



Product Specification Sheet

Chassis-Mount Alarm Setter

Model: MS3905

MS3900

DESCRIPTION

The MS3905 is a chassis-mount alarm setter that compares the level of a DC current or voltage signal with a set-point and outputs an isolated relay contact closure signal.

- ▽ A multi-slot chassis provides ease of maintenance and high-density mounting.
- ▽ Input, output, and power circuits are all isolated from each other.
- ▽ Equipped with a fuse on the DC power line as standard.

ORDERING INFORMATION

Ordering Code
MS3905-1□□-RY(□□/□□.□)_
[1] [2] [3] [4]

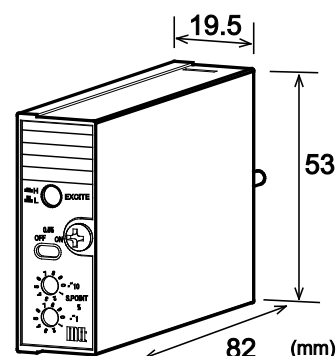
SPECIFICATIONS

POWER SECTION

Power Requirement	24V DC±10%
Power Sensitivity	Better than ±0.1% of span per 10% change in supply voltage
Power Line Fuse	160mA fuse
Current Consumption	40mA max. at 24V DC





INPUT SECTION

Input (Specify a code in the field [1].)	<ul style="list-style-type: none">■ 1–5V DC V1■ 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 0–10mV to 0–100V and from ±10mV to ±100V.■ 4–20mA DC (input resistance 250Ω) C1■ 1–5mA DC (input resistance 250Ω) C4■ 10–50mA DC (input resistance 250Ω) C5■ Other DC current signals CY (□–□) Specify a DC current range in parentheses. The ranges available are from 0–100μA to 0–100mA and from ±100μA to ±100mA.
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Input Resistance	Voltage input: 1MΩ min. (10kΩ min. without power) Current input: 250Ω (Standard for 4 to 20mA)
Allowable Input Voltage	Voltage input: 30V DC max., continuous. (Standard for a span up to 10V) Current input: 40mA DC max., continuous. (Standard for 4 to 20mA)

OUTPUT SECTION

Relay Activation Modes (Specify a code in the field [2].)	Mode of operation can be selected from the table below.			
Input value > Set value	Input value < Set value	Without Power	Front Push Switch	Code
ON	OFF	OFF		OH
OFF	ON	OFF		OL
OFF	ON	ON		CH
ON	OFF	ON		CL

Trip Point (Specify a value in the field [3].)	Specify a trip point within the range of 0 to 99.5% of input span; otherwise, the trip point will be adjusted to 50% of input span.
Output Setting	SPST relay contact closure signal Through the front-accessible rotary switches.
Range	0 to 99% in 1% steps (+0.5% with the toggle switch on)
Accuracy	±0.5% of span
Hysteresis	0.1% of span

ADDITIONAL

Option [4]	■ Polyurethane conformal coating ... /H
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PERFORMANCE

Temperature Effect	Better than $\pm 0.2\%$ of span per 10°C change in ambient.
Response Time	150ms max. (0 to 90%) with a step input at 100%.
Relay Response Time	Approx. 3ms
Isolation	Isolation between input, output, and power.
Insulation Resistance	100M Ω min. (@ 500V DC) between input, output, and power.
Dielectric Strength	Input / [Output, Power]: 1500V AC for 1 minute (Cutoff current: 0.5mA) Output / Power: 500V AC for 1 minute (Cutoff current: 0.5mA)
Contact Dielectric Strength	Contact / contact: 500V AC for 1 minute (Cutoff current: 10mA) Contact / Coil: 500V AC for 1 minute (Cutoff current: 10mA)
Contact Capacity	Rated capacity (resistive load): 1A 30V DC / 0.5A 125V AC Maximum allowable power (resistive load): 30W DC / 62.5VA AC Maximum allowable voltage: 110V DC / 125V AC Maximum allowable current: 1A
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

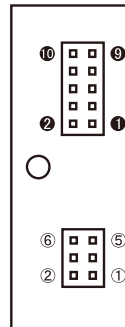
PHYSICAL

Installation	Mounted in an optional chassis (RC3900A-□□AI).
Wiring	Wired to an optional chassis (RC3900A-□□AI).
External Dimensions	W19.5 × H53 × D82 mm
Weight	60g max.

MATERIAL

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

PIN ASSIGNMENTS



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

BLOCK DIAGRAM

