OMRON

NX-series Digital I/O Unit

CSM_NX-ID_IA_OD_OC_MD_DS_E_8_1

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/OTAX 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

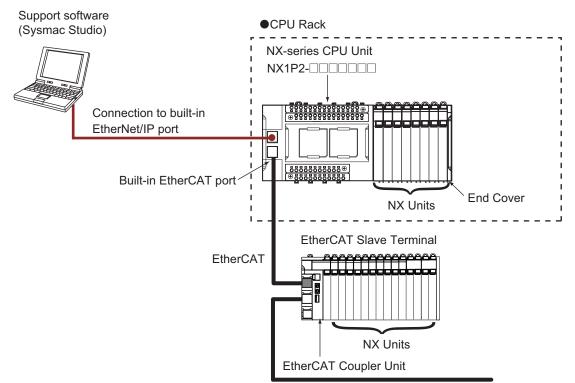
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System Configurations

Connected to a CPU Unit

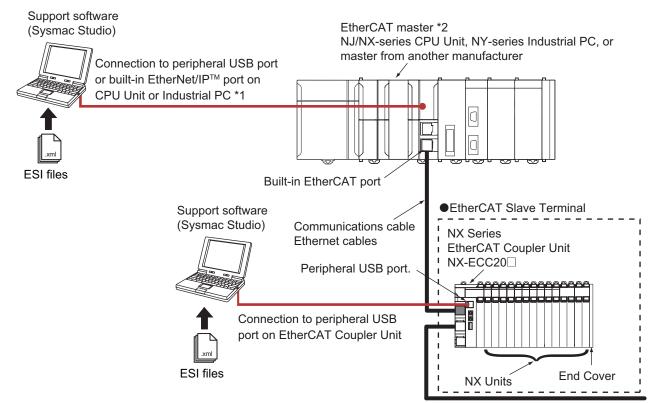
The following figure shows a system configuration when NX Units are connected to an NX-series CPU Unit.



Note: For whether an NX Unit can be connected to the CPU Unit, refer to the version information.

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.



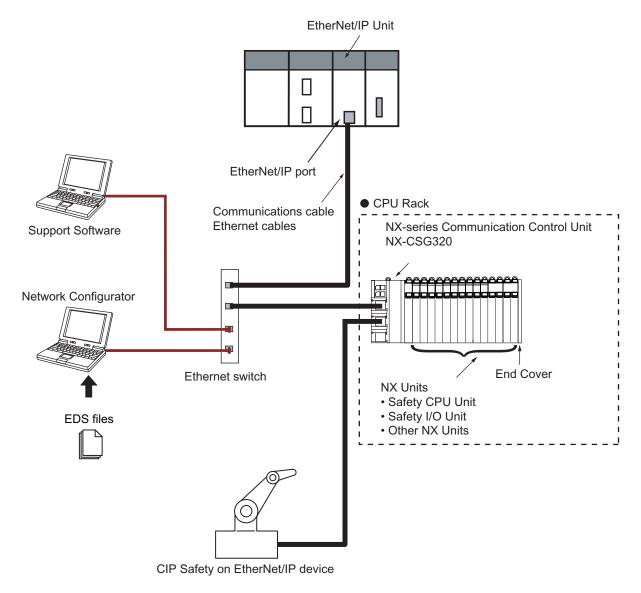
- *1. The connection method for the Sysmac Studio depends on the model of the CPU Unit or Industrial PC.
- *2. An EtherCAT Slave Terminal cannot be connected to any of the OMRON CJ1W-NC□81/□82 Position Control Units even though they can operate as EtherCAT masters.

Note: For whether an NX Unit can be connected to the Communications Coupler Unit, refer to the version information.

System Configuration in the Case of a Communication Control Unit

The following figure shows a system configuration when a group of NX Units is connected to an NX-series Communication Control Unit. To configure a Safety Network Controller, mount the Safety CPU Unit, which is one of the NX Units, to the CPU Rack of the Communication Control Unit.

You cannot connect a Communication Control Unit with Digital I/O Units that support input refreshing with input changed time or output refreshing with specified time stamp.



Note: For whether an NX Unit can be connected to the Communication Control Unit, refer to the version information.

(1) (2) (3) (4) (5)

(1) Unit type

(2) Number of points

No.	Specification				
ID	DC input				
IA	AC input				
OD	Transistor output				
OC	Relay output				
MD	DC input/Transistor output				

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

Specification					
Screwless clamping terminal block					
M3 screw terminal block					
MIL connector					
Fujitsu/OTAX connector					

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

		ON/OFF res	ponse time	I/O refreshing method		
No.	Input voltage	Exceeds 1 μ s	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	I/O refreshing method				
No.	No. Rated Load voltage current				Exceeds 1 μ s	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				Yes		Yes	Yes		
68		2 A	Yes		Yes		Yes		

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

Digital Mixed I/O Units

	Input section		Output section						
No.	Poted input	Rated input voltage Load current		ON/OFF res	ponse time		Other functions		
				Exceeds 1 μ s	1 μ s 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

Applicable standards

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

Digital Input Units

				Specifications	Specifications		
Product Name	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	Model	
			12 to 24 VDC	Switching Synchronous I/O re-	20 μs max./400 μs max.	NX-ID3317	
				freshing and Free-Run refreshing		NX-ID3343	
		NPN	24 VDC	Input refreshing with input changed time only *1	100 ns max./100 ns max.	NX-ID3344	
DC Input Unit	4 points		12 to 24 VDC	Switching Synchronous I/O re-	20 μs max./400 μs max.	NX-ID3417	
		PNP		freshing and Free-Run refreshing		NX-ID3443	
				Input refreshing with input changed time only *1	100 ns max./100 ns max.	NX-ID3444	
		NPN				NX-ID4342	
	8 points	PNP	1			NX-ID4442	
Screwless Clamping		NPN	24 VDC			NX-ID5342	
erminal Block, 12 mm	16 points	PNP	+	Switching Synchronous I/O re-	00 //00	NX-ID5442	
/idth/24 mm Width)			+	freshing and Free-Run refreshing	20 μs max./400 μs max.	NX-ID6342	
	00 · I	NPN				<u>NEV</u>	
	32 points	PNP	-			NX-ID6442 NEV	
M3 Screw Terminal Block, 30 mm Width)	16 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O re- freshing and Free-Run refreshing	20 μs max./400 μs max.	NX-ID5142-1	
C Input Unit	16 points	For both	24 VDC	Switching Synchronous I/O re- freshing and Free-Run refreshing	20 μs max./400 μs max.	NX-ID5142-5	
MIL Connector, 30 mm Vidth)	32 points					NX-ID6142-5	
C Input Unit	32 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O re- freshing and Free-Run refreshing	20 μs max./400 μs max.	NX-ID6142-6	
AC 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	

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

Dend				Specifications			· · · · ·
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
	2 points	NPN	0.5 A/point, 1 A/Unit	24 VDC	Output refreshing with speci- fied time stamp only *1	300 ns max./ 300 ns max.	NX-OD2154
		PNP		12 to 24 VDC		0.1 ms max./	NX-OD2258
		NPN		12 10 24 VDC	-	0.8 ms max. 300 ns max./	
			0.5 A/point, 2 A/Unit			300 ns max.	NX-OD3153
Transistor Output Unit	4 points			24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD3256
		PNP				300 ns max./ 300 ns max.	NX-OD3257
			2 A/point, 8 A/Unit			0.5 ms max./ 1.0 ms max.	NX-OD3268
		NPN		12 to 24 VDC	Switching Synchronous I/O re- freshing and Free- Run refresh-	0.1 ms max./ 0.8 ms max.	NX-OD4121
(Screwless Clamping Terminal Block, 12 mm	8 points	PNP	_	24 VDC	- ing	0.5 ms max./ 1.0 ms max.	NX-OD4256
Width/24 mm Width)		NPN	0.5 A/point, 4 A/Unit	12 to 24 VDC	-	0.1 ms max./	NX-OD5121
	16 points	PNP	-	24 VDC	-	0.8 ms max. 0.5 ms max./	NX-OD5256
					_	1.0 ms max. 0.1 ms max./	NX-OD5256
	32 points	NPN	0.5 A/point, 4 A/terminal block,	12 to 24 VDC	-	0.8 ms max.	<u>_NE</u> V
		PNP	8 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD6256 <u>NEW</u>
Transistor Output Unit		NPN		12 to 24 VDC	Switching Synchronous I/O re- - freshing and Free- Run refresh- ing	0.1 ms max./ 0.8 ms max.	NX-OD5121-1
	16 points PNP	PNP	0.5 A/point, 5 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD5256-1
Transistor Output Unit		NPN	- 0.5 A/point, 2 A/Unit	12 to 24 VDC	Switching Synchronous I/O re- freshing and Free- Run refresh- ing	0.1 ms max./ 0.8 ms max.	NX-OD5121-5
	16 points	PNP		24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD5256-5
		NPN	0.5 A/point, 2 A/	12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD6121-5
(MIL Connector, 30 mm Width)	32 points	PNP	common, 4 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD6256-5
Transistor Output Unit	32 points	NPN	0.5 A/point, 2 A/ common, 4 A/Unit	12 to 24 VDC	Switching Synchronous I/O re- freshing and Free- Run refresh- ing	0.1 ms max./ 0.8 ms max.	NX-OD6121-6
Relay Output Unit		Relay type: N.O.) 250 \/^_/		15 ma mar /	NX-OC2633
	2 points	Relay type: N.O.+N.C.	250 VAC/2 A (cosǫ=1 2 A (cosǫ=0.4), 24 VE		Free-Run refreshing	15 ms max./ 15 ms max.	NX-OC2733
Screwless Clamping Terminal Block, 12 mm Width/24 mm Width)	8 points	Relay type: N.O.	250 VAC/2 A (cosφ=1 2 A (cosφ=0.4), 24 VE		Free-Run refreshing	15 ms max./ 15 ms max.	NX-OC4633

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

Digital Mixed I/O Units

			Specificati	ons		
Product Name	Number of points Internal I/O common Maximum value of load current I/O refreshing method ON/OF		ON/OFF response time	Model		
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 I/		Outputs: 0.1 ms max./ 0.8 ms max. Inputs: 20 μs max./ 400 μs max.	NX-MD6121-5
(MIL Connector, 30 mm Width)	Inputs: 16 points	Outputs: PNP Inputs: For both NPN/PNP	Outputs: 24 VDC Inputs: 24 VDC	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
DC Input/Transistor Output Unit Fujitsu/OTAX Connector, 30 mm Width)	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

Optional Products

Product name		Speci	Model	Standards		
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block:	30 pins, Unit: 30 p	NX-AUX02			
		Speci	fication			
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards
	8	A/B	None	10 A	NX-TBA082	
Terminal Block	12				NX-TBA122	
	16				NX-TBA162	
	16	C/D			NX-TBB162	1

Accessories

Not included.

