

CL1Y4-T1C2  
CC-Link/LT Remote I/O Module

Please read this manual thoroughly before starting to use the product and handle the product properly.

User's Manual

MODEL CL1Y4-T1C2  
MANUAL Number JY997D10701K  
Date November 2021

SAFETY PRECAUTIONS

Read these precautions before using.  
Please read this manual carefully and pay special attention to safety in order to handle this product properly. Also pay careful attention to safety and handle the module properly.

These precautions apply only to Mitsubishi equipment. Refer to the user's manual of the CPU module to use for a description of the PLC system safety precautions.

These SAFETY PRECAUTIONS classify the safety precautions into two categories: "WARNING" and "CAUTION".

WARNING: Procedures which may lead to a dangerous condition and cause death or serious injury if not carried out properly.

CAUTION: Procedures which may lead to a dangerous condition and cause superficial to medium injury, or physical damage only, if not carried out properly.

Depending on circumstances, procedures indicated by CAUTION may also be linked to serious results. In any case, it is important to follow the directions for usage. Store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.

DESIGN PRECAUTIONS

WARNING: Configure an interlock circuit in a sequence program so that the system operates on the safety side using the communication status information in the event the data link fails into a communication problem. Otherwise, erroneous output and malfunction may result in accidents. Remote input and output can not be switched ON or OFF when a problem occurs in the remote I/O modules. Therefore build an external monitoring circuit that will monitor any input signals that could cause a serious accident.

CAUTION: Do not have control cables and connection cables bundled with or placed near by the main circuit and/or power cables. Wire those cables at least 100mm(3.94 inch) away from the main circuit and/or power cables. It may cause malfunction due to noise interference. Use the module and the connection cable without applying any force on them. Otherwise, such cables may be broken or fail.

INSTALLATION PRECAUTIONS

CAUTION: Use the module in an environment that meets the general specifications contained in this manual. Using this module in an environment outside the range of the general specifications could result in electric shock, fire, erroneous operation, and damage to or deterioration of the product. Do not directly touch the module's conductive parts. Doing so could cause malfunction or trouble in the module. Tighten the module securely using DIN rail or installation screws within the specified torque range. If the screws are too loose, the module may drop from its installation position, short circuit, or malfunction. If the screws are too tight, the screws may be damaged, which may cause the module to drop from its installation position or short circuit. Install the module on a flat surface. If the mounting surface has concave and/or convex, an excessive force may be applied on the module, and nonconformity may be caused.

WIRING PRECAUTIONS

WARNING: Perform installation and wiring after disconnecting the power supply at all phases externally. If the power is not disconnected at all phases an electric shock or product damage may result.

CAUTION: Perform correct wiring for the module according to the product's rated voltage and terminal arrangement. Connecting to a power supply different from rating or miss-wiring may cause fire, product failure or malfunction. Make sure foreign objects do not get inside the module, such as dirt and wire chips. It may cause fire, product failure or malfunction. Attach a warning label (hazard symbol 417-IEC-5036) concerning the electric shock to the location.

STARTING AND MAINTENANCE PRECAUTIONS

WARNING: Do not touch the terminals when the power is ON. It may cause an electric shock or malfunction. Perform cleaning the module or retightening of terminal screws after turning OFF the all external power supply for sure. Failure to do so may cause failure or malfunction of the modules.

CAUTION: Do not disassemble or modify the module. Doing so may cause failure, malfunction, injury, or fire. The module case is made of resin; do not drop it or subject it to strong shock. A module damage may result. Make sure to switch all phases of the external power supply OFF before installing or removing the module to/from the panel. Failure to do so may cause failure or malfunction of the modules.

CAUTION: When disposing of this product, treat it as industrial waste.

TRANSPORTATION AND MAINTENANCE PRECAUTIONS

CAUTION: During transportation avoid the impact which exceeds a regulated value as the module is a precision instrument. Doing so could cause trouble in the module. It is necessary to check the operation of module after transportation, in case of any impact damage. Otherwise, causes the damage of the machine and the accident.

Compliance with EC directive (CE marking): This note does not guarantee that an entire mechanical module produced in accordance with the contents of the notification comply with the following standards. Compliance to EMC directive of the entire mechanical module should be checked by the user / manufacturer.

