

Autonics

Multi-channel modular temperature controller
TM4 SERIES



Thank you very much for selecting Autonics products. For your safety, please read the following before using.

Caution for your safety

Please keep these instructions and review them before using this unit. Please observe the cautions that follow: Warning Serious injury may result if instructions are not followed. Caution Product may be damaged, or injury may result if instructions are not followed. The following is an explanation of the symbols used in the operation manual.

This unit shall not be used outdoors. For relay output terminal wire connections, use AWG No. 20(0.50mm²). Please observe the rated specifications. Do not use beyond of the rated switching capacity of Relay contact.

Ordering information

Table showing TM4-N2RB configuration and module type options (B Basic Module, E Expansion Module, R Relay, S SSR).

Parts description

Table listing parts like Indicating LED, Initial power on, Control output, and Auto tuning status.

CH1, CH2 Sensor input terminal; CH3, CH4 Sensor input terminal; Communication address setting switch; PC loader port (Port A); Power supply / communications connector (Port B); Lock switch.

Specifications

Table of specifications for TM4 series including Series, Channel (4 channels), Power Supply (24VDC), Allowable voltage range (90-110% of rated voltage), and various technical parameters like sampling period and relay life cycle.

\*1: In case of thermocouple K, T, N, J, E at -100°C below and L, U, Platinum II, it is ±2°C±1Digit Max. \*2: Applied when used out of range 23±5°C. \*3: Mark indicates that equipment protected throughout by double insulation or reinforced insulation.

Input Sensor Type and Temperature Range

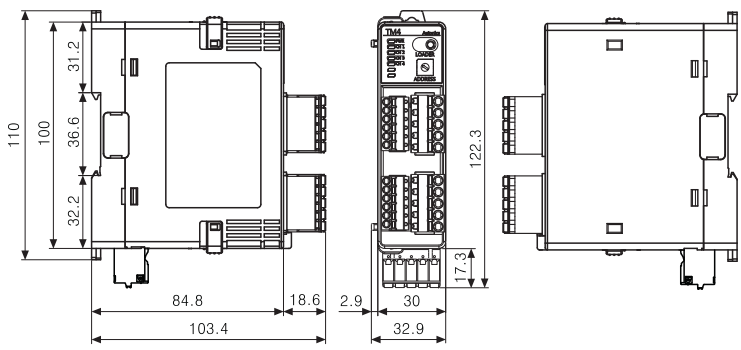
Table mapping input types (K(CA), J(IC), E(CR), T(CC), B(PR), R(PR), S(PR), N(INN), C(TT), G(TT), L(IC), U(CC), Platinum II, JIS Standards, DIN Standards) to their respective temperature ranges in °C and °F.

\*1: C(TT) - Same as existing W5(TT). \*2: G(TT) - Same as existing W(TT). Default: K(CA).H