Connection Patterns for Connector-Terminal Block	Conversion Units
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Pattern	Configuration	Number of connectors	Branching
A	Connecting Cable Connector-Terminal Block Conversion Unit 20 or 40 terminals	1	None
В	Connecting Cable Connector-Terminal Block Conversion Unit 20 terminals 20 terminals	2	None

Connections to Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminal								
					XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No								
		1 MIL	NPN/		XW2Z-DDX-R	XW2K-20G-O16A-IN	Push-In Plus	Yes								
NX-ID5142-5	16 inputs	connector	PNP	A	XW2Z-□□□X	XW2D-20G6	Phillips screw	No								
				XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No									
				А	XW2Z-DDDK	XW2K-40G-032C	Push-In Plus	No								
				A	XW2Z-🗆 🗆 K	XW2K-40G-032C-IN	Push-In Plus	Yes								
NX-ID6142-5	32 inputs	1 MIL	NPN/	A	XW2Z-🗆 🗆 K	XW2R-J34GD-C2	Phillips screw	No								
	02 mputo	connector	PNP	А	XW2Z-🗆 K	XW2D-40G6	Phillips screw	No								
				A	XW2Z-□□□K	XW2R-E34GD-C2	Slotted screw (rise up)	No								
		1 Fujitsu/ s OTAX connector		А	XW2Z-	XW2K-40G-032A	Push-In Plus	No								
				А	XW2Z-	XW2K-40G-O32A-IN	Push-In Plus	Yes								
NX-ID6142-6	32 inputs		OTAX I	OTÁX	NPN/	А	XW2Z-	XW2R-J34GD-C1	Phillips screw	No						
	02 mputo					• · · · ·	• • • • • •			• · · · ·			• • • • • •	PNP	А	XW2Z-
				A	XW2Z-□□B	XW2R-E34GD-C1	Slotted screw (rise up)	No								
				А	XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No								
		1 MIL		A	XW2Z-DDX-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes								
NX-OD5121-5	16 outputs	connector	NPN	A	XW2Z-□□□X	XW2D-20G6	Phillips screw	No								
				A	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No								
				A	XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No								
		1 MIL		A	XW2Z-DDX-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes								
NX-OD5256-5	16 outputs	connector	ctor PNP	Α	XW2Z-□□□X	XW2D-20G6	Phillips screw	No								
				A	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No								

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminal		
				A	XW2Z-🗆 K	XW2K-40G-032C	Push-In Plus	No		
			NPN	A	XW2Z-DDK	XW2K-40G-O32C-OUT	Push-In Plus	Yes		
NX-OD6121-5	32 outputs	1 MIL		A	XW2Z-DDK	XW2R-J34GD-C4	Phillips screw	No		
	on outpute	connector		A	XW2Z-DDK	XW2D-40G6	Phillips screw	No		
				A	XW2Z-□□□K	XW2R-E34GD-C4	Slotted screw (rise up)	No		
				A	XW2Z-	XW2K-40G-O32B	Push-In Plus	No		
				A	XW2Z-□□□B	XW2K-40G-O32B-OUT	Push-In Plus	Yes		
NX-OD6121-6	32 outputs	1 Fujitsu/ OTAX	NPN	A	XW2Z-	XW2R-J34GD-C3	Phillips screw	No		
	-	connector		A	XW2Z-□□□B	XW2D-40G6	Phillips screw	No		
				А	XW2Z-□□B	XW2R-E34GD-C3	Slotted screw (rise up)	No		
				A	XW2Z-□□□K	XW2K-40G-O32C	Push-In Plus	No		
				A	XW2Z-□□□K	XW2K-40G-032C-0UT	Push-In Plus	Yes		
NX-OD6256-5	32 outputs	1 MIL	PNP	A	XW2Z-□□□K	XW2R-J34GD-C4	Phillips screw	No		
		connector		A	XW2Z-□□□K	XW2D-40G6	Phillips screw	No		
				A	XW2Z-□□□K	XW2R-E34GD-C4	Slotted screw (rise up)	No		
						В	XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No
		uts 1 MIL connector	NPN/	В	XW2Z-□□□X-R	XW2K-20G-O16A-IN	Push-In Plus	Yes		
	16 inputs		PNP	В	XW2Z-□□□X	XW2D-20G6	Phillips screw	No		
NX-MD6121-5				В	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No		
NX-IND0121-5			NPN	В	XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No		
		uts 1 MIL connector		В	XW2Z-□□□X-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes		
	16 outputs			В	XW2Z-□□□X	XW2D-20G6	Phillips screw	No		
				В	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No		
				В	XW2Z-🗆 🗆 A	XW2K-20G-T	Push-In Plus	No		
		1 Fujitsu/	NPN/	В	XW2Z-□□□A	XW2K-20G-O16A-IN	Push-In Plus	Yes		
	16 inputs	OTAX connector	PNP	В	XW2Z-□□□A	XW2D-20G6	Phillips screw	No		
NX-MD6121-6		connector		В	XW2Z-□□□A	XW2R-E20GD-T	Slotted screw (rise up)	No		
NX-WD0121-0				В	XW2Z-□□□A	XW2K-20G-T	Push-In Plus	No		
		1 Fujitsu/		В	XW2Z-□□□A	XW2K-20G-O16B-OUT	Push-In Plus	Yes		
	16 outputs	OTAX connector	NPN	В	XW2Z-□□□A	XW2D-20G6	Phillips screw	No		
		connector		В	XW2Z-□□□A	XW2R-E20GD-T	Slotted screw (rise up)	No		
				В	XW2Z-□□□X	XW2K-20G-T	Push-In Plus	No		
		1 MIL	NPN/	В	XW2Z-DDX-R	XW2K-20G-O16A-IN	Push-In Plus	Yes		
	16 inputs	connector	PNP	В	XW2Z-□□□X	XW2D-20G6	Phillips screw	No		
NX-MD6256-5				В	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No		
147-IVID0200-0				В	XW2Z-□□X	XW2K-20G-T	Push-In Plus	No		
		1 MIL		В	XW2Z-DDX-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes		
	16 outputs	connector	NPN	В	XW2Z-□□□X	XW2D-20G6	Phillips screw	No		
					В	XW2Z-□□□X	XW2R-E20GD-T	Slotted screw (rise up)	No	

Note: For other models and specifications that are not listed above, refer to the *XW2K Series Datasheet* (Cat. No. G152), *XW2R Series Catalog* (Cat. No. G077) and *XW2D Series Datasheet* for details.

* □□ in the model number indicates the cable length. Refer to the *XW2Z Datasheet* for details.

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	Connectio n pattern	Number of branches	Connecting Cable *1	I/O Relay Terminal	Wiring method	
				F	None	XW2Z-RO C	G7TC-ID16	Phillips screw	
				F	None	XW2Z-RO C	G7TC-IA16	Phillips screw	
	10: 1	1 MIL	NPN	F	None	XW2Z-RO C	G70V-SID16P	Push-in spring	
NX-ID5142-5	16 inputs	connector		F	None	XW2Z-RO C	G70V-SID16P-C16	Push-in spring	
			PNP	F	None	XW2Z-RO C	G70V-SID16P-1	Push-in spring	
			PNP	F	None	XW2Z-RO C	G70V-SID16P-1-C16	Push-in spring	
				Α	2	XW2Z-RO-D1	G7TC-ID16	Phillips screw	
			NPN	Α	2	XW2Z-RO-D1	G7TC-IA16	Phillips screw	
NX-ID6142-5	20 innute	1 MIL	INPIN	Α	2	XW2Z-RO -D1	G70V-SID16P	Push-in spring	
NX-1D0 142-5	32 inputs	connector		Α	2	XW2Z-RO -D1	G70V-SID16P-C16	Push-in spring	
			PNP	Α	2	XW2Z-RO-D1	G70V-SID16P-1	Push-in spring	
			PNP	Α	2	XW2Z-RO-D1	G70V-SID16P-1-C16	Push-in spring	
		1 Fujitsu/ s OTAX connector			Α	2	XW2Z-RI C-	G7TC-ID16	Phillips screw
			NPN	Α	2	XW2Z-RI C-	G7TC-IA16	Phillips screw	
NX-ID6142-6	20 innute		INPIN	Α	2	XW2Z-RI C-	G70V-SID16P	Push-in spring	
NA-ID0142-0	32 inputs				Α	2	XW2Z-RI C-	G70V-SID16P-C16	Push-in spring
			PNP	Α	2	XW2Z-RI C-	G70V-SID16P-1	Push-in spring	
			FINE	А	2	XW2Z-RI□C-□	G70V-SID16P-1-C16	Push-in spring	
				F	None	XW2Z-RO□C	G7TC-OC08	Phillips screw	
				F	None	XW2Z-RO□C	G70D-SOC08	Phillips screw	
				F	None	XW2Z-RO□C	G70R-SOC08 *2	Phillips screw	
				F	None	XW2Z-RO□C	G7TC-OC16	Phillips screw	
				F	None	XW2Z-RO□C	G70D-SOC16	Phillips screw	
NX-OD5121-5	16 outputs	1 MIL connector	NPN	F	None	XW2Z-RO□C	G70D-VSOC16	Phillips screw	
				F	None	XW2Z-RO□C	G70D-FOM16	Phillips screw	
				F	None	XW2Z-RO□C	G70D-VFOM16	Phillips screw	
				F	None	XW2Z-RO□C	G70A-ZOC16-3	Phillips screw	
				F	None	XW2Z-RO□C	G70V-SOC16P	Push-in spring	
				F	None	XW2Z-RO C	G70V-SOC16P-C4	Push-in spring	

Unit	I/O capacity	Number of connectors	Polarity	Connectio n pattern	Number of branches	Connecting Cable *1	I/O Relay Terminal	Wiring method							
				F	None	XW2Z-RI□C	G7TC-OC16-1	Phillips screw							
				F	None	XW2Z-RO□C	G70D-SOC16-1	Phillips screw							
X-OD5256-5	16 autouta	1 MIL		F	None	XW2Z-RO C	G70D-FOM16-1 *2	Phillips screw							
NX-UD5256-5	16 outputs	connector	PNP	F	None	XW2Z-RO□C	G70A-ZOC16-4	Phillips screw							
				F	None	XW2Z-RO C	G70V-SOC16P-1	Push-in spring							
				F	None	XW2Z-RO C	G70V-SOC16P-1-C4	Push-in spring							
				Α	2	XW2Z-RO-D-D1	G7TC-OC16	Phillips screw							
				Α	2	XW2Z-RO -D1	G7TC-OC08	Phillips screw							
				Α	2	XW2Z-RO-D-D1	G70D-SOC16	Phillips screw							
				Α	2	XW2Z-RO -D1	G70D-FOM16	Phillips screw							
				Α	2	XW2Z-RO-D1	G70D-VSOC16	Phillips screw							
X-OD6121-5	32 outputs	1 MIL connector	NPN	A	2	XW2Z-RO -D1	G70D-VFOM16	Phillips screw							
		connector		A	2	XW2Z-RO D-D1	G70A-ZOC16-3 and Relay	Phillips screw							
				А	2	XW2Z-RO D-D1	G70R-SOC08 *2	Phillips screw							
				А	2	XW2Z-RO D-D1	G70D-SOC08	Phillips screw							
				А	2	XW2Z-RO -D1	G70V-SOC16P	Push-in spring							
				А	2	XW2Z-RO D-D1	G70V-SOC16P-C4	Push-in spring							
				А	2	XW2Z-RO C-	G7TC-OC16	Phillips screw							
											А	2	XW2Z-RO C-	G7TC-OC08	Phillips screw
			NPN	A	2	XW2Z-RO C-	G70D-SOC16	Phillips screw							
				Α	2	XW2Z-ROC-	G70D-FOM16	Phillips screw							
		1 Fujitsu/		Α	2	XW2Z-RO□C-□	G70D-VSOC16	Phillips screw							
X-OD6121-6	32 outputs			Α	2	XW2Z-RO C-	G70D-VFOM16	Phillips screw							
				Α	2	XW2Z-ROC-	G70A-ZOC16-3 and Relay	Phillips screw							
				Α	2	XW2Z-ROC-	G70R-SOC08 *2	Phillips screw							
				Α	2	XW2Z-ROC-	G70D-SOC08	Phillips screw							
				Α	2	XW2Z-ROC-	G70V-SOC16P	Push-in spring							
				Α	2	XW2Z-ROC-	G70V-SOC16P-C4	Push-in spring							
				Α	2	XW2Z-RI-D-D1	G7TC-OC16-1	Phillips screw							
		1 MIL		Α	2	XW2Z-RO -D1	G70D-SOC16-1	Phillips screw							
IX-OD6256-5	32 outputs	connector	PNP	Α	2	XW2Z-RO -D1	G70D-FOM16-1 *2	Phillips screw							
				Α	2	XW2Z-RO -D1	G70A-ZOC16-4 and Relay	Phillips screw							
				E	None	XW2Z-RO□C	G7TC-ID16	Phillips screw							
		1 MIL		E	None	XW2Z-RO□C	G7TC-IA16	Phillips screw							
	16 inputs	connector	NPN	E	None	XW2Z-RO C	G70V-SID16P	Push-in spring							
				E	None	XW2Z-RO□C	G70V-SID16P-C16	Push-in spring							
				E	None	XW2Z-RO□C	G7TC-OC16	Phillips screw							
				E	None	XW2Z-RO C	G7TC-OC08	Phillips screw							
				E	None	XW2Z-RO□C	G70D-SOC16	Phillips screw							
IX-MD6121-5				E	None	XW2Z-RO□C	G70D-FOM16	Phillips screw							
				E	None	XW2Z-RO□C	G70D-VSOC16	Phillips screw							
	16 outputs	1 MIL	NPN	E	None	XW2Z-RO□C	G70D-VFOM16	Phillips screw							
		connector		E	None	XW2Z-RO C	G70A-ZOC16-3 and Relay	Phillips screw							
				E	None	XW2Z-RO□C	G70R-SOC08 *2	Phillips screw							
				E	None	XW2Z-RO C	G70D-SOC08	Phillips screw							
				E	None	XW2Z-RO□C	G70V-SOC16P	Push-in spring							
				E	None	XW2Z-RO□C	G70V-SOC16P-C4	Push-in spring							