Attention: This product is designed for use in industrial applications. Standards with which this product complies: Type : Programmable Controller (Open Type Equipment) Remote I/O module Models : Products manufactured from February 1st, 2004 to April 30th, 2006 are compliant with EN61000-6-4 and EN61131-2-1:1994+A11:1996+A12:2000 after May 1st, 2006 are compliant with EN61131-2:2007

Table with 2 columns: Electromagnetic Compatibility Directive (EMC) and Remark. Rows include EN61000-6-4:2001, EN61131-2:1994/A11:1996/A12:2000, and EN61131-2:2007.

Notes for compliance to EMC directive

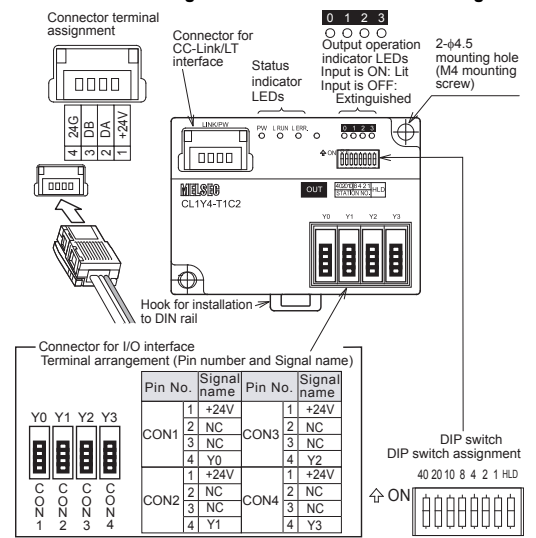
- It is necessary to install the CL1 series module in a shielded metal control panel.
- For more details, please contact the local Mitsubishi Electric sales site.
- Use this product in Zone A\*\* as defined in EN61131-2. Zone defined in EN61131-2 Separation defined in EN61131-2 for EMC LVD regulation decided depending on condition in industrial setting. Zone C = Factory mains which is isolated from public mains by dedicated transformers. Zone B = Dedicated power distribution which is protected by secondary surge protection. (300V or less in the rated voltage is assumed.) Zone A = Local power distribution which is isolated from dedicated power distribution by AC/DC converters, isolation transformers, etc. (120V or less in the rated voltage is assumed.)

Compliance with UKCA marking: The requirements for compliance with UKCA marking are the same as that with EC directive (CE marking).

1. Outline of Product

This product is an open sensor connector type output module connected to CC-Link/LT. This product has four output points (transistor output).

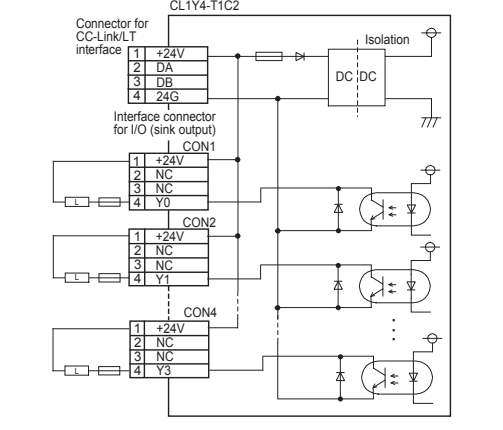
2. Name and Setting of Each Part and Terminal Arrangement



Name and Description table for the module. Columns: Name, Description. Rows: Output method, Status indicator LED, Output operation indicator LEDs.

4. Wiring

4.1 Connecting and wiring of connector for I/O interface: Wire the connector for I/O interface (e-CON) according to the following procedure: 1) Verify that the plug cover is installed in the plug unit. Caution: Do not push the plug cover into the plug unit before the cable is inserted. 2) Insert the cable until it makes contact with the plug unit. 4.2 External wiring: The output terminals of the CL1Y4-T1C2 are fixed to the sink output.



Notes: 1 The criterion is shown in IEC61131-2. 2 The module cannot be used in an environment pressurized above the atmospheric pressure which can be generated around the altitude of 0 m. If the module is used in such an environment, it may fail. 3 The module can be used in any environment even outside the control panel as far as the requirements of the ambient operating temperature, the ambient operating humidity, etc. are satisfied. 4 This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within premises. Category II applies to equipment for which electrical power is supplied from fixed facilities. The surge voltage withstand level for up to the rated voltage of 300V is 2500V. 5 This index indicates the degree of conductive generating substances in the environment in which the module is used. The degree of contamination 2 indicates that contamination is caused by generation of only non-conductive substances. In this degree, however, temporary conduction may be caused by accidental condensation.

