NX-series Digital Output Units

NX-OD/OC

CSM_NX-OD_OC_DS_F_7_1

A Wide Range of Digital Output Units from General Purpose use to High-Speed Synchronous Control

- Transistor and relay Output Units for the NX-series modular I/O system.
- Connect to other NX-series I/O Units and EtherCAT Coupler units using the high-speed NX-bus.
- Synchronous Units update their output status according to the controller's instructions every EtherCAT cycle.



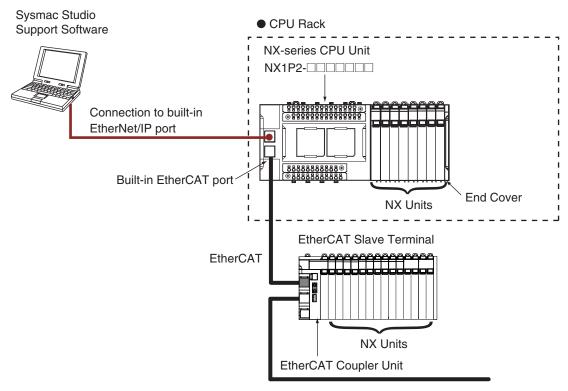
Features

- High-speed I/O refreshing is possible by connecting with the NX-series EtherCAT Coupler.
- Output refreshing can be synchronized with the control cycle of the Controller. (Synchronous refreshing)
- ON/OFF response time of the high-speed model is 300 ns max, which enables high-speed, high-precision control.
- The screwless terminal block is detachable for easy commissioning and maintenance.
- Screwless clamp terminal block and Connector types (Units with MIL/Fujitsu Connectors) are significantly reduces wiring work.
- Up to 16 digital outputs in a space-saving 12 mm width. (Connector Types 30 mm width)
- The lineup includies 2-point, 4-point, 8-point, 16-point, and 32-point types with 3-wire, 2-wire and 1-wire connection methods.
- With output refreshing with specified time stamp, the Output Unit refreshes outputs at the time specified by the program. This enables high-precision output control independent of the control cycle of the Controller.
- Connection to the CJ-series is possible by connecting with the EtherNet/IP™ Coupler.

System Configuration

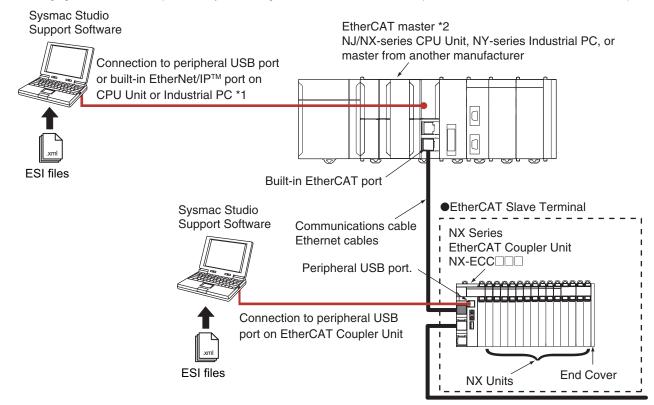
System Configuration in the Case of a CPU Unit

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



System Configuration of Slave Terminals

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 NX Units can be connected to the CPU Unit or Communications Coupler Unit to be used, refer to the user's manual for the CPU Unit or Communications Coupler Unit to be used.

Ordering Information

International Standards

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

Digital Output Units

● Transistor Output Unit (Screwless Clamping Terminal Block, 12 mm Width)

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

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

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

					Spec	ification			Standards
Unit type Produc name	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	
NX-series Digital	Transistor Output Unit	NPN	0.5 A/point,	12 to 24 VDC	Switching Synchronous I/O refreshing	0.1 ms max./ 0.8 ms max.	NX-OD5121-1	UC1, CE,	
Output Unit		16 points	PNP	5 A/Unit	24 VDC	and Free-Run refreshing	0.5 ms max./ 1.0 ms max.	NX-OD5256-1	RCM, KC

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

Unit type	Product name	Number of points	Internal I/O common	Maximum value of load current	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
Transistor Output	10	NPN	0.5 A/point,	12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD5121-5		
NX-series	Unit	16 points	PNP	2 A/Unit	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	0.5 ms max./ 1.0 ms max.	NX-OD5256-5	UC1, CE, RCM, KC
Digital Output Unit	7	32 points	NPN	0.5 A/point,	12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD6121-5	
Unit			PNP	2 A/common, 4 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD6256-5	

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

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

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

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

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

				Spec	ification				
Unit type	Unit type Product name Num of po				I/O refreshing method	ON/OFF response time	Model	Standards	
NX-series Digital Output Unit	Relay Output Unit	8 points	N.O.	250 VAC/2A (cosφ=1) 250 VAC/2A (cosφ=0.4) 24 VDC/2A 8 A/Unit	Free-Run refreshing	15ms max./ 15ms max.	NX-OC4633	UC1, CE, RCM, KC	

Optional Products

Product name	Specification	Model	Standards
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)	NX-AUX02	
	Specification		

		Specif					
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards	
	8				NX-TBA082		
Terminal Block	12	A/B	None	10 A	NX-TBA122		
	16				NX-TBA162		

Accessories

Not included.

Connection Patterns for Connector-Terminal Block Conversion Units

Pattern	Configuration	Number of connectors	Branching
А	Connecting Cable Connector-Terminal Block Conversion Unit 20 or 40 terminals	4	None
В	Connecting Cable with two branches Connector-Terminal Block Conversion Unit 20 terminals 20 terminals		2 branches

