# NX-series Digital Output Units NX-OD/OC

# 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

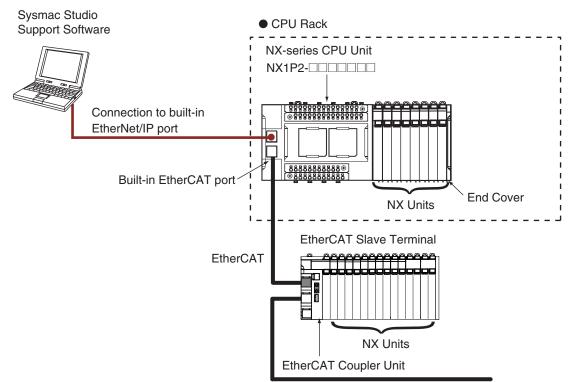
- High-speed I/O refreshing is possible by connecting with the NX-series EtherCAT Coupler.
- Output refreshing can be synchronized with the control cycle of the Controller. (Synchronous refreshing)
- ON/OFF response time of the high-speed model is 300 ns max, which enables high-speed, high-precision 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 highprecision output control independent of the control cycle of the Controller.
- Connection to the CJ-series is possible by connecting with the EtherNet/IP<sup>™</sup> Coupler.

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# **System Configuration**

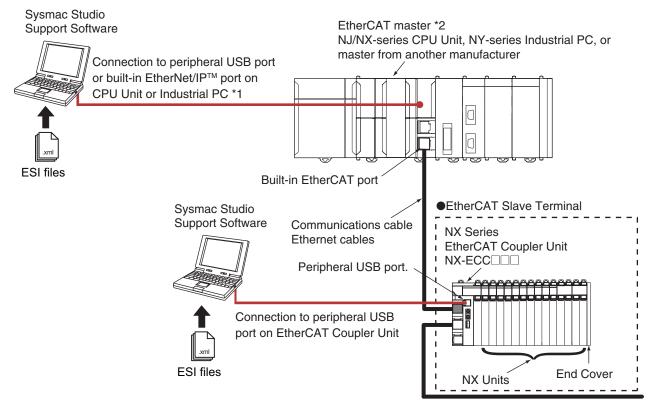
#### System Configuration in the Case of a CPU Unit

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
		0 nointe	NPN	0.5 A/point, 1 A/Unit	24 VDC	Output refreshing with specified time	300 ns max./	NX-OD2154	
		2 points	PNP		24 VDC	stamp only*	300 ns max.	NX-OD2258	
			NPN		12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD3121	UC1, N, L,
	Transistor Output Unit	utput	INPIN	0.5 A/point, 2 A/Unit	24 VDC	-	300 ns max./ 300 ns max.	NX-OD3153	CE, RCM, KC
NX-series			nts PNP				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		Switching Synchronous I/O refreshing and Free-Run refreshing	0.5 ms max./ 1.0 ms max.	NX-OD3268	UC1, CE, RCM, KC
		9 pointo	NPN		12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD4121	
		8 points	PNP	0.5 A/point,	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD4256	UC1, N, L, CE, RCM,
			NPN	4 A/Unit	12 to 24 VDC		0.1 ms max./ 0.8 ms max.	NX-OD5121	KC
		16 points	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			
Unit type Produc name		Number of points			Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
NX-series Digital Output Unit	Output Unit	16 points	NPN	0.5 A/point,	12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	0.1 ms max./ 0.8 ms max.	NX-OD5121-1	UC1, CE,
			PNP	5 A/Unit	24 VDC		0.5 ms max./ 1.0 ms max.	NX-OD5256-1	UC1, CE, RCM, KC

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

					Spec	ification			
Unit type	Product name	Number of points	Internal I/O common	Maximum value of load current	Rated voltage	I/O refreshing method	ON/OFF response time	Model	Standards
Transistor Output		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 V	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		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)

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)

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

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

		Specification							
Unit type Product name		Number Relay of points type		Maximum switching capacity	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				Standards
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block:	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)				
		Speci				
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards
	8		None		NX-TBA082	
Terminal Block	12	A/B		10 A	NX-TBA122	
	16				NX-TBA162	

#### Accessories

Not included.

