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

CSM_NX-ID_IA_OD_OC_MD_DS_E_8_1

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

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

Features

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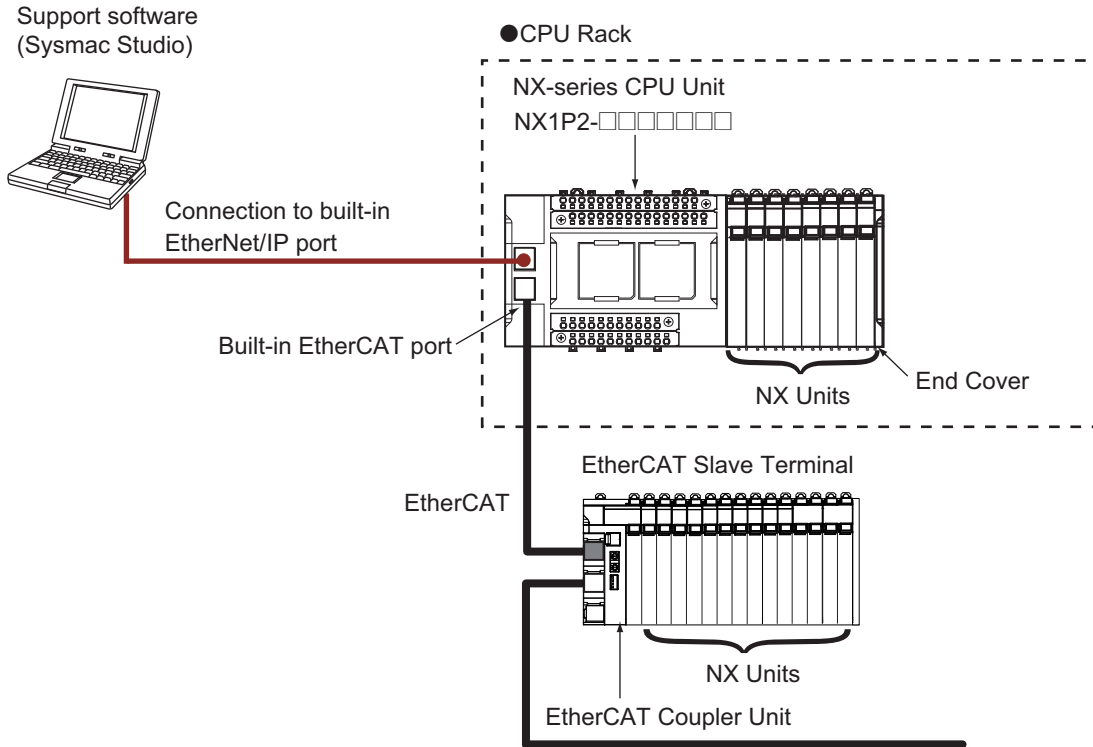- Connect to the CJ PLC using the EtherNet/IP™ bus coupler

NX-ID/IA/OD/OC/MD

System Configurations

Connected to a CPU Unit

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

Support software
(Sysmac Studio)

Connection to built-in
EtherNet/IP port

Built-in EtherCAT port

● CPU Rack

NX-series CPU Unit
NX1P2-□□□□□□□

NX Units
End Cover

EtherCAT Slave Terminal

EtherCAT

NX Units

EtherCAT Coupler Unit

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

Connected to an EtherCAT Coupler Unit

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

Support software
(Sysmac Studio)

Connection to peripheral USB port
or built-in EtherNet/IP™ port on
CPU Unit or Industrial PC *1

ESI files

EtherCAT master *2
NJ/NX-series CPU Unit, NY-series Industrial PC, or
master from another manufacturer

Built-in EtherCAT port

Support software
(Sysmac Studio)

Communications cable
Ethernet cables

Peripheral USB port.

Connection to peripheral USB
port on EtherCAT Coupler Unit

ESI files

● EtherCAT Slave Terminal

NX Series
EtherCAT Coupler Unit
NX-ECC20□

NX Units
End Cover

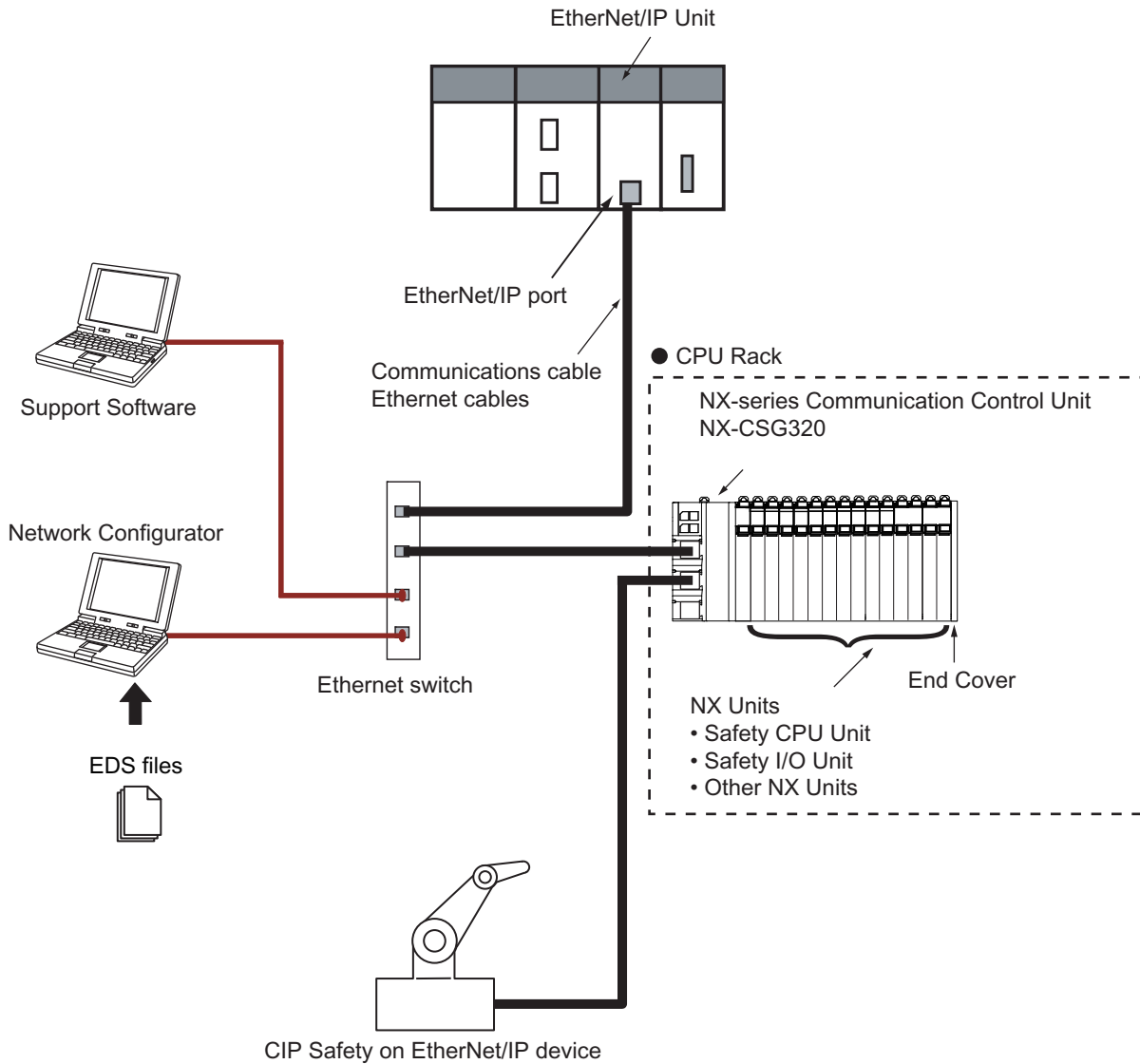*1. The connection method for the Sysmac Studio depends on the model of the CPU Unit or Industrial PC.
*2. An EtherCAT Slave Terminal cannot be connected to any of the OMRON CJ1W-NC□81/□82 Position Control Units even though they can operate as EtherCAT masters.

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

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## System Configuration in the Case of a Communication Control Unit

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

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

EtherNet/IP Unit

EtherNet/IP port

Communications cable
Ethernet cables

Support Software

Network Configurator

EDS files

Ethernet switch

● CPU Rack

NX-series Communication Control Unit
NX-CSG320

End Cover

NX Units
• Safety CPU Unit
• Safety I/O Unit
• Other NX Units

CIP Safety on EtherNet/IP device

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

NX-ID/IA/OD/OC/MD

Model Number Structure

NX-☐☐☐☐☐**-**☐
   (1) (2) (3) (4) (5)
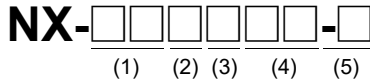
(1) Unit type

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

(2) Number of points

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

(3) I/O type

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

(5) External connection terminals

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

(4) Other specifications
Digital Input Units

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

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

Digital Output Units

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

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

Digital Mixed I/O Units

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

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Ordering Information

Applicable standards

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

Digital Input Units

Product Name	Specifications					Model
	Number of points	Internal I/O common	Rated input voltage	I/O refreshing method	ON/OFF response time	
DC Input Unit **(Screwless Clamping Terminal Block, 12 mm Width/24 mm Width)**	4 points	NPN	12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID3317
			24 VDC		100 ns max./100 ns max.	NX-ID3343
				Input refreshing with input changed time only *1		NX-ID3344
		PNP	12 to 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID3417
			24 VDC		100 ns max./100 ns max.	NX-ID3443
				Input refreshing with input changed time only *1		NX-ID3444
	8 points	NPN	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID4342
		PNP				NX-ID4442
	16 points	NPN				NX-ID5342
		PNP				NX-ID5442
	32 points	NPN				NX-ID6342 *NEW*
		PNP				NX-ID6442 *NEW*
DC Input Unit **(M3 Screw Terminal Block, 30 mm Width)**	16 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID5142-1
DC Input Unit **(MIL Connector, 30 mm Width)**	16 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID5142-5
	32 points					NX-ID6142-5
DC Input Unit **(Fujitsu/OTAX Connector, 30 mm Width)**	32 points	For both NPN/PNP	24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	20 µs max./400 µs max.	NX-ID6142-6
AC Input Unit **(Screwless Clamping Terminal Block, 12 mm Width)**	4 points		200 to 240 VAC, 50/60 Hz (170 to 264 VAC, ±3 Hz)	Free-Run refreshing	10 ms max./40 ms max.	NX-IA3117

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

NX-ID/IA/OD/OC/MD

Digital Output Units

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
Transistor Output Unit (Screwless Clamping Terminal Block, 12 mm Width/24 mm Width)	2 points	NPN	0.5 A/point, 1 A/Unit	24 VDC	Output refreshing with specified time stamp only *1	300 ns max./300 ns max.	NX-OD2154
		PNP					NX-OD2258
	4 points	NPN	0.5 A/point, 2 A/Unit	12 to 24 VDC	Switching Synchronous I/O refreshing and Free- Run refreshing	0.1 ms max./0.8 ms max.	NX-OD3121
				24 VDC		300 ns max./300 ns max.	NX-OD3153
						0.5 ms max./1.0 ms max.	NX-OD3256
		PNP				300 ns max./300 ns max.	NX-OD3257
			2 A/point, 8 A/Unit			0.5 ms max./1.0 ms max.	NX-OD3268
	8 points	NPN	0.5 A/point, 4 A/Unit	12 to 24 VDC		0.1 ms max./0.8 ms max.	NX-OD4121
		PNP		24 VDC		0.5 ms max./1.0 ms max.	NX-OD4256
	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
	32 points	NPN	0.5 A/point, 4 A/terminal block, 8 A/Unit	12 to 24 VDC		0.1 ms max./0.8 ms max.	NX-OD6121 *NEW*
		PNP		24 VDC		0.5 ms max./1.0 ms max.	NX-OD6256 *NEW*
Transistor Output Unit (M3 Screw Terminal Block, 30 mm Width)	16 points	NPN	0.5 A/point, 5 A/Unit	12 to 24 VDC	Switching Synchronous I/O refreshing and Free- Run refreshing	0.1 ms max./0.8 ms max.	NX-OD5121-1
		PNP		24 VDC		0.5 ms max./1.0 ms max.	NX-OD5256-1
Transistor Output Unit (MIL Connector, 30 mm Width)	16 points	NPN	0.5 A/point, 2 A/Unit	12 to 24 VDC	Switching Synchronous I/O refreshing and Free- Run refreshing	0.1 ms max./0.8 ms max.	NX-OD5121-5
		PNP		24 VDC		0.5 ms max./1.0 ms max.	NX-OD5256-5
	32 points	NPN	0.5 A/point, 2 A/common, 4 A/Unit	12 to 24 VDC		0.1 ms max./0.8 ms max.	NX-OD6121-5
		PNP		24 VDC		0.5 ms max./1.0 ms max.	NX-OD6256-5
Transistor Output Unit (Fujitsu/OTAX Connector, 30 mm Width)	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
Relay Output Unit (Screwless Clamping Terminal Block, 12 mm Width/24 mm Width)	2 points	Relay type: N.O.	250 VAC/2 A (cosφ=1), 250 VAC/2 A (cosφ=0.4), 24 VDC/2 A, 4 A/Unit		Free-Run refreshing	15 ms max./15 ms max.	NX-OC2633
		Relay type: N.O.+N.C.					NX-OC2733
	8 points	Relay type: N.O.	250 VAC/2 A (cosφ=1), 250 VAC/2 A (cosφ=0.4), 24 VDC/2 A, 8 A/Unit		Free-Run refreshing	15 ms max./15 ms max.	NX-OC4633

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

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Digital Mixed I/O Units

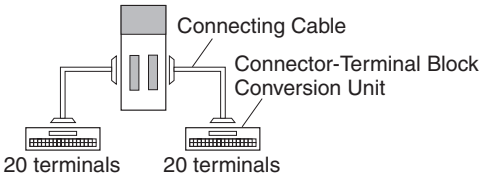| Product Name	Specifications					Model
	Number of points	Internal I/O common	Maximum value of load current	I/O refreshing method	ON/OFF response time	
DC Input/Transistor Output Unit (MIL Connector, 30 mm Width)	Outputs: 16 points Inputs: 16 points	Outputs: NPN Inputs: For both NPN/PNP	Outputs: 12 to 24 VDC Inputs: 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	Outputs: 0.1 ms max./ 0.8 ms max. Inputs: 20 μs max./ 400 μs max.	**NX-MD6121-5**
		Outputs: PNP Inputs: For both NPN/PNP	Outputs: 24 VDC Inputs: 24 VDC		Outputs: 0.5 ms max./ 1.0 ms max. Inputs: 20 μs max./ 400 μs max.	**NX-MD6256-5**
DC Input/Transistor Output Unit (Fujitsu/OTAX Connector, 30 mm Width)	Outputs: 16 points Inputs: 16 points	Outputs: NPN Inputs: For both NPN/PNP	Outputs: 12 to 24 VDC Inputs: 24 VDC	Switching Synchronous I/O refreshing and Free-Run refreshing	Outputs: 0.1 ms max./ 0.8 ms max. Inputs: 20 μs max./ 400 μs max.	**NX-MD6121-6**

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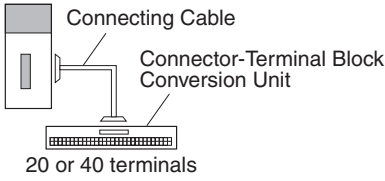
Product name	Specification	Model	Standards
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)	**NX-AUX02**	---

Product name	Specification				Model	Standards
	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity		
Terminal Block	8	A/B	None	10 A	**NX-TBA082**	---
	12				**NX-TBA122**	
	16				**NX-TBA162**	
	16	C/D			**NX-TBB162**	

Accessories

Not included.

NX-ID/IA/OD/OC/MD

Connection Patterns for Connector-Terminal Block Conversion Units

Pattern	Configuration	Number of connectors	Branching
A	Connecting Cable Connector-Terminal Block Conversion Unit 20 or 40 terminals	1	None
B	Connecting Cable Connector-Terminal Block Conversion Unit 20 terminals 20 terminals	2	None

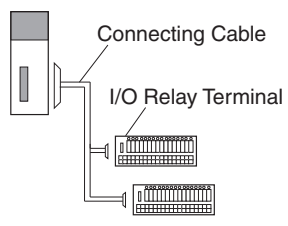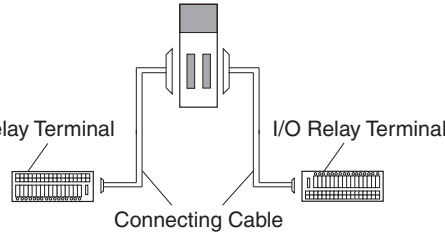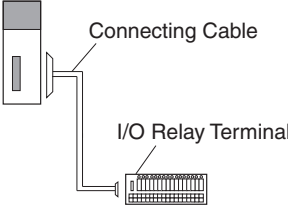## Connections to Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminal
NX-ID5142-5	16 inputs	1 MIL connector	NPN/ PNP	A	XW2Z-☐☐☐X	XW2K-20G-T	Push-In Plus	No
					XW2Z-☐☐☐X-R	XW2K-20G-O16A-IN	Push-In Plus	Yes
					XW2Z-☐☐☐X	XW2D-20G6	Phillips screw	No
					XW2Z-☐☐☐X	XW2R-E20GD-T	Slotted screw (rise up)	No
NX-ID6142-5	32 inputs	1 MIL connector	NPN/ PNP	A	XW2Z-☐☐☐K	XW2K-40G-O32C	Push-In Plus	No
				A	XW2Z-☐☐☐K	XW2K-40G-O32C-IN	Push-In Plus	Yes
				A	XW2Z-☐☐☐K	XW2R-J34GD-C2	Phillips screw	No
				A	XW2Z-☐☐☐K	XW2D-40G6	Phillips screw	No
				A	XW2Z-☐☐☐K	XW2R-E34GD-C2	Slotted screw (rise up)	No
NX-ID6142-6	32 inputs	1 Fujitsu/ OTAX connector	NPN/ PNP	A	XW2Z-☐☐☐B	XW2K-40G-O32A	Push-In Plus	No
				A	XW2Z-☐☐☐B	XW2K-40G-O32A-IN	Push-In Plus	Yes
				A	XW2Z-☐☐☐B	XW2R-J34GD-C1	Phillips screw	No
				A	XW2Z-☐☐☐B	XW2D-40G6	Phillips screw	No
				A	XW2Z-☐☐☐B	XW2R-E34GD-C1	Slotted screw (rise up)	No
NX-OD5121-5	16 outputs	1 MIL connector	NPN	A	XW2Z-☐☐☐X	XW2K-20G-T	Push-In Plus	No
				A	XW2Z-☐☐☐X-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes
				A	XW2Z-☐☐☐X	XW2D-20G6	Phillips screw	No
				A	XW2Z-☐☐☐X	XW2R-E20GD-T	Slotted screw (rise up)	No
NX-OD5256-5	16 outputs	1 MIL connector	PNP	A	XW2Z-☐☐☐X	XW2K-20G-T	Push-In Plus	No
				A	XW2Z-☐☐☐X-R	XW2K-20G-O16B-OUT	Push-In Plus	Yes
				A	XW2Z-☐☐☐X	XW2D-20G6	Phillips screw	No
				A	XW2Z-☐☐☐X	XW2R-E20GD-T	Slotted screw (rise up)	No

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

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

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

Connection Patterns for I/O Relay Terminals

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

Connections to I/O Relay Terminals

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable *1	I/O Relay Terminal	Wiring method
NX-ID5142-5	16 inputs	1 MIL connector	NPN	F	None	XW2Z-RO□C	G7TC-ID16	Phillips screw
				F	None	XW2Z-RO□C	G7TC-IA16	Phillips screw
				F	None	XW2Z-RO□C	G70V-SID16P	Push-in spring
				F	None	XW2Z-RO□C	G70V-SID16P-C16	Push-in spring
			PNP	F	None	XW2Z-RO□C	G70V-SID16P-1	Push-in spring
				F	None	XW2Z-RO□C	G70V-SID16P-1-C16	Push-in spring
NX-ID6142-5	32 inputs	1 MIL connector	NPN	A	2	XW2Z-RO□-□-D1	G7TC-ID16	Phillips screw
				A	2	XW2Z-RO□-□-D1	G7TC-IA16	Phillips screw
				A	2	XW2Z-RO□-□-D1	G70V-SID16P	Push-in spring
				A	2	XW2Z-RO□-□-D1	G70V-SID16P-C16	Push-in spring
			PNP	A	2	XW2Z-RO□-□-D1	G70V-SID16P-1	Push-in spring
				A	2	XW2Z-RO□-□-D1	G70V-SID16P-1-C16	Push-in spring
NX-ID6142-6	32 inputs	1 Fujitsu/ OTAX connector	NPN	A	2	XW2Z-RI□C-□	G7TC-ID16	Phillips screw
				A	2	XW2Z-RI□C-□	G7TC-IA16	Phillips screw
				A	2	XW2Z-RI□C-□	G70V-SID16P	Push-in spring
				A	2	XW2Z-RI□C-□	G70V-SID16P-C16	Push-in spring
			PNP	A	2	XW2Z-RI□C-□	G70V-SID16P-1	Push-in spring
				A	2	XW2Z-RI□C-□	G70V-SID16P-1-C16	Push-in spring
NX-OD5121-5	16 outputs	1 MIL connector	NPN	F	None	XW2Z-RO□C	G7TC-OC08	Phillips screw
				F	None	XW2Z-RO□C	G70D-SOC08	Phillips screw
				F	None	XW2Z-RO□C	G70R-SOC08 *2	Phillips screw
				F	None	XW2Z-RO□C	G7TC-OC16	Phillips screw
				F	None	XW2Z-RO□C	G70D-SOC16	Phillips screw
				F	None	XW2Z-RO□C	G70D-VSOC16	Phillips screw
				F	None	XW2Z-RO□C	G70D-FOM16	Phillips screw
				F	None	XW2Z-RO□C	G70D-VFOM16	Phillips screw
				F	None	XW2Z-RO□C	G70A-ZOC16-3	Phillips screw
				F	None	XW2Z-RO□C	G70V-SOC16P	Push-in spring
				F	None	XW2Z-RO□C	G70V-SOC16P-C4	Push-in spring

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

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

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

General Specifications

Item		Specification
Enclosure		Mounted in a panel
Grounding method		Ground to 100 Ω or less
Operating environment	Ambient operating temperature	0 to 55°C
	Ambient operating humidity	10% to 95% (with no condensation or icing)
	Atmosphere	Must be free from corrosive gases.
	Ambient storage temperature	−25 to 70°C (with no condensation or icing)
	Altitude	2,000 m max.
	Pollution degree	2 or less: Meets IEC 61010-2-201.
	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)
	Overvoltage category	Category II: Meets IEC 61010-2-201.
	EMC immunity level	Zone B
	Vibration resistance *1	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5-mm amplitude, 8.4 to 150 Hz, acceleration of 9.8 m/s^2, 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)
	Shock resistance *1	Conforms to IEC 60068-2-27. 147 m/s^2, 3 times each in X, Y, and Z directions
Applicable standards *2		cULus: Listed (UL508) or Listed (UL 61010-2-201), ANSI/ISA 12.12.01 or UL121201, EU: EN 61131-2 or EN 61010-2-201, C-Tick or RCM, KC: KC Registration, NK, LR

*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.

