NX-series Digital Output Units

# NX-OD/OC

CSM_NX-OD_OC_DS_E_7_1

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

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

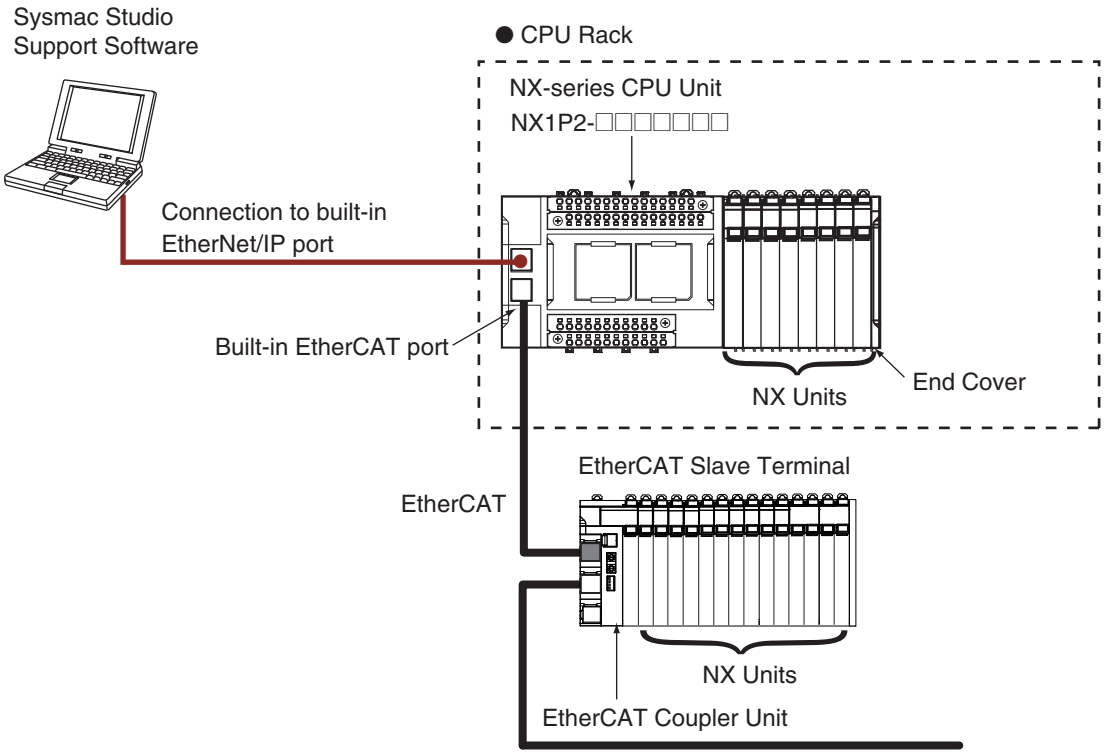
## Features

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

# System Configuration

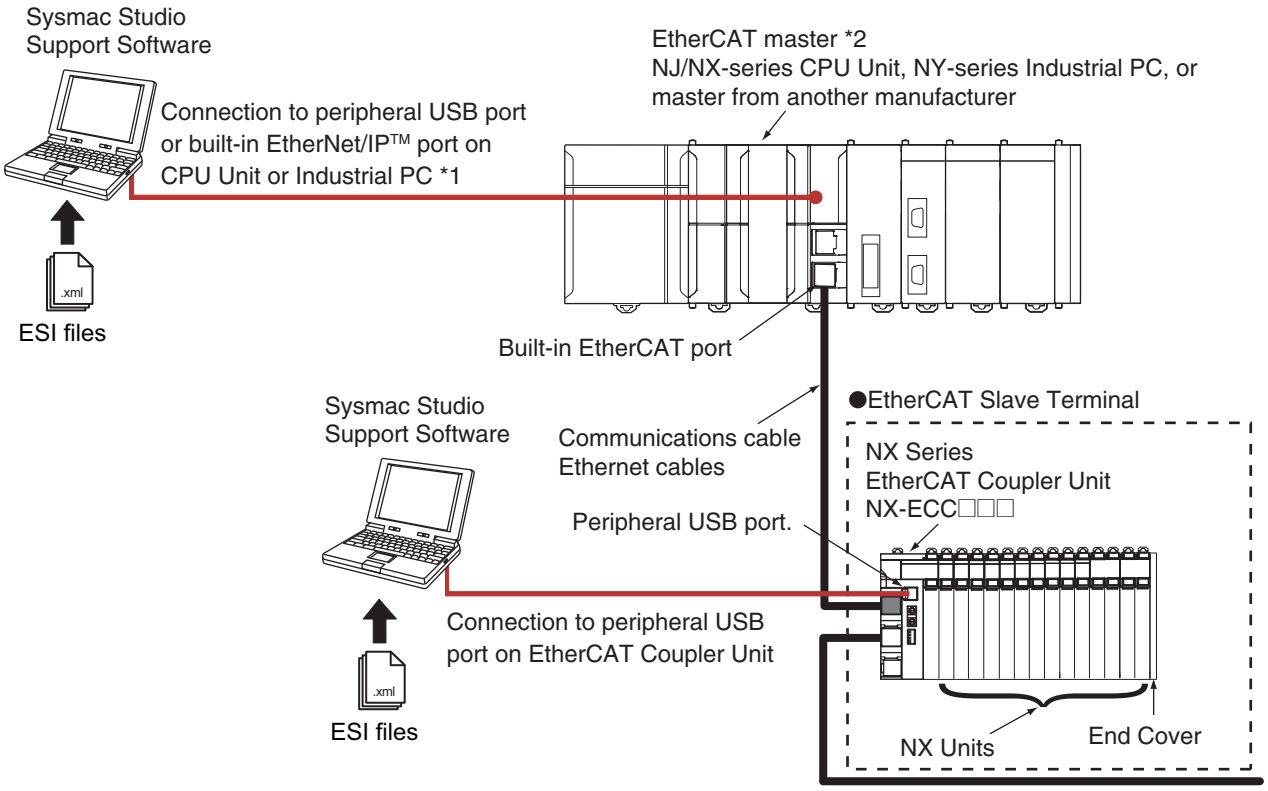
## System Configuration in the Case of a CPU Unit

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




## System Configuration of Slave Terminals

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




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

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

# Ordering Information

**International Standards**

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

## Digital Output Units

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

| Unit type | Product name | Specification | | | | | | Model | Standards |
|---|---|---|---|---|---|---|---|---|---|
| | | Number of points | Internal I/O common | Maximum value of load current | Rated voltage | I/O refreshing method | ON/OFF response time | | |
| NX-series Digital Output Unit | Transistor Output Unit  | 2 points | NPN | 0.5 A/point, 1 A/Unit | 24 VDC | Output refreshing with specified time stamp only* | 300 ns max./ 300 ns max. | **NX-OD2154** | UC1, N, L, CE, RCM, KC |
| | | | 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** | |
| | | | PNP | | | | 0.5 ms max./ 1.0 ms max. | **NX-OD3256** | |
| | | | | | | | 300 ns max./ 300 ns max. | **NX-OD3257** | |
| | | | | 2 A/point, 8 A/Unit | | | 0.5 ms max./ 1.0 ms max. | **NX-OD3268** | UC1, CE, RCM, KC |
| | | 8 points | NPN | 0.5 A/point, 4 A/Unit | 12 to 24 VDC | | 0.1 ms max./ 0.8 ms max. | **NX-OD4121** | UC1, N, L, CE, RCM, KC |
| | | | 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** | |

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

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

| Unit type | Product name | Specification | | | | | | Model | Standards |
|---|---|---|---|---|---|---|---|---|---|
| | | Number of points | Internal I/O common | Maximum value of load current | Rated voltage | I/O refreshing method | ON/OFF response time | | |
| NX-series Digital Output Unit | Transistor Output Unit  | 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** | UC1, CE, RCM, KC |
| | | | PNP | | 24 VDC | | 0.5 ms max./ 1.0 ms max. | **NX-OD5256-1** | |

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

| Unit type | Product name | Specification | | | | | | Model | Standards |
|---|---|---|---|---|---|---|---|---|---|
| | | Number of points | Internal I/O common | Maximum value of load current | Rated voltage | I/O refreshing method | ON/OFF response time | | |
| NX-series Digital Output Unit | Transistor Output Unit  | 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** | UC1, CE, RCM, KC |
| | | | 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 Connector, 30 mm Width)

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

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

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

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

| Unit type | Product name | Specification | | | | | Model | Standards |
|---|---|---|---|---|---|---|---|---|
| | | Number of points | Relay type | Maximum switching capacity | I/O refreshing method | ON/OFF response time | | |
| NX-series Digital Output Unit | Relay Output Unit  | 8 points | N.O. | 250 VAC/2A (cosϕ=1)<br>250 VAC/2A (cosϕ=0.4)<br>24 VDC/2A<br>8 A/Unit | Free-Run refreshing | 15ms max./ 15ms max. | **NX-OC4633** | UC1, CE, RCM, KC |

# Optional Products

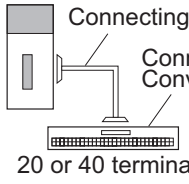
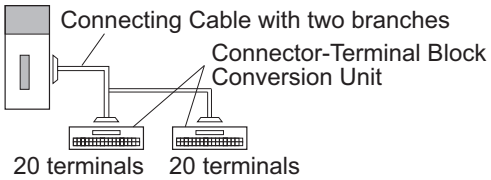
| Product name | Specification | Model | Standards |
|---|---|---|---|
| **Unit/Terminal Block Coding Pins** | For 10 Units<br>(Terminal Block: 30 pins, Unit: 30 pins) | **NX-AUX02** | --- |

| 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** | |

# Accessories

Not included.

## Connection Patterns for Connector-Terminal Block Conversion Units

| Pattern | Configuration | Number of connectors | Branching |
|---|---|---|---|
| A |  | 1 | None |
| B |  | | 2 branches |

## Connections to Connector-Terminal Block Conversion Units

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

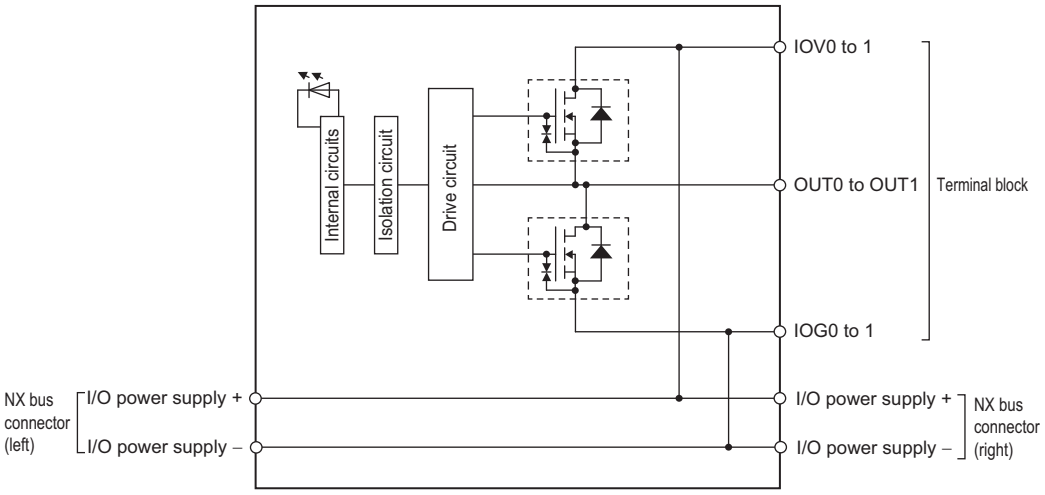
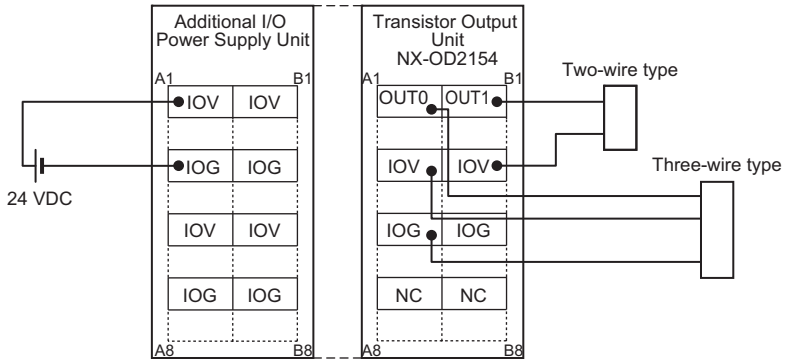
# General Specification

| 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: Conforms to JIS B3502 and IEC 61131-2. |
| | **Noise immunity** | 2 kV on power supply line (Conforms to IEC61000-4-4.) |
| | **Overvoltage category** | Category II: Conforms to JIS B3502 and IEC 61131-2. |
| | **EMC immunity level** | Zone B |
| | **Vibration resistance *1** | Conforms to IEC 60068-2-6.<br>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<br>(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,<br>EU: EN 61131-2 or EN 61010-2-201, C-Tick or RCM, KC: KC Registration, NK, LR |

