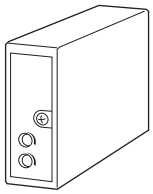
Dual Output Super-mini Signal Conditioners Pico-M Series

MILLIVOLT CONVERTER

Functions & Features

• Converting a narrow span voltage into two isolated process signals

• Space-saving, easy-to-maintain, multi-channel installation base



MODEL: M8VS-[1][2]-R-[3]

ORDERING INFORMATION

• Code number: M8VS-[1][2]-R[3]

Specify a code from below for each of [1] through [3].
(e.g. M8VS-26A-R/Q)

• Special input range (For code 0)

• Specify the specification for option code /Q
(e.g. /C01 /V01)

[1] INPUT

Voltage

1: 0 – 10 mV DC (Input resistance 1 MΩ min.)
15: 0 – 50 mV DC (Input resistance 1 MΩ min.)
16: 0 – 60 mV DC (Input resistance 1 MΩ min.)
2: 0 – 100 mV DC (Input resistance 1 MΩ min.)
0: Specify voltage (See INPUT SPECIFICATIONS)

[2] 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.)

[3] 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: -2 to +2 % (front)
Span adjustment: 98 to 102 % (front)

INPUT SPECIFICATIONS

■ DC Voltage: Less than 0 – 1 V DC
Minimum span: 3 mV
Offset: Max. 1.5 times span
Input resistance: 1 MΩ min.
(10 kΩ min. at loss of power)

INSTALLATION

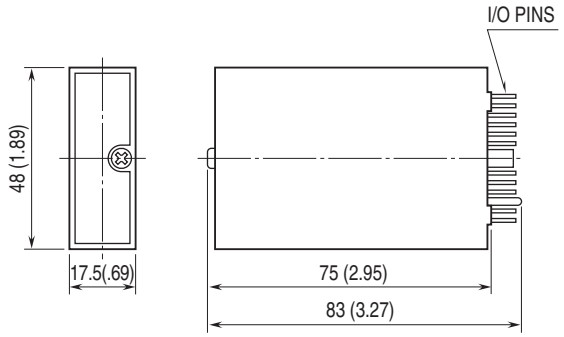
Current consumption: Approx. 30 mA (50 mA for current output)
Operating temperature: 0 to 55°C (32 to 131°F)
Operating humidity: 30 to 95 %RH (non-condensing)
Mounting: Installation Base (model: M8BSx)
Weight: 70 g (2.5 oz)

PERFORMANCE in percentage of span

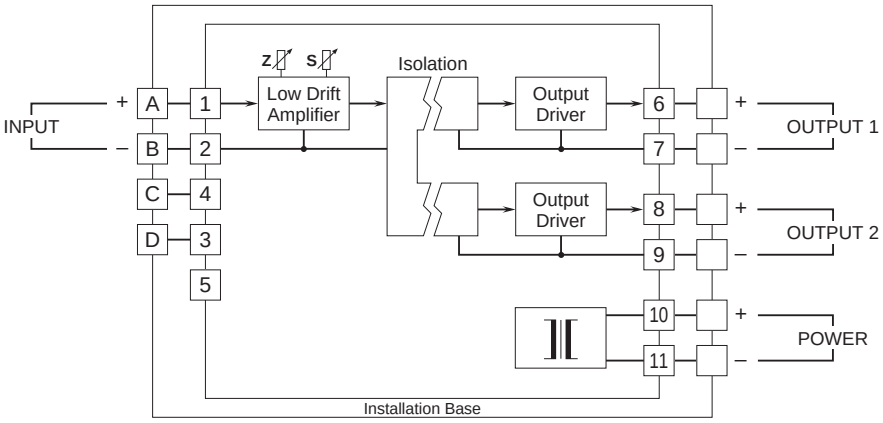
Accuracy: ±0.1 %
Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)
Response time: ≤ 0.2 sec. (0 – 90 %)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength:

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

EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



⚠ Specifications are subject to change without notice.