

## ! Handling Precautions for Screw Terminal Blocks (ML)

To ensure safe use, be sure to read these precautions together with the general precautions.

Feel free to contact the Customer Service Center if you have any questions.

### Precautions for Use(1/2)

- Check the product specifications before use.
- Use the appropriate product mounting method (ensuring insulation distance), connecting wires, and copper foil pattern of printed circuit in accordance with the working voltage and current.
- The rated current represents the maximum current that one pole can carry. When a product allows the connection of two or more wires to one pole, make sure that the total current does not exceed the rated current.
- When connecting and disconnecting wires, make sure that the power is off.
- When tightening screws, make sure that the screw driver bit (tip) and the tightening torque are appropriate for the size of the screws.

| Terminal screw size       | M2.6 | M3  | M3.5 | M4  | M5  | M6  | M8  |
|---------------------------|------|-----|------|-----|-----|-----|-----|
| Tightening torque : N · m | 0.4  | 0.5 | 0.8  | 1.2 | 2.0 | 2.5 | 6.0 |

※The torque range for some products is different from the above. Be sure to check the individual specifications before use.

- Tightening torque for some products is different from others. Check the individual specifications.
- Before inserting or removing a plug from a receptacle of a connector-type product, make sure that no load is applied (the power is off).
- When using bare crimp terminals, ensure the necessary insulation distances, and cover charged parts with insulated tubes to prevent electric shocks and short circuiting. (Figure A)
- When using multiple crimp terminals on one pole, the number of terminals must be within the limit that allows the necessary insulation distances between the pole and adjacent poles. (Figure B)

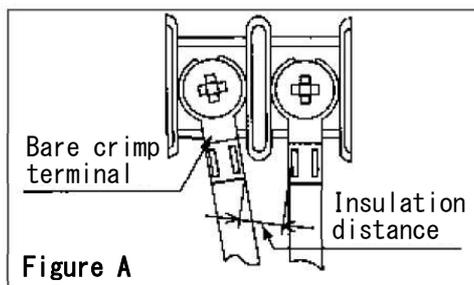


Figure A

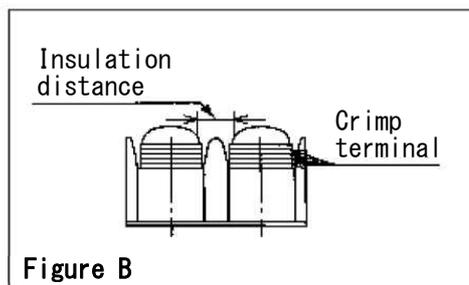


Figure B

- Screws may become loose due to vibration, temperature changes in the operating environment, etc., potentially resulting in contact failure or heat generation. Therefore, tighten screws regularly.
- Do not use soldered stranded wires. Using such wires may cause screws to loosen.
- When handling terminal blocks with charged parts exposed, be careful not to cause electric shocks or short circuiting.
- When inserting or removing a plug from a receptacle of a connector-type product, keep it straight without twisting it.
- Solderability depends on actual conditions, such as equipment and printed circuit board on which the product is to be mounted, including flux creep-up. Be sure to check after the product is mounted on the equipment.
- Note that products cannot be used in the following places: hot or cold places; moist places; places where condensation or freezing occurs; places exposed to direct sunlight; places subject to vibration and impacts; dusty places; places exposed to water, various types of oils, chemicals (including detergent), corrosive gases, etc.
- Depending on the cleaning solvent and washing conditions, immersing products for cleaning may damage them. Do so with care.
- Note that products certified to overseas standards are subject to restrictions on specifications according to each overseas standard.

## Precautions for Use(2/2)

- Consider fixing connected wires so that no tension is applied to the connected wires.
- When connecting wires or crimp terminals, make sure that necessary insulation distances are secured between them and adjacent poles, mounting panels, and other products.
- When tightening screws that are not connected to wires, the tightening torque must be between 0.2 and 0.3 N-m. (The torque range for some products is different from the above. Be sure to check the individual specifications before use.)
- When connecting or disconnecting electric wires, be careful not to apply more load than necessary to the product. When tightening or loosening screws, take care not to rotate the body or bend the terminals. Particularly be careful when handling right angle type terminal blocks and those with a small number of poles.
- When mounting a product, do not apply excessive tightening torque exceeding the specified tightening torque.
- Take care not to lose terminal screws or other parts removed during installation or wiring of products.
- Do not disassemble or reassemble coupled products. Doing so may result in quality problems.
- When using plug-in terminals, be careful not to twist them when inserting them into or removing them from receptacles.
- The terminal blocks are for indoor equipment. Do not use them for outdoor purposes.
- Insulation measures, such as laying an insulator under the body, are required when mounting the following products on a metal panel: any product whose charged part is exposed because the bottom of the main body is not covered with insulation (e.g.: ML-1765, etc.), and any product whose charging part comes close to the mounting panel (e.g.: ML-3391 etc.).
- Polycarbonate covers are susceptible to organic solvents and alkalis, and have a tendency to crack or fracture.