NX-ID/IA/OD/OC/MD

Digital Input Unit Specifications

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

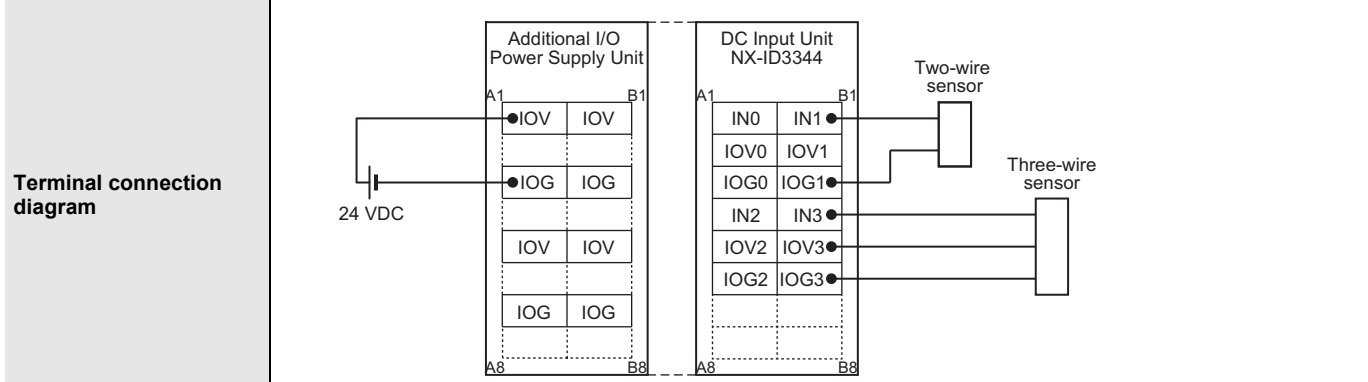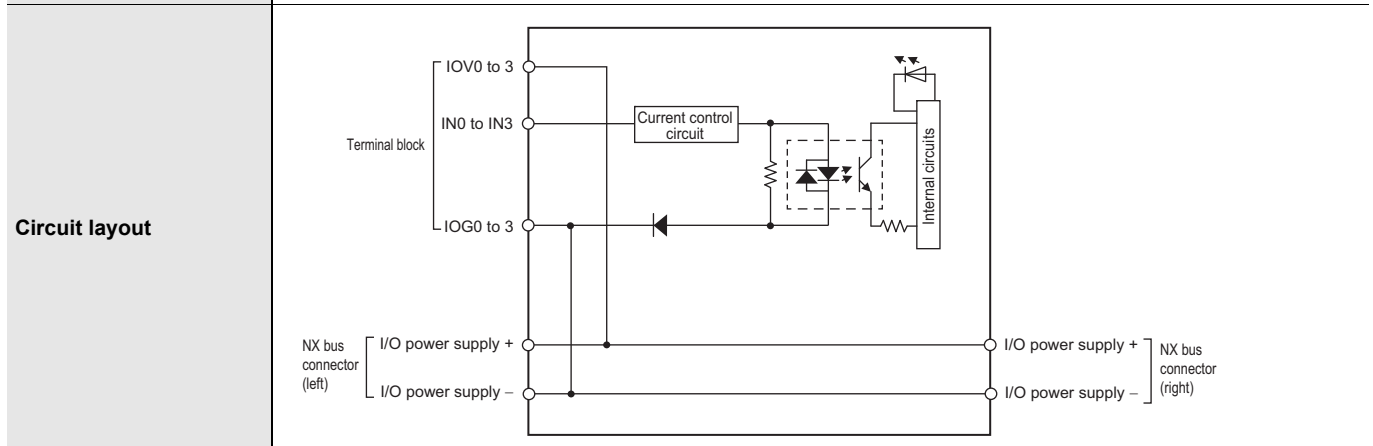| Unit name	DC Input Unit	Model	NX-ID3317
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID3317 ■TS 0 1 2 3	Internal I/O common	NPN
		Rated input voltage	12 to 24 VDC (9 to 28.8 VDC)
		Input current	6 mA typical (at 24 VDC), rated current
		ON voltage/ON current	9 VDC min./3 mA min. (between IOV and each signal)
		OFF voltage/OFF current	2 VDC max./1 mA max. (between IOV and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  0.90 W max.
	• Connected to a Communications Coupler Unit
	  0.50 W max.
		Current consumption from I/O power supply	No consumption

Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID3343

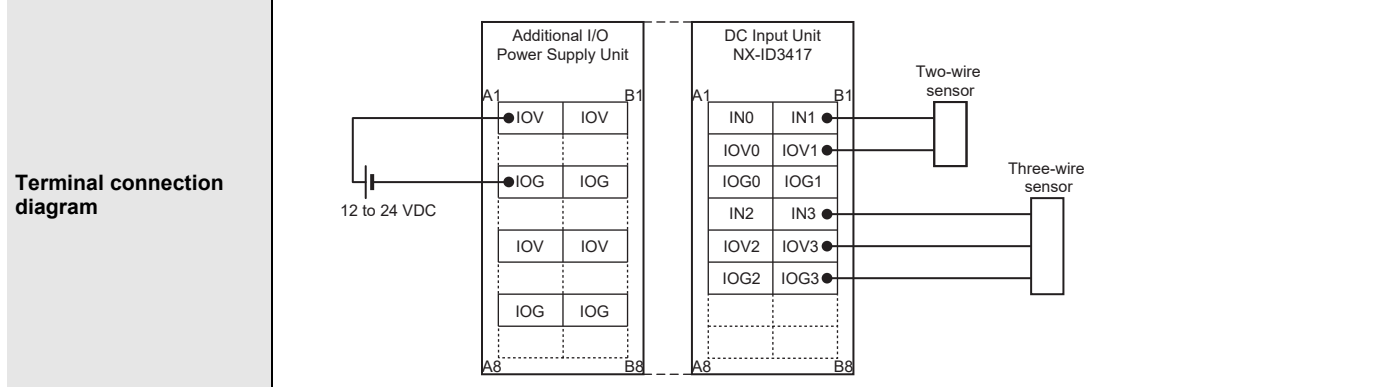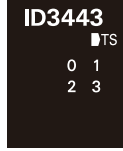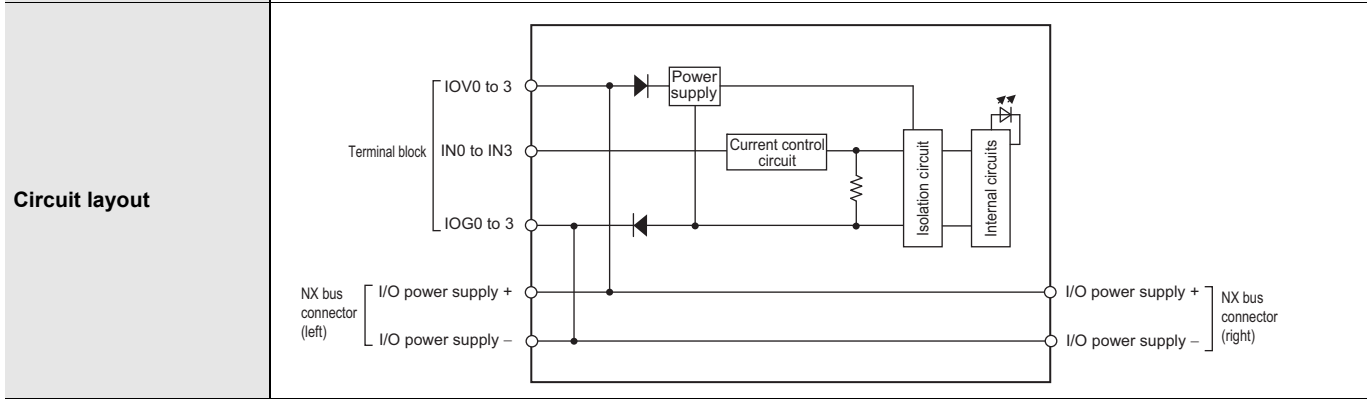| Unit name	DC Input Unit	Model	NX-ID3343
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator **ID3343** □TS 0 1 2 3	Internal I/O common	NPN
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOV and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOV and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	Without filter, 1 μs, 2 μs, 4 μs, 8 μs (factory setting), 16 μs, 32 μs, 64 μs, 128 μs, 256 μs
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID/IA/OD/OC/MD

NX-ID3344

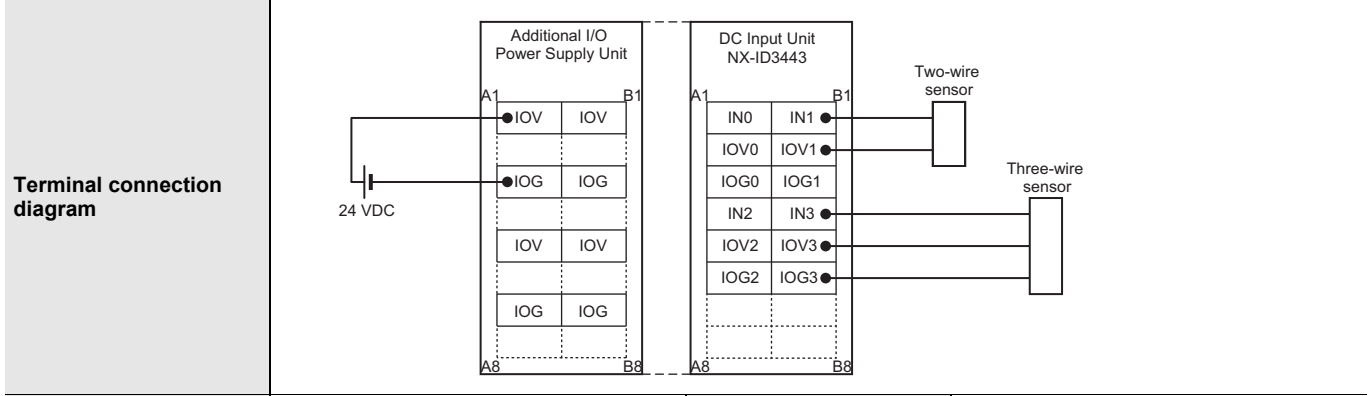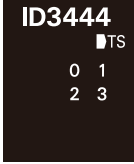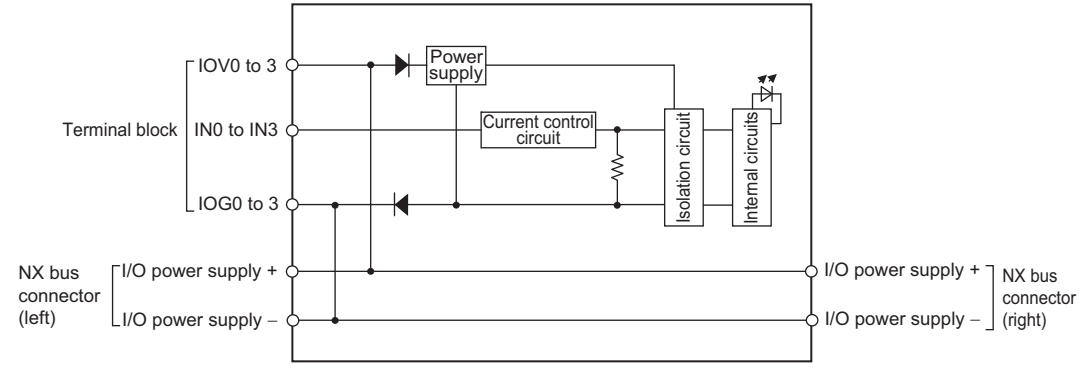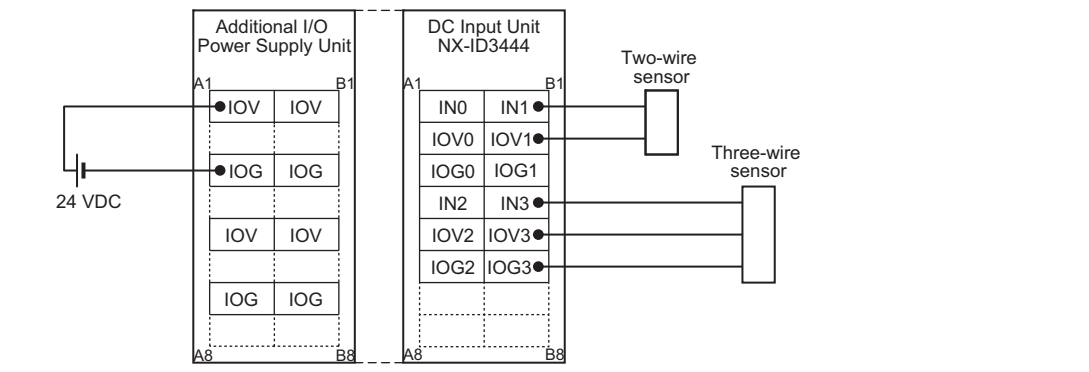| Unit name	DC Input Unit	Model	NX-ID3344
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Input refreshing with input changed time		
Indicators	TS indicator, input indicators ID3344 ■TS 0 1 2 3	Internal I/O common	NPN
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOV and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOV and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	No filter *
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.

NX Unit power consumption	• Connected to a CPU Unit
	  0.90 W max.
	• Connected to a Communications Coupler Unit
	  0.50 W max.
		Current consumption from I/O power supply	30 mA max.

Weight	65 g max.		
Circuit layout			
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			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

NX-ID3417

Unit name	DC Input Unit	Model	NX-ID3417
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator **ID3417** ■TS 0 1 2 3	Internal I/O common	PNP
		Rated input voltage	12 to 24 VDC (9 to 28.8 VDC)
		Input current	6 mA typical (at 24 VDC), rated current
		ON voltage/ON current	9 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	2 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID3443

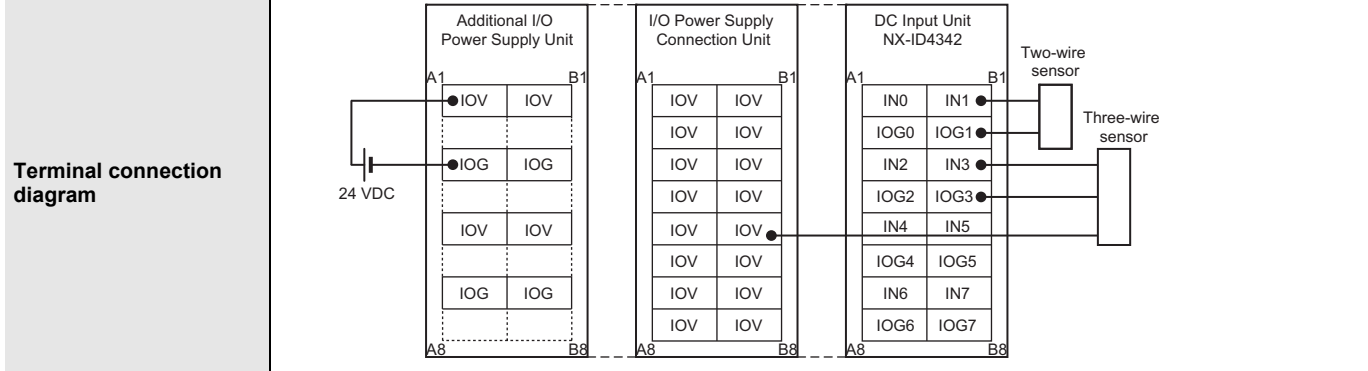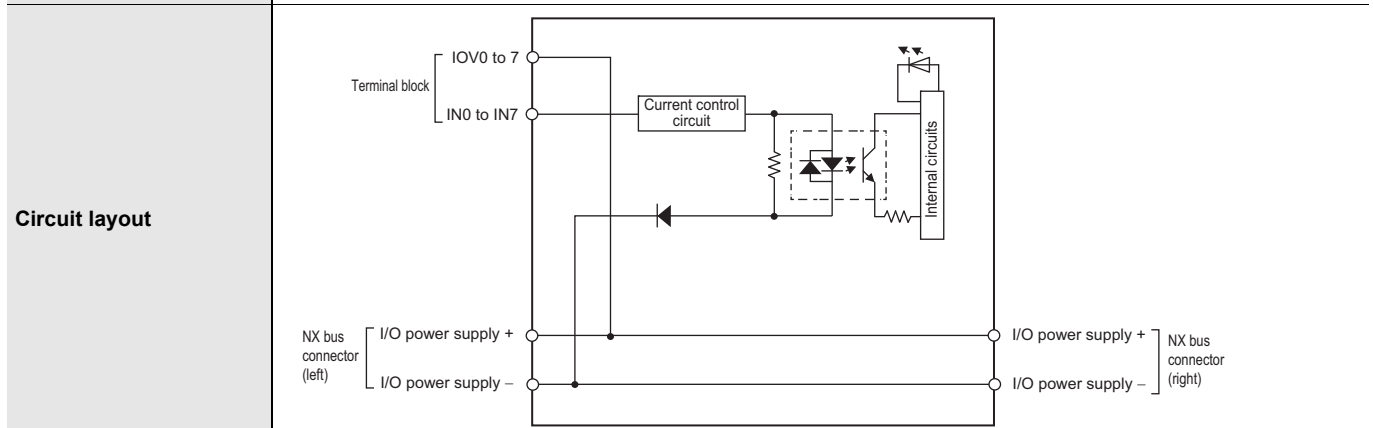| Unit name	DC Input Unit	Model	NX-ID3443
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID3443 ■TS 0 1 2 3	Internal I/O common	PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	Without filter, 1 µs, 2 µs, 4 µs, 8 µs (factory setting),16 µs, 32 µs, 64 µs, 128 µs, 256 µs
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID3444

Unit name	DC Input Unit	Model	NX-ID3444
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Input refreshing with input changed time		
Indicators	TS indicator, input indicators **ID3444** ▮TS 0 1 2 3	Internal I/O common	PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	100 ns max./100 ns max.
		Input filter time	No filter*
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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: 0.1 A/terminal max., IOG: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	30 mA max.
Weight	65 g max.		
Circuit layout			
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			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

NX-ID4342

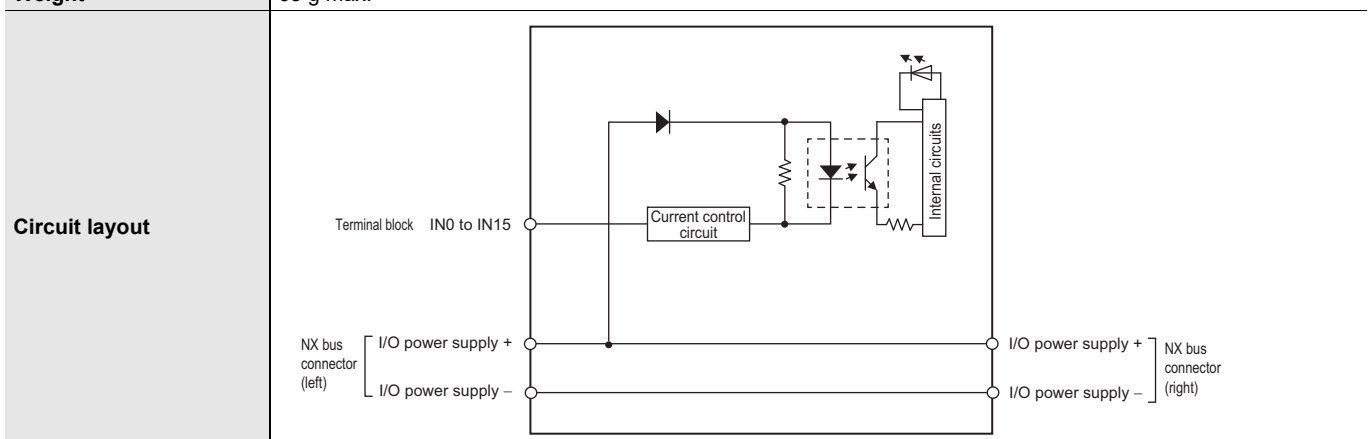| Unit name	DC Input Unit	Model	NX-ID4342
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID4342 ▪TS 0 1 2 3 4 5 6 7	Internal I/O common	NPN
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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	IOG: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID4442

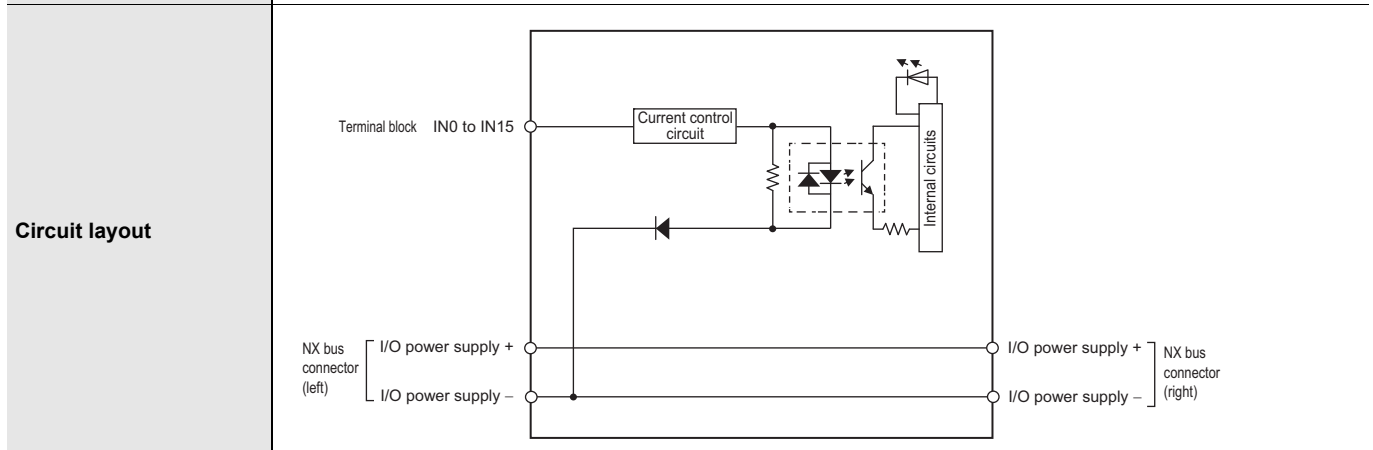| Unit name	DC Input Unit	Model	NX-ID4442
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID4442 ■TS 0 1 2 3 4 5 6 7	Internal I/O common	PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	3.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./3 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between IOG and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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: 0.1 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID5342

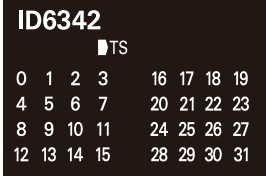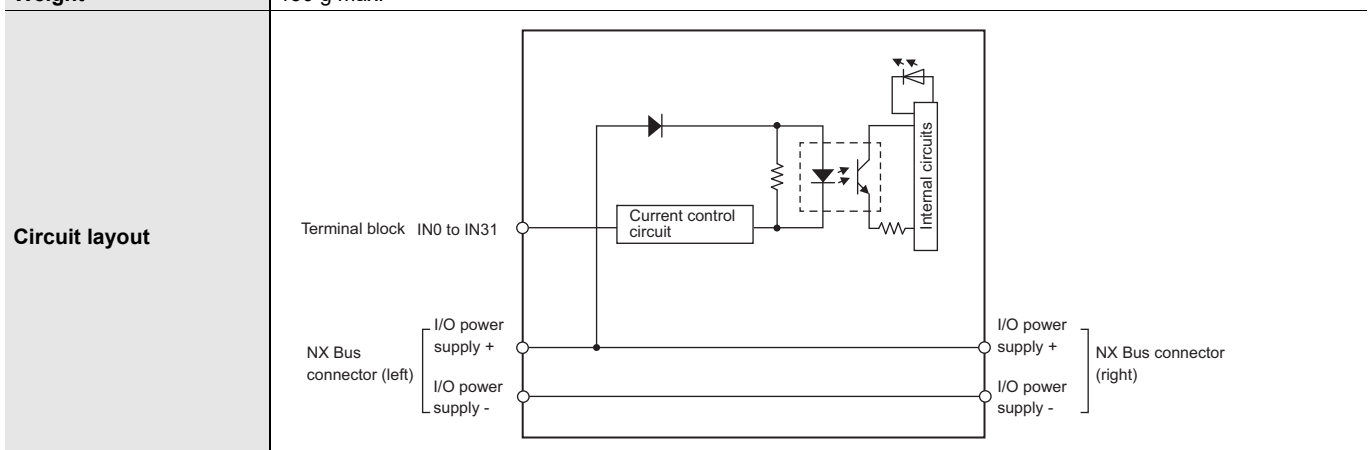| Unit name	DC Input Unit	Model	NX-ID5342
Number of points	16 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator **ID5342** ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	NPN
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	2.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./2 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-ID5442

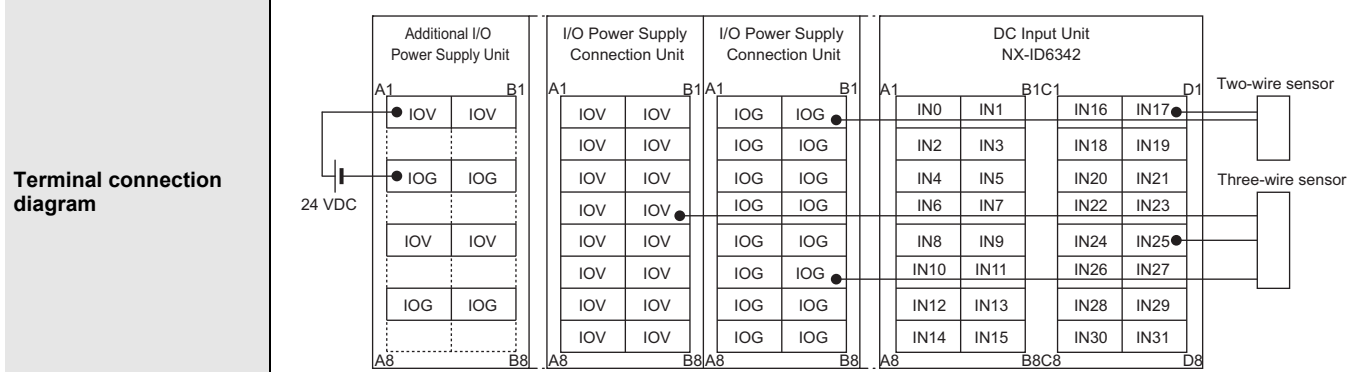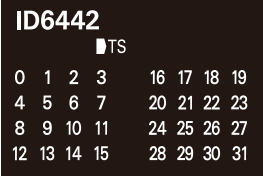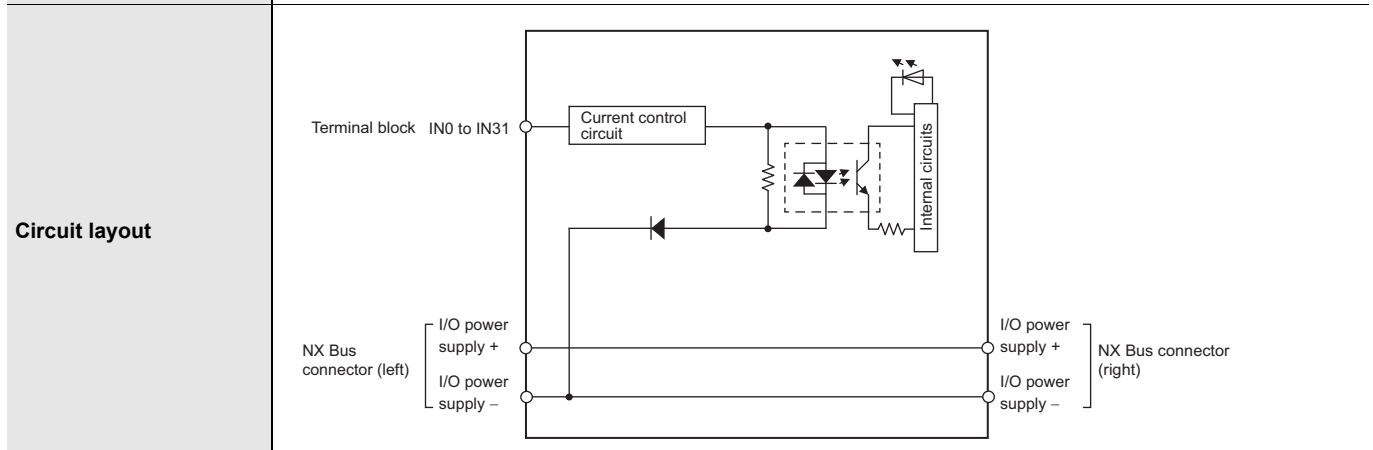| Unit name	DC Input Unit	Model	NX-ID5442
Number of points	16 points	**External connection terminals**	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID5442 ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	**Internal I/O common**	PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	2.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./2 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	**Isolation method**	Photocoupler isolation
Insulation resistance	20 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**	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	**Current consumption from I/O power supply**	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	**Protective function**	Not supported.

