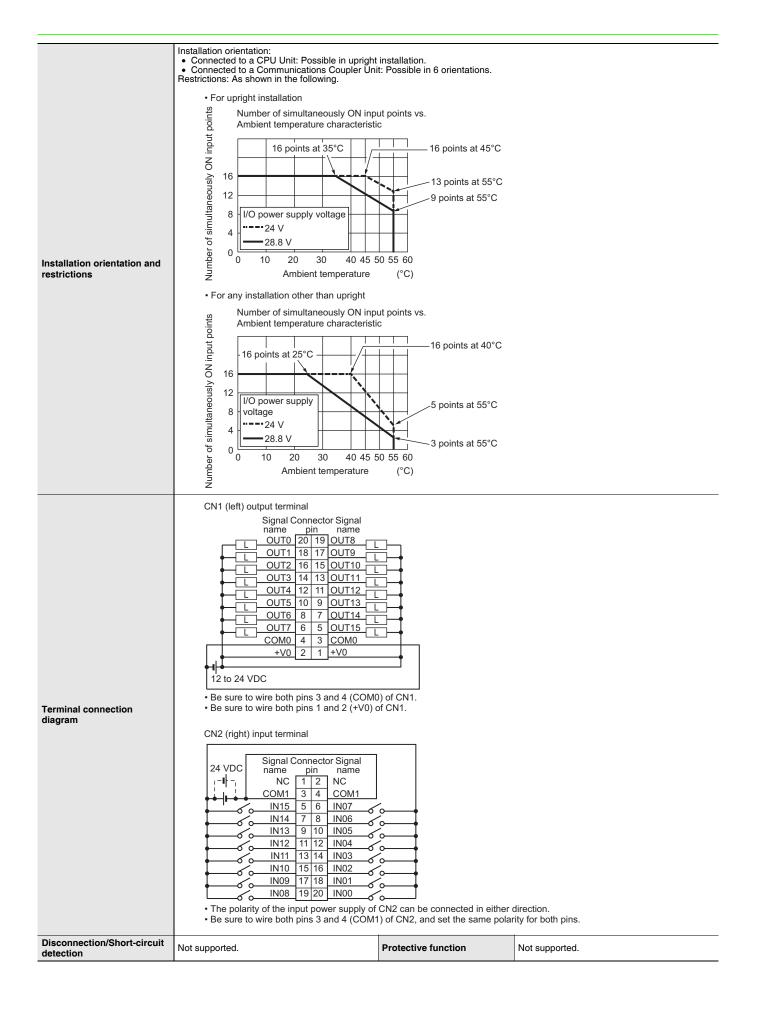
Unit name	Relay Output Unit	Model	NX-OC4633		
Number of points	8 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals x 2)		
I/O refreshing method	Free-Run refreshing				
Indicators	TS indicator, output indicator OC4633 TS 0 TI 2 T3	Relay type Maximum switching capacity	N.O. contact 250 VAC/2 A $(\cos\phi = 1)$, 250 VAC/2 A $(\cos\phi = 0.4)$, 24 VDC/2 A, 8 A/Unit		
	■4 ■5 ■6 ■7	Minimum switching capacity	5 VDC, 1 mA		
Relay service life	Electrical: 100,000 operations* Mechanical: 20,000,000 operations	ON/OFF response time	15 ms max./15 ms max.		
Dimensions	24 (W) x 100 (H) x 71 (D)	Isolation method	Relay isolation		
Insulation resistance	Between output bits: $20 \text{ M}\Omega \text{ min.}$ (at 500 VDC) Between the external terminals and the functional ground terminal: $20 \text{ M}\Omega \text{ min.}$ (at 500 VDC) Between the external terminals and internal circuits: $20 \text{ M}\Omega \text{ min.}$ (at 500 VDC) Between the internal circuit and the functional ground terminal: $20 \text{ M}\Omega \text{ min.}$ (at 100 VDC)	Dielectric strength Dielectric strength Between the external terminals a internal circuits: 2300 VAC for 1 leakage current of 5 mA max.			
Vibration resistance	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s ² 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	Shock resistance	100 m/s ² , 3 times each in X, Y, and Z directions		
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	 Connected to a CPU Unit 2.00 W max. Connected to a Communications Coupler Unit 1.65 W max. 	Current consumption from I/O power supply	No consumption		
Weight	140 g max.				
Circuit layout	Internal circouits		C0 to 7		
	NX bus connector (left) I/O power supply +	place the relay.	I/O power supply + NX bus connector I/O power supply – (right)		



* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

• DC Input/Transistor Output Unit (MIL Connector, 30 mm Width) NX-MD6121-5

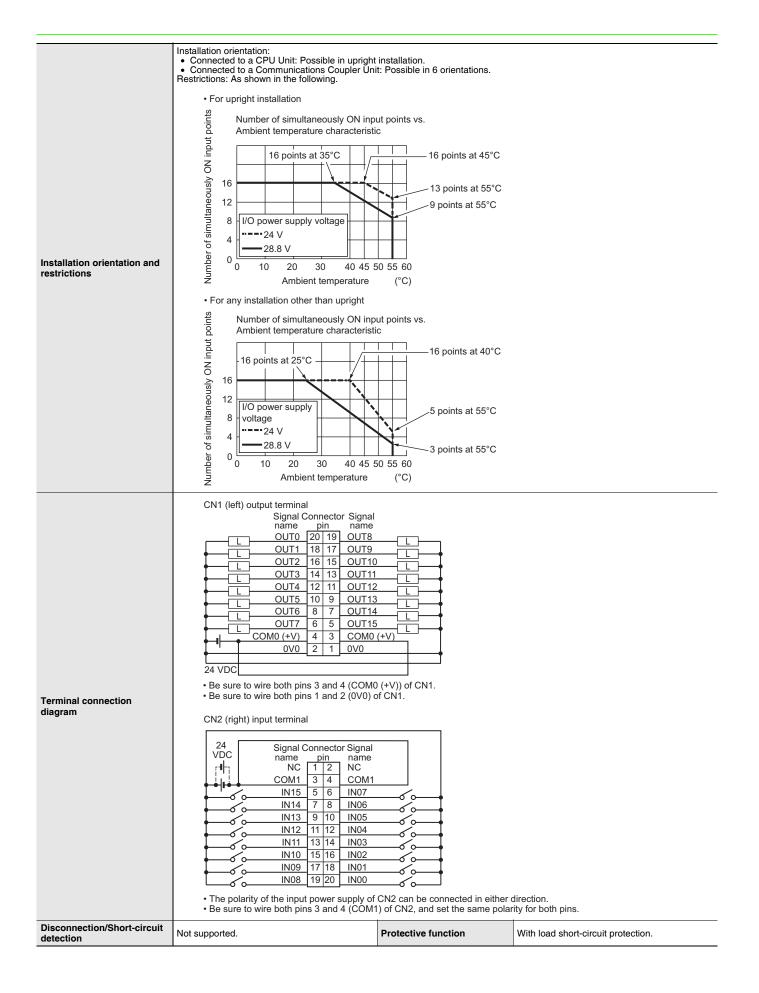
Unit name	•	DC Input/Transistor Output Unit	Model		NX-MD6121-5	
Number of points		16 inputs/16 outputs External connection terminals		2 MIL connectors (20 terminals)		
I/O refresh	ning method	Switching Synchronous I/O refreshing and Free-Run refreshing				
	Internal I/O common	NPN		Internal I/O common	For both NPN/PNP	
	Rated voltage	12 to 24 VDC		Rated input voltage	24 VDC (15 to 28.8 VDC)	
	Operating load voltage range	10.2 to 28.8 VDC		Input current	7 mA typical (at 24 VDC)	
Output section	Maximum value of load current	0.5 A/point, 2 A/Unit	Input section	ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)	
(CN1)	Maximum inrush current	4.0 A/point, 10 ms max.	(CN2)	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)	
	Leakage current	0.1 mA max.	_	ON/OFF response time	20 μs max./400 μs max.	
	Residual voltage ON/OFF response time	1.5 V max. 0.1 ms max./0.8 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	
	•	TS indicator, I/O indicators	Dimension	ns	30 (W) x 100 (H) x 71 (D)	
		MD6121-5	Isolation r	nethod	Photocoupler isolation	
		CN ■TS	Insulation	resistance	20 M Ω min. between isolated circuits (at 100 VDC)	
		1 [=0 =1 =2 =3 =4 =5 =6 =7 = 8 =9 =10 =11 =12 =13 =14 =15 = 7 = 0 =1 =2 =3 =4 =5 =6 =7	Dielectric		510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
		2 8 9 10 11 12 13 14 15		supply method	Supply from external source	
ndicators	i		Current capacity of I/O power supply terminal		Without I/O power supply terminals	
		NX Unit power consumption			Connected to a CPU Unit 1.00 W max. Connected to a Communications Coupler Unit 0.70 W max.	
			Current consumption from I/O power supply		30 mA max.	
			Weight		105 g max.	
Circuit layout		CN1 (left) output circuit		V0 V0 UT0 OUT15 Connector OM0 Opower Jpply + D power Jpply - NX bus connector (right) NX bus connector NX bus connector		



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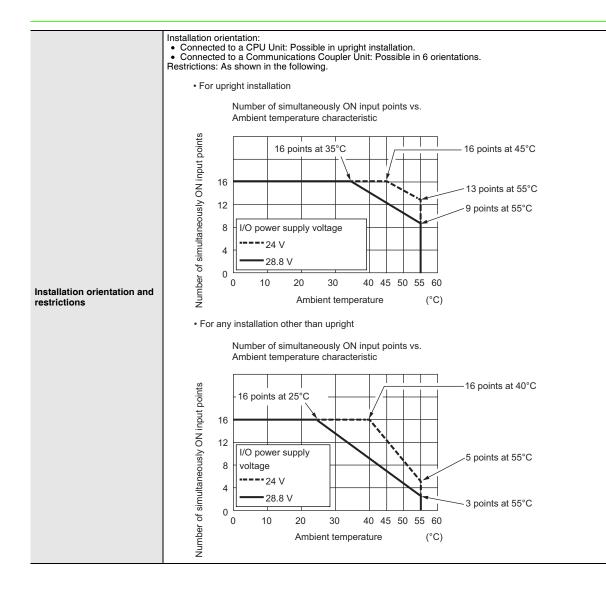
NX-MD6256-5

