

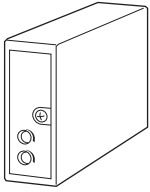
Dual Output Super-mini Signal Conditioners Pico-M Series

CONTROL OUTPUT ISOLATOR

(applicable to HART signal)

Functions & Features

- Providing an isolated DC output at the Installation Base terminals
- Isolates and relays HART signals
- Detecting opencircuit at the output loop
- Space-saving, easy-to-maintain, multi-channel installation base



MODEL: M8YCH-AA-R[1]

ORDERING INFORMATION

- Code number: M8YCH-AA-R[1]
Specify a code from below for [1].
(e.g. M8YCH-AA-R/Q)
- Specify the specification for option code /Q
(e.g. /C01 /V01)

INPUT

Current

A: 4 - 20 mA DC (Input resistance approx. 250Ω)

OUTPUT

Current

A: 4 - 20 mA DC (Load resistance 200 - 300 Ω)
(250 Ω ±10% when using HART communication)

POWER INPUT

DC Power

R: 24 V DC

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

[1] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our 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 except Model M8BS2 base.

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)

(Model M8BS2 is not usable for the M8YC.)

Isolation: Input to output to power

Zero adjustment: -2 to +2 % (front)

Span adjustment: 98 to 102 % (front)

Opencircuit detection: input current 0 mA when the output loop is open.

Photo MOSFET Relay ON Resistance; 3 Ω max.

INPUT SPECIFICATIONS

■ DC Current: Input resistor incorporated

Input current: ≥ 0 mA

OUTPUT SPECIFICATIONS

The output goes below 0 % when the input loop is open.

HART COMMUNICATION

Transmission gain: Approx. -3 dB (within 1 - 3 kHz)
measured with 250 Ω at output

Loop impedance: 250 Ω ±10 %

Communication directions: Bidirectional

INSTALLATION

Current consumption: Approx. 32 mA

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

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

Mounting: Installation Base (model: M8BSx)

(Model M8BS2 is not usable for the M8YC.)

Weight: 50 g (1.76 oz)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$

Temp. coefficient: $\pm 0.02\%/^{\circ}\text{C}$ ($\pm 0.01\%/^{\circ}\text{F}$)

Response time: ≤ 0.5 sec. (0 - 90 %)

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

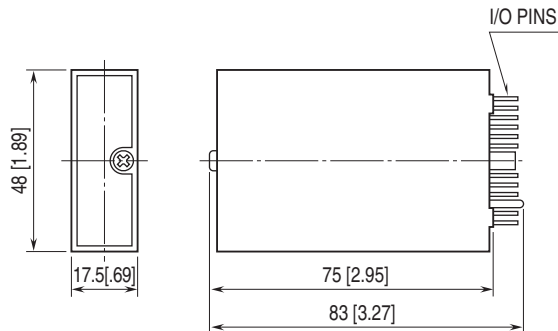
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

Dielectric strength:

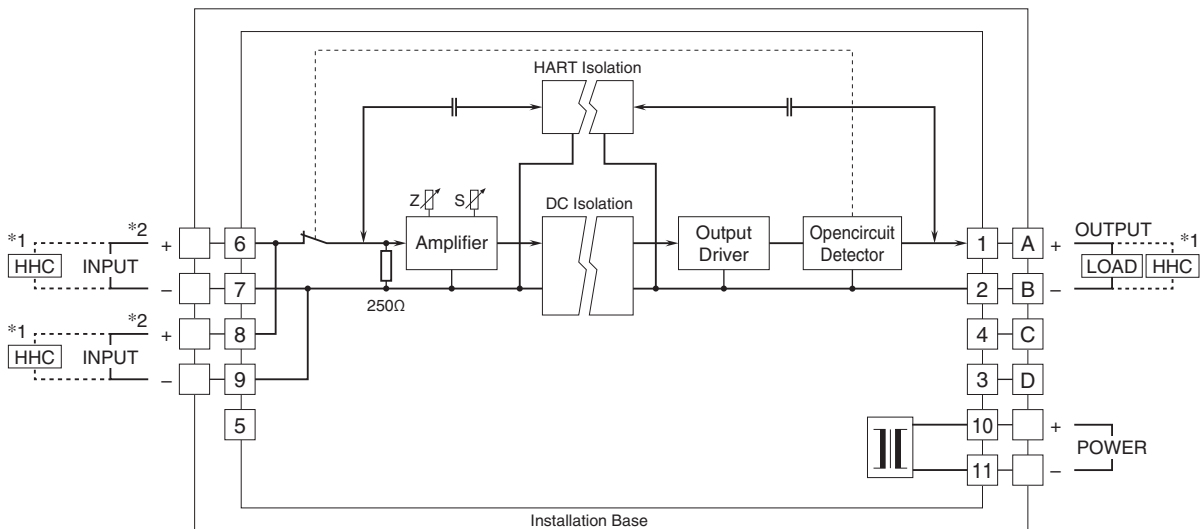
1500 V AC @1 minute(input or power to output to ground)

500 V AC @1 minute(input to power)

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Hand-held communicator

*2. Use either 6-7 or 8-9 for input terminal.



Specifications are subject to change without notice.