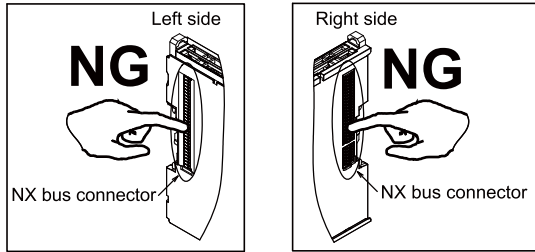


Do not touch the NX bus connector



4073947-0C

OMRON

NX series INSTRUCTION SHEET

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4073947-0C

Precautions for Compliance with UL Standards and CSA Standards

Notice to Users of the NX series components in USA and Canada

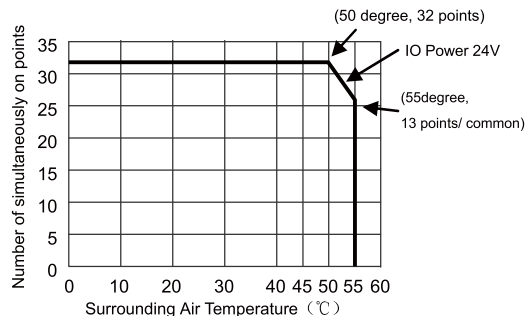
Please use the following installation information instead of the general information in the instruction manuals in order to use the product under certified conditions of UL and CSA when the product is installed in the USA or Canada. These conditions are required by NFPA 70, National Electrical Code in the USA and the Canadian Electrical Code, Part I in Canada and may vary from information given in the product manuals or safety precautions. Make sure that information written in this document are delivered to the final user of the product.

Surrounding Air Temperature

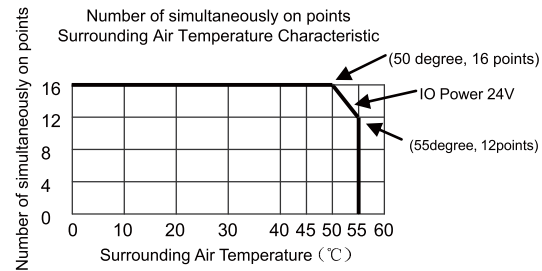
The rated temperature for all Units is 55°C.

Type NX-ID6142-6 is suitable for a maximum surrounding air of 50°C when all 32 input points are energized. It is suitable for 55°C when 26 input points maximum are energized. When using in a surrounding air temperature of over 50°C, maximum 26 of the input circuits shall be connected or the input circuitry shall be designed so that a maximum of 26 input points (13 input points per common) can be energized at a time.

Number of simultaneously on points
Surrounding Air Temperature Characteristic



Type NX-MD6121-6 is suitable for a maximum surrounding air of 50°C when all 16 input points are energized. It is suitable for 55°C when 12 input points maximum are energized. When using in a surrounding air temperature of over 50°C, maximum 12 of the input circuits shall be connected or the input circuitry shall be designed so that a maximum of 12 input points can be energized at a time.



NX-□D□□□□-6 and NX-OD3268 I/O wiring

- Use the recommended connector harness: XW2Z-□□□□ Series when you use NX-□D□□□□-6.
- Be sure to wire both terminals A9 and A18 (COM0) together, wire both terminals B9 and B18 (COM1) together and set the same polarity for both pins when using NX-ID6142-6.
- Be sure to wire both terminals A9 and A19 (COM0) together, wire both terminals B9 and B19 (COM1) together and set the same polarity for both pins when using NX-OD6121-6.
- Be sure to wire both terminals A9 and B9 (COM0) together, wire both terminals A9 and B9 (COM1) together and set the same polarity for both pins when using NX-MD6121-6.
- Be sure to wire both terminals COM together, wire both terminals 0V together and set the same polarity for both pins when using NX-OD3268.

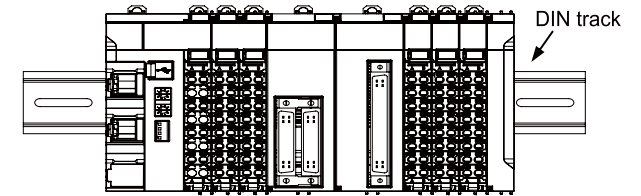
Compliance with Class I Division 2 Hazardous Location:

Input and output wiring must be in accordance with Class I Div.2 wiring methods and in accordance with the authority having jurisdiction.