Unit name	•	DC Input/Transistor Output Unit	Model		NX-MD6256-5	
Number of points		16 inputs/16 outputs External connection terminals			2 MIL connectors (20 terminals)	
/O refres	hing method	Switching Synchronous I/O refreshing and Free				
	Internal I/O common	PNP		Internal I/O common	For both NPN/PNP	
	Rated voltage	24 VDC		Rated input voltage	24 VDC (15 to 28.8 VDC)	
	Operating load voltage range	20.4 to 28.8 VDC	Input section	Input current	7 mA typical (at 24 VDC)	
Output section	Maximum value of load current	0.5 A/point, 2 A/Unit		ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)	
(CN1)	Maximum inrush current	4.0 A/point, 10 ms max.	(CN2)	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)	
	Leakage current	0.1 mA max.		ON/OFF response time	20 μs max./400 μs max.	
	Residual voltage	1.5 V max.	_		No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms,	
	ON/OFF response time	0.5 ms max./1.0 ms max.		Input filter time	4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms	
		TS indicator, I/O indicators	Dimensio	ns	30 (W) x 100 (H) x 71 (D)	
		MD6256-5	Isolation	method	Photocoupler isolation	
Indicators		CN ■TS	Insulation	resistance	20 MΩ min. between isolated circuits (at 100 VDC)	
		1 [=0 =1 =2 =3 =4 =5 =6 =7 = 8 =9 =10 =11 =12 =13 =14 =15 5 [=0 =1 =2 =3 =4 =5 =6 =7	Dielectric	strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
		2 8 9 10 11 12 13 14 15		supply method	Supply from external source	
			Current capacity of I/O power supply terminal		Without I/O power supply terminals	
			 Connected to a CPU Unit 1.10 W max. Connected to a Communications Coupler Unit 0.75 W max. 			
			Current co O power s	onsumption from I/ supply	40 mA max.	
			Weight		110 g max.	
Circuit layout		NX bus connector (left) Connector (left) Connector NX bus connector (left) Connector NX bus connector (left) Connector (left) (lef				
		NX bus connector (left) I/O power J/O power supply + J/O power supply - I/O power Supply + J/O power supply - NX bus connector (right)				