Unit	I/O capacity	Number of connectors	Polarity	Connectio n pattern	Number of branches	Connecting Cable *1	I/O Relay Terminal	Wiring method
				E	None	XW2Z-R C	G7TC-ID16	Phillips screw
	10: 1	1 Fujitsu/		E	None	XW2Z-R C	G7TC-IA16	Phillips screw
	16 inputs	OTAX connector	NPN	E	None	XW2Z-R C	G70V-SID16P	Push-in spring
				E	None	XW2Z-R C	G70V-SID16P-C16	Push-in spring
				E	None	XW2Z-R□C	G7TC-OC16	Phillips screw
				E	None	XW2Z-R□C	G7TC-OC08	Phillips screw
				E	None	XW2Z-R C	G70D-SOC16	Phillips screw
NX-MD6121-6				E	None	XW2Z-R□C	G70D-FOM16	Phillips screw
		1 Fujitsu/ OTAX connector	NPN	E	None	XW2Z-R□C	G70D-VSOC16	Phillips screw
	16 outputs			E	None	XW2Z-R□C	G70D-VFOM16	Phillips screw
				E	None	XW2Z-R□C	G70A-ZOC16-3 and Relay	Phillips screw
				E	None	XW2Z-R□C	G70R-SOC08 *2	Phillips screw
				E	None	XW2Z-R□C	G70D-SOC08	Phillips screw
				E	None	XW2Z-R□C	G70V-SOC16P	Push-in spring
				E	None	XW2Z-R□C	G70V-SOC16P-C4	Push-in spring
	16 innute	1 MIL	PNP	E	None	XW2Z-RO□C	G70V-SID16P-1	Push-in spring
	16 inputs	connector	PNP	E	None	XW2Z-RO□C	G70V-SID16P-1-C16	Push-in spring
				E	None	XW2Z-RO□C	G7TC-OC16-1	Phillips screw
NX-MD6256-5				E	None	XW2Z-RI□C	G70D-SOC16-1	Phillips screw
NX-IVID0250-5	16 output-	1 MIL	PNP	E	None	XW2Z-RI C	G70D-FOM16-1 *2	Phillips screw
	16 outputs	connector	PNP	E	None	XW2Z-RI C	G70A-ZOC16-4 and Relay	Phillips screw
				E	None	XW2Z-RI C	G70V-SOC16P-1	Push-in spring
				Е	None	XW2Z-RI□C	G70V-SOC16P-1-C4	Push-in spring

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.
*1.
in the model number indicates the cable length. Refer to the *XW2Z-R Datasheet* (Cat. No. G126) for details.
*2. Previous the second seco

*2. Product no longer available to order.

General Specifications

	ltem	Specification		
Enclosure		Mounted in a panel		
Grounding r	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	Must be free from corrosive gases.		
	Ambient storage temperature	-25 to 70°C (with no condensation or icing)		
	Altitude	2,000 m max.		
	Pollution degree	2 or less: Meets IEC 61010-2-201.		
Operating	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)		
environment	Overvoltage category	Category II: Meets IEC 61010-2-201.		
	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 standards *2		cULus: Listed (UL508) or Listed (UL 61010-2-201), ANSI/ISA 12.12.01 or UL121201, 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
	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 or Communication Control 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		t control	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions	ation Control Unit: Possible in r Unit: Possible in 6 orientat	n upright installation. ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 OV IOV IOV IOV IOC IOC IOC IOC IOC IOC IOC IOC IOC IOC	DC Input Unit NX-ID3317 A1B1 IN0IN1 IOV0IOV1 IOG0IOC1 IN2IN3 IOV2IOV3 IOC2IOC3 A8B8	
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	DC Input Unit	Model	NX-ID3343
		External connection	Screwless clamping terminal block (12
Number of points	4 points	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F TS indicator, input indicator	Internal I/O common	NPN
	ID3343	Rated input voltage	24 VDC (15 to 28.8 VDC)
	DSS4S DTS	Input current	3.5 mA typical (at 24 VDC), rated current
	0 1 2 3	•	15 VDC min./3 mA min. (between IOV and
Indicators		ON voltage/ON current	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	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 or Communication Control 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		Power supply ent 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 or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I I I I I I I I I I I I I I I I I I I	DC Input Unit NX-ID3343 Two A1 B1 Ser IN0 IN1 • IOV0 IOV1 IOG0 IOG1 • IN2 IN3 • IOV2 IOV3 • IOG2 IOG3 • A8 B8	wire Isor Three-wire sensor
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID3344

Unit name	DC Input Unit	Model	NX-ID3344
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Input refreshing with input changed time	r	
	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 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 	Current consumption from I/O power supply	30 mA max.
	0.50 W max.		
Weight	65 g max.		
Circuit layout	Terminal block IN0 to IN3	Irrent 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	oright installation. er Unit: Possible in 6 orientat	ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC IOG IOG A8 B8		D-wire nsor Three-wire sensor
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

* This model does not support the input filter. If the Unit is susceptible to noise, take countermeasures such as separating or shielding the Unit and signal lines from the noise source. Refer to NX-series Digital I/O Unit User's Manual (W521) for information on countermeasures.

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 I	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
	2 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	$20 \text{ M}\Omega$ 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.
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 or Communication Control 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		t control	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 OV IOV IOV IOC IOC IOC IOC IOC IOC B8 B8 B8 B8		-wire ISOT 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)
I/O refreshing method	Selectable Synchronous I/O refreshing or I	Free-Run refreshing	
	TS indicator, input indicator	Internal I/O common	PNP
	ID3443	Rated input voltage	24 VDC (15 to 28.8 VDC)
	DTS 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)
mulcators		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 or Communication Control 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		2'ower upply Current control circuit	I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
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-ID3443 Two A1 B1 Set IOV0 IOV1 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.

NX-ID3444

Unit name	DC Input Unit	Model	NX-ID3444
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	PNP
	ID3444	Rated input voltage	24 VDC (15 to 28.8 VDC)
	DTS	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	Current control	I/O power supply + NX bus connectu (right)
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 orientat	ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 IOV IOV 24 VDC A8 B8	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.

* This model does not support the input filter. If the Unit is susceptible to noise, take countermeasures such as separating or shielding the Unit and signal lines from the noise source. Refer to NX-series Digital I/O Unit User's Manual (W521) for information on countermeasures.

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 F				
	TS indicator, input indicator	Internal I/O common	NPN		
	ID4342 DTS	Rated input voltage	24 VDC (15 to 28.8 VDC)		
	0 1	Input current	3.5 mA typical (at 24 VDC), rated current		
le lle sé sur	2 3 4 5 6 7	ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)		
Indicators		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 or Communication Control 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		nt control ircuit	I/O power supply + NX bus connector I/O power supply - (right)		
Installation orientation and restrictions		 Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. 			
Terminal connection diagram	Power Supply Unit A1 B1 A1 IC IC IC IC IC IC IC IC IC IC	DV IOV 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 Free-Run refreshing			
<u> </u>	TS indicator, input indicator	Internal I/O common	PNP	
	ID4442	Rated input voltage	24 VDC (15 to 28.8 VDC)	
	DTS	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 or Communication Control 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		nt control	I/O power supply + NX bus connector (right)	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions			
Terminal connection diagram	Power Supply Unit Co A1 B1 A1 IC IC IC IC IC IC IC IC IC IC	DG IOG IOV0 IC DG IOG IN2 IC DG IOG IOV2 IC DG IOG IN4 IC DG IOG IOV4 IC DG 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 I	Free-Run refreshing	•
	TS indicator, input indicator	Internal I/O common	NPN
	ID5342	Rated input voltage	24 VDC (15 to 28.8 VDC)
	■TS 0 1 2 3	Input current	2.5 mA typical (at 24 VDC), rated current
	4 5 6 7 8 9 10 11	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 or Communication Control 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 or Communic • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	●IOG IOG 24 VDC 10V IOV 10V IOV 100V IOV 100V IOV 100V IOV 100V IOV	Bupply n Unit I/O Power Supply Connection Unit B1 A1 B1A1 B1 A1 IOV IOG IOG IOV IOG IOG	DC Input Unit NX-ID5342 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN15
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

	1		
Unit name	DC Input Unit	Model	NX-ID5442
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	PNP
	ID5442 ●TS	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	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 $M\Omega$ 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	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit or Communication Control 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		cuit ut cuit cuit cuit cuit cuit cuit cu	I/O power supply + NX bus connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	IOG IOG IOV 24 VDC IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV		DC Input Unit NX-ID5442 B1 Two-wire sensor IN0 IN1 IN2 IN3 IN4 IN5 Three-wire sensor IN6 IN7 IN8 IN9 IN10 IN11 IN12 IN13 IN14 IN15
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID6342

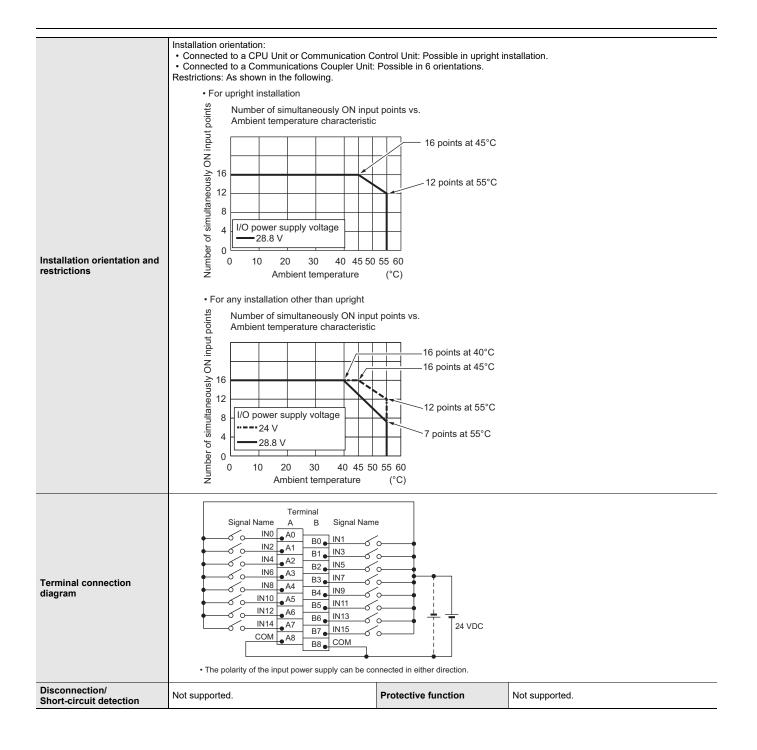
Unit name	DC Input Unit	Model	NX-ID6342
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or F		
	TS indicator, input indicator	Internal I/O common	
	ID6342	Rated input voltage Input current	24 VDC (15 to 28.8 VDC)
	0 1 2 3 16 17 18 19 4 5 6 7 20 21 22 23	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	8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	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	24 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at	Dielectric strength	510 VAC between isolated circuits for 1
I/O power supply method	100 VDC) Supply from the NX bus	Current capacity of I/O	minute at a leakage current of 5 mA max. Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit or Communication Control Unit 1.45 W max. Connected to a Communications Coupler Unit 0.70 W max. 	power supply terminal Current consumption from I/O power supply	No consumption
Weight	130 g max.		
Circuit layout	Terminal block IN0 to IN31	control	I/O power supply + I/O power supply - NX Bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram		t Connection Unit B1 A1 B1 A1 IOG IOG IOG IN2 IOG IOG IN2 IOG IOG IN4	IN13 IN28 IN29
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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Unit name	DC Input Unit	Model	NX-ID6442
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or F		
	TS indicator, input indicator	Internal I/O common	PNP
	ID6442	Rated input voltage	24 VDC (15 to 28.8 VDC)
	0 1 2 3 16 17 18 19	Input current	2.5 mA typical (at 24 VDC), rated current 15 VDC min./2 mA min. (between IOG and
Indicators	4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	ON voltage/ON current OFF voltage/OFF current	each signal) 5 VDC max./0.5 mA max. (between IOG
	12 13 14 15 28 29 30 31		and each signal)
		ON/OFF response time	20 μs max./400 μs max. Without filter, 0.25 ms, 0.5 ms, 1 ms
		Input filter time	(factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	24 (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 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 or Communication Control Unit 1.45 W max. Connected to a Communications Coupler Unit 0.70 W max. 	Current consumption from I/O power supply	No consumption
Weight	130 g max.		
Circuit layout	Terminal block IN0 to IN31		I/O power supply + I/O power supply –
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram		t Connection Unit B1A1 B1 A1 IOG IOG IN2 IOG IOG IN2 IOG IOG IN2	IN13 IN28 IN29
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

