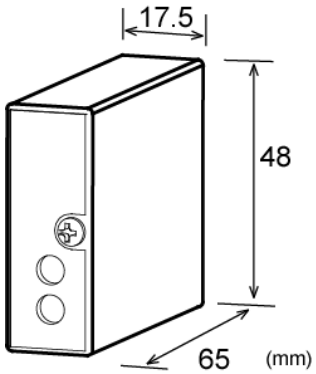
Product Specification Sheet Model: MS2904

Chassis-Mount High-Level Signal Conditioner (Isolator) with Isolated Dual Output

DESCRIPTION

The MS2904 is a chassis-mount high-level signal conditioner (isolator) that converts high-level DC input signals 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
MS2904-1□□-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].)	■ 1–5V DC ····· V1 ■ 0–1V DC ····· V4 ■ 0–5V DC ····· V5 ■ 0–10V DC ····· V6 ■ ±5V DC ····· W5 ■ ±10V DC ····· W6 ■ Other DC voltage signals ····· X2 (□–□) Specify a DC voltage range in parentheses. The ranges available are from 0–200mV to 0–50V and from ±200mV to ±50V. ■ 4–20mA DC ····· C1
Input Resistance	Voltage input: 1MΩ min. (10kΩ min. without power) Current input: 250Ω
Allowable Input Voltage	Voltage input: 30V DC max., continuous. Current input: 40mA DC max., continuous.

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 ■ ±5V DC / ±5V DC ····· W5 ■ ±10V DC / ±10V DC ····· W6 ■ 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)

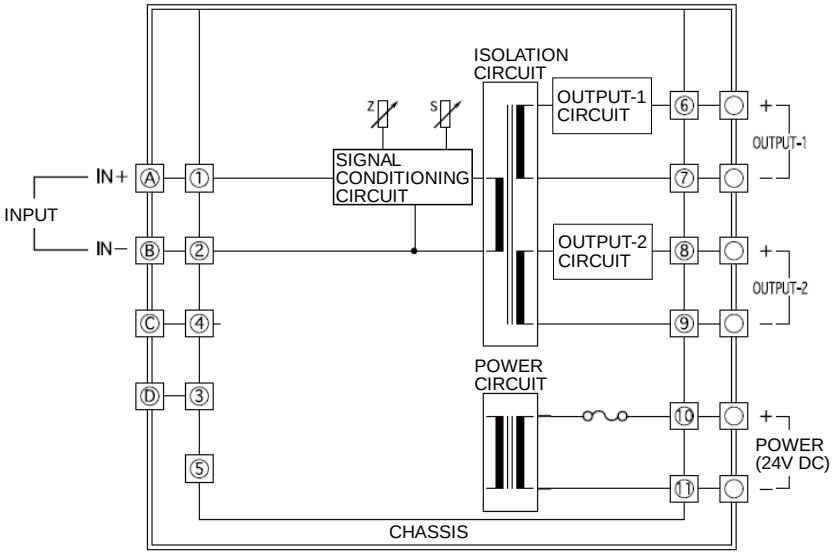
PERFORMANCE

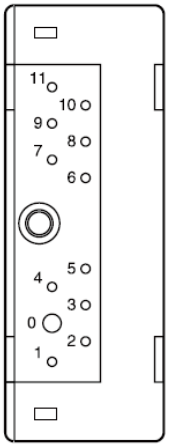
Accuracy Rating	Better than ±0.1% of span (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Standard Response Time	Approx. 30Hz−3dB
Isolation	Isolation between input, output 1, output 2, and power.
Insulation Resistance	100MΩ min. (@ 500V DC) between input, output 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





I/O PIN LAYOUT