



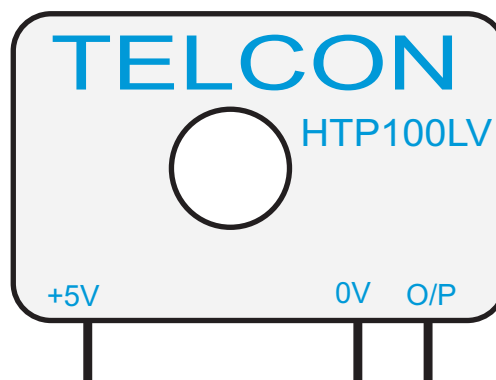
Speciality Magnetic Components

QUALIFIED to ISO 9001:2008

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## Hall Effect Current Transformer: HTP100LV

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The HTP100LV are closed loop Hall Effect Current Transformer suitable for measuring currents up to 100A. The product is powered by a single 5V supply and provides an output voltage proportional to the primary current offset by 2.5V to allow the measurement of bipolar primary currents. The product has a through hole for the primary current to provide galvanic isolation from the supply and output conductor. The supply and output pins are designed for pcb mounting.

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### Features

- 4.5 kV Proof Stress
- Fast Response
- Control Connections via PCB
- Designed in Quality

### Applications

- Variable Speed Drives
- UPS Systems
- D.C. Power Supplies
- Hoists and Lifts

### Benefits

- Galvanic Isolation
- High Accuracy
- Ease of assembly
- High Reliability
- Overcurrent Protection
- Robotics
- Frequency Inverters
- Welding Supplies

## TECHNICAL DATA

### ELECTRICAL

Nominal Primary Current	100A
Scale Factor	10mV/A
Power Supply Voltage	5V $\pm$ 5%
Power Supply Current	20mA max @ $I_p = 0$ , 90mA max. @ $I_p = 100A$
Output Load	1k $\Omega$ min.
Operating Temperature Range	0 to +85°C
Storage Temperature Range	-40°C to +85°C

### SPECIFICATION ( 5V Supply, 25°C )

Scale Factor Error	$\pm$ 1.0% max.
Scale Factor Drift	100ppm/°C max. average over 0 to 85°C
Zero Offset Voltage	2.5V $\pm$ 10mV
Zero Offset Drift	<0.2mV/°C average over 0 to 85°C
Linearity Limit	$\pm$ 160A min.
Linearity Error	0.2% max. of Nominal Primary Current
1dB Bandwidth	dc to 125kHz 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	4.5kV a.c., rms, 50Hz for 1 minute (See Note 1)
Creepage Distance	7 mm min
Clearance Distance	7 mm min

### GENERAL DATA

Weight	18g
Housing Material	PPO 15% Glass Filled UL94V0
Signal Sense	A current in the direction of the arrow makes the output voltage more positive.

Note 1: Insulation values refer to insulation between a bare primary conductor in the hole and the supply and output terminal.

