

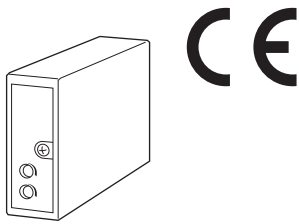
Dual Output Super-mini Signal Conditioners Pico-M Series

POTENTIOMETER CONVERTER

(CE)

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: M8MS1-[1]-R[2]

ORDERING INFORMATION

- Code number: M8MS1-[1]-R[2]
Specify a code from below for each of [1] and [2].
(e.g. M8MS1-6A-R/Q)
- Specify the specification for option code /Q
(e.g. /C01 /V01)

INPUT POTENTIOMETER

Total resistance 100 Ω - 10 k Ω

[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 $\pm$ 10 %, ripple 10 %p-p max.)

[2] OPTIONS

blank: none

/Q: Options 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: $\pm$ 0.1 %

Temp. coefficient: $\pm$ 0.02 %/°C ($\pm$ 0.01 %/°F)

Response time: $\leq$ 0.2 sec. (0 - 90 %)

Line voltage effect: $\pm$ 0.1 % over voltage range

Insulation resistance: $\geq$ 100 M Ω 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

STANDARDS & APPROVALS

EU conformity:

EMC Directive

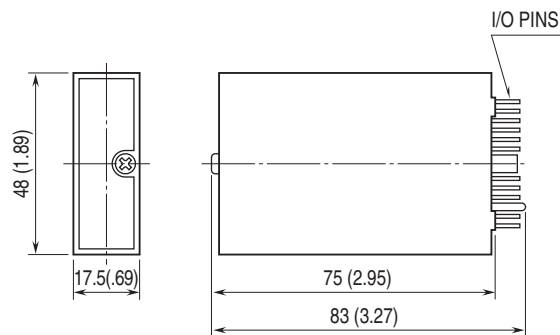
EMI EN 61000-6-4

EMS EN 61000-6-2

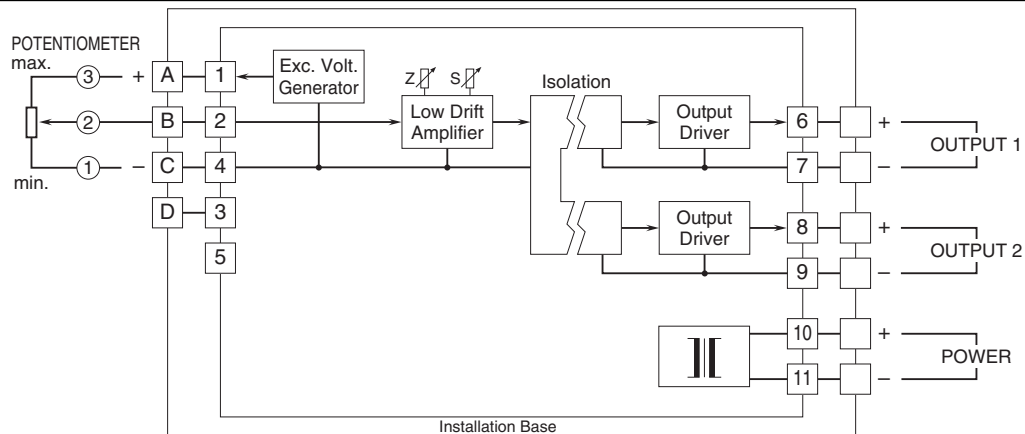
RoHS Directive

EN 50581

EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.