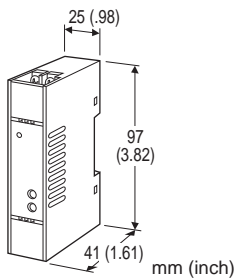


## Super-mini Terminal Block Signal Conditioners M5-UNIT

### CT TRANSMITTER

#### Functions & Features

- Converts an alternating current from a current transformer into a standard process signal
- True RMS sensing
- High-density mounting
- Power LED
- CE marking for 24 V DC power



### MODEL: M5CT-[1][2]-[3][4]

#### ORDERING INFORMATION

Specify a code from below for each [1] through [4].

- Code number: M5CT-[1][2]-[3][4]  
(e.g. M5CT-14W-R/Q)

Specify variables.

- Special output range (For codes Z & 0)
- Specify the specification for option code /Q  
(e.g. /C01)

#### [1] INPUT

##### Current

- 1: 0 - 1 A AC (Input burden  $\leq 0.1$  VA)
- 5: 0 - 5 A AC (Input burden  $\leq 0.5$  VA)

#### [2] OUTPUT

##### Current

- A: 4 - 20 mA DC (Load resistance 550  $\Omega$  max.)
- Z: Specify current (See OUTPUT SPECIFICATIONS)

##### Voltage

- 4: 0 - 10 V DC (Load resistance 1000  $\Omega$  min.)
- 5: 0 - 5 V DC (Load resistance 500  $\Omega$  min.)
- 6: 1 - 5 V DC (Load resistance 500  $\Omega$  min.)
- 4W: -10 - +10 V DC (Load resistance 8000  $\Omega$  min.)
- 5W: -5 - +5 V DC (Load resistance 4000  $\Omega$  min.)
- 0: Specify voltage (See OUTPUT SPECIFICATIONS)

#### [3] POWER INPUT

##### AC Power

M: 85 - 264 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)  
(CE not available)

##### DC Power

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

#### [4] OPTIONS

blank: none

/Q: With options (specify the specification)

#### SPECIFICATIONS OF OPTION: Q

**COATING (For the detail, refer to M-System's web site.)**

- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber coating

#### GENERAL SPECIFICATIONS

**Construction:** Terminal block

**Connection:** M3.5 screw terminals (torque 0.8 N·m)

**Screw terminal:** Nickel-plated steel

**Housing material:** Flame-resistant resin (black)

**Isolation:** Input to output 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)

**Power LED:** Green light turns on when the power is supplied.

#### INPUT SPECIFICATIONS

**Frequency:** 50 or 60 Hz

**Overload capacity:** 500 % of rating for 5 sec., 120 % continuous

**Operational range:** 5 - 120 % of rating

#### OUTPUT SPECIFICATIONS

■ **DC Current:** 0 - 20 mA DC

**Minimum span:** 1 mA

**Offset:** Max. 1.5 times span

**Load resistance:** Output drive 11 V max.

■ **DC Voltage:** 0 - 10 V DC

**Minimum span:** 1 V

**Offset:** Max. 1.5 times span

**Load resistance:** Output drive 10 mA max.;  $\geq 1$  V



## INSTALLATION

### Power Consumption

#### •AC:

Approx. 2 VA at 100 V

Approx. 3 VA at 200 V

Approx. 3 VA at 264 V

#### •DC: Approx. 2 W

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 0 to 90 %RH (non-condensing)

**Mounting:** DIN rail

**Weight:** 80 g (2.8 oz)

## PERFORMANCE in percentage of span

**Accuracy:**  $\pm 0.3\%$  with input 5 - 100 %

(Input 10 - 100 % for the output codes 4W and 5W)

**Temp. coefficient:**  $\pm 0.015\%/^{\circ}\text{C}$  ( $\pm 0.008\%/^{\circ}\text{F}$ )

**Response time:**  $\leq 0.5$  sec. (0 - 90 %)

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

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

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

**Dielectric strength** (input to output to power to ground)

**DC powered:** 2000 V AC @1 minute

**AC powered:** 1500 V AC @1 minute

## STANDARDS & APPROVALS

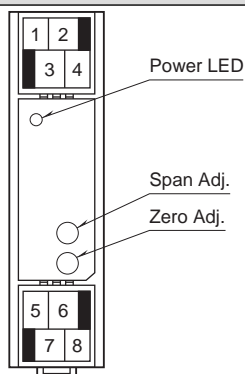
### CE conformity:

EMC Directive (2004/108/EC)

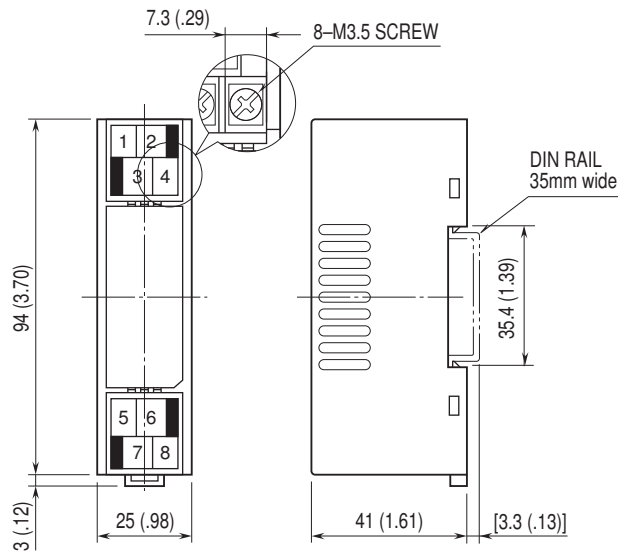
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

## FRONT VIEW

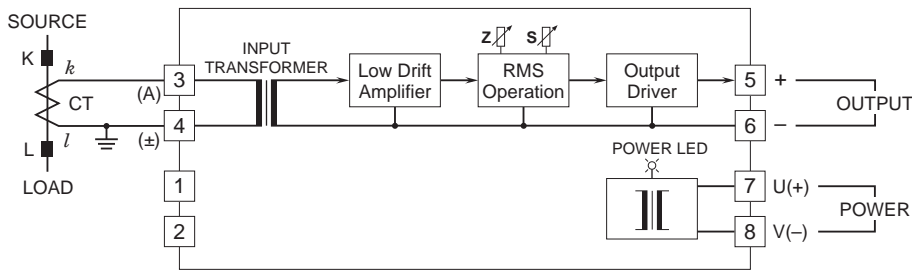


## DIMENSIONS unit: mm (inch)



• When mounting, no extra space is needed between units.

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.