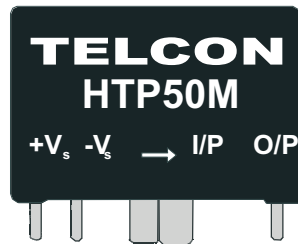




Speciality Magnetic Components  
QUALIFIED TO ISO 9001:2008

## Miniature Hall Effect Current Transformer Type HTP50M



The HTP50M is a closed loop Hall Effect Current Transformer suitable for measuring currents up to 50A. The product provides an output current into an external load resistance which is galvanically isolated from the primary conductor. All contacts, including the primary are designed for PCB mounting.

The HTP50M complements the existing HTP range giving comparable accuracy in a package less than half the volume, with a smaller footprint which frees up space on the control PCB.

### Features

- Miniature Package
- 3.25kV Proof Stress
- Fast Response
- All Contacts Via PCB
- Designed In Quality

### Benefits

- Small PCB Footprint
- Galvanic Isolation
- High Accuracy
- Ease Of Assembly
- High Reliability

### Applications

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

## TECHNICAL DATA

Nominal Primary Current	50A (see Note 1)
Turns Ratio	1000:1 (see Note 1)
Nominal Power Supply	$\pm 15V \pm 5\%$
Supply Current	16mA per rail + output current
Load Resistance	65 to 80 $\Omega$
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-25°C to +85°C

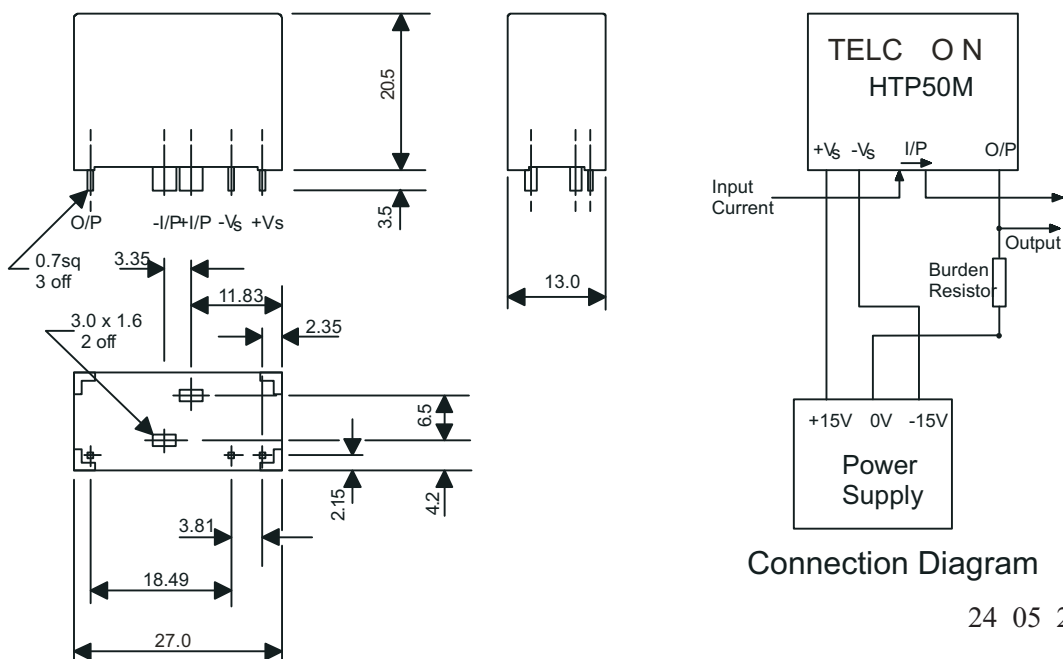
## SPECIFICATION ( $\pm 15V$ Supply, 25°C)

Linearity	0.1% of nominal primary current
Limit of linearity	-75A peak
Overall accuracy	0.5% of nominal primary current
Output Offset Current	$< \pm 100\mu A$ at primary current = 0A
Output Offset Current After Overload	$< \pm 250\mu A$ at primary current = 0A
Zero Offset /Temperature	$< 3\mu A/^{\circ}C$
Zero Offset/Supply Variation	$< 2\mu A/V$
Coil Resistance	59 $\Omega$
Primary Conductor Resistance	60 $\mu\Omega$
Bandwidth (-1dB)	dc to 25kHz
di/dt following	$> 50A/\mu s$
Delay time	1.2 $\mu s$
dV/dt Immunity	10kV/ $\mu s$
Proof Stress Voltage	3.25kV a.c., r.m.s, 50Hz for 1minute
Creepage Distance	4.6 mm
Clearance Distance	4.6 mm

## GENERAL DATA

Weight	11.4g nominal
Housing	PBT 15% Glass Filled. Flammability Rating V0, CTI Rating >140
Mounting	Direct mounting to PCB by 5 pins
Primary conductor material	Copper Tin Plated
Signal Sense	Positive output obtained when current flows as shown in Connection Diagram.

Note 1: Variants of this product are also available with the following turns ratios:- 500:1, 333:1, 250:1, and 200:1 as the HTP25M, HTP18M, HTP12M and HTP10M respectively.



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