5. Specifications

General specifications table with columns: Item and Specification. Rows include Ambient working temperature, Ambient storage temperature, Ambient operating humidity, Ambient storage humidity, Vibration resistance, Impact resistance, Operating atmosphere, Operating altitude, Installation place, Over-voltage, Degree of contamination.

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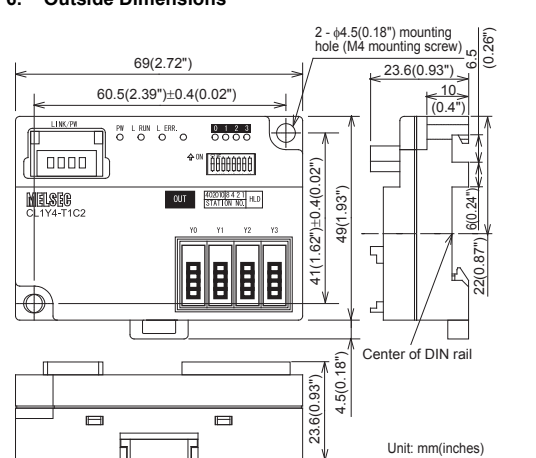
5.2 Output specifications

Output specifications table with columns: Item and Specification. Rows include Output method, Number of outputs, Isolation method, Rated load voltage, Operating load voltage range, Max. load current, Max. inrush current, Leakage current at OFF, Max. voltage drop at ON, Response time, Surge suppression, Common wiring method, Internal protection for outputs.

5.3 Performance specifications

Performance specifications table with columns: Item and Specification. Rows include Voltage, Current consumption, Initial current, Max. allowable momentary power failure period, Number of stations occupied, Noise durability, Withstand voltage, Isolation resistance, Protection class, I/O part connection method, Module installation method, Mass (weight).

6. Outside Dimensions



Name and Description table for the interface and connector. Rows: Interface, Connector for I/O interface, DIP switch, HLD.

Set up using a slotted screwdriver with a tip width of 0.9 mm or less.

3. Installation

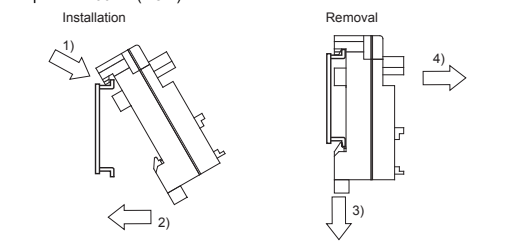
The CL1Y4-T1C2 can be installed to DIN rail or directly installed using mounting screws. Each installation procedure is described below.

3.1 Installation to DIN rail

When installing the module, align the upper DIN rail installation groove on the module with the DIN rail 1, and press the module on to the DIN rail 2). When removing the module, pull the hook downward for installation to DIN rail 3), then remove the module 4).

DIN rail mounting screw pitch

When installing the module to the DIN rail, tighten the mounting screws at the pitch of 200mm(7.87") or less.



Applicable DIN rail: TH35-7.5Fe and TH35-7.5Al. Width: 35mm

3.2 Direct installation

Screw-tighten the module by attaching M4 screws to the upper and lower mounting holes (two holes in all) provided in the module. Install the module so that the clearance of 1 to 2mm (0.04" to 0.08") is assured for each module.

Applicable screw: M4 x 0.7mm(0.03") x 16mm(0.63") or more. (Tightening torque range: 0.78 to 1.08 N·m)

「电器电子产品有害物质限制使用标识要求」的表示方式

Note: This symbol mark is for China only.

含有有害6物质的名称, 含有量, 含有部品  
本产品中所含有的有害6物质的名称, 含有量, 含有部品如下表所示。

Table of hazardous substances and their contents. Columns: Component name, Substance name, Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBB), Polychlorinated Biphenyls (PCB). Rows: Programmable Controller, Printed Circuit Board.

本表格依据SJ/T 11364的规定编制。

本表格依据SJ/T 11364的规定编制。: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。x: 表示该有害物质在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

基于中国标准法的参考规格: GB/T15969.2

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

Warranty: Exclusion of loss in opportunity and secondary loss from warranty liability. (1) Damages caused by any cause found not to be the responsibility of Mitsubishi. (2) Loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products. (3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products. (4) Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

For safe use: This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life. Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi Electric. This product has been manufactured under strict quality control. However when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

Country/Region Sales office/Tel. Table listing Mitsubishi Electric sales offices worldwide with addresses and phone numbers.