

Power Transducer Series LT-UNIT

AC CURRENT TRANSDUCER

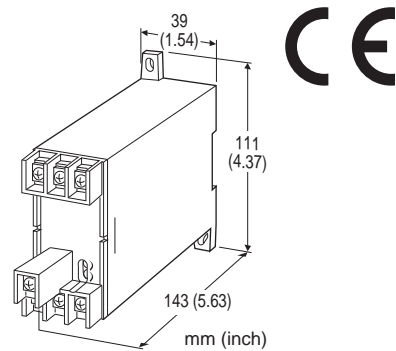
(RMS sensing)

Functions & Features

- Converts alternating current from a current transformer into a standard process signal
- Minimum ripple
- Isolation up to 2000 V AC
- High-density mounting
- Conforms to IEC 60688

Typical Applications

- Centralized monitoring and control of motors, pumps or heaters by DCS
- Monitoring power line and power supply current



MODEL: LTCE-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: LTCE-[1][2]-[3][4]
- Specify a code from below for each [1] through [4]. (e.g. LTCE-5A-K3/T)
- Special output range (For codes Z & 0)

[1] INPUT

Current

- 1: 0 - 1 A AC
- 2: 0 - 2 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.)
- 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

K3: 100 - 120V AC

(Operational voltage range 85 - 132 V, 47 - 66 Hz)

L3: 200 - 240V AC

(Operational voltage range 170 - 264 V, 47 - 66 Hz)

DC Power

R: 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

V: 48 V DC

(Operational voltage range 48 V ± 10 %, ripple 10 % p-p max.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)
(CE not available)

[4] OPTIONS

Terminal Cover

blank: Without

/T: With

GENERAL SPECIFICATIONS

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

Screw terminal: Chrome-plated steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output to 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

Frequency: 50 or 60 Hz

Operational range: 0 - 120 % of rating

Overload capacity: 4000 % of rating for 1 sec., 2000 % for 4 sec.,

120 % continuous

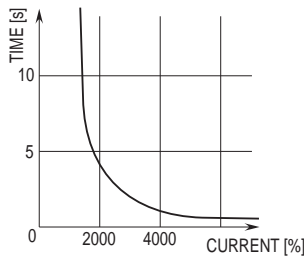
Input burden:

0.1 VA (input 0 - 1 A)

0.2 VA (input 0 - 2 A)

0.5 VA (input 0 - 5 A)

• Overload Capacity



STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

Low Voltage Directive (2006/95/EC)

EN 61010-1: 2001

Measurement Category II (input, output)

Installation Category II (power)

Pollution Degree 2

Input to output or power: Reinforced insulation (550 V)

Output to power: Reinforced insulation (300 V)

IEC Standard: IEC 60688

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.

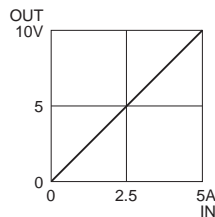
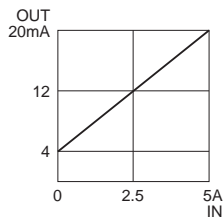
■ **DC Voltage:** 0 - 12 V DC

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

Power Consumption

•AC: Approx. 2 VA

•DC: Approx. 1.7 W (15 mA at 110 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)

Magnetic field (ext. origin) effect: ± 0.5 % (400 A/m)

Response time: ≤ 1 sec. (0 - 100 % ± 1 %)

Ripple: 0.5 %p-p max.

Line voltage effect: ± 0.25 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

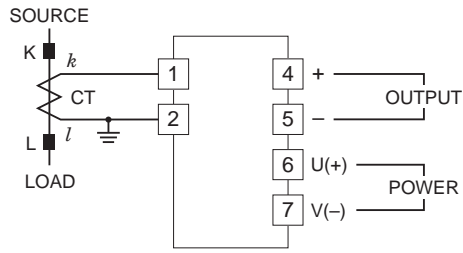
Dielectric strength: 2000 V AC @1 minute

(input to output to power to ground)

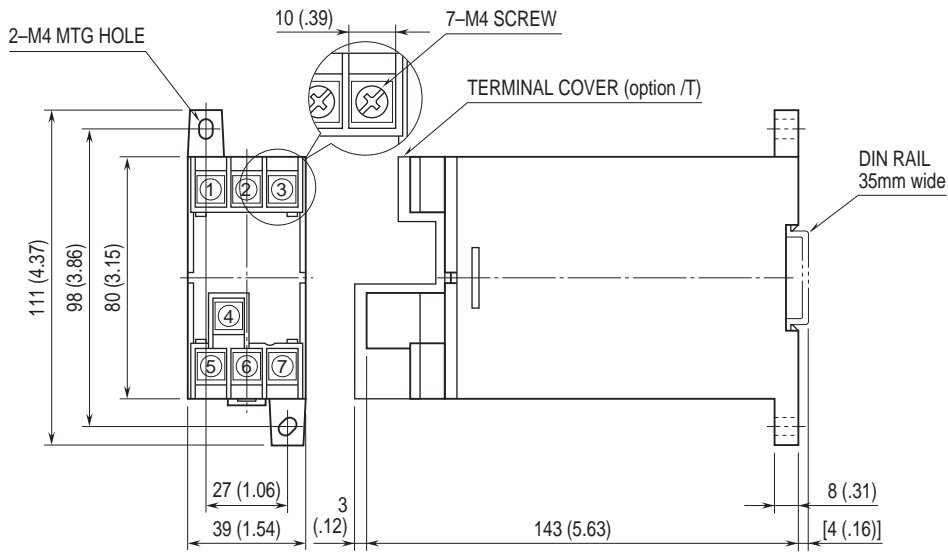
Impulse withstand voltage: 1.2 / 50 μ sec., ± 5 kV

(input to output or ground)

CONNECTION DIAGRAM



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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



Specifications are subject to change without notice.