NX-ID6342

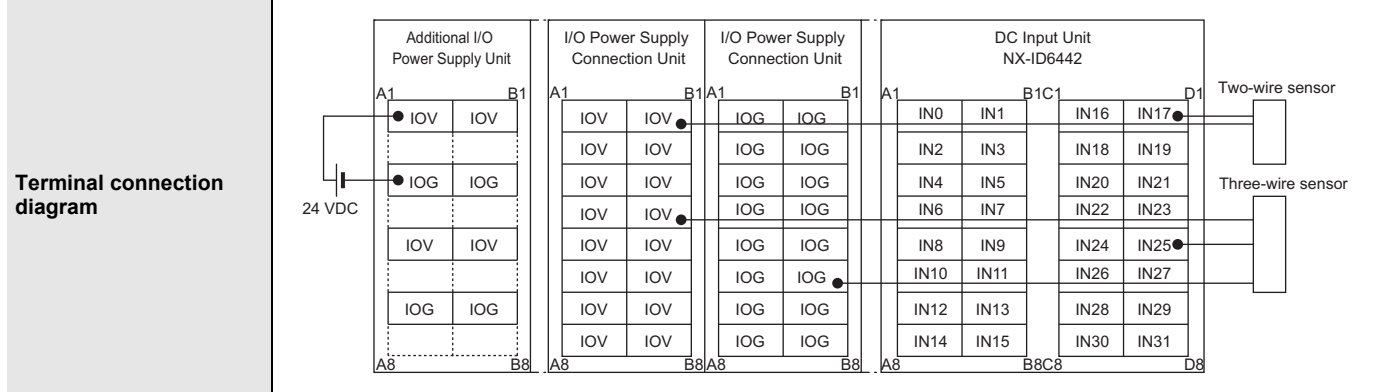| Unit name	DC Input Unit	Model	NX-ID6342
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator ID6342 TS 0 1 2 3 16 17 18 19 4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	Internal I/O common	NPN
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	2.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./2 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	24 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.45 W max. • Connected to a Communications Coupler Unit 0.70 W max.	Current consumption from I/O power supply	No consumption
Weight	130 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Circuit layout:

Terminal connection diagram:

NX-ID6442

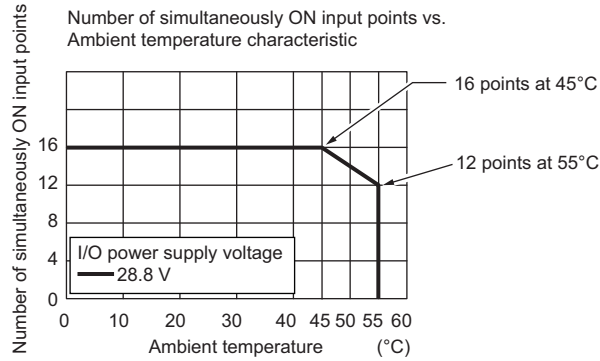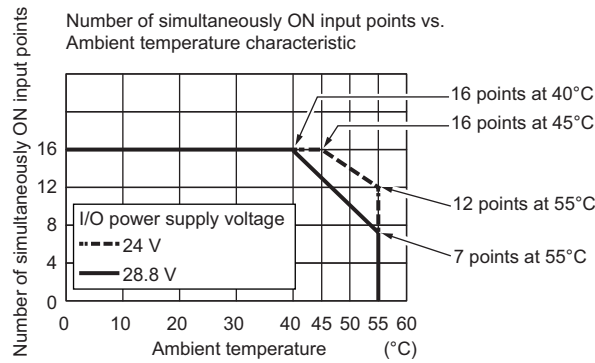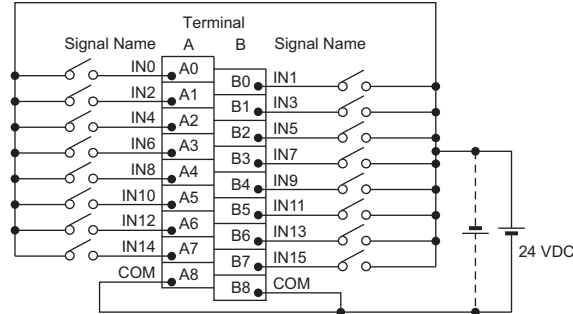| Unit name	DC Input Unit	Model	NX-ID6442
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, input indicator **ID6442** ▮TS 0 1 2 3　16 17 18 19 4 5 6 7　20 21 22 23 8 9 10 11　24 25 26 27 12 13 14 15　28 29 30 31	Internal I/O common	PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	2.5 mA typical (at 24 VDC), rated current
		ON voltage/ON current	15 VDC min./2 mA min. (between IOG and each signal)
		OFF voltage/OFF current	5 VDC max./0.5 mA max. (between IOG and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	Without filter, 0.25 ms, 0.5 ms, 1 ms (factory setting), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	24 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.45 W max. • Connected to a Communications Coupler Unit 0.70 W max.	Current consumption from I/O power supply	No consumption
Weight	130 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

Unit name	DC Input Unit	Model	NX-ID5142-1
Number of points	16 points	External connection terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, input indicators ID5142-1 　■TS 0　1　2　3　4　5　6　7 8　9　10　11　12　13　14　15	Internal I/O common	For both NPN/PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	7 mA typical (at 24 VDC)
		ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
		ON/OFF response time	20 µs max./400 µs max.
		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.85 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	No consumption
Weight	125 g max.		
Circuit layout			
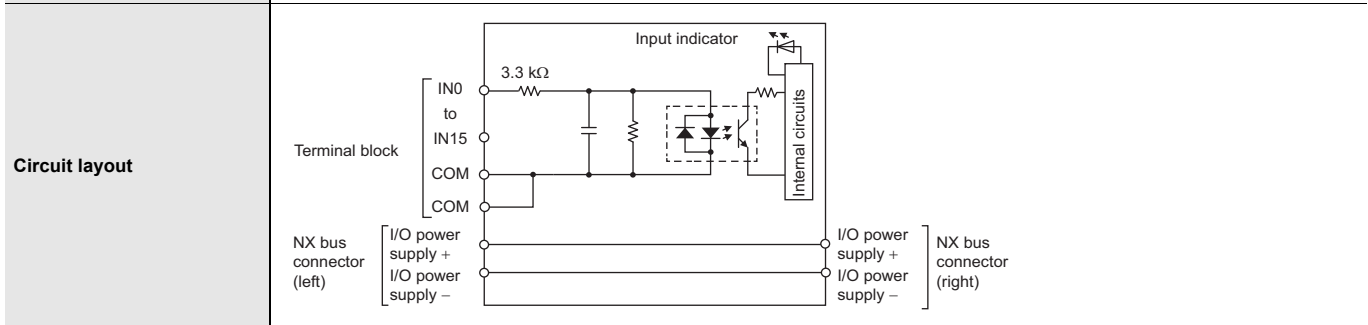
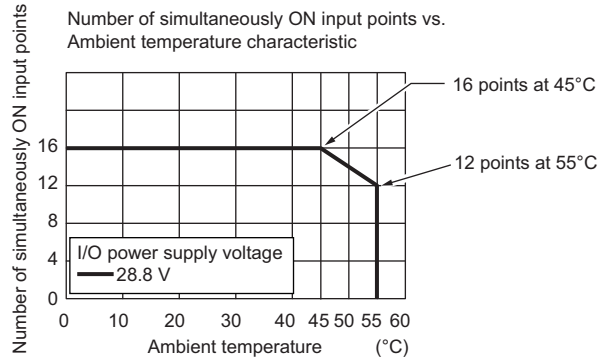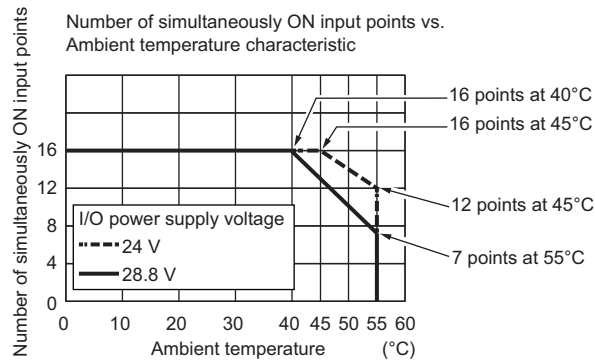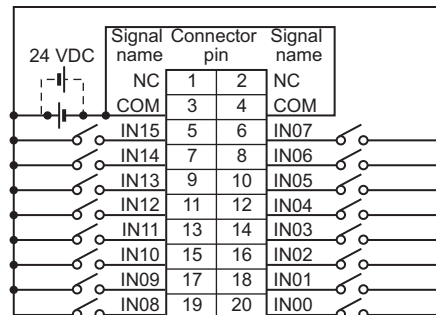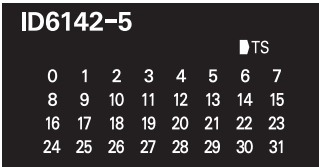|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 45°C 12 points at 55°C I/O power supply voltage — 28.8 V Ambient temperature (°C) • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 40°C 16 points at 45°C 12 points at 55°C 7 points at 55°C I/O power supply voltage ----- 24 V — 28.8 V Ambient temperature (°C)
Terminal connection diagram	Terminal Signal Name A B Signal Name IN0 A0 B0 IN1 IN2 A1 B1 IN3 IN4 A2 B2 IN5 IN6 A3 B3 IN7 IN8 A4 B4 IN9 IN10 A5 B5 IN11 IN12 A6 B6 IN13 IN14 A7 B7 IN15 COM A8 B8 COM 24 VDC • The polarity of the input power supply can be connected in either direction.
Disconnection/ Short-circuit detection	Not supported. **Protective function** Not supported.
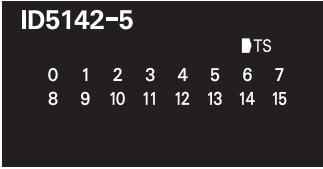
● DC Input Unit (MIL Connector, 30 mm Width)
NX-ID5142-5

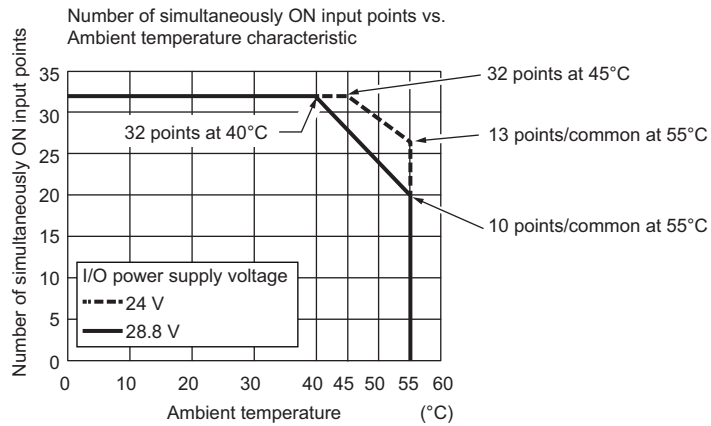| Unit name	DC Input Unit	Model	NX-ID5142-5
Number of points	16 points	External connection terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, input indicators **ID5142-5** ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	For both NPN/PNP
		Rated input voltage	24 VDC (15 to 28.8 VDC)
		Input current	7 mA typical (at 24 VDC)
		ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.85 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	No consumption
Weight	85 g max.		
Circuit layout			
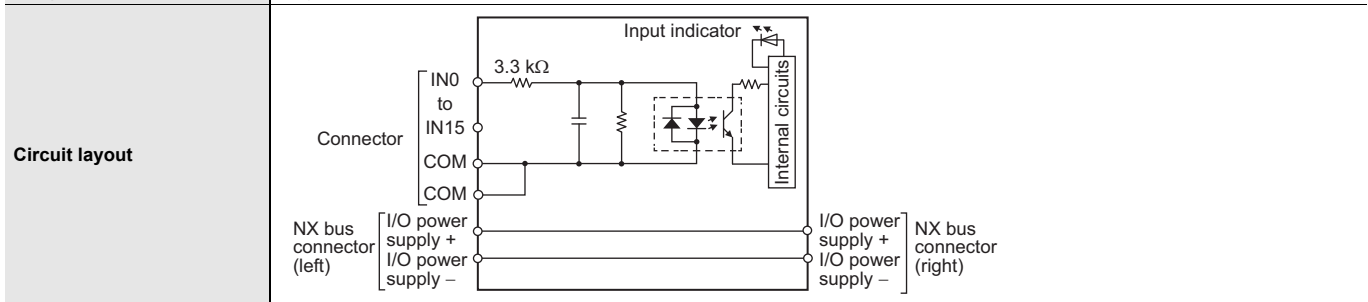
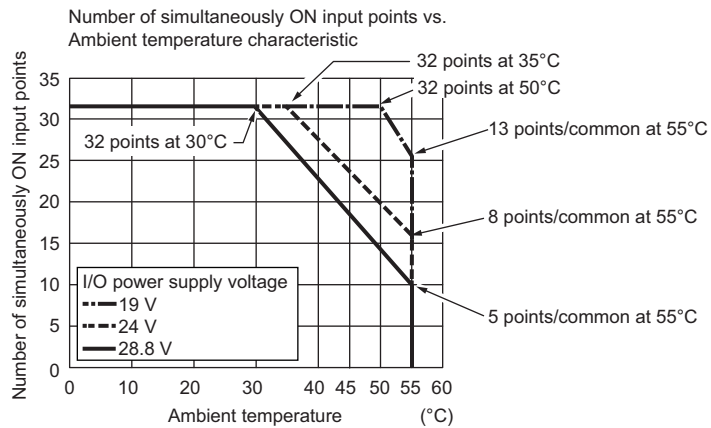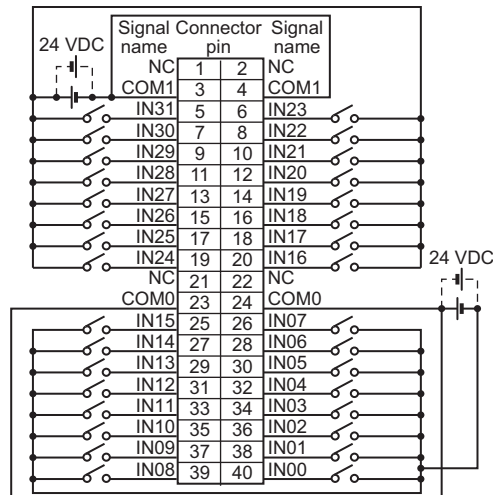|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 45°C 12 points at 55°C I/O power supply voltage — 28.8 V Number of simultaneously ON input points (16, 12, 8, 4, 0) vs. Ambient temperature (0 10 20 30 40 45 50 55 60 °C) • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 40°C 16 points at 45°C 12 points at 45°C 7 points at 55°C I/O power supply voltage ---- 24 V — 28.8 V Number of simultaneously ON input points (16, 12, 8, 4, 0) vs. Ambient temperature (0 10 20 30 40 45 50 55 60 °C)

Terminal connection diagram	24 VDC

Signal name	Connector pin		Signal name
NC	1	2	NC
COM	3	4	COM
IN15	5	6	IN07
IN14	7	8	IN06
IN13	9	10	IN05
IN12	11	12	IN04
IN11	13	14	IN03
IN10	15	16	IN02
IN09	17	18	IN01
IN08	19	20	IN00

• The polarity of the input power supply can be connected in either direction.
• Be sure to wire both pins 3 and 4 (COM), and set the same polarity for both pins.
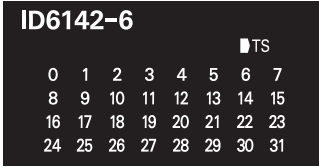
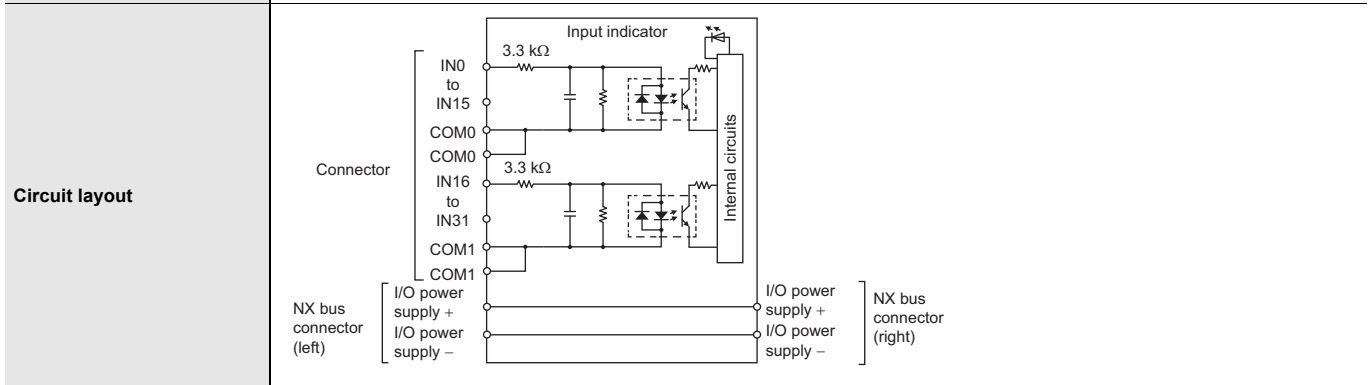| **Disconnection/ Short-circuit detection**	Not supported.	**Protective function**	Not supported.

NX-ID6142-5

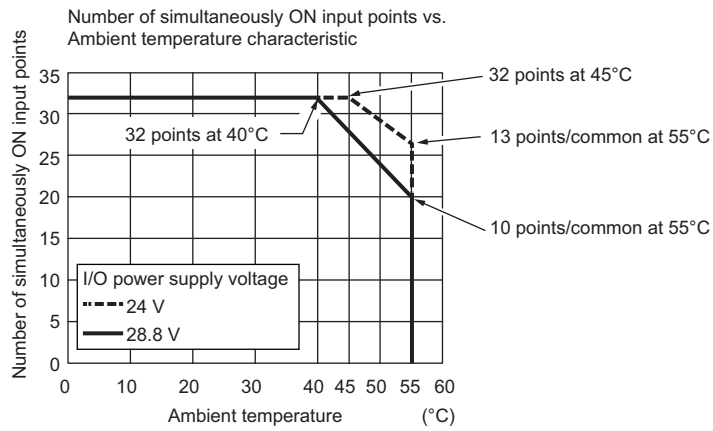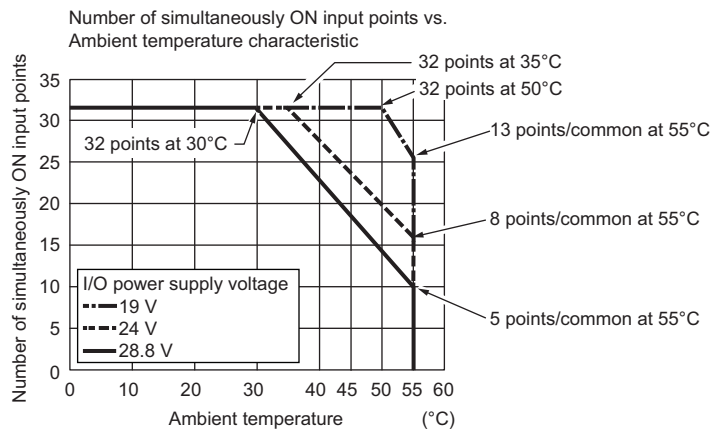| Unit name	DC Input Unit	Model	NX-ID6142-5
Number of points	32 points	External connection terminals	MIL connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, input indicators ID6142-5 ▮TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Internal I/O common	For both NPN/PNP
		Rated input voltage	24 VDC (19 to 28.8 VDC)
		Input current	4.1 mA typical (24 VDC)
		ON voltage/ON current	19 VDC min./3 mA min. (between COM and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.60 W max.	Current consumption from I/O power supply	No consumption
Weight	90 g max.		
Circuit layout			

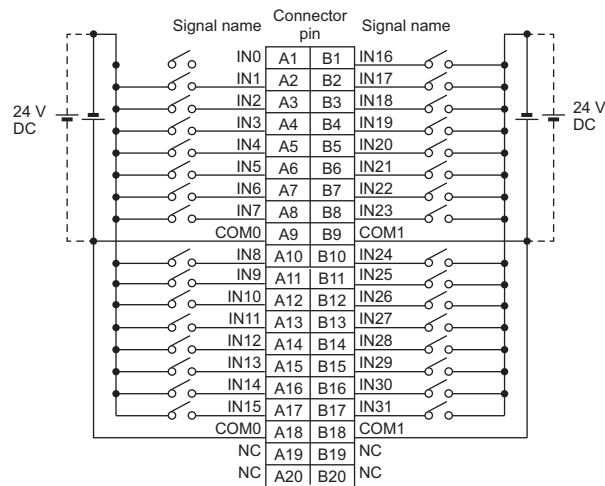|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic
Terminal connection diagram	 • The polarity of the input power supply can be connected in either direction. • Be sure to wire both pins 23 and 24 (COM0), and set the same polarity for both pins. • Be sure to wire both pins 3 and 4 (COM1), and set the same polarity for both pins.

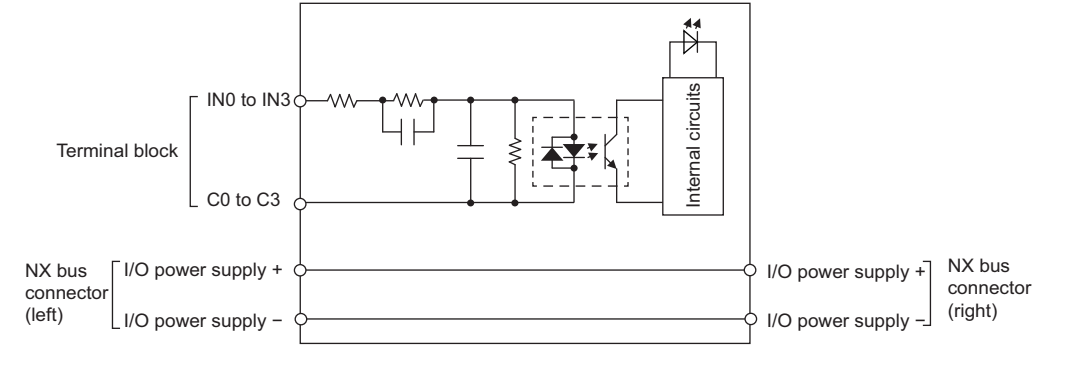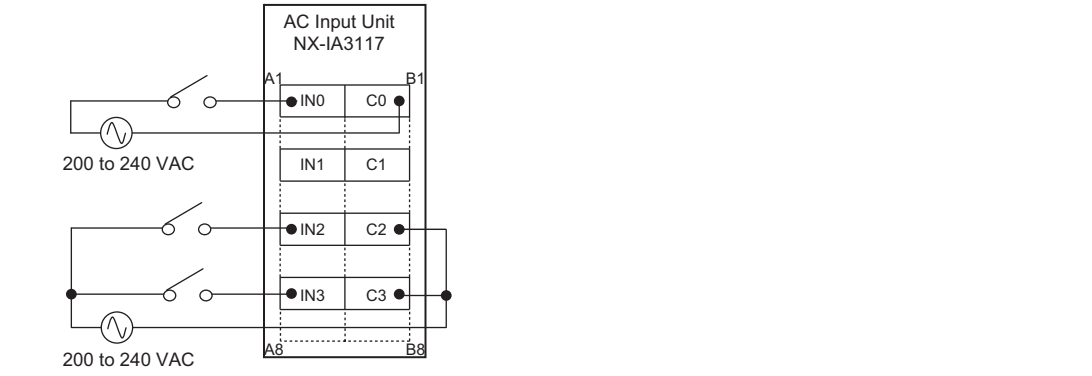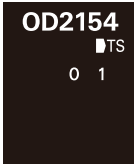| **Disconnection/ Short-circuit detection**	Not supported.	**Protective function**	Not supported.

● DC Input Unit (Fujitsu/OTAX Connector, 30 mm Width)
NX-ID6142-6

Unit name	DC Input Unit	Model	NX-ID6142-6
Number of points	32 points	External connection terminals	Fujitsu/OTAX connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, input indicators **ID6142-6** ▮TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Internal I/O common	For both NPN/PNP
		Rated input voltage	24 VDC (19 to 28.8 VDC)
		Input current	4.1 mA typical (24 VDC)
		ON voltage/ON current	19 VDC min./3 mA min. (between COM and each signal)
		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
		ON/OFF response time	20 μs max./400 μs max.
		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.95 W max. • Connected to a Communications Coupler Unit 0.55 W max.	Current consumption from I/O power supply	No consumption
Weight	90 g max.		
Circuit layout			

Installation orientation and restrictions	Installation orientation: Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic 32 points at 45°C 32 points at 40°C 13 points/common at 55°C 10 points/common at 55°C I/O power supply voltage: 24 V, 28.8 V • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic 32 points at 35°C 32 points at 50°C 32 points at 30°C 13 points/common at 55°C 8 points/common at 55°C 5 points/common at 55°C I/O power supply voltage: 19 V, 24 V, 28.8 V
Terminal connection diagram	Signal name / Connector pin / Signal name IN0 A1 B1 IN16 IN1 A2 B2 IN17 IN2 A3 B3 IN18 IN3 A4 B4 IN19 IN4 A5 B5 IN20 IN5 A6 B6 IN21 IN6 A7 B7 IN22 IN7 A8 B8 IN23 COM0 A9 B9 COM1 IN8 A10 B10 IN24 IN9 A11 B11 IN25 IN10 A12 B12 IN26 IN11 A13 B13 IN27 IN12 A14 B14 IN28 IN13 A15 B15 IN29 IN14 A16 B16 IN30 IN15 A17 B17 IN31 COM0 A18 B18 COM1 NC A19 B19 NC NC A20 B20 NC 24 V DC (both sides) • The polarity of the input power supply can be connected in either direction. • Be sure to wire both pins A9 and A18 (COM0), and set the same polarity for both pins. • Be sure to wire both pins B9 and B18 (COM1), and set the same polarity for both pins.
Disconnection/ Short-circuit detection	Not supported. **Protective function** Not supported.

