Power Transducer Series L-UNIT

DUAL CT TRANSDUCER

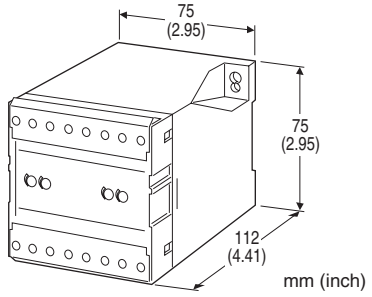
(RMS sensing)

Functions & Features

• Converting an alternating current from a current transformer into a standard process signal
• Minimum ripple
• 2 transducers housed in one enclosure
• 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: L2CE–[1][2]–[3][4]

ORDERING INFORMATION

• Code number: L2CE–[1][2]-[3][4]
Specify a code from below for each [1] through [4].
(e.g. L2CE-5A-C/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 500 Ω max.)
D: 0 – 20 mA DC(Load resistance 500 Ω max.)
E: 0 – 16 mA DC (Load resistance 625 Ω max.)
F: 0 – 10 mA DC (Load resistance 1000 Ω max.)
G: 0 – 1 mA DC (Load resistance 10 kΩ max.)
J: 0 – 5 mA DC (Load resistance 2000 Ω max.)
Z: Specify current (See OUTPUT SPECIFICATIONS)

Voltage

1: 0 – 10 mV DC (Load resistance 10 kΩ min.)
2: 0 – 100 mV DC (Load resistance 100 kΩ min.)
3: 0 – 1 V DC (Load resistance 1000 Ω min.)
4: 0 – 10 V DC (Load resistance 10 kΩ min.)
5: 0 – 5 V DC (Load resistance 5000 Ω min.)
6: 1 – 5 V DC (Load resistance 5000 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

[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: 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)

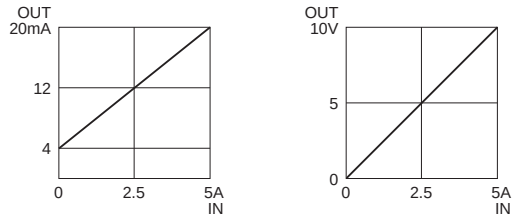
INPUT SPECIFICATIONS

Frequency: 50 or 60 Hz
Input burden: 0.3 VA per channel
Overload capacity: 1000 % of rating for 3 sec., 200 % 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 ≥ 0.5 V

■ **OPERATION DIAGRAM (example)**



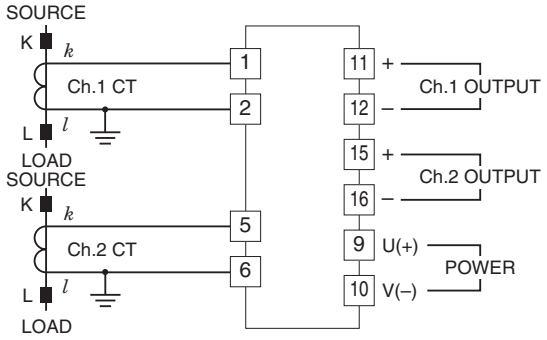
INSTALLATION

Auxiliary power supply
•**AC**: Operational voltage range: rating -15/+10 %, 50/60 Hz, approx. 3 VA
•**DC**: Operational voltage range: rating ±10 % ripple 10 %p-p max., approx. 3 W (125 mA at 24 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: 400 g (0.88 lb)

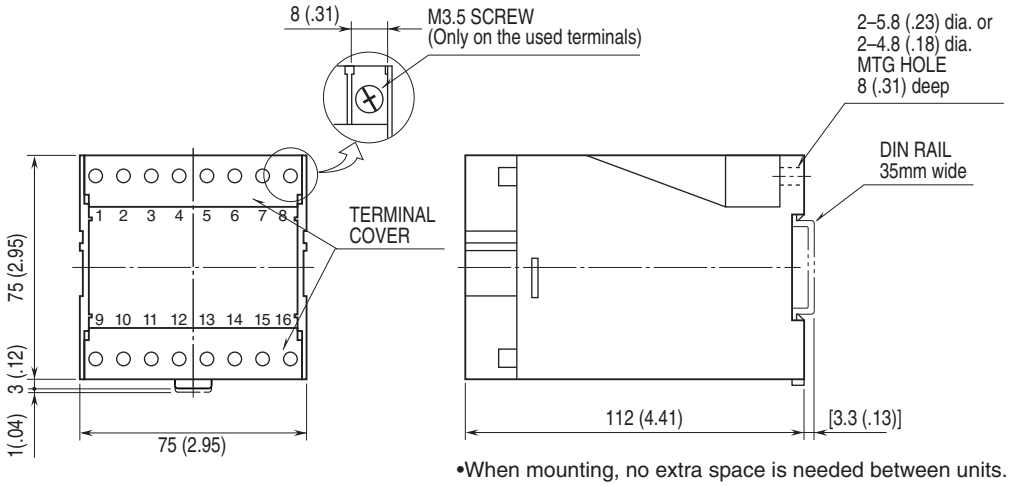
PERFORMANCE in percentage of span

Accuracy: ±0.5 % (at 23°C ±10°C or 73.4°F ±18°F, 45 – 65 Hz)
Response time: ≤ 1 sec. (0 – 100 % ±1 %)
Ripple: 0.5 %p-p max.
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ 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 µsec., ±5 kV (input to output or ground)

CONNECTION DIAGRAM



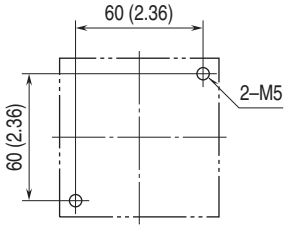
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



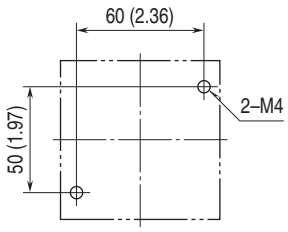
•When mounting, no extra space is needed between units.

MOUNTING REQUIREMENTS unit: mm (inch)

■ **M5 SCREWS**



■ **M4 SCREWS**



⚠ Specifications are subject to change without notice.