

OMRON

NX series INSTRUCTION SHEET

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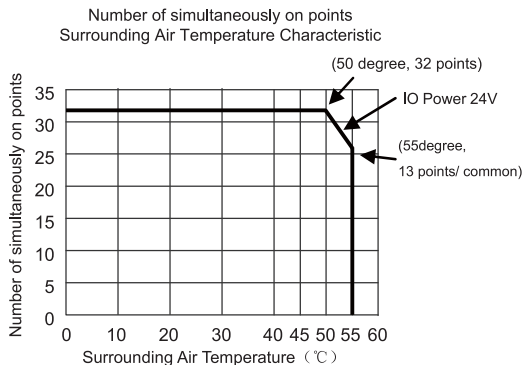
Precautions for Compliance with UL Standards and CSA Standards

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

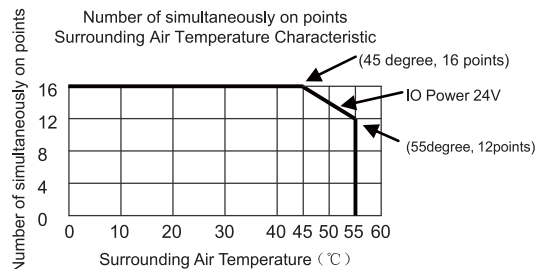
Please use the following installation information instead of the general information in the instruction manuals in order to use the product under certified conditions of UL and CSA when the product is installed in the USA or Canada. These conditions are required by NFPA 70, National Electrical Code in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

● **Surrounding Air Temperature**

The rated temperature for all Units is 55°C. Type NX-ID6142-5 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.



Type NX-MD6121-5/ NX-MD6256-5 is suitable for a maximum surrounding air of 45°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 45°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-□□□□□□-5 I/O wiring**

- Use the recommended connector harness: XW2Z-□□□□Series
- Use the recommended terminal unit: XW2□-□□□□Series
- Be sure to wire both terminals 21 and 22 (COM0), and set the same polarity for both pins.
- Be sure to wire both terminals 23 and 24 (COM0), and set the same polarity for both pins.
- Be sure to wire both terminals 1 and 2 (COM or COM1), and set the same polarity for both pins.
- Be sure to wire both terminals 3 and 4 (COM or COM0 or COM1), and set the same polarity for both pins.

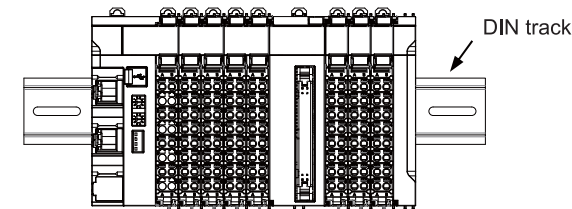
● **Compliance with Class I Division 2 Hazardous Location:**

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

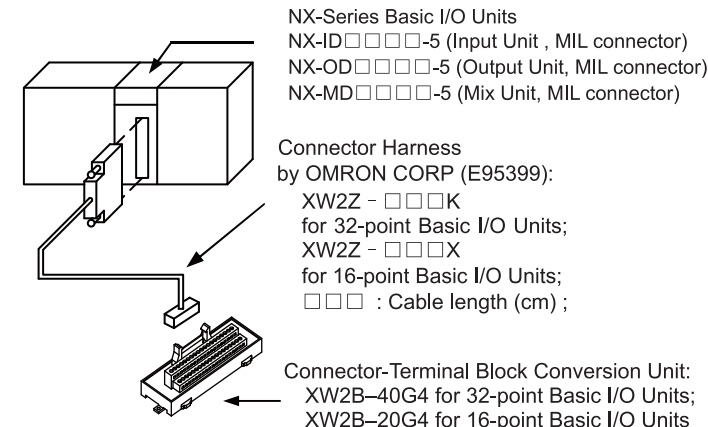
1. This equipment is suitable for use in Class I, Div.2, Group A, B, C, D or Non-Hazardous Locations Only.
CET ÉQUIPEMENT CONVIENT À L'UTILISATION DANS DES EMPLACEMENTS DE CLASSE I, DIVISION 2, GROUPE A, B, C ET D, OU NE CONVIENT QU'À L'UTILISATION DANS DES ENDROITS NON DANGEREUX.
2. WARNING. Explosion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

● **Direction for installation**

Vertical only.



● **XW2Z connector cable and XW2B connector-terminal converter unit**



• These Connector harness Series must be mechanically latched and internal wiring only.