1. This equipment is suitable for use in Class I, Div.2, Group A, B, C, D or Non-Hazardous Locations Only.
 2. WARNING: Explosion Hazard – Substitution of Components may Impair Suitability for Class I, Div.2.
 3. WARNING: Explosion Hazard – Do not Disconnect Equipment Unless Power Has Been Switched off or the Area Is Known to Be Non-Hazardous.
 4. This device is open-type and is required to be installed in an enclosure suitable for the environment and can only be accessed with the use of a tool or key.
1. CET ÉQUIPEMENT CONVIENT À L'UTILISATION DANS DES EMPLACEMENTS DE CLASSE I, DIVISION 2, GROUPE A, B, C ET D, OU NE CONVIENT QU'À L'UTILISATION DANS DES ENDROITS NON DANGEREUX. AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS PEUT RENDRE CE MATÉRIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 2.
 2. AVERTISSEMENT - RISQUE D'EXPLOSION - AVANT DE DÉBRANCHER L'ÉQUIPEMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNÉ NON DANGEREUX.
 3. AVERTISSEMENT - RISQUE D'EXPLOSION - AVANT DE DÉBRANCHER L'ÉQUIPEMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNÉ NON DANGEREUX.
 4. CE DISPOSITIF EST DE TYPE OUVERT ET DOIT ÊTRE INSTALLÉ DANS UN COFFRET ADAPTE À L'ENVIRONNEMENT ET AUQUEL ON NE POURRA ACCÉDER UNIQUEMENT AU MOYEN D'UN OUTIL OU D'UNE CLE.

Direction for installation

Vertical only.



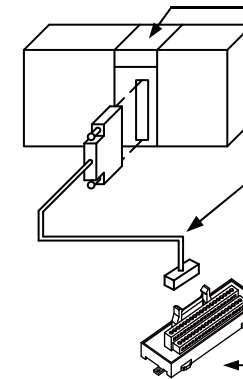
XW2Z connector cable and XW2B connector-terminal converter unit

NX-Series Basic I/O Units

NX-ID□□□□-6 (Input Unit, FCN connector)

NX-OD□□□□-6 (Output Unit, FCN connector)

NX-MD□□□□-6 (Mix Unit, FCN connector)



Connector Harness

by OMRON CORP (E229703)

XW2Z - □□□□A for Mix Units;

XW2Z - □□□□B for Input/Output Units;

□□□ : Cable length (cm) ;

Connector-Terminal Block Conversion Unit;

- These Connector Harness Series must be mechanically latched and internal wiring only.

OMRON

OMRON Corporation (Manufacturer)

Shiokoji Horikawa, Shimogyo-ku,

Kyoto, 600-8530, Japan

Tel: (81)75-344-7109

Fax: (81)75-344-7149

Regional Headquarters

OMRON EUROPE B.V. (Importer in EU)

Wegalaan 67-69,

NL-2132 JD Hoofddorp

The Netherlands

Tel: (31)2356-81-300

Fax: (31)2356-81-388

OMRON ELECTRONICS LLC

2895 Greenspoint Parkway,

Suite 200 Hoffman Estates,

IL 60169 U.S.A

Tel: (1) 847-843-7900

Fax: (1) 847-843-7787

OMRON ASIA PACIFIC PTE. LTD.

No. 438A Alexandra Road # 05-05/08

(Lobby 2), Alexandra Technopark,

Singapore 119967

Tel: (65)6835-3011

Fax: (65)6835-2711

OMRON (CHINA) CO., LTD.

Room 2211, Bank of

China Tower,

200 Yin Cheng Zhong Road,

PuDong New Area, Shanghai,

200120 China

Tel: (86)21-5037-2222

Fax: (86)21-5037-2200

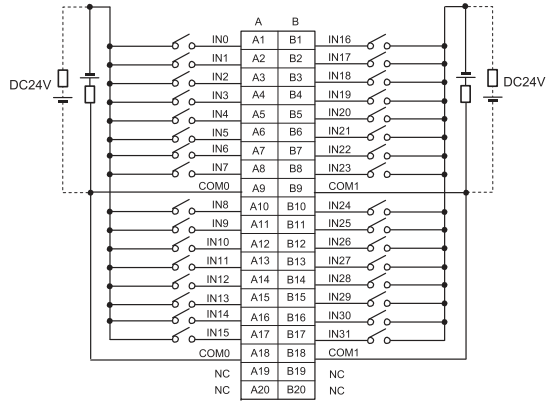
Note: Specifications subject to change without notice.