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

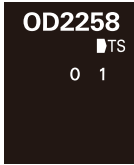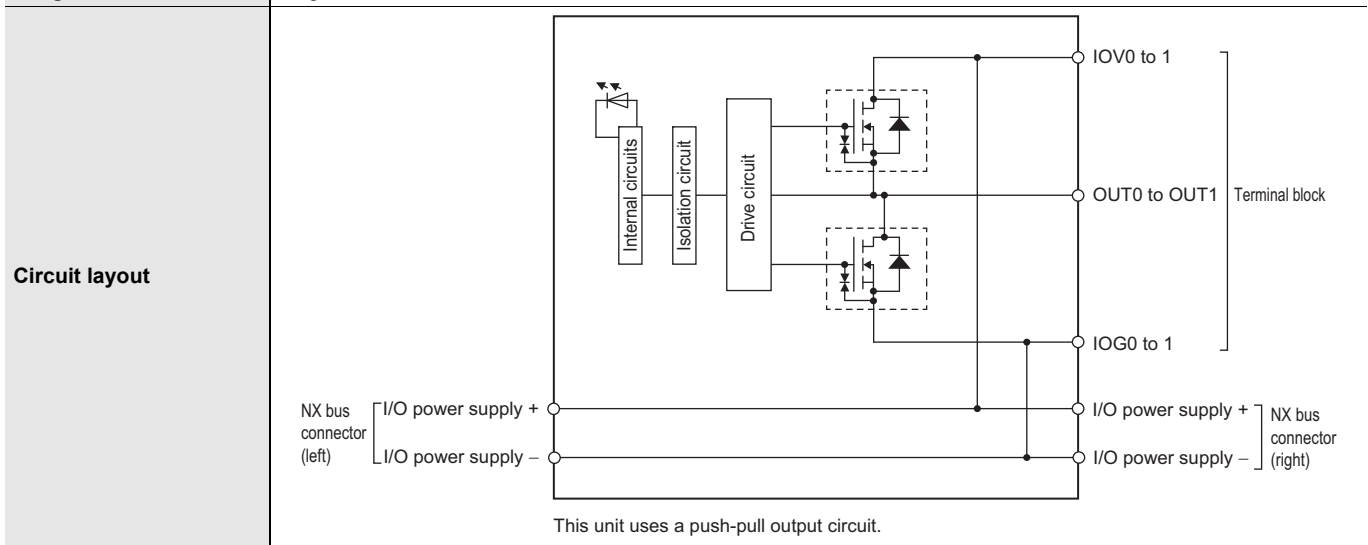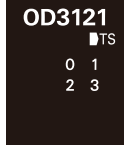| Unit name	AC Input Unit	Model	NX-IA3117
Number of points	4 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)
Capacity	Free-Run refreshing		
Indicators	TS indicator, input indicator **IA3117** ■TS 0 1 2 3	Internal I/O common	No polarity
		Rated input voltage	200 to 240 VAC, 50/60 Hz (170 to 264 VAC, ±3 Hz)
		Input current	9 mA typical (at 200 VAC, 50 Hz) 11 mA typical (at 200 VAC, 60 Hz)
		ON voltage/ON current	120 VAC min./4 mA min.
		OFF voltage/OFF current	40 VAC max./2 mA max.
		ON/OFF response time	10 ms max./40 ms max.
		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	Between each AC input circuit: 20 MΩ min. (at 500 VDC) Between the external terminals and the functional ground terminal: 20 MΩ min. (at 500 VDC) Between the external terminals and internal circuits: 20 MΩ min. (at 500 VDC) Between the internal circuit and the functional ground terminal: 20 MΩ min. (at 100 VDC)	Dielectric strength	Between each AC input circuit: AC3700V VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and functional ground terminal: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and the functional ground terminal: 510 VAC for 1 min at a leakage current of 5 mA max.
I/O power supply method	Supplied from external source.	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.80 W max. • Connected to a Communications Coupler Unit 0.50 W max.	Current consumption from I/O power supply	No consumption
Weight	60 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

Digital Output Unit Specifications

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

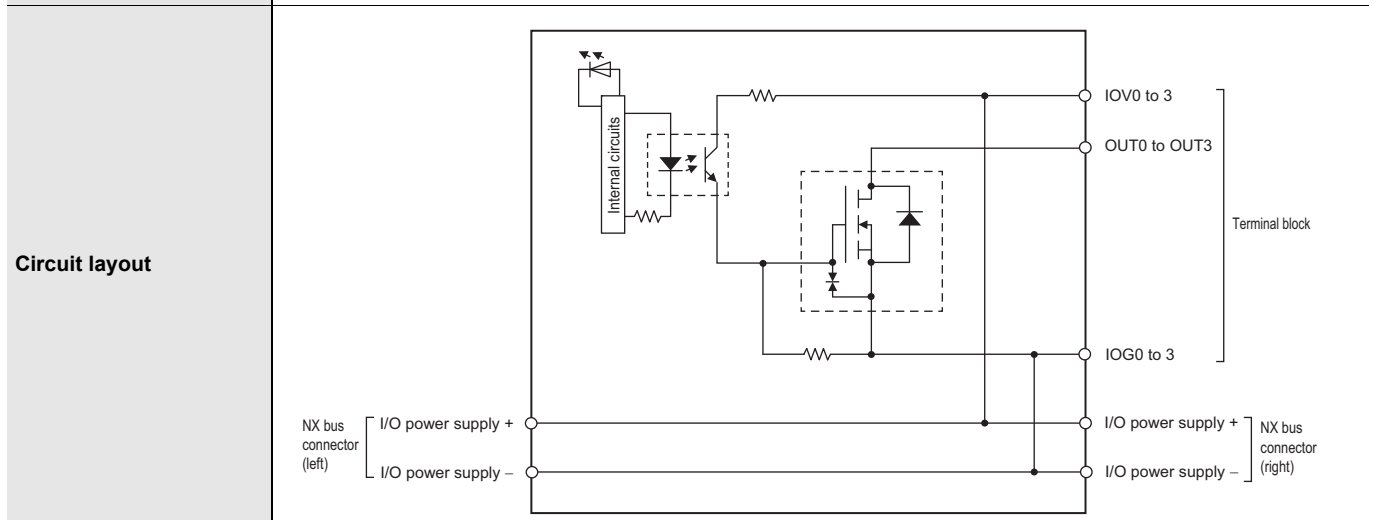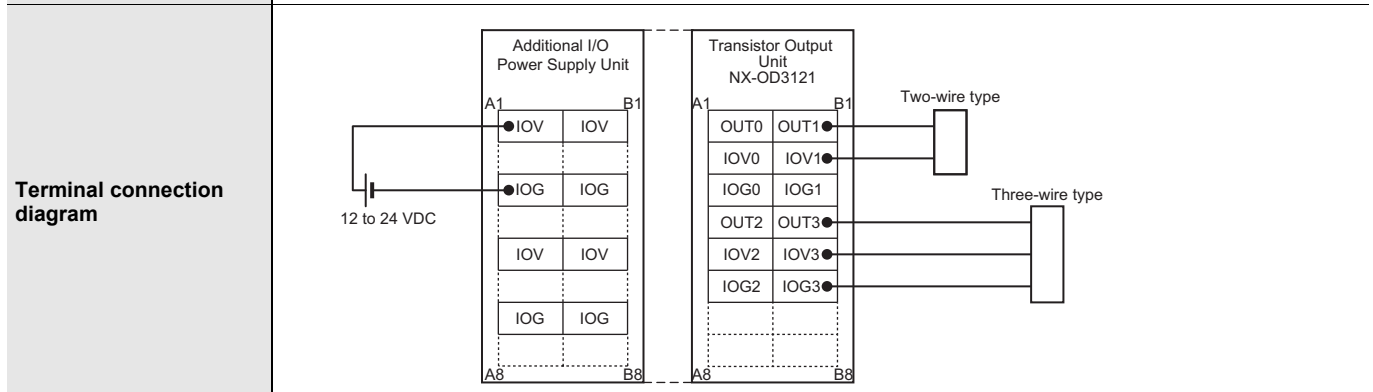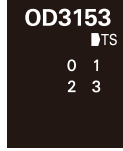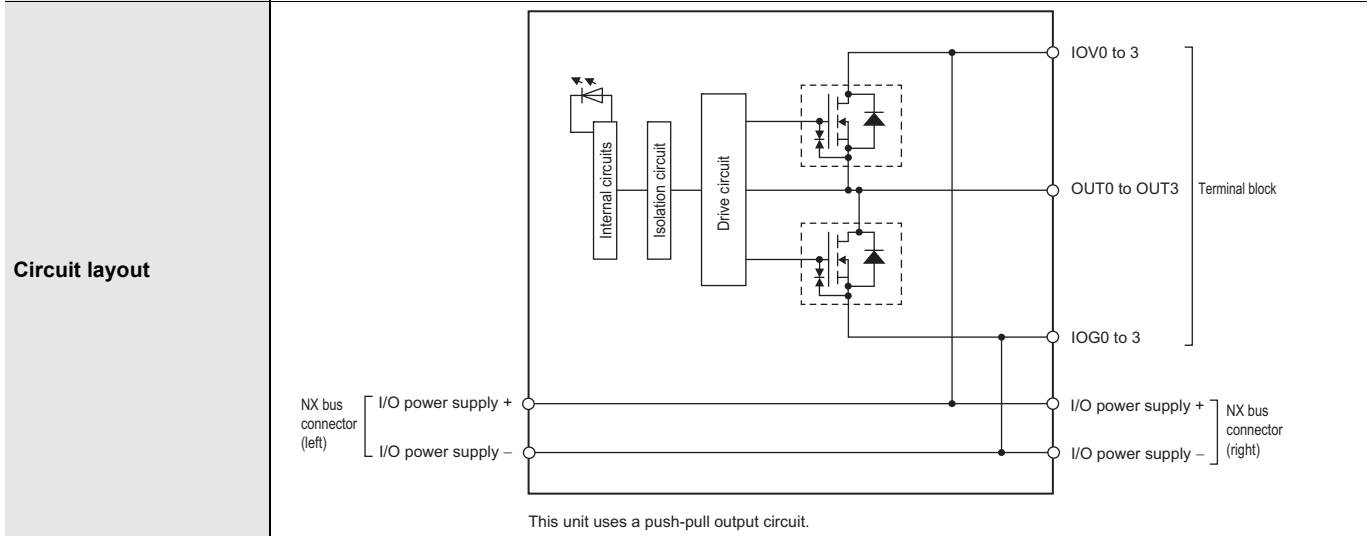| Unit name	Transistor Output Unit	Model	NX-OD2154
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Output refreshing with specified time stamp		
Indicators	TS indicator, output indicator **OD2154** ■TS 0 1	Internal I/O common	NPN
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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 0.45 W max.	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	This unit uses a push-pull output circuit.		
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			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD2258

Unit name	Transistor Output Unit	Model	NX-OD2258
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Output refreshing with specified time stamp		
Indicators	TS indicator, output indicator OD2258 ■TS 0 1	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		Maximum value of load current	0.5 A/point, 1 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	300 ns max./300 ns max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Digital isolator isolation
Insulation resistance	20 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	 This unit uses a push-pull output circuit.		
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			
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD3121

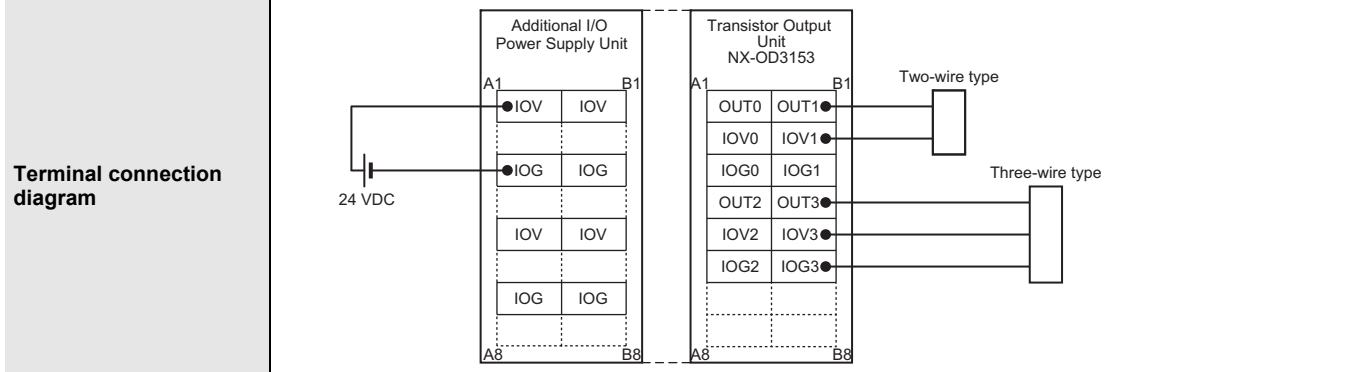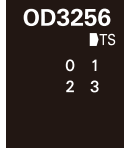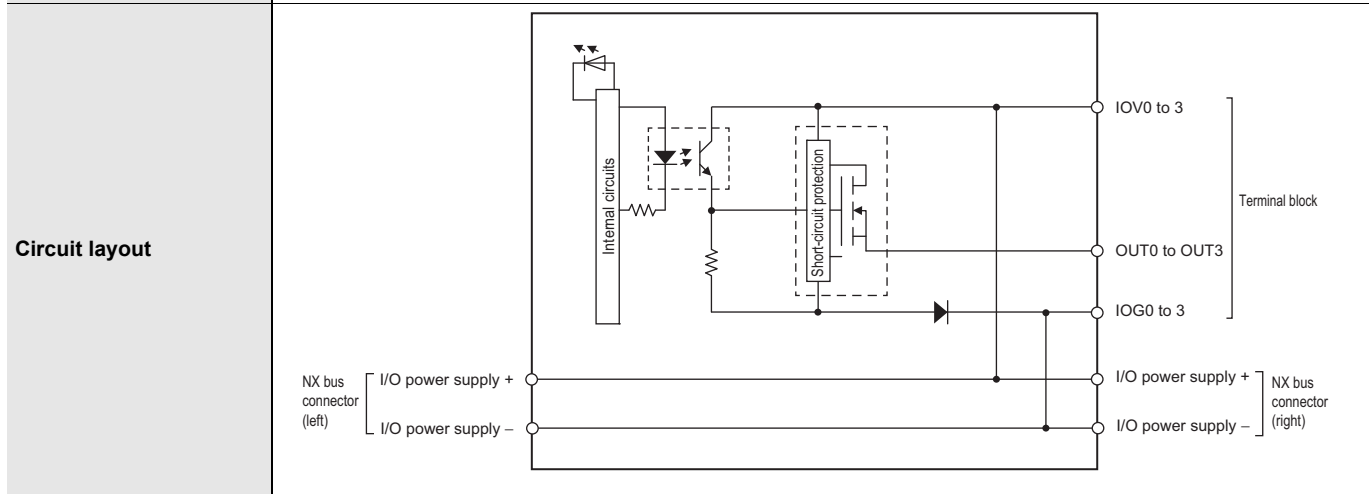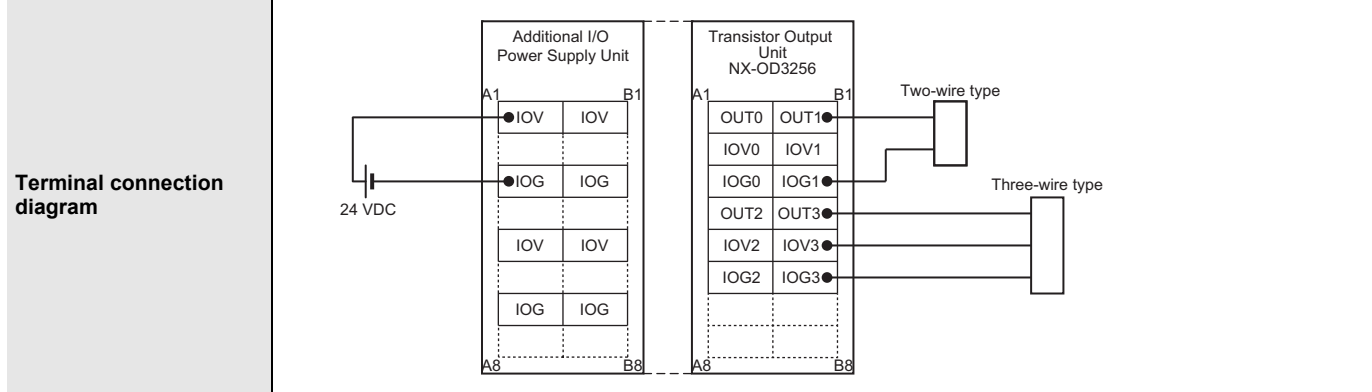| Unit name	Transistor Output Unit	Model	NX-OD3121
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator **OD3121** ■TS 0 1 2 3	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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
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 or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD3153

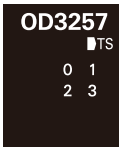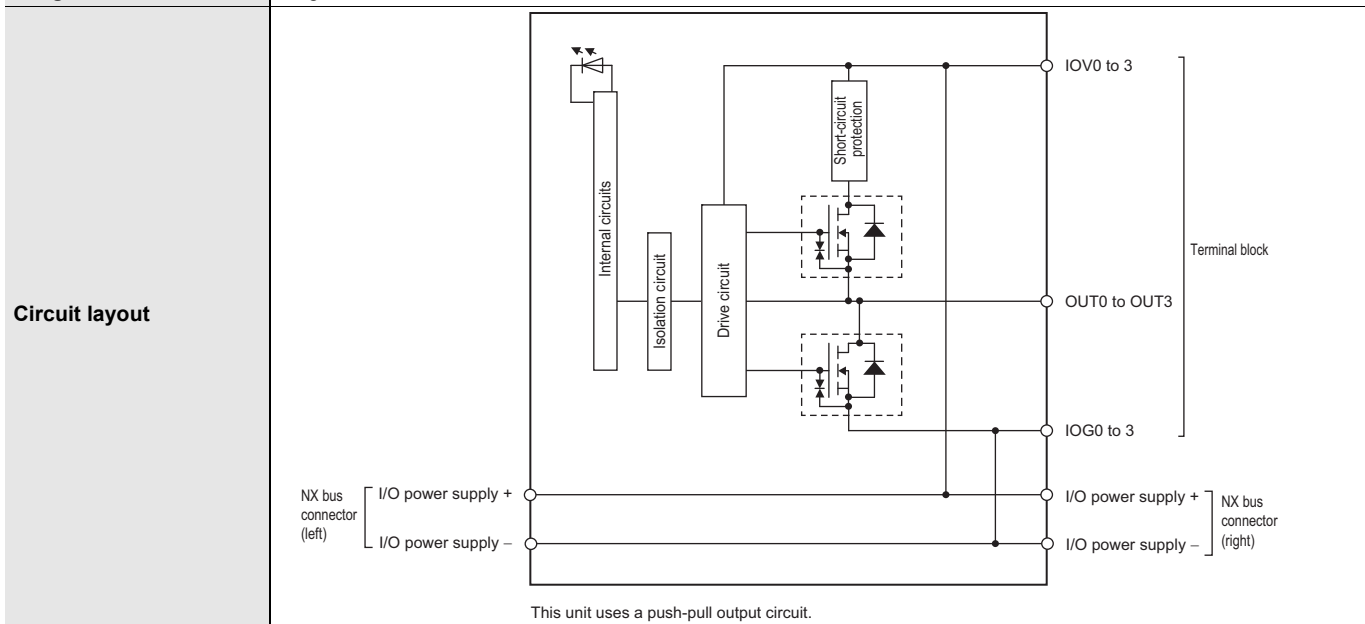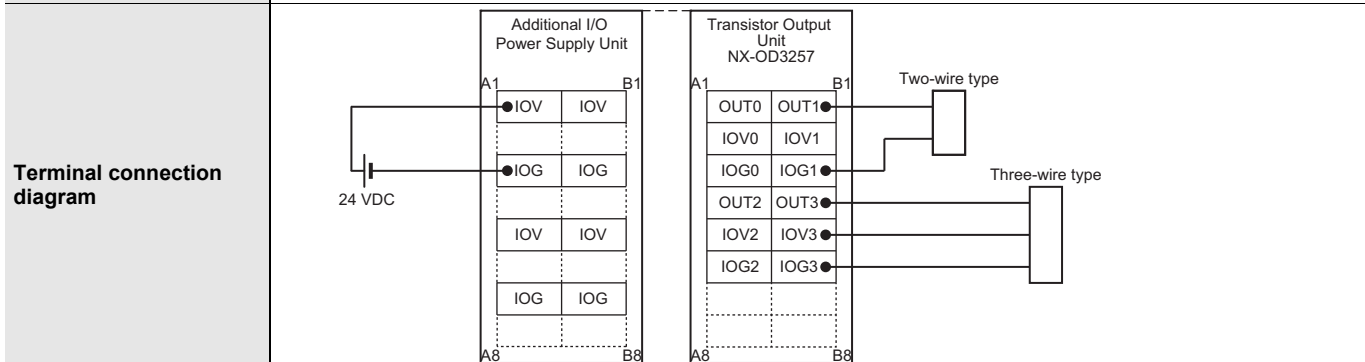| Unit name	Transistor Output Unit	Model	NX-OD3153
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator OD3153 ■TS 0 1 2 3	Internal I/O common	NPN
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		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 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 or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.50 W max.	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout	 This unit uses a push-pull output circuit.		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD3256

Unit name	Transistor Output Unit	Model	NX-OD3256
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		

Indicators	TS indicator, output indicator **OD3256** ■TS 0 1 2 3	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		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 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 or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	20 mA max.
Weight	70 g max.		

Circuit layout	

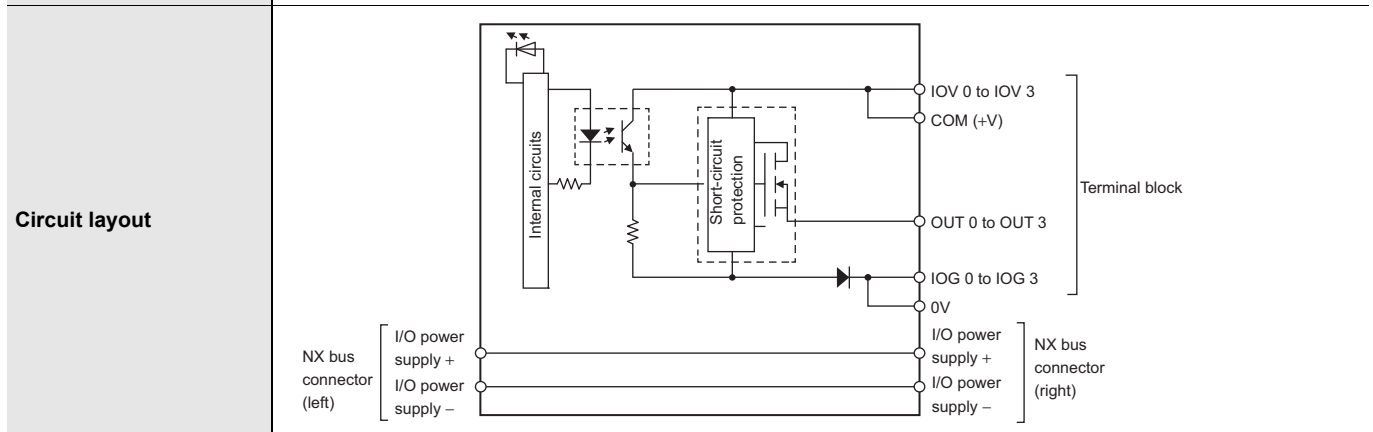| Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions

Terminal connection diagram	

Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD3257

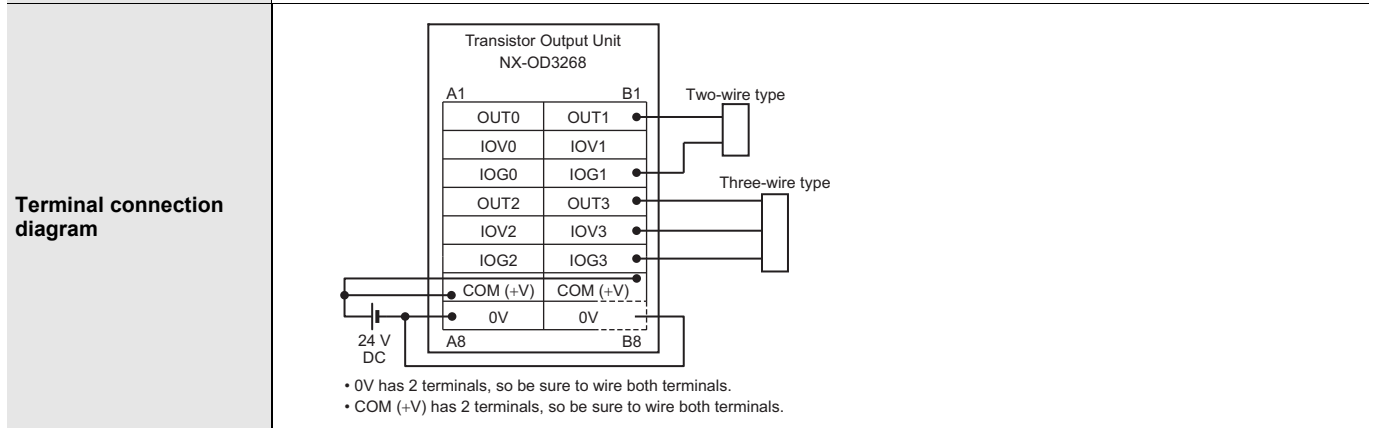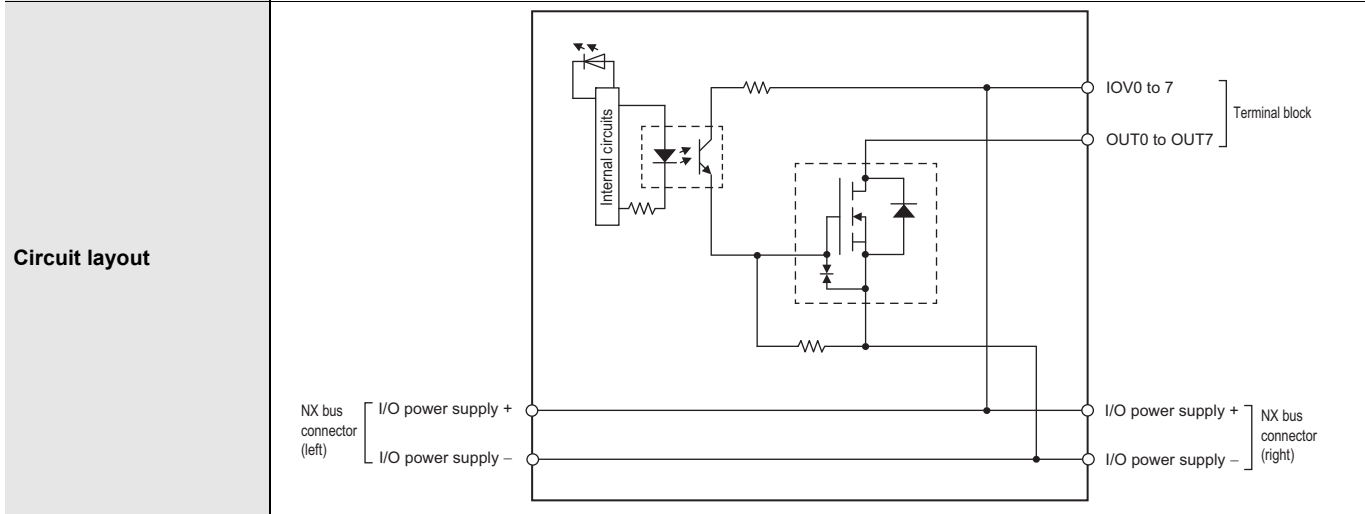| Unit name	Transistor Output Unit	Model	NX-OD3257
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		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 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 or Communication Control Unit 0.85 W max. • Connected to a Communications Coupler Unit 0.50 W max.	I/O current consumption	40 mA max.
Weight	70 g max.		
Circuit layout	This unit uses a push-pull output circuit.		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD3268

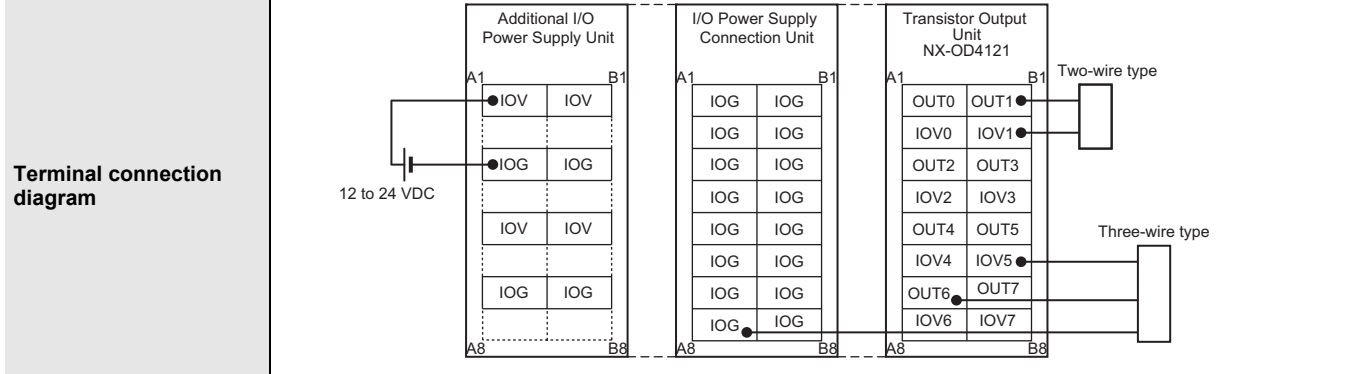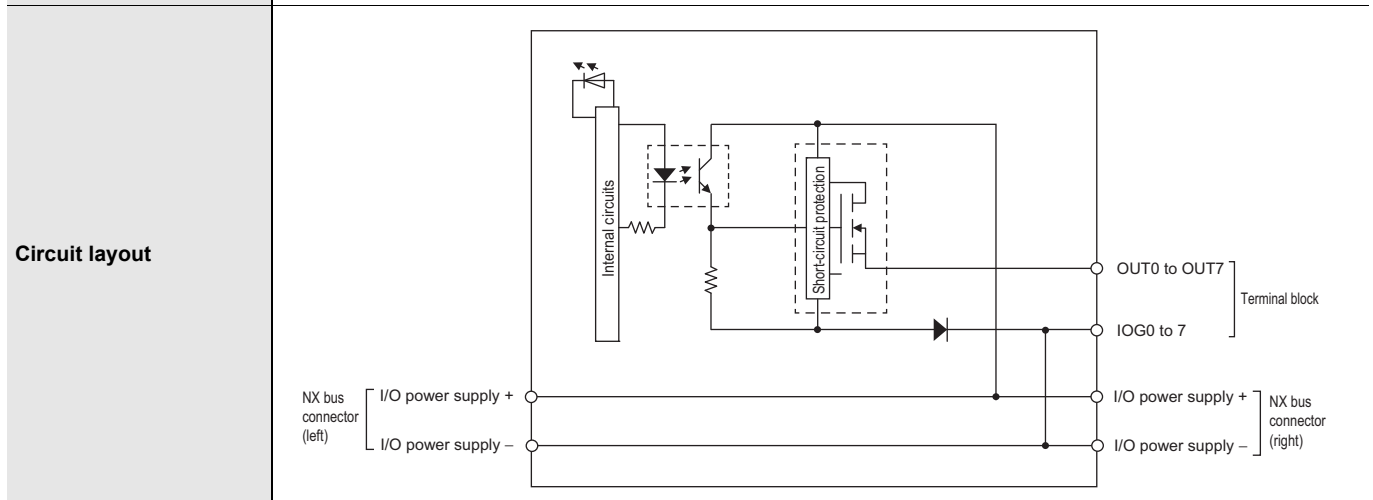| Unit name	Transistor Output Unit	Model	NX-OD3268
Number of points	4 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator **OD3268** TS 0 1 2 3	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		Maximum value of load current	2 A/point, 8 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.5 ms max./1.0 ms max.
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	IOV: 2 A/terminal max., IOG: 2 A/terminal max., COM (+V): 4 A/terminal max., 0V: 4 A/terminal max.

