



# Topstek Current Transducers TESN35A .. TESN600A

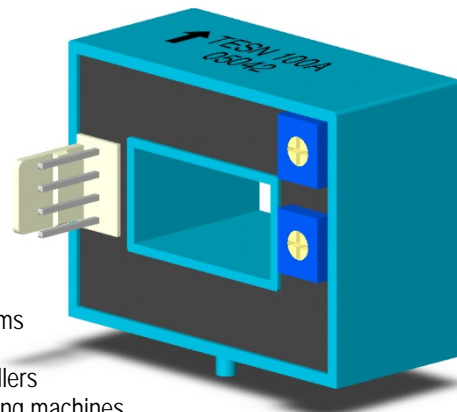
## TESN 35A~600A

### 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

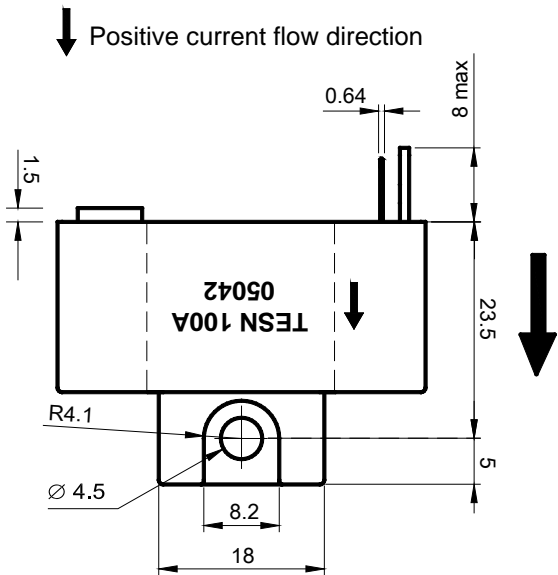
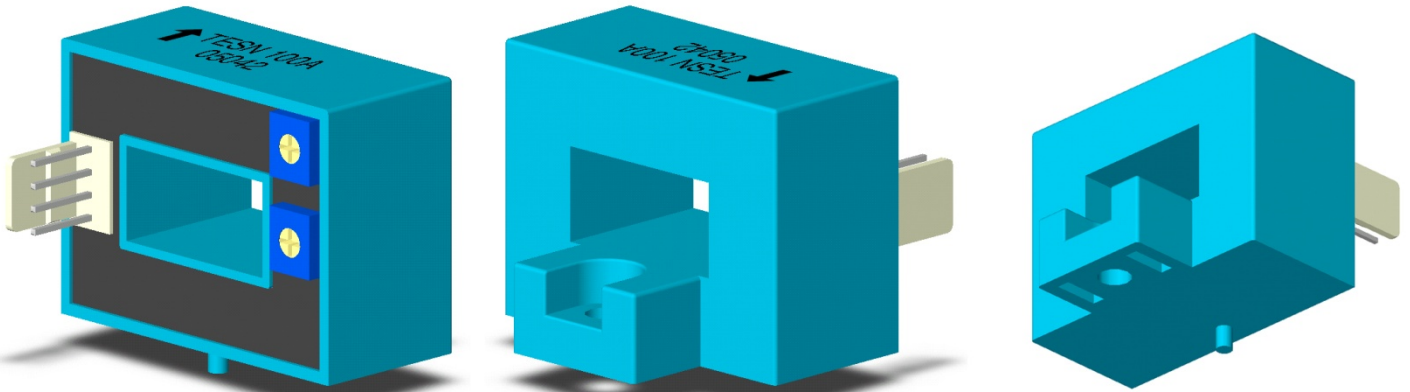
Parameter	Symbol	Unit	TESN 35A	TESN 50A	TESN 75A	TESN 100A	TESN 125A	TESN 150A	TESN 200A	TESN 250A	TESN 300A	TESN 350A	TESN 400A	TESN 600A		
Nominal Input Current	$I_{fn}$	A DC	35	50	75	100	125	150	200	250	300	350	400	600		
Linear Range	$I_{fs}$	A DC	±105	±150	±225	±300	±375	±450	±600	±750	±900	±1000	±1000	±1000		
Nominal Output Voltage	$V_{fn}$	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	>50 A/ $\mu$ sec													
Response Time (90% $V_{fn}$ )	$T_r$	$\mu$ 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/ $^\circ C$	<±1.5	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 TESN35A .. TESN600A

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



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