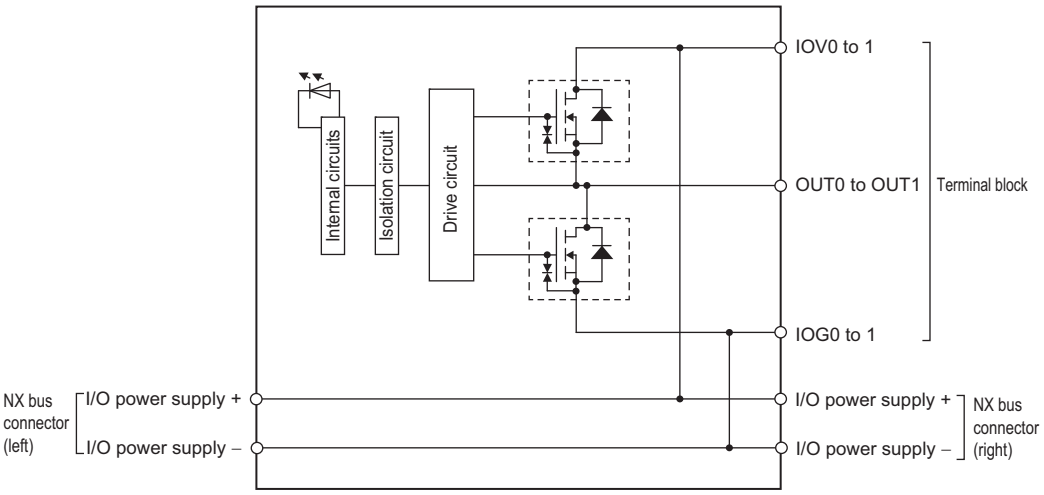
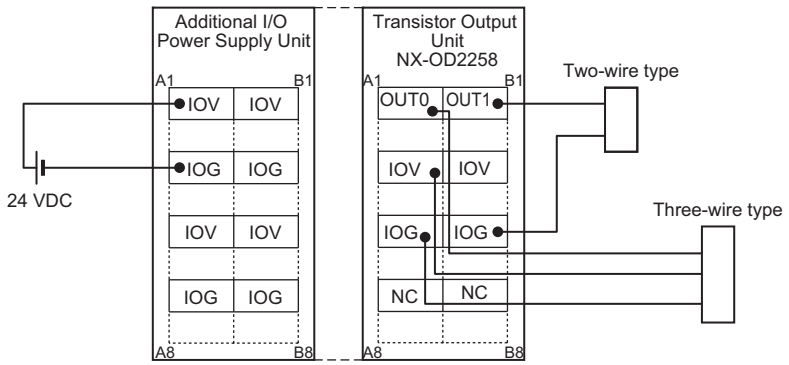
*1. For the Relay Output Unit, refer to the Digital Input Unit Specifications.
*2. Refer to the OMRON website (http://www.ia.omron.com/) or consult your OMRON representative for the most recent applicable standards for each model.

# Digital Output Unit Specifications

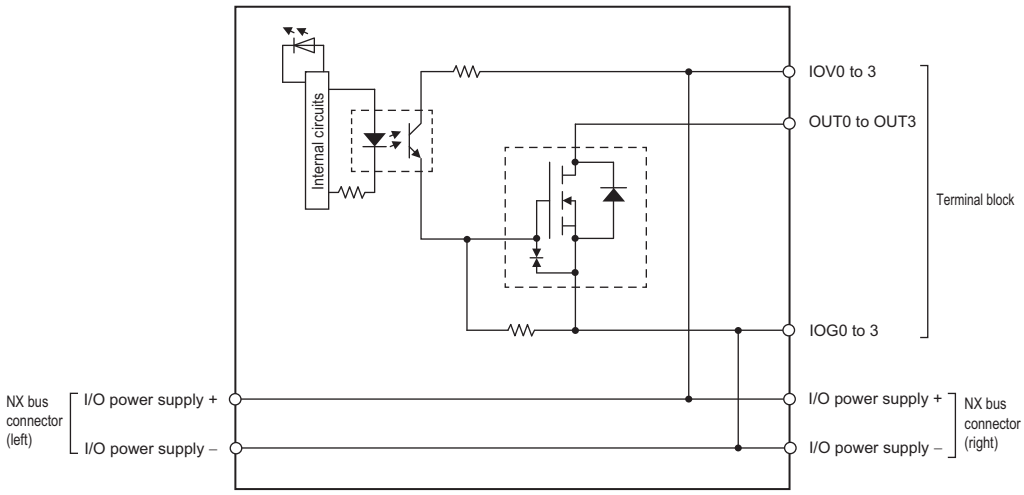
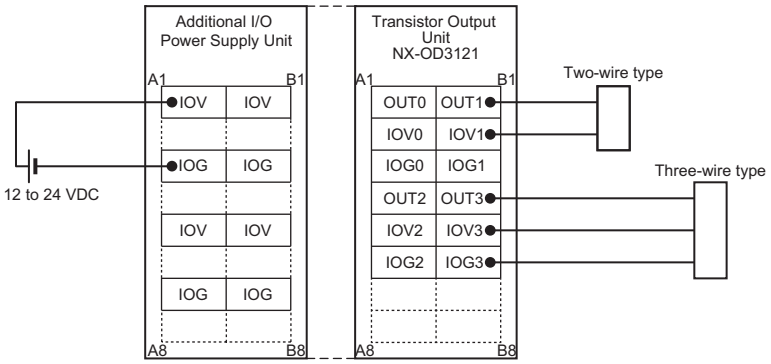
## ● Transistor Output Unit (Screwless Clamping Terminal Block 12 mm, Width)
## NX-OD2154

| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD2154 |
| **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   | **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.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

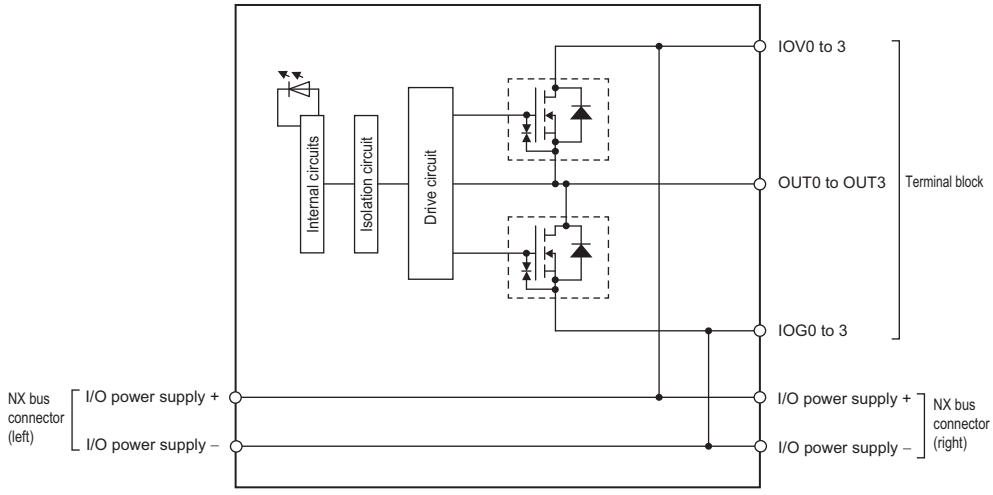
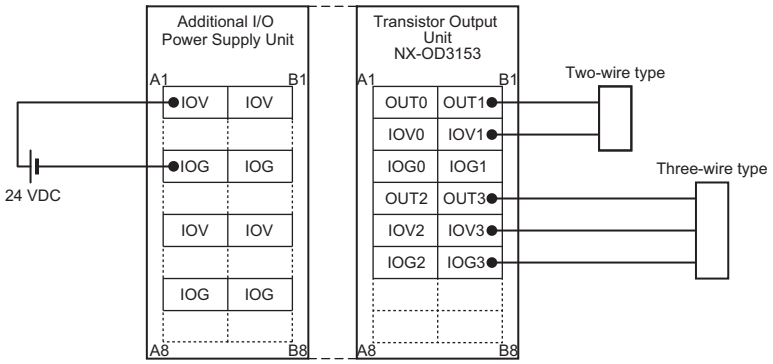
## NX-OD2258

| | | | |
|---|---|---|---|
| **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   | **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.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

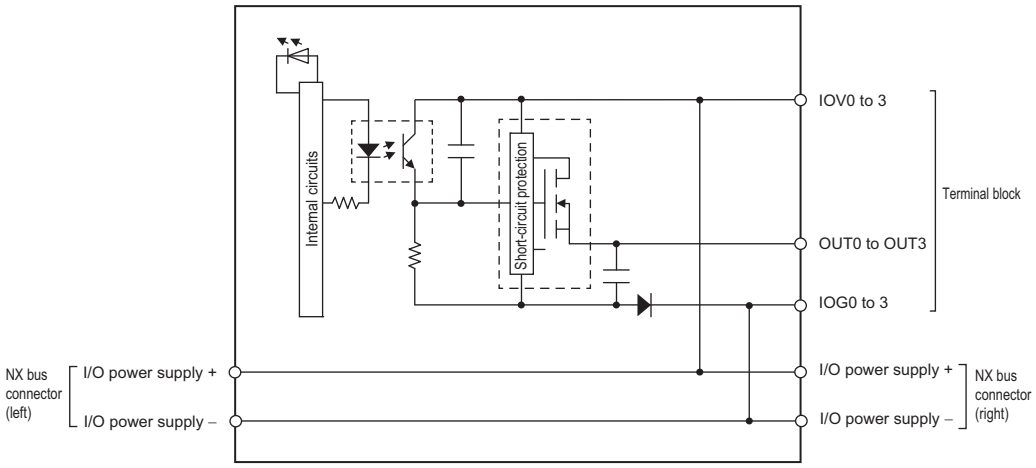
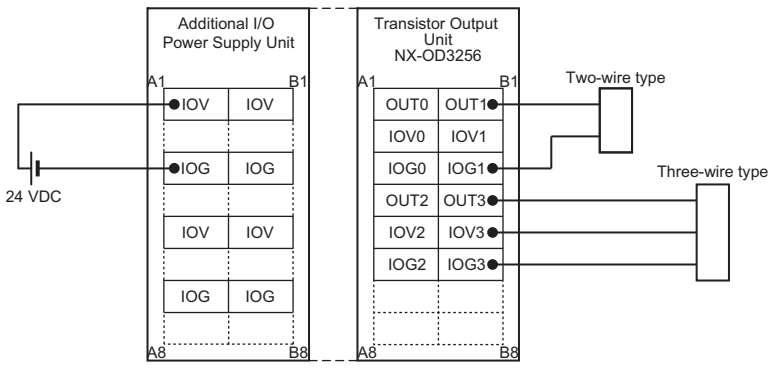
## NX-OD3121

| | | | |
|---|---|---|---|
| **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   | **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.,<br>IOG: 0.5 A/terminal max. |
| **NX Unit power consumption** | • Connected to a CPU Unit<br>0.90 W max.<br>• Connected to a Communications Coupler Unit<br>0.55 W max. | **I/O current consumption** | 10 mA max. |
| **Weight** | 70 g max. | | |
| **Circuit layout** |   | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