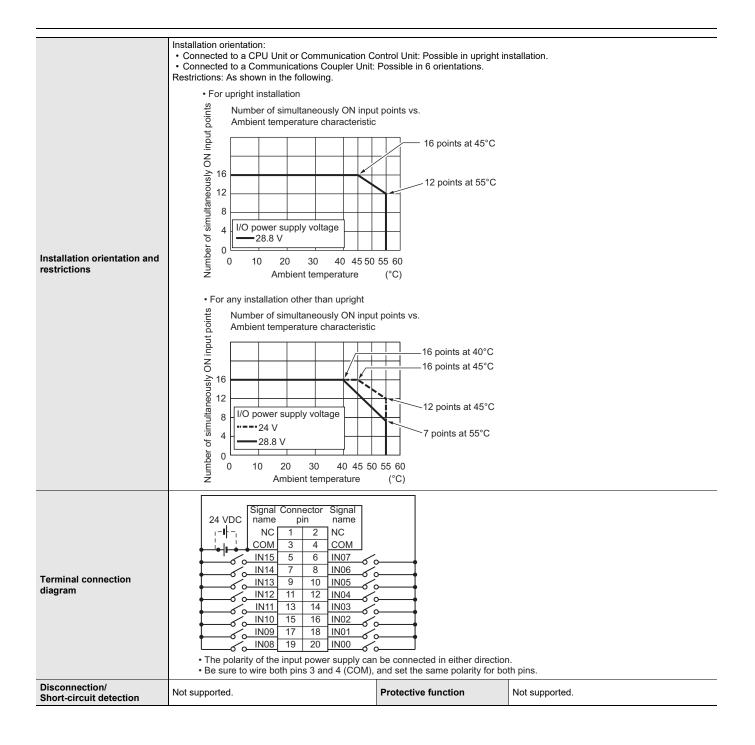
• DC Input Unit (M3 Screw Terminal Block, 30 mm Width) NX-ID5142-1

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-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	∎TS 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 $\text{M}\Omega$ 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.		
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 or Communication Control 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.				
Circuit layout	Terminal block NX bus connector (left) IND	supply +	X bus onnector ight)		



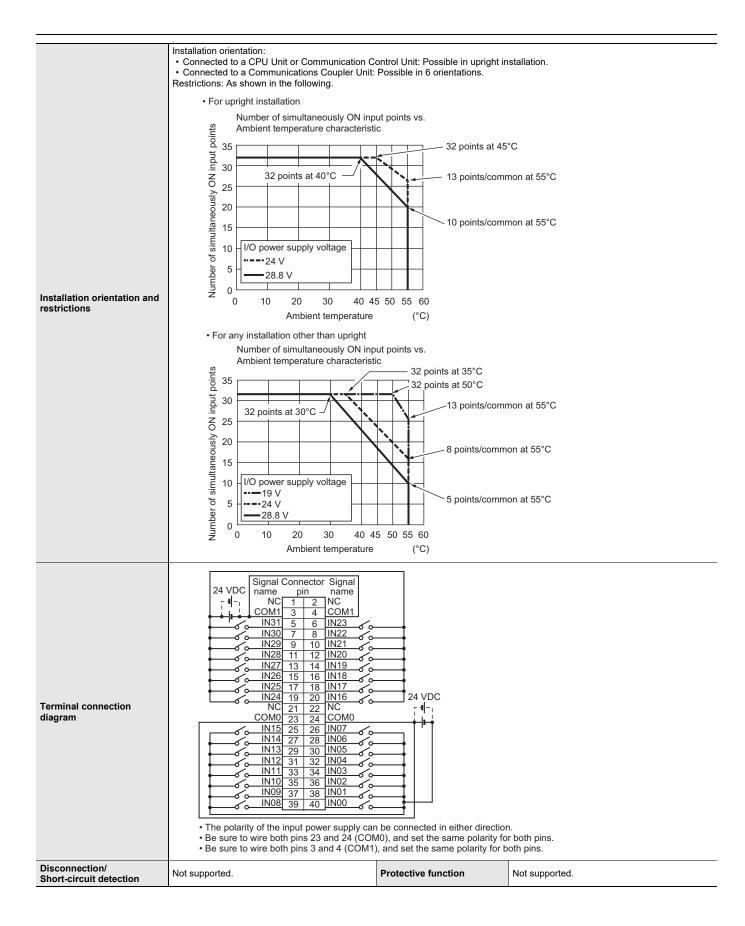
• DC Input Unit (MIL Connector, 30 mm Width) NX-ID5142-5

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)	
	DTS	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 or Communication Control 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 Supply + (left) IN15 COM IN15			



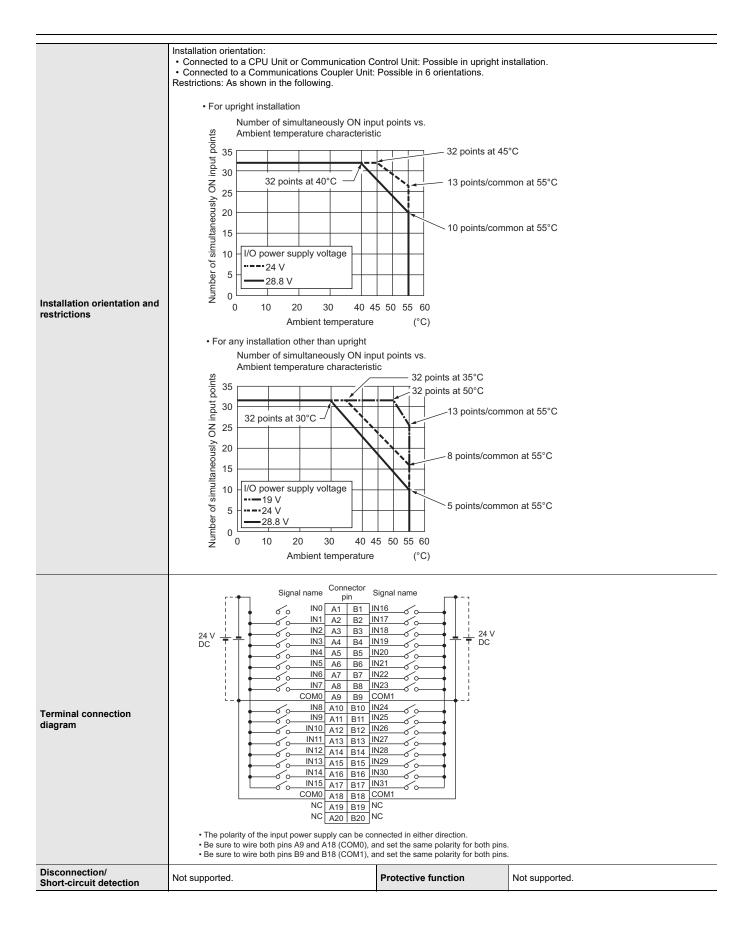
NX-ID6142-5

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-F	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)
	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)
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 or Communication Control 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 (left) NX bus	I/O power supply + I/O power supply + I/O power supply – NX bus connector (right)	



• DC Input Unit (Fujitsu/OTAX 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/OTAX 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)	
	DOTAL O	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 or Communication Control 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.			
Circuit layout	Connector (left) Connector (left) IN0 IN15 COM0 IN15 COM0 IN15 COM0 IN15 COM0 IN15 COM0 IN16 IN15 COM0 IN16 IN16 IN17 IN16 IN17 IN17 IN16 IN17 IN17 IN16 IN17	I/O power supply + I/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	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.		
		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	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 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 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 or Communication Control Unit 0.80 W max. Connected to a Communications Coupler Unit 0.50 W max. 	Current consumption from I/O power supply	No consumption		
Weight	60 g max.	·	·		
Circuit layout	Terminal block IN0 to IN3		stino io remain io remai io remain io remain io remain io io io io io io io io io io io io io		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram Disconnection/	AC Input Unit NX-IA3117 Image: AC Input Unit NX-IA3117 Image: AC Input Unit NX-IA3117 Image: AC Input Unit NN 0 C0 Image: AC Input Unit Not supported. Image: AC Input Unit Not supported.				
Short-circuit detection	(((((((((((((((((((

Digital Output Unit Specifications

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

NX-OD2154 Unit name	Transistor Output Unit	Model	NX-OD2154		
Number of points	2 points	External connection	Screwless clamping terminal block		
•		terminals	(8 terminals)		
/O refreshing method	Output refreshing with specified time stamp TS indicator, output indicator Internal I/O common NPN				
Indicators		Rated voltage	24 VDC		
	OD2154 TS 0 1	Operating load voltage			
		range	15 to 28.8 VDC		
		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. 1.5 V max.		
		Residual voltage ON/OFF response time	300 ns max./300 ns max.		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation		
	20 M Ω min. between isolated circuits (at		510 VAC between isolated circuits for 1		
nsulation resistance	100 VDC)	Dielectric strength	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	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		push-pull output circuit.	OUT0 to OUT1 Terminal block IOG0 to 1 I/O power supply + I/O power supply - NX bus connector (right)		
nstallation 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	Additional I/O Power Supply Unit A1 B1 I OUT0 OUT1 I OUT0 OUT0 I OUT0 I OUT0 OUT0 I OUT0 I OUT0 OUT0 I				
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.		

NX-OD2258

Unit name	Transistor Output Unit	Model	NX-OD2258
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Output refreshing with specified time stamp		
•	TS indicator, output indicator	Internal I/O common	PNP
Indicators	OD2258	Rated voltage	24 VDC
	DTS 0 1	Operating load voltage range	15 to 28.8 VDC
		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 + I/O power supply – This unit uses a	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 upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions 		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC A1 B1 I OV IOV I OV IOV I OV IOV I OV IOV I OV IOV I OV I OV I OV I OV I OV I OV I OV I OV I OV I OV I OV I OV I OV I OV		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3121
	4 points	External connection	Screwless clamping terminal block (12
Number of points	•	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F TS indicator, output indicator	Internal I/O common	NPN
	OD3121	Rated voltage	12 to 24 VDC
	DTS	Operating load voltage	
	0 1 2 3	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.
N 1		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 510 VAC between isolated circuits for 1
nsulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	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 or Communication Control 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) //O power supply + //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 or Communications Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OC IOC 12 to 24 VDC A8 B8	Transistor Output Unit NX-OD3121 B1 Two-wit A1 B1 Two-wit OUT0 OUT1• Image: Constraint of the second secon	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD3153

Unit name	Transistor Output Unit	Model	NX-OD3153
Number of points	4 points	External connection	Screwless clamping terminal block (12
-		terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Internal I/O common	NPN
	TS indicator, output indicator OD3153	Rated voltage	24 VDC
	TS	Operating load voltage	
	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.
Dimensions	12 (M) × 100 (H) × 71 (D)	ON/OFF response time Isolation method	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D) 20 MΩ min. between isolated circuits (at		Digital isolator isolation 510 VAC between isolated circuits for 1
Insulation resistance	100 VDC)	Dielectric strength	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 or Communication Control Unit 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.		
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 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 or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1	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.