• DC Input/Transistor Output Unit (Fujitsu Connector, 30 mm Width) NX-MD6121-6

Number of point 16 inputs/16 outputs External connection terminals 2 Fujisu connectors (24 terminals) VO refreehing method common Switching Synchronous I/O refreshing and Free-Dun refreshing common For both NPMPNP Rated voitage voitage range 12 to 24 VDC Voitage range 24 VDC (15 to 28 8 VDC) Output section 0.5 Alpoint, 2.4 Unit Instrument of voitage range 0.5 Alpoint, 2.4 Unit Leskage current 0.1 mA max. 0.4 Alpoint, 10 ms max. CMOFF response time 0.1 mA max. OktoofF response time 0.1 ms max./0.8 ms max. Differentions 0.0 (W) × 100 (H) × 71 (O) Northologe and the size and gras) 0 (W) × 100 (H) × 71 (O) Northologe and the size and gras) Indicators TS indicator, I/O indicators TS indicator, I/O indicators 0 M (W) × 100 (H) × 71 (O) Northologe and the size and gras) Sign = 0.0 H is 2.5 B = 0.0 H	Unit name		DC Input/Transistor Output Unit	Model		NX-MD6121-6	
UD retretaining method Switching Synchronous I/O refreshing and Free-Run refraining For both NPN/PNP Rated voitage 12 to 24 VDC Processing load Por both NPN/PNP Rated voitage 12 to 24 VDC Internal I/O For both NPN/PNP Output Operating load 0.6 Apoint, 2 A/Unit Input current 7 mA hypical (at 24 VDC) Maximum value 0.6 Apoint, 2 A/Unit Input current 7 mA hypical (at 24 VDC) Maximum value 0.6 Apoint, 2 A/Unit Input current 7 mA hypical (at 24 VDC) Maximum value 0.6 Apoint, 2 A/Unit Input current 7 mA hypical (at 24 VDC) Maximum value 0.6 Apoint, 2 A/Unit Input current 7 mA hypical (at 24 VDC) Maximum value 0.1 mA max. Input current 0 N voltage/OFF 9 UDC max./1 mA max. (between COM and ease isgoin) Model and voltage 1.3 V max. 1.1 mA max. Input filter time No filter, 0.25 ma, 0.5 ma, 1 ma (defu/L, 0 max, 280 max, 2		-			connection	2 Euliteu connectore (24 terminele)	
Internal VO Bated voltage NPN Rated voltage 12 to 24 VDC Operating load exection (CMI) 10.2 to 28.8 VDC Maximum instruct Leakage current 0.5 Alpoint, 2 AU/nit Head current (CMI) 0.4 Appoint, 10 ms max. Residual voltage 1.5 V max. Residual voltage 1.5 V max. Residual voltage 1.5 V max. Output 0.1 ms max./0.8 ms max. Trapports time 0.1 ms max./0.8 ms max. Differentiation		•					
Common NPN Common Port dom MAQUARD Rated voitage ange voitage range of load current 12 to 24 VDC Port dom MAQUARD 24 VDC (15 to 28.8 VDC) Mated voitage range of load current 0.5 Appoint 2 AUhint On voitage/OF 7 mA hybical (24 VDC) Mated voitage range 0.5 Appoint 2 AUhint On voitage/OF 7 mA hybical (24 VDC) Leakage current 0.1 mA max. On Voitage/OF 5 VDC max/1 mA max. (between COM and each signal) Port of the Voitage of the Voitag	1/O refrest			-Run reiresni	· ·		
Output section witage range (CIN1) 12.8 2.8 VDC. voltage ' 2 4.9 UCL to 28.8 VDC. Match voltage range of load current 10.2 to 28.8 VDC. input current Match voltage range of load current 0.5 Apoint. 24.01ml input current Heak ge current 0.1 m max. For voltage/OF Reading current 0.1 m max. For voltage/OF Reading current 0.1 m max. For voltage/OF Reading current 0.1 m max.0.8 ms max. For voltage/OF No tiles (20, 20, 80, 50 ms, 1 ms (default), 2 m 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 m, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 1 ms, 28 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 64 ms, 1 ms, 28 ms, 4 ms, 8 ms, 32 ms, 8 ms, 1 ms, 4 ms, 8 ms, 32 ms, 8 ms, 4 ms, 8 ms,		common		-	common		
voltage range section (CN1) voltage range (b) 20 20 83 VUC rms Maximum value of load current 0.5 Alpoint, 2 AUUnit Input section (CN2)				-	voltage		
encrored (CN1) of load current US Anjoint, 2 AVD/III, 2 AVD/IIII, 2 AVD/III, 2 AVD/IIII, 2 AVD/IIII, 2 AVD/IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		voltage range	10.2 to 28.8 VDC		Input current		
current 4.0 Apoint, 10 ms max. Leakage current 0.1 mA max. Residual voltage 1.5 V max. Instruction 0.1 ms max.0.8 ms max. response time 0.1 ms max.0.8 ms max. To indicator, VC indicators 0.1 ms max.0.8 ms max. MD6121-6 0.1 ms max.0.8 ms max. CMOPEF 30 (M) x 100 (H) x 71 (D) 1 as in a 1 as 2 at 3 at 4 at 3 at 0 at 1 at 2 at 3 at 4 at 3 at 0 at 1	section	of load current	0.5 A/point, 2 A/Unit	section	current	signal)	
Leakage current 0.1 mk max. Residual vottage 1.5 V max. Inductor In max./0.8 ms max. Standards Standards Inductors Standards Indicator Its indicator, I/O indicators MDS121-6 Its indicator, I/O indicators Indicator Dimensions 30 (W) x 100 (H) x 71 (D) Indicator Dimensions 30 (W) x 100 (H) x 71 (D) Indicator Its indicator, I/O indicators Its indicator is a 10 at 1 #12 #13 #14 #15 #15 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (m). between isolated circuits (at 100 VOC) (m). between isolated circuits (at 100 VOC) (m) at 1 #12 #13 #14 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicators Comment of a 1 #1 #12 #13 #14 #15 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicators Comment of a 1 #1 #12 #13 #14 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicators Comment of a 1 #1 #12 #13 #14 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicator Comment of a 1 #1 #12 #13 #14 #15 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicator Comment of a 1 #1 #12 #13 #14 #15 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal Indicator Comment of a 1 #1 #12 #13 #14 #15 #10 W2 between isolated circuits (at 100 VOC) (more supply terminal			4.0 A/point, 10 ms max.	(CN2)	current		
ONOFF response time 0.1 ms max./0.8 ms max. Input filter time No filter, 0.25 ms, 1 ms, 0.6 ms, 2 ms				_		20 µs max./400 µs max.	
image: bit max (0, 8 ms max, 0, 8 ms max, 0, 1 ms max, 0, 2 ms, 0 ms, 1/2 ms, 2/0 ms, 1/2 ms, 1			1.5 V max.	_	Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms,	
Indicators MD6121-6 CN 1 1 2 3 3 4 5 16 17 2 1 0 1 1 2 3 3 4 5 16 17 2 1 0 1 1 2 13 10 1 1 1 2 13 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 1 2 1 3 10 1 15 2 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			0.1 ms max./0.8 ms max.		input inter time	4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms	
Indicators Image: Constraint of the second of the seco			TS indicator, I/O indicators	Dimensio	ns	30 (W) x 100 (H) x 71 (D)	
Circuit layout $ \begin{bmatrix} Circuit layout \begin{bmatrix} Circuit layout \begin{bmatrix} VO power supply \begin{bmatrix} VO power supply \begin{bmatrix} VO power supply \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \begin{bmatrix} VO power supply \end{bmatrix} \\ VO power supply \end{bmatrix} \end{bmatrix} $ $VO power supply $ $VO power supply \end{bmatrix} $ $VO power supply \end{bmatrix} $ $VO power supply $ $VO power supply \end{bmatrix} $ $VO power supply $ $VO power supply \end{bmatrix} $ $VO power supply $ $VO power supply \end{bmatrix} $ $VO power supply $ $VO power supply \end{bmatrix} $ $VO power supply $ $VO pow$			MD6121-6	Isolation	method	Photocoupler isolation	
Indicators Delectric strength Storward of Amax. 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0<			CN ■TS	Insulation	resistance		
Indicators ² L = 8 = 9 = 10 = 11 = 12 = 13 = 14 = 15 ^{1/0} power supply method Current capacity of I/O Current capacity of I/				Dielectric	strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
Circuit layout Circui				I/O power	supply method	Supply from external source	
Circuit layout Circuit layout Circui	Indicators	5				Without I/O power supply terminals	
Circuit layout Circui				NX Unit power consumption		1.00 W max.Connected to a Communications Coupler Unit	
Circuit layout Circui							
Circuit layout $ \begin{array}{c} $				-		95 g max.	
NX bus connector supply +	Circuit layout		NX bus connector (left) CN2 (right) input circuit Connector NX bus Connector IN0 to IN15 COM1 COM1 NX bus I/O power Supply + I/O power Supply - CN2 (right) input circuit		COM0 COM0 COM0 I/O power supply + I/O power supply –	NX bus connector (right)	