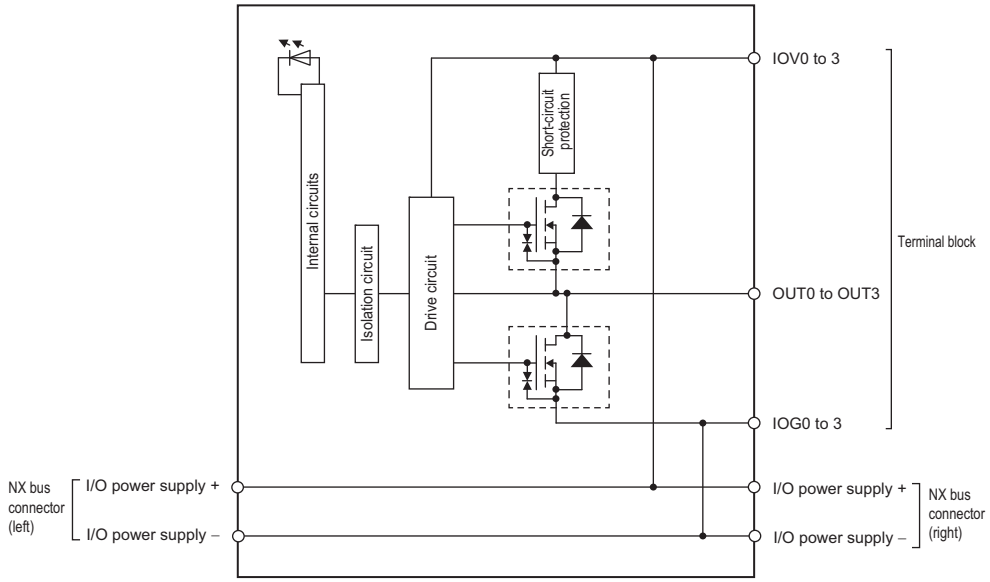
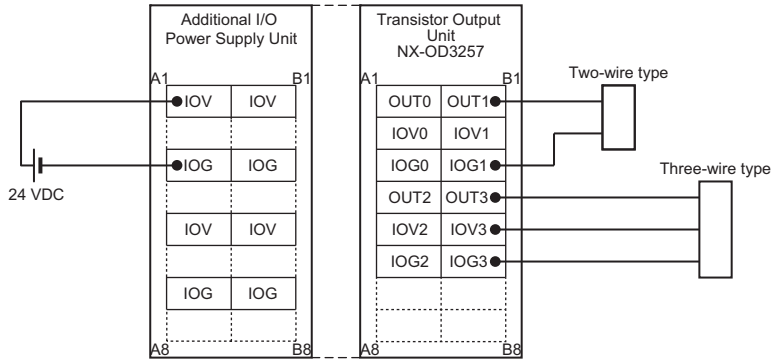
## NX-OD3153

| | | | |
|---|---|---|---|
| **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   | **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.,<br>IOG: 0.5 A/terminal max. |
| **NX Unit power consumption** | • Connected to a CPU Unit<br>0.90 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

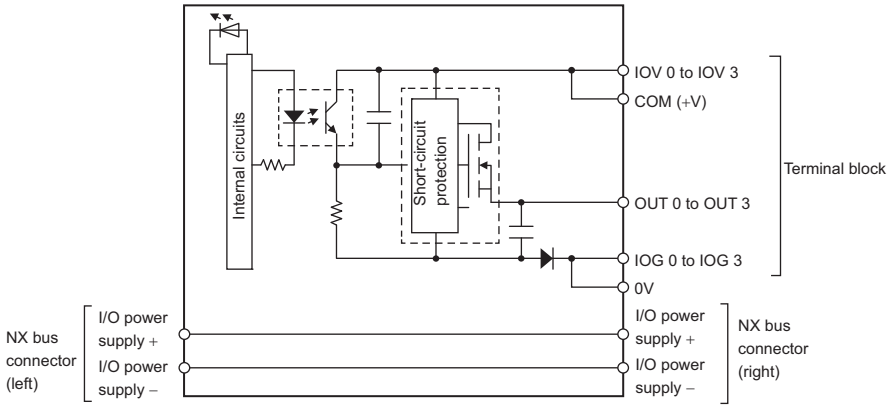
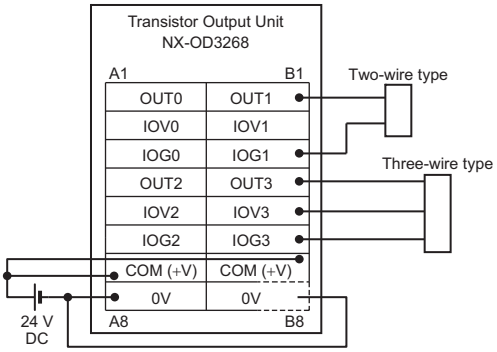
## NX-OD3256

| | | | |
|---|---|---|---|
| **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   | **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.,<br>IOG: 0.5 A/terminal max. |
| **NX Unit power consumption** | • Connected to a CPU Unit<br>0.90 W max.<br>• Connected to a Communications Coupler Unit<br>0.55 W max. | **I/O current consumption** | 20 mA max. |
| **Weight** | 70 g max. | | |
| **Circuit layout** |   | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

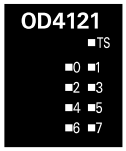
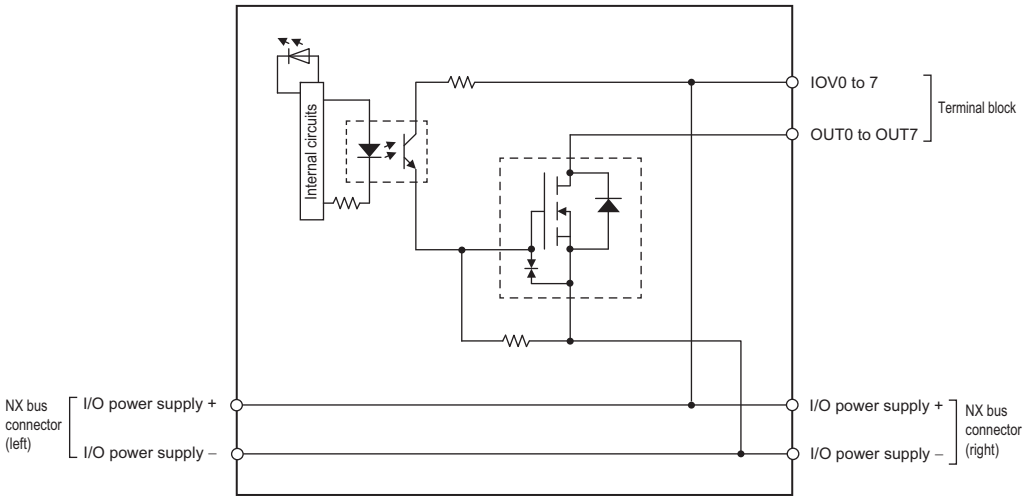
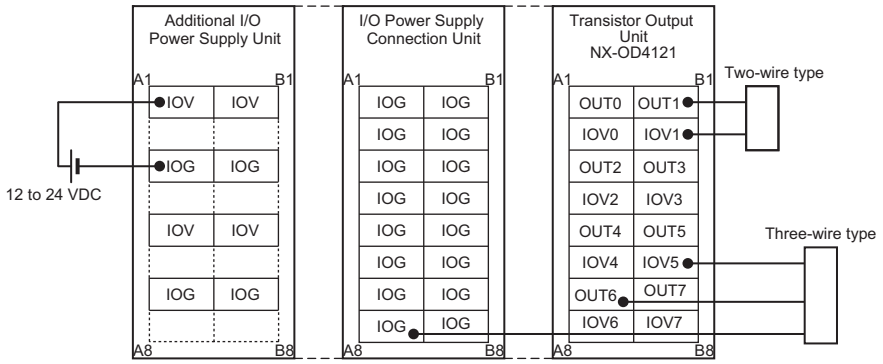
## NX-OD3257

| | | | |
|---|---|---|---|
| **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<br>  | **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.,<br>IOG: 0.5 A/terminal max. |
| **NX Unit power consumption** | • Connected to a CPU Unit<br>0.85 W max.<br>• Connected to a Communications Coupler Unit<br>0.50 W max. | **I/O current consumption** | 40 mA max. |
| **Weight** | 70 g max. | | |
| **Circuit layout** |  <br>This unit uses a push-pull output circuit. | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

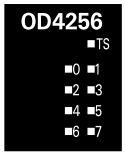
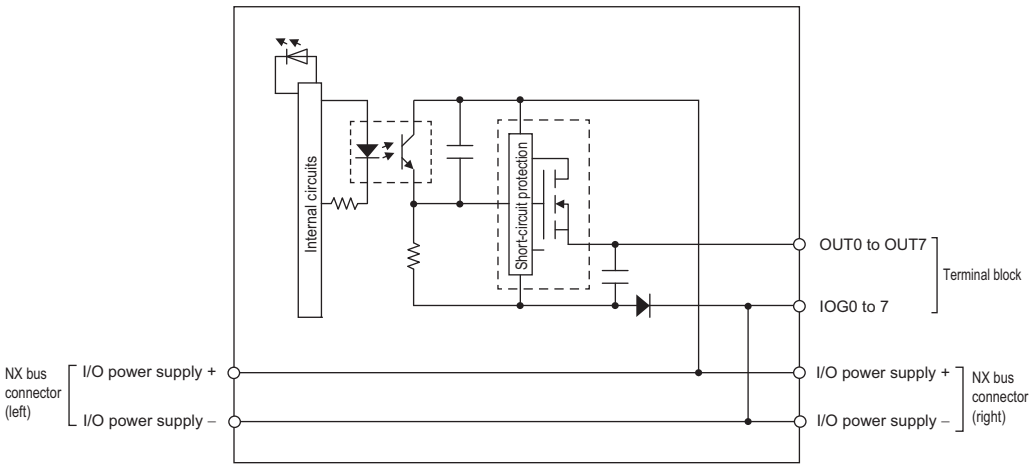
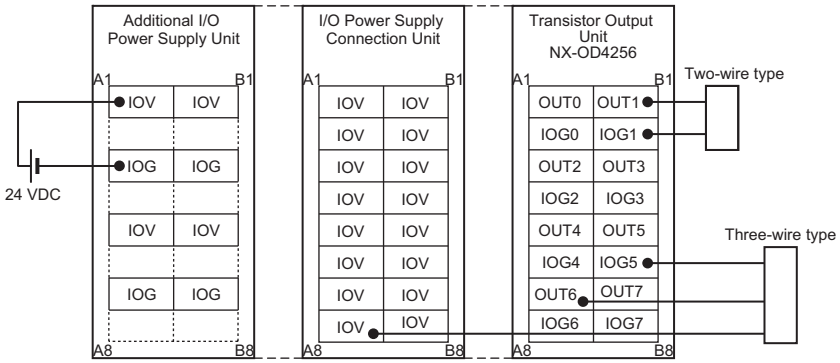
## NX-OD3268

| | | | |
|---|---|---|---|
| **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<br>  | **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.,<br>IOG: 2 A/terminal max.,<br>COM (+V): 4 A/terminal max.,<br>0V: 4 A/terminal max. |
| **NX Unit power consumption** | • Connected to a CPU Unit<br>0.85 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  <br>• 0V has 2 terminals, so be sure to wire both terminals.<br>• COM (+V) has 2 terminals, so be sure to wire both terminals. | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

