


T3 / T4 Series

Temperature Indicator

■ Features

- Various size as DIN specifications
(W48×H24, W72×H36, W96×H48, W48×H48,
W48×H96, W72×H72, W96×H96mm)

 Please read "Safety Considerations" in operation manual before using.



■ Ordering Information

| | | | | | | | | | | | |
|----------|---|----------|------------------|----------------|--------------|----------------|--------------------------|---------------------------------|------------------|--|------------------------|
| T | 3 | S | I | N | 4 | N | P | 4 | C | N | |
| Item | Digit | Size | Alarm/Sub output | Control method | Power supply | Control output | Input type ^{※3} | Temperature range ^{※3} | Temperature unit | N | New type ^{※1} |
| | | | | | | | | | | C | °C |
| | | | | | | | | | 0 | -99.9 to 99.9, -99 to 199°C, -99.9 to 199.9°C | |
| | | | | | | | | | 1 | 0 to 99.9°C | |
| | | | | | | | | | 2 | 0 to 200°C | |
| | | | | | | | | | 4 | 0 to 400°C | |
| | | | | | | | | | 5 | 0 to 500°C | |
| | | | | | | | | | 8 | 0 to 800°C | |
| | | | | | | | | | A | 0 to 999°C | |
| | | | | | | | | | C | 0 to 1200°C | |
| | | | | | | | | | F | 600 to 1600°C | |
| Item | Digit | Size | Alarm/Sub output | Control method | Power supply | Control output | Input type ^{※3} | Temperature range ^{※3} | Temperature unit | P | DPt100Ω |
| | | | | | | | | | | J | J(IC) |
| | | | | | | | | | | K | K(CA) |
| | | | | | | | | | | R | R(PR) |
| | | | | | | | | | | N | Indicator |
| | | | | | | | | | | X | 12-24VDC |
| | | | | | | | | | | 4 | 100-240VAC 50/60Hz |
| | | | | | | | | | | N | Indicator |
| | | | | | | | | | | I | Indicator |
| | | | | | | | | | | N | DIN W48×H24mm |
| | | | | | | | | | | Y | DIN W72×H36mm |
| W | DIN W96×H48mm | | | | | | | | | | |
| S | DIN W48×H48mm (8-pin plug type) ^{※2} | | | | | | | | | | |
| H | DIN W48×H96mm | | | | | | | | | | |
| M | DIN W72×H72mm | | | | | | | | | | |
| L | DIN W96×H96mm | | | | | | | | | | |
| Item | Digit | Size | Alarm/Sub output | Control method | Power supply | Control output | Input type ^{※3} | Temperature range ^{※3} | Temperature unit | 3 | 999 (3-digit) |
| | | | | | | | | | | 4 | 9999 (4-digit) |
| Item | Digit | Size | Alarm/Sub output | Control method | Power supply | Control output | Input type ^{※3} | Temperature range ^{※3} | Temperature unit | T | Temperature Controller |

※1: Name plate and connections are different from previous T3/T4 Series.

※2: Sockets (PG-08, PS-08(N)) are sold separately.

Temperature Indicator

※3: Input type and temperature range by Series

| Input type | | | Series Model | T3NI | T4Y1, T4WI | T3SI | T3HI | T4MI, T4LI |
|---------------|----------|------------------|--------------|------|------------|------|------|------------|
| Thermocouples | K(CA) | 0 to 200°C | 2 | ● | - | - | - | - |
| | | 0 to 400°C | 4 | ● | - | - | - | - |
| | | 0 to 800°C | 8 | ● | - | ● | - | ● |
| | | 0 to 999°C | A | ● | - | - | ● | - |
| | | 0 to 1200°C | C | - | ● | - | - | ● |
| | J(IC) | 0 to 200°C | 2 | ● | - | - | - | - |
| | | 0 to 400°C | 4 | ● | - | ● | ● | ● |
| | | 0 to 500°C | 5 | ● | ● | - | - | - |
| | R(PR) | 600 to 1600°C | F | - | - | - | - | ● |
| RTD | DPT 100Ω | -99.9 to 99.9°C | 0 | ● | - | - | - | - |
| | | -99.9 to 199.9°C | 0 | - | ● | - | - | ● |
| | | -99 to 199°C | 0 | - | - | - | ● | - |
| | | 0 to 99.9°C | 1 | ● | - | ● | - | - |
| | | 0 to 200°C | 2 | ● | - | - | - | - |
| | | 0 to 400°C | 4 | ● | ● | ● | ● | ● |

※Please contact us for temperature unit °F model.