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

#### **Connection Patterns for Connector-Terminal Block Conversion Units**

#### **Connections to Connector-Terminal Block Conversion Units**

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common terminal
				A	None	XW2Z-DDDX	XW2B-20G4	None
NX-OD5121-5	16 outputs	1 MIL connector	NPN	A	None	XW2Z-DDDX	XW2B-20G5	None
NX-0D5121-5	To outputs		INFIN	A	None	XW2Z-DDDX	XW2D-20G6	None
				A	None	XW2Z-DDDX	XW2R-J20G-T	None
				A	None	XW2Z-DDDX	XW2B-20G4	None
NX-OD5256-5	16 outputs	1 MIL	PNP	A	None	XW2Z-DDDX	XW2B-20G5	None
NX-UD5256-5	16 outputs	connector	PNP	A	None	XW2Z-DDDX	XW2D-20G6	None
				A	None	XW2Z-DDDX	XW2R-J20G-T	None
				A	None	XW2Z-DDDK	XW2B-40G4	None
				A	None	XW2Z-DDDK	XW2B-40G5	None
				A	None	XW2Z-🗆 🗆 K	XW2D-40G6	None
				A	None	XW2Z-🗆 🗆 K	XW2R-J40G-T	None
	00	1 MIL	NIDNI	В	2	XW2Z-	XW2B-20G4 (2 Units)	None
NX-OD6121-5	32 outputs	connector	NPN	В	2	XW2Z-DDDN	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-DDDN	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-DDDN	XW2R-J20G-T (2 Units)	None
				А	None	XW2Z-🗆 🗆 🛛 🛛 🛛 🛛 🗠	XW2B-40G4	None
				A	None	XW2Z-	XW2B-40G5	None
				Α	None	XW2Z-🗆 🗆 🛛 🛛 🛛 🗠	XW2D-40G6	None
				Α	None	XW2Z-🗆 🗆 🛛 🛛 🛛 🗠	XW2R-J40G-T	None
				A	None	XW2Z-	XW2D-40C6	None
NX-OD6121-6	32 outputs	1 Fujitsu	NPN	В	2	XW2Z-DDDL	XW2B-20G4 (2 Units)	None
		connector		В	2	XW2Z-DDDL	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-DDDL	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-DDL	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-DDDL	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-DDDL	XW2R-J20G-T (2 Units)	None
				А	None	XW2Z-🗆 🗆 K	XW2B-40G4	None
				Α	None	XW2Z-DDDK	XW2B-40G5	None
				Α	None	XW2Z-🗆 🗆 K	XW2D-40G6	None
				Α	None	XW2Z-🗆 🗆 K	XW2R-J40G-T	None
N/ 000050 -		1 MIL	DND	В	2	XW2Z-	XW2B-20G4 (2 Units)	None
NX-OD6256-5	32 outputs	connector	PNP	В	2	XW2Z-DDDN	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-DDDN	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-DDDN	XW2D-20G6 (2 Units)	None
				В	2	XW2Z-	XW2F-20G7-OUT16 (2 Units)	Yes
				В	2	XW2Z-DDDN	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	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)	
environment	Overvoltage category	Category II: Conforms to JIS B3502 and IEC 61131-2.	
	EMC immunity level	Zone B	
	Vibration resistance *1	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5-mm amplitude, 8.4 to 150 Hz, acceleration of 9.8 m/s <sup>2</sup> , 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 <sup>2</sup> , 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, 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 Output Unit Specifications**

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

Unit name	Transistor Output Unit	Model	NX-OD2154		
		External connection	Screwless clamping terminal block		
Number of points	2 points	terminals	(8 terminals)		
I/O refreshing method	Output refreshing with specified time stamp				
	TS indicator, output indicator	Internal I/O common	NPN		
	OD2154	Rated voltage	24 VDC		
	■TS	Operating load voltage range	15 to 28.8 VDC		
Indicators	■0 ■1	Maximum value of load	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 $\Omega$ 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.		
	Connected to a CPU Unit				
NX Unit power consumption	<ul> <li>0.85 W max.</li> <li>Connected to a Communications Coupler Unit</li> <li>0.45 W max.</li> </ul>	I/O current consumption	30 mA max.		
Weight	70 g max.				
Circuit layout	NX bus connector (left) //O power supply +	ush-pull output circuit.	OUT0 to OUT1 OUT0 to OUT1 IOG0 to 1 I/O power supply + I/O power supply - NX bus connector (right)		
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up     Connected to a Communications Couple     Restrictions: No restrictions		ons.		
Terminal connection diagram	Power Supply Unit	ransistor Output Unit NX-OD2154 DUT0 0UT1 10V 10V 10C NC NC B8	rpe Three-wire type		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.		