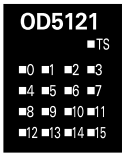
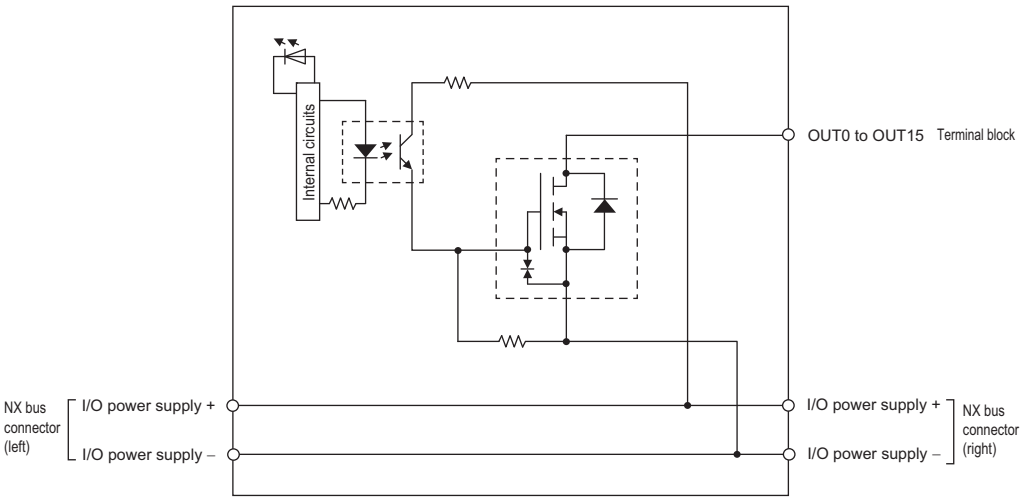
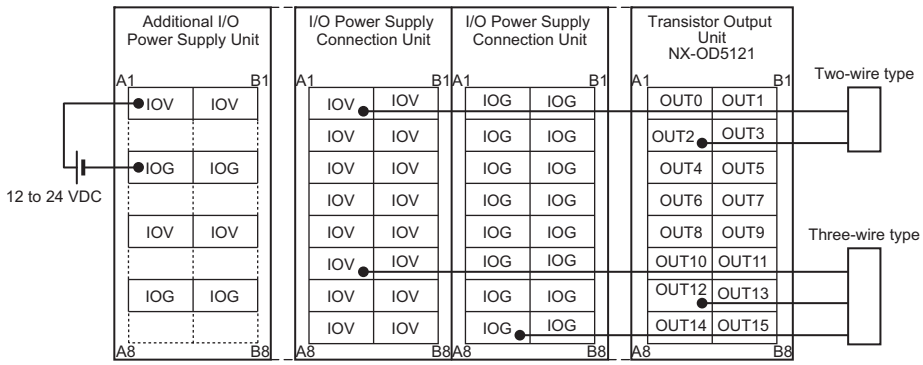
## NX-OD4121

| | | | |
|---|---|---|---|
| **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   | **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<br>0.90 W max.<br>• Connected to a Communications Coupler Unit<br>0.55 W max. | **I/O current consumption** | 10 mA max. |
| **Weight** | 70 g max. | | |
| **Circuit layout** |   | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

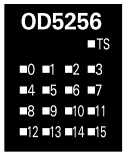
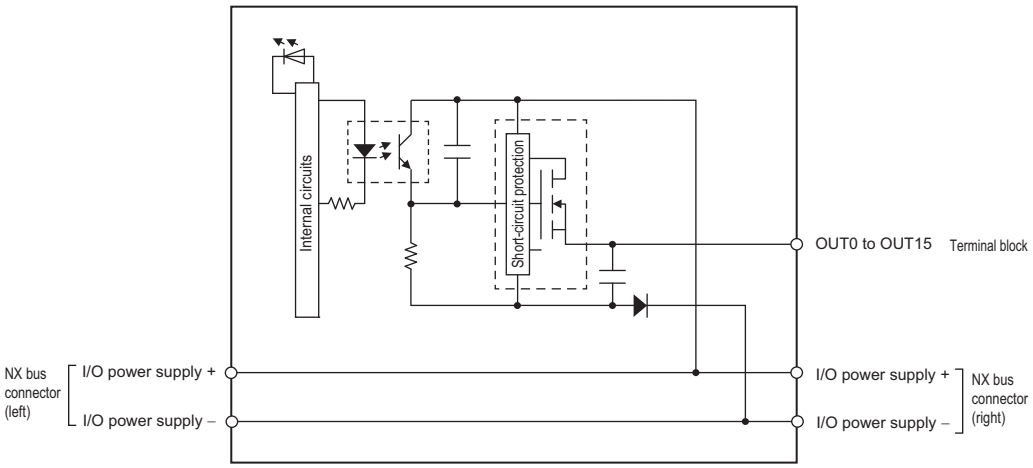
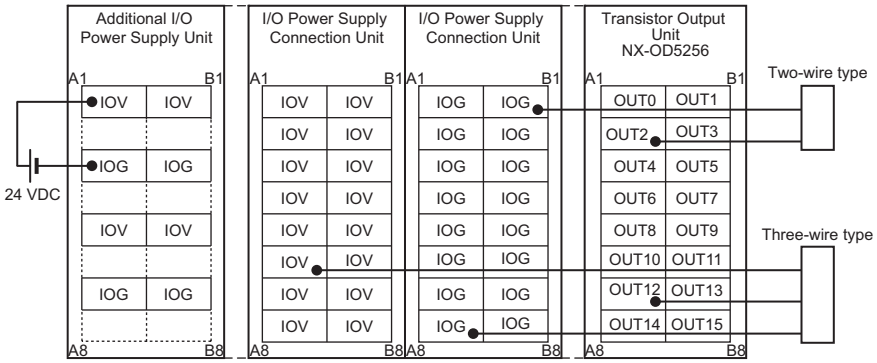
## NX-OD4256

| | | | |
|---|---|---|---|
| **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   | **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 1.00 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

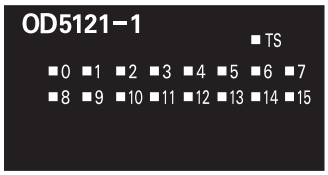
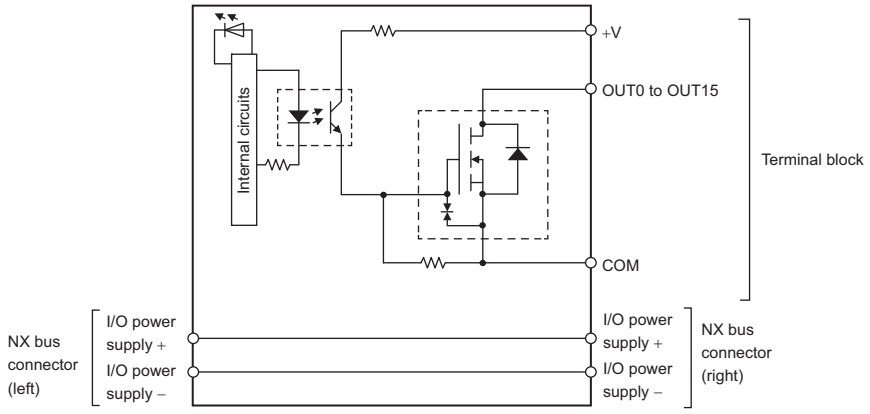
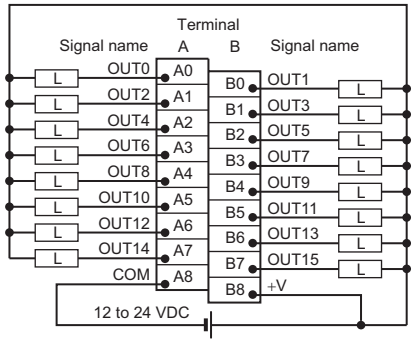
## NX-OD5121

| | | | |
|---|---|---|---|
| **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   | **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 1.00 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

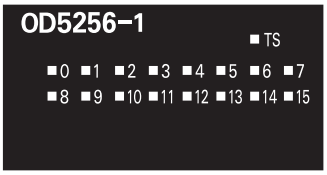
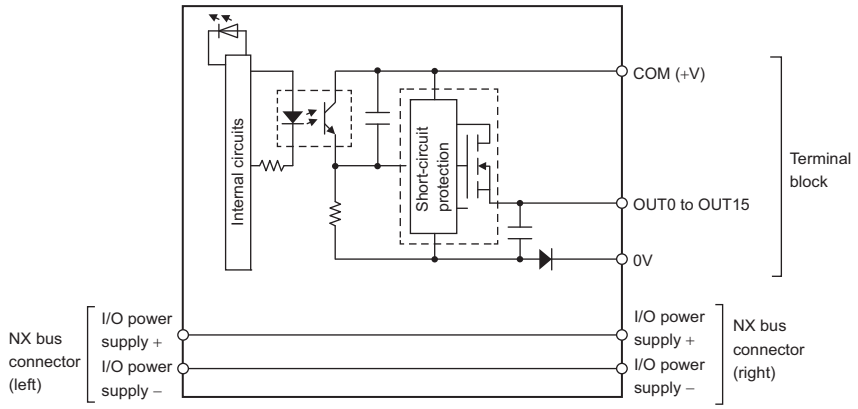
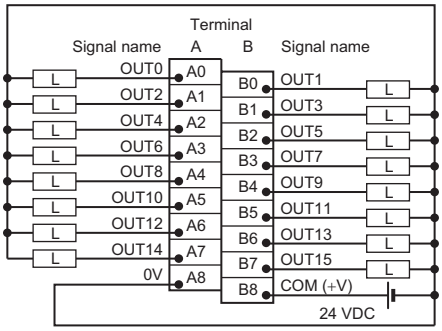
## NX-OD5256

| | | | |
|---|---|---|---|
| **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   | **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<br>1.10 W max.<br>• Connected to a Communications Coupler Unit<br>0.70 W max. | **I/O current consumption** | 40 mA max. |
| **Weight** | 70 g max. | | |
| **Circuit layout** |   | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

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

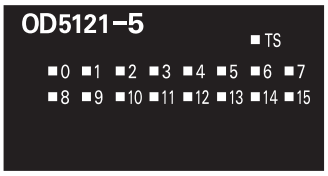
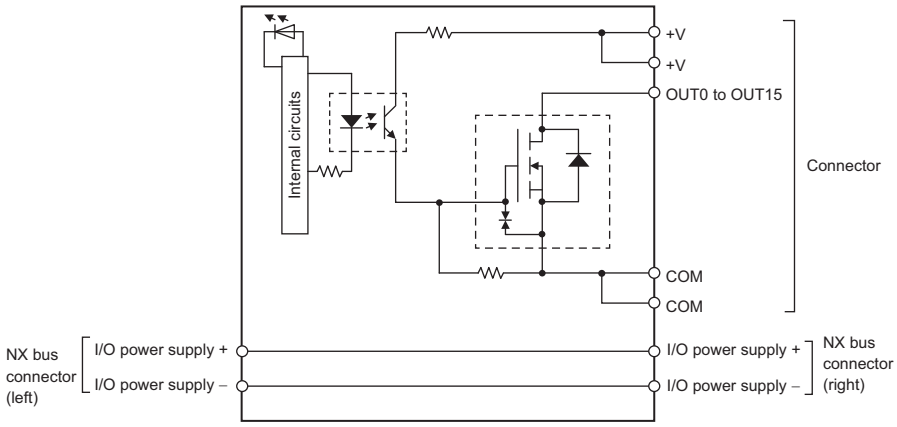
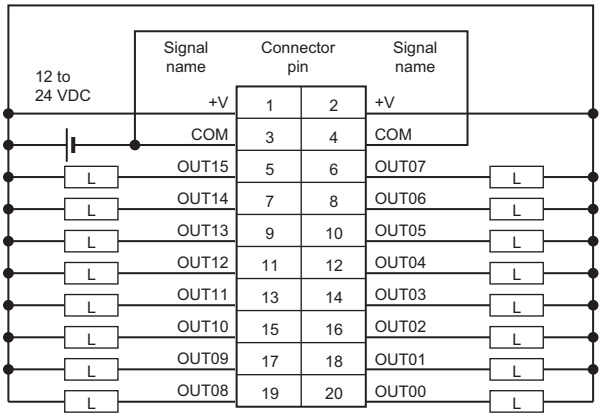
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD5121-1 |
| **Number of points** | 16 points | **External connection terminals** | M3 screw terminal block (18 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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<br>0.90 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

