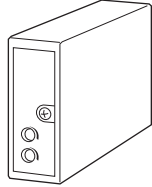


Dual Output Super-mini Signal Conditioners Pico-M Series

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 MΩ min.)
- 4:** 0 - 10 V DC (Input resistance 1 MΩ min.)
- 5:** 0 - 5 V DC (Input resistance 1 MΩ min.)
- 6:** 1 - 5 V DC (Input resistance 1 MΩ min.)
- 4W:** -10 - +10 V DC (Input resistance 1 MΩ min.)
- 5W:** -5 - +5 V 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.)
 - 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 kΩ min.)
/ -10 - +10 V DC (Load resistance 10 kΩ 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 ±10 %, ripple 10 %p-p max.)

[3] OPTIONS (multiple selections)

Response Time (0 - 90 %)

- blank:** Standard (≤ 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.)

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)

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

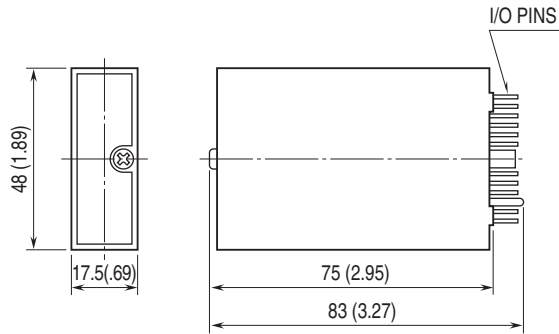
Dielectric strength:

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

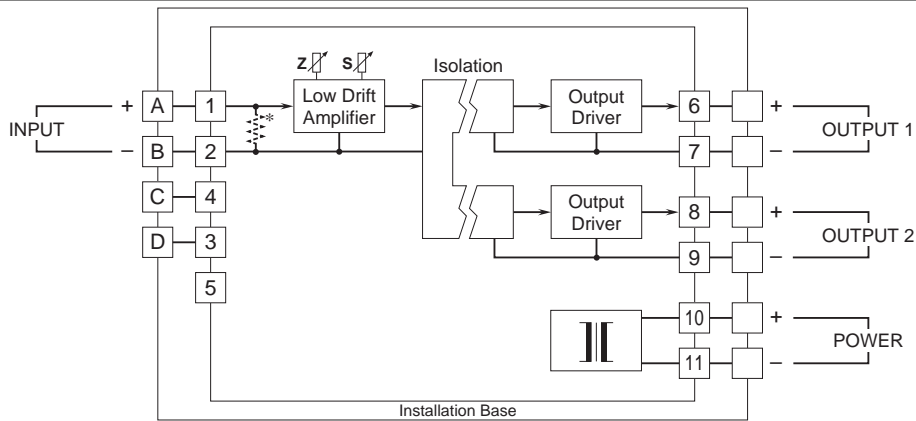
500 V AC @1 minute (output 1 to output 2 to power)

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

DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.

 Specifications are subject to change without notice.