

Power Transducer Series *LT-UNIT*

AC CURRENT TRANSDUCER

MODEL LTCE

MODEL & SUFFIX CODE SELECTION

MODEL _____

INPUT _____

1 : 0 – 1A AC
 2 : 0 – 2A AC
 5 : 0 – 5A AC

OUTPUT _____

| | |
|---------------------|---------------------|
| Current | Voltage |
| A : 4 – 20mA DC | 1 : 0 – 10mV DC |
| D : 0 – 20mA DC | 2 : 0 – 100mV DC |
| F : 0 – 10mA DC | 3 : 0 – 1V DC |
| G : 0 – 1mA DC | 4 : 0 – 10V DC |
| J : 0 – 5mA DC | 5 : 0 – 5V DC |
| Z : Specify current | 6 : 1 – 5V DC |
| | 0 : Specify voltage |

AUXILIARY POWER SUPPLY _____

| | |
|-------------------|-----------------|
| AC Power | DC Power |
| K3: 100 – 120V AC | R : 24V DC |
| L3: 200 – 240V AC | V : 48V DC |
| | P : 110V DC** |

**CE marking unavailable

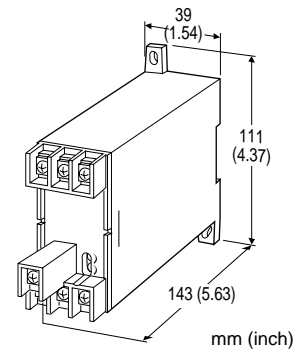
OPTIONS _____

/T : Terminal cover

LTCE-□□-□□

ORDERING INFORMATION

- Specify code number and variables.
- **Code number** (e.g. LTCE-5A-K3/T)
 - **Special output range** (For codes Z & 0)



Functions & Features

- Converting an alternating current from a current transformer into a standard process signal
- Minimum ripple
- True RMS sensing
- Isolation up to 2000V 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

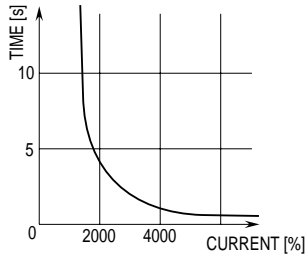
GENERAL SPECIFICATIONS

- Construction:** stand-alone; terminal access at the front
- Connection:** M4 screw terminals
 (chrome-plated steel; torque 1.2 N·m)
- Housing material:** flame-resistant resin (black)
- Isolation:** input to output to power
- Input waveform:** up to 15% of 3rd harmonic content
- Overrange output:** 0 – 120% at 1 – 5V
- Front adjustments:** zero and span; ±5%

INPUT & OUTPUT

■INPUT: 0 – 1A AC, 0 – 2A AC or 0 – 5A AC
 Frequency: 50 or 60 Hz
 Input burden: 0.1VA (input 0 – 1A)
 0.2VA (input 0 – 2A)
 0.5VA (input 0 – 5A)
 Overload capacity: 4000% of rating for 1 sec., 2000% for 4 sec., 120% continuous
 Operational range: 0 – 120% of rating

■OVERLOAD CAPACITY



■OUTPUT

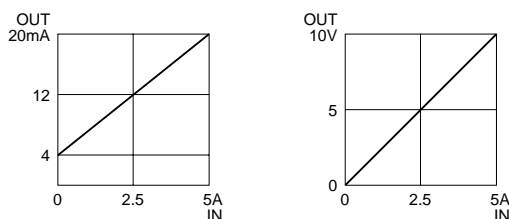
•DC Current: 0 – 20mA DC
 Minimum span: 1mA
 Zero suppression/elevation: max. 1.5 times span
 Load resistance: output drive 10V maximum

| Output | Load Resistance |
|----------|---------------------------|
| 4 – 20mA | : 500 (Ω maximum) |
| 0 – 20mA | : 500 |
| 0 – 10mA | : 1000 |
| 0 – 1mA | : 10k |
| 0 – 5mA | : 2000 |

•DC Voltage: 0 – 12V DC
 Minimum span: 5mV
 Zero suppression/elevation: max. 1.5 times span
 Load resistance: output drive 1mA maximum at $\geq 0.5V$

| Output | Load Resistance |
|-----------|---------------------------|
| 0 – 10mV | : 10k (Ω minimum) |
| 0 – 100mV | : 100k |
| 0 – 1V | : 1000 |
| 0 – 10V | : 10k |
| 0 – 5V | : 5000 |
| 1 – 5V | : 5000 |

■OPERATION DIAGRAM (example)



INSTALLATION

Auxiliary power supply

AC: operational voltage range for K3: 85 – 132V or L3: 170 – 264V
 47 – 66 Hz, approx. 2VA
 DC: operational voltage range for R, V: rating $\pm 10\%$ or P: 85 – 150V; ripple 10% p-p max. approx. 1.7W (15mA at 110V)

Operating temperature: -10 to +55°C (14 to 131°F)
 Operating humidity: 30 to 85% RH (non-condensing)
 Mounting: surface or DIN rail
 Dimensions: W39×H111×D143 mm (1.54"×4.37"×5.63")
 *D147 mm (5.79") with terminal cover
 See General Spec. Sheet Figure A-1.
 Weight: 400 g (0.88 lbs)
 Terminal assignment: See General Spec. Sheet Figure B-1.

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: ≤ 1 second (0 – 100% $\pm 1\%$)
 Ripple: 0.5% p-p max.
 Line voltage effect: $\pm 0.1\%$ over voltage range
 Insulation resistance: $\geq 100M\Omega$ with 500V DC
 Dielectric strength: 2000V AC @1 minute
 (input to output to power to ground)
 Impulse withstand voltage: 1.2/50 $\mu\text{sec.}$, $\pm 5\text{kV}$
 (input to output or ground)
 Magnetic field (ext. origin) effect: $\pm 0.5\%$ (400A/m)

STANDARDS & APPROVALS

CE conformity: EMC Directive (89/336/EEC)
 EMI EN61000-6-4
 EMS EN61000-6-2
 Low Voltage Directive (73/23/EEC)
 EN61010-1
 Installation category II
 Pollution degree 2
 Input to output or power – Reinforced insulation
 Max. operating voltage 550V
 Output to power – Reinforced insulation
 Max. operating voltage 300V
 IEC Standard: IEC 60688

CONNECTION DIAGRAM

