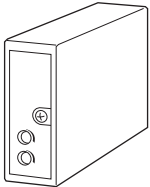


Dual Output Super-mini Signal Conditioners Pico-M Series

SIGNAL CONVERTER

Functions & Features

- Converting a DC input into two isolated process signals
- Space-saving, easy-to-maintain, multi-channel installation base



MODEL: M8YV-[1][2]-R[3]

ORDERING INFORMATION

- Code number: M8YV-[1][2]-R[3]
- Specify a code from below for each [1] through [3].
(e.g. M8YV-46A-R/F/BL/Q)
- Special input range (For codes Z & 0)
 - Specify the specification for option code /Q
(e.g. /C01 /V01)

[1] INPUT

Current

- A: 4 – 20 mA DC (Input resistance 250 Ω)
- B: 2 – 10 mA DC (Input resistance 500 Ω)
- C: 1 – 5 mA DC (Input resistance 1000 Ω)
- D: 0 – 20 mA DC (Input resistance 50 Ω)
- E: 0 – 16 mA DC (Input resistance 62.5 Ω)
- F: 0 – 10 mA DC (Input resistance 100 Ω)
- G: 0 – 1 mA DC (Input resistance 1000 Ω)
- H: 10 – 50 mA DC (Input resistance 100 Ω)
- Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

- 3: 0 – 1 V DC (Input resistance 1 M Ω min.)
- 4: 0 – 10 V DC (Input resistance 1 M Ω min.)
- 5: 0 – 5 V DC (Input resistance 1 M Ω min.)
- 6: 1 – 5 V DC (Input resistance 1 M Ω min.)
- 4W: -10 – +10 V DC (Input resistance 1 M Ω min.)
- 5W: -5 – +5 V DC (Input resistance 1 M Ω 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.)
- 99: 1 – 9 V DC (Load resistance 4500 Ω min.)
/ 1 – 9 V DC (Load resistance 4500 Ω min.)
- 4W4W: -10 – +10 V DC (Load resistance 10 k Ω min.)
/ -10 – +10 V DC (Load resistance 10 k Ω min.)
- 5W5W: -5 – +5 V DC (Load resistance 5000 Ω min.)
/ -5 – +5 V DC (Load resistance 5000 Ω min.)

(The output code 99 can be combined only with the input code A, B, C, D, E, F, G, H, 3 or 6.)

The output code 4W4W can be combined only with the input code 4W or 5W. The output code 5W5W can be combined only with the input code 5W.

For all other output codes, any input code except 4W can be selected.)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V $\pm$ 10 %, ripple 10 %p-p max.)

[3] OPTIONS (multiple selections)

Response Time (0 – 90 %)

blank: Standard ($\leq$ 15 msec.)

/F: Fast Response (Approx. 1 msec.)

Burnout

blank: No burnout

/BL: Downscale burnout

(Select '3','4','5','6' for 'Input' code.)

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: -2 to +2 % (front)
(±1 % with the input suffix codes 4W and 5W selected)

Span adjustment: 98 to 102 % (front)
(99 to 101 % with the input suffix codes 4W and 5W selected.)

At burnout: Downscale ≤ -5 %

INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated
Specify input resistance value for code Z.
($R \leq 0.25 \text{ W} \div [\text{F.S. Current}]^2$)

■ **DC Voltage:** -10 – +10 V DC

Minimum span: 1 V

Offset: Max. 1.5 times span

Input resistance: 1 MΩ min.

(10 kΩ min. at loss of power)

Burnout sensing: Approx. 13 μA

INSTALLATION

Current consumption: Approx. 20 mA (40 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)

Line voltage effect: ±0.1 % over voltage range

Insulation resistance: ≥ 100 MΩ with 500 V DC

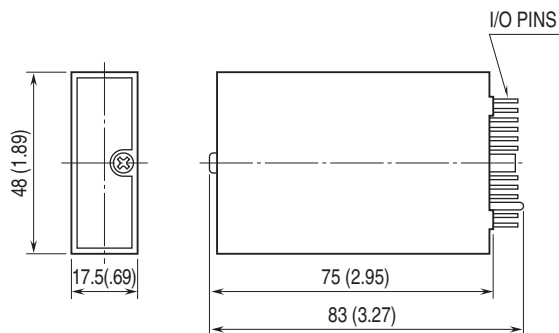
Dielectric strength:

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

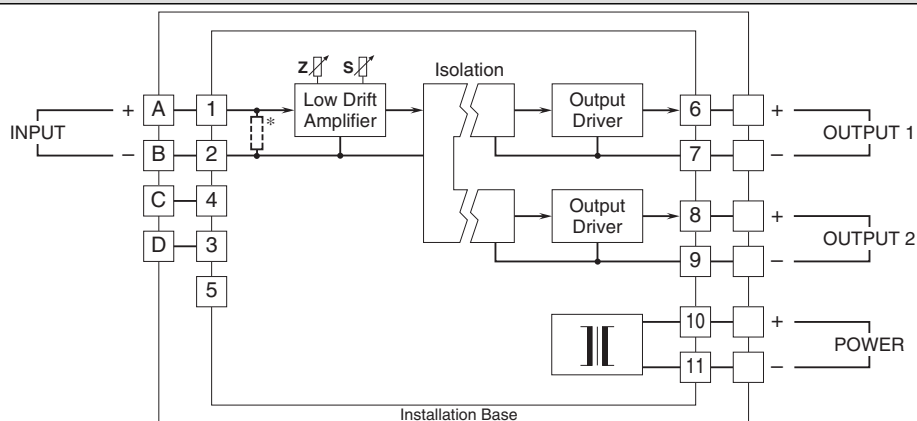
500 V AC @1 minute (output 1 to output 2 to power)

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

EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.