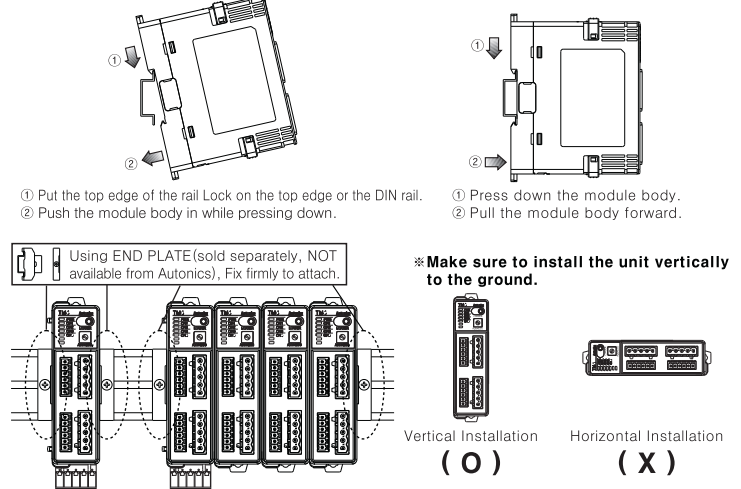
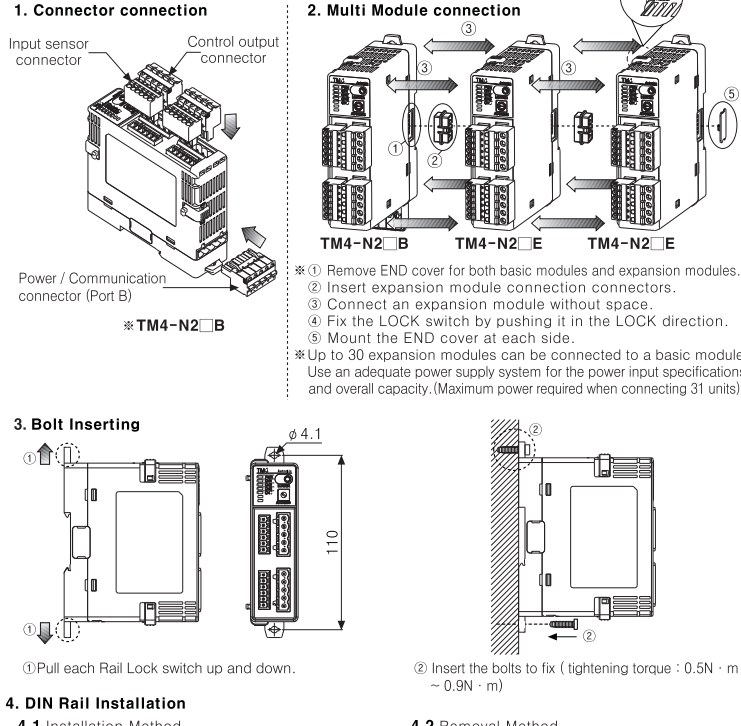
Error Indication

Table for error indications: PWR LED (RED ON), CH1-CH4 LED (RED Flickering), Communication Output (decimal), and Dedicated program.

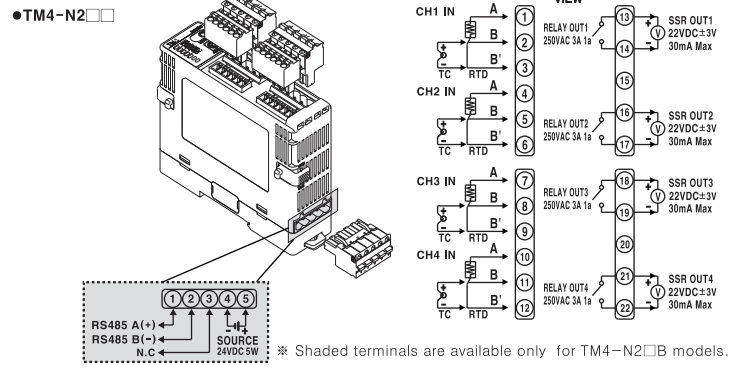
Dimensions



Installation



Connections



Communication Setting

Table for communication settings including Application Standard (EIA RS 485), Max. connection (31 units), Communication type (Two wire, Half Duplex), and various bit settings.

\*Overlapped address setting is not allowed on the same communication line. \*Multiple communication is allowed for Port B. It is required to reset controller's Power(Power OFF → Power ON) after changing communication speed.

Communication Address Setting: Set the communication address using SW1 and SW2. Setting range is 01 ~ 31.

Switch settings table for SW1 and SW2, with a note that Default is SW1 : 1, SW2 : +0.

Simple Failure Diagnosis

- When indicating LED is flickering every 0.5 sec or when error message is indicated on external units. When no output is operated. When external units receive no response or error data. When communication does not work properly.

User Manual

Visit our website (www.autonics.com) to download user manual and PC loader program. Function setting, Control method, parameter group and PC loader program explanations available.

Caution for using

- Use DC power only. Keep the ambient temperature -10°C ~ 50°C. For more accurate controlling, start temperature controlling approx. 20 minutes later after connecting input sensors and supplying power.

Major products

- Photoelectric sensors, Fiber optic sensors, Door sensors, Door side sensors, Area sensors, Proximity sensors, Pressure sensors, Rotary encoders, Connector/Sockets, Switching mode power supplies, Control switches/Lamps/Buzzers, I/O Terminal Blocks & Cables, Stepper motors/drivers/motion controllers, Graphic/Logic panels, Field network devices, Laser marking system (Fiber, CO2, Nd:YAG), Laser welding/soldering system.

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