OMRON

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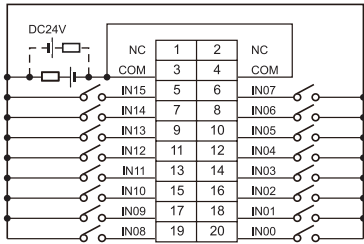
Note: Specifications subject to change without notice.

Printed in Japan

I/O Wiring Diagram

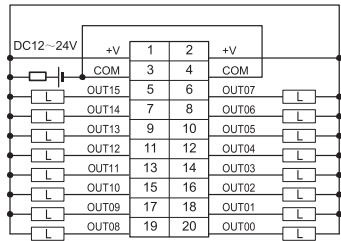
The external power supply must be an isolated DC source. It must be equipped with an over-current protection with current limitation in 8A.

●NX-ID5142-5



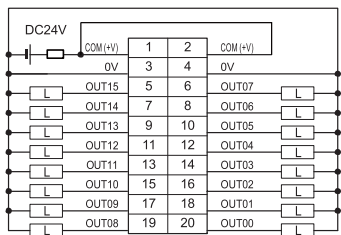
□ : Over-current protection (current limitation :8A)

●NX-OD5121-5



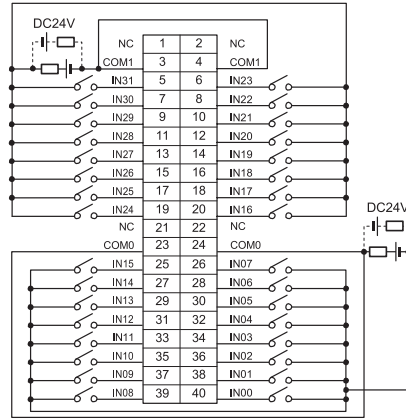
□ : Over-current protection (current limitation :8A)

●NX-OD5256-5



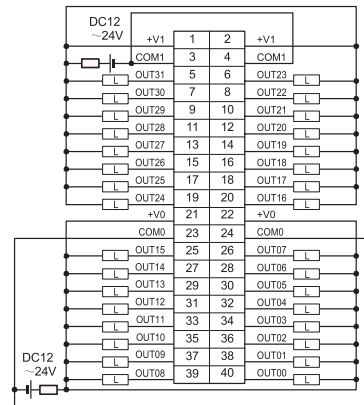
□ : Over-current protection (current limitation :8A)

●NX-ID6142-5



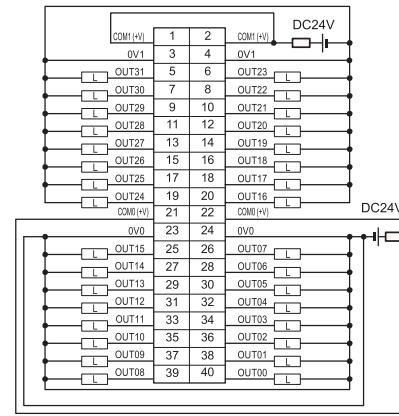
□ : Over-current protection (current limitation :8A)

●NX-OD6121-5



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

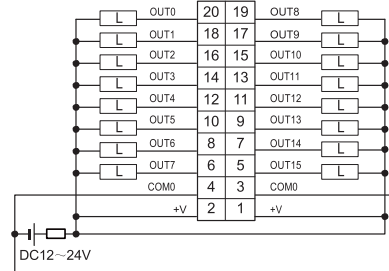
●NX-OD6256-5



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

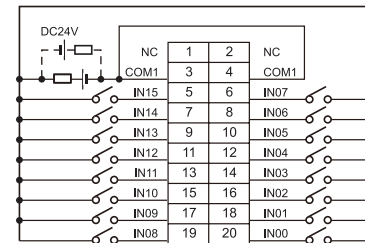
●NX-MD6121-5

CN1 (OUT):



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

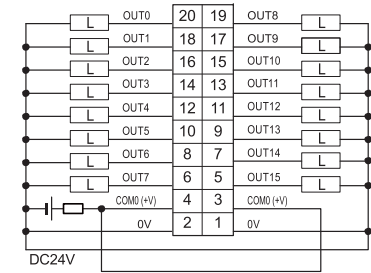
CN2 (IN):



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

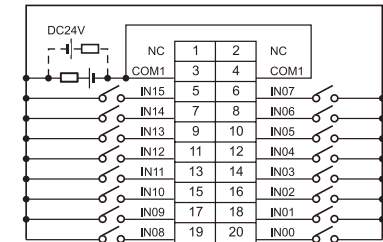
●NX-MD6256-5

CN1 (OUT):



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

CN2 (IN):



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

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.