Printed in China

I/O Wiring Diagram

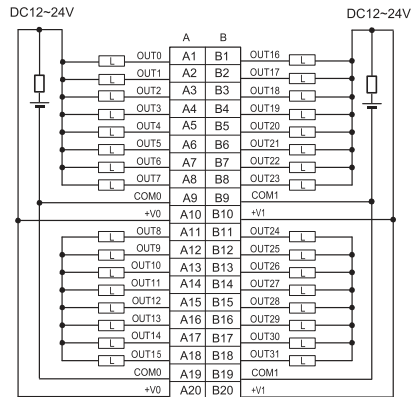
The external power supply must be an isolated DC source. It must be equipped with an over-current protection with current limitation in 4A or 8A.

●NX-ID6142-6



□ : Over-current protection
(current limitation :4A)

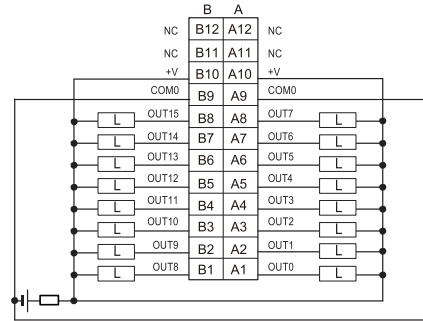
●NX-OD6121-6



□ : Over-current protection
(current limitation :4A)

●NX-MD6121-6

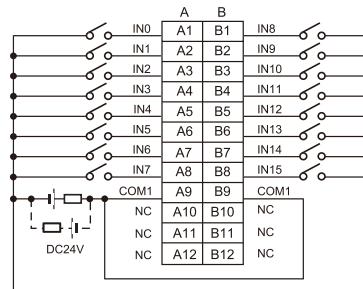
CN1 (OUT):



DC12~24V

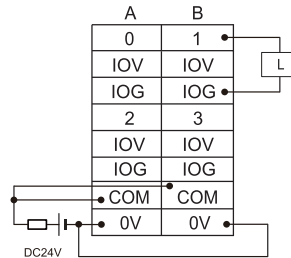
□ : Over-current protection
(current limitation :4A)

CN2 (IN):



□ : Over-current protection
(current limitation :4A)

●NX-OD3268



□ : Over-current protection
(current limitation :8A)

● Applicable wire size for NX-OD3268

IO power source line

Current limitation	Type	Wire size	Strip length	Conductor surface
2A max	Solid/Strand	AWG 24-16	9mm	None
Exceeds 2A	Solid/Strand		9mm	Plated

IO signal line

Type	Wire size	Strip length
Solid/Strand	AWG 24-16	9mm

Do not use ferrule terminals. Insert the strand or solid copper wire directly into the holes on the terminal block.

Please select wire size suitable for rated current.

Wire size	Current (MAX)
AWG 24	2A
AWG 22	3A
AWG 20	5A
AWG 18	7A
AWG 16	10A

Conformance to EU Directives

This product is EMC-compliant when assembled in PLC system or Machine Automation Controller. To ensure the EU Directive conformance of customer's machinery or equipment in which the product is incorporated, be sure to observe the following precautions.

1. This product is defined as an in-panel device and must be installed within a control panel.
2. Reinforced insulation or double insulation must be used for the DC power supply connected to the DC power supply unit, communication unit, and I/O unit.
3. This product complies with the common emission standard (EN61131-2, EN61000-6-4) with regard to EMI. For the radiated emission requirement (10-m regulations), in particular, please note that the actual emission varies depending on the configuration of the control panel to be used, the connected devices, and wiring methods. Therefore, the customer must confirm the EU Directive conformance of the overall machinery or equipment by themselves, even if this EU conforming product is used.

This is a class A product. In residential areas it may cause radio interference, in which case the user maybe required to take adequate measures to reduce interference.