



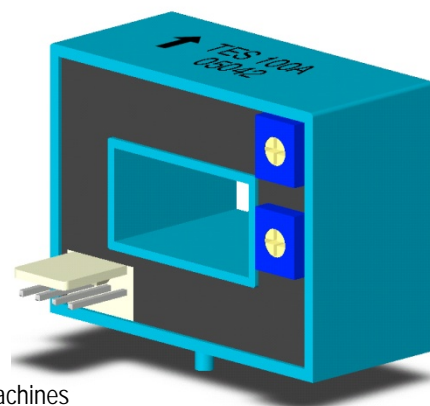
## TES 50A~600A

### Features

- ◆ Highly reliable Hall Effect device
- ◆ Compact and light weight
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (12 mA nominal)
- ◆ Capable of measuring both DC and AC, both pulsed and mixed
- ◆ High isolation voltage between the measuring circuit and the current-carrying conductor (AC2.5KV)
- ◆ Extended operating temperature range
- ◆ Flame-Retardant plastic case and silicone encapsulate, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range

### Applications

- ◆ UPS systems
- ◆ Industrial robots
- ◆ NC tooling machines
- ◆ Elevator controllers
- ◆ Process control devices
- ◆ AC and DC servo systems
- ◆ Motor speed controller
- ◆ Electrical vehicle controllers
- ◆ Inverter-controlled welding machines
- ◆ General and special purpose inverters
- ◆ Power supply for laser processing machines
- ◆ Controller for traction equipment e.g. electric trains
- ◆ Other automatic control systems



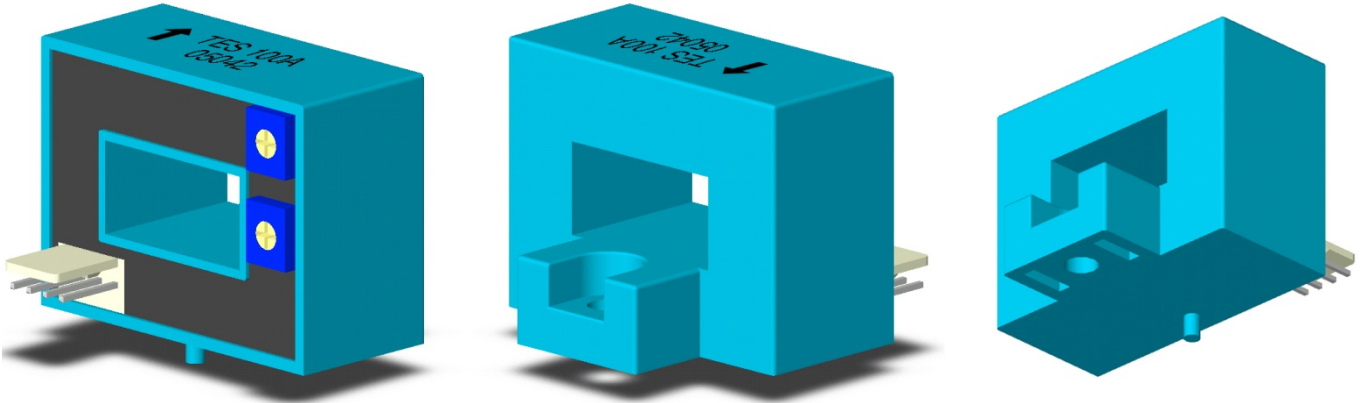
### Specifications

Parameter	Symbol	Unit	TES 50	TES 75	TES 100	TES 125	TES 150	TES 175	TES 200	TES 250	TES 300	TES 450	TES 500	TES 600
Nominal Input Current	$I_{fn}$	A DC	50	75	100	125	150	175	200	250	300	400	500	600
Linear Range	$I_{fs}$	A DC	±150	±225	±300	±375	±450	±525	±600	±750	±900	±1000	±1000	±1000
Nominal Output Voltage	$V_{hn}$	V	4 V ±1% at $I_f = I_{fn}$ ( $R_L = 10k\Omega$ )											
Offset Voltage	$V_{os}$	mV	Within ±35 mV @ $I_f = 0$ , $T_a = 25^\circ C$											
Output Resistance	$R_{OUT}$	$\Omega$	<100 $\Omega$											
Hysteresis Error	$V_{oh}$	mV	Within ±15 mV @ $I_f = I_{fn} \rightarrow 0$											
Supply Voltage	$V_{CC}/V_{EE}$	V	±15V ±5%											
Linearity	$\rho$	%	Within ±1% of $I_{fn}$											
Consumption Current	$I_{CC}$	mA	±12 mA nominal, ±15 mA max											
di/dt accurately followed	$dI_f / dt$	A/ $\mu$ sec	>50A/ $\mu$ sec											
Response Time (90% $V_{hn}$ )	$T_r$	$\mu$ sec	5 $\mu$ sec max. @ $dI_f / dt = I_{fn} / \mu$ sec											
Frequency bandwidth (-3dB)	$f_{BW}$	Hz	DC to 50kHz											
Thermal Drift of Output	-	%/ $^\circ C$	Within ±0.05 %/ $^\circ C$ @ $I_{fn}$											
Thermal Drift of Zero Current Offset	-	mV/ $^\circ C$	Within ±1.0 mV/ $^\circ C$ @ $I_{fn}$											
Dielectric Strength	-	V	AC2.5KV X 60 sec											
Isolation Resistance @ 1000 VDC	$R_{IS}$	M $\Omega$	>1000 M $\Omega$											
Operating Temperature	$T_a$	$^\circ C$	-15 $^\circ C$ to 80 $^\circ C$											
Storage Temperature	$T_s$	$^\circ C$	-20 $^\circ C$ to 85 $^\circ C$											
Mass	W	g	50g											

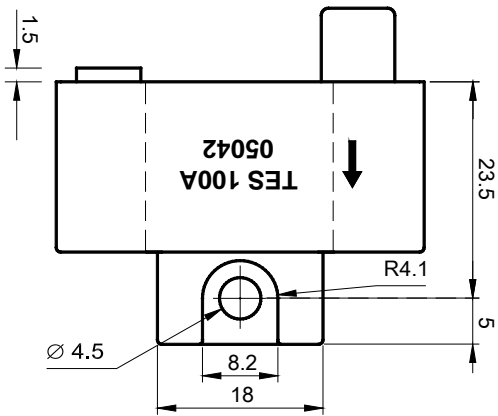


# Topstek Current Transducers TES50A .. TES600A

Appearance, dimensions and pin identification  
 All dimensions in mm  $\pm 0.5$ , holes  $-0, +0.2$  except otherwise noted.



↓ Positive current flow direction



Pin Assignment	
①	+15V
②	-15V
③	V <sub>out</sub>
④	0V