Specifications

| Series | T3NI | T4Y1 | T4WI | T3SI | T3HI | T4MI | T4LI | |
|---|--|---|---|---------------|----------------|---------------------|----------------|--|
| Power supply | 12-24VDC≡ | 100-240VAC~ 50/60Hz | | | | | | |
| Allowable voltage range | 90 to 110% of rated voltage | | | | | | | |
| Power consumption | Max. 1W | Max. 3VA | | | | | | |
| Display method | 7-segment (red) LED method | | | | | | | |
| Character size (W×H) | 3.8×7.6mm | 8.0×14.2mm | | 3.8×7.6mm | 6.0×10.0mm | | 8.0×14.2mm | |
| Input type | RTD | DPT100Ω (allowable line resistance max. 5Ω per a wire) | | | | | | |
| | TC | K(CA), J(IC) | | | | K(CA), J(IC), R(PR) | | |
| Display accuracy※1 | RTD | ●At room temperature (23°C ± 5°C): (PV ± 0.5% or ±1°C, select the higher one)±1-digit | | | | | | |
| | TC | ●Out of room temperature range: (PV ± 0.5% or ±2°C, select the higher one)±1-digit | | | | | | |
| Sampling period | 100ms | | | | | | | |
| Dielectric strength | 1,000VAC 50/60Hz for 1 min (between input terminal and power terminal) | | 2,000VAC 50/60Hz for 1 min (between input terminal and power terminal) | | | | | |
| | Vibration | | | | | | | |
| 0.75mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X, Y, Z direction for 2 hours | | | | | | | | |
| Insulation resistance | | | | | | | | |
| Over 100MΩ (at 500VDC megger) | | | | | | | | |
| Noise immunity | Square-wave noise by noise simulator (pulse width 1μs) ±500V R-phase and S-phase | | Square-wave noise by noise simulator (pulse width 1μs) ±2kV R-phase and S-phase | | | | | |
| | Environment | | | | | | | |
| Ambient temp. | -10 to 50°C, storage: -20 to 60°C | | | | | | | |
| Ambient humi. | 35 to 85% RH, storage: 35 to 85% RH | | | | | | | |
| Weight※2 | Approx. 48g | Approx. 181g | Approx. 231g | Approx. 120g | Approx. 203g | Approx. 202g | Approx. 274g | |
| | (approx. 25g) | (approx. 123g) | (approx. 140g) | (approx. 80g) | (approx. 137g) | (approx. 137g) | (approx. 185g) | |

※1: In case of the T3NI, T3SI Series and the decimal point display models
 At room temperature (23°C±5°C): (PV ±0.5% or ±2°C, select the higher one)±1-digit
 Out of room temperature range: (PV ±0.5% or ±3°C, select the higher one)±1-digit

※2: The weight includes packaging. The weight in parenthesis is for unit only.

※Environment resistance is rated at no freezing or condensation.

| | |
|-----|---|
| (A) | Photoelectric Sensors |
| (B) | Fiber Optic Sensors |
| (C) | Door/Area Sensors |
| (D) | Proximity Sensors |
| (E) | Pressure Sensors |
| (F) | Rotary Encoders |
| (G) | Connectors/ Connector Cables/ Sensor Distribution Boxes/Sockets |
| (H) | Temperature Controllers |
| (I) | SSRs / Power Controllers |
| (J) | Counters |
| (K) | Timers |
| (L) | Panel Meters |
| (M) | Tacho / Speed / Pulse Meters |
| (N) | Display Units |
| (O) | Sensor Controllers |
| (P) | Switching Mode Power Supplies |
| (Q) | Stepper Motors & Drivers & Controllers |
| (R) | Graphic/ Logic Panels |
| (S) | Field Network Devices |
| (T) | Software |