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  0.85 W max.
	• Connected to a Communications Coupler Unit
	  0.50 W max.
		Current consumption from I/O power supply	20 mA max.

Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD4121

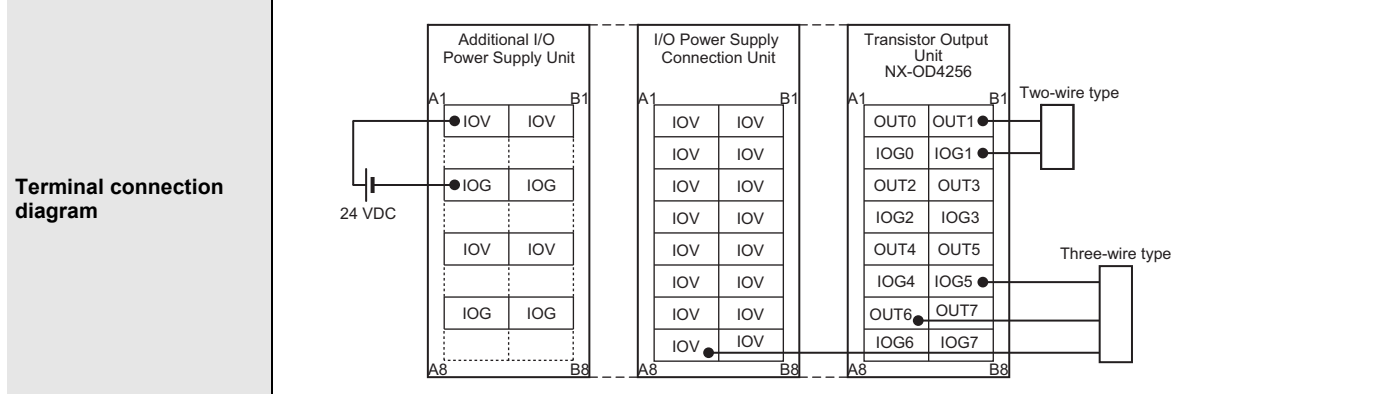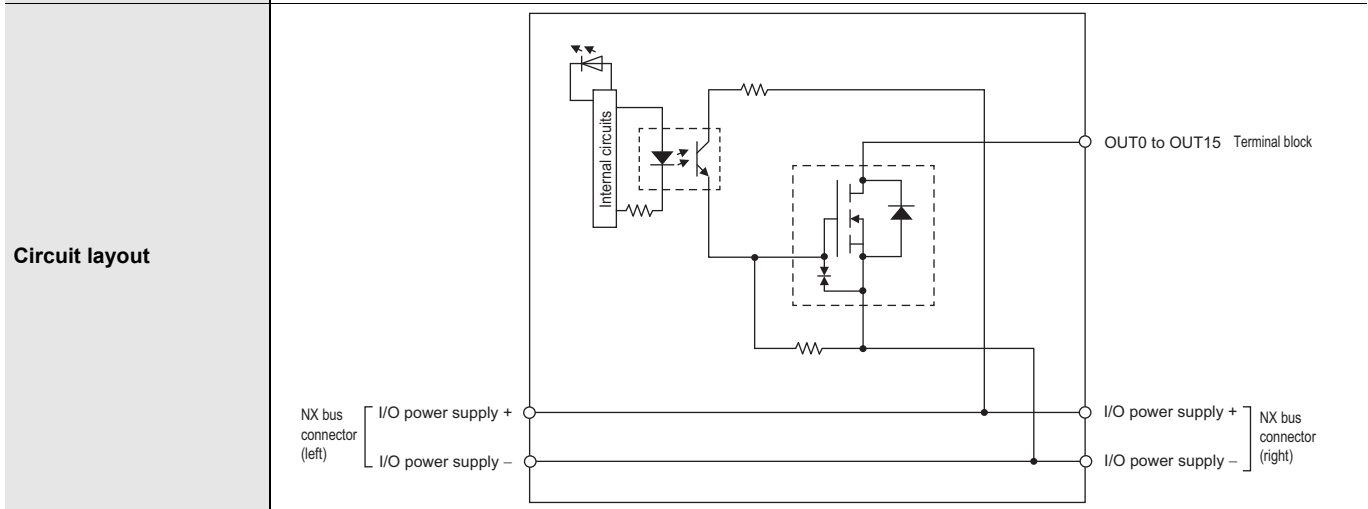| Unit name	Transistor Output Unit	Model	NX-OD4121
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator OD4121 ■TS 0 1 2 3 4 5 6 7	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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 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.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.55 W max.	I/O current consumption	10 mA max.
Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD4256

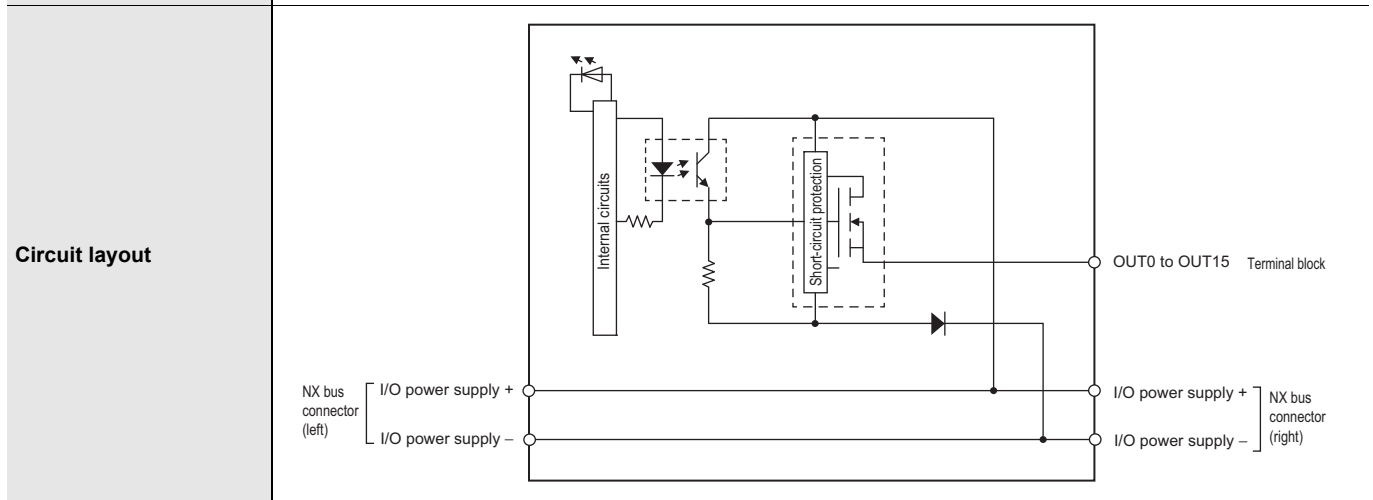| Unit name	Transistor Output Unit	Model	NX-OD4256
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator **OD4256** ■TS 0　1 2　3 4　5 6　7	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		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 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	IOG: 0.5 A/terminal max.
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 　1.00 W max. • Connected to a Communications Coupler Unit 　0.65 W max.	I/O current consumption	30 mA max.
Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD5121

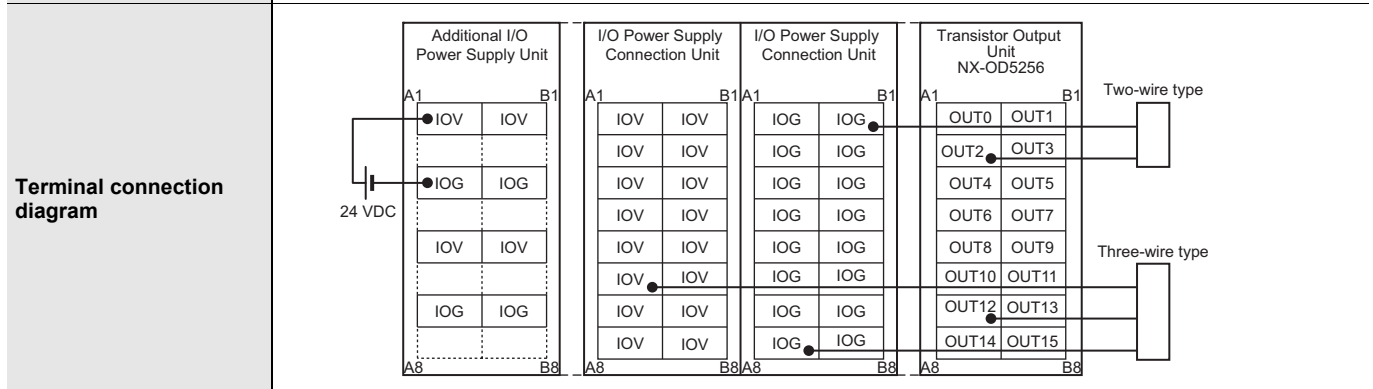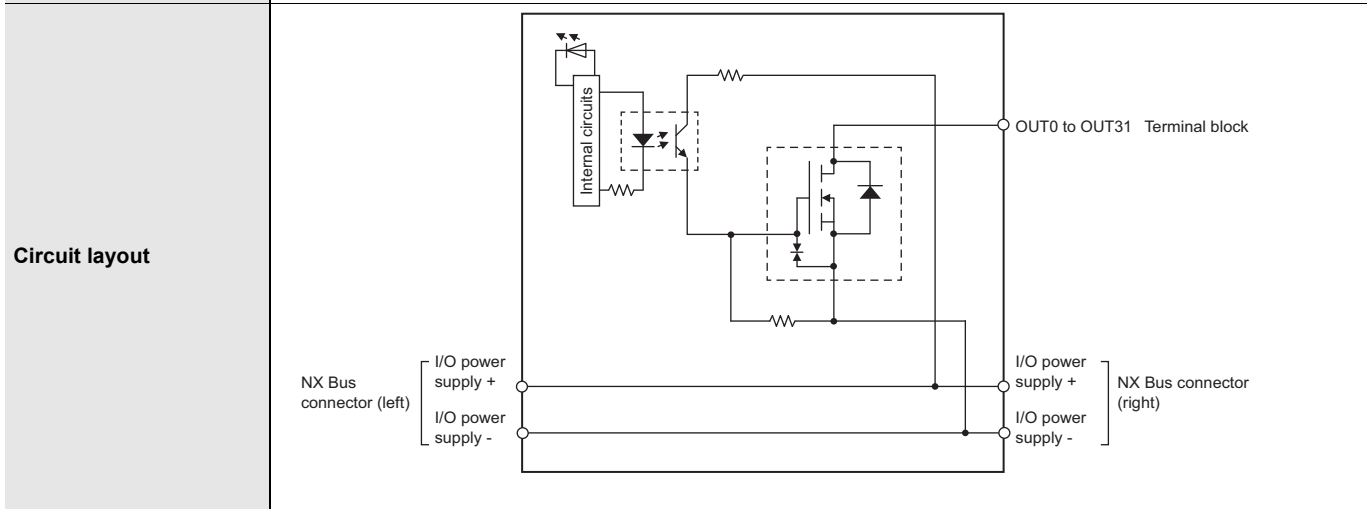| Unit name	Transistor Output Unit	Model	NX-OD5121
Number of points	16 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator **OD5121** ■TS 0　1　2　3 4　5　6　7 8　9　10　11 12　13　14　15	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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 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	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.00 W max. • Connected to a Communications Coupler Unit 0.65 W max.	I/O current consumption	20 mA max.
Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD5256

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 Free-Run refreshing		
Indicators	TS indicator, output indicator **OD5256** ▪TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		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 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	Without I/O power supply terminals

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  1.10 W max.
	• Connected to a Communications Coupler Unit
	  0.70 W max.
		I/O current consumption	40 mA max.

Weight	70 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

NX-OD6121

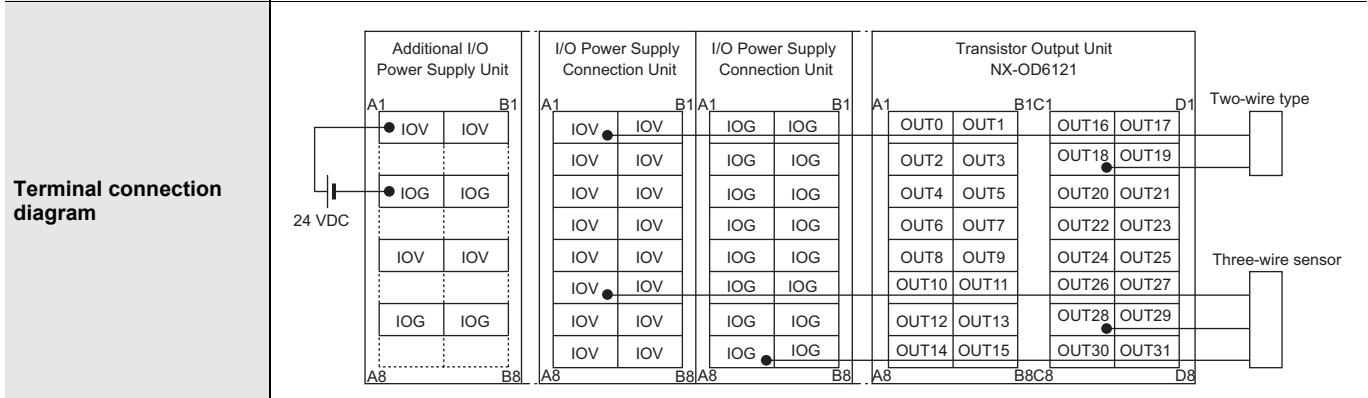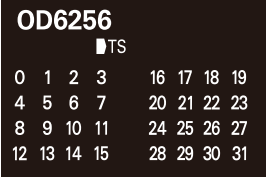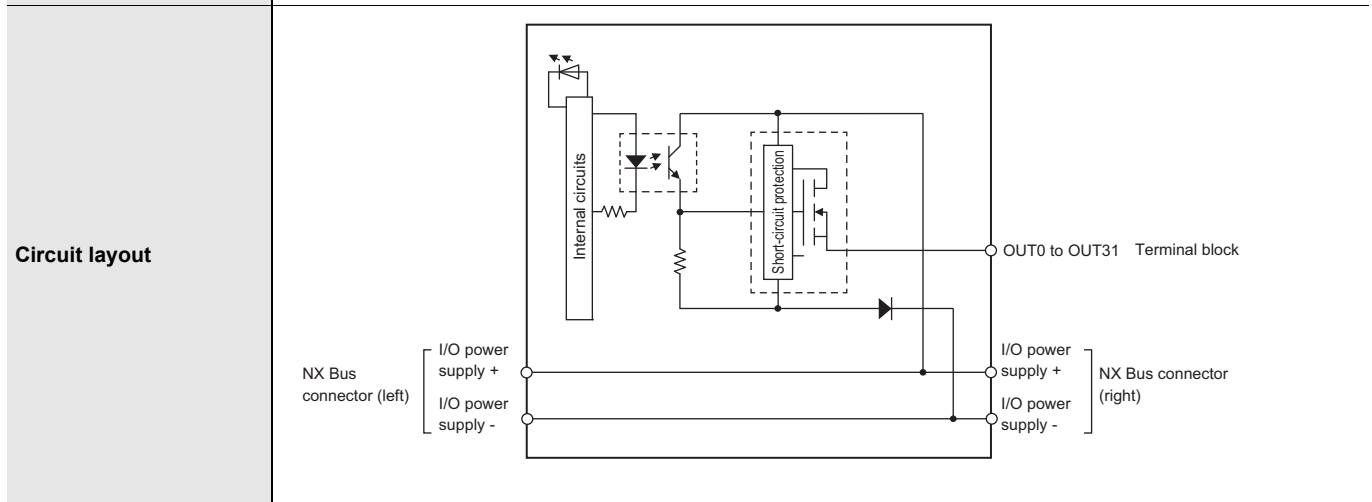| Unit name	Transistor Output Unit	Model	NX-OD6121
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator OD6121 ■TS 0 1 2 3 16 17 18 19 4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		Maximum value of load current	0.5 A/point, 4 A/terminal block *1, 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	0.1 ms max./0.8 ms max.
Dimensions	24 (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 method	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.45 W max. • Connected to a Communications Coupler Unit 0.95 W max.	I/O current consumption	40 mA max.
Weight	130 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

NX-OD6256

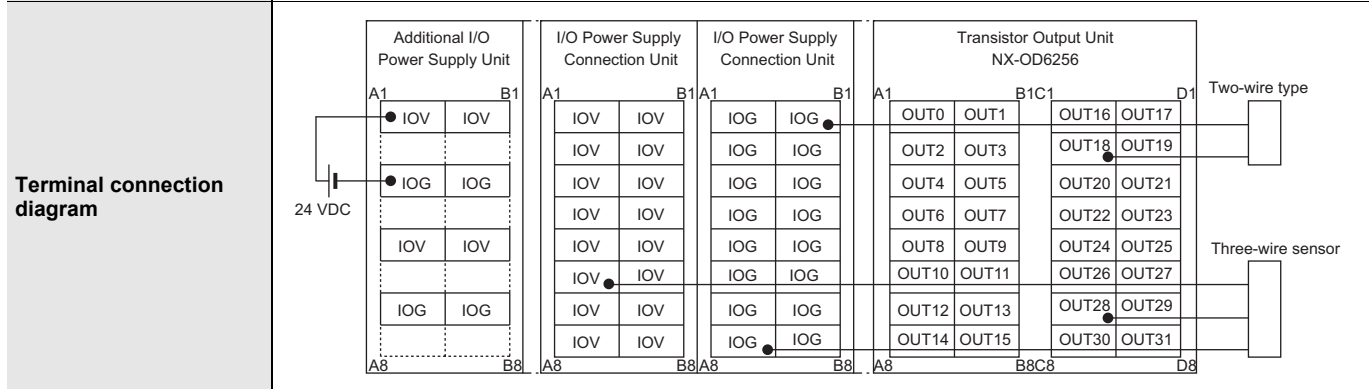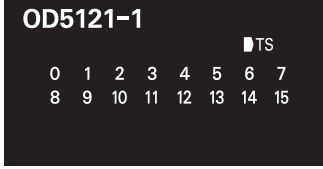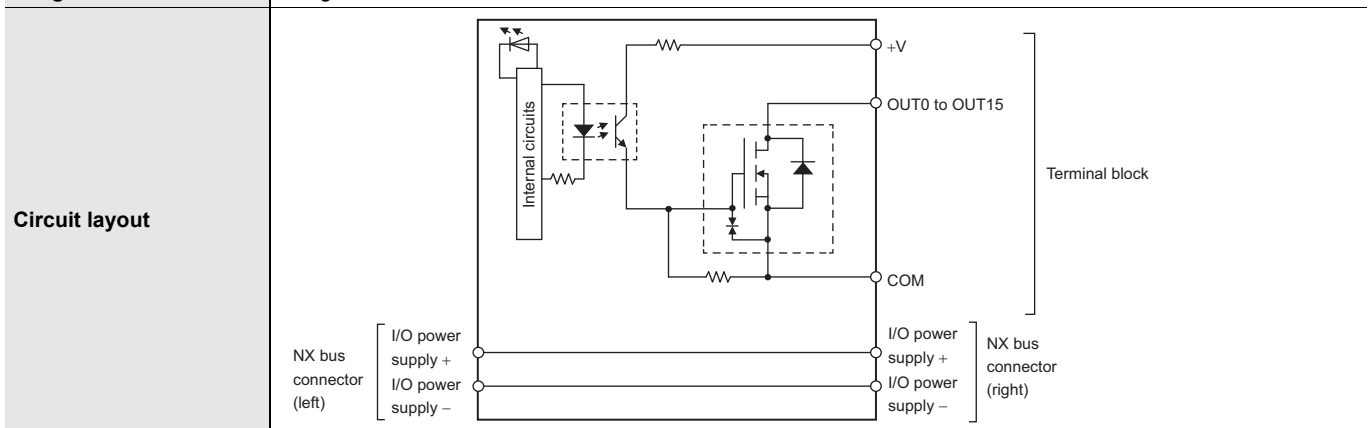| Unit name	Transistor Output Unit	Model	NX-OD6256
Number of points	32 points	External connection terminals	Screwless clamping terminal block (16 terminals x 2)
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing		
Indicators	TS indicator, output indicator OD6256 ▮TS 0 1 2 3 16 17 18 19 4 5 6 7 20 21 22 23 8 9 10 11 24 25 26 27 12 13 14 15 28 29 30 31	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	15 to 28.8 VDC
		Maximum value of load current	0.5 A/point, 4 A/terminal block *1, 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	24 (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 method	Supply from the NX bus	Current capacity of I/O power supply terminal	Without I/O power supply terminals

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  1.45 W max.
	• Connected to a Communications Coupler Unit
	  1.00 W max.
		I/O current consumption	80 mA max.

Weight	130 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

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

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

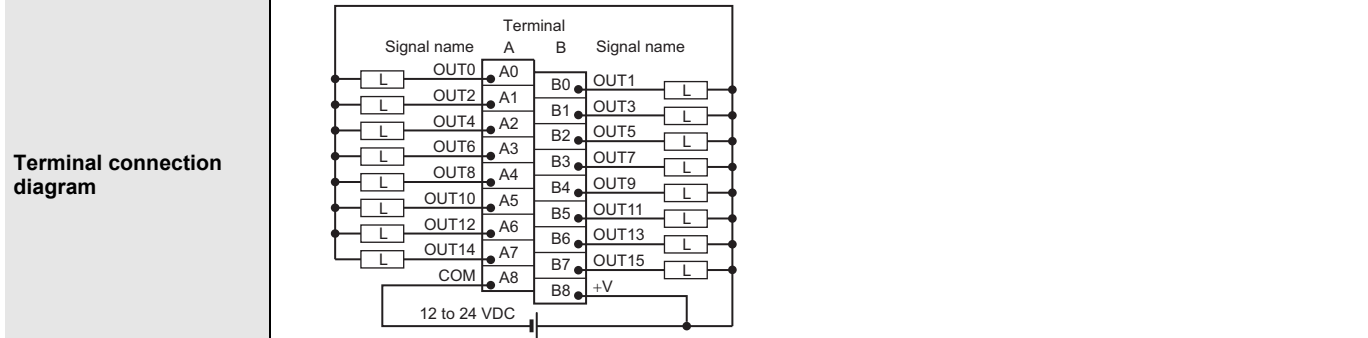| Unit name	Transistor Output Unit	Model	NX-OD5121-1
Number of points	16 points	External connection terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator OD5121-1 ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.90 W max. • Connected to a Communications Coupler Unit 0.60 W max.	Current consumption from I/O power supply	30 mA max.
Weight	125 g max.		

