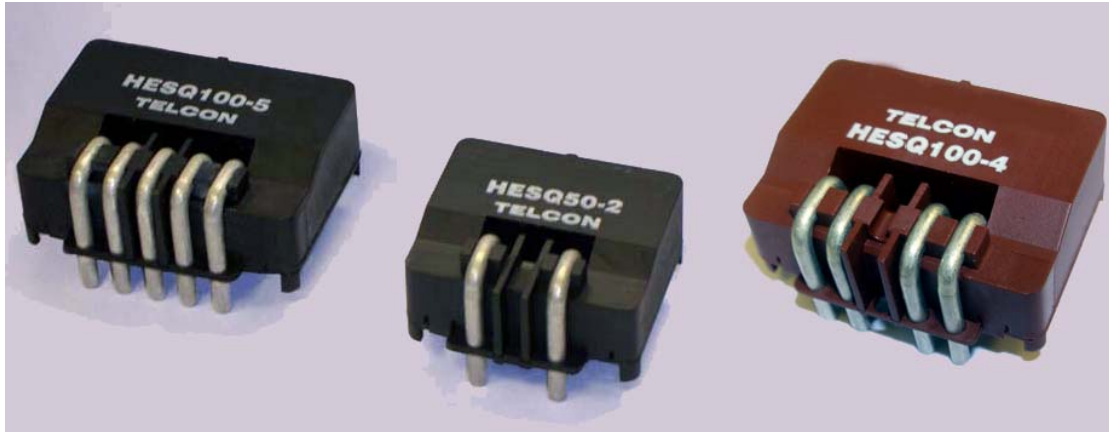




Speciality Magnetic Components

QUALIFIED TO ISO 9001:2008

## Miniature Electronicless Closed Loop Current Transformer HESQ50-2, HESQ100-5 & HESQ100-4



The HESQ 50-2, 100-5 & 100-4 are Hall Element coil and lamination stack assemblies, fitted with isolated primary turns, enabling the implementation of a full Closed Loop Hall Effect Current Transformer by the addition of the requisite electronic circuitry.

The HESQ range complements the existing HES range giving PCB mounting for all contacts including the primary whilst offering the most cost effective solution Telcon has to offer.

### Features

- Integrated Multiple Package
- 4kV Proof Stress
- Fast Response
- All Contacts Via PCB
- Designed In Quality

### Benefits

- Component Placement Under Device
- Ease of Assembly
- Small PCB Footprint
- Galvanic Isolation
- High Accuracy

### Applications

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

<b>Electrical</b>	<b>HESQ50-2</b>	<b>HESQ100-5</b>	<b>HESQ100-4</b>
Nominal Primary Current (total all hoops)	50A	100A	100A
Max total continuous primary current	70A	150A	150A
Primary Current per hoop	40A	40A	40A
Turns Ratio	1000:1 x 2	1000:1 x 5	1000:1 x 4
Coil Resistance	33Ω	20.5Ω	20.5Ω
Proof Stress Voltage (pri - sec)	4kV	4kV	4kV
Creepage Distance (pri - sec)	7.5mm	7.3mm	7.2mm
Clearance Distance (pri - sec)	7.5mm	7.3mm	7.2mm
Creepage Distance (pri pair – pri pair)			6.0mm
Clearance Distance (pri pair – pri pair)			6.0mm
Operating Temperature Range	-10 to 85°C	-10 to 85°C	-10 to 85°C
Storage Temperature Range	-40 to 100°C	-40 to 100°C	-40 to 100°C
<b>Typical Dynamic Performance – in Application Circuit</b>			
Linearity	0.1%	0.1%	0.1%
Limit of Linearity (total of all hoops)	85A	150A	150A
Ratio Error	0.5%	0.5%	0.5%
Zero Offset Drift (dc)	5μA/°C	3μA/°C	3μA/°C
Bandwidth (1dB)	(DC - 100kHz)	(DC - 100kHz)	(DC – 100kHz)
Delay time	1.0μs	1.0μs	1.0μs
Nominal Power Supply	±15V	±15V	±15V
Minimum Load Resistance	22Ω	15Ω	15Ω
<b>General</b>			
Weight	15g	22g	21g
Housing	Valox DR48	Valox DR48	Ultramid A3X2G5
Mounting	PCB	PCB	PCB
Hoop Temperature rise @ I <sub>max</sub> tot.	18°C	18°C	18°C
Hoop Resistance (per hoop)	148μΩ	148μΩ	148μΩ