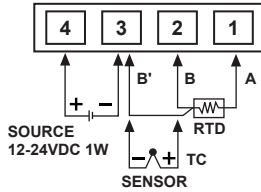
T3 / T4 Series

■ Connections

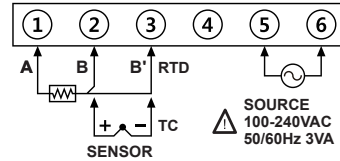
※Use terminals of size specified below.

| | <Round> | <Forked> |
|---|------------|------------|
| a | Min. 3.5mm | Min. 3.5mm |
| b | Max. 7.2mm | Max. 7.2mm |

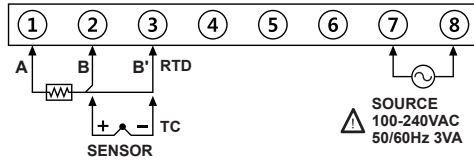
• T3NI



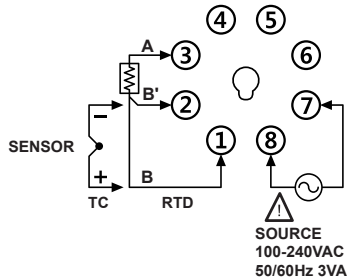
• T4YI



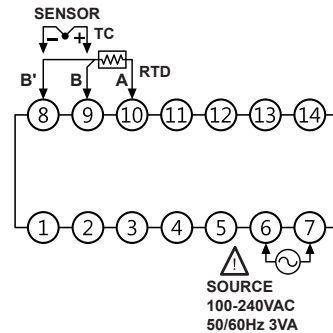
• T4WI



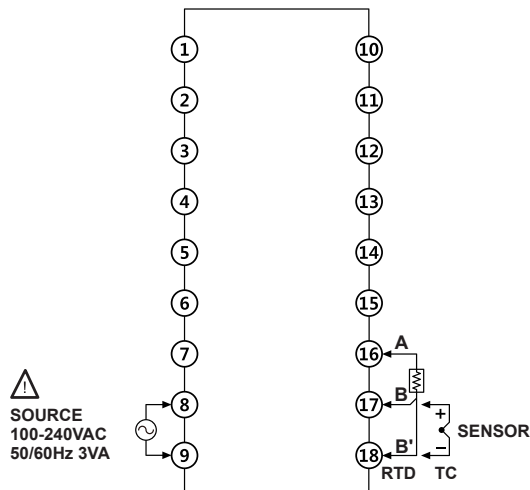
• T3SI



• T4MI



• T3HI, T4LI

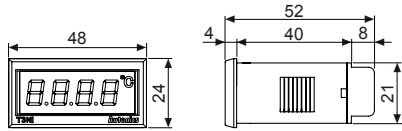


Temperature Indicator

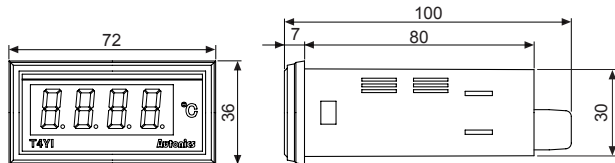
■ Dimensions

(unit: mm)