Circuit layout

Installation orientation and restrictions

Installation orientation:
• Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.
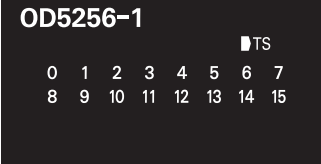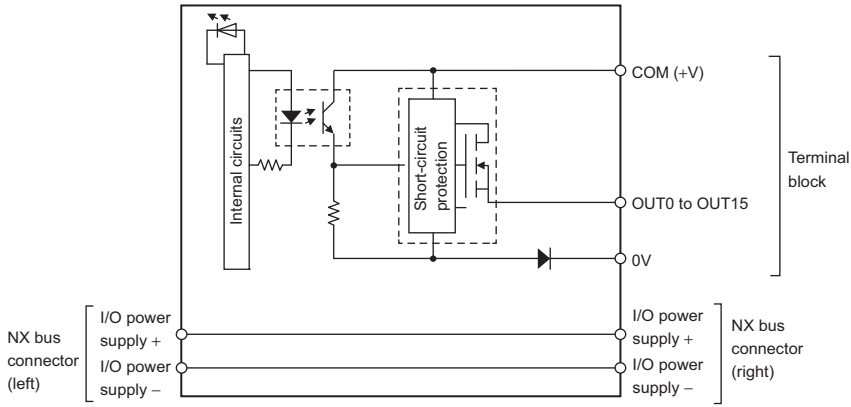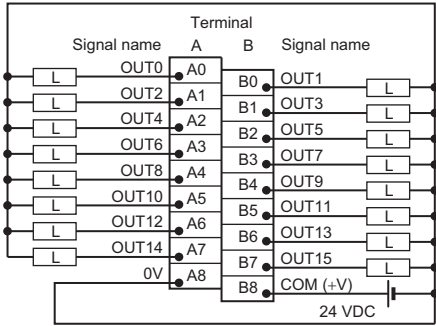• Connected to a Communications Coupler Unit: Possible in 6 orientations.
Restrictions: No restrictions

Terminal connection diagram

Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD5256-1

Unit name	Transistor Output Unit	Model	NX-OD5256-1
Number of points	16 points	External connection terminals	M3 screw terminal block (18 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator **OD5256-1** ▮TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	20.4 to 28.8 VDC
		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 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.95 W max. • Connected to a Communications Coupler Unit 0.65 W max.	Current consumption from I/O power supply	30 mA max.
Weight	125 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

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

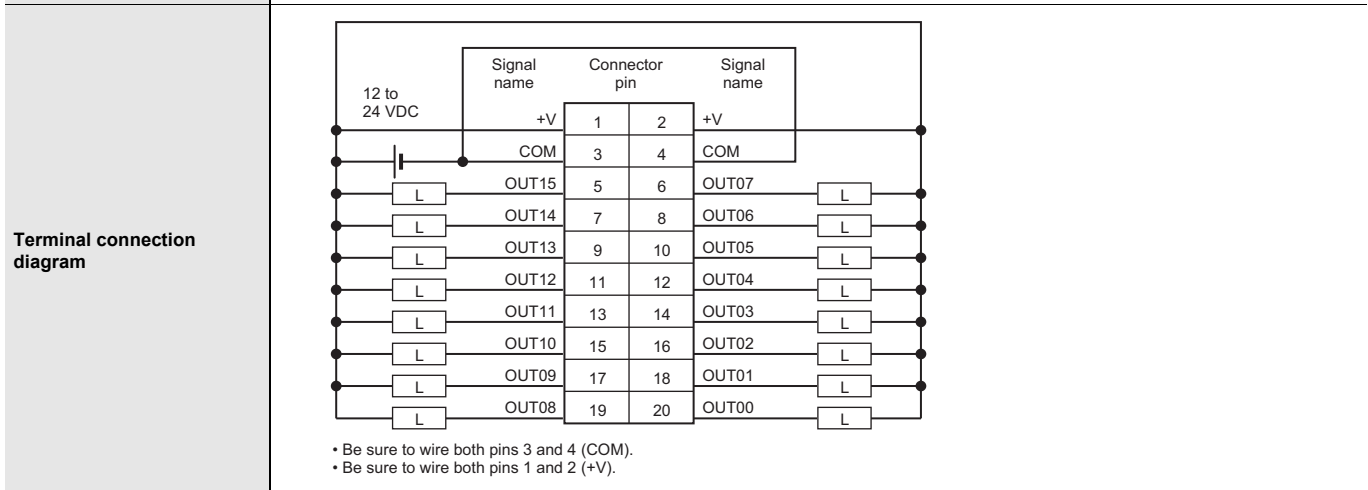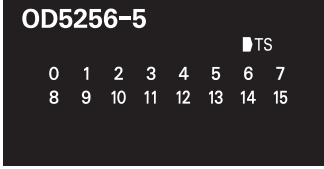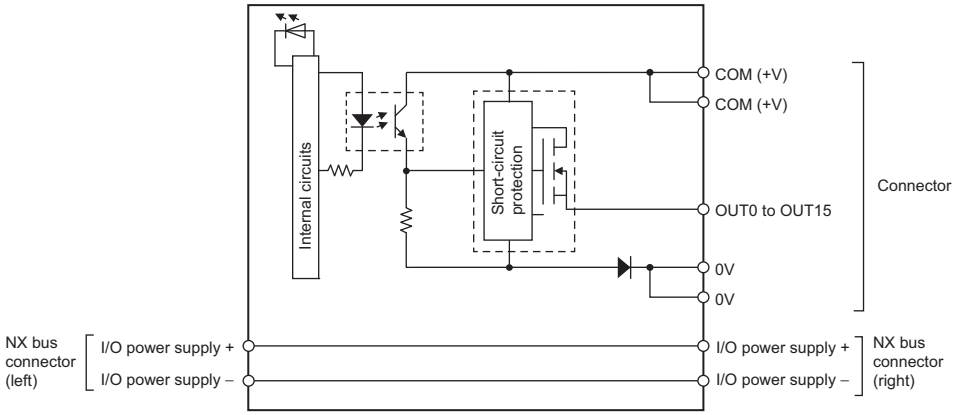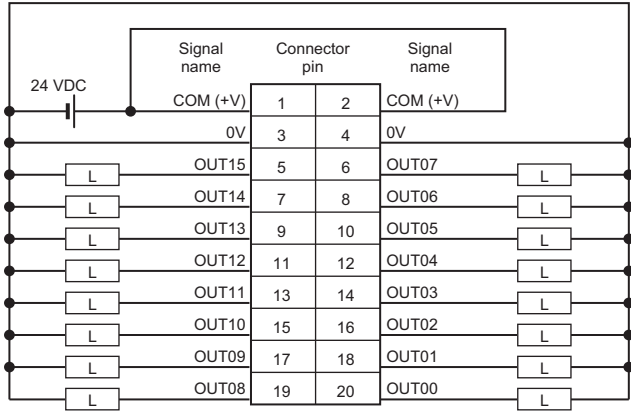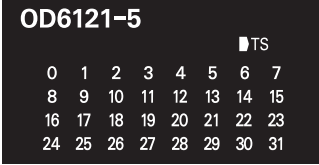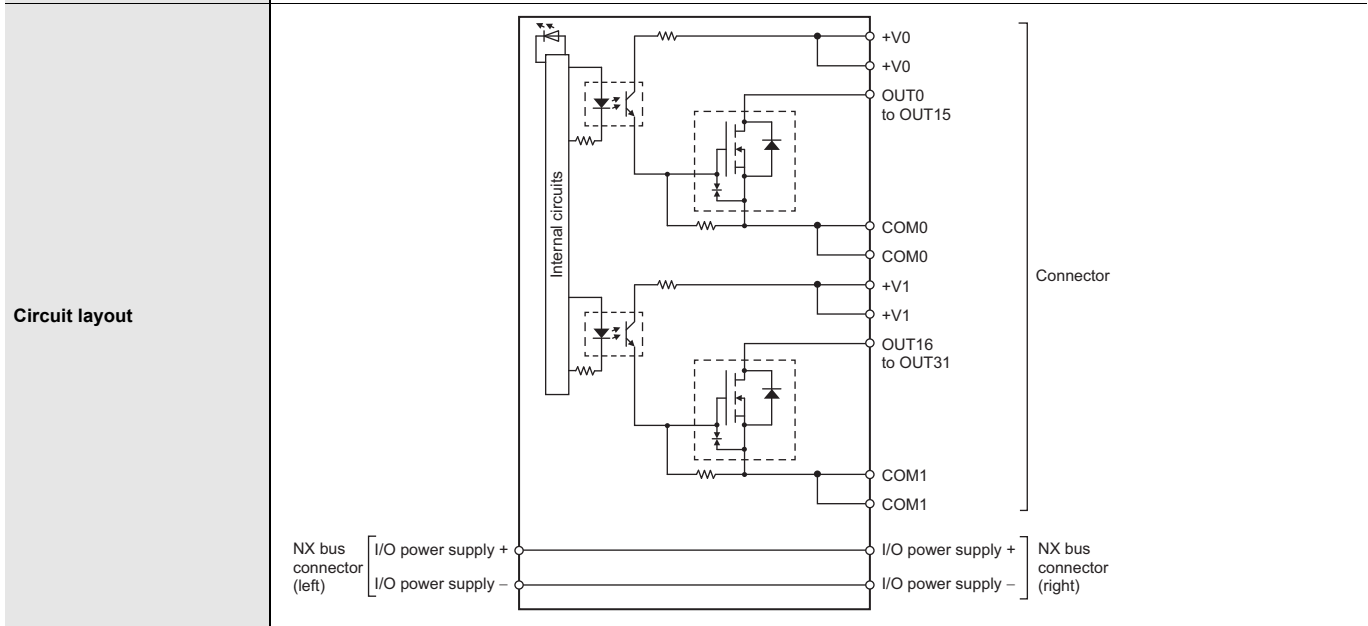| Unit name	Transistor Output Unit	Model	NX-OD5121-5
Number of points	16 points	External connection terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator **OD5121-5** ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		Maximum value of load current	0.5 A/point, 2 A/Unit
		Maximum inrush current	4.0 A/point, 10 ms max.
		Leakage current	0.1 mA max.
		Residual voltage	1.5 V max.
		ON/OFF response time	0.1 ms max./0.8 ms max.
Dimensions	30 (W) x 100 (H) x 71 (D)	Isolation method	Photocoupler isolation
Insulation resistance	20 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 0.95 W max. • Connected to a Communications Coupler Unit 0.60 W max.	Current consumption from I/O power supply	30 mA max.
Weight	80 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram	 • Be sure to wire both pins 3 and 4 (COM). • Be sure to wire both pins 1 and 2 (+V).		
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD5256-5

Unit name	Transistor Output Unit	Model	NX-OD5256-5
Number of points	16 points	External connection terminals	MIL connector (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator OD5256-5 　　　　　　　　■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	20.4 to 28.8 VDC
		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 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	Supplied from external source.	Current capacity of I/O power supply terminal	Without I/O power supply terminals

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  1.00 W max.
	• Connected to a Communications Coupler Unit
	  0.70 W max.
		Current consumption from I/O power supply	40 mA max.

Weight	85 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	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-Run refreshing		
Indicators	TS indicator, output indicator OD6121–5 ▮TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.00 W max. • Connected to a Communications Coupler Unit 0.80 W max.	Current consumption from I/O power supply	50 mA max.
Weight	90 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		

Terminal connection diagram					

	Signal name	Connector pin		Signal name	
12 to 24 VDC	+V1	1	2	+V1	
	COM1	3	4	COM1	
	OUT31	5	6	OUT23	
	OUT30	7	8	OUT22	
	OUT29	9	10	OUT21	
	OUT28	11	12	OUT20	
	OUT27	13	14	OUT19	
	OUT26	15	16	OUT18	
	OUT25	17	18	OUT17	
	OUT24	19	20	OUT16	
	+V0	21	22	+V0	
	COM0	23	24	COM0	
	OUT15	25	26	OUT07	
	OUT14	27	28	OUT06	
	OUT13	29	30	OUT05	
	OUT12	31	32	OUT04	
	OUT11	33	34	OUT03	
	OUT10	35	36	OUT02	
12 to 24 VDC	OUT09	37	38	OUT01	
	OUT08	39	40	OUT00	

• Be sure to wire both pins 21 and 22 (+V0).
• Be sure to wire both pins 23 and 24 (COM0).
• Be sure to wire both pins 1 and 2 (+V1).
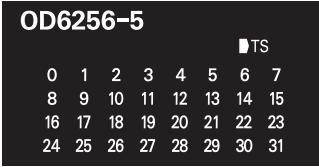• Be sure to wire both pins 3 and 4 (COM1).
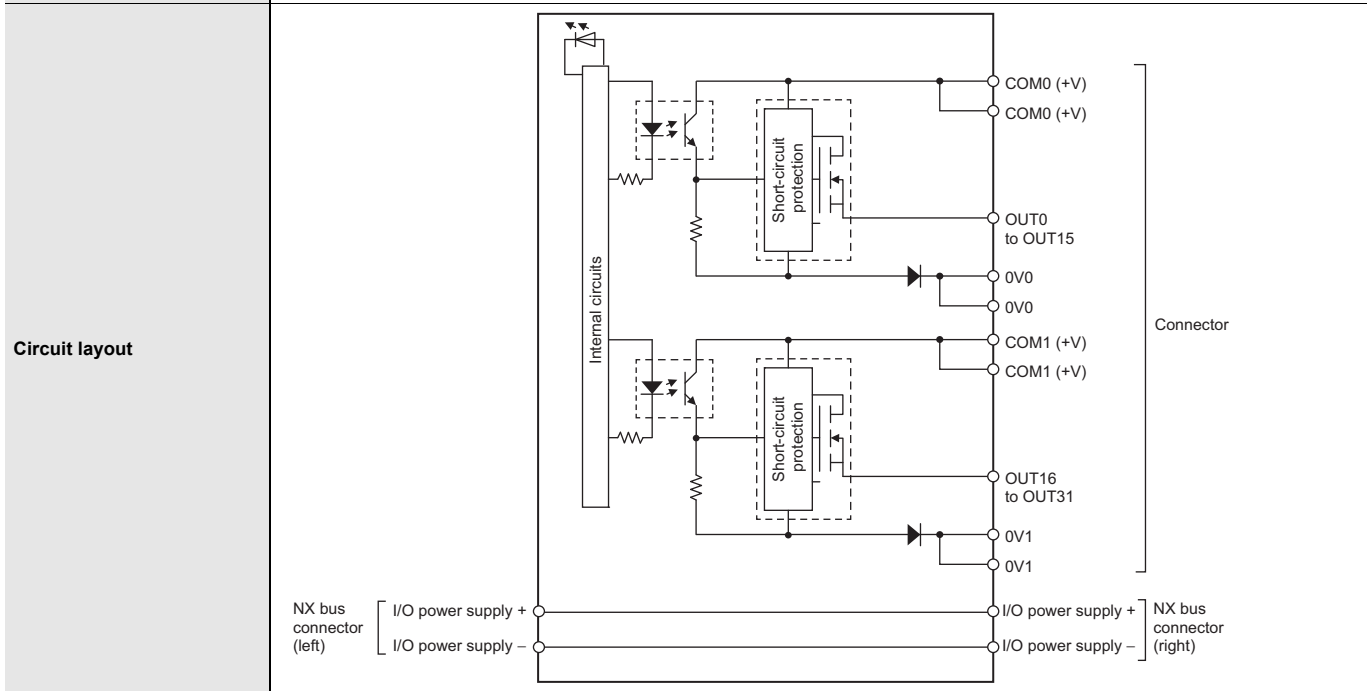
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

NX-OD6256-5

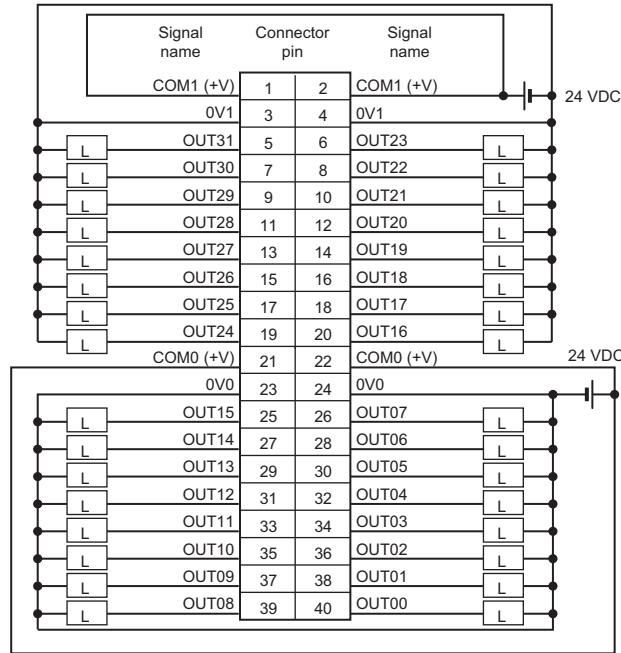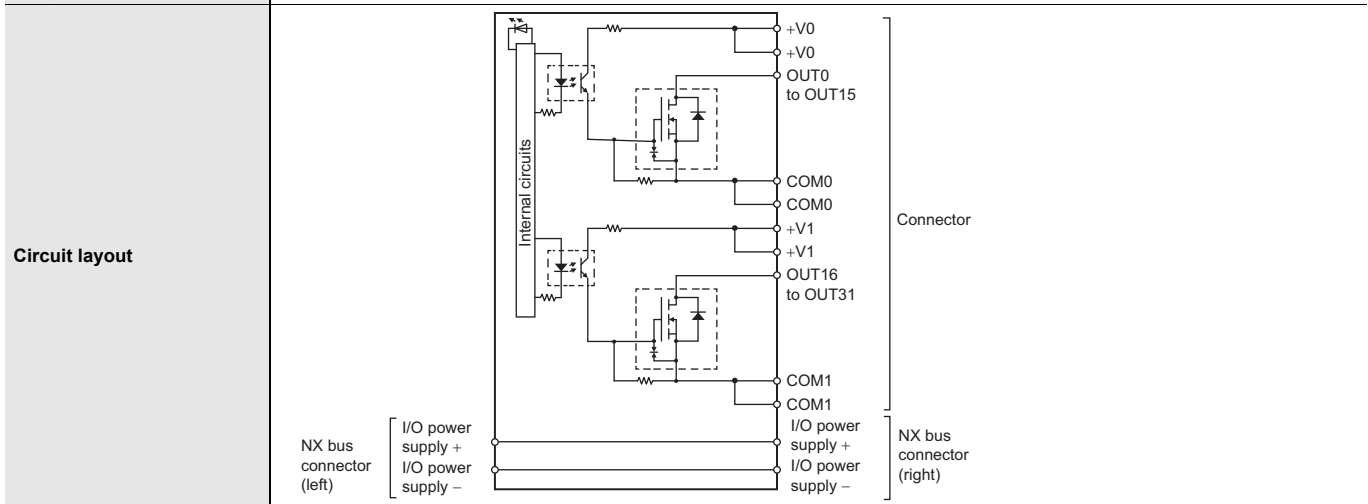| Unit name	Transistor Output Unit	Model	NX-OD6256-5
Number of points	32 points	External connection terminals	MIL connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator **OD6256–5** ■TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Internal I/O common	PNP
		Rated voltage	24 VDC
		Operating load voltage range	20.4 to 28.8 VDC
		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	0.5 ms max./1.0 ms max.
Dimensions	30 (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 method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals

NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit
	  1.30 W max.
	• Connected to a Communications Coupler Unit
	  1.00 W max.
		Current consumption from I/O power supply	80 mA max.

Weight	95 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		

Terminal connection diagram	

Signal name	Connector pin	Signal name	
COM1 (+V)	1	2	COM1 (+V)
0V1	3	4	0V1
OUT31	5	6	OUT23
OUT30	7	8	OUT22
OUT29	9	10	OUT21
OUT28	11	12	OUT20
OUT27	13	14	OUT19
OUT26	15	16	OUT18
OUT25	17	18	OUT17
OUT24	19	20	OUT16
COM0 (+V)	21	22	COM0 (+V)
0V0	23	24	0V0
OUT15	25	26	OUT07
OUT14	27	28	OUT06
OUT13	29	30	OUT05
OUT12	31	32	OUT04
OUT11	33	34	OUT03
OUT10	35	36	OUT02
OUT09	37	38	OUT01
OUT08	39	40	OUT00

24 VDC (COM1)
24 VDC (COM0)

• Be sure to wire both pins 21 and 22 (COM0 (+V)).
• Be sure to wire both pins 1 and 2 (COM1 (+V)).
• Be sure to wire both pins 23 and 24 (0V0).
• Be sure to wire both pins 3 and 4 (0V1).

Disconnection/Short-circuit detection	Not supported.	Protective function	With load short-circuit protection.

● Transistor Output Unit (Fujitsu/OTAX Connector, 30 mm Width)
NX-OD6121-6

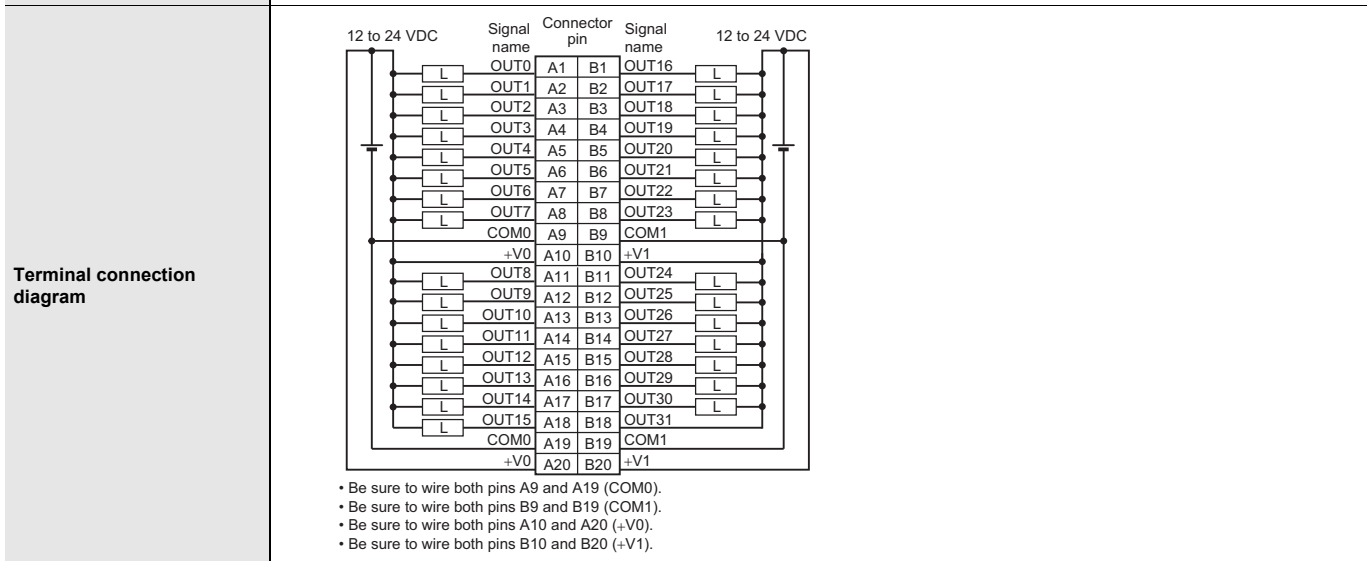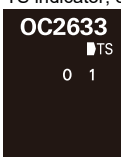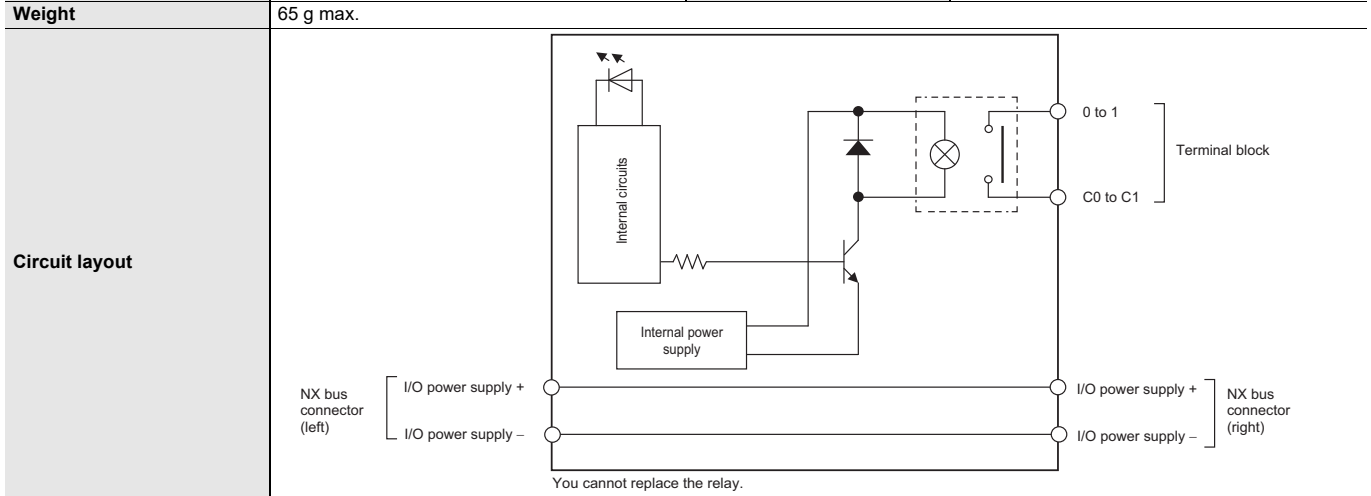| Unit name	Transistor Output Unit	Model	NX-OD6121-6
Number of points	32 points	External connection terminals	Fujitsu/OTAX connector (40 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing		
Indicators	TS indicator, output indicator **OD6121-6** ▮TS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Internal I/O common	NPN
		Rated voltage	12 to 24 VDC
		Operating load voltage range	10.2 to 28.8 VDC
		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 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 external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.10 W max. • Connected to a Communications Coupler Unit 0.80 W max.	Current consumption from I/O power supply	50 mA max.
Weight	90 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram	 • Be sure to wire both pins A9 and A19 (COM0). • Be sure to wire both pins B9 and B19 (COM1). • Be sure to wire both pins A10 and A20 (+V0). • Be sure to wire both pins B10 and B20 (+V1).		
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

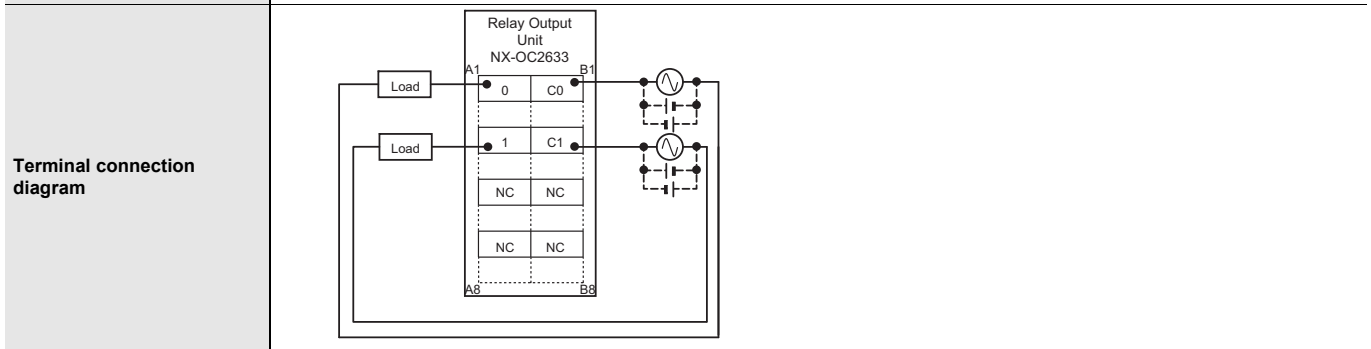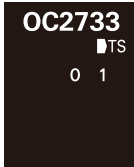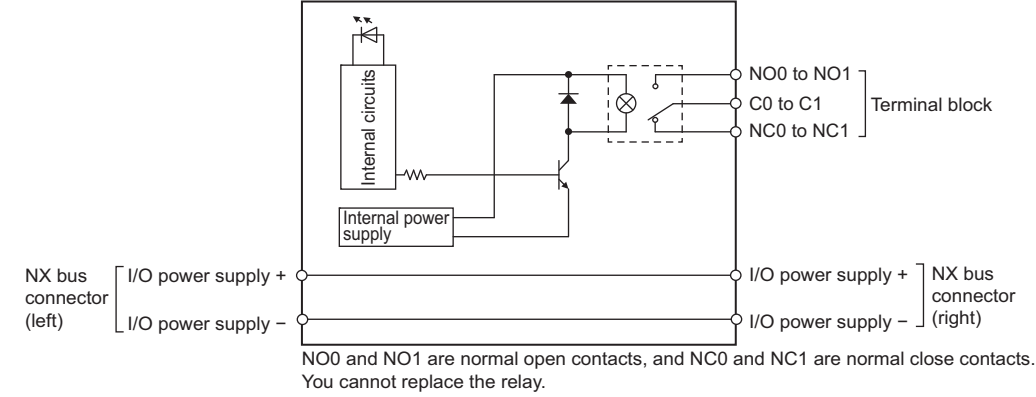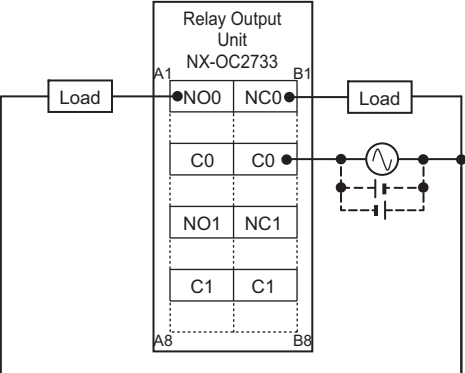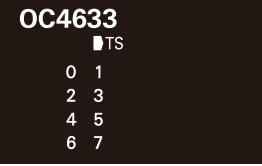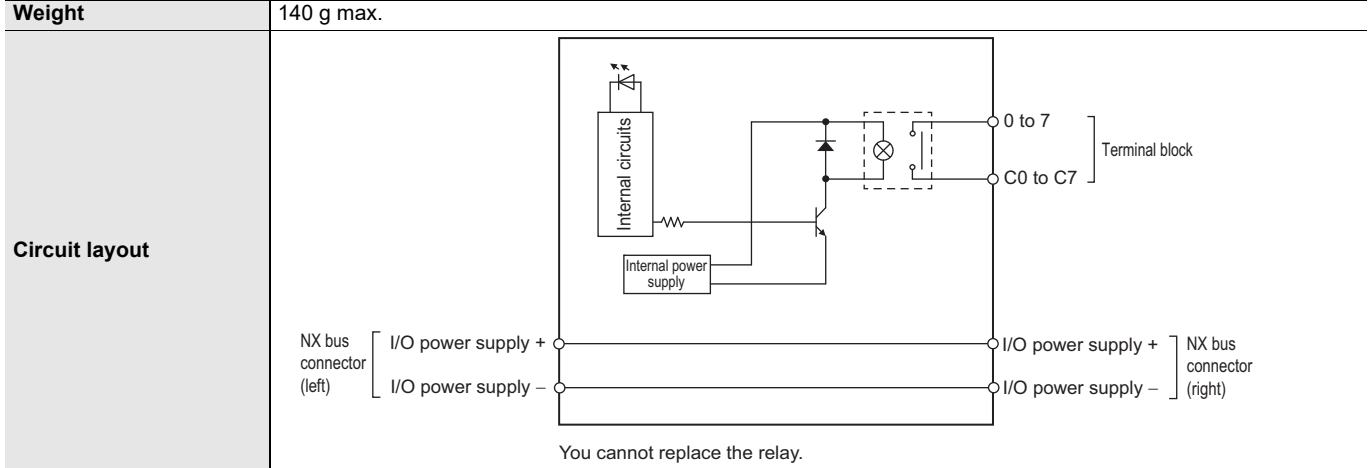| Unit name	Relay Output Units	Model	NX-OC2633
Number of points	2 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Free-Run refreshing		
Indicators	TS indicator, output indicator	Relay type	N.O. contact
	OC2633	Maximum switching 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 MΩ min. (500 VDC) Between the external terminals and internal circuits: 20 MΩ min. (500 VDC) Between the internal circuit and GR terminal: 20 MΩ min. (100 VDC) Between the external terminals and GR terminal: 20 MΩ min. (500 VDC)	Dielectric strength	Between A1/B1 terminals and A3/B3 terminals: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and GR terminal: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and GR terminal: 510 VAC for 1 min at a leakage current of 5 mA max.
Vibration resistance	Conforms to IEC60068-2-6. 5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s^2 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	Shock resistance	100 m/s^2, 3 times each in X, Y, and Z directions
I/O power supply method	Supply from external source	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.20 W max. • Connected to a Communications Coupler Unit 0.80 W max.	I/O current consumption	No consumption
Weight	65 g max.		
Circuit layout			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/ Short-circuit detection	Not supported.	Protective function	Not supported.

