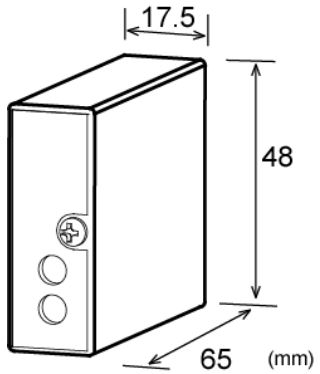
Product Specification Sheet Model: MS2906

Chassis-Mount Strain Gauge Transmitter with Isolated Dual Output

DESCRIPTION

The MS2906 is a chassis-mount strain gauge transmitter that supplies excitation voltage to strain-gauge type pressure sensors, load cells, and the like and converts their output signals into mutually isolated dual channel DC output signals.

- ▽ Built-in excitation for sensors
- ▽ 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
MS2906-□□-□□Ω-1□□ [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	2.2Ω 1/4W fuse resistor
Current Consumption	80mA max.

INPUT SECTION

Excitation Voltage (Specify a code in the field [1].)	■ 5V DC ····· E2 ■ 10V DC ····· E3 ■ Other excitation voltages ····· EY (□□□) Specify an excitation voltage within the range of 5 to 10V in parentheses.
Excitation Current	Maximum current: 42mA
Bridge Resistance (Specify a value in the field [2].)	Specify a resistance value.
Input (Specify a code in the field [3].)	DC voltage signal from strain-gauge type sensors ■ 0–10mV DC ····· V2 ■ 0–100mV DC ····· V3 ■ ±10mV DC ····· W2 ■ ±100mV DC ····· W3 ■ Other DC voltage signals ····· X1 (□–□) Specify an input range in parentheses. The span must be at least 5mV.
Input Resistance	1MΩ min. (10kΩ min. without power)
Allowable Input Voltage	30V DC max., continuous.

OUTPUT SECTION

Output 1	1–5V DC
Output 2	4–20mA DC
Allowable Output Load	Voltage output: 2mA max. Current output: 300Ω max.
Zero Adjustment	Approx. ±30% of span (Adjustable by front-accessible trimmer)
Span Adjustment	Approx. ±10% of span (Adjustable by front-accessible trimmer)

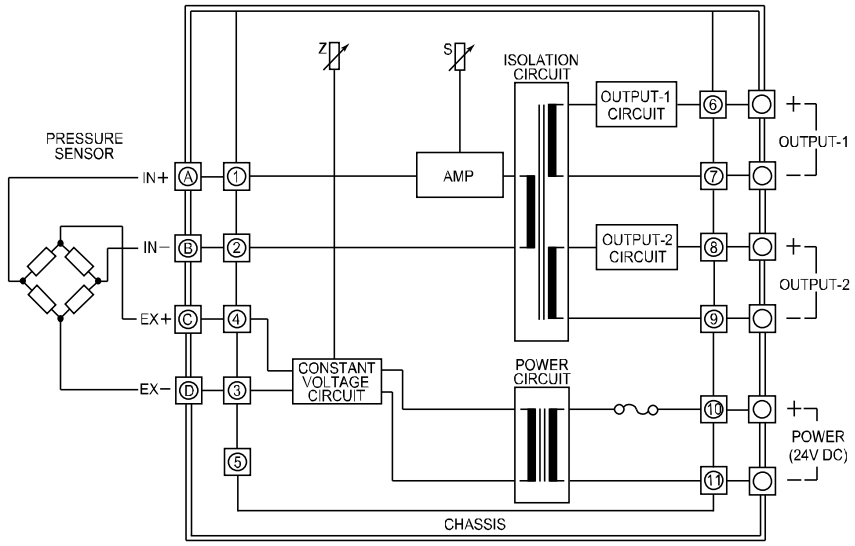
PERFORMANCE

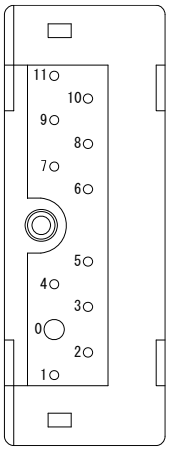
Accuracy Rating	Better than ±0.1% of span (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Standard Response Time	Approx. 2Hz−3dB (63%, 0.1s)
Isolation	Isolation between input, output 1, output 2, and power.
Insulation Resistance	100MΩ min. (@ 500V DC) between input, 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	Approx. 70g

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