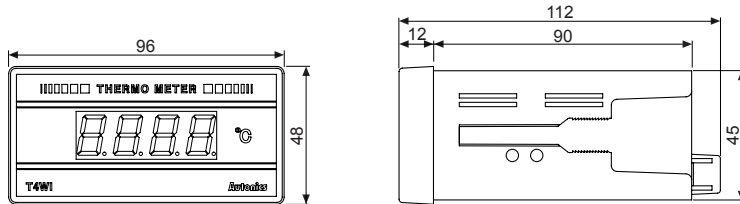
• T3NI



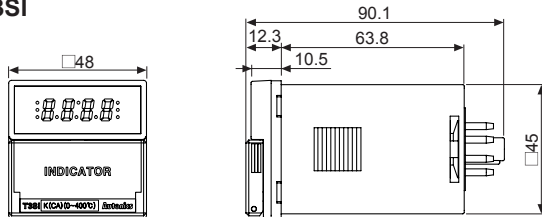
• T4YI



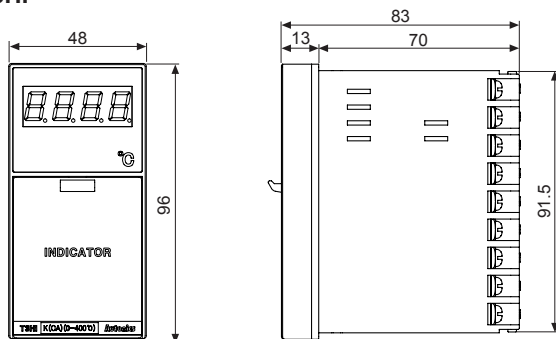
• T4WI



• T3SI



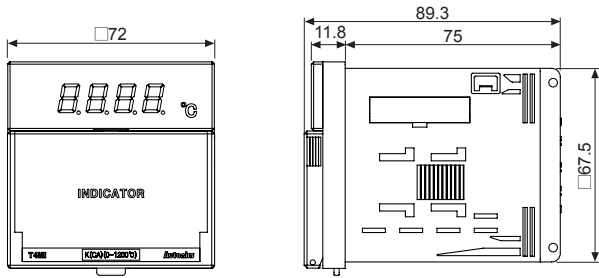
• T3HI



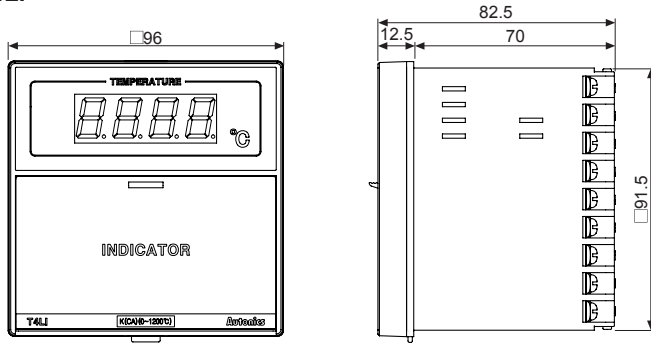
| | |
|-----|--|
| (A) | Photoelectric Sensors |
| (B) | Fiber Optic Sensors |
| (C) | Door/Area Sensors |
| (D) | Proximity Sensors |
| (E) | Pressure Sensors |
| (F) | Rotary Encoders |
| (G) | Connectors/ Connector Cables/ Sensor Distribution Boxes/Sockets |
| (H) | Temperature Controllers |
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| (R) | Graphic/ Logic Panels |
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| (T) | Software |

T3 / T4 Series

• T4MI



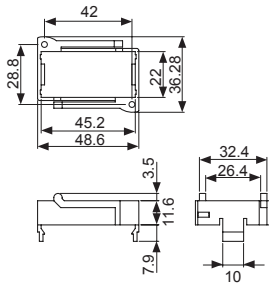
• T4LI



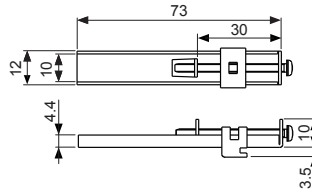
• Bracket

(unit: mm)

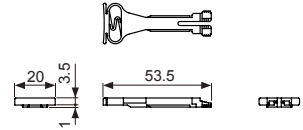
• T3NI Series



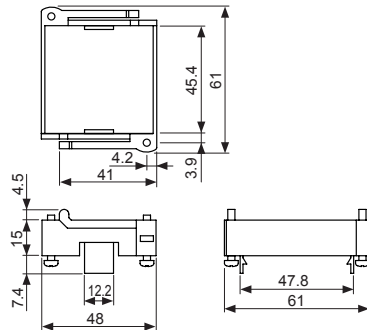
• T4YI Series



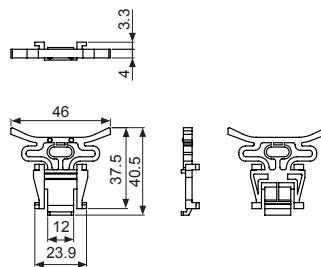
• T4WI Series



• T3SI Series



• T3HI/T4MI/T4LI Series

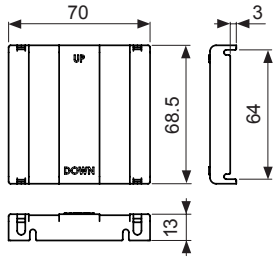


Temperature Indicator

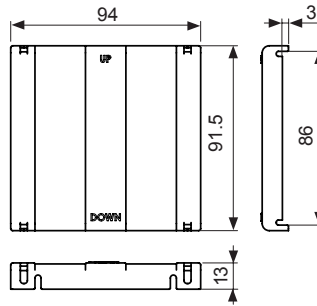
● Terminal cover (sold separately)