Terminal connection CN1 (left) output terminal Signal name B NC B11 A11 NC DUT15 B8 A8 0015 L 00113 B3 A5 COM0 92 A2 NC DUT15 B8 A9 A1 DUT15 B3 A1 A1 DUT15 B3 DUT15 B3 DUT15 B3 A1 A1 DUT15 B3 A1 B1 A1 B1 A1 B1 A1 B1 B3 B3 MN A1 B3 B3 MN A1 B3 B3 MN A1 B3 B3 MN A1 B4 B4 MN A1 B3 B3 MN A1 B4
Disconnection/Short-circuit
detection Not supported. Not supported.

Version Information

Connected to a CPU Unit

Refer to the user's manual for the CPU Unit for details on the CPU Units to which NX Units can be connected.

N	(Unit	Corresponding versions *			
Model	Unit version	CPU Unit	Sysmac Studio		
NX-ID3317					
NX-ID3343					
NX-ID3344					
NX-ID3417					
NX-ID3443					
NX-ID3444					
NX-ID4342					
NX-ID4442					
NX-ID5142-1					
NX-ID5142-5					
NX-ID5342					
NX-ID5442					
NX-ID6142-5					
NX-ID6142-6					
NX-IA3117					
NX-OD2154					
NX-OD2258					
NX-OD3121					
NX-OD3153		Ver.1.13 or later			
NX-OD3256	Ver.1.0		Ver.1.17 or higher		
NX-OD3257					
NX-OD3268					
NX-OD4121					
NX-OD4256					
NX-OD5121					
NX-OD5121-1					
NX-OD5121-5					
NX-OD5256					
NX-OD5256-1					
NX-OD5256-5					
NX-OD6121-5					
NX-OD6121-6					
NX-OD6256-5					
NX-OC2633					
NX-OC2733					
NX-OC4633					
NX-MD6121-5					
NX-MD6121-6					
NX-MD6256-5					

* Some Units do not have all of the versions given in the above table. 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.