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

NX-OC2733

Unit name	Relay Output Unit	Model	NX-OC2733
Number of points	2 points, independent contacts	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Free-Run refreshing		
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 MΩ min. (at 500 VDC) Between the external terminals and functional ground terminal: 20 MΩ min. (at 500 VDC) Between the external terminals and internal circuits: 20 MΩ min. (at 500 VDC) Between the internal circuit and the functional ground terminal: 20 MΩ 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 or Communication Control Unit
	  1.30 W max.
	• Connected to a Communications Coupler Unit
	  0.95 W max.
		Current consumption from I/O power supply	No consumption

Weight	70 g max.		
Circuit layout	NO0 and NO1 are normal open contacts, and NC0 and NC1 are normal close contacts. You cannot replace the relay.		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions		
Terminal connection diagram			
Disconnection/Short-circuit detection	Not supported.	Protective function	Not supported.

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

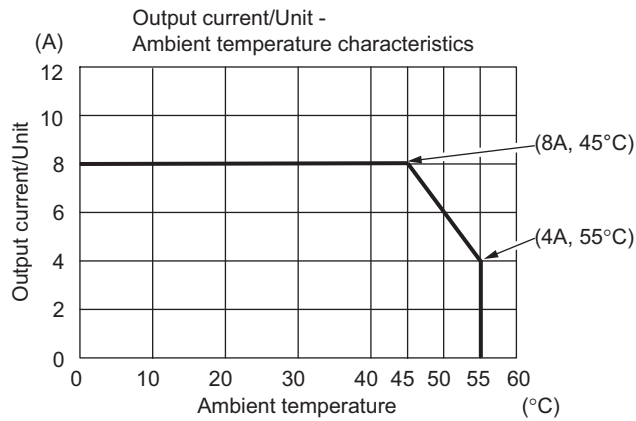| Unit name	Relay Output Unit	Model	NX-OC4633
Number of points	8 points, independent contacts	**External connection terminals**	Screwless clamping terminal block (8 terminals x 2)
I/O refreshing method	Free-Run refreshing		
Indicators	TS indicator, output indicator **OC4633** ▮TS 0　1 2　3 4　5 6　7	**Relay type**	N.O. contact
		Maximum switching capacity	250 VAC/2 A (cosφ = 1), 250 VAC/2 A (cosφ = 0.4), 24 VDC/2 A, 8 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	24 (W) x 100 (H) x 71 (D)	**Isolation method**	Relay isolation
Insulation resistance	Between output bits: 20 MΩ min. (at 500 VDC) Between the external terminals and the functional ground terminal: 20 MΩ min. (at 500 VDC) Between the external terminals and internal circuits: 20 MΩ min. (at 500 VDC) Between the internal circuit and the functional ground terminal: 20 MΩ min. (at 100 VDC)	**Dielectric strength**	Between output bits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and the functional ground terminal: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max. Between the internal circuit and the functional ground terminal: 510 VAC for 1 min at a leakage current of 5 mA max.
Vibration resistance	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s^2 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)	**Shock resistance**	100 m/s^2, 3 times each in X, Y, and Z directions
I/O power supply method	Supply from external source	**Current capacity of I/O power supply terminal**	Without I/O power supply terminals
NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 　2.00 W max. • Connected to a Communications Coupler Unit 　1.65 W max.	**Current consumption from I/O power supply**	No consumption
Weight	140 g max.		
Circuit layout	 You cannot replace the relay.		

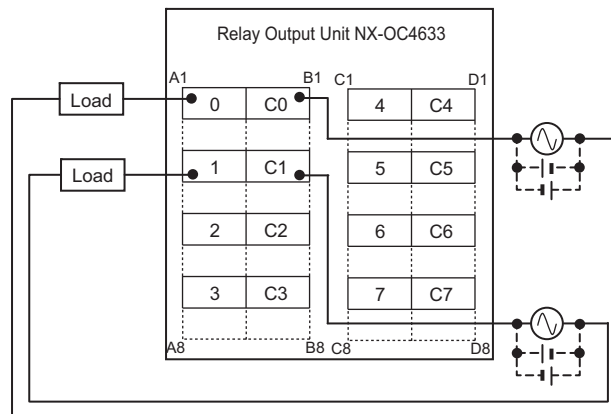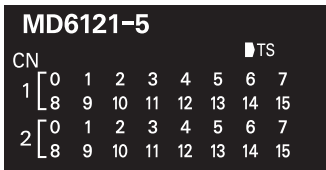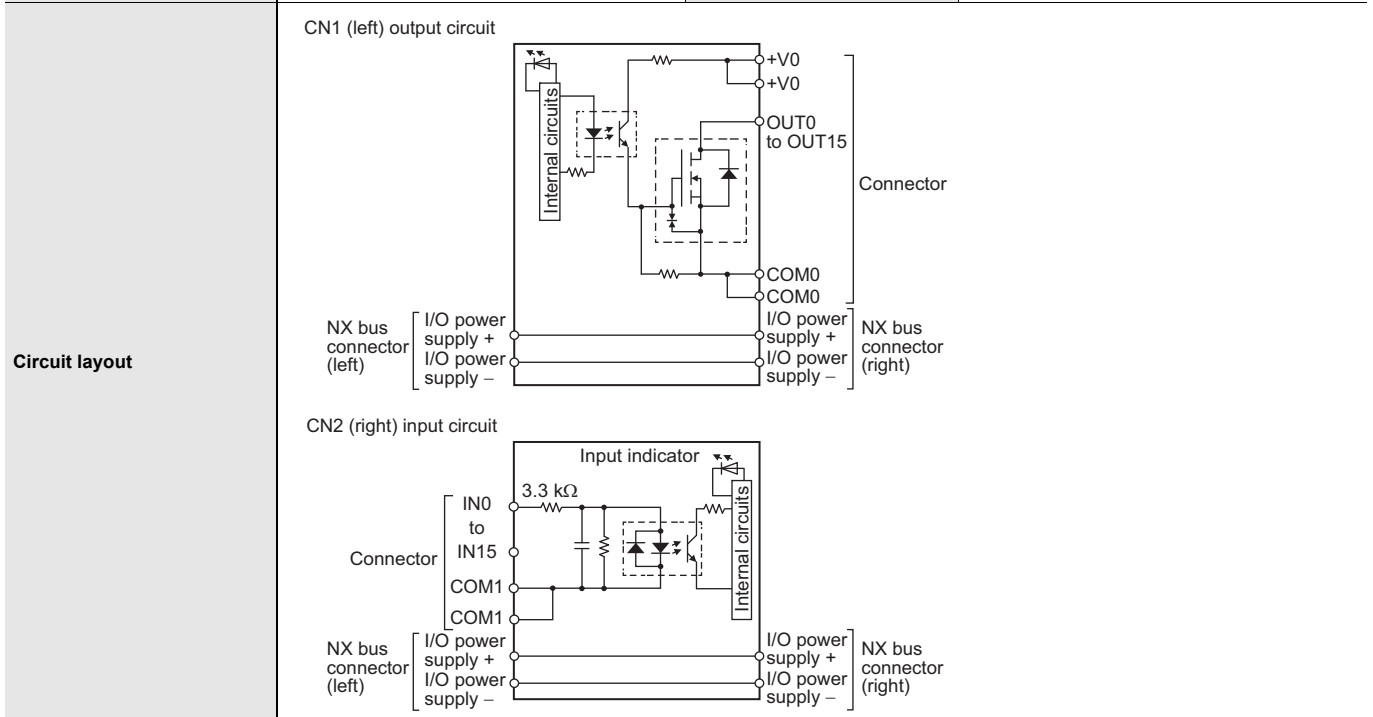|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. Output current/Unit - Ambient temperature characteristics (8A, 45°C) (4A, 55°C)
Terminal connection diagram	Relay Output Unit NX-OC4633

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

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

Unit name	DC Input/Transistor Output Unit		Model	NX-MD6121-5
Number of points	16 inputs/16 outputs		**External connection terminals**	2 MIL connectors (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing			

Output section (CN1)	**Internal I/O common**	NPN	**Input section (CN2)**	**Internal I/O common**	For both NPN/PNP
	Rated voltage	12 to 24 VDC		**Rated input voltage**	24 VDC (15 to 28.8 VDC)
	Operating load voltage range	10.2 to 28.8 VDC		**Input current**	7 mA typical (at 24 VDC)
	Maximum value of load current	0.5 A/point, 2 A/Unit		**ON voltage/ON current**	15 VDC min./3 mA min. (between COM and each signal)
	Maximum inrush current	4.0 A/point, 10 ms max.		**OFF voltage/OFF current**	5 VDC max./1 mA max. (between COM and each signal)
	Leakage current	0.1 mA max.		**ON/OFF response time**	20 μs max./400 μs max.
	Residual voltage	1.5 V max.		**Input filter time**	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
	ON/OFF response time	0.1 ms max./0.8 ms max.			

Indicators	TS indicator, I/O indicators MD6121-5 TS CN 1 [0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15] 2 [0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15]	**Dimensions**		30 (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 method		Supply from external source
		Current capacity of I/O power supply terminal		Without I/O power supply terminals

		NX Unit power consumption		• Connected to a CPU Unit or Communication Control Unit
				  1.00 W max.
				• Connected to a Communications Coupler Unit
				  0.70 W max.

		Current consumption from I/O power supply		30 mA max.
		Weight		105 g max.

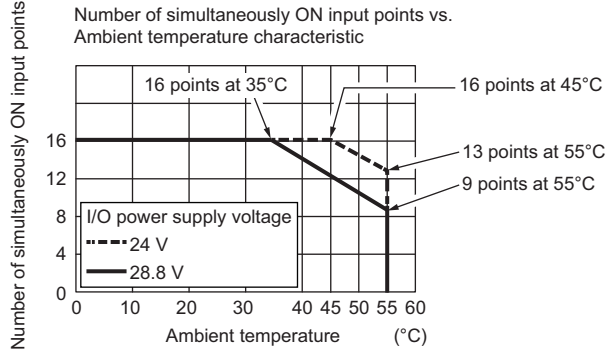|	
Circuit layout	CN1 (left) output circuit Internal circuits — +V0 / +V0 / OUT0 to OUT15 / COM0 / COM0 — Connector NX bus connector (left) [I/O power supply + / I/O power supply −] I/O power supply + / I/O power supply − NX bus connector (right) CN2 (right) input circuit Input indicator IN0 to IN15 / COM1 / COM1 — Connector 3.3 kΩ — Internal circuits NX bus connector (left) [I/O power supply + / I/O power supply −] I/O power supply + / I/O power supply − NX bus connector (right)

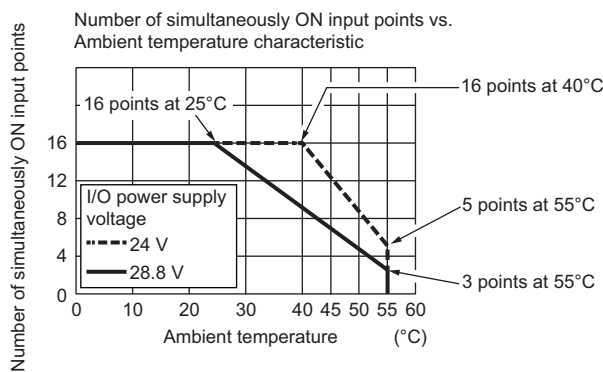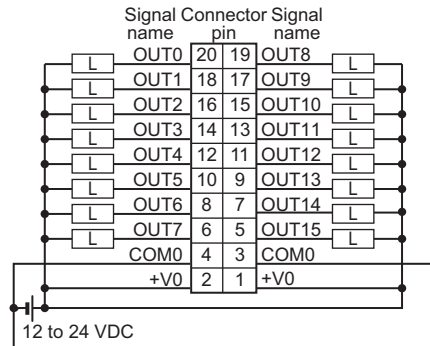|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic
Terminal connection diagram	CN1 (left) output terminal • Be sure to wire both pins 3 and 4 (COM0) of CN1. • Be sure to wire both pins 1 and 2 (+V0) of CN1. CN2 (right) input terminal • The polarity of the input power supply of CN2 can be connected in either direction. • Be sure to wire both pins 3 and 4 (COM1) of CN2, and set the same polarity for both pins.
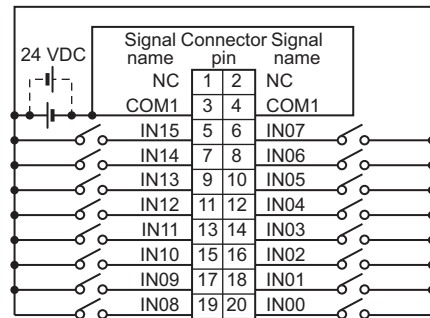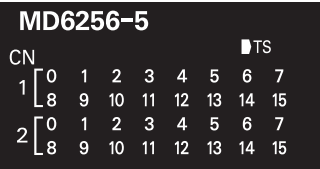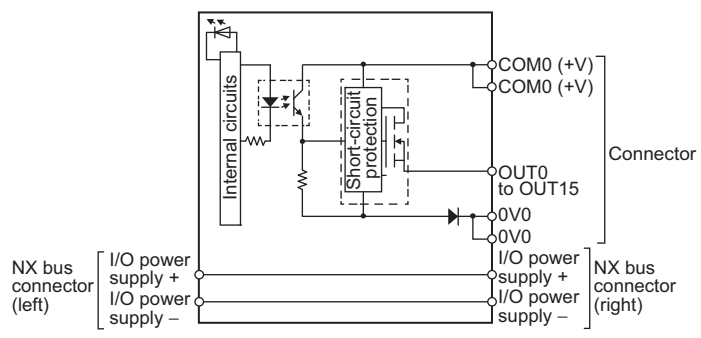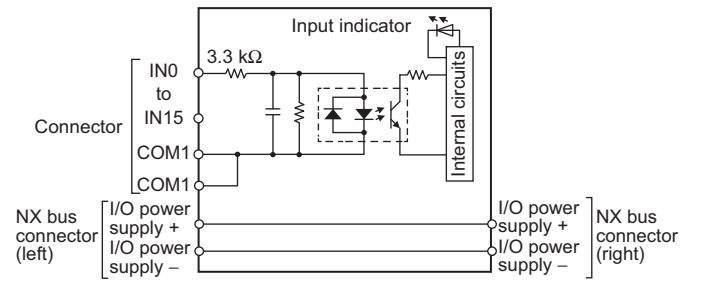
Disconnection/Short-circuit detection	Not supported.	**Protective function**	Not supported.

NX-MD6256-5

Unit name	DC Input/Transistor Output Unit		Model	NX-MD6256-5
Number of points	16 inputs/16 outputs		External connection terminals	2 MIL connectors (20 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing			

Output section (CN1)	Internal I/O common	PNP	Input section (CN2)	Internal I/O common	For both NPN/PNP
	Rated voltage	24 VDC		Rated input voltage	24 VDC (15 to 28.8 VDC)
	Operating load voltage range	20.4 to 28.8 VDC		Input current	7 mA typical (at 24 VDC)
	Maximum value of load current	0.5 A/point, 2 A/Unit		ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)
	Maximum inrush current	4.0 A/point, 10 ms max.		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
	Leakage current	0.1 mA max.		ON/OFF response time	20 μs max./400 μs max.
	Residual voltage	1.5 V max.		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
	ON/OFF response time	0.5 ms max./1.0 ms max.			

Indicators	TS indicator, I/O indicators	Dimensions	30 (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 method	Supply from external source
		Current capacity of I/O power supply terminal	Without I/O power supply terminals
		NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.10 W max. • Connected to a Communications Coupler Unit 0.75 W max.
		Current consumption from I/O power supply	40 mA max.
		Weight	110 g max.

Indicators panel:

```
MD6256-5
                               ▮ TS
CN
 1 ┌ 0   1   2   3   4   5   6   7
   └ 8   9  10  11  12  13  14  15
 2 ┌ 0   1   2   3   4   5   6   7
   └ 8   9  10  11  12  13  14  15
```

Circuit layout:

CN1 (left) output circuit

CN2 (right) input circuit

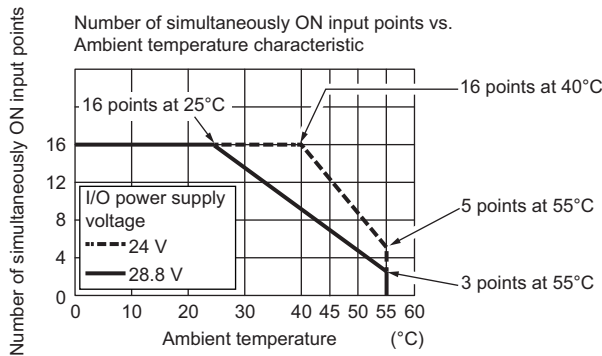# NX-ID/IA/OD/OC/MD

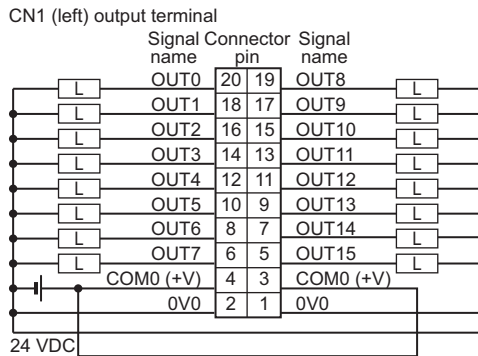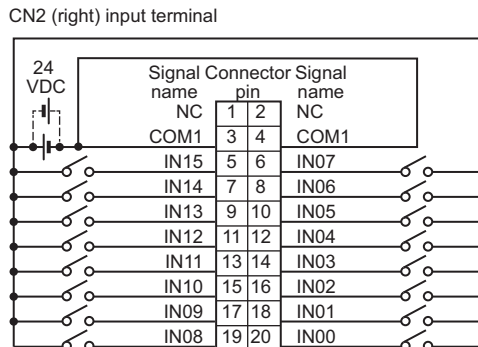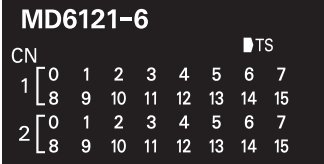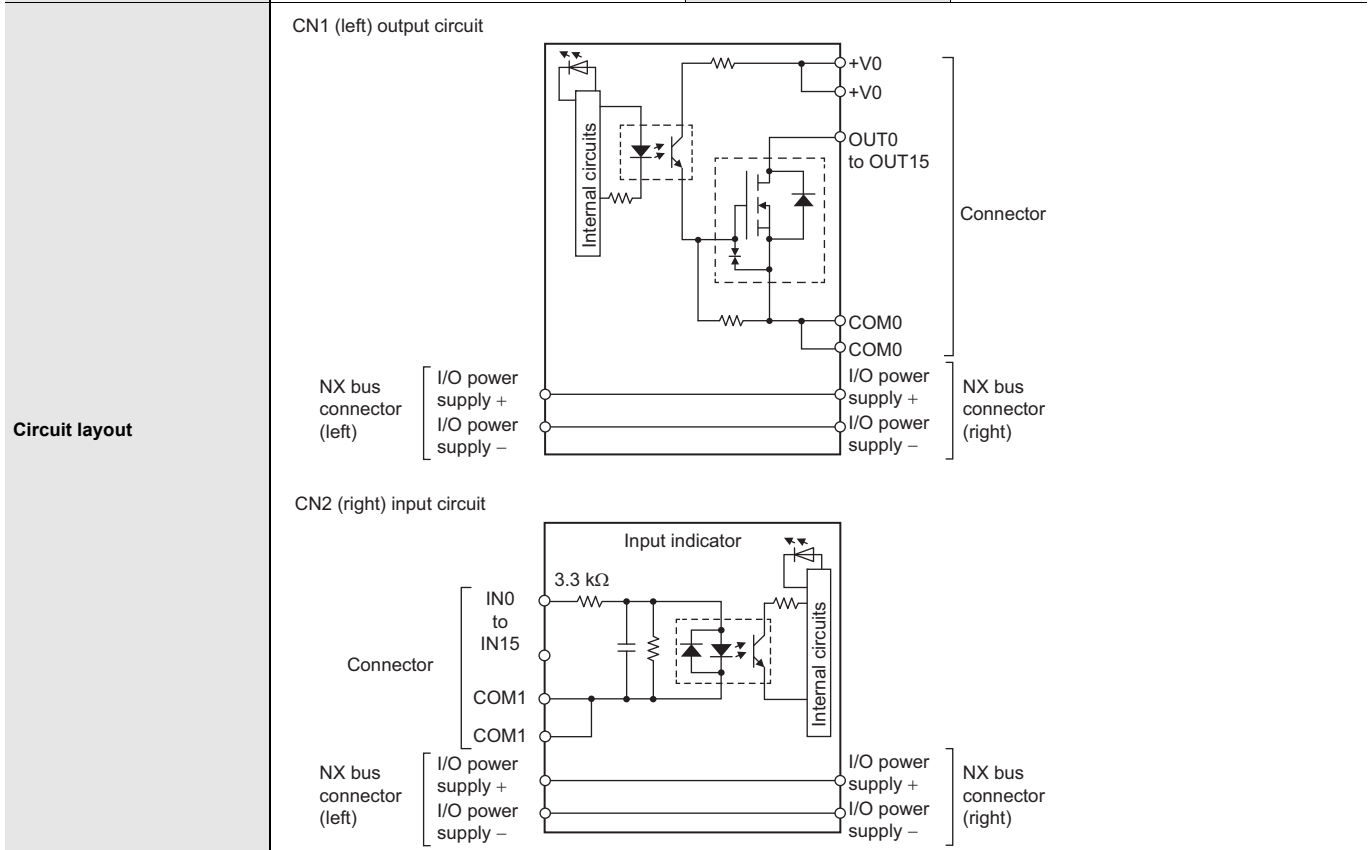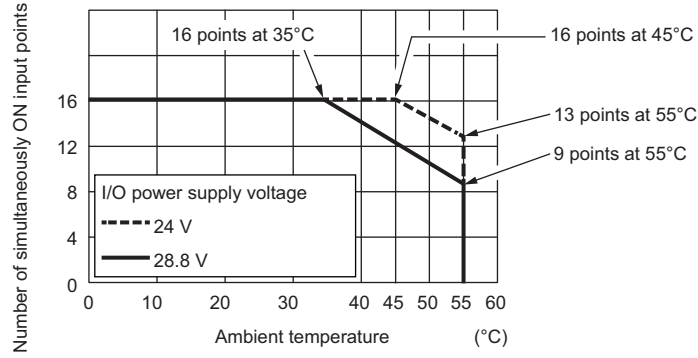|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 35°C — 16 points at 45°C 13 points at 55°C 9 points at 55°C I/O power supply voltage: 24 V, 28.8 V Ambient temperature (°C) • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic 16 points at 25°C — 16 points at 40°C I/O power supply voltage: 24 V, 28.8 V 5 points at 55°C 3 points at 55°C Ambient temperature (°C)
Terminal connection diagram	CN1 (left) output terminal 	Signal name	Connector pin	Signal name
---	---	---
OUT0	20 19	OUT8
OUT1	18 17	OUT9
OUT2	16 15	OUT10
OUT3	14 13	OUT11
OUT4	12 11	OUT12
OUT5	10 9	OUT13
OUT6	8 7	OUT14
OUT7	6 5	OUT15
COM0 (+V)	4 3	COM0 (+V)
0V0	2 1	0V0 | 24 VDC • Be sure to wire both pins 3 and 4 (COM0 (+V)) of CN1. • Be sure to wire both pins 1 and 2 (0V0) of CN1. CN2 (right) input terminal 24 VDC | Signal name	Connector pin	Signal name
---	---	---
NC	1 2	NC
COM1	3 4	COM1
IN15	5 6	IN07
IN14	7 8	IN06
IN13	9 10	IN05
IN12	11 12	IN04
IN11	13 14	IN03
IN10	15 16	IN02
IN09	17 18	IN01
IN08	19 20	IN00	 • The polarity of the input power supply of CN2 can be connected in either direction. • Be sure to wire both pins 3 and 4 (COM1) of CN2, and set the same polarity for both pins.
Disconnection/Short-circuit detection	Not supported.	**Protective function**	With load short-circuit protection.