Unit name	Transistor Output Unit	Model	NX-OD2258
	•	External connection	Screwless clamping terminal block
Number of points	2 points	terminals	(8 terminals)
I/O refreshing method	Output refreshing with specified time stamp TS indicator, output indicator	Internal I/O common	PNP
		Rated voltage	24 VDC
	OD2258 ■TS	Operating load voltage	
	■0 ■1	range	15 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max. 300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	ON/OFF response time Isolation method	Digital isolator isolation
	$20 M\Omega$ 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	<ul> <li>Connected to a CPU Unit 0.85 W max.</li> <li>Connected to a Communications Coupler Unit 0.50 W max.</li> </ul>	I/O current consumption	40 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) [I/O power supply + (left) [I/O power supply – This unit uses a p	push-pull output circuit.	IOV0 to 1 OUT0 to OUT1 IOG0 to 1 I/O power supply + I/O power supply – NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up     Connected to a Communications Couple     Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 OV IOV OV IOV 24 VDC	Tansistor Output Unit NX-OD2258 DUT0_0UT1_ IOV 0 IOV IOG IOG NC_NC_NC_ B8	ype Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3121
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
O refreshing method	Selectable Synchronous I/O refreshing or F	Free-Run refreshing	
	TS indicator, output indicator	Internal I/O common	NPN
	OD3121	Rated voltage	12 to 24 VDC
	■TS ₩0 #1 ₩2 #3	Operating load voltage range	10.2 to 28.8 VDC
Indicators		Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
nsulation resistance	20 M $\Omega$ 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	<ul> <li>Connected to a CPU Unit 0.90 W max.</li> <li>Connected to a Communications Coupler Unit 0.55 W max.</li> </ul>	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 - I/O power supply -		IOV0 to 3 OUT0 to OUT3 Terminal block IOG0 to 3 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up     Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 orientat	ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 ●IOV IOV IOV IOV 12 to 24 VDC IOV IOV	ansistor Output Unit NX-OD3121 IOUT0 OUT1 IOV0 IOV1 IOG0 IOG1 IOV2 IOV3 IOV2 IOV3 IOQ2 IOG3 B8	Pe Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD3153
Number of points	4 points	External connection	Screwless clamping terminal block (12
I/O refreshing method	Selectable Synchronous I/O refreshing or F	terminals	terminals)
o renearing method	TS indicator, output indicator	Internal I/O common	NPN
	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.
		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 $\Omega$ 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.
	Connected to a CPU Unit		
NX Unit power consumption	<ul> <li>0.90 W max.</li> <li>Connected to a Communications Coupler Unit</li> <li>0.50 W max.</li> </ul>	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) // O power supply + // // D power supply - // This unit uses a pust	n-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	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 OV IOV 24 VDC A8 B8 A8	Iransistor Output Unit NX-OD3153         B1           OUT0         OUT1●           IOV0         IOV1●           IOQ0         IOQ1●           IOQ0         IOQ1●           IOQ2         IOV3●           IOQ2         IOG3●           IOQ2         IOG3●	Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD3256
		External connection	Screwless clamping terminal block (12
Number of points	4 points	terminals	terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	-	PNP
	TS indicator, output indicator <b>OD3256</b>	Internal I/O common Rated voltage	24 VDC
		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
nsulation resistance	20 M $\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.5 A/terminal max., IOG: 0.5 A/terminal max.
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 0.90 W max.</li> <li>Connected to a Communications Coupler Unit 0.55 W max.</li> </ul>	I/O current consumption	20 mA max.
Weight	70 g max.		•
Circuit layout	NX bus connector (left) I/O power supply +		IOV0 to 3 Terminal block OUT0 to OUT3 IOG0 to 3 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	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 00V 10V 00G 10G 24 VDC 10V 10V 10V 10V	Ansistor Output Unit NX-OD3256 B1 Two-wire type OUT0 OUT1 OUT1 OUT1 OG0 IOG1 OUT2 OUT3 OV2 IOV3 OV2 IOV3 OG2 IOG3 B8	P Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Unit name	Transistor Output Unit	Model	NX-OD3257
Number of points	4 points	External connection	Screwless clamping terminal block (12
I/O refreshing method	Selectable Synchronous I/O refreshing or F	terminals	terminals)
	TS indicator, output indicator	Internal I/O common	PNP
OD3257		Rated voltage	24 VDC
	■TS	Operating load voltage	15 to 28.8 VDC
	■0 ■1 ■2 ■3	range	15 10 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 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
	$20 \text{ M}\Omega$ 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	Supply from the NX bus	Current capacity of I/O	IOV: 0.5 A/terminal max.,
method	Connected to a CPU Unit	power supply terminal	IOG: 0.5 A/terminal max.
NX Unit power consumption	<ul> <li>Connected to a Communications Coupler Unit 0.50 W max.</li> </ul>	I/O current consumption	40 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply +	Pulloutput circuit.	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: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit	ransistor Output NX-OD3257 B1 Two-wire tyl OUT0 IOV0 IOV1 IOG0 IOG1 OUT2 OUT3 IOV2 IOV3 IOG2 IOG3 B8	De Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

Init name	Transistor Output Unit	Model	NX-OD3268	
lumber of points	4 points	External connection terminals	Screwless clamping terminal block (16 terminals)	
O refreshing method	Switching Synchronous I/O refreshing and	Free-Run refreshing		
	TS indicator, output indicator	Internal I/O common	PNP	
	000000	Rated voltage	24 VDC	
	OD3268 =TS =0 =1	Operating load voltage range	15 to 28.8 VDC	
ndicators	■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	
nsulation 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	
O power supply nethod	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.	
IX Unit power onsumption	<ul> <li>Connected to a CPU Unit 0.85 W max.</li> <li>Connected to a Communications Coupler Unit 0.50 W max.</li> </ul>	Current consumption from I/O power supply	20 mA max.	
Veight	70 g max.			
Sircuit layout	NX bus connector (left)	Short-circuit protection	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 - NX bus connector (right)	
nstallation orientation nd 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			
erminal connection liagram	OUT0 OUT1 • IOV0 IOV1	vire type		
	DC			

Unit name	Transistor Output Unit	Model	NX-OD4121
		External connection	Screwless clamping terminal block (16
Number of points	8 points	terminals	terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	-	NPN
	TS indicator, output indicator <b>0D4121</b>	Internal I/O common	12 to 24 VDC
		Rated voltage Operating load voltage	12 10 24 VDC
	■0 ■1 ■2 ■3 □ 1 = <sup>1</sup>	range	10.2 to 28.8 VDC
Indicators	■4 ■5 ■6 ■7	Maximum value of load current	0.5 A/point, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 M $\Omega$ 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.
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 0.90 W max.</li> <li>Connected to a Communications Coupler Unit 0.55 W max.</li> </ul>	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply -		IOV0 to 7 OUT0 to OUT7 I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up     Connected to a Communications Couple     Restrictions: No restrictions		ions.
Terminal connection diagram	Power Supply Unit A1 B1 A1 0 0V 10V 100 12 to 24 VDC 10 100 10 1	G         IOG           OUT4         IO           OUT6         OUT4	•
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD4256
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or F	-	
	TS indicator, output indicator	Internal I/O common	PNP
	<b>OD4256</b>	Rated voltage	24 VDC
	■0 ■1 ■2 ■3	Operating load voltage 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 $\Omega$ 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	IOG: 0.5 A/terminal max.
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 1.00 W max.</li> <li>Connected to a Communications Coupler Unit 0.65 W max.</li> </ul>	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 –		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: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Additional I/O Power Supply Unit A B1 A1 B1 A1 I/O Power 3 Connection A1 I/O Power 3 Connection A1 I/O Power 3 Connection A1 I/O Power 3 Connection A1 I/O Power 3 Connection I/O Power 3 I/O Power 3 I/		Three-wire type
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