Connected to a Communications Coupler Unit

NX Unit		Corresponding versions *1					
			EtherCAT	I	Ether	Net/IP	
Model	Unit version	Communications Coupler Unit	NJ/NX-series CPU Unit or NY-series Industrial PC	Sysmac Studio	Communications Coupler Unit	Sysmac Studio	
NX-ID3317	_	Ver.1.0 or later	Ver.1.05 or later	Ver.1.06 or higher	Ver.1.0 or later	Ver.1.10 or higher	
NX-ID3343						· · · · · · · · · · · · · · · · · · ·	
NX-ID3344		Ver.1.1 or later	Ver.1.06 or later *2	Ver.1.07 or higher			
NX-ID3417		Ver.1.0 or later	Ver.1.05 or later	Ver.1.06 or higher	Ver.1.0 or later	Ver.1.10 or higher	
NX-ID3443						,	
NX-ID3444	-	Ver.1.1 or later	Ver.1.06 or later *2	Ver.1.07 or higher			
NX-ID4342				Ver.1.06 or higher		Ver.1.10 or higher	
NX-ID4442	Ver.1.0			Vol. 1.00 of higher	_	von no or nighter	
NX-ID5142-1	_			Ver.1.13 or higher	_	Ver.1.13 or higher	
NX-ID5142-5				Ver.1.10 or higher	-		
NX-ID5342 NX-ID5442	_	Ver.1.0 or later	Ver.1.05 or later	Ver.1.06 or higher	Ver.1.0 or later	Ver.1.10 or higher	
NX-ID6142-5	-			Ver.1.10 or higher	-		
NX-ID6142-6				Ver.1.13 or higher	-	Ver.1.13 or higher	
NX-IA3117				Ver.1.08 or higher	_	Ver.1.10 or higher	
NX-OD2154			V 4 00				
NX-OD2258		Ver.1.1 or later	Ver.1.06 or later *2	Ver.1.07 or higher			
NX-OD3121							
NX-OD3153			Var 1 00 ar history		Ver 1.10 er bisker		
NX-OD3256				Ver.1.06 or higher	-	Ver.1.10 or higher	
NX-OD3257							
NX-OD3268				Ver.1.13 or higher		Ver.1.13 or higher	
NX-OD4121					-		
NX-OD4256				Ver.1.06 or higher		Ver.1.10 or higher	
NX-OD5121							
NX-OD5121-1	Ver.1.0			Ver.1.13 or higher	-	Ver.1.13 or higher	
NX-OD5121-5		Ver.1.0 or later	Ver.1.05 or later	Ver.1.10 or higher	Ver.1.0 or later	Ver.1.10 or higher	
NX-OD5256				Ver.1.06 or higher	-	ver. 1. 10 of higher	
NX-OD5256-1				Ver.1.13 or higher		Ver.1.13 or higher	
NX-OD5256-5				Ver.1.10 or higher		Ver.1.10 or higher	
NX-OD6121-5						ver. 1. to or higher	
NX-OD6121-6				Ver.1.13 or higher	-	Ver.1.13 or higher	
NX-OD6256-5				Ver.1.10 or higher			
NX-OC2633				Ver.1.06 or higher		Ver.1.10 or higher	
NX-OC2733				Ver.1.08 or higher			
NX-OC4633				Ver.1.17 or higher		Ver.1.17 or higher	
NX-MD6121-5				Ver.1.10 or higher		Ver.1.10 or higher	
NX-MD6121-6	Ver.1.0	Ver.1.0 or later	Ver.1.05 or later	Ver.1.13 or higher	Ver.1.0 or later	Ver.1.13 or higher	
NX-MD6256-5				Ver.1.10 or higher		Ver.1.10 or higher	

*1. Some Units do not have all of the versions given in the above table. 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.

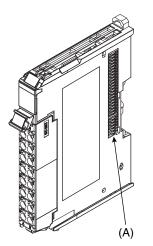
*2. The instructions for time stamp refreshing are supported by CPU Units with unit version 1.06 or later. If you do not use instructions for time stamp refreshing, you can use version 1.05. Refer to the *NJ/NX-series Instructions Reference Manual* (Cat. No. W502) for details on the instructions for time stamp refreshing.

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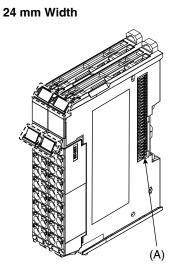
External Interface

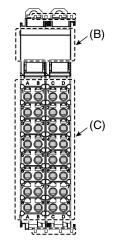
Screwless Clamping Terminal Block Type

12 mm Width



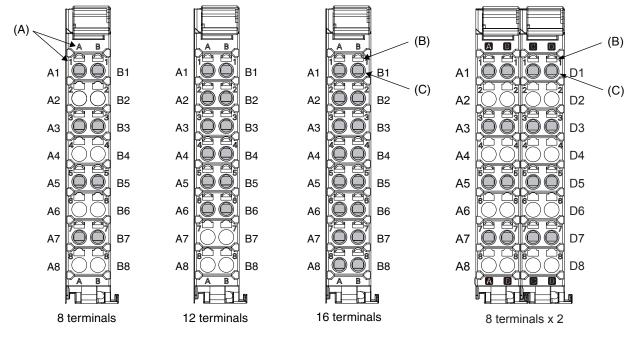
(C)





Letter	Item Specification		
(A)	NX bus connector	s connector is used to connect to another Unit.	
(B)	Indicators	e indicators show the current operating status of the Unit.	
(C)	Terminal block The terminal block is used to connect to external devices. The number of terminals depends on the Unit.		

Terminal Blocks



Letter	Item	Specification	
(A)	Terminal number indication	The terminal number is identified by a column (A through D) and a row (1 through 8). Therefore, terminal numbers are written as a combination of columns and rows, A1 through A8 and B1 through B8. The terminal number indication is the same regardless of the number of terminals on the terminal block.	
(B)	Release hole	flat-blade screwdriver is inserted here to attach and remove the wiring.	
(C)	Terminal hole	The wires are inserted into these holes.	

Applicable Terminal Blocks for Each Unit Model

l lucit un e de l	Terminal Blocks					
Unit model	Model	No. of terminals	Ground terminal mark	Terminal current capacity		
NX-ID3	NX-TBA122	12	None	10 A		
NX-ID4	NX-TBA162	16	None	10 A		
NX-ID5	NX-TBA162	16	None	10 A		
NX-IA3117	NX-TBA082	8	None	10 A		
NX-OD2	NX-TBA082	8	None	10 A		
NX-OD3 (any model other than NX-OD3268)	NX-TBA122	12	None	10 A		
NX-OD3268 NX-OD4	NX-TBA162	16	None	10 A		
NX-OD5	NX-TBA162	16	None	10 A		
NX-OC2	NX-TBA082	8	None	10 A		
	NX-TBA082	8	None	10 A		
NX-OC4633	NX-TBB082	8	None	10 A		

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.