Connections to Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common terminal
				Α	None	XW2Z-□□□X	XW2B-20G4	None
NX-OD5121-5	16 outputs	1 MIL	NPN	Α	None	XW2Z-□□□X	XW2B-20G5	None
NA-OD5121-5	16 outputs	connector	INFIN	Α	None	XW2Z-□□□X	XW2D-20G6	None
				Α	None	XW2Z-□□□X	XW2R-J20G-T	None
				Α	None	XW2Z-□□□X	XW2B-20G4	None
NX-OD5256-5	16 outputs	1 MIL	PNP	Α	None	XW2Z-□□□X	XW2B-20G5	None
NA-OD3230-3	10 outputs	connector	FINE	Α	None	XW2Z-□□□X	XW2D-20G6	None
				Α	None	XW2Z-□□□X	XW2R-J20G-T	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2R-J40G-T	None
NX-OD6121-5	32 outputs	1 MIL	NPN	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
NA-OD6121-5	32 Outputs	connector	INFIN	В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2R-J20G-T (2 Units)	None
				Α	None	XW2Z-□□□B	XW2B-40G4	None
				Α	None	XW2Z-□□□B	XW2B-40G5	None
				Α	None	XW2Z-□□□B	XW2D-40G6	None
				Α	None	XW2Z-□□□B	XW2R-J40G-T	None
		4 = "		Α	None	XW2Z-□□□BU	XW2D-40C6	None
NX-OD6121-6	32 outputs	1 Fujitsu connector	NPN	В	2	XW2Z-□□□L	XW2B-20G4 (2 Units)	None
		connector		В	2	XW2Z-□□□L	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□L	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□L	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-□□□L	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-□□□L	XW2R-J20G-T (2 Units)	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2R-J40G-T	None
NX-OD6256-5	22 outputs	1 MIL	PNP	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
NA-UD0200-5	32 outputs	connector	FINE	В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2R-J20G-T (2 Units)	None

General Specification

	Item	Specification		
Enclosure		Mounted in a panel		
Grounding n	nethod	Ground to 100 Ω or less		
	Ambient operating temperature	0 to 55°C		
	Ambient operating humidity	10% to 95% (with no condensation or icing)		
	Atmosphere	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: Conforms to JIS B3502 and IEC 61131-2.		
Operating environment	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)		
environment	Overvoltage category	Category II: Conforms to JIS B3502 and IEC 61131-2.		
	EMC immunity level	Zone B		
	Vibration resistance *1	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5-mm amplitude, 8.4 to 150 Hz, acceleration of 9.8 m/s², 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/s², 3 times each in X, Y, and Z directions		
Applicable s	tandards *2	cULus: Listed (UL508) or Listed (UL 61010-2-201), ANSI/ISA 12.12.01, EU: EN 61131-2 or EN 61010-2-201, C-Tick or RCM, KC: KC Registration, NK, LR		

^{*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

Digital Output Unit Specifications

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

Unit name	Transistor Output Unit	Model	NX-OD2154
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	NPN
	OD2154	Rated voltage	24 VDC
	■TS ■0 ■1	Operating load voltage range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
<u>.</u>	10 (10)	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 0.45 W max.	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	·	ush-pull output circuit.	IOV0 to 1 OUT0 to OUT1 Terminal block I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 orientat	ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 OIOV IOV IOV 24 VDC	ransistor Output Unit NX-OD2154 DUT0 OUT1 IOV IOV IOG IOG NC NC B8	/pe Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD2258
Number of points	2 points	External connection	Screwless clamping terminal block
I/O refreshing method	Output refreshing with specified time stamp	terminals	(8 terminals)
70 refreshing method	TS indicator, output indicator	Internal I/O common	PNP
	OD2258	Rated voltage	24 VDC
	■TS ■0 ■1	Operating load voltage range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 MΩ 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	'	oush-pull output circuit.	OUT0 to OUT1 Terminal block IOG0 to 1 I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 OIOV IOV OIOG IOG 24 VDC	Tansistor Output Unit NX-OD2258 DUT0 OUT1 IOV IOV IOG IOG NC NC B1 Two-wire ty	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3121		
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)		
I/O refreshing method		Selectable Synchronous I/O refreshing or Free-Run refreshing			
	TS indicator, output indicator	Internal I/O common	NPN		
	OD3121 ■TS	Rated voltage	12 to 24 VDC		
	■0 ■1 ■2 ■3	Operating load voltage range	10.2 to 28.8 VDC		
Indicators		Maximum value of load current	0.5 A/point, 2 A/Unit		
		Maximum inrush current	4.0 A/point, 10 ms max.		
		Leakage current	0.1 mA max.		
		Residual voltage	1.5 V max.		
Dimensions	12 (M) × 100 (H) × 71 (D)	ON/OFF response time Isolation method	0.1 ms max./0.8 ms max.		
	12 (W) x 100 (H) x 71 (D) 20 MΩ min. between isolated circuits (at		Photocoupler 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.		
	Connected to a CPU Unit 0.90 W max.				
NX Unit power consumption	Connected to a Communications	I/O current consumption	10 mA max.		
Consumption	Coupler Unit 0.55 W max.				
Weight	70 g max.				

			IOV0 to 3		
	Internal circuits		OUT0 to OUT3		
		·*[]			
			Terminal block		
Circuit layout					
		 			
		W	OG0 to 3		
	540		100		
	NX bus connector I/O power supply +		I/O power supply + NX bus connector		
	(left) L I/O power supply –		I/O power supply – _ (right)		
Installation evicetation	Installation orientation:	pright installation			
Installation orientation and restrictions	 Connected to a CPU Unit: Possible in u Connected to a Communications Couple 		ions.		
	Restrictions: No restrictions				
		ransistor Output			
	Power Supply Unit	Unit NX-OD3121			
	A1 B1 A1	OUT0 OUT1	e		
		IOV0 IOV1			
Terminal connection	●IOG IOG	1999 1994	Three-wire type		
diagram	12 to 24 VDC	OUT2 OUT3	 □ "		
	IOV IOV	IOV2 IOV3●	- 		
		IOG2 IOG3●	<u> </u>		
	IOG IOG				
	A8 B8 _ A8	B8			
Disconnection/					
Short-circuit	Not supported.	Protective function	Not supported.		
detection					