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

Unit name	DC Input/Transistor Output Unit		Model	NX-MD6121-6
Number of points	16 inputs/16 outputs		External connection terminals	2 Fujitsu/OTAX connectors (24 terminals)
I/O refreshing method	Switching Synchronous I/O refreshing and Free-Run refreshing			

Output section (CN1)	Internal I/O common	NPN	**Input section (CN2)**	Internal I/O common	For both NPN/PNP
	Rated voltage	12 to 24 VDC		Rated input voltage	24 VDC (15 to 28.8 VDC)
	Operating load voltage range	10.2 to 28.8 VDC		Input current	7 mA typical (at 24 VDC)
	Maximum value of load current	0.5 A/point, 2 A/Unit		ON voltage/ON current	15 VDC min./3 mA min. (between COM and each signal)
	Maximum inrush current	4.0 A/point, 10 ms max.		OFF voltage/OFF current	5 VDC max./1 mA max. (between COM and each signal)
	Leakage current	0.1 mA max.		ON/OFF response time	20 µs max./400 µs max.
	Residual voltage	1.5 V max.		Input filter time	No filter, 0.25 ms, 0.5 ms, 1 ms (default), 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms, 256 ms
	ON/OFF response time	0.1 ms max./0.8 ms max.			

Indicators	TS indicator, I/O indicators		Dimensions	30 (W) x 100 (H) x 71 (D)
			Isolation method	Photocoupler isolation
	MD6121-6 ■TS		Insulation resistance	20 MΩ min. between isolated circuits (at 100 VDC)
	CN 1 [0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15] 2 [0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15]		Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.
			I/O power supply method	Supply from external source
			Current capacity of I/O power supply terminal	Without I/O power supply terminals
			NX Unit power consumption	• Connected to a CPU Unit or Communication Control Unit 1.00 W max. • Connected to a Communications Coupler Unit 0.70 W max.
			Current consumption from I/O power supply	30 mA max.
			Weight	95 g max.

Circuit layout	

CN1 (left) output circuit

CN2 (right) input circuit

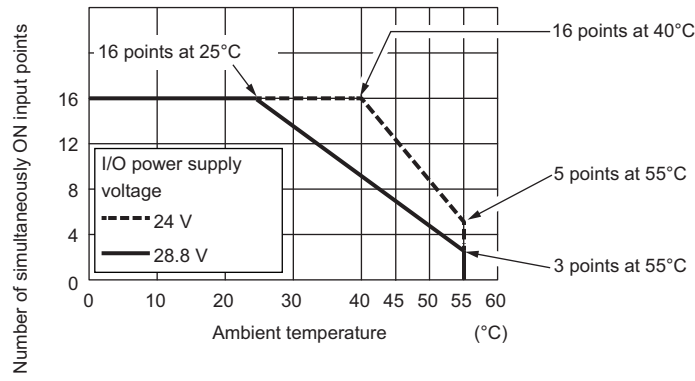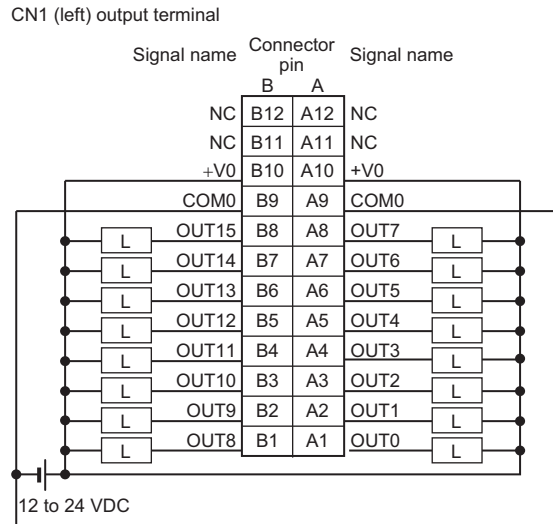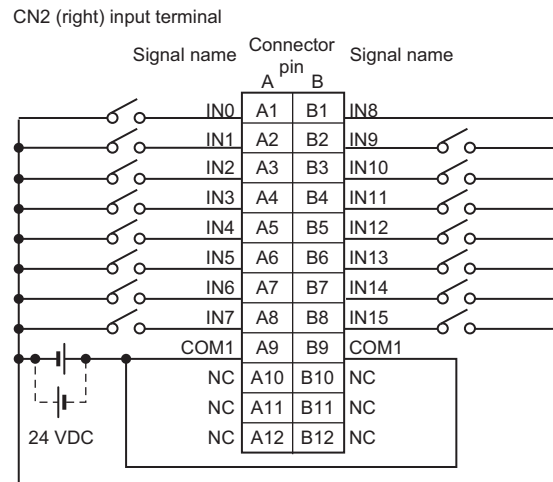|	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: As shown in the following. • For upright installation Number of simultaneously ON input points vs. Ambient temperature characteristic • For any installation other than upright Number of simultaneously ON input points vs. Ambient temperature characteristic

Terminal connection diagram	CN1 (left) output terminal Signal name / Connector pin / Signal name 	NC	B12	A12	NC	 	NC	B11	A11	NC	 	+V0	B10	A10	+V0	 	COM0	B9	A9	COM0	 	OUT15	B8	A8	OUT7	 	OUT14	B7	A7	OUT6	 	OUT13	B6	A6	OUT5	 	OUT12	B5	A5	OUT4	 	OUT11	B4	A4	OUT3	 	OUT10	B3	A3	OUT2	 	OUT9	B2	A2	OUT1	 	OUT8	B1	A1	OUT0	 12 to 24 VDC • Be sure to wire both pins A9 and B9 (COM0) of CN1. • Be sure to wire both pins A10 and B10 (+V0) of CN1. CN2 (right) input terminal Signal name / Connector pin / Signal name 	IN0	A1	B1	IN8	 	IN1	A2	B2	IN9	 	IN2	A3	B3	IN10	 	IN3	A4	B4	IN11	 	IN4	A5	B5	IN12	 	IN5	A6	B6	IN13	 	IN6	A7	B7	IN14	 	IN7	A8	B8	IN15	 	COM1	A9	B9	COM1	 	NC	A10	B10	NC	 	NC	A11	B11	NC	 	NC	A12	B12	NC	 24 VDC • The polarity of the input power supply of CN2 can be connected in either direction. • Be sure to wire both pins A9 and B9 (COM1) of CN2, and set the same polarity for both pins.

Disconnection/Short-circuit detection	Not supported.	**Protective function**	Not supported.

NX-ID/IA/OD/OC/MD

Version Information

Connected to a CPU Unit

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

NX Unit		Corresponding unit versions/versions	
Model	Unit version	CPU Unit	Sysmac Studio
NX-ID3317	Ver.1.0	Ver.1.13	Ver.1.17
NX-ID3343			
NX-ID3344			
NX-ID3417			
NX-ID3443			
NX-ID3444			
NX-ID4342			
NX-ID4442			
NX-ID5142-1			
NX-ID5142-5			
NX-ID5342			
NX-ID5442			
NX-ID6142-5			
NX-ID6142-6			
NX-ID6342			Ver.1.54
NX-ID6442			
NX-IA3117			Ver.1.17
NX-OD2154			
NX-OD2258			
NX-OD3121			
NX-OD3153			
NX-OD3256			
NX-OD3257			
NX-OD3268			
NX-OD4121			
NX-OD4256			
NX-OD5121			
NX-OD5121-1			
NX-OD5121-5			
NX-OD5256			
NX-OD5256-1			
NX-OD5256-5			
NX-OD6121			Ver.1.54
NX-OD6121-5			Ver.1.17
NX-OD6121-6			
NX-OD6256			Ver.1.54
NX-OD6256-5			Ver.1.17
NX-OC2633			
NX-OC2733			
NX-OC4633			
NX-MD6121-5			
NX-MD6121-6			
NX-MD6256-5			

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

Connected to an EtherCAT Coupler Unit

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

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

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

Connected to an EtherNet/IP Coupler Unit

NX Unit		Corresponding unit versions/versions					
		Application with an NJ/NX/NY-series Controller *1			Application with a CS/CJ/CP-series PLC *2		
Model	Unit version	EtherNet/IP Coupler Unit	CPU Unit or Industrial PC	Sysmac Studio	EtherNet/IP Coupler Unit	Sysmac Studio	NX-IO Configurator *3
NX-ID3317	Ver. 1.0	Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3343		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3344		---	---	---	---	---	---
NX-ID3417		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3443		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID3444		---	---	---	---	---	---
NX-ID4342		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-ID4442						Ver. 1.10	
NX-ID5142-1						Ver. 1.13	
NX-ID5142-5						Ver. 1.10	
NX-ID5342						Ver. 1.10	
NX-ID5442						Ver. 1.10	
NX-ID6142-5						Ver. 1.10	
NX-ID6142-6						Ver. 1.13	
NX-ID6342				Ver.1.54		Ver.1.54	Ver.1.23
NX-ID6442				Ver.1.54		Ver.1.54	Ver.1.23
NX-IA3117				Ver. 1.19		Ver. 1.10	Ver. 1.00
NX-OD2154		---	---	---	---	---	---
NX-OD2258		---	---	---	---	---	---
NX-OD3121		Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00
NX-OD3153						Ver. 1.10	
NX-OD3256						Ver. 1.10	
NX-OD3257						Ver. 1.10	
NX-OD3268						Ver. 1.13	
NX-OD4121						Ver. 1.10	
NX-OD4256						Ver. 1.10	
NX-OD5121						Ver. 1.10	
NX-OD5121-1						Ver. 1.13	
NX-OD5121-5						Ver. 1.10	
NX-OD5256						Ver. 1.10	
NX-OD5256-1						Ver. 1.13	
NX-OD5256-5						Ver. 1.10	
NX-OD6121				Ver.1.54		Ver.1.54	Ver.1.23
NX-OD6121-5				Ver. 1.19		Ver. 1.10	Ver. 1.00
NX-OD6121-6				Ver. 1.19		Ver. 1.13	Ver. 1.00
NX-OD6256				Ver.1.54		Ver.1.54	Ver.1.23
NX-OD6256-5				Ver. 1.19		Ver. 1.10	Ver. 1.00
NX-OC2633						Ver. 1.10	
NX-OC2733						Ver. 1.10	
NX-OC4633				Ver. 1.19		Ver. 1.17	Ver. 1.00
NX-MD6121-5						Ver. 1.10	
NX-MD6121-6						Ver. 1.13	
NX-MD6256-5						Ver. 1.10	

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

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

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

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

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

Connected to Communication Control Units

NX Unit		Corresponding unit versions/versions	
Model	**Unit version**	**Communication Control Unit**	**Sysmac Studio**
NX-ID3317	Ver. 1.0	Ver. 1.00	Ver. 1.24
NX-ID3343			
NX-ID3344		---	---
NX-ID3417		Ver. 1.00	Ver. 1.24
NX-ID3443			
NX-ID3444	Ver. 1.0	---	---
NX-ID4342		Ver. 1.00	Ver. 1.24
NX-ID4442			
NX-ID5142-1			
NX-ID5142-5			
NX-ID5342			
NX-ID5442			
NX-ID6142-5			
NX-ID6142-6			
NX-ID6342			Ver. 1.54
NX-ID6442			
NX-IA3117			Ver. 1.24
NX-OD2154		---	---
NX-OD2258			
NX-OD3121		Ver. 1.00	Ver. 1.24
NX-OD3153			
NX-OD3256			
NX-OD3257			
NX-OD3268			
NX-OD4121			
NX-OD4256			
NX-OD5121			
NX-OD5121-1			
NX-OD5121-5			
NX-OD5256			
NX-OD5256-1			
NX-OD5256-5			
NX-OD6121			Ver. 1.54
NX-OD6121-5			Ver. 1.24
NX-OD6121-6			
NX-OD6256			Ver. 1.54
NX-OD6256-5			Ver. 1.24
NX-OC2633			
NX-OC2733			
NX-OC4633			
NX-MD6121-5			
NX-MD6121-6			
NX-MD6256-5			

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

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

NX-ID/IA/OD/OC/MD

External Interface

Screwless Clamping Terminal Block Type

12 mm Width   **24 mm Width**
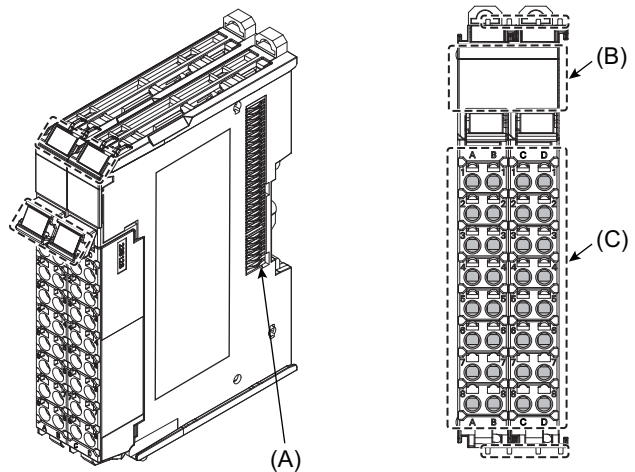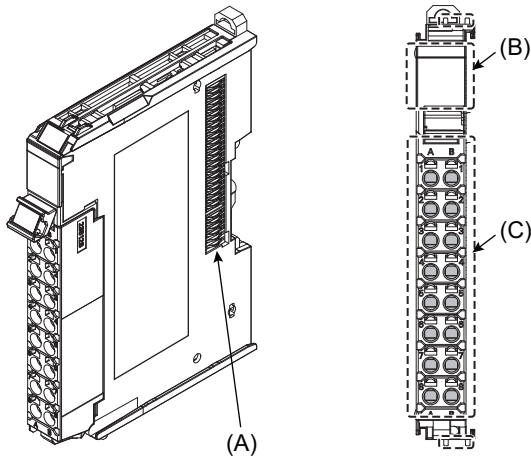
| Letter	Item	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Terminal block	The terminal block is used to connect to external devices. The number of terminals depends on the Unit.

Terminal Blocks

8 terminals   12 terminals   16 terminals   8 terminals x 2   16 terminals x 2

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

Applicable Terminal Blocks for Each Unit Model

Unit model	Terminal Blocks			
	Model	No. of terminals	Ground terminal mark	Terminal current capacity
NX-ID3□□□	NX-TBA122	12	None	10 A
NX-ID4□□□	NX-TBA162	16	None	10 A
NX-ID5□□□	NX-TBA162	16	None	10 A
NX-ID6□□□	NX-TBA162	16	None	10 A
	NX-TBB162	16	None	10 A
NX-IA3117	NX-TBA082	8	None	10 A
NX-OD2□□□	NX-TBA082	8	None	10 A
NX-OD3□□□ (any model other than NX-OD3268)	NX-TBA122	12	None	10 A
NX-OD3268 NX-OD4□□□	NX-TBA162	16	None	10 A
NX-OD5□□□	NX-TBA162	16	None	10 A
NX-OD6□□□	NX-TBA162	16	None	10 A
	NX-TBB162	16	None	10 A
NX-OC2□□□	NX-TBA082	8	None	10 A
NX-OC4633 *1	NX-TBA082	8	None	10 A

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

Applicable Wires

Using Ferrules

If you use ferrules, attach the twisted wires to them.
Observe the application instructions for your ferrules for the wire stripping length when attaching ferrules.
Always use plated one-pin ferrules. Do not use unplated ferrules or two-pin ferrules.

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

Terminal type	Manufacturer	Ferrule model	Applicable wire (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.) CRIMPFOX 6 (0.25 to 6 mm², AWG24 to 10)
		AI0,5-8	0.5 (#20)	
		AI0,5-10		
		AI0,75-8	0.75 (#18)	
		AI0,75-10		
		AI1,0-8	1.0 (#18)	
		AI1,0-10		
		AI1,5-8	1.5 (#16)	
		AI1,5-10		
Ground terminals		AI2,5-10	2.0 *	
Terminals other than ground terminals	Weidmuller	H0.14/12	0.14 (#26)	Weidmuller (The figure in parentheses is the applicable wire size.) PZ6 Roto (0.14 to 6 mm², AWG 26 to 10)
		H0.25/12	0.25 (#24)	
		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

8 to 10 mm
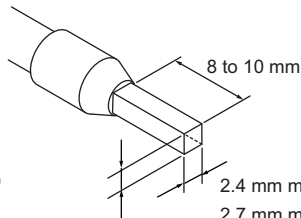
1.6 mm max. (except ground terminals)
2.0 mm max. (ground terminals)

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.

Terminals		Wire type				Wire size	Conductor length (stripping length)
		Twisted wires		Solid wire			
Classification	Current capacity	Plated	Unplated	Plated	Unplated		
All terminals except ground terminals	2 A or less	Possible	Possible	Possible	Possible	0.08 to 1.5 mm² AWG28 to 16	8 to 10 mm
	Greater than 2 A and 4 A or less		Not Possible	Possible *1	Not Possible		
	Greater than 4 A	Possible *1		Not Possible			
Ground terminals	---	Possible	Possible	Possible *2	Possible *2	2.0 mm²	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.
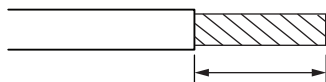
Conductor length (stripping length)

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

M3 Screw Terminal Block Type
30 mm Width
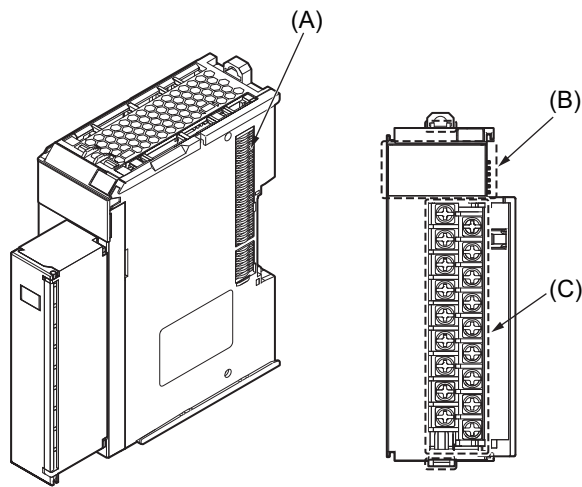
Letter	Item	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Screw terminals	These screw terminals are used to connect the wires.

MIL Connector Type (1 Connector with 20 terminals)
30 mm Width
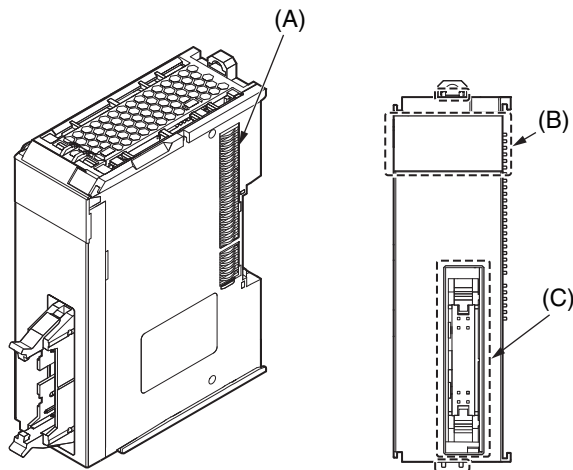
MIL Connector Type (1 Connector with 40 terminals)
30 mm Width
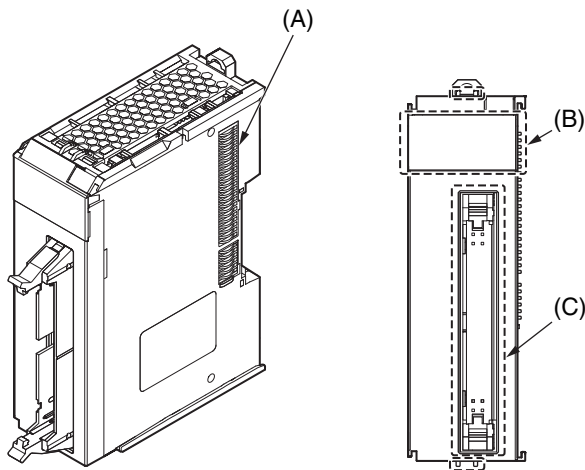
MIL Connector Type (2 Connectors with 20 terminals)
30 mm Width
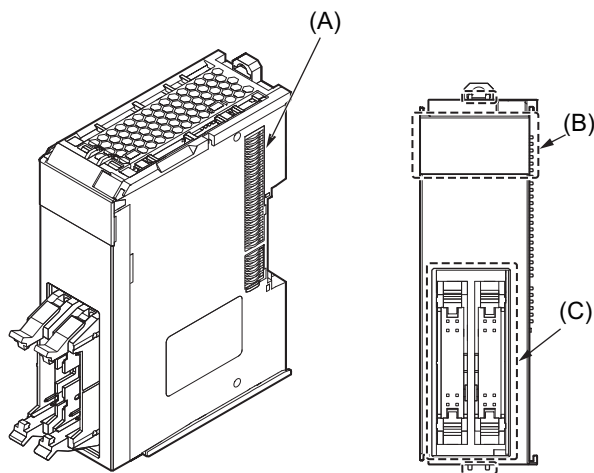
Letter	Item	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Connectors	The connectors are used to connect to external devices.

Fujitsu/OTAX Connector Type (1 Connector with 40 terminals)
30 mm Width
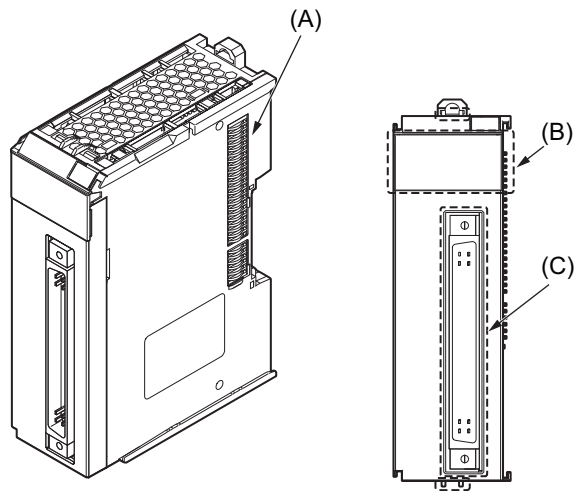
Fujitsu/OTAX Connector Type (2 Connectors with 24 terminals)
30 mm Width
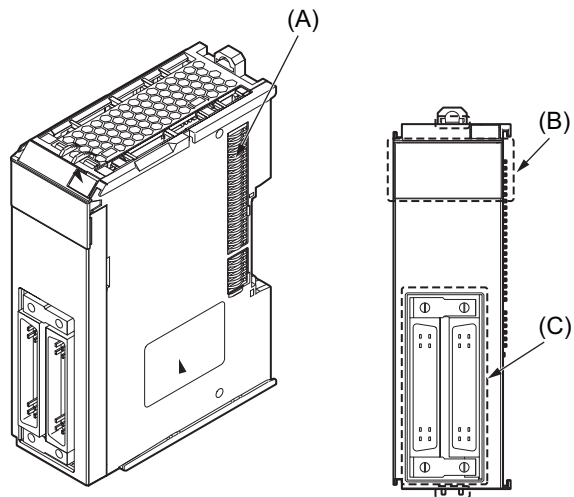
Letter	Item	Specification
(A)	NX bus connector	This connector is used to connect to another Unit.
(B)	Indicators	The indicators show the current operating status of the Unit.
(C)	Connectors	The connectors are used to connect to external devices.

NX-ID/IA/OD/OC/MD

Dimensions (Unit/mm)

Screwless Clamping Terminal Block Type
12 mm Width
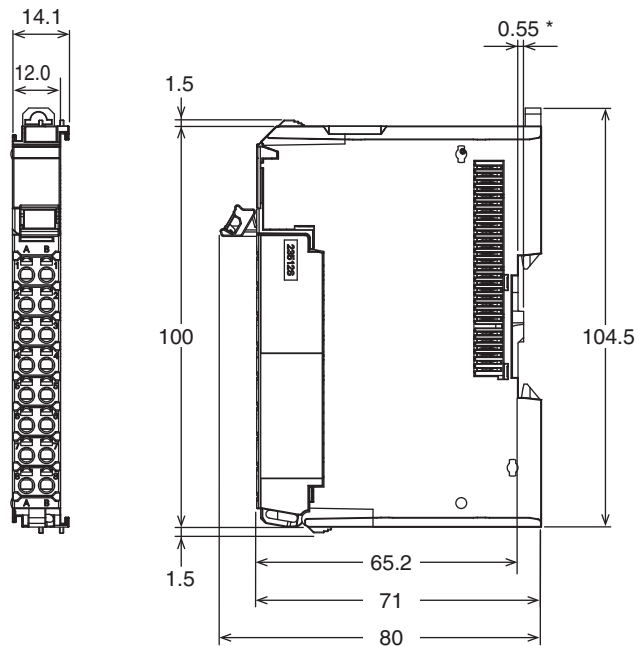
* The dimension is 1.35 mm for Units with lot numbers through December 2014.

24 mm Width

78 OMRON
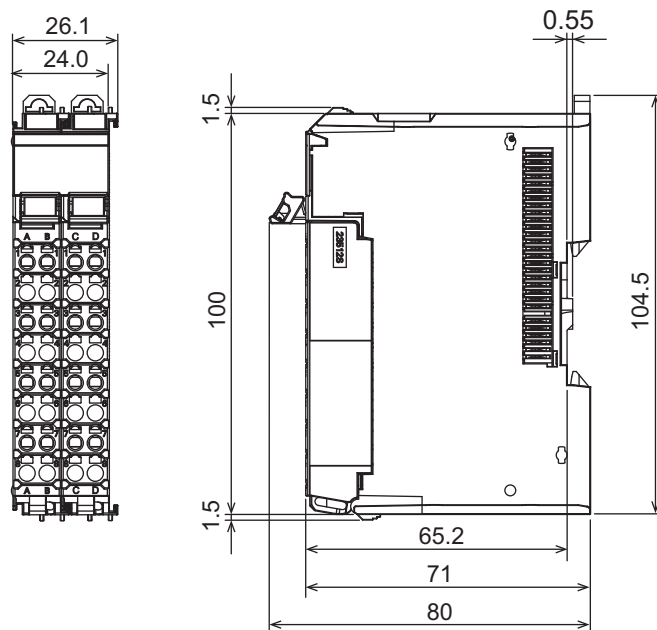
M3 Screw Terminal Block Type
30 mm Width

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

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

16.1

1.5

100

83.7

104.5

38

19.1

1.5

65.2

30

71

32.1

89.52

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

16.1

1.5

100

58.3

104.5

27.85

8.9

1.5

19.1

65.2

30

71

32.1

89.52

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

16.1
1.5
100
83.7
104.5
38
19.1
1.5
30
65.2
32.1
71
89.52

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

16.1
1.5
100
27.85
104.5
1.5
8.6
19.4
65.2
30
71
32.1
72.5
(118.5)

Related Manual

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