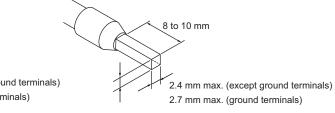
The applicable ferrules, wires, and crimping tools are listed in the following table.

Terminal type	Manufacturer	Ferrule model	Applicable wire (mm ² (AWG))	Crimping tool
Terminals other than ground	Phoenix Contact	AI0,34-8	0.34 (#22)	Phoenix Contact (The figure in parentheses is the applicable wire size.)
		AI0,5-8	0.5 (#20)	CRIMPFOX 6 (0.25 to 6 mm ² , AWG24 to 10)
terminals		Al0,5-10		
		Al0,75-8	0.75 (#18)	
		Al0,75-10		
		AI1,0-8	1.0 (#18)	
		Al1,0-10		
		AI1,5-8	1.5 (#16)	
		AI1,5-10		
Ground terminals		Al2,5-10	2.0 *	
Terminals other		H0.14/12	0.14 (#26)	Weidmuller (The figure in parentheses is the applicable wire size.)
than ground terminals		H0.25/12	0.25 (#24)	PZ6 Roto (0.14 to 6 mm ² , AWG 26 to 10)
lemmais		H0.34/12	0.34 (#22)	
		H0.5/14	0.5 (#20)	
		H0.5/16	1	
		H0.75/14	0.75 (#18)	1
		H0.75/16		
		H1.0/14	1.0 (#18)	1
		H1.0/16	1	
		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.

Finished Dimensions of Ferrules



1.6 mm max. (except ground terminals)2.0 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.

Torn	Wire type					O and a standard law with	
Terminals		Twisted wires		Solid wire		Wire size	Conductor length (stripping length)
Classification	sification Current capacity		Unplated	Plated	Unplated		(empping longin)
	2 A or less		Possible	Possible	Possible		
All terminals except ground terminals	Greater than 2 A and 4 A or less	Possible	Not Possible	Possible *1	Not	0.08 to 1.5 mm ² AWG28 to 16	8 to 10 mm
ground terminalo	Greater than 4 A	Possible *1		Not Possible	Possible		
Ground terminals		Possible	Possible	Possible *2	Possible *2	2.0 mm ²	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

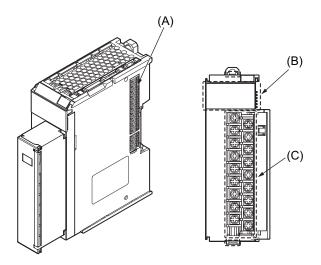


Conductor length (stripping length)

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

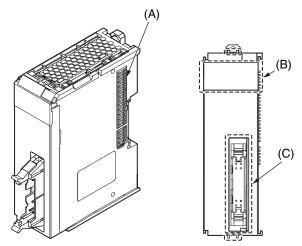
OMRON

M3 Screw Terminal Block Type 30 mm Width

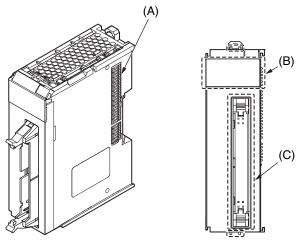


Letter	Item	Specification	
(A)	NX bus connector	This connector is used to connect to another Unit.	
(B) Indicators The indicators show the current operating status of the Unit.		The indicators show the current operating status of the Unit.	
(C) Screw terminals These screw terminals are used to connect the wires.		These screw terminals are used to connect the wires.	

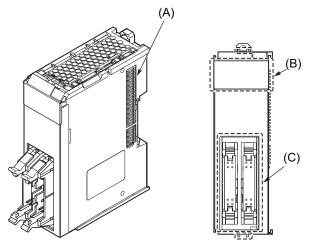
MIL Connector Type (1 Connector with 20 terminals) 30 mm Width



MIL Connector Type (1 Connector with 40 terminals) 30 mm Width

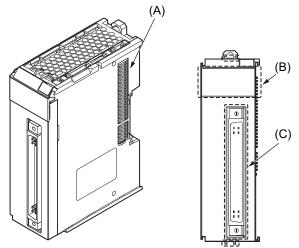


MIL Connector Type (2 Connectors with 20 terminals) 30 mm Width

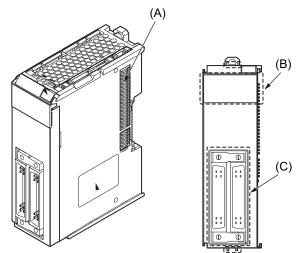


Letter	Item	Specification	
(A)	NX bus connector	This connector is used to connect to another Unit.	
(B)	(B) Indicators The indicators show the current operating status of the Unit.		
(C)	Connectors	The connectors are used to connect to external devices.	