Unit manna	Transister Outrot Heit	Madal	NV ODOJEO
Unit name	Transistor Output Unit	Model External connection	NX-OD3153 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	Internal I/O common	NPN
	OD3153	Rated voltage	24 VDC
	■0 ■1 ■2 ■3	Operating load voltage 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	10 (M) :: 100 (H) :: 71 (D)	ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D) 20 MΩ min. between isolated circuits (at	Isolation method	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 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) NX bus connector (left) N/O power supply -	n-pull output circuit.	OUT0 to OUT3 Terminal block I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 A1 IOG IOG IOV IOV IOG IOG A8 B8 A8	Transistor Output Unit	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistar Output Unit	Model	NX-OD3256
Unit name	Transistor Output Unit	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	ree-Run refreshing	
	TS indicator, output indicator	Internal I/O common	PNP
	OD3256 ■TS	Rated voltage	24 VDC
	■0 ■1 ■2 ■3	Operating load voltage 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	$20~\text{M}\Omega$ 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: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	20 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply – Installation orientation:	Short-circuit protection	OUT0 to OUT3 IOG0 to 3 I/O power supply + I/O power supply - I/O power supply -
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 C1 B1 C2 IOV	ansistor Output Unit NX-OD3256 DUT0 OUT1 OV0 IOV1 OG0 IOG1 OUT2 OUT3 OV2 IOV3 OG2 IOG3 B8	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3257
	·	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, output indicator	Internal I/O common	PNP
	OD3257 ■TS	Rated voltage Operating load voltage	24 VDC
	= 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 ON/OFF response time	1.5 V max. 300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
	20 M Ω min. between isolated circuits (at		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 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 - This unit uses a push Installation orientation:	n-pull output circuit.	IOV0 to 3 Terminal block OUT0 to OUT3 I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 orientat	ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 B1 OIOV IOV OIOG IOG	Transistor Output Unit NX-OD3257 OUT0 OUT10 IOV0 IOV1 IOG0 IOG1 OUT2 OUT30 IOV2 IOV30 IOG2 IOG30 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	_	Lava
	TS indicator, output indicator	Internal I/O common	PNP
	OD3268	Rated voltage	24 VDC
	■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.
n	10 (10) 100 (11) 71 (7)	ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	IOV: 2 A/terminal max., IOG: 2 A/terminal max., COM (+V): 4 A/terminal max., 0V: 4 A/terminal max.
NX Unit power consumption	Connected to a CPU Unit 0.85 W max. Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	20 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) NX bus supply + I/O power supply - I/O power	Short-circuit	IOV 0 to IOV 3 COM (+V) OUT 0 to OUT 3 IOG 0 to IOG 3 OV I/O power supply + I/O power supply - I/O power
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	OUT0 OUT1 • IOV0 IOV1		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD4121
Number of points	8 points	External connection	Screwless clamping terminal block (16
<u> </u>	<u>'</u>	terminals	terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F TS indicator, output indicator	Internal I/O common	NPN
	OD4121	Rated voltage	12 to 24 VDC
	■TS ■0 ■1	Operating load voltage	10.2 to 28.8 VDC
	= 2 = 3	range	10.2 to 26.8 VDC
Indicators	■4 ■5 ■6 ■7	Maximum value of load current	0.5 A/point, 4 A/Unit
		Maximum inrush current	' '
		Leakage current	0.1 mA
		Residual voltage ON/OFF response time	1.5 V max. 0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 MΩ 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	,	Current capacity of I/O	-
method	Supply from the NX bus	power supply terminal	IOV: 0.5 A/terminal max.
NX Unit power consumption	Connected to a CPU Unit 0.90 W max. Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply - I/O power supply - Installation orientation:		I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 IOV IOV IO IO IO IO IO IO IO	G 10G 10V0 10 G 10G 0UT2 01 G 10G 10V2 10 G 10G 0UT4 01 G 10G 10V4 10 OUT6 0I	·
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD4256
Number of points	8 points	External connection	Screwless clamping terminal block (16
<u> </u>	Selectable Synchronous I/O refreshing or F	terminals	terminals)
I/O refreshing method	TS indicator, output indicator	Internal I/O common	PNP
	OD4256	Rated voltage	24 VDC
	■TS	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 1.00 W max. Connected to a Communications Coupler Unit 0.65 W max.	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply - I/O power supply - I/O power supply - Installation orientation:	Short-circuit protection	OUT0 to OUT7 IOG0 to 7 I/O power supply + I/O power supply - I/O power supply -
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	10V		Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD5121
Number of points	16 points	External connection terminals	Screwless clamping terminal block (16 terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	ree-Run refreshing	,
	TS indicator, output indicator	Internal I/O common	NPN
	OD5121	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	Maximum value of load	0.5 A/point, 4 A/Unit
indicators	■12 ■13 ■14 ■15	current	
		Maximum inrush current	
		Leakage current	0.1 mA max. 1.5 V max.
		Residual voltage 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
	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 method	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals
	Connected to a CPU Unit		
NX Unit power	1.00 W max. • Connected to a Communications	I/O current consumption	20 mA max.
consumption	Coupler Unit	Carron Sonoumption	
AV-1-EA	0.65 W max.		
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply - I/O power supply - Installation orientation:		OUT0 to OUT15 Terminal block I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		tions.
Terminal connection diagram	12 to 24 VDC	DO DO DO DO DO	Transistor Output Unit NX-OD5121 B1 Two-wire type OUT0 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8 OUT9 OUT10 OUT11 OUT12 OUT13 OUT14 OUT15 B8
Disconnection/			
Short-circuit detection	Not supported.	Protective function	Not supported.

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 ■TS	Rated voltage	24 VDC
	m 0 m 1 m 2 m 3 m 4 m 5 m 6 m 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.
<u> </u>	10 (11) 100 (11) 71 (7)	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 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) I/O power supply –	Short-diruit protection	OUT0 to OUT15 Terminal block I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	IOV IOV	Connection Unit	OUT3 OUT5 OUT7
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

● Transistor Output Units (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		
	TS indicator, output indicator	Internal I/O common	NPN
	OD5121−1	Rated voltage	12 to 24 VDC
	■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 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) NX bus connector supply + I/O power supply -		OUT0 to OUT15 Terminal block COM I/O power supply + I/O power supply - I/O power suppl
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Terminal A B Signal name A Sig		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD5256-1

Unit name	Transistor Output Unit	Model	NX-OD5256-1
		External connection	
Number of points	16 points	terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and	_	DND
	TS indicator, output indicator	Internal I/O common Rated voltage	PNP 24 VDC
	OD5256-1 = 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 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	Connected to a CPU Unit 0.95 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) NX bus connector supply + I/O power supply -	Short-circuit	OUT0 to OUT15 OV I/O power supply + I/O power supply - I/O power sup
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	Terminal Signal name A B Signal name A B Signal name A B Signal name A Signa		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

