



Standard Specification Sheet Model: MS3903
Chassis-mounting Millivolt Isolator with Isolated Dual-output
(Analog Model)

AREX-39

OVERVIEW



This is chassis-mounting millivolt isolator with dual-output that converts millivolt input signal into any desired standard process signal.

- ▽ 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 |
|---------------|----------------|
| MS3903 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 | 50mA max. |

INPUT SECTION

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| Input Signal (Specify at ① when ordering) | ■ 0~10mV DC V2 |
| | ■ 0~100mV DC V3 |
| | ■ ±10mV DC W2 |
| | ■ ±100mV DC W3 |
| | ■ Other DC voltage signal between 5 to 200mV X(□~□) Specify input signal in parentheses. |
| Input Resistance | 1MΩ min. (1MΩ minimum without power) |
| Allowable Input Voltage | 30V DC max. continuous |

OUTPUT SECTION

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|--|---|
| Output Signal (Specify at ② 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 | ±0.1%/F.S (25°C ±5°C) |
| Temperature Effect | ±0.2% of span @10°C variance |
| Response Time | 160msec max. (0→90%) @100% step input |
| 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. |
| Storage Temperature | -10~60°C |

PHYSICAL

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

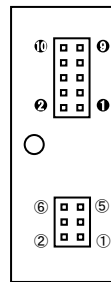
MATERIAL

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

ADDITIONAL

| | |
|----------------------|--|
| Other Options | Please consult our sales representatives for the availability of the following options before ordering: (Items) (How to specify) Change response frequency $F_c = \square\square\square\text{Hz}$ (Up to 200Hz) Change response time ... $T_c = \square\square\square\text{sec}$ (Up to 2msec @90%) |
|----------------------|--|

TERMINAL ASSIGNMENT



| 端子 | 信 号 | 端子 | 信 号 |
|----|---------|----|---------------|
| 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. | ⑪ | + POWER DC24V |
| ⑥ | N. C. | ⑫ | - POWER DC24V |
| | | ⑬ | N. C. |
| | | ⑭ | N. C. |
| | | ⑮ | F. G. |
| | | ⑯ | N. C. |

BLOCK DIAGRAM

