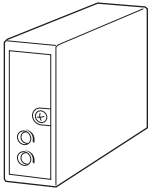


## Dual Output Super-mini Signal Conditioners Pico-M Series

### POTENTIOMETER CONVERTER

#### Functions & Features

- Providing two isolated DC outputs proportional to a potentiometer or slidewire position input
- Constant voltage excitation
- Space-saving, easy-to-maintain, multi-channel installation base
- Four-way isolation (input to output 1 to output 2 to power)



### MODEL: M8MS-[1]-R[2]

#### ORDERING INFORMATION

- Code number: M8MS-[1]-R[2]  
Specify a code from below for each [1] and [2].  
(e.g. M8MS-6A-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01 /V01)

#### INPUT POTENTIOMETER

Total resistance 100 Ω - 10 kΩ

#### [1] OUTPUT 1 / OUTPUT 2

- 6A:** 1 - 5 V DC (Load resistance 2500 Ω min.)  
/ 4 - 20 mA DC (Load resistance 300 Ω max.)
- 44:** 0 - 10 V DC (Load Resistance 5000 Ω min.)  
/ 0 - 10 V DC (Load Resistance 5000 Ω min.)
- 55:** 0 - 5 V DC (Load resistance 2500 Ω min.)  
/ 0 - 5 V DC (Load resistance 2500 Ω min.)
- 66:** 1 - 5 V DC (Load resistance 2500 Ω min.)  
/ 1 - 5 V DC (Load resistance 2500 Ω min.)

#### POWER INPUT

##### DC Power

R: 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

#### [2] OPTIONS

##### Other Options

blank: none

/Q: Option other than the above (specify the specification)

#### SPECIFICATIONS OF OPTION: Q (multiple selections)

##### COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

##### ADJUSTMENT

/V01: Multi-turn fine adjustment

#### RELATED PRODUCTS

- Installation Base or Single Mount Base Socket (model: M8BSx)

This unit must be mounted on dedicated base or socket.

#### GENERAL SPECIFICATIONS

**Construction:** Plug-in

**Mounting screw:** M3 screw (torque 0.3 N·m)

**Housing material:** Flame-resistant resin (black)

**Power supply:** Via the Installation Base terminals  
(model: M8BSx)

**Isolation:** Input to output 1 to output 2 to power

**Zero adjustment:** 0 - 20 % of total resistance (front)

**Span adjustment:** 80 - 100 % of total resistance (front)

#### INPUT SPECIFICATIONS

**Minimum span:** 80 % of total resistance

**Excitation:** 0.5 V DC

#### INSTALLATION

**Current consumption:** Approx. 30 mA (50 mA for current output)

**Operating temperature:** 0 to 55°C (32 to 131°F)

**Operating humidity:** 30 to 95 %RH (non-condensing)

**Mounting:** Installation Base (model: M8BSx)

**Weight:** 70 g (2.5 oz)

#### PERFORMANCE in percentage of span

**Accuracy:** ±0.1 %

**Temp. coefficient:** ±0.02 %/°C (±0.01 %/°F)

**Response time:** ≤ 0.2 sec. (0 - 90 %)

**Line voltage effect:** ±0.1 % over voltage range

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:**

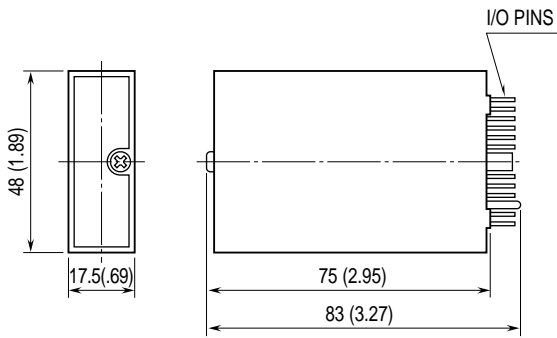
1500 V AC @1 minute (input to output 1 or output 2 or power to ground)

500 V AC @1 minute (output 1 to output 2 to power)

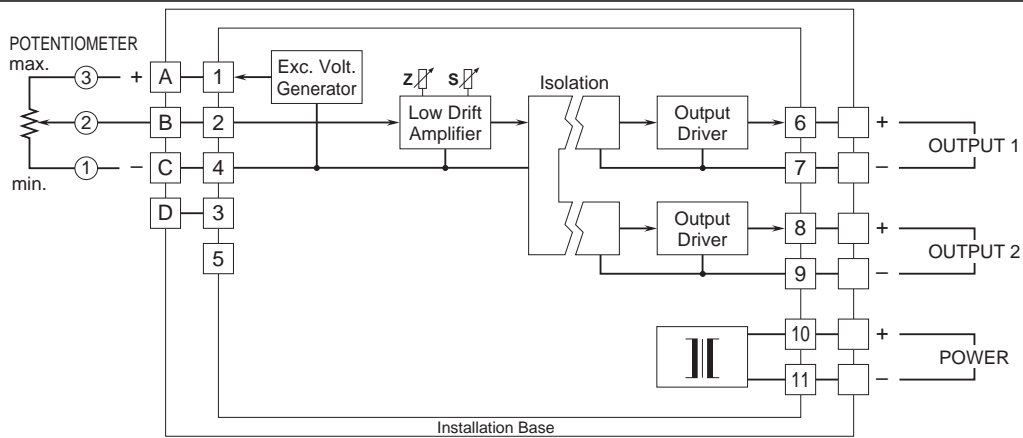
**SWC test:** ANSI/IEEE-C37.90.1-1989



**DIMENSIONS unit: mm (inch)**



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.

