

Dual Output Plug-in Signal Conditioners W-UNIT

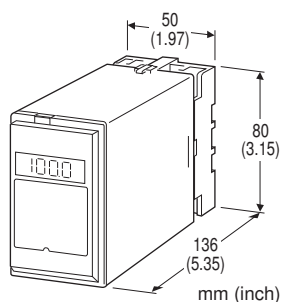
CT TRANSMITTER

Functions & Features

- Converting an alternating current from a current transformer into two standard process signals
- Minimum ripple
- True RMS sensing
- CT Protector provided for open-circuit protection
- Isolation up to 2000 V AC
- LCD meter
- High-density mounting

Typical Applications

- Centralized monitoring and control of motors, pumps or heaters by DCS
- Monitoring power line and power supply current



MODEL: WCT-[1][2][3]-[4][5]

ORDERING INFORMATION

- Code number: WCT-[1][2][3]-[4][5]
- Specify a code from below for each of [1] through [5].
(e.g. WCT-1AA-B/E/Q)

- Special output ranges (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01/S01)

Note: When the user requires a current and a voltage output, specify the current to be the Output 1 which allows a greater load.

[1] INPUT

Current

- 1: 0 – 1 A AC
5: 0 – 5 A AC

[2] OUTPUT 1

Current

- A: 4 – 20 mA DC (Load resistance 600 Ω max.)
B: 2 – 10 mA DC (Load resistance 1200 Ω max.)

- C: 1 – 5 mA DC (Load resistance 2400 Ω max.)
D: 0 – 20 mA DC (Load resistance 600 Ω max.)
E: 0 – 16 mA DC (Load resistance 750 Ω max.)
F: 0 – 10 mA DC (Load resistance 1200 Ω max.)
G: 0 – 1 mA DC (Load resistance 12 k Ω max.)
Z: Specify current (See OUTPUT SPECIFICATIONS)

Voltage

- 1: 0 – 10 mV DC (Load resistance 10 k Ω min.)
2: 0 – 100 mV DC (Load resistance 100 k Ω min.)
3: 0 – 1 V DC (Load resistance 1000 Ω min.)
4: 0 – 10 V DC (Load resistance 10 k Ω min.)
5: 0 – 5 V DC (Load resistance 5000 Ω min.)
6: 1 – 5 V DC (Load resistance 5000 Ω min.)
4W: -10 – +10 V DC (Load resistance 10 k Ω min.)
5W: -5 – +5 V DC (Load resistance 5000 Ω min.)
0: Specify voltage (See OUTPUT SPECIFICATIONS)

[3] OUTPUT 2

Current

- A: 4 – 20 mA DC (Load resistance 350 Ω max.)
B: 2 – 10 mA DC (Load resistance 700 Ω max.)
C: 1 – 5 mA DC (Load resistance 1400 Ω max.)
D: 0 – 20 mA DC (Load resistance 350 Ω max.)
E: 0 – 16 mA DC (Load resistance 430 Ω max.)
F: 0 – 10 mA DC (Load resistance 700 Ω max.)
G: 0 – 1 mA DC (Load resistance 7000 Ω max.)
Z: Specify current (See OUTPUT SPECIFICATIONS)

Voltage

Same range availability as Output 1

[4] POWER INPUT

AC Power

- B: 100 V AC
C: 110 V AC
D: 115 V AC
F: 120 V AC
G: 200 V AC
H: 220 V AC
J: 240 V AC

DC Power

- S: 12 V DC
R: 24 V DC
V: 48 V DC
P: 110 V DC

[5] OPTIONS (multiple selections)**Input Signal Indicator****blank:** Without**/E:** With (0.0 - 100.0 % display)**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**TERMINAL SCREW MATERIAL****/S01:** Stainless steel**GENERAL SPECIFICATIONS****Construction:** Plug-in**Connection:** M3.5 screw terminals**Screw terminal:** Chromated steel (standard) or stainless steel**Housing material:** Flame-resistant resin (black)**Isolation:** Input to output 1 to output 2 to power**Input waveform:** Up to 15 % of 3rd harmonic content**Overrange output:** 0 to 120 % at 1 - 5 V**Zero adjustment:** -5 to +5 % (front)**Span adjustment:** 95 to 105 % (front)

Adjustable individually for each output 1 and output 2.