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Unit nomo	Transistar Output Unit	Model	NY OD2256
Unit name	Transistor Output Unit	Model External connection	NX-OD3256 Screwless clamping terminal block (12
Number of points	4 points	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	-	
	TS indicator, output indicator OD3256	Internal I/O common Rated voltage	PNP 24 VDC
	UD3250 DTS	Operating load voltage	
	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	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	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit or Communication Control Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max. 	I/O current consumption	20 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply +	Short-sircuit protection	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	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 ●IOV IOV IOV IOV 24 VDC A8 B8	Transistor Output Unit NX-OD3256 A1 B1 Two-w OUT0 OUT1 IOV0 IOV1 IOG0 IOG1 OUT2 OUT3 IOV2 IOV3 IOG2 IOG3 A8 B8	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NA-0D3237			
Unit name	Transistor Output Unit	Model	NX-OD3257
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		
	TS indicator, output indicator	Internal I/O common	PNP 24 VDC
	OD3257	Rated voltage Operating load voltage	
	0 1	range	15 to 28.8 VDC
Indicators	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	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 or Communication Control 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 + I/O power supply – This unit uses a push-	-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 or Communications Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 IOV IOV 24 VDC A8 B8	Transistor Output Unit NX-OD3257 B1 Two-wi 0UT0 0UT1 0UT0 10V0 10V1 10G0 10G1 0UT2 0UT3 10G2 10G3 48 B8	Three-wire 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)
I/O refreshing method	Switching Synchronous I/O refreshing and		
¥	TS indicator, output indicator	Internal I/O common	PNP
		Rated voltage	24 VDC
	OD3268 ●TS 0 1	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 or Communication Control 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 P power pply + 0 power pply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
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 has 2 terminals, so be sure to wire both ter COM (+V) has 2 terminals, so be sure to wire both ter		
Disconnection/	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD4121
		External connection	Screwless clamping terminal block (16
Number of points I/O refreshing method	8 points Selectable Synchronous I/O refreshing or F	terminals	terminals)
NO remesting method	TS indicator, output indicator	Internal I/O common	NPN
	0D4121	Rated voltage	12 to 24 VDC
	∎TS 0 1	Operating load voltage	10.2 to 28.8 VDC
Indicators	2 3 4 5 6 7	range 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 or Communication Control 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 Terminal block OUT0 to OUT7 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 0V IOV 12 to 24 VDC A8 B8 A	Connection Unit	0 IOV1 2 OUT3 2 IOV3 4 OUT5 4 IOV5
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transietor Output Linit	Model	NX-OD4256
	Transistor Output Unit	External connection	Screwless clamping terminal block (16
Number of points	8 points	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Internal I/O common	PNP
	TS indicator, output indicator OD4256	Rated voltage	24 VDC
	DD4230 DTS	Operating load voltage	
	0 1 2 3	range	15 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	0.5 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 or Communication Control 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 +		OUT0 to OUT7 Terminal block IOG0 to 7 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	Power Supply Unit A1 B1 A1 Con A1 B1 A1 Con B1 A1 Con B1 A1 Con B1 A1 Con Con Con Con Con Con Con Con	IOV IOV IOV IOC IOV IOV IOV IOV IOV IOV IOV IOV IOV IOC IOV IOC IOV IOC IOV IOV IOV IOV IOV IOV IOV IOC IOV IOV IOV IOV	
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD5121

Unit name	Transistor Output Unit	Model	NX-OD5121
	· · ·	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 TS indicator, output indicator	Internal I/O common	NPN
	OD5121	Rated voltage	12 to 24 VDC
	■TS 0 1 2 3	Operating load voltage range	10.2 to 28.8 VDC
Indicators	4 5 6 7 8 9 10 11 12 13 14 15	Maximum value of load	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
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 or Communication Control 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) I/O power supply +		OUT0 to OUT15 Terminal block
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram		/ IOV IOG IOG / 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 OUT11 Three-wire type OUT10 OUT11 OUT1 OUT10 OUT11 OUT12 OUT14 OUT15 OUT14 OUT14 OUT15 OUT14 A8 B8 B8
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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Unit name	Transistor Output Unit	Model	NX-OD5256
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, output indicator	Internal I/O common	PNP
	OD5256	Rated voltage	24 VDC
	DTS 0 1 2 3 4 5 6 7	Operating load voltage range	15 to 28.8 VDC
Indicators	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	0.5 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
NX Unit power consumption	 Connected to a CPU Unit or Communication Control Unit 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	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	IOV IOV <th>Unit Connection Unit B1A1 B1 OV IOG IOG IOG OV IOG</th> <th>Two-wire type B1 Two-wire type OUT0 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8 OUT9 DUT10 OUT11 OUT12 OUT13 DUT12 OUT13 DUT14 OUT15 B8</th>	Unit Connection Unit B1A1 B1 OV IOG IOG IOG OV IOG	Two-wire type B1 Two-wire type OUT0 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8 OUT9 DUT10 OUT11 OUT12 OUT13 DUT12 OUT13 DUT14 OUT15 B8
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD6121

Unit name	Transistor Output Unit	Model	NX-OD6121
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	-	
	TS indicator, output indicator	Internal I/O common	NPN
	OD6121	Rated voltage	12 to 24 VDC
	DTS 0 1 2 3 16 17 18 19	Operating load voltage range	10.2 to 28.8 VDC
Indicators	4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	Maximum value of load current	0.5 A/point, 4 A/terminal block *1, 8 A/Unit
	12 13 14 15 26 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	0.1 ms max./0.8 ms max.
Dimensions	24 (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 or Communication Control Unit 1.45 W max. Connected to a Communications Coupler Unit 0.95 W max. 	I/O current consumption	40 mA max.
Weight	130 g max.		
Circuit layout	NX Bus connector (left)		OUT0 to OUT31 Terminal block
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	● IOV IOV IOV IOV IOV IOV ● IOG IOG IOG IOV IOV IOV 24 VDC IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOG IOG IOG IOV IOV IOV IOG IOG IOV IOV IOV IOV	Connection Unit A1 IOG IOG OUT0 IOG IOG OUT2 IOG IOG OUT4 IOG IOG OUT6 IOG IOG OUT8 IOG IOG OUT4 IOG IOG OUT6 IOG IOG OUT8 IOG IOG OUT10 IOG IOG OUT12	OUT3 OUT18 OUT19 OUT5 OUT20 OUT21 OUT7 OUT22 OUT23
Disconnection			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

*1. The total load currents of OUT 0 to 15 and the total load currents of OUT 16 to 31 must be 4 A or less respectively.

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NX-OD6256

Unit name	Transistor Output Unit	Model	NX-OD6256
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Free-Run refreshing	,
	TS indicator, output indicator	Internal I/O common	PNP
	OD6256	Rated voltage	24 VDC
	■TS 0 1 2 3 16 17 18 19	Operating load voltage range	15 to 28.8 VDC
Indicators	4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27	Maximum value of load current	0.5 A/point, 4 A/terminal block *1, 8 A/Unit
	12 13 14 15 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	24 (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 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 or Communication Control Unit 1.45 W max. Connected to a Communications Coupler Unit 1.00 W max. 	I/O current consumption	80 mA max.
Weight	130 g max.		
Circuit layout	NX Bus connector (left)		OUT0 to OUT31 Terminal block
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram		IOG IOG OUT12	Transistor Output Unit NX-OD6256 B1C1 Two-wire type OUT1 OUT16 OUT17 OUT3 OUT18 OUT19 OUT5 OUT20 OUT21 OUT7 OUT22 OUT23 OUT9 OUT26 OUT27 OUT11 OUT28 OUT29 OUT13 OUT28 OUT29 OUT15 OUT30 OUT31
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

 Short-circuit detection
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 *1. The total load currents of OUT 0 to 15 and the total load currents of OUT 16 to 31 must be 4 A or less respectively.

• 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 terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
	TS indicator, output indicator	Internal I/O common	NPN
	OD5121-1	Rated voltage	12 to 24 VDC
	∎TS 0 1 2 3 4 5 6 7	Operating load voltage range	10.2 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	0.1 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 or Communication Control 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)	+V OUT0 to OUT0 to COM I/O powe supply + I/O powe supply -	Terminal block
Installation orientation and restrictions	 Installation orientation: Connected to a CPU Unit or Communication Control 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 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 OUT12 A6 B6 OUT13 L OUT14 A7 B7 OUT15 L OUT4 A8 B4 +V 12 to 24 VDC I I2 to 24 VDC I		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD5256-1					
Unit name	Transistor Output Unit	Model	NX-OD5256-1		
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-Run refreshing				
	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 or Communication Control 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	M (+V) T0 to OUT15 power pply + power pply - NX bus connector (right)		
Installation orientation and restrictions	 Installation orientation: Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions 				
Terminal connection diagram	Terminal Signal name OUT0 A0 B0 OUT1 L OUT2 A1 B1 OUT3 L L OUT4 A2 B2 OUT5 L L OUT6 A3 B3 OUT7 L L OUT10 A5 B5 OUT11 L L OUT12 A6 B6 OUT13 L U OUT14 A7 B7 OUT15 L U OV A8 B8 COM (+V) P				
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.		

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

NX-OD5121-5	T		
Unit name	Transistor Output Unit	Model External connection	NX-OD5121-5
Number of points	16 points	terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F TS indicator, output indicator	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
	OD5121-5 ▶™	Operating load voltage range	10.2 to 28.8 VDC
Indicators	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	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.
Dimensione	20 (M) × 100 (U) × 71 (D)	ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D) 20 MΩ min. between isolated circuits	Isolation method	Photocoupler isolation 510 VAC between isolated circuits for 1 minute at
Insulation resistance	(at 100 VDC)	Dielectric strength	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 or Communication Control 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) // O power supply +		P +V P OUT0 to OUT15 Connector COM COM COM VO power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit or Communication C Connected to a Communications Coupler Unit Restrictions: No restrictions		nstallation.
Terminal connection diagram	Signal name Connector pin 12 to 24 VDC +V 1 2	Signal name +V COM OUT07 L OUT05 L OUT04 L OUT03 L OUT02 L OUT01 L OUT00	
Disconnection/Short-circuit detection	Be sure to wire both pins 1 and 2 (+V). Not supported.	Protective function	Not supported.

NX-OD5256-5

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			
	■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, 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 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 Communications Coupler Unit 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 COM (+V) COM (+V) COM (+V) COM (+V) Connector OUT0 to OUT15 OV OV OV OV OV OV OV OV OV OV				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication C • Connected to a Communications Coupler Unit Restrictions: No restrictions	Control Unit: Possible in upright i : Possible in 6 orientations.	nstallation.			
Terminal connection diagram	Signal name Connector pin 24 VDC COM (+V) 1 2 0V 3 4 0U115 5 6 0U114 7 8 0U113 9 10 0U112 11 12 0U111 13 14 0U110 15 16 0U109 17 18 0U108 19 20 • Be sure to wire both pins 1 and 2 (COM (+V)). • Be sure to wire both pins 1 and 2 (COM (+V)).	OUT04 L OUT03 L OUT02 L OUT01 L				
Disconnection/Short-circuit	Be sure to wire both pins 3 and 4 (0V). Not supported.	Protective function	With load short-circuit protection.			
detection			With load short-oroun protection.			