● Transistor Output Units (MIL Connector, 30 mm Width) NX-OD5121-5

Installation orientation and restrictions Installation orientation and and an	Unit name	Transistor Output Unit			Mode	NX-OD5121-5		
Indicators Similation orientation and Poper supply Poper su	Number of points	16 points						MIL connector (20 terminals)
Indicators Communication Processing 12 to 24 VDC 10 2 to 28 a	I/O refreshing method	Switching Synchronous I/O re	efreshing	and Fr	ee-Run ref	reshing		
Indicators Indica		TS indicator, output indicator			Inter	nal I/O common		NPN
Indicators Indica		OD5121-5			-			12 to 24 VDC
Maximum value of load current 0.5 Al/point, 2 A/Unit Current 0.5 Al/point, 10 ms max.		-0 -1 -0 -0 -1 -5					ge	10.2 to 28.8 VDC
Leakage current 0.1 mA max. Residual voltage 1.5 y max 0.1 ms max. 0.1 ms	Indicators				Maxi	mum value of lo	ad	0.5 A/point, 2 A/Unit
Pesidual voltage 1.5 / max					Maxi	mum inrush cur	rent	4.0 A/point, 10 ms max.
Dimensions 30 (W) x 100 (H) x 71 (D) Insulation resistance 20 MΩ min between isolated circuits (at 100 VDC) Display from external source Current capacity of I/O power supply from external source Current capacity of I/O power supply terminal NX Unit power consumption NX Unit power consumption NX Unit power august a Communications Coupler Unit NX Unit power supply So y max. Circuit layout Circuit layout Circuit layout Circuit layout Installation orientation and restrictions Installation orientation and restrictions. No restrictions South of a Communication Coupler Unit Possible in 6 orientations. Restrictions. No restrictions Signal out of the communication					Leak	age current		0.1 mA max.
Dimensions 30 (W) x 100 (H) x 71 (D) Insulation resistance 20 MM min. between solated circuits Dielectric strength 510 VAC between isolated circuits for 1 minute a a leakage current of 5 mA max. Without I/O power supply terminal					Resid	dual voltage		1.5 V max.
Insulation resistance 20 MG min. between isolated circuits (at 100 VDC) 100 power supply method 20 Supply from external source 20 Supply from external source 20 Supply from external source 21 Connected to a CPU Unit Supply method 22 Willhout I/O power supply terminals 23 O mA max. 25 O manufaction and connection of the max. 26 O g max. 27 O g max. 28 O g max. 29 O g max. 20 Circuit layout 20 Connected to a CPU Unit Supply forminal max. 20 D g max. 21 O g g max. 21 O g g max. 22 O g max. 23 O mA max. 24 O g g max. 25 O g max. 26 O g max. 27 O g max. 28 O g max. 29 O g max. 20 D g max. 21 D g g max. 21 D g g max. 21 D g g max. 22 O g max. 25 O g max. 26 O g max. 27 O g max. 28 O g max. 28 O g max. 29 O g max. 20 D g max. 20 D g max. 20 D g max. 20 D g g max. 20 D g max. 20					ON/C	FF response tin	ne	0.1 ms max./0.8 ms max.
Installation orientation and restrictions Installation orientation and and an	Dimensions	30 (W) x 100 (H) x 71 (D)			Isola	tion method		Photocoupler isolation
NX Unit power consumption Circuit layout NX bus	Insulation resistance		I circuits		Diele	ctric strength		510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
NX Dus	I/O power supply method	Supply from external source						Without I/O power supply terminals
Circuit layout NX bus 1/0 power supply +	NX Unit power consumption	0.95 W max.Connected to a Communic		oupler			n from	30 mA max.
Circuit layout NX bus connector NX bus connector NX bus connector (left) Installation orientation and restrictions Installation orientation: **Connected to a CPU Unit: Possible in upright installation.** **Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions **Terminal connection diagram Terminal connection **County of the county o	Weight	80 g max.						
Connected to a CPU Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions Connector Signal name	Circuit layout	connector I/O power supply – (left)	Internal circuits	***				Connector OM OM O power supply + NX bus connector
Terminal connection diagram Terminal connection diagram 12 to		 Connected to a CPU Unit: Connected to a Communication 	Possible cations (e in upri Coupler	ight installa Unit: Possi	ation. ible in 6 orientatio	ons.	
Terminal connection diagram Terminal connection diagram 12 to						_		
Terminal connection diagram Terminal connection diagram Terminal connection diagram L OUT14 7 8 OUT06 L L OUT05 L L OUT04 L L OUT11 13 14 OUT03 L L OUT11 13 14 OUT03 L L OUT09 17 18 OUT01 L OUT09 17 18 OUT01 L OUT09 17 18 OUT01 L OUT08 19 20 OUT00 L Description See sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V).		l name						
Terminal connection diagram COM 3 4 COM COM		12 to						
Terminal connection diagram		+				+	•	
Terminal connection diagram L OUT14 7 8 OUT06 L OUT05 L OUT04 L OUT11 13 14 OUT03 L OUT09 17 18 OUT01 L OUT09 19 20 OUT00 L Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V).		 				_		
Terminal connection diagram							•	
diagram L OUT12 11 12 OUT04 L OUT11 13 14 OUT03 L OUT09 17 18 OUT01 L OUT09 17 18 OUT01 L OUT09 19 20 OUT00 L Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V).	Terminal connection						•	
OUT11 13 14 OUT03 L OUT01 15 16 OUT02 L OUT09 17 18 OUT01 L OUT08 19 20 OUT00 L • Be sure to wire both pins 3 and 4 (COM). • Be sure to wire both pins 1 and 2 (+V).				-			•	
OUT10 15 16 OUT02 L OUT09 17 18 OUT01 L OUT08 19 20 OUT00 L Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V).)	
OUT09 17 18 OUT01 L OUT08 19 20 OUT00 • Be sure to wire both pins 3 and 4 (COM). • Be sure to wire both pins 1 and 2 (+V). Disconnection/Short-circuit Not supported.)	
Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V). Disconnection/Short-circuit Not supported.)	
Be sure to wire both pins 3 and 4 (COM). Be sure to wire both pins 1 and 2 (+V). Disconnection/Short-circuit Not supported. Protective function. Not supported.							•	
• Be sure to wire both pins 1 and 2 (+V). Disconnection/Short-circuit Not supported Protective function Not supported		L OUT08	19	20	OUT00			
uoteonon en	Disconnection/Short-circuit detection	Not supported.			Prote	ective function		Not supported.

