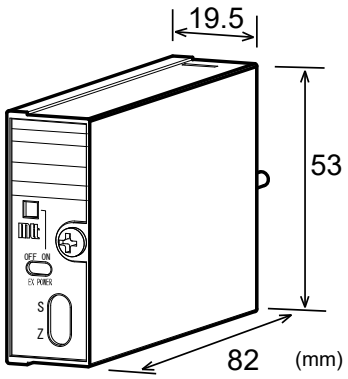
Product Specification Sheet Model: MS3907

Chassis-Mount Distributor with Isolated Dual Output

DESCRIPTION

The MS3907 is a chassis-mount distributor that powers a two-wire transmitter and converts its 4 to 20mA 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
MS3907-8□□_ [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	Output codes other than C2: 160mA fuse Output code C2: 125mA fuse
Current Consumption	80mA max. at 24V DC

INPUT SECTION

Input	4 to 20mA DC from 2-wire transmitters
Input Resistance	250Ω
Transmitter Power Supply	Output voltage: Approx. 25V (at no load) Approx. 18V (with 20.48mA input) Maximum current: 25mA, typical.
Transmitter Load Resistance	550Ω max.
Limit Current for Short-Circuit Protection	26mA, typical.
Permissible Short-Circuit Duration	Continuous.
Transmitter Power Switch	ON/OFF selectable by front-accessible toggle switch. (Green LED lights when the power switch is ON.)

OUTPUT SECTION

Output (Specify a code in the field [1].)	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 ■ 4–20mA DC / 4–20mA DC ····· C2 Note: Combinations of two outputs are only available as shown above.
Allowable Output Load	Voltage output: 2mA max. Current output: 300Ω max. (350Ω max. for dual current output)
Zero Adjustment	Approx. ±2% of span (Adjustable by front-accessible trimmer)
Span Adjustment	Approx. ±2% of span (Adjustable by front-accessible trimmer)

ADDITIONAL

Options [2]	■ CE compliant ····· /C Note: CE-compliant chassis must be used to meet the CE marking requirements. ■ 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 ±0.1% of span (at 25°C±5°C)
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Response Time	85ms 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 *1	Wired to an optional chassis (RC3900A-☐☐AI or RS3900-01TB).
External Dimensions	W19.5 × H53 × D82 mm
Weight	80g max.

*1: For a dual current output version, external connection to the Output-1 shall only be made with either the terminal block or D-subminiature connector.

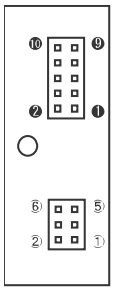
MATERIAL

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

STANDARDS CONFORMITY

EC Directive Conformity	EMC Directive (2014/30/EU) EN61326-1:2013

PIN ASSIGNMENTS



PIN	SIGNAL	PIN	SIGNAL
①	+ INPUT	❶	+ OUTPUT 1
②	− INPUT	❷	− OUTPUT 1
③	N. C.	❸	+ OUTPUT 2
④	N. C.	❹	− OUTPUT 2
⑤	COM.	❺	+ POWER DC24V
⑥	N. C.	❻	−
		❼	N. C.
		❽	N. C.
		❾	F. G.
		❿	N. C.

BLOCK DIAGRAM