## NX-OD5256-1

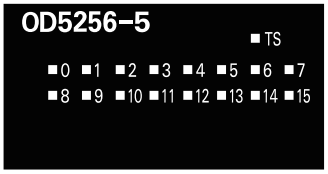
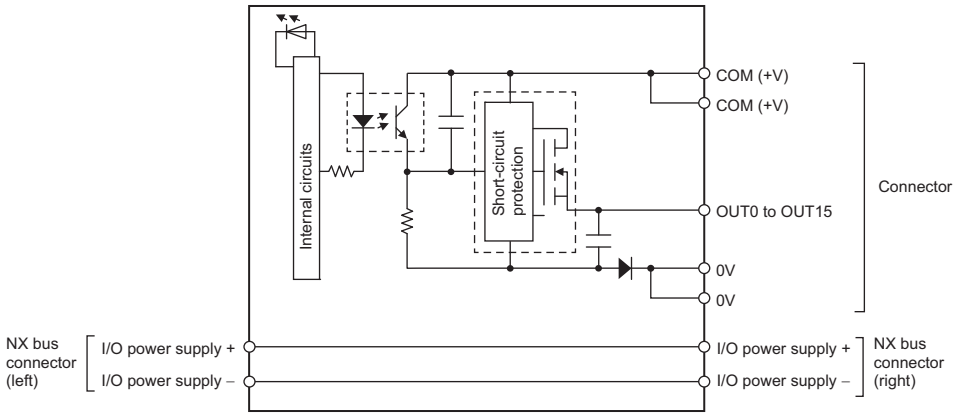
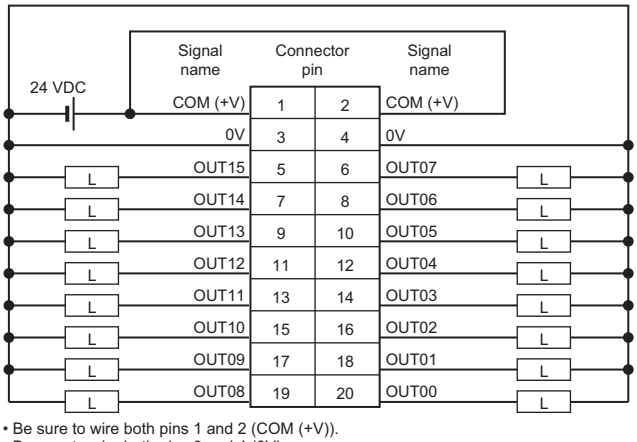
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD5256-1 |
| **Number of points** | 16 points | **External connection terminals** | M3 screw terminal block (18 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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<br>0.95 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

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

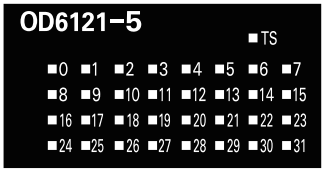
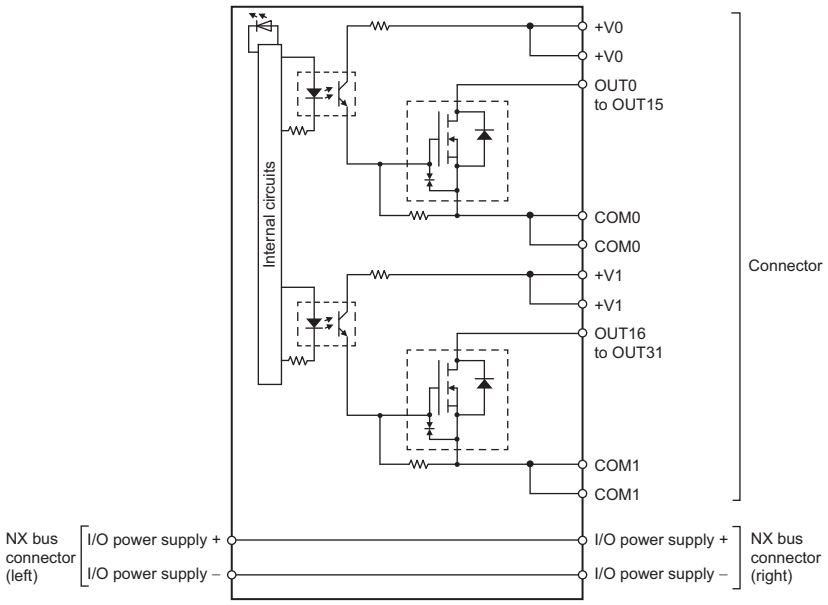
## NX-OD5121-5

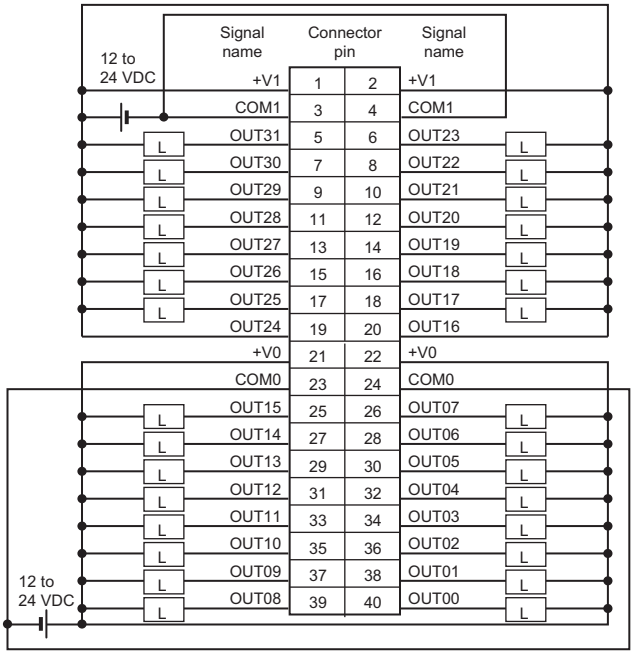
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD5121-5 |
| **Number of points** | 16 points | **External connection terminals** | MIL connector (20 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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 0.95 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  <br>• Be sure to wire both pins 3 and 4 (COM).<br>• 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<br>  | **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 1.00 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  <br>• Be sure to wire both pins 1 and 2 (COM (+V)).<br>• Be sure to wire both pins 3 and 4 (0V). | | |
| **Disconnection/Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

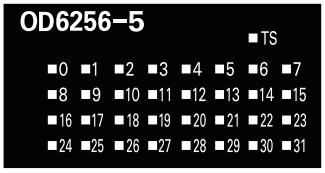
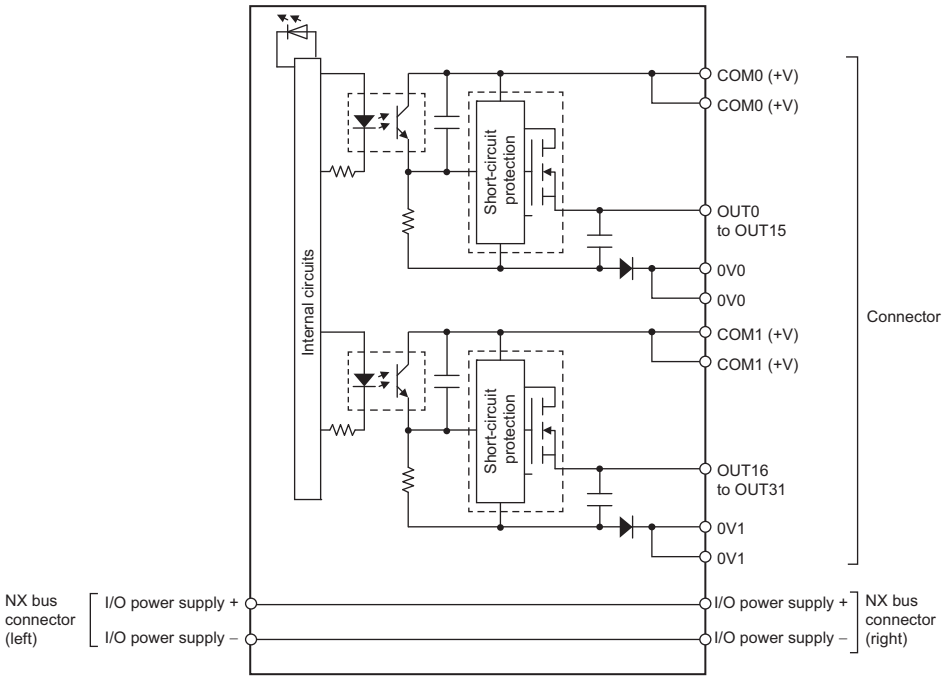
## NX-OD6121-5

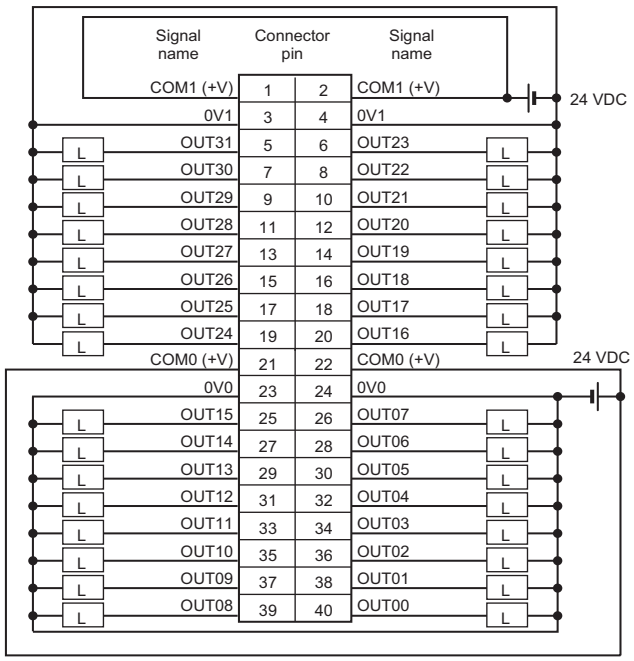
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD6121-5 |
| **Number of points** | 32 points | **External connection terminals** | MIL connector (40 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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 1.00 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |

| | |
|---|---|
| **Terminal connection diagram** |  <br>• Be sure to wire both pins 21 and 22 (+V0).<br>• Be sure to wire both pins 23 and 24 (COM0).<br>• Be sure to wire both pins 1 and 2 (+V1).<br>• Be sure to wire both pins 3 and 4 (COM1). |

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

## NX-OD6256-5

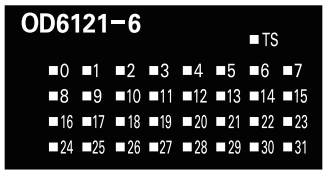
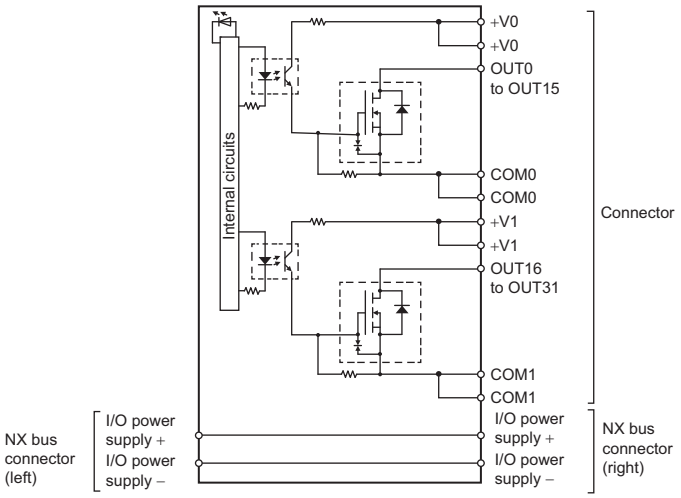
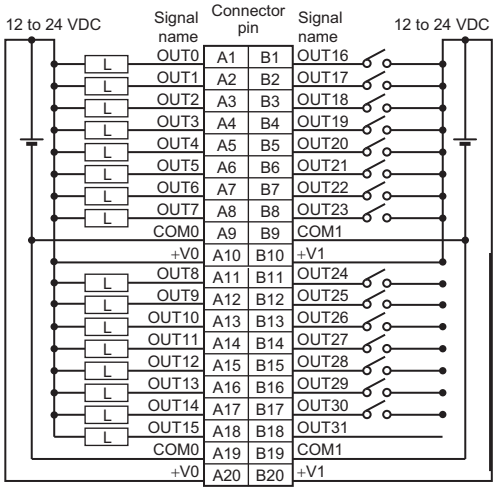
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD6256-5 |
| **Number of points** | 32 points | **External connection terminals** | MIL connector (40 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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 1.30 W max.<br>• 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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |

| | |
|---|---|
| **Terminal connection diagram** |  <br>• Be sure to wire both pins 21 and 22 (COM0 (+V)).<br>• Be sure to wire both pins 1 and 2 (COM1 (+V)).<br>• Be sure to wire both pins 23 and 24 (0V0).<br>• Be sure to wire both pins 3 and 4 (0V1). |