NX-OD5256-5

Unit name	Transistor Output Unit	Model	NX-OD5256-5
		External connection	
Number of points	16 points	terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F		I
	TS indicator, output indicator	Internal I/O common	PNP
	OD5256−5	Rated voltage	24 VDC
	■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 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	Supplied from external source.	Current capacity of I/O power supply terminal	Without I/O power supply terminals
	Connected to a CPU Unit 1.00 W max.	Current consumption from	
NX Unit power consumption	Connected to a Communications Coupler Unit 0.70 W max.		40 mA max.
Weight	85 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply -	Short-circuit	COM (+V) COM (+V) OUT0 to OUT15 OV OV I/O power supply + I/O power supply - I/O power supply -
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in upright Connected to a Communications Coupler Unit Restrictions: No restrictions	installation. :: Possible in 6 orientations.	
Terminal connection diagram	24 VDC	Signal name MM (+V) TT07 L TT06 L TT05 L TT04 L TT03 L TT02 L TT01 L TT01 L TT01 L	
Disconnection/Short-circuit detection	Be sure to wire both pins 3 and 4 (0V). Not supported.	Protective function	With load short-circuit protection.

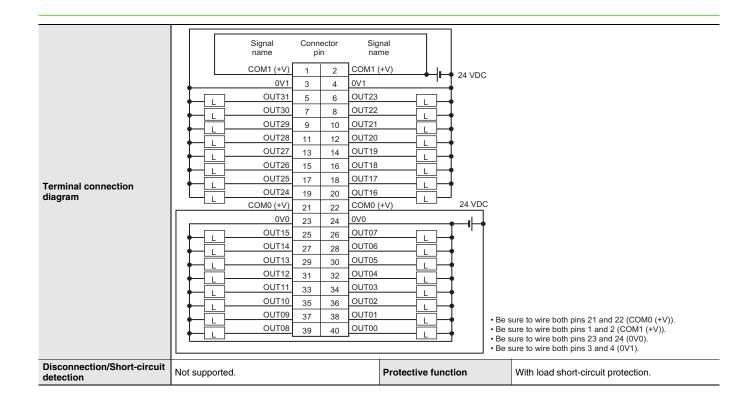
NX-OD6121-5

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	Run refreshing		
	TS indicator, output indicator	Internal I/O common	NPN	
	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 $\text{M}\Omega$ 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 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	NX bus connector (left) NX bus connector (left)	+V0 +V0 OUT0 to OUT15 COM0 COM0 +V1 +V1 OUT16 to OUT31 COM1 COM1 VO power s	connector	
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			

	12 to		Signal name		nector	Signal name				
	24 V	DC	+V1	1	2	+V1		→		
	- ⊩	_	COM1	3	4	COM1				
		-	OUT31	5	6	OUT23	——————————————————————————————————————	─		
	—	-	OUT30	7	8	OUT22	-	→		
	<u> </u>	-	OUT29	9	10	OUT21				
	<u> </u>	-	OUT28	11	12	OUT20				
	l	-	OUT27	13	14	OUT19				
	<u> </u>	一门	OUT26	15	16	OUT18	_			
Terminal connection		片	OUT25	17	18	OUT17				
diagram			OUT24	19	20	OUT16				
alagram			+V0	21	22	+V0				
			COM0	23	24	COM0			1	
		-	OUT15	25	26	OUT07	——————————————————————————————————————	→		
	II		OUT14	27	28	OUT06	-	→		
			OUT13	29	30	OUT05		→		
		-	OUT12	31	32	OUT04				
	II	-	OUT11	33	34	OUT03				
	II	-	OUT10	35	36	OUT02	-	→		
	12 to		OUT09	37	38	OUT01	_		. B	Be sure to wire both pins 21 and 22 (+V0).
	24 VDC	╀	OUT08	39	40	OUT00	┵┼┼		• Be	e sure to wire both pins 23 and 24 (COM0).
	🕂 🕕 📗	LL	<u> </u>			•				e sure to wire both pins 1 and 2 (+V1). e sure to wire both pins 3 and 4 (COM1).
									1 2	
Disconnection/Short-circuit detection	Not supported.					Protecti	ve funct	ion		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	Run refreshing		
	TS indicator, output indicator	Internal I/O common	PNP	
	OD6256-5	Rated voltage	24 VDC	
	■TS ■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7	Operating load voltage range	20.4 to 28.8 VDC	
Indicators	■8 ■9 ■10 ■11 ■12 ■13 ■14 ■15 ■16 ■17 ■18 ■19 ■20 ■21 ■22 ■23	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit	
	■24 ■25 ■26 ■27 ■28 ■29 ■30 ■31	Maximum inrush current	4.0 A/point, 10 ms max.	
		Leakage current	0.1 mA max.	
		Residual voltage	1.5 V max.	
		ON/OFF response time	0.5 ms max./1.0 ms max.	
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation	
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	Connected to a CPU Unit 1.30 W max. Connected to a Communications Coupler Unit 1.00 W max.	Current consumption from I/O power supply	80 mA max.	
Weight	95 g max.			
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply -	Short-circuit protection protection protection protection	COM0 (+V) COM0 (+V) OUT0 to OUT15 OV0 COM1 (+V) COM1 (+V) OUT16 to OUT31 OV1 OV1 I/O power supply + I/O power supply - I/O power supply - I/O power supply -	
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in upright in Connected to a Communications Coupler Unit Restrictions: No restrictions			



● Transistor Output Units (Fujitsu Connector, 30 mm Width) NX-OD6121-6

Unit name	Transistor Output Unit	Model	NX-OD6121-6	
Number of points	32 points	External connection terminals	Fujitsu connector (40 terminals)	
I/O refreshing method	Switching Synchronous I/O refreshing and Free-F	Run refreshing		
	TS indicator, output indicator	Internal I/O common	NPN	
	OD6121-6	Rated voltage	12 to 24 VDC	
	■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	
	= 16 = 17 = 18 = 13 = 20 = 21 = 22 = 23 = 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 Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.	
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	Connected to a CPU Unit 1.10 W max. Connected to a Communications Coupler Unit 0.80 W max.	Current consumption from I/O power supply	50 mA max.	
Weight	90 g max.			
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply -	internal circuits	+V0 +V0 +V0 +V0 OUT0 to OUT15 COM0 COM0 +V1 +V1 OUT16 to OUT31 COM1 COM1 I/O power supply + I/O power supply - I/O power su	
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in upright Connected to a Communications Coupler Unit Restrictions: No restrictions			
Terminal connection diagram	12 to 24 VDC Signal name name			
Disconnection/	. , ,	B 1 1 1 1 1		
Short-circuit detection	Not supported.	Protective function	Not supported.	
	•		+	