	Transistar Outsut Unit	Model	NX-OD5121
	Transistor Output Unit	External connection	Screwless clamping terminal block (16
Number of points	16 points	terminals	terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F	-	
	TS indicator, output indicator	Internal I/O common	NPN
	OD5121 ■TS	Rated voltage	12 to 24 VDC
	<b>E</b> O <b>E</b> 1 <b>E</b> 2 <b>E</b> 3 <b>E</b> 4 <b>E</b> 5 <b>E</b> 6 <b>E</b> 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, 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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit 1.00 W max.</li> <li>Connected to a Communications Coupler Unit 0.65 W max.</li> </ul>	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	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	12 to 24 VDC 10 0 100 100 100	n Ünit Connection Ünit B1A1 B1 A1 IOV IOG IOG IOV IOG IOG	ransistor Output Unit NX-OD5121     B1     Two-wire type       OUT0     OUT1     DUT2     OUT3       OUT4     OUT5     OUT6     OUT7       OUT6     OUT7     Three-wire type       OUT10     OUT11       OUT2     OUT3
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Unit name	Transistor Output Unit	Model	NX-OD5256
Number of points	· · · · · ·	External connection	Screwless clamping terminal block (16
•	16 points	terminals	terminals)
/O refreshing method	Selectable Synchronous I/O refreshing or F TS indicator, output indicator	Internal I/O common	PNP
	OD5256	Rated voltage	24 VDC
	∎TS	Operating load voltage	
	■0 ■1 ■2 ■3 ■4 ■5 ■6 ■7	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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit 1.10 W max.</li> <li>Connected to a Communications Coupler Unit</li> </ul>	I/O current consumption	40 mA max.
	0.70 W max.		
Weight	70 g max.		
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply –		OUT0 to OUT15 Terminal block
Installation orientation and restrictions	Connected to a CPU Unit: Possible in up     Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram		Connection Unit         NX-O           IOG         IOG         OUT0           IOG         IOG         OUT2           IOG         IOG         OUT4           IOG         IOG         OUT6           IOG         IOG         OUT6           IOG         IOG         OUT6           IOG         IOG         OUT6           IOG         IOG         OUT8           IOG         IOG         OUT10           IOG         IOG         OUT12	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

NX-OD5121-1 Unit name	Transistor Output Unit	Model	NX-OD5121-1
		External connection	
Number of points	16 points	terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and		
	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 $\Omega$ 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 0.90 W max.</li> <li>Connected to a Communications Coupler Unit 0.60 W max.</li> </ul>	Current consumption from I/O power supply	30 mA max.
Weight	125 g max.		
Circuit layout	NX bus connector (left)		COM VOUT0 to OUT15 VO power Supply + VO power Supply - VO power Supply - VO power Supply -
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	Terminal Signal name A B Signal name U OUTO A0 B0 OUT1 L OUT2 A1 B1 OUT3 L OUT4 A2 B2 OUT5 L OUT6 A3 B3 OUT7 L OUT10 A5 B5 OUT11 L OUT12 A6 B6 OUT13 L COM A8 B8 +V 12 to 24 VDC		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

#### NX-OD5256-1

NX-OD5256-1		<b></b>	
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		1
	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 $\Omega$ 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
	Connected to a CPU Unit     Operation of the second s	Current consumption	
NX Unit power	<ul><li>0.95 W max.</li><li>Connected to a Communications</li></ul>	Current consumption from	30 mA max.
consumption	Coupler Unit	I/O power supply	
	0.65 W max.		
Weight	125 g max.		
Circuit layout	NX bus connector (left)		COM (+V) OUT0 to OUT15 OV I/O power supply + I/O power supply - NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram	Terminal           Signal name         A         B         Signal name           OUT0         A0         B0         OUT1           L         OUT2         A1         B1         OUT3           L         OUT4         A2         B2         OUT5         L           L         OUT6         A3         B3         OUT7         L           L         OUT10         A5         B5         OUT11         L           L         OUT12         A6         B6         OUT13         L           L         OUT14         A7         B7         OUT15         L           OV         A8         B8         COM (+V)         24 VDC		
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

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

Unit name	Transistor Output Unit	Model	NX-OD5121-5
Number of points	16 points	External connection terminals	MIL connector (20 terminals)
/O refreshing method	Switching Synchronous I/O refreshing and Free-F		
, e . e . e . e	TS indicator, output indicator	Internal I/O common	NPN
	OD5121-5	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		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	30 (W) x 100 (H) x 71 (D)	ON/OFF response time Isolation method	0.1 ms max./0.8 ms max. Photocoupler isolation
	20 MΩ min. between isolated circuits		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 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.	I	
	NX bus connector (left) I/O power supply +		Connector OM OM D power supply + D power supply - Connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright • Connected to a Communications Coupler Unit Restrictions: No restrictions	installation. t: Possible in 6 orientations.	
Terminal connection diagram	12 to 24 VDC         name         pin         r           +V         1         2         +V           COM         3         4         COI           L         OUT15         5         6         OUI           L         OUT14         7         8         OUI           L         OUT12         11         12         OUI           L         OUT12         11         12         OUI           L         OUT11         13         14         OUI           L         OUT10         15         16         OUI           L         OUT09         17         18         OUI           L         OUT08         19         20         OUI	T07 L T06 L T05 L T04 L T03 L T02 L	
Disconnection/Short-circuit	Be sure to wire both pins 1 and 2 (+V).  Not supported.	Protective function	Not supported.

