Plug-in Signal Conditioners K-UNIT

PT TRANSMITTER

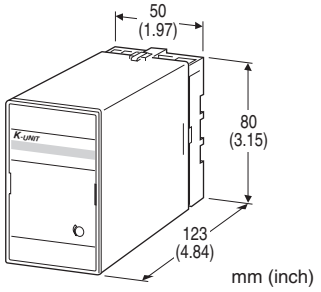
(self-powered, RMS sensing)

Functions & Features

• Converting an alternating voltage from a potential (voltage) transformer into a standard process signal
• Minimum ripple
• No auxiliary power source required
• Isolation up to 2000 V AC
• High-density mounting

Typical Applications

• Centralized monitoring and control of power line and power supply voltages measured at switch boards
• Monitoring abnormal voltage drops for detecting overload



MODEL:KPNE-[1][2][3]

ORDERING INFORMATION

• Code number: KPNE-[1][2][3]
Specify a code from below for each of [1] through [3].
(e.g. KPNE-55/Q)
• Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT

Voltage

5: 0 – 150 V AC (used within 90 – 150 V)
6: 0 – 300 V AC (used within 180 – 300 V)

[2] OUTPUT

Current

G: 0 – 1 mA DC (Load resistance 5000 Ω max.)

Voltage

3: 0 – 1 V DC (Load resistance 2000 Ω min.)
4: 0 – 10 V DC (Load resistance 20 kΩ min.)
5: 0 – 5 V DC (Load resistance 10 kΩ min.)

[3] 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

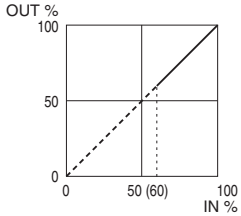
Construction: Plug-in
Connection: M3.5 screw terminals
Screw terminal: Chromated steel (standard) or stainless steel
Housing material: Flame-resistant resin (black)
Isolation: Input to output
Input waveform: Up to 15 % of 3rd harmonic content
Overrange output: 60 – 120 % at 0 – 5 V
Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS

Frequency: 50 or 60 Hz
Input burden: 2 VA
Overload capacity: 150 % of rating for 10 sec., 120 % continuous
Operational range: 60 – 120 % of rating

OUTPUT SPECIFICATIONS

■ **OPERATION DIAGRAM**



Note: The described accuracy is not assured within 0 – 60% of the rating, though output signal exists.

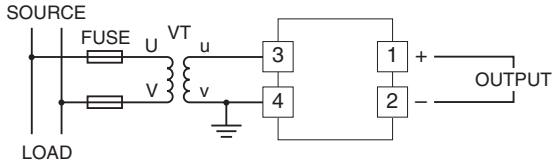
INSTALLATION

Operating temperature: -10 to +55°C (14 to 131°F)
Operating humidity: 30 to 85 %RH (non-condensing)
Mounting: Surface or DIN rail
Weight: 200 g (0.44 lb)

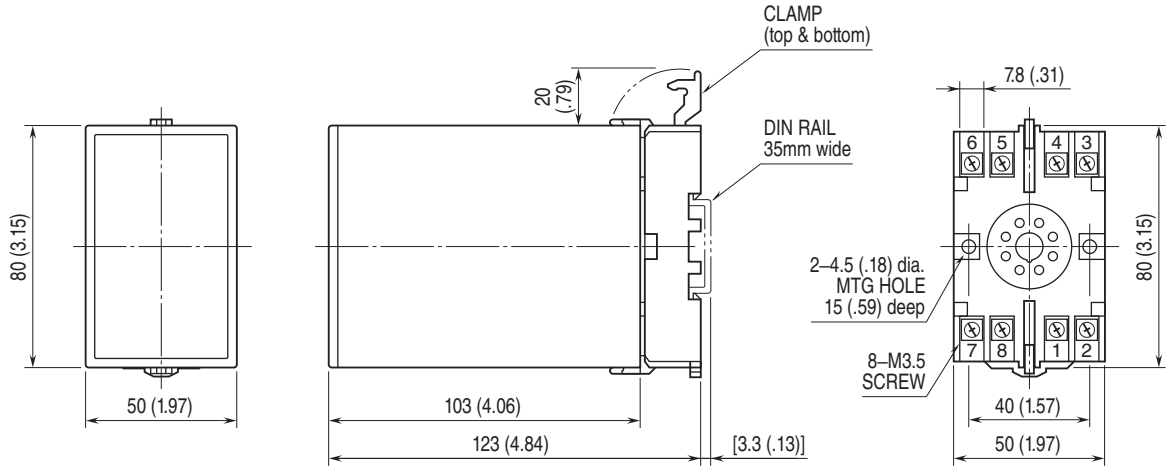
PERFORMANCE in percentage of span

Accuracy: ±0.5 % (at 23°C ±10°C or 73.4°F ±18°F, 45 – 65 Hz)
Response time: ≤ 2 sec. (0 – 100 % ±1 %)
Ripple: 1 %p-p max.
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input to output to ground)
Impulse withstand voltage: 1.2 / 50 µsec., ±5 kV (input to output or ground)

CONNECTION DIAGRAM



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

⚠ Specifications are subject to change without notice.