

Plug-in Signal Conditioners K-UNIT

CT TRANSMITTER

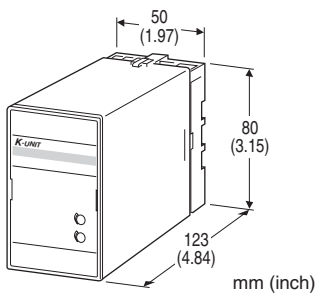
(approximate RMS sensing)

Functions & Features

- Converting an alternating current from a current transformer into a standard process signal
- Minimum ripple
- Average sensing
- CT Protector provided for open-circuit protection
- Isolation up to 2000 V AC
- High-density mounting

Typical Applications

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



MODEL: KCK-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: KCK-[1][2]-[3][4]
- Specify a code from below for each of [1] through [4].
(e.g. KCK-1A-B/Q)
- Special output range (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT

Current

- 1: 0 – 1 A AC
5: 0 – 5 A AC

[2] OUTPUT

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 100 Ω min.)
4: 0 – 10 V DC (Load resistance 1000 Ω min.)
5: 0 – 5 V DC (Load resistance 500 Ω min.)
6: 1 – 5 V DC (Load resistance 500 Ω min.)
4W: -10 – +10 V DC (Load resistance 2000 Ω min.)
0: Specify voltage (See OUTPUT SPECIFICATIONS)

[3] AUXILIARY POWER SUPPLY

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

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

[4] OPTIONS

- blank: none
/Q: With options (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 to auxiliary power

Input waveform: Up to 5 % of 3rd harmonic content

Overrange output: 0 to 120 % at 1 – 5 V

Zero adjustment: -5 to +5 % (front)

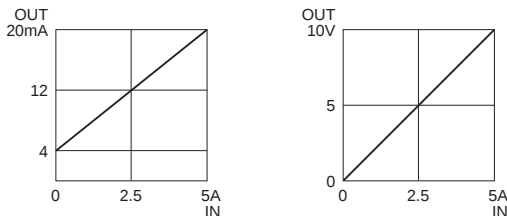
Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS**Operational range:** 0 – 120 % of rating**Frequency:** 50 or 60 Hz**Input burden:** 0.1 VA (input 0 – 1 A)

0.5 VA (input 0 – 5 A)

Overload capacity: 1000 % of rating for 3 sec.,

200 % for 10 sec., 120 % continuous

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.**DC Voltage:** -10 – +12 V DC**Minimum span:** 5 mV**Offset:** Max. 1.5 times span**Load resistance:** Output drive 10 mA max.; 5 mA for negative voltage output; at ≥ 0.5 V**OPERATION DIAGRAM (example)****INSTALLATION****Auxiliary power supply**

- AC: Operational voltage range: rating -15/+10 %, 50/60 Hz, approx. 2 VA

- DC: Operational voltage range: rating ± 10 %, or 85 – 150 V for 110 V rating, ripple 10 %p-p max., approx. 2 W (18 mA at 110 V)

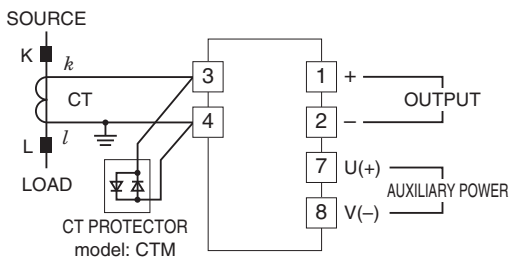
Operating temperature: -10 to +55°C (14 to 131°F)**Operating humidity:** 30 to 85 %RH (non-condensing)**Mounting:** Surface or DIN rail**Weight:** 350 g (0.77 lb)**PERFORMANCE in percentage of span****Accuracy:** ± 0.3 % (at 23°C ± 10 °C or 73.4°F ± 18 °F, 45 – 65 Hz)**Response time:** ≤ 1 sec. (0 – 100 % ± 1 %)**Ripple:** 0.5 %p-p max.**Line voltage effect:** ± 0.1 % over voltage range**Insulation resistance:** ≥ 100 M Ω with 500 V DC**Dielectric strength:** 2000 V AC @1 minute

(input to output to auxiliary power to ground)

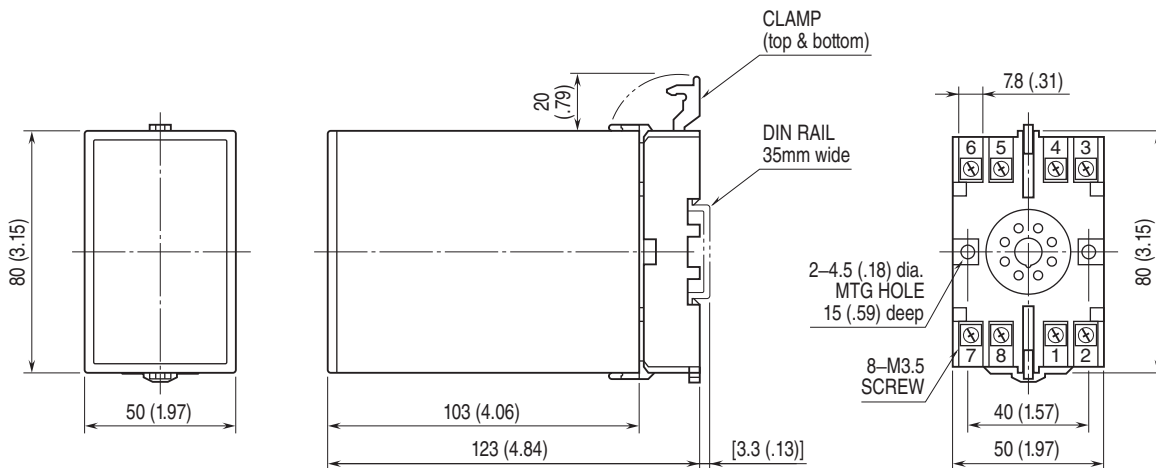
Impulse withstand voltage: 1.2 / 50 μ sec., ± 5 kV

(input to output or ground)

CONNECTION DIAGRAM

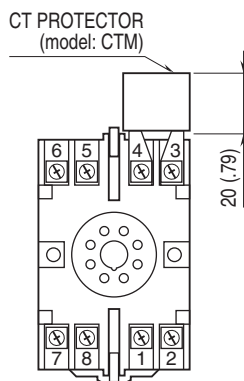


EXTERNAL DIMENSIONS unit: mm (inch)



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

TERMINAL ASSIGNMENTS unit: mm (inch)



Specifications are subject to change without notice.