



**DESCRIPTION**

The MS2902 is a chassis-mount RTD temperature transmitter that supplies constant current to a three-wire RTD and converts its mV input signals into mutually isolated dual channel DC output signals.

- ▽ Features linearization and burnout protection.
- ▽ A multi-slot chassis provides ease of maintenance and high-density mounting.
- ▽ Input, output 1, output 2, and power circuits are all isolated from each other.
- ▽ Equipped with a fuse on the DC power line as standard.

**ORDERING INFORMATION**

Ordering Code
MS2902-□ (□-□)-8□□
[1] [2] [3]

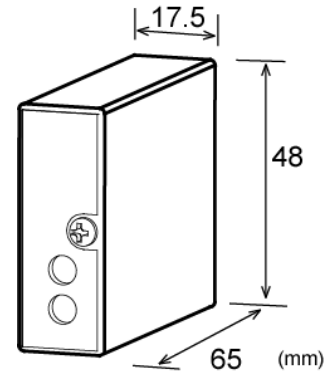
**SPECIFICATIONS**

**POWER SECTION**

Power Requirement	24V DC±10%
Power Sensitivity	Better than ±0.1% of span per 10% change in supply voltage
Power Line Fuse	300mA fuse
Current Consumption	50mA max.

**INPUT SECTION**

Input (Specify a code in the field [1].)	JIS or other 3-wire RTDs Code ■ Pt 100Ω ..... Pt100 ■ JPt 100Ω ..... JPt100 ■ Other than those above..... X Specify an RTD standard (A) and symbol (B) as indicated below: X = A / B Notes: 1. When a JIS symbol is specified, the resistance table of the latest edition of the relevant JIS will be used, unless otherwise requested. 2. For other RTD types, submission of a resistance table may be required.
Input Range (Specify a range in the field [2].)	Specify an input range in °C within the range given in the resistance table.
Excitation Current	Approx. 1mA with Pt for 0 to 100°C
Input Lead Wire Resistance	200Ω max. per wire



Lead-Wire Resistance Sensitivity	Better than 0.1% of span per 5Ω
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**OUTPUT SECTION**

Output (Specify a code in the field [3].)	Output 1 / Output 2 ..... Code ■ 1-5V DC / 1-5V DC ..... V1 ■ 0-5V DC / 0-5V DC ..... V5 ■ 0-10V DC / 0-10V DC ..... V6 ■ 1-5V DC / 4-20mA DC ..... C1 Note: Combinations of two outputs are only available as shown above.
Allowable Output Load	Voltage output: 2mA max. Current output: 300Ω max.
Zero Adjustment	Approx. ±2% of span (Adjustable by front-accessible trimmer)
Span Adjustment	Approx. ±2% of span (Adjustable by front-accessible trimmer)
Burnout Protection	Upscale

**PERFORMANCE**

Accuracy Rating	Better than ± (0.15% of span + 0.1°C) (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Burnout Drive Time	30ms max.
Standard Response Time	Approx. 2Hz-3dB
Isolation	Isolation between input, output 1, output 2, and power.
Insulation Resistance	100MΩ min. (@ 500V DC) between input, output 1, output 2, and power.
Dielectric Strength	Input / [Output 1, Output 2, Power]: 1500V AC for 1 minute (Cutoff current: 0.5mA) Output 1 / Output 2 / Power: 500V AC for 1 minute (Cutoff current: 0.5mA)
Surge Withstand Capability	Tested as per ANSI/IEEE C37.90.1-1989.
Operating Environment	Ambient temperature: 0 to 55°C Humidity: 5 to 90% RH (non-condensing)

Storage Temperature	-10 to 60°C
<b>PHYSICAL</b>	
Installation	Mounted in an optional chassis (RC2900).
Wiring	Wired to an optional chassis (RC2900).
External Dimensions	W17.5 × H48 × D65 mm
Weight	70g max.

<b>MATERIAL</b>	
Housing	ABS resin (UL 94V-0)
PC Board	Glass fabric, epoxy resin (FR-4: UL 94V-0)
Potting Agent	Polyurethane

**BLOCK DIAGRAM AND CONNECTION DIAGRAM**