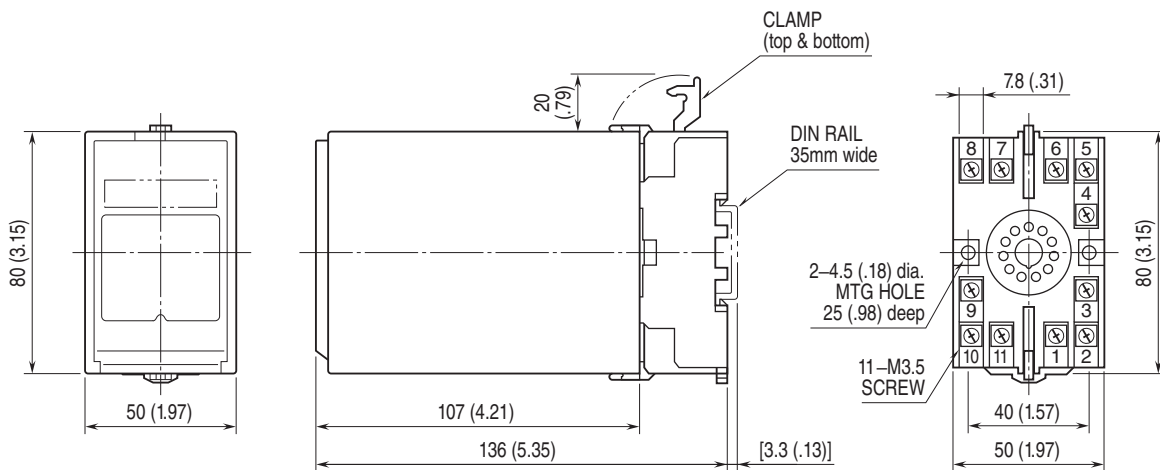
■ DISPLAY (Input indicator)**LCD digital display:** 0.0 - 100.0 % (min. digit 0.1 %)

(No scaling)

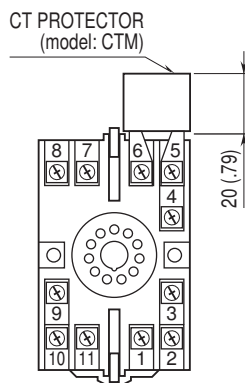
INPUT SPECIFICATIONS**Frequency:** 50 or 60 Hz**Input burden:** 0.5 VA max.**Overload capacity:** 500 % of rating for 5 sec., 120 % continuous**Operational range:** 0 - 120 % of rating**OUTPUT SPECIFICATIONS****■ DC Current:** 0 - 20 mA DC**Minimum span:** 1 mA**Offset:** Max. 1.5 times span**Load resistance:** Output drive 12 V max. for Output 1;
7 V max. for Output 2**■ DC Voltage:** -10 - +12 V DC**Minimum span:** 5 mV**Offset:** Max. 1.5 times span**Load resistance:** Output drive 1 mA max. at ≥ 0.5 V**INSTALLATION****Power input****•AC:** Operational voltage range: rating ± 10 %, 50/60 ± 2 Hz, approx. 3 VA**•DC:** Operational voltage range: rating ± 10 %, or 85 - 150 V for 110 V rating, ripple 10 %p-p max., approx. 3 W (27 mA at 110 V)**Operating temperature:** -5 to +55°C (23 to 131°F)**Operating humidity:** 30 to 90 %RH (non-condensing)**Mounting:** Surface or DIN rail**Weight:** 450 g (0.99 lb)**PERFORMANCE in percentage of span****Accuracy:** ± 0.4 %**Display accuracy:** $\pm (0.4 \text{ % of FS} + 1 \text{ digit})$ **Temp. coefficient:** $\pm 0.02 \text{ %/}^\circ\text{C}$ ($\pm 0.01 \text{ %/}^\circ\text{F}$)**Response time:** ≤ 0.5 sec. (0 - 90 %)**Ripple:** 0.5 %p-p max.**Line voltage effect:** ± 0.1 % over voltage range**Insulation resistance:** $\geq 100 \text{ M}\Omega$ with 500 V DC**Dielectric strength:** 2000 V AC @1 minute
(input to output to power to ground)

1000 V AC @ 1 minute (output 1 to output 2)

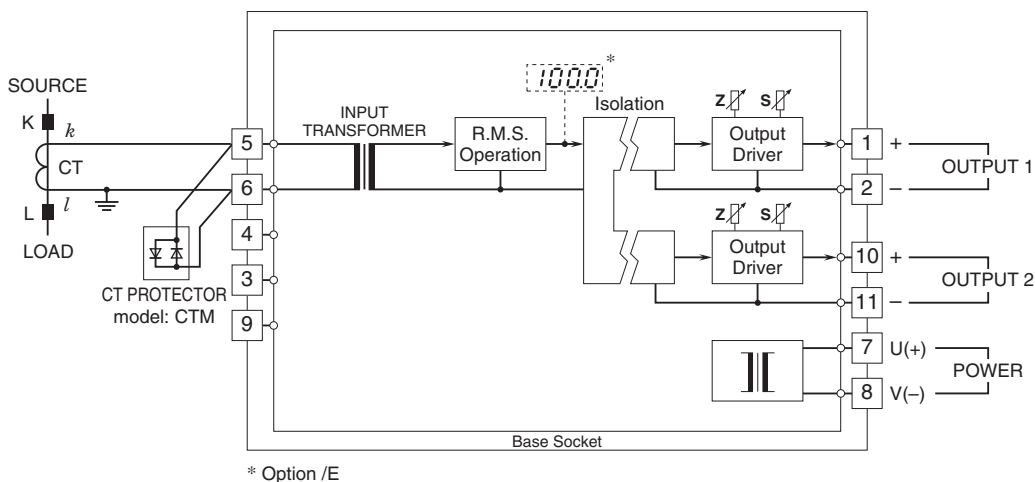
EXTERNAL DIMENSIONS unit: mm (inch)



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

TERMINAL ASSIGNMENTS unit: mm (inch)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.