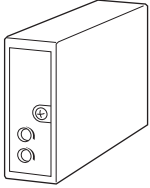


## Dual Output Super-mini Signal Conditioners Pico-M Series

### CT CONVERTER

#### Functions & Features

- Converting an alternating current from a current transformer into a standard process signal
- True RMS sensing
- Space-saving, easy-to-maintain, multi-channel installation base



### MODEL: M8CT-[1][2]-R[3]

#### ORDERING INFORMATION

- Code number: M8CT-[1][2]-R[3]  
Specify a code from below for each of [1] through [3].  
(e.g. M8CT-16A-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01 /V01)

#### [1] INPUT

##### Current

- 1: 0 – 1 A AC  
5: 0 – 5 A AC

#### [2] OUTPUT 1 / OUTPUT 2

- 6A: 1 – 5 V DC (Load resistance 2500  $\Omega$  min.)  
/ 4 – 20 mA DC (Load resistance 300  $\Omega$  max.)  
44: 0 – 10 V DC (Load Resistance 5000  $\Omega$  min.)  
/ 0 – 10 V DC (Load Resistance 5000  $\Omega$  min.)  
55: 0 – 5 V DC (Load resistance 2500  $\Omega$  min.)  
/ 0 – 5 V DC (Load resistance 2500  $\Omega$  min.)  
66: 1 – 5 V DC (Load resistance 2500  $\Omega$  min.)  
/ 1 – 5 V DC (Load resistance 2500  $\Omega$  min.)

#### POWER INPUT

##### DC Power

R: 24 V DC  
(Operational voltage range 24 V  $\pm$ 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 except Model M8BS-1-1 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

Input waveform

RMS sensing: Up to 15 % of 3rd harmonic content

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

Span adjustment: 98 to 102 % (front)

#### INPUT SPECIFICATIONS

Frequency: 50 or 60 Hz

Input burden:  $\leq$  0.1 VA (input 0 – 1 A)  
 $\leq$  0.5 VA (input 0 – 5 A)

Overload capacity: 1000 % of rating for 5 sec., 120 % continuous

Operational range: 0 – 120 % of rating

#### 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:  $\pm$ 0.25 %

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

**Response time:**  $\leq 0.25$  sec. (0 – 90 %)

**Ripple:** 0.5 %p-p max.

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

**Insulation resistance:**  $\geq 100$  M $\Omega$  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

## WARNING

**The CTR Must Be Connected Correctly.**

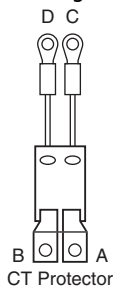
1) The CT protector (model: CTR) included in the product package must be used for safe operations. Turning on the CT without connecting the CTR opens the circuit and is potentially dangerous.

2) The CTR is not interchangeable with another.

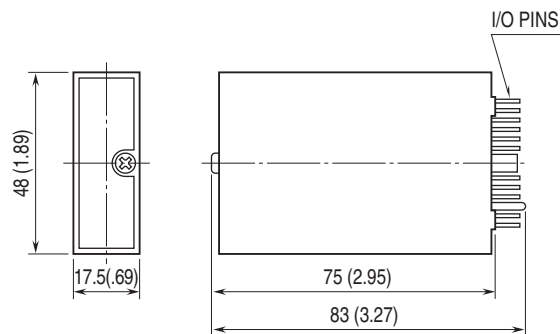
Be sure to match the serial No. of the CTR to that of the converter.

3) Connect the CTR's wires (C, D) and metal legs (A, B) to the corresponding terminals of the installation base as indicated in the figure to the right. The metal legs (A, B) are to be secured at the base terminals together with the output wires from the CT. Wrong connection may cause abnormally high temperature in the unit which could lead a fire in the worst cases.

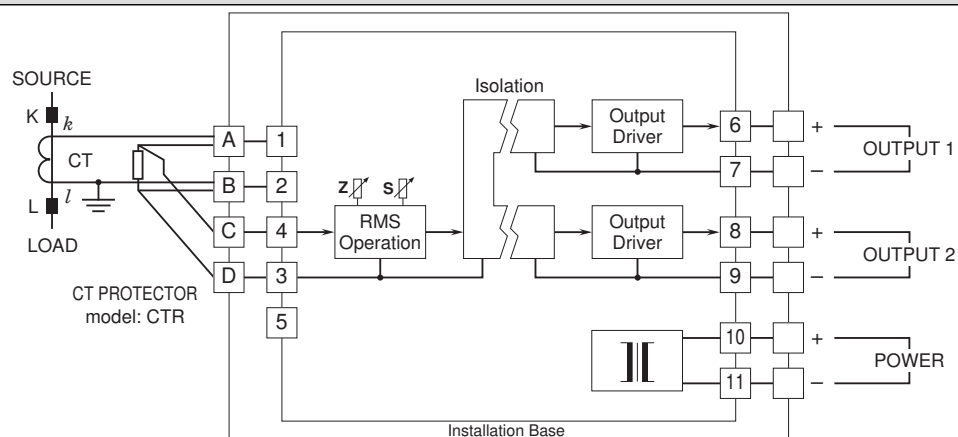
4) Confirm the right connection of the CTR again before turning on the CT.



## EXTERNAL DIMENSIONS unit: mm (inch)



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.