

OVERVIEW



This is chassis-mounting frequency/analog converter with dual-output that converts pulse train signal into any desired standard process signal proportional to input frequency.

- ▽ Anti-humid coatings on PCB are standard for improved environmental protection.
- ▽ Multiple installations on chassis provide ease of maintenance and high-density population.
- ▽ Self pop-up screws on chassis provide ease of wiring.
- ▽ Fuse on DC power line is installed standard.

ORDERING INFORMATION

Ordering Code	Standard Price
MS3908 1 (~) 8	OPEN

SPECIFICATIONS

POWER SECTION

Power Requirement	24V DC ±10%
Power Sensitivity	±0.1% of span max. @10% variance
Power Line Fuse	300mA fuse is installed, (standard)
Power Consumption	55mA max.

INPUT SECTION

Input Signal (Specify at ① when ordering)	<ul style="list-style-type: none"> ■ Dry contact or Open collector OP (Excitation Approx. 13V, 3.3KΩ) ■ AC voltage pulse (0.1~100Vp-p)..... AP(□□□□) (Sleshold voltage: Approx. 0.06Vp-p) Specify Peak-peak input voltage in parentheses. ■ DC voltage pulse DP(□~□/SH□ SL□) (Sleshold voltage: SH Approx. 2V) Specify input voltage in parentheses. Specify non-standard sleshold voltage after / in parentheses if applicable. ■ DC4~20mA pulse
	<ul style="list-style-type: none"> IP

	(Sleshold voltage: SH Approx. 8mA) ■ DC current pulse other than 4~20mA IP(□~□/SH□ SL□) Please specify in parentheses between 0~100 μA to 0~100mA. Specify non-standard sleshold voltage after / in parentheses if applicable.
Measurement Frequency Range (Specify at ② when ordering)	Any range from 0~20Hz to 0~20kHz.
Input Resistance	Voltage input: 1MΩ min. (30KΩ minimum without power) Current input: 250Ω
Allowable Input Voltage	DC voltage input: 30V DC max. continuous DC current input: 40mA DC max. continuous AC voltage input: 200Vp-p AC (±100V with reference to 0V) max. continuous
Input Pulse Width	20 μ sec min.
Duty Ratio	40~60%

OUTPUT SECTION

Output Signal (Specify at ③ when ordering)	Out-1/Out-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 Combinations of two output signals are limited to the above.
Maximum Output Load	Voltage output: 2mA max. Current output: 300Ω max.
Zero Adjustment	Approx. ±2% of span (Adjustable by front-access trimmer)
Span Adjustment	Approx. ±2% of span (Adjustable by front-access trimmer)

PERFORMANCE

Accuracy Rating	±0.3%/F.S (25°C ±5°C) Ripple inclusion ration : 0.2% p - p /F.S (Applicable only when the input is bigger than 10% of span.)	
Temperature Effect	±0.2% of span @10°C variance	
Response Time	Input frequency	0→90% @100% step input
	20Hz	8sec max.
	200Hz	1sec max.
	2KHz	500msec max.
	20KHz	500msec max.
CMRR	100dB min. (500V AC, 50/60Hz)	
Isolation	Across Input, Out-1, Out-2 and Power input mutually	
Insulation Resistance	100MΩ min. (@500V DC) Across Input, Out-1, Out-2 and Power input mutually	
Dielectric Strength	Across Input and other ports: 1500V AC for 1 minute	

	Across Out-1, Out-2, Power input mutually: 500V AC for 1 minute
Surge Withstand Capability	Tested for ANSI/IEEE C37.90.1-1989
Operating Environment	Ambient temperature: 0~55°C Humidity: 90% max. (Non-condensation)
Storage Temperature	-10~60°C

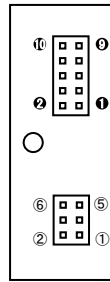
PHYSICAL

Installation	Installed on mounting base (RC3900-□□AI)
External Connection	Wired to mounting base (RC3900-□□AI)
Dimension	W19.5×H53×D84mm
Weight	Approx. 70g

MATERIAL

Housing	ABS Resin (UL94V-0)
PC Board	Glass Fabric, Epoxy Resin (CEM-3)
Anti-humidity Coating	HumiSeal 1A27NS (Polyurethane)

TERMINAL ASSIGNMENT



PIN	SIGNAL	PIN	SIGNAL
①	+ INPUT	⑦	+ OUTPUT 1
②	- INPUT	⑧	- OUTPUT 1
③	N. C.	⑨	+ OUTPUT 2
④	N. C.	⑩	- OUTPUT 2
⑤	N. C.	①	+ POWER DC24V
⑥	N. C.	②	- POWER DC24V
		③	N. C.
		④	N. C.
		⑤	F. G.
		⑥	N. C.

BLOCK DIAGRAM

