

Power Transducer Series L-UNIT

PT TRANSDUCER

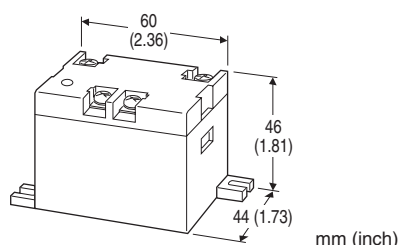
(super-miniature size; self-powered; RMS sensing)

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: LDPE-[1][2][3]

ORDERING INFORMATION

- Code number: LDPE-[1][2][3]
Specify a code from below for each [1] through [3].
(e.g. LDPE-55/D)
- 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 k Ω min.)
5: 0 – 5 V DC (Load resistance 10 k Ω min.)

[3] OPTIONS (multiple selections)

Mounting

blank: Surface

/D: DIN rail

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: Stand-alone; terminal access at the front

Connection: M4 screw terminals (torque 1.2 N·m)

Screw terminal: Nickel-plated brass (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

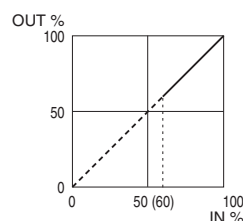
Input burden: 2 VA

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.

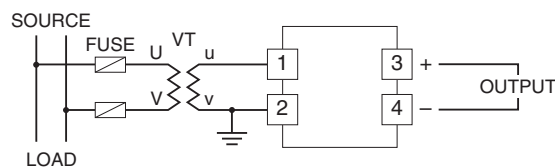
INSTALLATION

Operating temperature: -10 to +55°C (14 to 131°F)
Operating humidity: 30 to 85 %RH (non-condensing)
Mounting: Surface or DIN rail
Weight: 150 g (0.33 lb) for surface mounting
 170 g (0.37 lb) for DIN rail mounting

PERFORMANCE in percentage of span

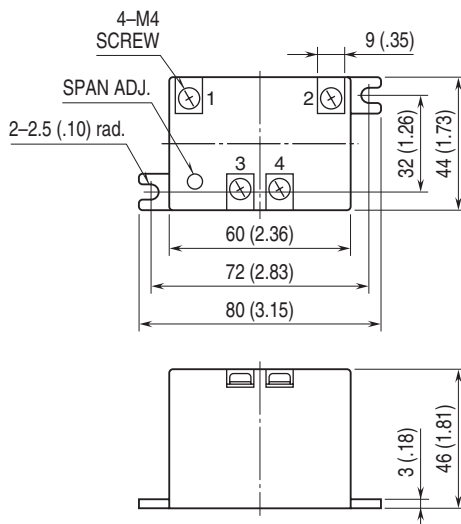
Accuracy: $\pm 0.5\%$ (at 23°C $\pm 10^\circ\text{C}$ or 73.4°F $\pm 18^\circ\text{F}$,
 45 - 65 Hz)
Response time: ≤ 2 sec. (0 - 100 % $\pm 1\%$)
Ripple: 1 %p-p max.
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC
Dielectric strength: 2000 V AC @1 minute
 (input to output to ground)
Impulse withstand voltage: 1.2 / 50 $\mu\text{sec.}$, $\pm 5\text{ kV}$
 (input to output or ground)

CONNECTION DIAGRAM

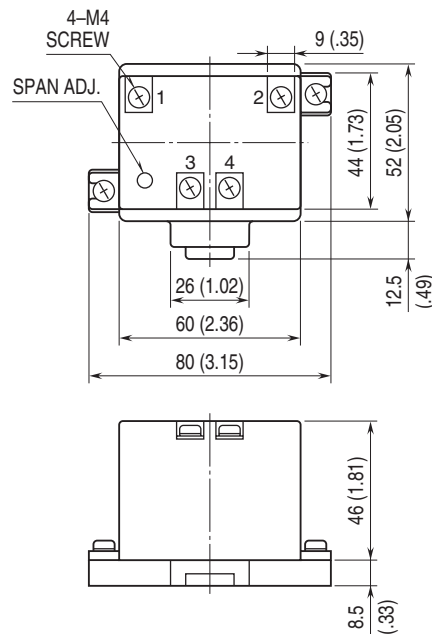


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

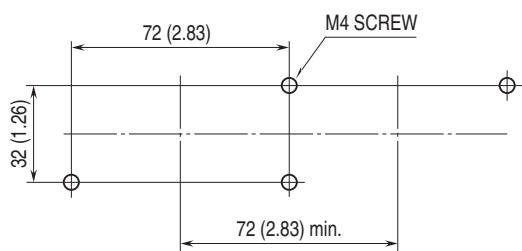
■ SURFACE MOUNTING



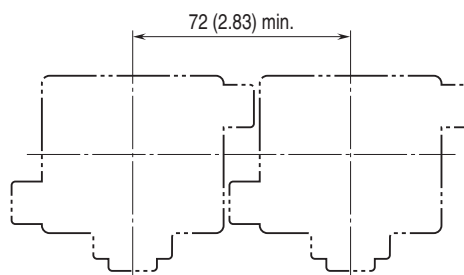
■ DIN RAIL MOUNTING



■ SURFACE MOUNTING



■ DIN RAIL MOUNTING



Specifications are subject to change without notice.