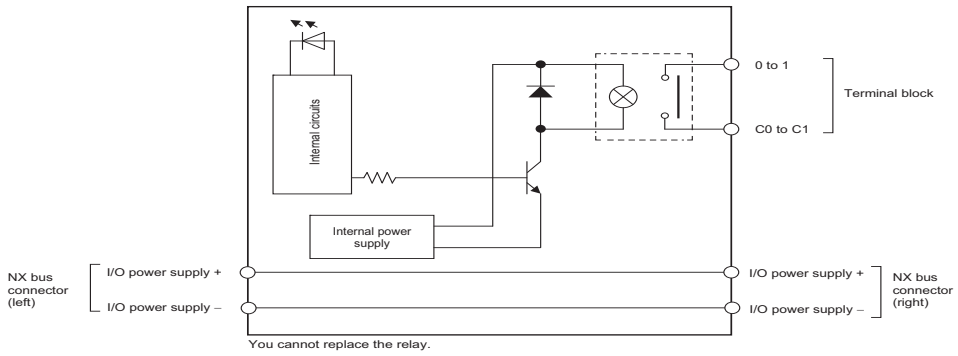
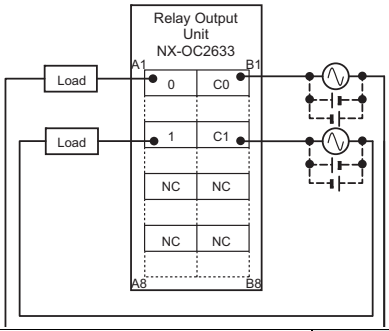
| | | | |
|---|---|---|---|
| **Disconnection/Short-circuit detection** | Not supported. | **Protective function** | With load short-circuit protection. |

## ● Transistor Output Units (Fujitsu Connector, 30 mm Width)

## NX-OD6121-6

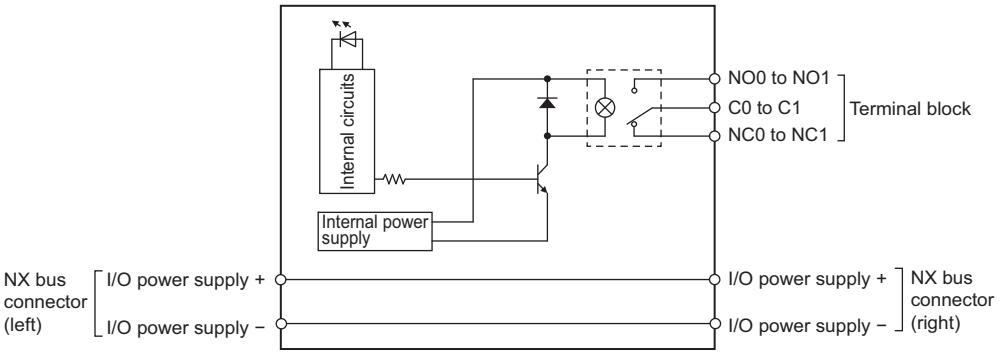
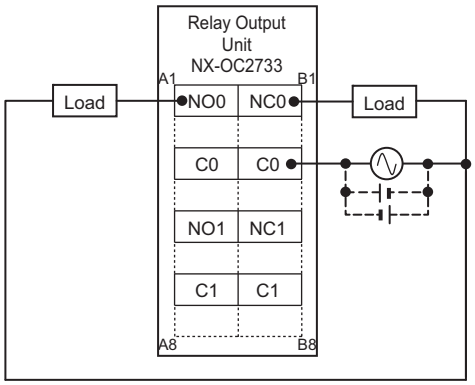
| | | | |
|---|---|---|---|
| **Unit name** | Transistor Output Unit | **Model** | NX-OD6121-6 |
| **Number of points** | 32 points | **External connection terminals** | Fujitsu connector (40 terminals) |
| **I/O refreshing method** | Switching Synchronous I/O refreshing and Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator<br>  | **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<br>1.10 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |  <br>• Be sure to wire both pins A9 and A19 (COM0).<br>• Be sure to wire both pins B9 and B19 (COM1).<br>• Be sure to wire both pins A10 and A20 (+V0).<br>• 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

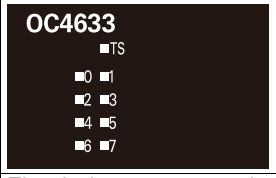
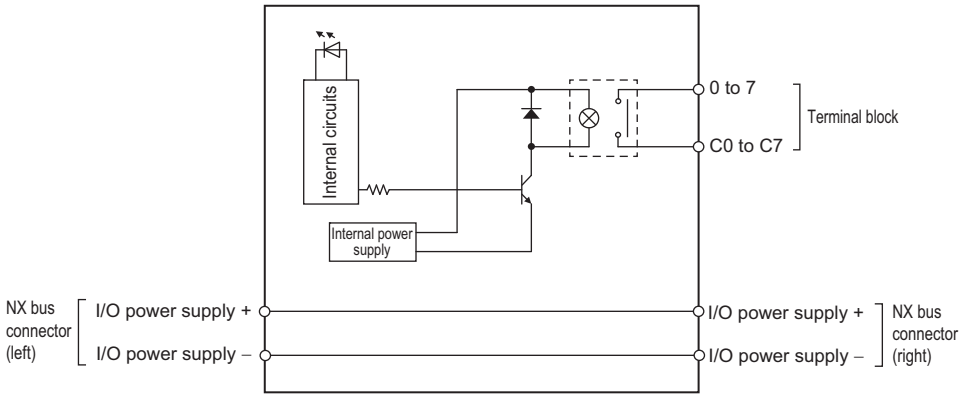
| | | | |
|---|---|---|---|
| **Unit name** | Relay Output Units | **Model** | NX-OC2633 |
| **Number of points** | 2 points, independent contacts | **External connection terminals** | Screwless clamping terminal block (8 terminals) |
| **I/O refreshing method** | Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator   | **Relay type** | N.O. contact |
| | | **Maximum switching capacity** | 250 VAC/2 A (cosϕ = 1),<br>250 VAC/2 A (cosϕ = 0.4),<br>24 VDC/2 A, 4 A/Unit |
| | | **Minimum switching capacity** | 5 VDC, 1 mA |
| **Relay service life** | Electrical: 100,000 operations*<br>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)<br>Between the external terminals and internal circuits: 20 MΩ min. (500 VDC)<br>Between the internal circuit and GR terminal: 20 MΩ min. (100 VDC)<br>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.<br>Between the external terminals and GR terminal: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>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.<br>5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 m/s$^2$<br>100 min each in X, Y, and Z directions<br>(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<br>1.20 W max.<br>• Connected to a Communications Coupler Unit<br>0.80 W max. | **I/O current consumption** | No consumption |
| **Weight** | 65 g max. | | |
| **Circuit layout** |   | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/ Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

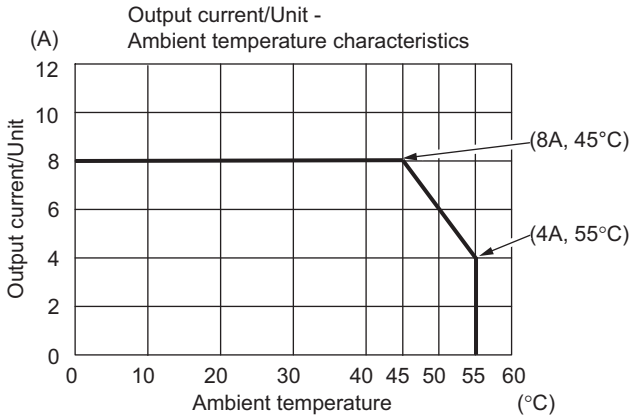
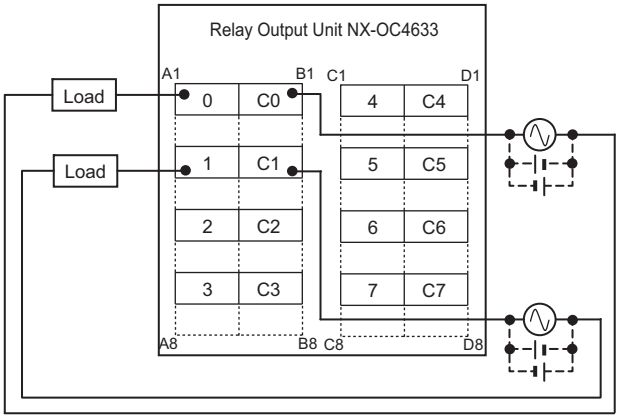
* Electrical service life will vary depending on the current value. Refer to "NX-series Digital I/O Units User's Manual" for details.

## ● Relay Output Unit
## NX-OC2733

| | | | |
|---|---|---|---|
| **Unit name** | Relay Output Unit | **Model** | NX-OC2733 |
| **Number of points** | 2 points, independent contacts | **External connection terminals** | Screwless clamping terminal block (8 terminals) |
| **I/O refreshing method** | Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator   | **Maximum switching capacity** | 250 VAC/2 A ($\cos\phi$ = 1),<br>250 VAC/2 A ($\cos\phi$ = 0.4),<br>24 VDC/2 A,<br>4 A/Unit |
| | | **Minimum switching capacity** | 5 VDC, 10 mA |
| **Relay service life** | Electrical: 100,000 operations<br>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)<br>Between the external terminals and functional ground terminal: 20 MΩ min. (at 500 VDC)<br>Between the external terminals and internal circuits: 20 MΩ min. (at 500 VDC)<br>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.<br>Between the external terminals and the functional ground terminal: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>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<br>1.30 W max.<br>• Connected to a Communications Coupler Unit<br>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.<br>You cannot replace the relay. | | |
| **Installation orientation and restrictions** | Installation orientation:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br>Restrictions: No restrictions | | |
| **Terminal connection diagram** |   | | |
| **Disconnection/Short-circuit detection** | Not supported. | **Protective function** | Not supported. |

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

| | | | |
|---|---|---|---|
| **Unit name** | Relay Output Unit | **Model** | NX-OC4633 |
| **Number of points** | 8 points, independent contacts | **External connection terminals** | Screwless clamping terminal block (8 terminals x 2) |
| **I/O refreshing method** | Free-Run refreshing | | |
| **Indicators** | TS indicator, output indicator   | **Relay type** | N.O. contact |
| | | **Maximum switching capacity** | 250 VAC/2 A ($\cos\phi$ = 1),<br>250 VAC/2 A ($\cos\phi$ = 0.4),<br>24 VDC/2 A,<br>8 A/Unit |
| | | **Minimum switching capacity** | 5 VDC, 1 mA |
| **Relay service life** | Electrical: 100,000 operations*<br>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)<br>Between the external terminals and the functional ground terminal: 20 MΩ min. (at 500 VDC)<br>Between the external terminals and internal circuits: 20 MΩ min. (at 500 VDC)<br>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.<br>Between the external terminals and the functional ground terminal: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>Between the external terminals and internal circuits: 2300 VAC for 1 min at a leakage current of 5 mA max.<br>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.<br>5 to 8.4 Hz with amplitude of 3.5 mm, 8.4 to 150 Hz, acceleration of 9.8 $m/s^2$<br>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<br>2.00 W max.<br>• Connected to a Communications Coupler Unit<br>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:<br>• Connected to a CPU Unit: Possible in upright installation.<br>• Connected to a Communications Coupler Unit: Possible in 6 orientations.<br><br>Restrictions: As shown in the following.<br>  <br> |
| **Terminal connection diagram** |  <br> |