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

Unit name	Relay Output Units	Model	NX-OC2633	
Number of points	2 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)	
I/O refreshing method	Free-Run refreshing			
	TS indicator, output indicator	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: $20~M\Omega$ min. (500 VDC) Between the external terminals and internal circuits: $20~M\Omega$ min. (500 VDC) Between the internal circuit and GR terminal: $20~M\Omega$ min. (100 VDC) Between the external terminals and GR terminal: $20~M\Omega$ min. (500 VDC)	Dielectric strength	Between A1/B1 terminals and A3/B3 terminals: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and GR terminal: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and GR terminal: 510 VAC for 1 min at a leakage current of 5 mA max.	
Vibration resistance	Conforms to IEC60068-2-6. 5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s² 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 1.20 W max. Connected to a Communications Coupler Unit 0.80 W max.	I/O current consumption	No consumption	
Weight	65 g max.			
Circuit layout	Interna	I power pply	0 to 1 Terminal block C0 to C1 I/O power supply + I/O power supply - I/O power supply -	
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in upright in Connected to a Communications Coupler Unit: Restrictions: No restrictions			
Terminal connection diagram	Relay Output Unit NX-OC2633 A1 Load 1 C1 NC NC NC NC NC NC A8 B8			
Disconnection/		I	1	

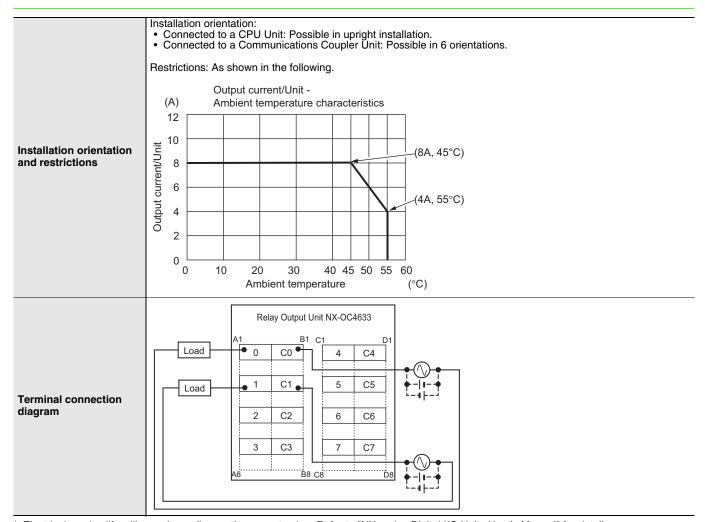
^{*} Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

● Relay Output Unit 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			
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	
Insulation resistance	Between A1/3, B1/3 terminals and A5/7, B5/7 terminals: $20~M\Omega$ min. (at $500~VDC$) Between the external terminals and functional ground terminal: $20~M\Omega$ min. (at $500~VDC$) Between the external terminals and internal circuits: $20~M\Omega$ min. (at $500~VDC$) Between the internal circuit and the functional ground terminal: $20~M\Omega$ min. (at $100~VDC$)	Dielectric strength	Between A1/3, B1/3 terminals and A5/7, B5/7 terminals: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and the functional ground terminal: 2300 VAC for 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	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	Connected to a CPU Unit 1.30 W max. Connected to a Communications Coupler Unit 0.95 W max.	Current consumption from I/O power supply	No consumption	
Weight	70 g max.			
Circuit layout			NO0 to NO1 C0 to C1 Terminal block I/O power supply + I/O power supply - I/O power supply - I/O power supply - I/O and NC1 are normal close contacts.	
Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit: Possible in up Connected to a Communications Couple Restrictions: No restrictions		iions.	
Terminal connection diagram	Relay Output Unit NX-OC2733 B1 Load NO0 NC0 C0 C0 NO1 NC1 C1 C1 A8 B8	P		
Disconnection/Short- circuit detection	Not supported.	Protective function	Not supported.	

● Relay Output Units (Screwless Clamping Terminal Block, 24 mm Width) NX-OC4633

Unit name	Relay Output Unit	Model	NX-OC4633	
Number of points	8 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals x 2)	
I/O refreshing method	Free-Run refreshing			
Indicators	TS indicator, output indicator OC4633 TS 0 II 2 II	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: $20~M\Omega$ min. (at $500~VDC$) Between the external terminals and the functional ground terminal: $20~M\Omega$ min. (at $500~VDC$) Between the external terminals and internal circuits: $20~M\Omega$ min. (at $500~VDC$) Between the internal circuit and the functional ground terminal: $20~M\Omega$ 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 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) NX bus connector I/O power supply +		O to 7 Terminal block C0 to C7 I/O power supply + I/O power supply - I/O power supply - I/O power supply -	



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

Version Information

Connecting with CPU Units

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

NX Unit		Corresponding versions *		
Model	Unit version	CPU Unit	Sysmac Studio	
NX-OD2154				
NX-OD2258				
NX-OD3121				
NX-OD3153				
NX-OD3256				
NX-OD3257				
NX-OD3268				
NX-OD4121				
NX-OD4256				
NX-OD5121				
NX-OD5121-1	Ver.1.0	Ver.1.13 or later	Ver.1.17 or higher	
NX-OD5121-5				
NX-OD5256				
NX-OD5256-1				
NX-OD5256-5				
NX-OD6121-5				
NX-OD6121-6				
NX-OD6256-5				
NX-OC2633				
NX-OC2733				
NX-OC4633				

^{*} 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.