#### NX-OD5256-5

Unit name	Transistor Output Unit			Model		NX-OD5256-5	
Number of points	16 points			Externa termina	I connection	MIL connector (20 terminals)	
I/O refreshing method	Switching Synchronous I/O ref	Switching Synchronous I/O refreshing and Free-Run refreshing					
	TS indicator, output indicator			Interna	I/O common	PNP	
	OD5256-5			Rated v	oltage	24 VDC	
		∎TS ∎6 ∎7		Operati range	ng load voltage	20.4 to 28.8 VDC	
Indicators				Maximu	Im value of load	0.5 A/point, 2 A/Unit	
				Maxim	ım inrush currei	At 4.0 A/point, 10 ms max.	
				Leakag	e current	0.1 mA max.	
				Residu	al voltage	1.5 V max.	
				ON/OF	response time	0.5 ms max./1.0 ms max.	
Dimensions	30 (W) x 100 (H) x 71 (D)			Isolatio	n method	Photocoupler isolation	
Insulation resistance	20 M $\Omega$ min. between isolated ov VDC)	circuits	(at 100	Dielect	ric strength	510 VAC between isolated circuits for 1 minute a a leakage current of 5 mA max.	
I/O power supply method	Supplied from external source.				capacity of I/O supply terminal	Without I/O power supply terminals	
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 1.00 W max.</li> <li>Connected to a Communica 0.70 W max.</li> </ul>	oupler		consumption free supply	40 mA max.		
Weight	85 g max.						
Circuit layout	NX bus connector (left) [/O power supply - [left]] //O power supply - [left					OUT0 to OUT15	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: I • Connected to a Communica Restrictions: No restrictions	Possible ations C	e in upri Coupler	ight installatic Unit: Possible	n. e in 6 orientations	S.	
	Signal	Conn	ector	Signal	7		
	24 VDC name	pi		name			
	COM (+V)	1	2	COM (+V)			
	OV	3	4	0V		•	
	OUT15	5	6	OUT07			
<b>T</b>	OUT14	7	8	OUT06			
Terminal connection diagram	OUT13	9	10	OUT05			
	OUT12	11	12	OUT04			
	OUT11	13	14	OUT03			
	OUT10	15	16	OUT02		I	
		17	18	OUT01		I	
	OUT08	19	20	ОUТ00		Ť	
	Be sure to wire both pins 1 and 2 (     Be sure to wire both pins 3 and 4 (	COM (+'		J		-	
Disconnection/Short-circuit	Not supported.	. ,		Protect		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 TS TS TS TS TS TS TS TS	Operating load voltage range	10.2 to 28.8 VDC
Indicators	<b>8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23</b>	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
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 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 COM0 COM0 +V1 +V1 +V1 +V1 OUT16 to OUT31	Connector
	NX bus connector (left) I/O power supply -	I/O power s	connector
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.	

	12 to Signal	Connector pin	Signal name	
	24 VDC +V1	. 1 2	+V1	
	COM1	3 4	COM1	
	OUT31	56	OUT23	
		7 8	OUT22	
	L OUT29	9 10	OUT21	
	OUT28	11 12	OUT20	
	OUT27	. 13 14	OUT19	
	OUT26	15 16	OUT18	
Terminal connection	OUT25	17 18	OUT17	
diagram	OUT24	. 19 20	OUT16	
	+V0	21 22	+V0	
	COM0	23 24	COM0	
	OUT15	. 25 26 .	OUT07	
	U 0UT14	. 27 28 .	OUT06	
	OUT13	. 29 30 .	OUT05	
	OUT12	. 31 32 .	OUT04	
	OUT11	. 33 34 .	OUT03	
	OUT10	. 35 36 .	OUT02	
	12 to OUT09	. 37 38 .	OUT01	• Be sure to wire both pins 21 and 22 (+V0).
		. 39 40		Be sure to wire both pins 23 and 24 (COM0).
	│ <b>∲╶</b> ╏┤╴ <b>∳</b> ──└└└└┘			<ul> <li>Be sure to wire both pins 1 and 2 (+V1).</li> <li>Be sure to wire both pins 3 and 4 (COM1).</li> </ul>
			]	
Disconnection/Short-circuit detection	Not supported.		Protective function	Not supported.

#### NX-OD6256-5

Unit name	Transistor Output Unit	Model	NX-OD6256-5	
Number of points	32 points	External connection terminals	MIL connector (40 terminals)	
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	<b>8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23</b>	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 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute a a leakage current of 5 mA max.	
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 I/O power supply + O		COM0 (+V) COM0 (+V) COM0 (+V) COM1 (	
Installation orientation and	connector (left) I/O power supply –		onnector	
restrictions	Connected to a CPU Unit: Possible in upright     Connected to a Communications Coupler Unit Restrictions: No restrictions	Possible in 6 orientations.		