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

# Version Information

## Connecting with CPU Units

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

| NX Unit | | Corresponding versions * | |
|---|---|---|---|
| Model | Unit version | CPU Unit | Sysmac Studio |
| NX-OD2154 | Ver.1.0 | Ver.1.13 or later | Ver.1.17 or higher |
| 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-OD6121-5 | | | |
| NX-OD6121-6 | | | |
| NX-OD6256-5 | | | |
| NX-OC2633 | | | |
| NX-OC2733 | | | |
| NX-OC4633 | | | |

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

## Connecting with Coupler Units

| NX Unit | | Corresponding versions *1 | | | | |
|---|---|---|---|---|---|---|
| | | EtherCAT | | | EtherNet/IP | |
| Model | Unit version | Communications Coupler Unit | NJ/NX-series CPU Units or NY-series Industrial PCs | Sysmac Studio | Communications Coupler Unit | Sysmac Studio |
| NX-OD2154 | Ver.1.0 | Ver.1.1 or later | Ver.1.06 or later *2 | Ver.1.07 or higher | --- | --- |
| NX-OD2258 | | | | | | |
| NX-OD3121 | | Ver.1.0 or later | Ver.1.05 or later | Ver.1.06 or higher | Ver.1.0 or later | Ver.1.10 or higher |
| NX-OD3153 | | | | | | |
| NX-OD3256 | | | | | | |
| NX-OD3257 | | | | | | |
| NX-OD3268 | | | | Ver.1.13 or higher | | Ver.1.13 or higher |
| NX-OD4121 | | | | Ver.1.06 or higher | | Ver.1.10 or higher |
| NX-OD4256 | | | | | | |
| NX-OD5121 | | | | | | |
| NX-OD5121-1 | | | | Ver.1.13 or higher | | Ver.1.13 or higher |
| NX-OD5121-5 | | | | Ver.1.10 or higher | | Ver.1.10 or higher |
| NX-OD5256 | | | | Ver.1.06 or higher | | |
| NX-OD5256-1 | | | | Ver.1.13 or higher | | Ver.1.13 or higher |
| NX-OD5256-5 | | | | Ver.1.10 or higher | | Ver.1.10 or higher |
| NX-OD6121-5 | | | | | | |
| NX-OD6121-6 | | | | Ver.1.13 or higher | | Ver.1.13 or higher |
| NX-OD6256-5 | | | | Ver.1.10 or higher | | Ver.1.10 or higher |
| NX-OC2633 | | | | Ver.1.06 or higher | | |
| NX-OC2733 | | | | Ver.1.08 or higher | | |
| NX-OC4633 | | | | Ver.1.17 or higher | | Ver.1.17 or higher |

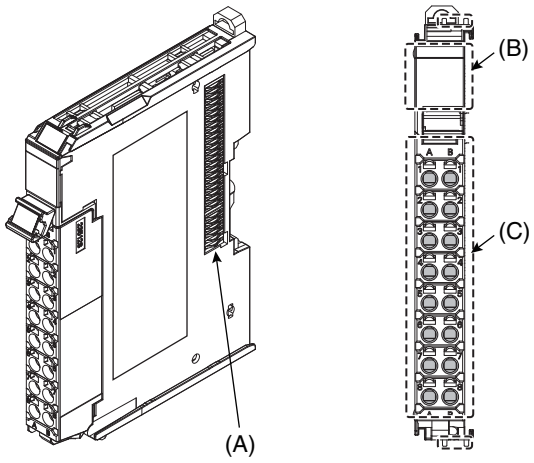
*1. Some Units do not have all of the versions given in the above table. If a Unit does not have the specified version, support is provided by the oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

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

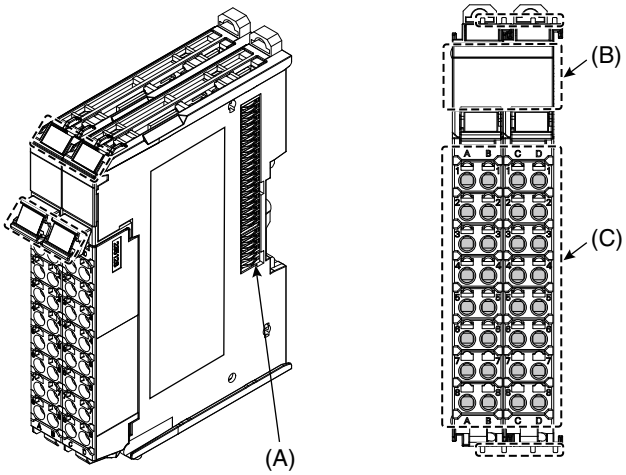
# External Interface

## Screwless Clamping Terminal Block Type

**NX Units (12 mm Width)**

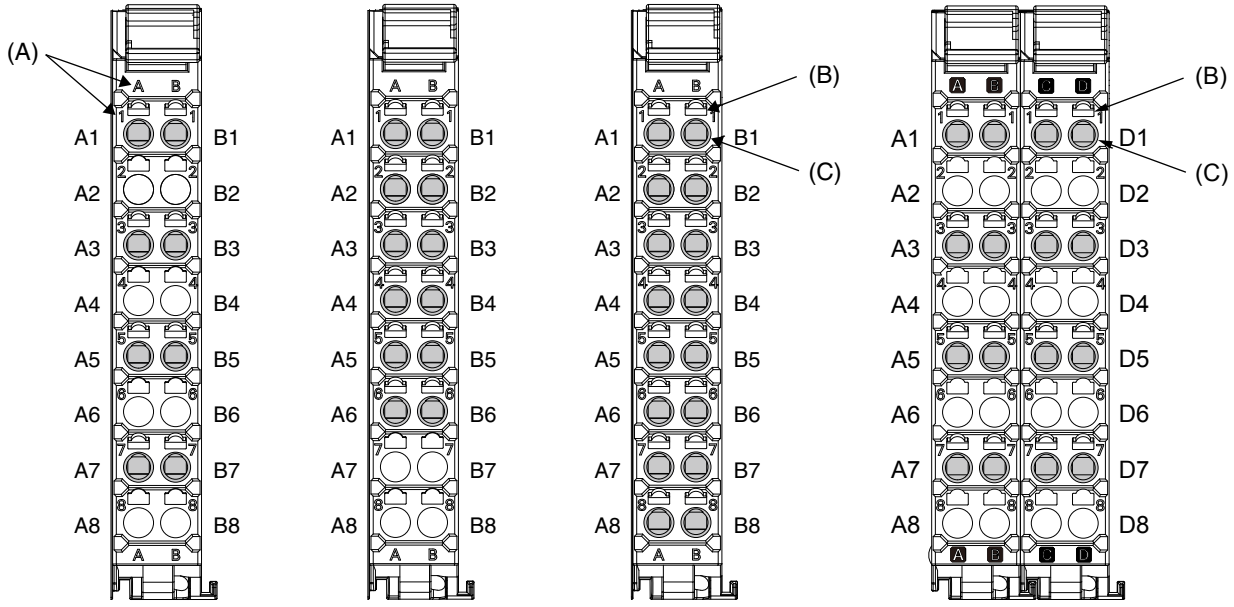



**NX Units (24 mm Width)**




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

**Terminal Blocks**




8-terminal type | 12-terminal type | 16-terminal type | 24 mm Width 8-terminal type ×2

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

## Applicable Terminal Blocks for Each Unit Model

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

## Applicable Wires

### Using Ferrules

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

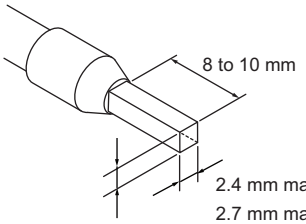
The applicable ferrules, wires, and crimping tool are given in the following table.

| Terminal types | Manufacturer | Ferrule model number | Applicable wire ($mm^2$ (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 $mm^2$, 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 $mm^2$, 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 $mm^2$ and cannot be used in the screwless clamping terminal block.

When you use any ferrules other than those in the above table, crimp them to the twisted wires so that the following processed dimensions are achieved.

Finished Dimensions of Ferrules




1.6 mm max. (except ground terminals)
2.0 mm max. (ground terminals)

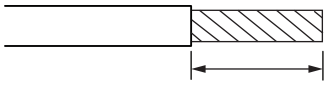
2.4 mm max. (except ground terminals)
2.7 mm max. (ground terminals)

### Using Twisted Wires/Solid Wires

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

| 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 max. | Possible | Possible | Possible | Possible | 0.08 to 1.5 $mm^2$ 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 $mm^2$ | 9 to 10 mm |

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

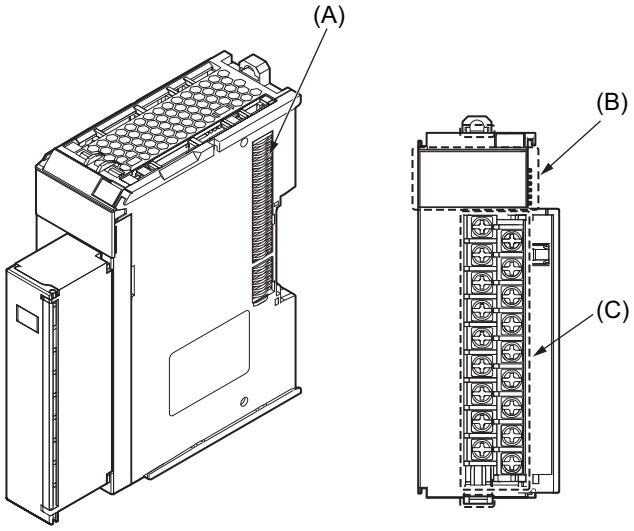


Conductor length (stripping length)

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

## M3 Screw Terminal Block Type

### NX Units (30 mm Width)

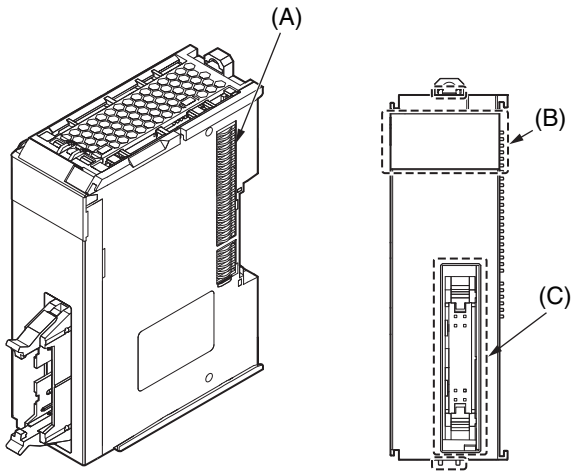



| Letter | Name | Function |
|---|---|---|
| (A) | NX bus connector | This connector is used to connect each Unit. |
| (B) | Indicators | The indicators show the current operating status of the Unit. |
| (C) | Screw terminals | These screw terminals are used to connect the wires. |

## Connector Types

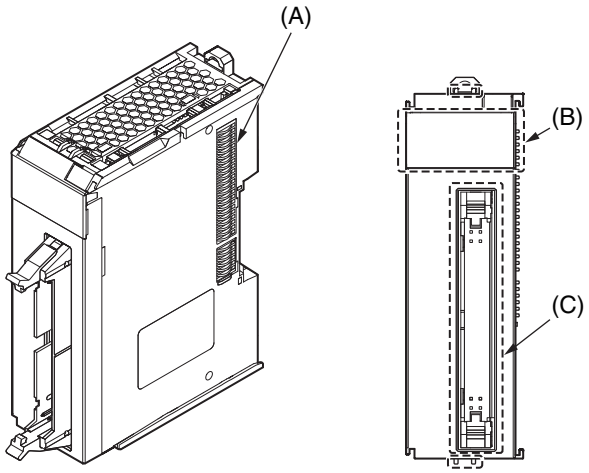
### NX Units (30 mm Width)

