

Before Using the Product

Please read this document before use. Keep the document in a safe place for future reference. Make sure that the end users read the document.

SAFETY PRECAUTIONS

(Read these precautions before using this product.)

Before using this product, please read this manual and the relevant manuals carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product only.

For the safety precautions of the programmable controller system, refer to the user's manual for the CPU module used.

In this manual, the safety precautions are classified into two levels: "⚠️ WARNING" and "⚠️ CAUTION".

⚠️ WARNING Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.

⚠️ CAUTION Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

⚠️ AVERTISSEMENT Attire l'attention sur le fait qu'une négligence peut créer une situation de danger avec risque de mort ou de blessures graves.

⚠️ ATTENTION Attire l'attention sur le fait qu'une négligence peut créer une situation de danger avec risque de blessures légères ou de gravité moyennes ou risque de dégâts matériels.

Under some circumstances, failure to observe the precautions given under "⚠️ CAUTION" may lead to serious consequences.

Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

[Design Precautions]

⚠️ WARNING

● In the case of a communication failure in the network, data in the master module are held. Check Data link status (each station) (SW00B0 to SW00B7) and configuring an interlock circuit in the program to ensure that the entire system will operate safely.

● When the module is disconnected due to a communication failure in the network or the CPU module is in the STOP status, all outputs are held or turned off according to the parameter setting. Configuring an interlock circuit in the program to ensure that the entire system will always operate safely even in such a case. If not, an accident may occur due to an incorrect output or malfunction.

● Outputs may remain on or off due to a failure of the module. Configure an external circuit for monitoring output signals that could cause a serious accident.

● Do not use any "use prohibited" signals as a remote input or output signal. These signals are reserved for system use. Do not write any data to the "use prohibited" area in the remote register. If these operations are performed, an accident may occur due to an incorrect output or malfunction.

[Design Precautions]

⚠️ CAUTION

● Do not install the control lines or communication cables together with the main circuit lines or power cables. Keep a distance of 100mm or more between them. Failure to do so may result in malfunction due to noise.

● During control of an inductive load such as a lamp, heater, or solenoid valve, a large current (approximately ten times greater than normal) may flow when the output is turned from off to on. Therefore, use a module that has a sufficient current rating.

[Installation Precautions]

⚠️ WARNING

● Shut off the load power supply (all phases) used in the system before mounting or removing a module. Failure to do so may result in electric shock or cause the module to fail or malfunction.

[Installation Precautions]

⚠️ CAUTION

● Use the module in an environment that meets the general specifications in the user's manual for the module. Failure to do so may result in electric shock, fire, malfunction, or damage to or deterioration of the product.

● Do not directly touch any conductive parts and electronic components of the module. Doing so can cause malfunction or failure of the module.

● Securely fix the module with mounting screws. Failure to do so may cause the module to fail due to increasing effects of vibrations.

● Securely connect the cable connectors. Poor contact may cause malfunction.

● After the first use of the product, do not connect/remove the connectors more than 50 times (IEC61131-2 compliant). Exceeding the limit may cause malfunction.

[Disposal Precautions]

⚠️ CAUTION

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

[Wiring Precautions]

⚠️ WARNING

● Shut off the load power supply (all phases) used in the system before wiring. Failure to do so may result in electric shock or cause the module to fail or malfunction.

● Check the rated voltage and terminal layout before wiring to the module, and connect the cables correctly. Connecting a power supply with a different voltage rating or incorrect wiring may cause a fire or failure.

● Tighten the waterproof caps within the specified torque range. Undertightening can cause short circuit, fire, or malfunction. Overtightening can damage the waterproof cap, resulting in short circuit or malfunction.

● The module meets IP67 only when all of the waterproof plugs and waterproof caps are attached and the cover of the station number setting switch is securely fixed with a screw.

● Do not connect a communication cable to a connector for input/output instead of a connector for communication. Both connectors are the same in form. Connecting the cable to a wrong connector may cause the module to fail or malfunction.

● Prevent foreign matter such as dust or wire chips from entering the module. Such foreign matter can cause a fire, failure, or malfunction.

● Place the cables in a duct or clamp them. If not, dangling cable may swing or inadvertently be pulled, resulting in damage to the module or cables or malfunction due to poor contact.

● Use UL listed cables in the categories "CYJV" and "PVCVA", with the suitable voltage, current, and temperature rating (the operating temperature range of the cables: 75°C or higher) for system installation.

● Do not install the control lines or communication cables together with the main circuit lines or power cables. Keep a distance of 100mm or more between them.

● When disconnecting the cable from the module, do not pull the cable by the cable part. For the cable with connector, hold the connector part of the cable. Pulling the cable connected to the module may result in malfunction or damage to the module or cable.

● When an overcurrent caused by an error of an external device or a failure of the programmable controller flows for a long time, it may cause smoke and fire. To prevent this, configure an external safety circuit, such as a fuse.

● Wiring and replacement of a module must be performed by qualified maintenance personnel with knowledge of protection against electric shock. For wiring methods, refer to "INSTALLATION AND WIRING" in the user's manual.

[Startup and Maintenance Precautions]

⚠️ WARNING

● Do not touch any connector while power is on. Doing so will cause electric shock or malfunction.

● Shut off the load power supply (all phases) used in the system before cleaning the module or retightening screws or connector screws. Failure to do so may cause the module to fail or malfunction.

[Startup and Maintenance Precautions]

⚠️ CAUTION

● Do not disassemble or modify the module. Doing so may cause failure, malfunction, injury, or fire.

● Do not drop or apply strong shock to the module. Doing so may damage the module.

● Shut off the load power supply (all phases) used in the system before mounting or removing a module. Failure to do so may cause the module to fail or malfunction.

● After the first use of the product, do not connect/remove the connectors more than 50 times (IEC61131-2 compliant). Exceeding the limit may cause malfunction.

[Precautions of communication]

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[Precautions of installation]

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[Precautions of disposal]

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