	Signal name	Conne pin			
	COM1 (+V)	1	2 COM1 (+		
	0V1	3	4 0V1	•/ • • • 24 VD	
	OUT31	5	6 OUT23		
		7	8 OUT22		
		9	10 OUT21		
		11	12 OUT20		
		13	14 OUT19		
		15	16 OUT18		
Terminal connection	OUT25	17	18 OUT17		
diagram		19	20 OUT16		
C C	COM0 (+V)	21	22 COM0 (+	V) 24 VD	
	0V0	20	24 0V0	<b>_</b> _ _	
	U OUT15	- 20	26 OUT07		
		- 21	28 OUT06		
			30 OUT05		
		31	32 OUT04		
		33	34 OUT03		
			36 OUT02		
			38 OUT01		• Be sure to wire both pins 21 and 22 (COM0 (+V)).
		39	40 OUT00		• Be sure to wire both pins 1 and 2 (COM1 (+V)).
					<ul> <li>Be sure to wire both pins 23 and 24 (0V0).</li> <li>Be sure to wire both pins 3 and 4 (0V1).</li> </ul>
Disconnection/Short-circuit			1		
detection	Not supported.		1	Protective function	With load short-circuit protection.

# • 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	Fujitsu connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-R	terminals	
vo renesning method	TS indicator, output indicator	Internal I/O common	NPN
	000101	Rated voltage	12 to 24 VDC
	OD6121-6 TS TO =1 =2 =3 =4 =5 =6 =7	Operating load voltage range	10.2 to 28.8 VDC
Indicators	<b>8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23</b>	Maximum value of load current	0.5 A/point, 2 A/common, 4 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current Residual voltage	0.1 mA max. 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	<ul> <li>Connected to a CPU Unit 1.10 W max.</li> <li>Connected to a Communications Coupler Unit 0.80 W max.</li> </ul>	Current consumption from I/O power supply	50 mA max.
Weight	90 g max.		
Circuit layout			<pre>&gt;+V0 +V0 &gt;OUT0 to OUT15 </pre> COM0 Connector +V1 >+V1 OUT16 to OUT31  COM1 Connector  V1 V0 power Supply + V0 Supply + V0 Supply + V0 Supply - V0 S
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright i • Connected to a Communications Coupler Unit: Restrictions: No restrictions		-
Terminal connection diagram	12 to 24 VDC Name		
Disconnection/	• Be sure to wire both pins B10 and B20 (+V1).	Protective function	

# • 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/s <sup>2</sup> 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	Shock resistance	100 m/s <sup>2</sup> , 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	<ul> <li>Connected to a CPU Unit 1.20 W max.</li> <li>Connected to a Communications Coupler Unit 0.80 W max.</li> </ul>	I/O current consumption	No consumption			
Weight	65 g max.					
Circuit layout	NX bus connector (left) [/O power supply + I/O power supply - [/O power supply - [/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	Load Relay Output Unit NX-OC2633 B1 0 C 0 1 C1 0 NC NC NC NC A8 NC NC B8					
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.			

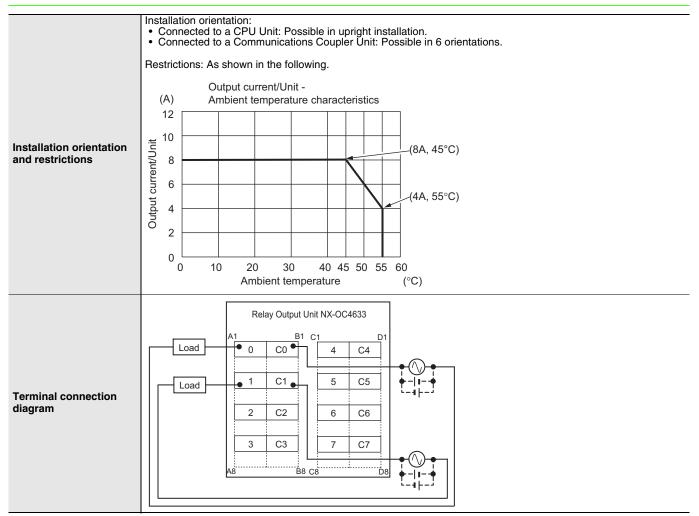
\* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

### 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 TS TS TS	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 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 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and the functional ground terminal: 510 VAC for min at a leakage current of 5 mA max.	
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	<ul> <li>Connected to a CPU Unit 1.30 W max.</li> <li>Connected to a Communications Coupler Unit 0.95 W max.</li> </ul>	Current consumption from I/O power supply	No consumption	
Weight	70 g max.		1	
Circuit layout			NO0 to NO1 C0 to C1 NC0 to NC1 Terminal block NC0 to NC1 V/O power supply + NC0 power supply + NC0 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		tions.	
Terminal connection diagram	Relay Output Unit NX-OC2733 B1           Load         •NO0         NC0 •           C0         C0         •           C0         C0         •           C0         C0         •           C1         C1         •           A8         B8         B8			
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 =1 =2 =3	Relay type Maximum switching capacity	N.O. contact           250 VAC/2 A ( $\cos\phi = 1$ ),           250 VAC/2 A ( $\cos\phi = 0.4$ ),           24 VDC/2 A,           8 A/Unit	
	■4 ■5 ■6 ■7	Minimum switching capacity	5 VDC, 1 mA	
Relay service life	Electrical: 100,000 operations* Mechanical: 20,000,000 operations	ON/OFF response time	15 ms max./15 ms max.	
Dimensions	24 (W) x 100 (H) x 71 (D)	Isolation method	Relay isolation	
Insulation resistance	Between output bits: 20 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 <sup>2</sup> 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	Shock resistance	100 m/s <sup>2</sup> , 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	<ul> <li>Connected to a CPU Unit 2.00 W max.</li> <li>Connected to a Communications Coupler Unit 1.65 W max.</li> </ul>	Current consumption from I/O power supply	No consumption	
Weight	140 g max.		1	
Circuit layout	NX bus connector (left) I/O power supply +		0 to 7 C0 to 7 C0 to C7 I/O power supply + I/O power supply - NX bus connector (right)	
	You cannot re	eplace the relay.		



