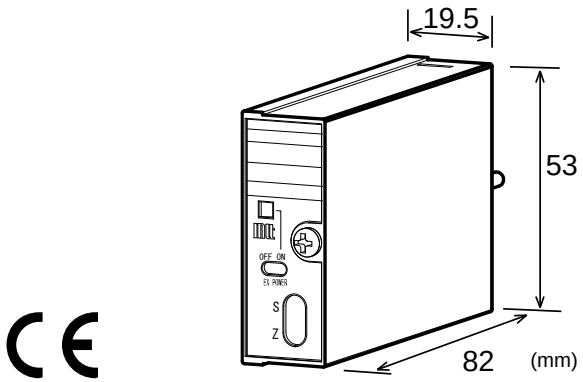
Product Specification Sheet **Model: MS3907** **MS3900**

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	Dual voltage output: 160mA fuse Voltage/current output: 160mA fuse Dual current output: 300mA 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 (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

Option (Specify the code in the field [2].)	■ CE compliant·····/C Notes: 1. This applies to orders having an output code other than "-8C2". 2. CE-compliant chassis must be used to meet the CE marking requirements.
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 × D82mm
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

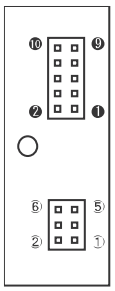
Housing	ABS resin
PC Board	Glass fabric, epoxy resin (FR-4: UL 94V-0)
Conformal Coating	HumiSeal® 1A27NSLU (Polyurethane)

* HumiSeal® is a registered trademark of Chase Corporation.

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