

## Power Transducer Series L-UNIT

### DUAL PT TRANSDUCER

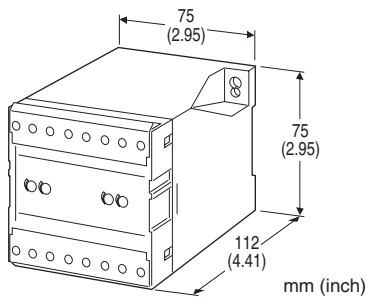
(Average sensing, RMS calibrated)

#### Functions & Features

- Converting an alternating voltage from a potential (voltage) transformer into a standard process signal
- 2 transducers housed in one enclosure
- Minimum ripple
- 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: L2PA-[1][2]-[3][4]

### ORDERING INFORMATION

- Code number: L2PA-[1][2]-[3][4]
- Specify a code from below for each [1] through [4].  
(e.g. L2PA-5A-C/Q)
- Special output range (For codes Z & 0)
  - Specify the specification for option code /Q  
(e.g. /C01/S01)

#### [1] INPUT

##### Voltage

- 5: 0 - 150 V AC
- 6: 0 - 300 V AC

#### [2] OUTPUT

##### Current

- A: 4 - 20 mA DC (Load resistance 500  $\Omega$  max.)
- D: 0 - 20 mA DC (Load resistance 500  $\Omega$  max.)
- E: 0 - 16 mA DC (Load resistance 625  $\Omega$  max.)
- F: 0 - 10 mA DC (Load resistance 1000  $\Omega$  max.)
- G: 0 - 1 mA DC (Load resistance 10 k $\Omega$  max.)

- J: 0 - 5 mA DC (Load resistance 2000  $\Omega$  max.)
- Z: Specify current (See OUTPUT SPECIFICATIONS)

##### Voltage

- 1: 0 - 10 mV DC (Load resistance 10 k $\Omega$  min.)
- 2: 0 - 100 mV DC (Load resistance 100 k $\Omega$  min.)
- 3: 0 - 1 V DC (Load resistance 1000  $\Omega$  min.)
- 4: 0 - 10 V DC (Load resistance 10 k $\Omega$  min.)
- 5: 0 - 5 V DC (Load resistance 5000  $\Omega$  min.)
- 6: 1 - 5 V DC (Load resistance 5000  $\Omega$  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

### [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:** Stand-alone; terminal access at the front

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

**Screw terminal:** Nickel-plated steel (standard) or stainless steel

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

**Isolation:** Input to output to auxiliary power, between channels

**Input waveform:** Sine wave

**Overrange output:** 0 to 120 % at 1 - 5 V

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

**Span adjustment:** 95 to 105 % (front)

**INPUT SPECIFICATIONS**

**Frequency:** 50 or 60 Hz

**Input burden:** 0.3 VA per channel

**Overload capacity:** 150 % of rating for 10 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 10 V max.

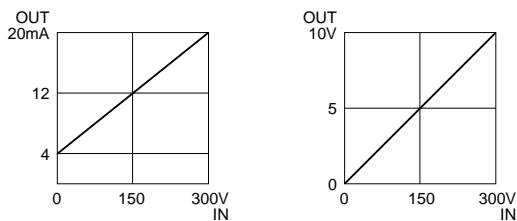
■ **DC Voltage:** 0 - 12 V DC

**Minimum span:** 5 mV

**Offset:** Max. 1.5 times span

**Load resistance:** Output drive 1 mA max.; at  $\geq 0.5$  V

■ **OPERATION DIAGRAM (example)**

**INSTALLATION****Auxiliary power supply**

• **AC:** Operational voltage range: rating  $-15/+10$  %, 50/60 Hz, approx. 3 VA

• **DC:** Operational voltage range: rating  $\pm 10$  % ripple 10 %p-p max., approx. 3 W (125 mA at 24 V)