Connecting with Coupler Units

NX Un	it		Co	rresponding version	ons *1	
			EtherCAT		EtherNet/IP	
Model	Unit version	Communications Coupler Unit	NJ/NX-series CPU Units or NY-series Industrial PCs	Sysmac Studio	Communications Coupler Unit	Sysmac Studio
NX-OD2154		Ver.1.1 or later	Ver.1.06 or later	Ver.1.07 or higher		
NX-OD2258		ver.i.i or later	*2	ver.1.07 or nigher		
NX-OD3121						
NX-OD3153				Ver.1.06 or higher		Ver.1.10 or higher
NX-OD3256				ver.1.00 or riigher		ver. i. io or riigher
NX-OD3257						
NX-OD3268				Ver.1.13 or higher		Ver.1.13 or higher
NX-OD4121						
NX-OD4256				Ver.1.06 or higher		Ver.1.10 or higher
NX-OD5121						
NX-OD5121-1	Ver.1.0			Ver.1.13 or higher		Ver.1.13 or higher
NX-OD5121-5		Ver.1.0 or later	Ver.1.05 or later	Ver.1.10 or higher	Ver.1.0 or later	Ver.1.10 or higher
NX-OD5256				Ver.1.06 or higher		ver. i. io or riigher
NX-OD5256-1				Ver.1.13 or higher		Ver.1.13 or higher
NX-OD5256-5				Ver.1.10 or higher		Ver.1.10 or higher
NX-OD6121-5				ver.1.10 or higher		ver. i. io or nigher
NX-OD6121-6				Ver.1.13 or higher		Ver.1.13 or higher
NX-OD6256-5				Ver.1.10 or higher		
NX-OC2633				Ver.1.06 or higher		Ver.1.10 or higher
NX-OC2733				Ver.1.08 or higher		
NX-OC4633				Ver.1.17 or higher		Ver.1.17 or higher

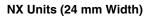
^{*1.} Some Units do not have all of the versions given in the above table. If a Unit does not have the specified version, support is provided by the oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

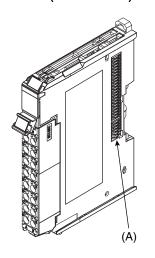
^{*2.} If you use a CPU Unit, the instructions for time stamp refreshing are supported by CPU Units with unit version 1.06 or later. If you do not use instructions for time stamp refreshing, you can use version 1.05. Refer to the instructions reference manual for the connected CPU Unit or Industrial PC for details on the instructions for time stamp refreshing.

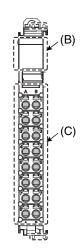
External Interface

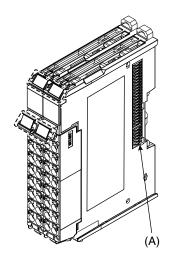
Screwless Clamping Terminal Block Type

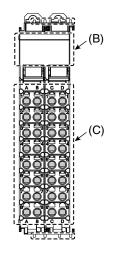
NX Units (12 mm Width)





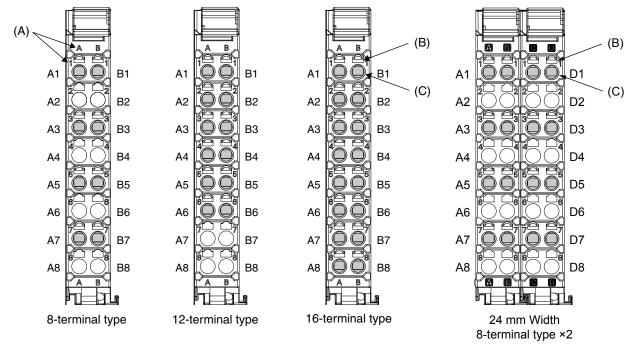






Symbol	Name	Function
(A)	NX bus connector	This connector is used to connect each Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Terminal block	The terminal block is used to connect external devices. The number of terminals depends on the type of Unit.

Terminal Blocks



Symbol	Name	Function
(A)	Terminal number indications	Terminal numbers for which A and B indicate the column, and 1 to 8 indicate the line are displayed. The terminal number is a combination of column and line, i.e. A1 to A8 and B1 to B8. The terminal number indications are the same regardless of the number of terminals on the terminal block.
(B)	Release holes	Insert a flat-blade screwdriver into these holes to connect and remove the wires.
(C)	Terminal holes	The wires are inserted into these holes.

Applicable Terminal Blocks for Each Unit Model

Unit model	Terminal Blocks					
Offit model	Model	No. of terminals	Ground terminal mark	Terminal current capacity		
NX-OD2	NX-TBA082	8	None	10 A		
NX-OD3□□□ (any model other than NX-OD3268)	NX-TBA122	12	None	10 A		
NX-OD3268 NX-OD4□□□	NX-TBA162	16	None	10 A		
NX-OD5□□□	NX-TBA162	16	None	10 A		
NX-OC2	NX-TBA082	8	None	10 A		
NX-OC4633	NX-TBA082	8	None	10 A		
IVA-OOTOOO	NX-TBB082	8	None	10 A		

Applicable Wires

Using Ferrules

If you use ferrules, attach the twisted wires to them.

Observe the application instructions for your ferrules for the wire stripping length when attaching ferrules.

Always use plated one-pin ferrules. Do not use unplated ferrules or two-pin ferrules.

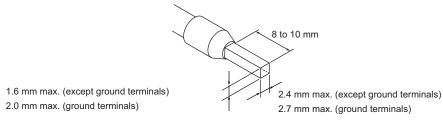
The applicable ferrules, wires, and crimping tool are given in the following table.

Terminal types	Manufacturer	Ferrule model number	Applicable wire (mm² (AWG))	Crimping tool
Terminals other than ground terminals	Phoenix Contact	AI0,34-8	0.34 (#22)	Phoenix Contact (The figure in parentheses is the applicable wire size.)
		AI0,5-8	0.5 (#20)	CRIMPFOX 6 (0.25 to 6 mm ² , AWG24 to 10)
		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)	
		Al1,5-10		
Ground terminals		Al2,5-10	2.0 *	
Terminals other	H	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)
terrilliais		H0.34/12	0.34 (#22)	
		H0.5/14	0.5 (#20)	
		H0.5/16		
		H0.75/14	0.75 (#18)	
		H0.75/16		
		H1.0/14	1.0 (#18)	
		H1.0/16		
		H1.5/14	1.5 (#16)	
		H1.5/16]	

^{*} 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



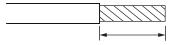
Using Twisted Wires/Solid Wires

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

Torn		Wire type			Wire size	Conductor length (stripping length)	
Terminals		Twisted wires		Solid wire			
Classification	Current capacity	Plated Unplated Plated Unplated					
All terminals except ground terminals	2 A max.	Possible	Possible	Possible	Possible		8 to 10 mm
	Greater than 2 A and 4 A or less		Not Possible	Possible *1	Not	0.08 to 1.5 mm ² AWG28 to 16	
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 \Box 1 Terminal Block, use twisted wires to connect the ground terminal. Do not use a solid wire.