● **Units with MIL Connectors (1 Connector with 20 Terminals)**



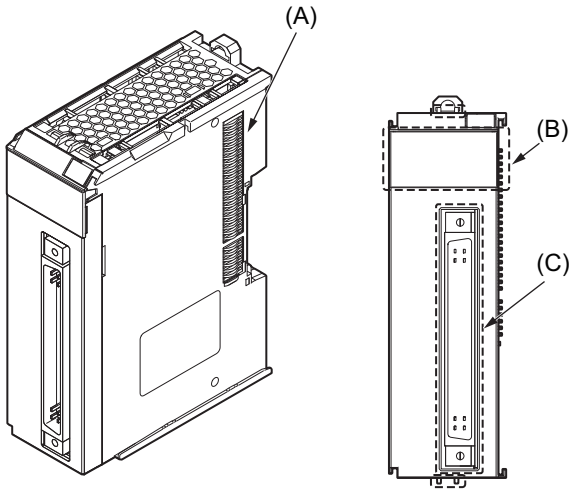

| Letter | Name | Function |
|---|---|---|
| (A) | NX bus connector | This connector is used to connect each Unit. |
| (B) | Indicators | The indicators show the current operating status of the Unit. |
| (C) | Connectors | The connectors are used to connect to external devices. |

## ● Units with MIL Connectors (1 Connector with 40 Terminals)




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

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



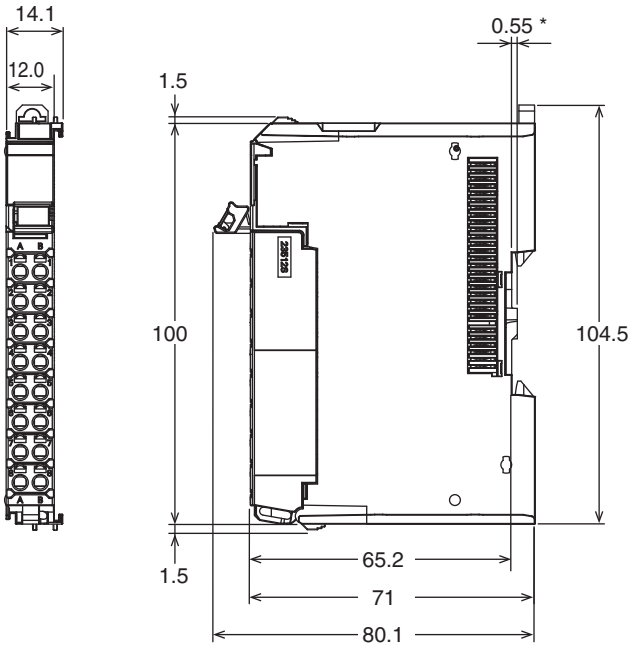

| Letter | Name | Function |
|---|---|---|
| (A) | NX bus connector | This connector is used to connect each Unit. |
| (B) | Indicators | The indicators show the current operating status of the Unit. |
| (C) | Connectors | The connectors are used to connect to external devices. |

# Dimensions

(Unit/mm)

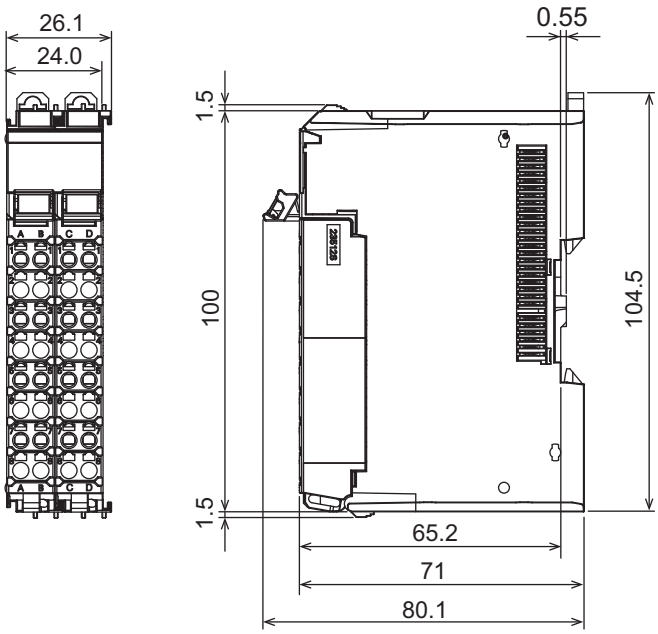
## Screwless Clamping Terminal Block Type

### 12 mm Width



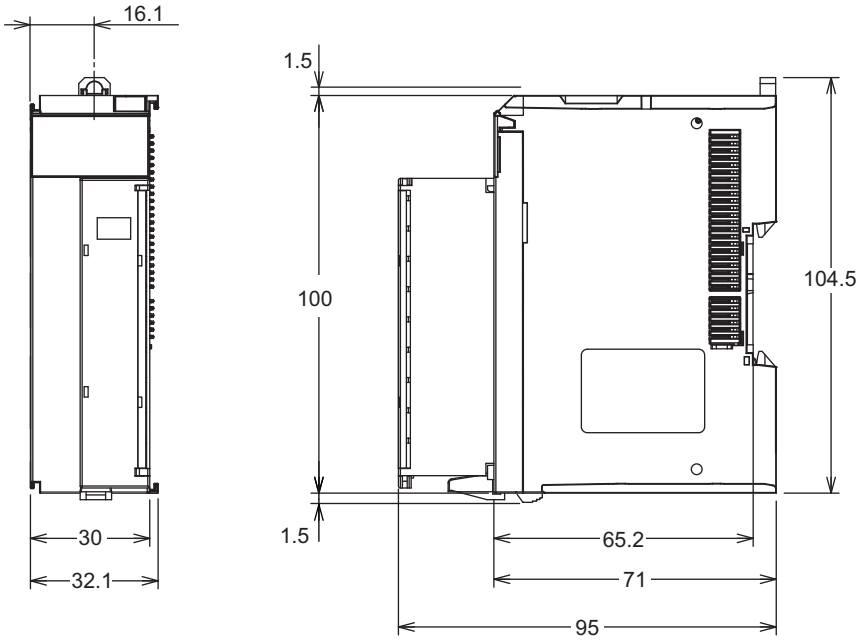

* The dimension is 1.35 mm for Units with lot numbers through December 2014.

### 24 mm Width



## M3 Screw Terminal Block Type

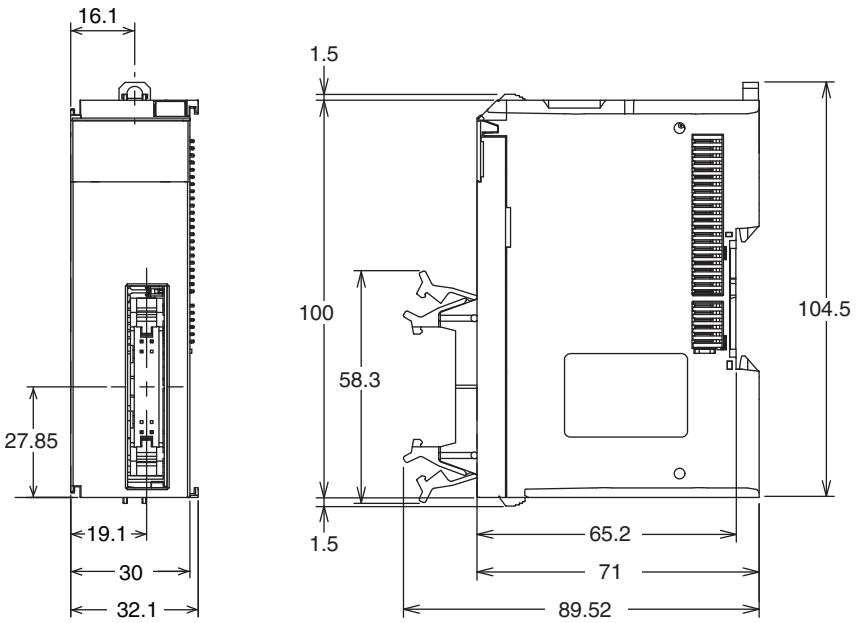
### 30 mm Width



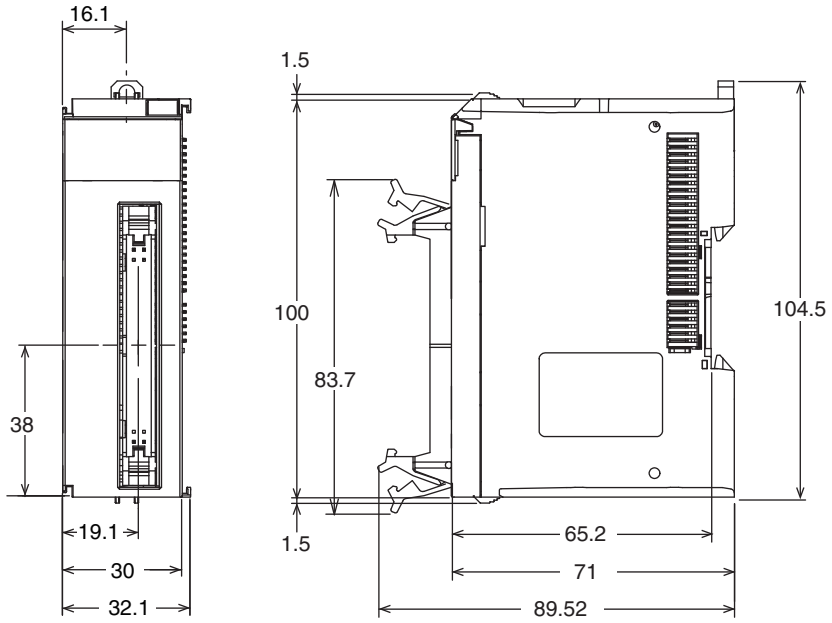

## Connector Types

### 30 mm Width

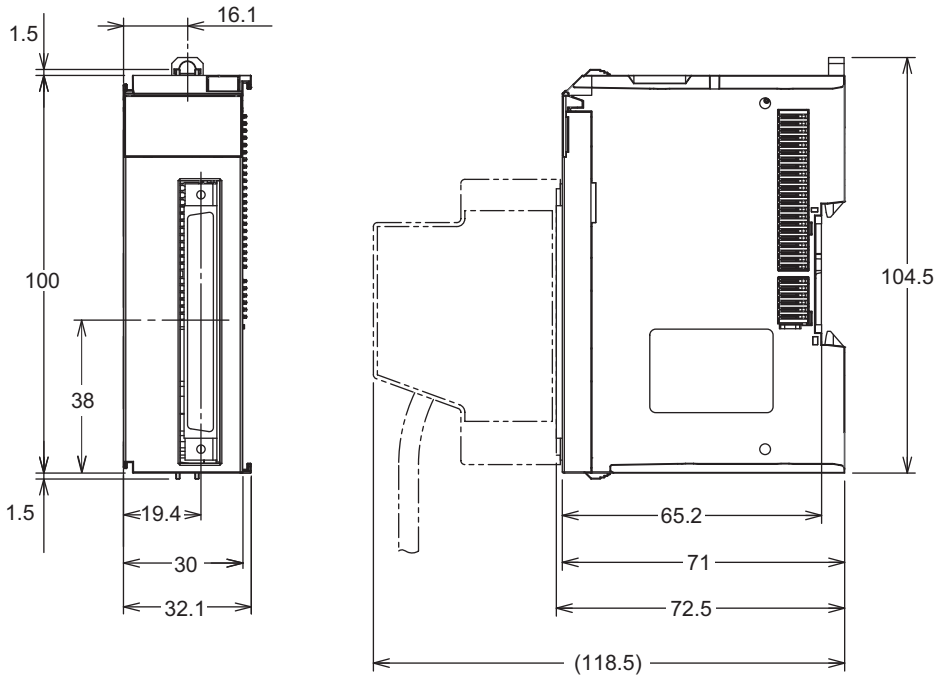
● **Units with MIL Connectors (1 Connector with 20 Terminals)**



● **Units with MIL Connectors (1 Connector with 40 terminals)**




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



## Related Manuals

| Cat. No. | Model number | Manual name | Application | Description |
|---|---|---|---|---|
| W521 | NX-IA□□□□<br>NX-ID□□□□<br>NX-OD□□□□<br>NX-OC□□□□<br>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. |

## Terms and Conditions Agreement

Read and understand this catalog.
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