

Power Transducer Series L-UNIT

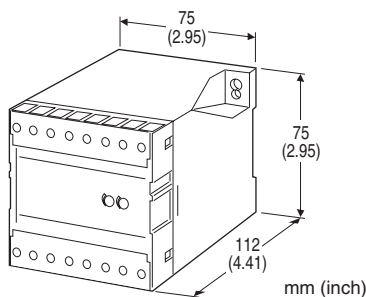
CT TRANSDUCER

Functions & Features

- Converting an alternating current from a current transformer into a standard process signal
- Minimum ripple
- True RMS sensing
- 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: LCE-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: LCE-[1][2]-[3][4]
- Specify a code from below for each of [1] through [4].
(e.g. LCE-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 600 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 kΩ max.)

- J:** 0 - 5 mA DC (Load resistance 2400 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
 - 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 our 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
- 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

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.

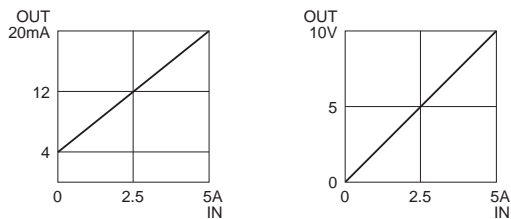
■ **DC Voltage:** 0 - 12 V DC

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. 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 $+55^{\circ}\text{C}$ (14 to 131°F)

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

Mounting: Surface or DIN rail

Weight: 300 g (0.66 lb)

PERFORMANCE in percentage of span

Accuracy: ± 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: ≤ 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

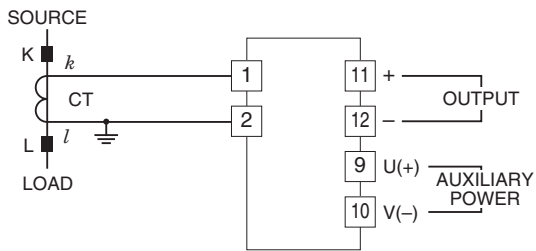
Dielectric strength: 2000 V AC @1 minute

(input to output to auxiliary power to ground)

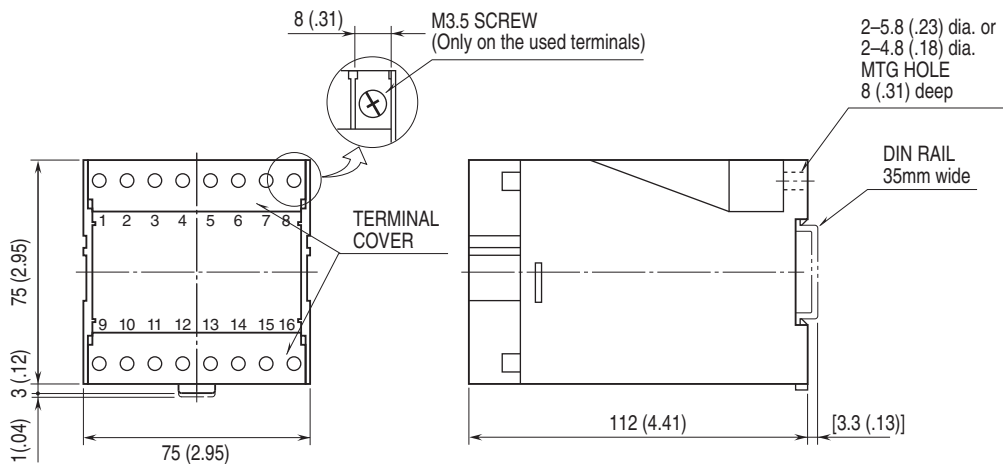
Impulse withstand voltage: 1.2 / 50 $\mu\text{sec.}$, ± 5 kV

(input to output or ground)

CONNECTION DIAGRAM

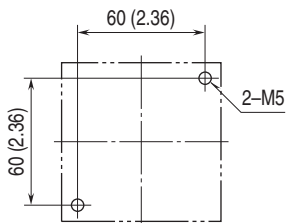


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

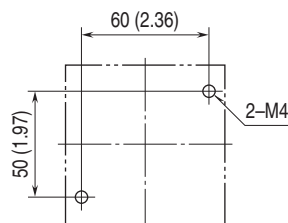


•When mounting, no extra space is needed between units.

■ M5 SCREWS



■ M4 SCREWS



Specifications are subject to change without notice.