**Operating temperature:**  $-10$  to  $+55^{\circ}\text{C}$  ( $14$  to  $131^{\circ}\text{F}$ )

**Operating humidity:** 30 to 85 %RH (non-condensing)

**Mounting:** Surface or DIN rail

**Weight:** 400 g (0.88 lb)

**PERFORMANCE in percentage of span**

**Accuracy:**  $\pm 0.5$  % (at  $23^{\circ}\text{C} \pm 10^{\circ}\text{C}$  or  $73.4^{\circ}\text{F} \pm 18^{\circ}\text{F}$ , 45 - 65 Hz)

**Response time:**  $\leq 1$  sec. (0 - 100 %  $\pm 1$  %)

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

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

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

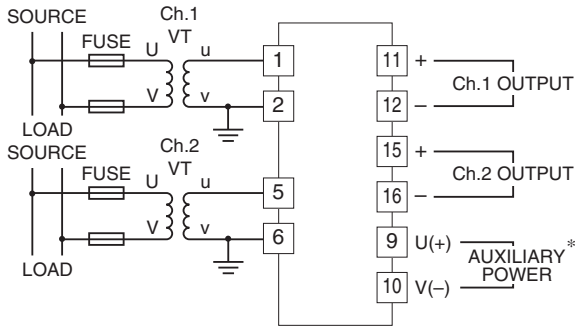
**Dielectric strength:** 2000 V AC @ 1 minute

(input to output to auxiliary power to ground, between channels)

**Impulse withstand voltage:** 1.2 / 50  $\mu\text{sec.}$ ,  $\pm 5$  kV

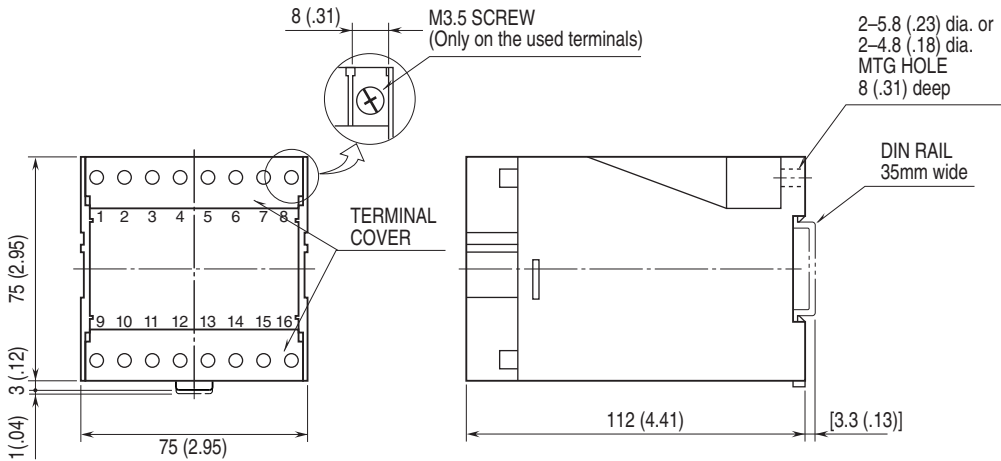
(input to output or ground)

**CONNECTION DIAGRAM**



\* The transducer can be powered from the input voltage when the voltage is sufficiently stable and meets other supply voltage requirements.

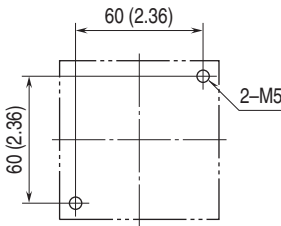
**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)**



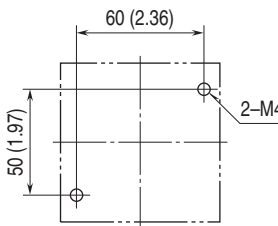
•When mounting, no extra space is needed between units.

**MOUNTING REQUIREMENTS unit: mm (inch)**

■ M5 SCREWS



■ M4 SCREWS



Specifications are subject to change without notice.