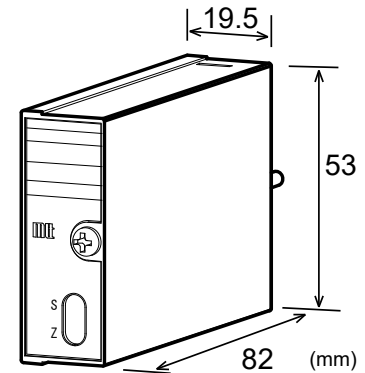




DESCRIPTION

The MS3910 is a chassis-mount potentiometer transmitter that detects changes in the resistance of potentiometric sensors and converts them into mutually isolated dual channel DC output signals.

- ▽ 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
MS3910-(□-□)-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	160mA fuse
Current Consumption	55mA max. at 24V DC

INPUT SECTION

Input Range (Specify a range in the field [1].)	Specify an input range between 0–100Ω and 0–10kΩ.
Measuring Voltage	Approx. 0.5V
Allowable Lead Wire Resistance	10% or less of total resistance per wire (The resistance of all three wires must be equal.)

OUTPUT SECTION

Output (Specify a code in the field [2].)	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. 0 to 30% of span. (Adjustable by front-accessible trimmer)
Span Adjustment	Approx. 70 to 100% of span. (Adjustable by front-accessible trimmer)

ADDITIONAL

Option [3]	■ Polyurethane conformal coating /H
Optional Parameter Changes	You can optionally specify the following parameters when ordering. Please ask our Sales representatives for availability in advance. <Parameter> <How to specify> ■ Response frequency Fc = □□□Hz ■ Response time constant Tc = □□□s

PERFORMANCE

Accuracy Rating	Better than ±0.2% of span (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Response Time	170ms max. (0 to 90%) with a step input at 100%
CMRR	100dB min. (500V AC, 50/60Hz)
Isolation	4-way 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

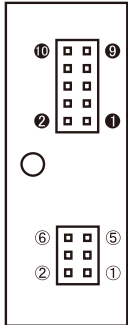
PHYSICAL

Installation	Mounted in an optional chassis (RC3900A-□□AI or RS3900-01TB).
Wiring	Wired to an optional chassis (RC3900A-□□AI or RS3900-01TB).
External Dimensions	W19.5 × H53 × D82 mm
Weight	70g max.

MATERIAL

Housing	ABS resin
PC Board	Glass fabric, epoxy resin (FR-4: UL 94V-0)

PIN ASSIGNMENTS



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

BLOCK DIAGRAM