Fujitsu Connector Type (1 Connector with 40 terminals) 30 mm Width



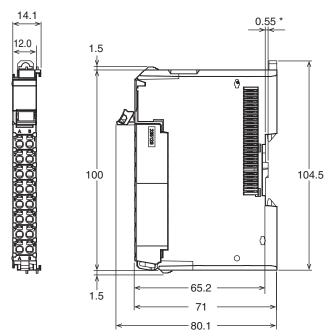
Fujitsu Connector Type (2 Connectors with 24 terminals) 30 mm Width



Letter	Item	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Connectors	The connectors are used to connect to external devices.

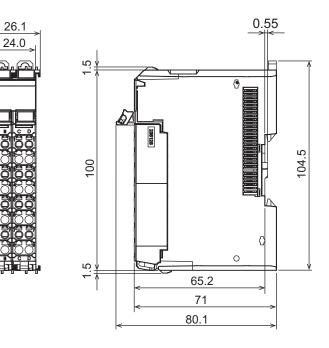
Dimensions

Screwless Clamping Terminal Block Type 12 mm Width



* The dimension is 1.35 mm for Units with lot numbers through December 2014.

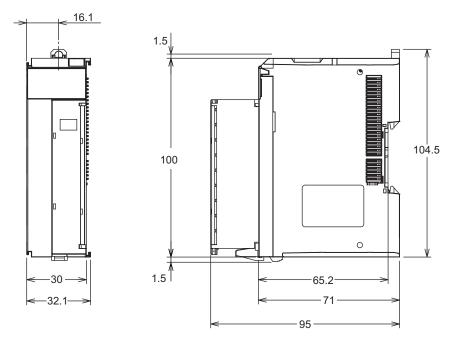
24 mm Width



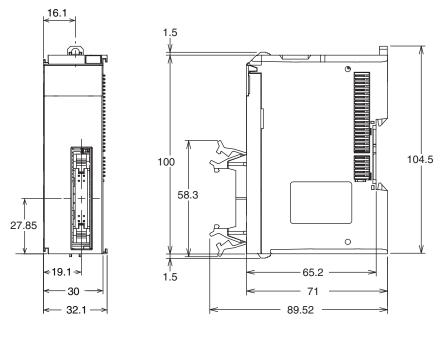
(Unit/mm)

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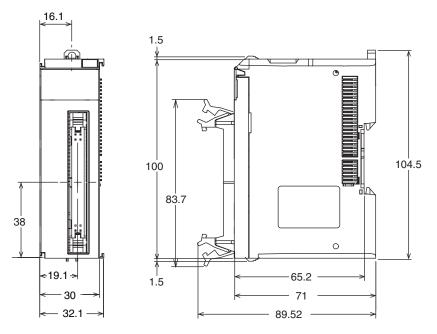
M3 Screw Terminal Block Type 30 mm Width



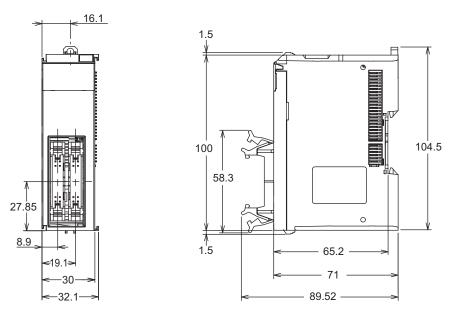
MIL Connector Type (1 Connector with 20 terminals) 30 mm Width



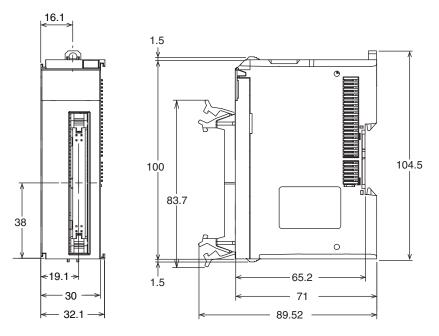
MIL Connector Type (1 Connector with 40 terminals) 30 mm Width



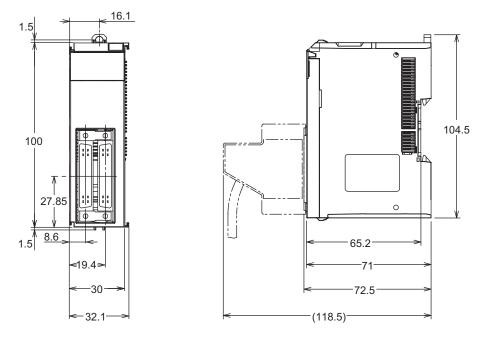
MIL Connector Type (2 Connectors with 20 terminals) 30 mm Width



Fujitsu Connector Type (1 Connector with 40 terminals) 30 mm Width



Fujitsu Connector Type (2 Connectors with 24 terminals) 30 mm Width



Related Manual

Cat. No.	Model number	Manual name	Application	Description
W521	NX-ID NX-IA NX-OD NX-OC NX-OC NX-MD	NX-series Digital I/O Units User's Manual	Learning how to use NX-series Digital I/O Units	The hardware, setup methods, and functions of the NX-series Digital I/O Units are described.

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