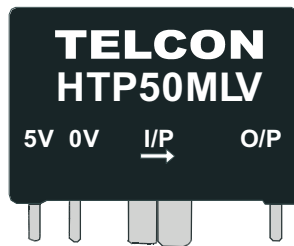




Speciality Magnetic Components  
QUALIFIED to ISO 9001:2008

## Hall Effect Current Transformer : HTP50MLV

---



---

The HTP50MLV is a closed loop Hall Effect Current Transformer suitable for measuring currents up to 50A and operating from a single +5V power supply. The product provides an output voltage, proportional to the current in the galvanically isolated primary conductor, centred on 2.5V. This enables measurement of bi-polar currents.

All contacts, including the primary, are designed for PCB mounting

---

### Features

- Miniature Package
- 3.25kV Proof Stress
- Cost Effective Design
- Fast Response
- D.C. Coupled Design
- All Contacts Via PCB
- Single 5V Power Supply

### Benefits

- Small PCB Footprint
- Galvanic Isolation
- No Primary Side Power Supply
- No Shunt Resistor Required
- No Switching Noise
- Built In Semiconductor Protection
- High Reliability

### Applications

- Variable Speed Drives
- UPS Systems
- D.C Power Supplies
- Low Frequency Current Measurement
- Overcurrent Protection
- Robotics
- Frequency Inverters
- Power Factor Monitoring

## TECHNICAL DATA

Nominal Primary Current	50A (see Note 1)
Scale Factor	20mV/A (see Note 1)
Power Supply Voltage	5V $\pm$ 5%
Power Supply Current	20mA min., 70mA max.
Output Load	4.7k $\Omega$ min.
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-40°C to +85°C

## SPECIFICATION ( 5V Supply, 25°C )

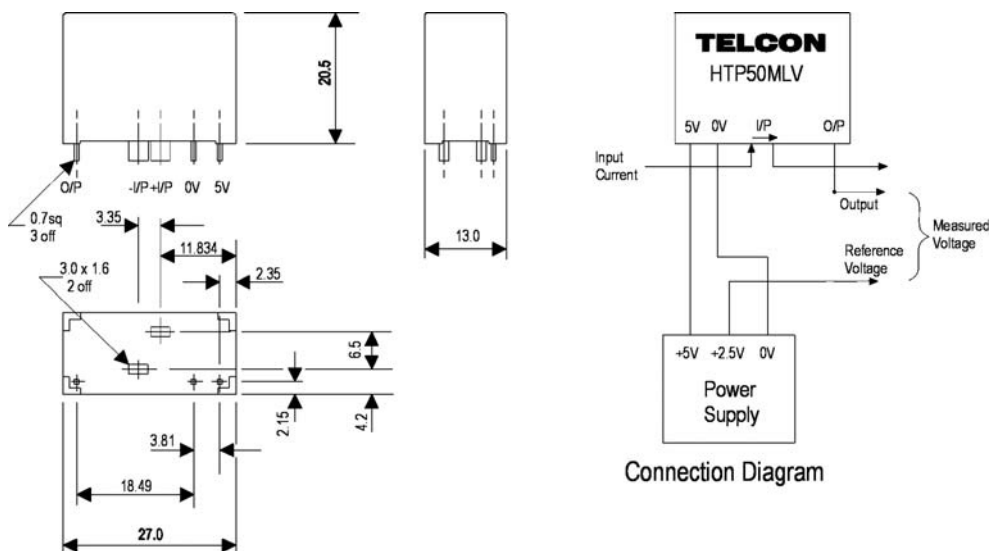
Scale Factor Error	$\pm$ 1% max.
Scale Factor Drift	100ppm/°C max. average over 0 to 70°C
Zero Offset Voltage	2.50V $\pm$ 12.5mV
Zero Offset Drift	<200 $\mu$ V/°C average over 0 to 70°C
Primary Conductor Resistance	60 $\mu\Omega$ max.
Linearity Limit	$\pm$ 100A min.
Linearity Error	0.2% max. of Nominal Primary Current
1dB Bandwidth	dc to 25kHz min.
Response Time	0.8 $\mu$ s max. at 50% pulse height
Output Rise Time	<1.2 $\mu$ s max 10 to 90%
Slew Rate (di/dt) Referenced to Input	>50A/ $\mu$ s
Shock and Vibration Test	15g min.
Isolation Proof Stress Voltage	3.25kV a.c., rms, 50Hz for 1 minute
Creepage Distance	4.3 mm min
Clearance Distance	4.3 mm min

## GENERAL DATA

Weight	15g
Housing Material	Polyester 15% Glass Filled UL94V0
Primary conductor material	Copper Tin Plated
Signal Sense	A positive voltage is obtained by a current in the direction of the arrow.

Note 1: Variants of this product are also available with the following scale factors: - 40mV/A, 60mV/A, 80mV/A, and 100mV/A as the HTP25MLV, HTP18MLV, HTP12MLV and HTP10MLV respectively.

## DIMENSIONS



060518