(unit: mm)

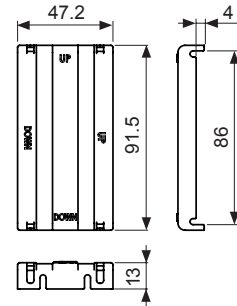
●RMA-COVER (72×72mm)



●RLA-COVER (96×96mm)

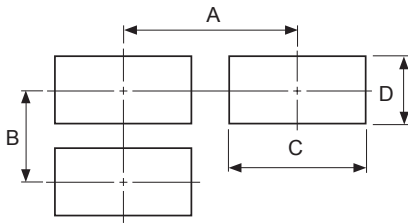


●RHA-COVER (48×96mm)



●Panel cut-out

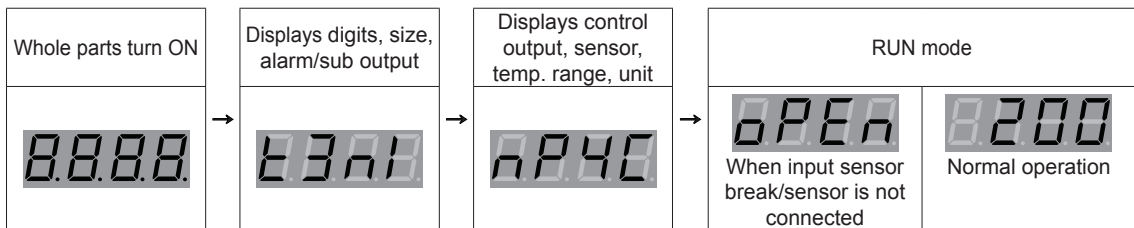
(unit: mm)



| Series | Size | A | B | C | D |
|--------|------|----------|----------|---------------------------------|-----------------------------------|
| T3NI | | Min. 55 | Min. 37 | 45 ^{+0.5} ₀ | 22.2 ^{+0.3} ₀ |
| T4YI | | Min. 91 | Min. 40 | 68 ^{+0.7} ₀ | 31.5 ^{+0.8} ₀ |
| T4WI | | Min. 116 | Min. 52 | 92 ^{+0.8} ₀ | 45 ^{+0.8} ₀ |
| T3SI | | Min. 65 | Min. 65 | 45 ^{+0.5} ₀ | 45 ^{+0.6} ₀ |
| T3HI | | Min. 65 | Min. 115 | 45 ^{+0.5} ₀ | 92 ^{+0.8} ₀ |
| T4MI | | Min. 90 | Min. 90 | 68 ^{+0.7} ₀ | 68 ^{+0.7} ₀ |
| T4LI | | Min. 115 | Min. 115 | 92 ^{+0.8} ₀ | 92 ^{+0.8} ₀ |

■ Display When Power Is ON

When power is supplied, whole display parts turn ON for 1 sec. It displays model type (digits, size, alarm/sub output and control output, sensor, temp. range, unit). Afterward, it returns to RUN mode.



When input sensor break/sensor is not connected, it displays [oPE n]. In case of normal operation, it displays the present input temperature.

■ Error Display

| Display | Description | Troubleshooting |
|---------|---|--|
| oPE n | Flashes when a temperature sensor is broken or not connected. | Check the status of the temperature sensor. When the sensor is connected correctly, it is clear. |
| HHHH | Flashes when the measured input value is higher than the temperature range of the sensor. | When the measured temperature is within the temperature range of the sensor, it is clear. |
| LLLL | Flashes when the measured input value is lower than the temperature range of the sensor. | |

- (A) Photoelectric Sensors
- (B) Fiber Optic Sensors
- (C) Door/Area Sensors
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- (E) Pressure Sensors
- (F) Rotary Encoders
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