

OVERVIEW



This is chassis-mounting RTD transmitter with dual-output that detects the variation of resistance with RTD and converts into any desired standard process signal.

- ▽ Integrated with RTD linearization and burnout protection function.
- ▽ Anti-humid coatings on PCB are standard for improved environmental protection.
- ▽ Multiple installations on chassis provide ease of maintenance and high-density population.
- ▽ Self pop-up screws on chassis provide ease of wiring.
- ▽ Fuse on DC power line is installed standard.

ORDERING INFORMATION

Ordering Code	Standard Price
MS3902 (~) 8	OPEN

SPECIFICATIONS

POWER SECTION

Power Requirement	24V DC ± 10%
Power Sensitivity	± 0.1% of span max. @ 10% variance
Power Line Fuse	300mA fuse is installed, (standard)
Power Consumption	50mA max.

INPUT SECTION

Input Signal (Specify at ① when ordering)	JIS or other standard resistance bulb
	■ Pt100 Pt100
	■ JPt100 JPt100
	■ Pt50 Pt50
	■ Cu25Ω Cu25
	■ Cu100Ω Cu100
	■ Ni508.4Ω Ni508
■ Other resistance bulb X	Specify separately the type of input

	resistance bulb as X = □ □ □ □ * In case the RTD is specified JIS symbol, the resistance-temperature table used will be that of latest revision of JIS unless otherwise specified by the customer. * Submission or resistance-temperature table may be required for ordering for special RTD.
Measurement Temperature Range (Specify at ② when ordering)	* Please specify in centigrade within the range of the resistance-temperature table.
RTD Excitation Current	Approx. 1mA
Input Lead-wire Resistance	200Ω / wire max.

OUTPUT SECTION

Output Signal (Specify at ③ when ordering)	Out-1/Out-2 Code
	■ 1~5V DC/1~5V DC V1
	■ 0~5V DC/0~5V DC V5
	■ 0~10V DC/0~10V DC V6
	■ ±5V DC/±5V DC W5
■ ±10V DC/±10V DC W6	
■ 1~5V DC/4~20mA DC C1	Combinations of two output signals are limited to the above.
Maximum 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	Upward (Whichever A, B or B' gets open.)

PERFORMANCE

Accuracy Rating	± (0.15%/F.S + 0.1°C) (25°C ± 5°C)
Temperature Effect	± 0.2% of span @ 10°C variance
Response Time	170msec max. (0→90%) @ 100% step input
CMRR	100dB 以上 (500V AC, 50/60Hz)
Isolation	Across Input, Out-1, Out-2 and Power input mutually
Insulation Resistance	100MΩ min. (@ 500V DC) Across Input, Out-1, Out-2 and Power input mutually
Dielectric Strength	Across Input and other ports: 1500V AC for 1 minute Across Out-1, Out-2, Power input mutually: 500V AC for 1 minute
Surge Withstand Capability	Tested for ANSI/IEEE C37.90.1-1989
Operating Environment	Ambient temperature: 0~55°C Humidity: 90% max. (Non-condensation)

Storage Temperature	-10~60°C
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PHYSICAL

Installation	Installed on mounting base (RC3900-□□AI)
External Connection	Wired to mounting base (RC3900-□□AI)
Dimension	W19.5×H53×D84mm
Weight	Approx. 70g

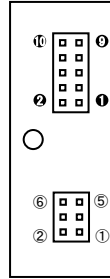
MATERIAL

Housing	ABS Resin (UL94V-0)
PC Board	Glass Fabric, Epoxy Resin (CEM-3)
Anti-humidity Coating	HumiSeal 1A27NS (Polyurethane)

ADDITIONAL

Other Options	Please consult our sales representatives for the availability of the following options before ordering: (Items) (How to specify) ■ Change response frequency $F_c = \square\square\square\text{Hz}$ (Up to 200Hz) ■ Change response time ... $T_c = \square\square\square\text{sec}$ (Up to 2msec @90%)
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TERMINAL ASSIGNMENT



PIN	SIGNAL	PIN	SIGNAL
①	A RTD	⑦	+ OUTPUT 1
②	B RTD	⑧	- OUTPUT 1
③	N. C.	⑨	+ OUTPUT 2
④	N. C.	⑩	- OUTPUT 2
⑤	B' RTD	⑥	+ POWER DC24V
⑥	N. C.	⑦	N. C.
		⑧	N. C.
		⑨	F. G.
		⑩	N. C.

BLOCK DIAGRAM