NX-OD6121-5

Unit name	Transistor Output Unit	Model	NX-OD6121-5	
Number of points	32 points	External connection terminals	MIL connector (40 terminals)	
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F	Free-Run refreshing		
	TS indicator, output indicator	TS indicator, output indicator Internal I/O common		
	OD6121-5	Rated voltage	12 to 24 VDC	
	■TS 0 1 2 3 4 5 6 7	Operating load voltage range	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	
	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	0.1 ms max./0.8 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 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 or Communication Control 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.	
Weight	90 g max.		·	
Circuit layout		+V0 +V0 OUT0 to OUT15 COM0 +V1 +V1 +V1 +V1 +V1 +V1 +V1 to OUT31 to OUT31	Connector	
	NX bus connector (left) I/O power supply –	I/O power	connector	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication C • Connected to a Communications Coupler Unit Restrictions: No restrictions	Control Unit: Possible in upright i Possible in 6 orientations.	nstallation.	

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Terminal connection diagram		ector Signal name 2 +V1 4 COM1 6 OUT23 L 10 OUT21 L 10 OUT21 L 11 OUT20 L 12 OUT20 L 14 OUT19 L 16 OUT17 L 20 OUT16 L 22 +V0 L 24 COM0 L 26 OUT07 L 28 OUT06 L 30 OUT05 L 32 OUT04 L 34 OUT03 L 38 OUT01 L 40 OUT00 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). Not supported.
detection	Not supported.	FIOLECTIVE INICCION	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)
I/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 or Communication Control 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	Internal circuits	Short-circuit protection	COM0 (+V) COM0 (+V) COM0 (+V) COUT0 to OUT15 OV0 COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V) COM1 (+V)
	NX bus connector (left) //O power supply +		I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit or Communication C Connected to a Communications Coupler Unit Restrictions: No restrictions		installation.

	Signal Connector Signal name pin name
	COM1 (+V) 1 2 COM1 (+V) 24 VDC
Terminal connection	OUT25 17 18 OUT17
diagram	OUT24 19 20 OUT16
	COM0 (+V) 21 22 COM0 (+V) 24 VDC
	• Be sure to wire both pins 21 and 22 (COM0 (+V)).
	• 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/OTAX 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/OTAX connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F	Run refreshing	
	TS indicator, output indicator	Internal I/O common	NPN
	OD6121-6	Rated voltage	12 to 24 VDC
	DTS	Operating load voltage range	10.2 to 28.8 VDC
Indicators	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Maximum value of load	0.5 A/point, 2 A/common, 4 A/Unit
	16 17 18 19 20 21 22 23	Maximum inrush current	4.0 A/point, 10 ms max.
	24 25 26 27 28 29 30 31	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 or Communication Control 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)	tor	
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram	12 to 24 VDC Signal name Connector pin Signal name 0UT0 A1 B1 0UT18 0UT0 A1 B1 0UT18 0UT1 A2 B2 0UT17 0UT2 A3 B3 0UT18 0UT3 A4 B4 0UT20 0UT4 A5 B6 0UT21 0UT5 A6 B6 0UT21 0UT7 A8 B8 0UT22 0UT7 A8 B8 0UT23 0UT7 A8 B8 0UT22 0UT7 A8 B8 0UT22 0UT7 A8 B8 0UT22 0UT19 A12 B12 0UT26 0UT10 A13 B13 0UT28 0UT11 A14 B14 0UT27 0UT12 A15 B15 0UT29 0UT14 A17 B17 0UT30 0UT15 A18 B18 0UT31		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.
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• 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	torminuto			
	TS indicator, output indicator	Relay type	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* 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/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: 230 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 ma 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/s², 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 or Communication Control 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.		I		
Circuit layout	NX bus connector (left) I/O power supply - I/O power supply -				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram	Relay Output Unit NX-OC2633 B1 Load 0 C C0 Load 1 C1 NC NC NC NC NC NC NC NC BB				
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.		

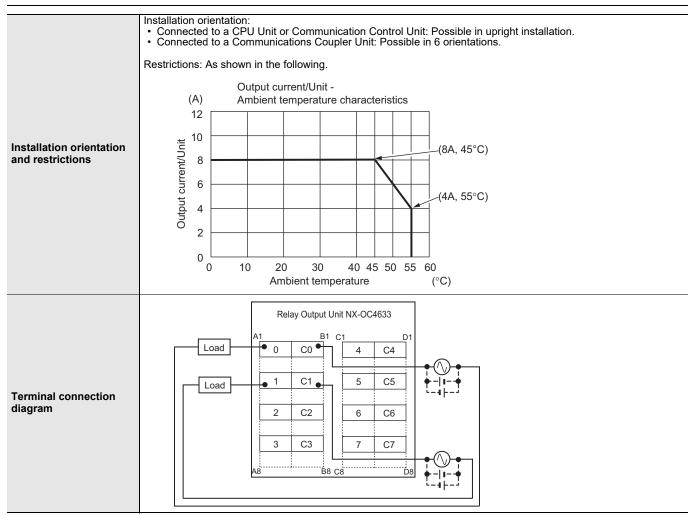
* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

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	terminais	terminais)		
Indicators	TS indicator, output indicator OC2733 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, 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 Between A1/3, B1/3 terminals and A5/7,		
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)	etween A1/3, B1/3 terminals and A5/7, 5/7 terminals: 20 M Ω min. (at 500 VDC) etween the external terminals and inctional ground terminal: 20 M Ω min. (at 00 VDC) etween the external terminals and ternal circuits: 20 M Ω min. (at 500 VDC) etween the internal circuit and the inctional ground terminal: 20 M Ω min. (at			
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 or Communication Control Unit 1.30 W max. Connected to a Communications Coupler Unit 0.95 W max. 	Current consumption from I/O power supply	No consumption		
Weight	70 g max.		1		
Circuit layout	NX bus connector (left) [I/O power supply - NO0 and NO1 are normal open contacts, and NC0 and NC1 are normal close contacts You cannot replace the relay.				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions				
Terminal connection diagram	Relay Output Unit Relay Output NX-OC2733 B1 Load •NO0 NC0 C0 C0 0 NO1 NC1 0 C1 C1 C1 A8 B8 B8				
Disconnection/Short- circuit detection	Not supported.	Protective function	Not supported.		

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

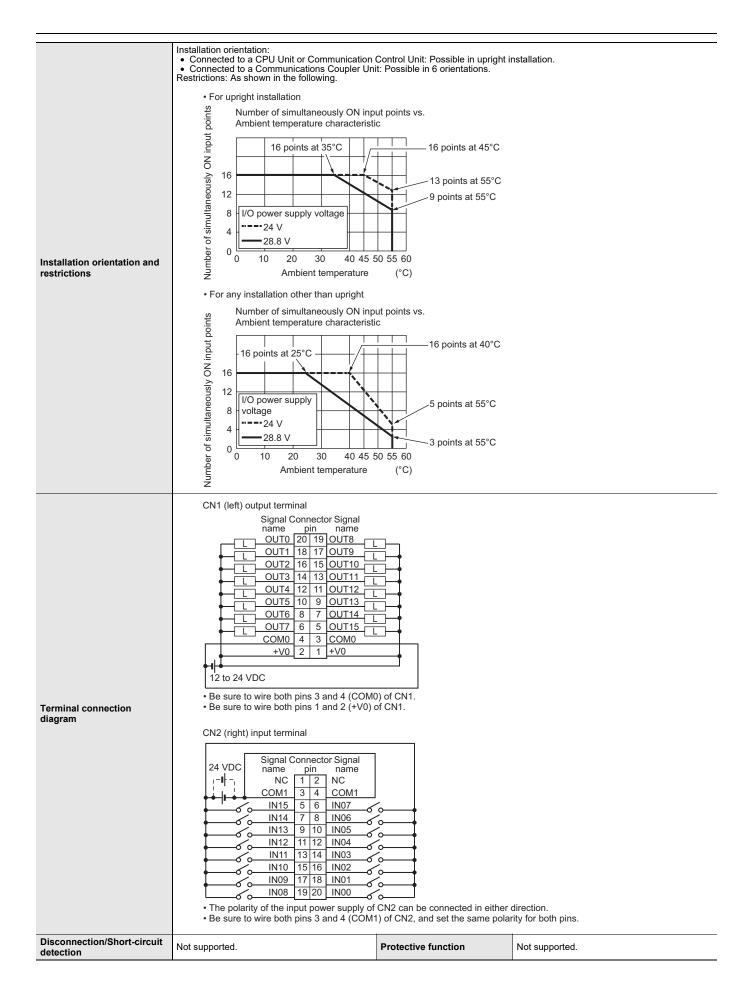
Unit name	Relay Output Unit	Model	NX-OC4633	
Number of points	8 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals x 2)	
I/O refreshing method	Free-Run refreshing	i		
Indicators	TS indicator, output indicator OC4633 TS 0 1 2 3	Relay type Maximum switching capacity	N.O. contact 250 VAC/2 A (cosφ = 1), 250 VAC/2 A (cosφ = 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 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 output bits: 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 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 the functional ground terminal: 510 VAC for 1 min at a 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 or Communication Control 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	NX bus connector (left) I/O power supply + I/O power supply – You cannot rer			



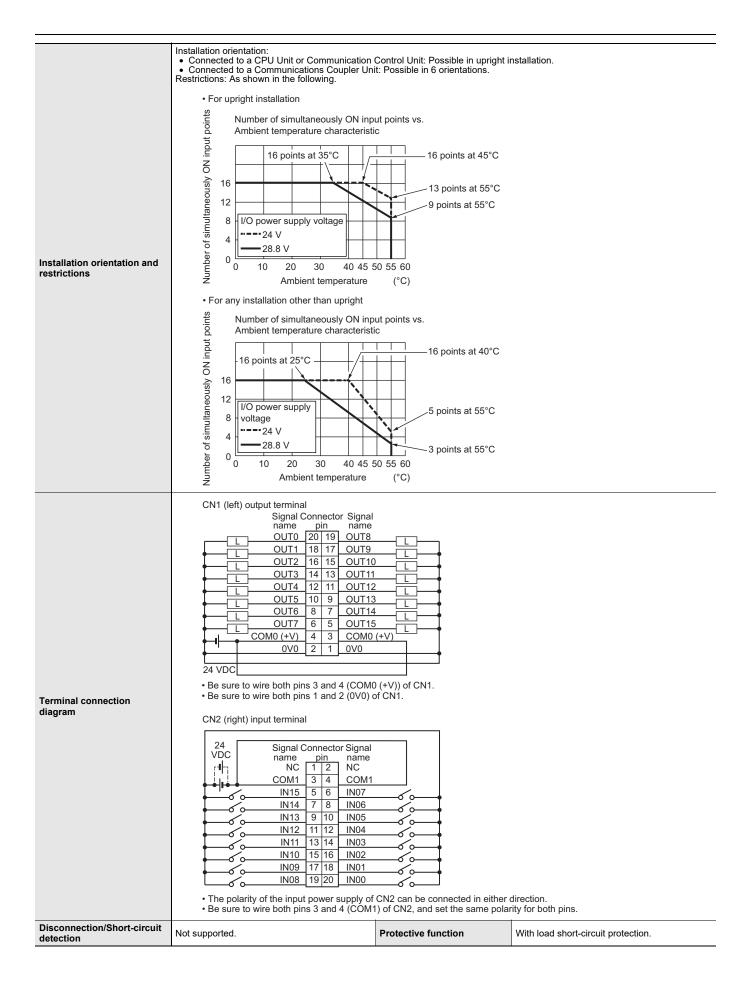
* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

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

Unit name	5121-5	DC Input/Transistor Output Unit	Model		NX-MD6121-5
		External connection			
Number o	•	terminais		2 MIL connectors (20 terminals)	
I/O refres	ning method Internal I/O common	Switching Synchronous I/O refreshing and Free- NPN	Run refresh	Internal I/O	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	Dimensio	ns	30 (W) x 100 (H) x 71 (D)
		MD6121-5	Isolation I	method	Photocoupler isolation
		CN_ ∎TS	Insulation	resistance	$20 \text{ M}\Omega \text{ min.}$ between isolated circuits (at 100 VDC)
		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Dielectric	-	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
		² L8 9 10 11 12 13 14 15	I/O power supply method		Supply from external source
Indicators	;		Current capacity of I/O power supply terminal		Without I/O power supply terminals
			NX Unit power consumption		Connected to a CPU Unit or Communication Control Unit 1.00 W max. Connected to a Communications Coupler Unit 0.70 W max.
			Current co I/O power	onsumption from supply	30 mA max.
			Weight		105 g max.
Circuit layout		CN1 (left) output circuit		V0 V0 V0 OUT15 Connector OM0 Om0 Opower Jpply + O power Jpply - NX bus connector (right)	
		Connector NX bus (left) NX bus connector (left) NX bus connector	¢si 0I/0	O power upply + O power upply –	

