Speciality Magnetic Components
QUALIFIED to ISO 9001:2008

Hall Effect Current Transformer : HTP25MLV

The HTP25MLV is a closed loop Hall Effect Current Transformer, suitable for measuring currents up to 25A and operating from a single 5 volt power supply. The product provides an output voltage, proportional to the current in the galvanically isolated primary conductor, centred on 2.5V. By this means, bipolar currents may be measured.

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	25A (D.C. or r.m.s. A.C)
Scale Factor	40mV/A
Power Supply Voltage	5V ±5%
Power Supply Current	20mA min., 70mA max.
Output Load	4.7kΩ min.
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-25°C to +85°C

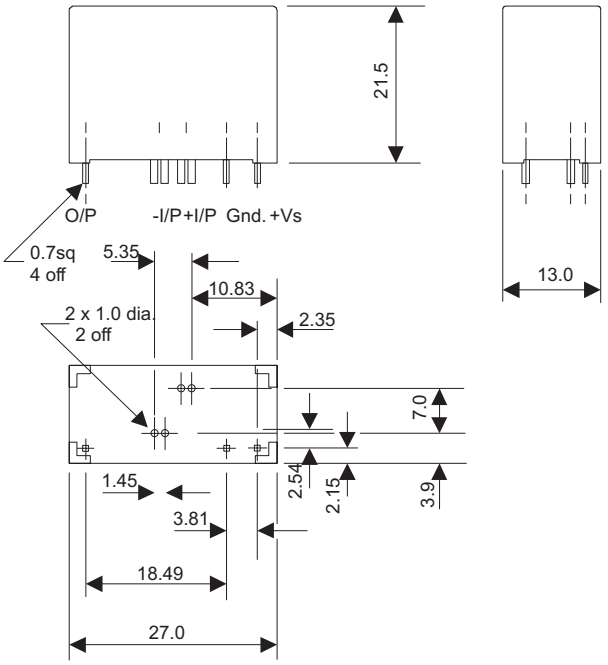
SPECIFICATION (5V Supply, 25°C)

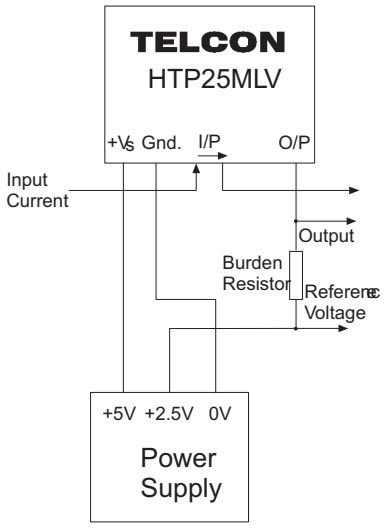
Scale Factor Error	±1% max.
Scale Factor Drift	100ppm/°C max. average over 0 to 70°C
Zero Offset Voltage	2.5V ±12.5mV
Zero Offset Drift	<200µ V/°C average over 0 to 70°C
Primary Conductor Resistance	700µΩ max.
Linearity Limit	±50A min.
Linearity Error	0.2% max. of Nominal Primary Current
1dB Bandwidth	dc to 25kHz min.
Output Rise Time	0.8µs max. at 50% pulse height
Slew Rate (di/dt) Referenced to Input	50A/µs min.
Shock and Vibration Test	15g min.
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 Fibre Filled Flammability rating V0, CTI rating >140
Primary conductor material	Triple PTFE insulated tinned copper wire
Signal Sense	A positive voltage is obtained relative to the reference voltage when current flows in the direction of the arrow +I/P –I/P

DIMENSIONS





Connection Diagram

As part of our policy of continuous product improvement, we reserve the right to make modifications to this product without prior notice.