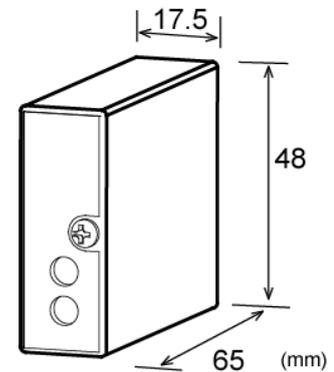




**DESCRIPTION**

The MS2903 is a chassis-mount millivolt isolator that converts millivolt signals from sensors or other devices 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
MS2903-1□□-8□□ [1]    [2]

**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].)	<ul style="list-style-type: none"> <li>■ ±10mV DC ..... W2</li> <li>■ ±100mV DC ..... W3</li> <li>■ Other DC voltage signals ..... X1 (□-□)</li> </ul> <p>Specify an input range in parentheses. The span must be between 5mV and 200mV.</p>
Input Resistance	1MΩ min. (10kΩ min. without power)
Allowable Input Voltage	30V DC max., continuous.

**OUTPUT SECTION**

Output (Specify a code in the field [2].)	<table border="0"> <tr> <td>Output 1 / Output 2 .....</td> <td>Code</td> </tr> <tr> <td>■ 1-5V DC / 1-5V DC .....</td> <td>V1</td> </tr> <tr> <td>■ 0-5V DC / 0-5V DC .....</td> <td>V5</td> </tr> <tr> <td>■ 0-10V DC / 0-10V DC .....</td> <td>V6</td> </tr> <tr> <td>■ 1-5V DC / 4-20mA DC .....</td> <td>C1</td> </tr> </table> <p>Note: Combinations of two outputs are only available as shown above.</p>	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
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										
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)										

**PERFORMANCE**

Accuracy Rating	Better than ±0.1% of span (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
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

**PHYSICAL**

Installation	Mounted in an optional chassis (RC2900).
Wiring	Wired to an optional chassis (RC2900).
External Dimensions	W17.5 × H48 × D65 mm
Weight	70g max.

**MATERIAL**

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**

