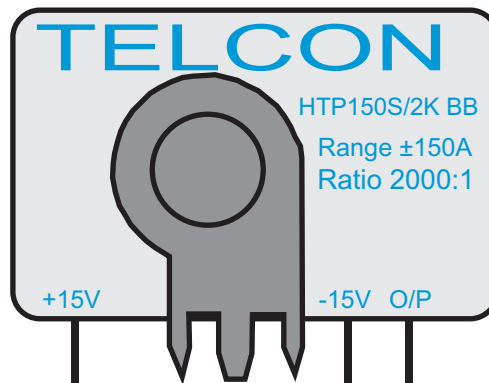




Speciality Magnetic Components
QUALIFIED to ISO 9001:2008

Hall Effect Current Transformer Type HTP150S/2KBB



The low profile HTP150S/2K can be supplied with integral primary busbar fitted. The resulting HTP150S/2KBB is a closed loop Hall Effect Current Transformer suitable for measuring currents up to 150A. The product provides an output current into an external load resistance which is galvanically isolated from the primary busbar conductor. All contacts, including the primary are designed for PCB mounting which can dramatically reduce product assembly time.

Features

- 3 kV Proof Stress
- Fast Response
- All Contacts via PCB
- Designed in Quality

Benefits

- Galvanic Isolation
- High Reliability
- Ease of Assembly

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	150A
Turns Ratio	2000:1
Nominal Power Supply	$\pm 15V \pm 5\%$
Power Supply Current	16mA per rail + output current
Minimum Load Resistance	10 to 40 Ω (see Note 1)
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-25°C to +85°C

SPECIFICATION

Linearity	0.1% of nominal primary current.
Limit of Linearity	$\pm 212A$ peak
Overall Accuracy	0.5% of nominal primary current
Output Zero Adjustment	$< \pm 200\mu A$ at primary current = 0A
Zero Offset/Temperature	$< 5\mu A/^{\circ}C$
Zero Offset/Supply Variation	$< 5\mu A/V$
Coil resistance	77 Ω
Bandwidth (-1dB)	dc to 100kHz min.
di/dt following	$> 150A/\mu s$
Delay Time	0.1 μs
dV/dt Immunity	10kV/ μs
Proof Stress Voltage	3kV a.c., rms, 50Hz for 1 minute (see Note 2)

GENERAL DATA

Weight	40g nominal
Housing	Modified Polyphenylene Oxide
Mounting	Direct mounting to PCB by 9 pins
Primary Conductor Material	Nickel Plated Copper
Signal Sense	Positive output obtained when current flows in direction of arrow

Note 1: The maximum load resistance is set by the limit to the voltage compliance of the output under conditions of 150A r.m.s a.c. primary current, minimum supply voltage and maximum ambient temperature. The minimum burden resistance is set by power dissipation limit of the output stage under conditions of 150A d.c., maximum supply voltage and maximum ambient temperature.

Note 2: Insulation values refer to insulation between the primary conductor and any other part of the device. These values are sufficient to meet the requirements of IEC1010-1 and derived standards such as EN61010-1 and UL3111 for basic or supplementary insulation at working voltages up to 600V r.m.s. For double or reinforced insulation, the product is suitable for working voltages up to 485V r.m.s., assuming overvoltage category II and pollution degree 1.

Note 3: The temperature of the primary conductor should not exceed 100°C. The major cause of heating will be the connection between the busbar and the PCB holes. Oval holes fitting closer to the busbar will give a better joint.

DIMENSIONS