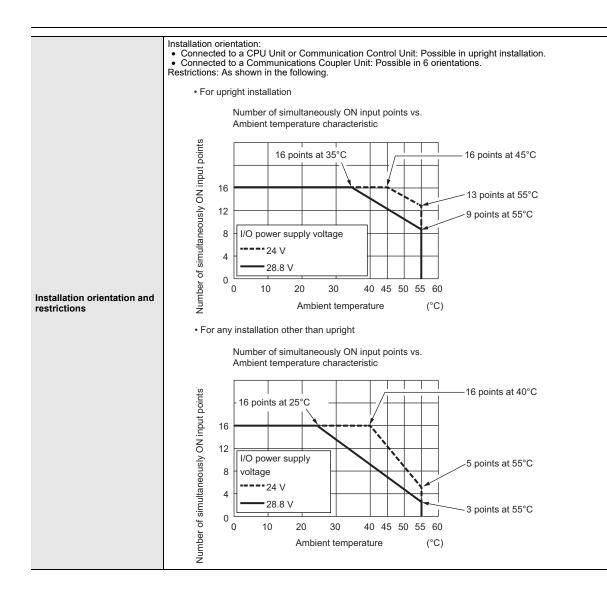


NX-MD62	256-5							
Unit name		DC Input/Transistor Output Unit	Model		NX-MD6256-5			
Number of poin	nts	16 inputs/16 outputs	External of terminals	connection	2 MIL connectors (20 terminals)			
I/O refreshing n	nethod	Switching Synchronous I/O refreshing and Free-Run refreshing						
	rnal I/O 1mon	PNP		Internal I/O common	For both NPN/PNP			
Rate	ed voltage	24 VDC		Rated input voltage	24 VDC (15 to 28.8 VDC)			
	erating load age range	20.4 to 28.8 VDC		Input current	7 mA typical (at 24 VDC)			
section of lo	timum value bad 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) Max curr	kimum inrush rent	4.0 A/point, 10 ms max.	(CN2)	OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)			
Leal	kage current	0.1 mA max.		ON/OFF response time	20 μs max./400 μs max.			
	idual voltage	1.5 V max.	_		No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms,			
ON/0 time	OFF response	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		30 (W) x 100 (H) x 71 (D)			
		MD6256-5	Isolation	method	Photocoupler isolation			
		CN DTS _ T0 1 2 3 4 5 6 7	Insulation	n resistance	20 M Ω min. between isolated circuits (at 100 VDC)			
		L8 9 10 11 12 13 14 15	Dielectric strength		510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.			
		$2\begin{bmatrix} 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 \end{bmatrix}$	I/O power supply method		Supply from external source			
Indicators			Current capacity of I/O power supply terminal		Without I/O power supply terminals			
			NX Unit power consumption		Connected to a CPU Unit or Communication Control Unit 1.10 W max. Connected to a Communications Coupler Unit 0.75 W max.			
			Current consumption from I/ O power supply		40 mA max.			
			Weight		110 g max.			
Circuit layout		CN1 (left) output circuit CN1 (left) output circuit COM0 (+V) COnnector (left) Connector (left) Connector COM0 (+V) Connector Supply + Connector Supply - CN2 (right) input circuit Connector Supply - CN2 (right) input circuit NX bus Connector Supply - CN2 (right) input circuit NX bus Connector (left) NX bus Connector Supply + (lo power Supply - CN2 (right) input circuit CN2 (right) input circuit NX bus Connector (left) NX bus COM1 (left) CN2 (right) input circuit COM1 (COM1 (



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

Unit name	D6121-6	DC Input/Transistor Output Unit	Model		NX-MD6121-6
Number o		16 inputs/16 outputs	External of	connection	2 Fujitsu/OTAX connectors (24 terminals)
		Switching Synchronous I/O refreshing and Free-	terminals		
I/O refreshing method 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	1.5 V max.	-	Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms,
	response time	0.1 ms max./0.8 ms max.			4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
		TS indicator, I/O indicators	Dimensio	-	30 (W) x 100 (H) x 71 (D)
		MD6121-6	Isolation	method	Photocoupler isolation
		CN ∎TS ₁Г0 1 2 3 4 5 6 7	Insulation	resistance	20 M Ω min. between isolated circuits (at 100 VDC)
		L8 9 10 11 12 13 14 15 2 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 L 8 9 10 11 12 13 14 15	I/O power supply method Current capacity of I/O		Supply from external source
Indicators	5			pply terminal	Without I/O power supply terminals
			NX Unit p	ower consumption	Connected to a CPU Unit or Communication Control Unit 1.00 W max. Connected to a Communications Coupler Unit 0.70 W max.
			Current c I/O power	onsumption from supply	30 mA max.
			Weight		95 g max.
Circuit layout		3.3 kΩ Γ ΙΝΟ Ο	ndicator	COM0 COM0 COM0 I/O power supply + bl/O power supply –	Connector NX bus connector (right)



Terminal connection Signal name 0 <t< th=""><th></th><th></th><th></th><th></th></t<>				
		Signal name Signal name Signal name Connector B A NC B12 A1 NC B11 A1 +V0 B10 A1 COM0 B9 A8 - - - - - - - -	Image: organization of the second of the	
Disconnection/Short-circuit Not supported. Protective function Not supported.		Not supported.	Protective function	Not supported.
detection Hot supported.	detection			

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.

NX	(Unit	Corresponding unit versions/versions			
Model	Unit version	CPU Unit	Sysmac Studio		
NX-ID3317					
NX-ID3343					
NX-ID3344					
NX-ID3417					
NX-ID3443					
NX-ID3444					
NX-ID4342			Ver 4 47		
NX-ID4442			Ver.1.17		
NX-ID5142-1					
NX-ID5142-5					
NX-ID5342					
NX-ID5442					
NX-ID6142-5					
NX-ID6142-6					
NX-ID6342			No. 4 54		
NX-ID6442			Ver.1.54		
NX-IA3117					
NX-OD2154					
NX-OD2258					
NX-OD3121					
NX-OD3153					
NX-OD3256	Ver.1.0	Ver.1.13			
NX-OD3257					
NX-OD3268			N 4 47		
NX-OD4121			Ver.1.17		
NX-OD4256					
NX-OD5121					
NX-OD5121-1					
NX-OD5121-5					
NX-OD5256					
NX-OD5256-1					
NX-OD5256-5					
NX-OD6121			Ver.1.54		
NX-OD6121-5					
NX-OD6121-6			Ver.1.17		
NX-OD6256			Ver.1.54		
NX-OD6256-5	1				
NX-OC2633	1				
NX-OC2733					
NX-OC4633			Ver.1.17		
NX-MD6121-5	╡ │				
NX-MD6121-6	╡ │				
NX-MD6256-5	-				

Note: 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.

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Connected to an EtherCAT Coupler Unit

	(Unit	Corresponding unit versions/versions				
Model	Unit version	EtherCAT Coupler Unit	CPU Unit or Industrial PC	Init or Industrial PC Sysmac Studie		
NX-ID3317		Ver.1.0	Ver.1.05	Ver.1.06		
NX-ID3343						
NX-ID3344		Ver.1.1	Ver.1.06 *	Ver.1.07		
NX-ID3417		Ver.1.0	Ver.1.05	Ver.1.06		
NX-ID3443						
NX-ID3444		Ver.1.1	Ver.1.06 *	Ver.1.07		
NX-ID4342				Ver.1.06		
NX-ID4442						
NX-ID5142-1	Ver.1.0			Ver.1.13		
NX-ID5142-5				Ver.1.10		
NX-ID5342				Ver.1.06		
NX-ID5442		Ver.1.0	Ver.1.05	VCI.1.00		
NX-ID6142-5				Ver.1.10		
NX-ID6142-6				Ver.1.13		
NX-ID6342				Ver.1.54		
NX-ID6442				VCI.1.04		
NX-IA3117				Ver.1.08		
NX-OD2154		Ver.1.1	Ver.1.06 *	Ver.1.07		
NX-OD2258		VGI.1.1	V01.1.00	VCI.1.07		
NX-OD3121						
NX-OD3153				Ver.1.06		
NX-OD3256				ver.1.00		
NX-OD3257						
NX-OD3268				Ver.1.13		
NX-OD4121						
NX-OD4256				Ver.1.06		
NX-OD5121						
NX-OD5121-1				Ver.1.13		
NX-OD5121-5	Ver.1.0			Ver.1.10		
NX-OD5256		Ver.1.0	Ver.1.05	Ver.1.06		
NX-OD5256-1				Ver.1.13		
NX-OD5256-5				Ver.1.10		
NX-OD6121				Ver.1.54		
NX-OD6121-5				Ver.1.10		
NX-OD6121-6				Ver.1.13		
NX-OD6256				Ver.1.54		
NX-OD6256-5	7			Ver.1.10		
NX-OC2633	7			Ver.1.06		
NX-OC2733				Ver.1.08		
NX-OC4633				Ver.1.17		
NX-MD6121-5				Ver.1.10		
NX-MD6121-6	Ver.1.0	Ver.1.0	Ver.1.05	Ver.1.13		
NX-MD6256-5	7			Ver.1.10		

Note: 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.

* 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.

Connected to an EtherNet/IP Coupler Unit

NX	Unit				it versions/version	ıs	
		Application with	n an NJ/NX/NY-ser *1	ies Controller	Application w	ith a CS/CJ/CF	P-series PLC *2
Model	Unit version	EtherNet/IP Coupler Unit	CPU Unit or Industrial PC	Sysmac Studio	EtherNet/IP Coupler Unit	Sysmac Studio	NX-IO Configurator *:
NX-ID3317		Vor 10	Vor 111	Ver 1 10	Vor 10	Vor 110	V/or 1.00
NX-ID3343		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3344							
NX-ID3417		N/	Nov. 4.44	N/2 - 4 40	Mar. 4.0	Mar. 4.40	N/
NX-ID3443		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3444							
NX-ID4342							
NX-ID4442						Ver. 1.10	
NX-ID5142-1						Ver. 1.13	
NX-ID5142-5							
NX-ID5342				Ver. 1.19			Ver. 1.00
NX-ID5442		Ver. 1.2	Ver. 1.14		Ver. 1.0	Ver. 1.10	
NX-ID6142-5							_
NX-ID6142-6						Ver. 1.13	
NX-ID6342							
NX-ID6442				Ver.1.54		Ver.1.54	Ver.1.23
NX-IA3117				Ver. 1.19		Ver. 1.10	Ver. 1.00
NX-OD2154							
NX-OD2258							
NX-OD3121							
NX-OD3153							
NX-OD3256	Ver. 1.0					Ver. 1.10	Ver. 1.00
NX-OD3257							
NX-OD3268						Ver. 1.13	
NX-OD4121							
NX-OD4256				Ver. 1.19		Ver. 1.10	
NX-OD5121							
NX-OD5121-1						Ver. 1.13	
NX-OD5121-5							
NX-OD5256						Ver. 1.10	
NX-OD5256-1						Ver. 1.13	-
NX-OD5256-5		Ver. 1.2	Ver. 1.14		Ver. 1.0	Ver. 1.10	_
NX-OD6121				Ver.1.54		Ver.1.54	Ver.1.23
NX-OD6121-5						Ver. 1.10	
NX-OD6121-6				Ver. 1.19		Ver. 1.13	Ver. 1.00
NX-OD6256				Ver.1.54		Ver.1.54	Ver.1.23
NX-OD6256-5							
NX-OC2633						Ver. 1.10	
NX-OC2733							
NX-OC4633				Ver. 1.19		Ver. 1.17	
NX-MD6121-5						Ver. 1.10	
NX-MD6121-6						Ver. 1.10 Ver. 1.13	-
NX-MD6256-5						Ver. 1.13 Ver. 1.10	-
late: 1 Some Ur		L					

Note: 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. Note: You cannot connect the relevant NX Unit to the target Communications Coupler Unit if "---" is shown in the corresponding unit versions/versions column.