\* 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 Un	it	Correspondi	ng 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	1		
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 U	Jnit	Corresponding versions *1					
			EtherCAT		EtherN	et/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			*2	ver. 1.07 of higher			
NX-OD3121							
NX-OD3153				Ver.1.06 or higher		Ver.1.10 or higher	
NX-OD3256				ver. 1.00 of higher		ver. 1. 10 of higher	
NX-OD3257							
NX-OD3268				Ver.1.13 or higher		Ver.1.13 or higher	
NX-OD4121							
NX-OD4256				Ver.1.06 or higher		Ver.1.10 or higher	
NX-OD5121							
NX-OD5121-1	Ver.1.0			Ver.1.13 or higher	-	Ver.1.13 or higher	
NX-OD5121-5		Ver.1.0 or later	Ver.1.05 or later	Ver.1.10 or higher	Ver.1.0 or later	Ver.1.10 or higher	
NX-OD5256				Ver.1.06 or higher		ver. 1. 10 of higher	
NX-OD5256-1				Ver.1.13 or higher		Ver.1.13 or higher	
NX-OD5256-5				Ver.1.10 or higher		Ver.1.10 or higher	
NX-OD6121-5				ver.1.10 of higher		ver. 1. 10 of higher	
NX-OD6121-6				Ver.1.13 or higher		Ver.1.13 or higher	
NX-OD6256-5				Ver.1.10 or higher			
NX-OC2633				Ver.1.06 or higher		Ver.1.10 or higher	
NX-OC2733				Ver.1.08 or higher			
NX-OC4633				Ver.1.17 or higher		Ver.1.17 or higher	

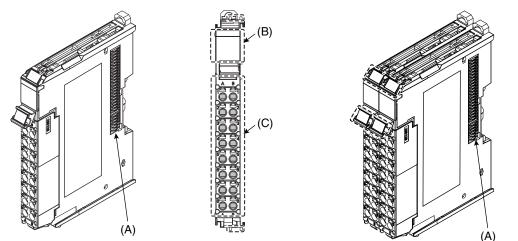
\*1. Some Units do not have all of the versions given in the above table. If a Unit does not have the specified version, support is provided by the oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

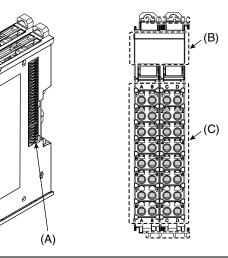
\*2. If you use a CPU Unit, the instructions for time stamp refreshing are supported by CPU Units with unit version 1.06 or later. If you do not use instructions for time stamp refreshing, you can use version 1.05. Refer to the instructions reference manual for the connected CPU Unit or Industrial PC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

### **External Interface**

#### Screwless Clamping Terminal Block Type

NX Units (12 mm Width)

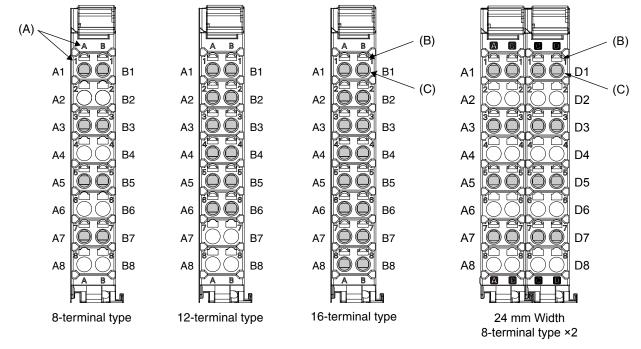




Symbol	Name	lame Function			
(A)	NX bus connector	This connector is used to connect each Unit.			
(B)	Indicators	The indicators show the current operating status of the Unit.			
(C)	Terminal block	The terminal block is used to connect external devices. The number of terminals depends on the type of Unit.			

NX Units (24 mm Width)

#### **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					
Unit model	Model	No. of terminals	Ground terminal mark	Terminal current capacity		
NX-OD2	NX-TBA082	8	None	10 A		
NX-OD3	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		
NX-004033	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.

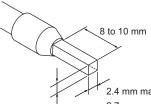
The applicable ferrules, wires, and crimping tool are given in the following table.

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

\* Some AWG 14 wires exceed 2.0 mm<sup>2</sup> 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.

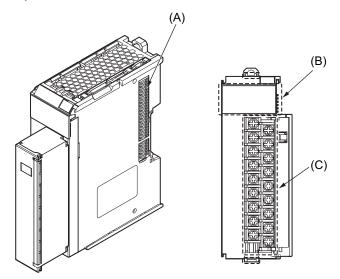
Torn		Wire type			Wire size	Conductor length (stripping length)	
Terminals		Twisted wires		Solid wire			
Classification Current capacity		Plated	Unplated	Plated	Unplated		(suppling longui)
All terminals except ground terminals	2 A max.	Possible	Possible	Possible	Possible	0.08 to 1.5 mm <sup>2</sup> AWG28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

\*1. Secure wires to the screwless clamping terminal block. Refer to the Securing Wires in the USER'S MANUAL for how to secure wires.
 \*2 With the NX-TB\_\_\_1 Terminal Block, use twisted wires to connect the ground terminal. Do not use a solid wire.