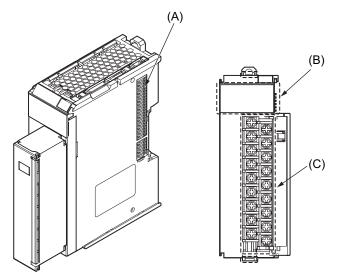


Conductor length (stripping length)

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

M3 Screw Terminal Block Type

NX Units (30 mm Width)

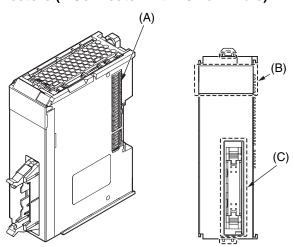


Letter	Name	Function		
(A) NX bus connector This connector is used to connect each Unit.		This connector is used to connect each Unit.		
(B) Indicators The indicators show the current operating status of the		The indicators show the current operating status of the Unit.		
(C) Screw terminals These screw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

Connector Types

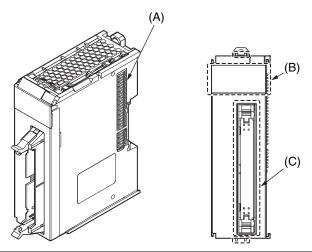
NX Units (30 mm Width)

• Units with MIL Connectors (1 Connector with 20 Terminals)



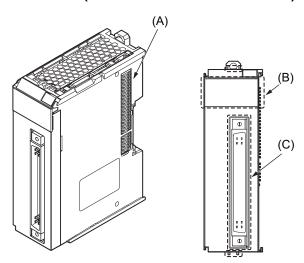
Letter	Name	Function		
(A)	NX bus connector	This connector is used to connect each Unit.		
(B)	Indicators	The indicators show the current operating status of the Unit.		
(C)	Connectors	The connectors are used to connect to external devices.		

• Units with MIL Connectors (1 Connector with 40 Terminals)



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

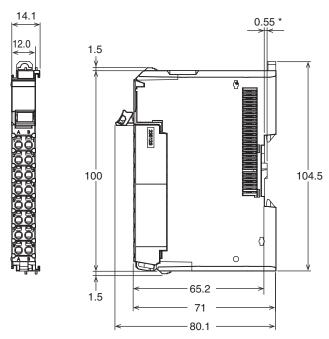
• Units with Fujitsu Connectors (1 Connector with 40 Terminals)



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

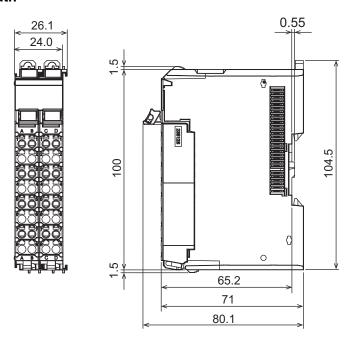
Dimensions (Unit/mm)

Screwless Clamping Terminal Block Type 12 mm Width

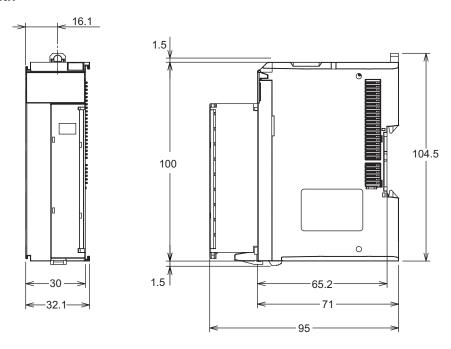


 $^{^{\}star}$ The dimension is 1.35 mm for Units with lot numbers through December 2014.

24 mm Width



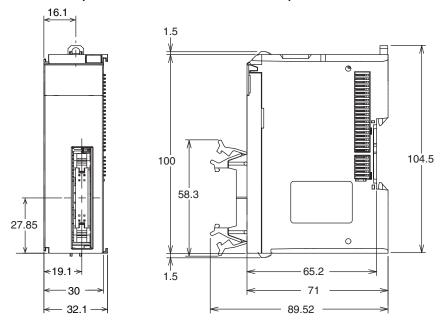
M3 Screw Terminal Block Type 30 mm Width



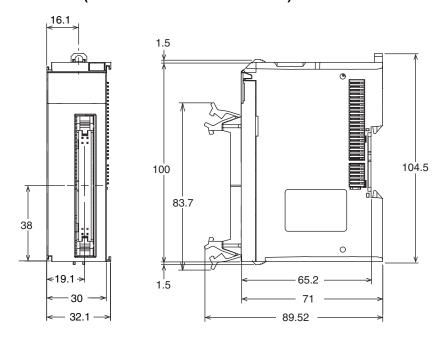
Connector Types

30 mm Width

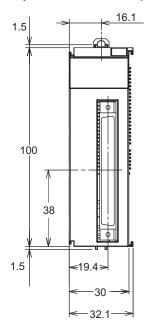
• Units with MIL Connectors (1 Connector with 20 Terminals)

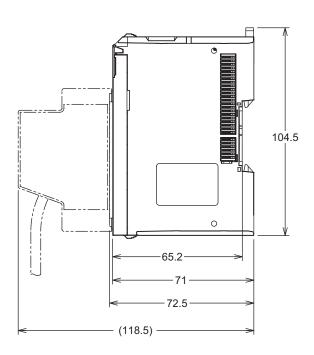


• Units with MIL Connectors (1 Connector with 40 terminals)



●Units with Fujitsu Connectors (1 Connector with 40 Terminals)





Related Manuals

Cat. No.	Model number	Manual name	Application	Description
W521	NX-IA O O O O O O O O O O O O O O O O O O O	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.

Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

- (a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.
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OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

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