*1 Refer to the user's manual for the EtherNet/IP Coupler Units for information on the unit versions of EtherNet/IP Units that are compatible with EtherNet/IP Coupler Units.

*2 Refer to the user's manual for the EtherNet/IP Coupler Units for information on the unit versions of CPU Units and EtherNet/IP Units that are compatible with EtherNet/IP Coupler Units.

*3 For connection to an EtherNet/IP Coupler Unit with unit version 1.0, connection is supported only for a connection to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect by any other path. If you need to connect by another path, use an EtherNet/IP Coupler Unit with unit version 1.2 or later.

Connected to Communication Control Units

N	(Unit	Corresponding unit versions/versions				
Model	Unit version	Communication Control Unit	Sysmac Studio			
NX-ID3317		Ver. 1.00	Ver. 1.24			
NX-ID3343		Vei: 1.00	VCI. 1.24			
NX-ID3344	Ver. 1.0					
NX-ID3417		Ver. 1.00	Ver. 1.24			
NX-ID3443		Vel. 1.00	Vei. 1.24			
NX-ID3444						
NX-ID4342						
NX-ID4442						
IX-ID5142-1						
NX-ID5142-5			Ver. 1.24			
IX-ID5342			ver. 1.24			
NX-ID5442		Ver. 1.00				
NX-ID6142-5						
NX-ID6142-6						
NX-ID6342			Ver. 1.54			
NX-ID6442			ver. 1.54			
NX-IA3117			Ver. 1.24			
NX-OD2154						
NX-OD2258						
NX-OD3121						
IX-OD3153						
X-OD3256						
IX-OD3257						
IX-OD3268						
NX-OD4121						
NX-OD4256			Ver. 1.24			
NX-OD5121						
NX-OD5121-1						
NX-OD5121-5						
NX-OD5256						
NX-OD5256-1		N/ 4 00				
NX-OD5256-5		Ver. 1.00				
NX-OD6121			Ver. 1.54			
NX-OD6121-5			N/27 4 04			
NX-OD6121-6			Ver. 1.24			
IX-OD6256			Ver. 1.54			
IX-OD6256-5						
IX-OC2633	-					
NX-OC2733	-					
IX-OC4633			Ver. 1.24			
NX-MD6121-5	-					
X-MD6121-6	-					
X-MD6256-5	-					

Note: 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.

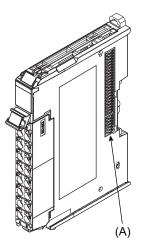
2. Note: You cannot connect the relevant NX Unit to the Communication Control Unit if "---" is shown in the corresponding unit versions/ versions column.

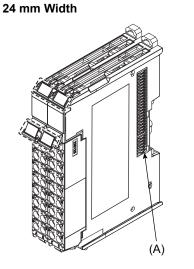
71

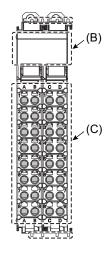
External Interface

Screwless Clamping Terminal Block Type

12 mm Width

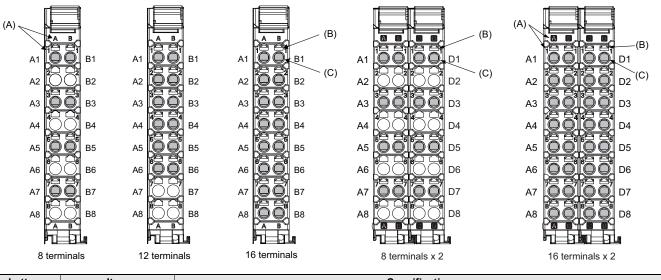






Letter	ltem	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Terminal block	The terminal block is used to connect to external devices. The number of terminals depends on the Unit.

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	A 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 luit ma dal		Termi	nal 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-TBA162	16	None	10 A	
NX-ID6	NX-TBB162	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-TBA162	16	None	10 A	
	NX-TBB162	16	None	10 A	
NX-OC2	NX-TBA082	8	None	10 A	
NX-OC4633 *1	NX-TBA082	8	None	10 A	

*1. Use the NX-TBA082 in both the A/B and C/D columns for the NX-OC4633. In such situations, the column number display on the terminal block will be for the A/B columns even in the C/D columns.

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.

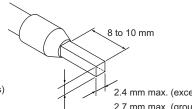
The applicable ferrules, wires, and crimping tools are listed in the following table.

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

* 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)

2.4 mm max. (except ground terminals)2.7 mm max. (ground terminals)

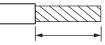
Using Twisted Wires/Solid Wires

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

Torn	Wire type					O an alteration la moth	
Terminals		Twisted wires		Solid wire		Wire size	Conductor length (stripping length)
Classification Current capacity		Plated	Unplated	Plated	Unplated		(ourpping longur)
	2 A or less	Possible	Possible	Possible	Possible	0.08 to 1.5 mm ² AWG28 to 16	8 to 10 mm
All terminals except ground terminals	Greater than 2 A and 4 A or less		Not Possible	Possible *1	Not		
ground terminals	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

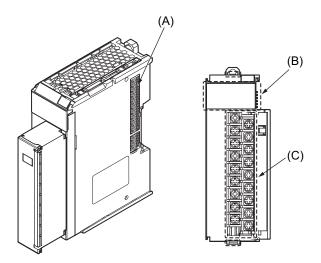


Conductor length (stripping length)

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

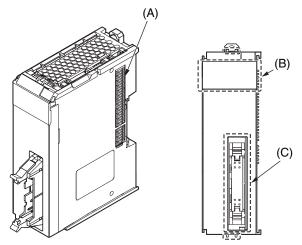
Δ

M3 Screw Terminal Block Type 30 mm Width

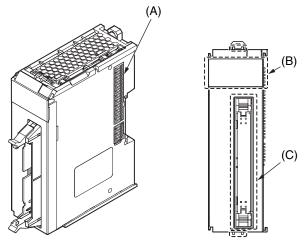


Letter	Item	Specification	
(A)	NX bus connector	This connector is used to connect to another Unit.	
(B)	Indicators	The indicators show the current operating status of the Unit.	
(C)	Screw terminals	These screw terminals are used to connect the wires.	

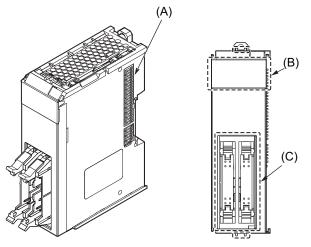
MIL Connector Type (1 Connector with 20 terminals) 30 mm Width



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

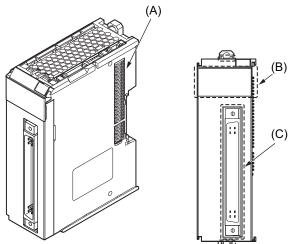


MIL Connector Type (2 Connectors with 20 terminals) 30 mm Width

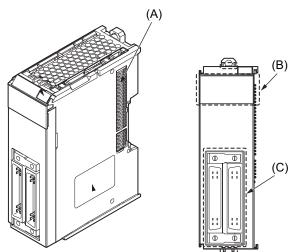


Letter	Item	Specification	
(A)	NX bus connector	This connector is used to connect to another Unit.	
(B)	Indicators	The indicators show the current operating status of the Unit.	
(C)	Connectors	The connectors are used to connect to external devices.	

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



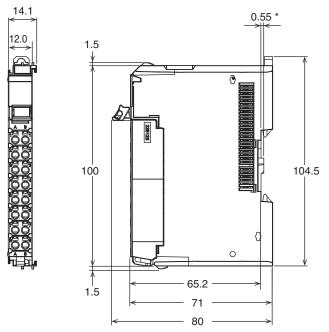
Fujitsu/OTAX Connector Type (2 Connectors with 24 terminals) 30 mm Width



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.	

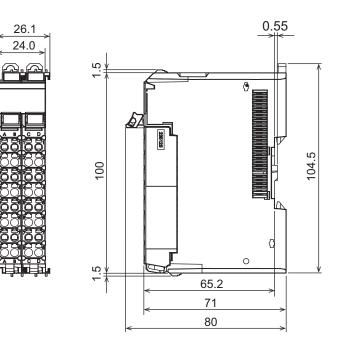
Dimensions

Screwless Clamping Terminal Block Type 12 mm Width

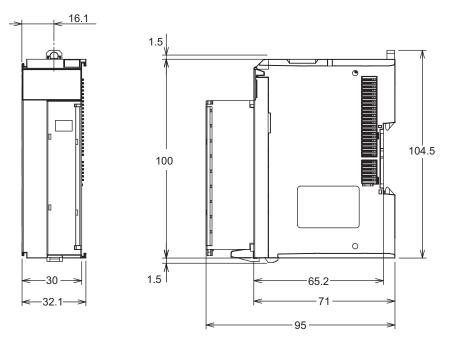


* The dimension is 1.35 mm for Units with lot numbers through December 2014.

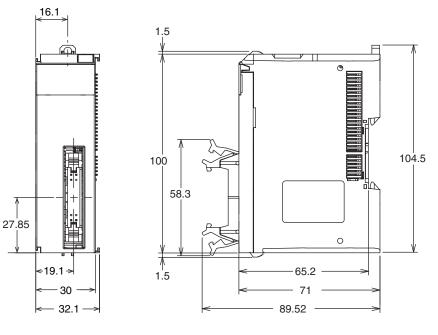
24 mm Width



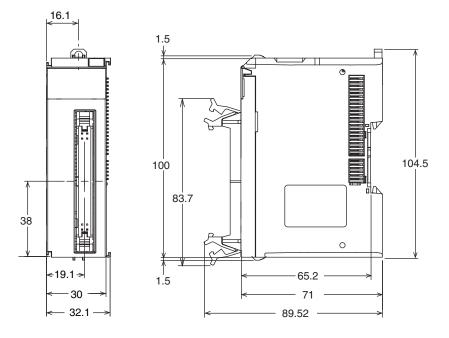
M3 Screw Terminal Block Type 30 mm Width



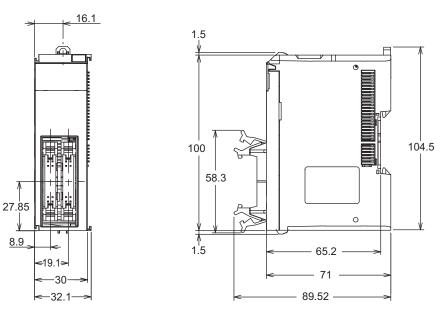
MIL Connector Type (1 Connector with 20 terminals) 30 mm Width



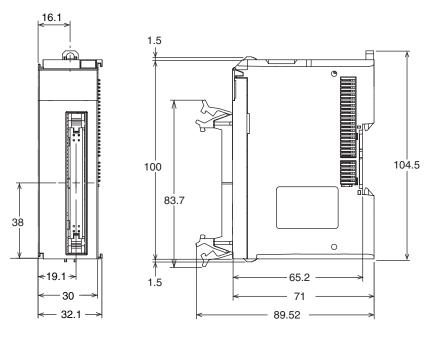
MIL Connector Type (1 Connector with 40 terminals) 30 mm Width



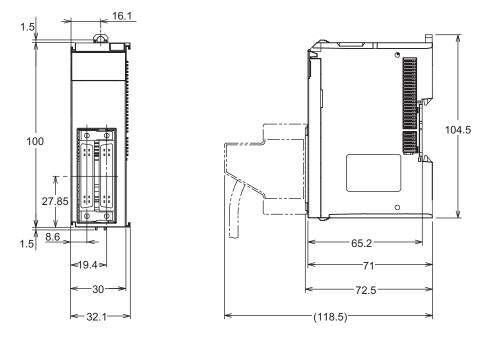
MIL Connector Type (2 Connectors with 20 terminals) 30 mm Width



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



Fujitsu/OTAX 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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