Conductor length (stripping length)

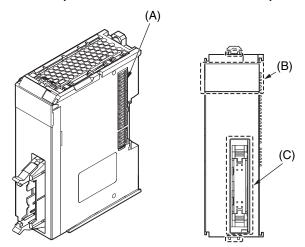
<Additional Information> If more than 2 A will flow on the wires, use plated wires or use ferrules.

#### M3 Screw Terminal Block Type NX Units (30 mm Width)



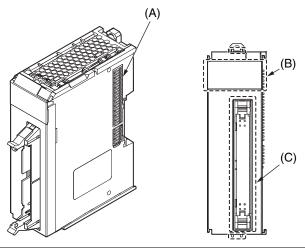
Letter	Name	Function		
(A)	NX bus connector	This connector is used to connect each Unit.		
(B)	Indicators	The indicators show the current operating status of the Unit.		
(C)	Screw terminals	These screw terminals are used to connect the wires.		

#### Connector Types NX Units (30 mm Width) • Units with MIL Connectors (1 Connector with 20 Terminals)



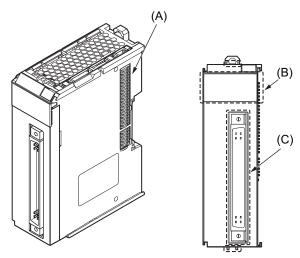
Letter	Name	Function
(A)	NX bus connector	This connector is used to connect each Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Connectors	The connectors are used to connect to external devices.

#### • 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)	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)

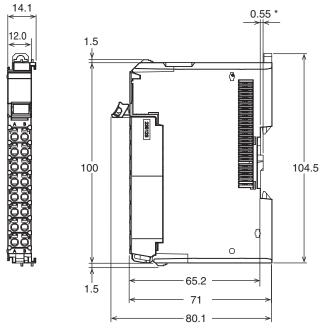


Letter	Name	Function		
(A)	NX bus connector	This connector is used to connect each Unit.		
(B)	Indicators	The indicators show the current operating status of the Unit.		
(C)	Connectors	The connectors are used to connect to external devices.		

#### (Unit/mm)

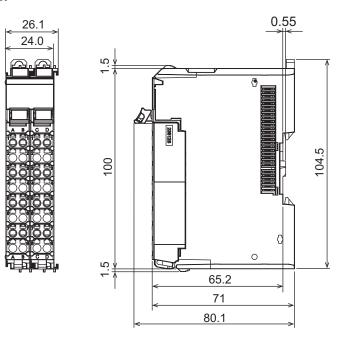
### Dimensions

# Screwless Clamping Terminal Block Type 12 mm Width

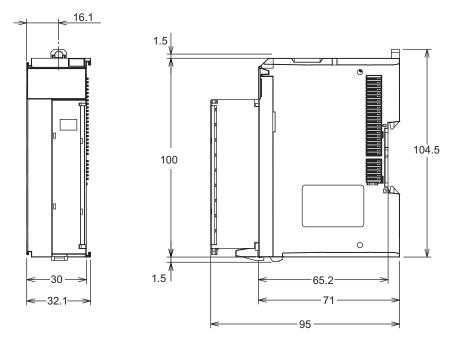


\* The dimension is 1.35 mm for Units with lot numbers through December 2014.

#### 24 mm Width



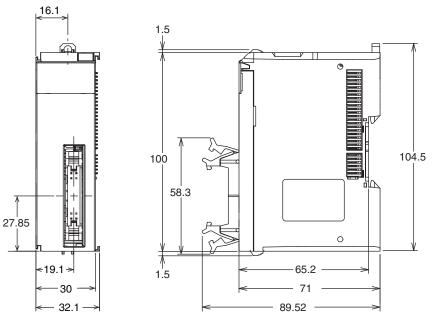
# M3 Screw Terminal Block Type 30 mm Width



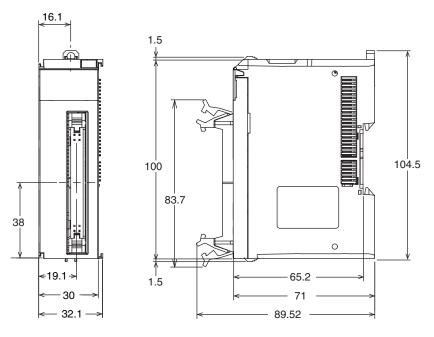
### **Connector Types**

30 mm Width

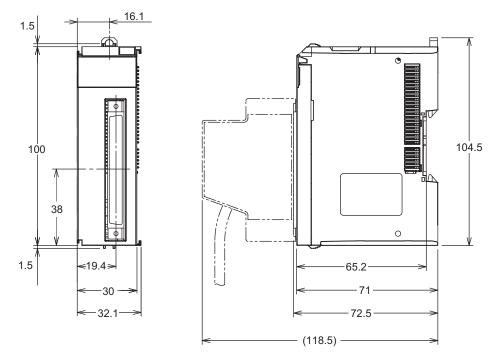
• Units with MIL Connectors (1 Connector with 20 Terminals)



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

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

#### Programmable Products.

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

#### Performance Data.

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

#### Change in Specifications.

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

Errors and Omissions. Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

2016.10

In the interest of product improvement, specifications are subject to change without notice.

**OMRON** Corporation Industrial Automation Company

# **Mouser Electronics**

Authorized Distributor

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