



# Topstek Current Transducers TE100A .. TE600A-B12

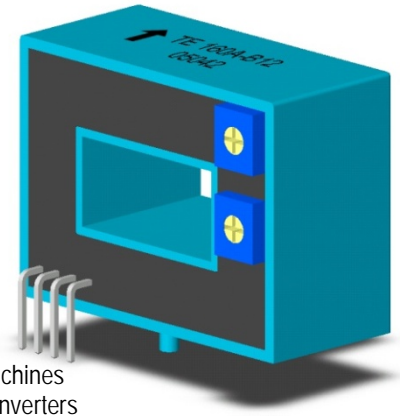
## TE 100A~600A-B12

### 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

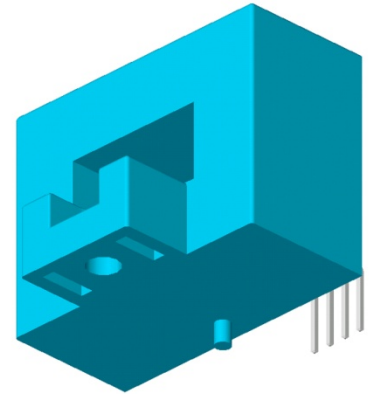
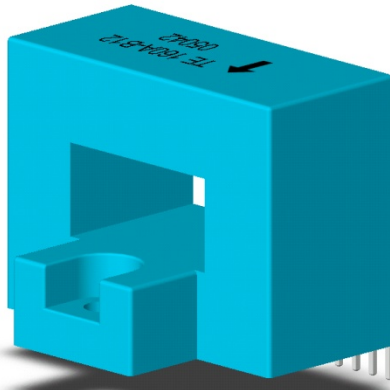
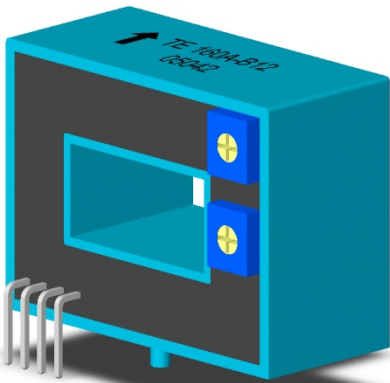
Parameter	Symbol	Unit	TE 100A -B12	TE 150A -B12	TE 160A -B12	TE 200A -B12	TE 220A -B12	TE 250A -B12	TE 300A -B12	TE 400A -B12	TE 500A -B12	TE 600A -B12
Nominal Input Current	$I_{fn}$	Arms	100	150	160	200	220	250	300	400	500	600
Linear Range	$I_{fs}$	Arms	105	157	168	210	231	262	315	420	525	630
Nominal Output Voltage	$V_{hn}$	V	7.07 Vrms(10Vdc peak) $\pm 1\%$ at $I_f=I_{fn}$ ( $R_L=10k\Omega$ )									
Offset Voltage	$V_{os}$	mV	Within $\pm 35$ mV @ $I_f=0$ , $T_a=25^\circ C$									
Output Resistance	$R_{OUT}$	$\Omega$	<100 $\Omega$									
Hysteresis Error	$V_{oh}$	mV	Within $\pm 15$ mV @ $I_f=I_{fn} \rightarrow 0$									
Supply Voltage	$V_{CC}/V_{EE}$	V	$\pm 12V \pm 5\%$									
Linearity	$\rho$	%	Within $\pm 1\%$ of $I_{fn}$									
Consumption Current	$I_{CC}$	mA	$\pm 12$ mA nominal, $\pm 15$ mA max									
di/dt accurately followed	$dI_f/dt$	A/ $\mu$ sec	>50 A/ $\mu$ 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 $\pm 0.05$ %/ $^\circ C$ @ $I_{fn}$									
Thermal Drift of Zero Current Offset	-	mV/ $^\circ C$	Within $\pm 1.0$ 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									



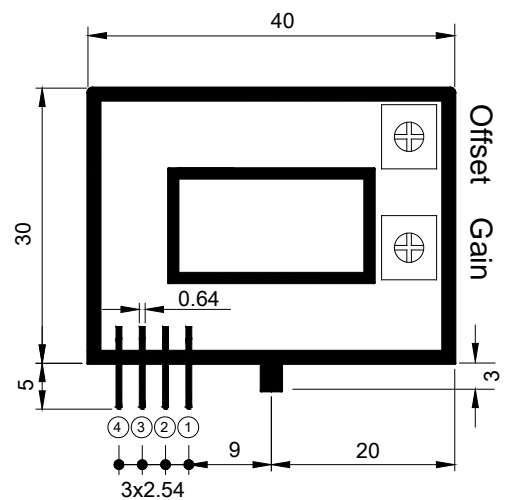
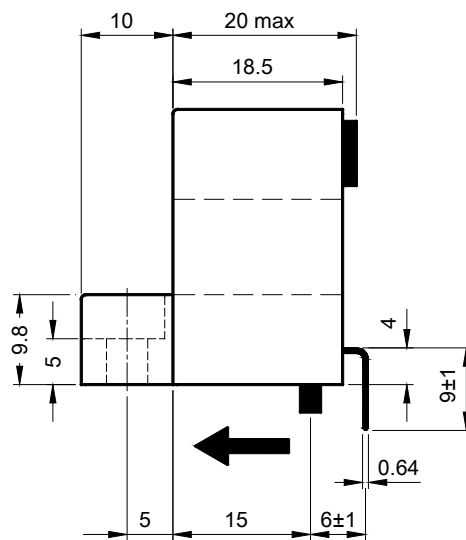
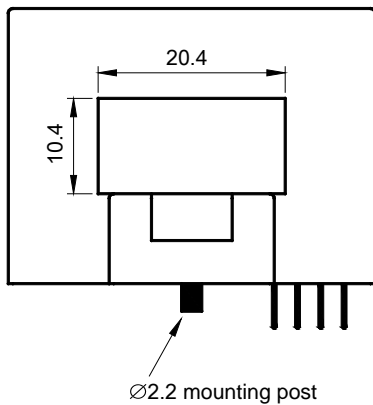
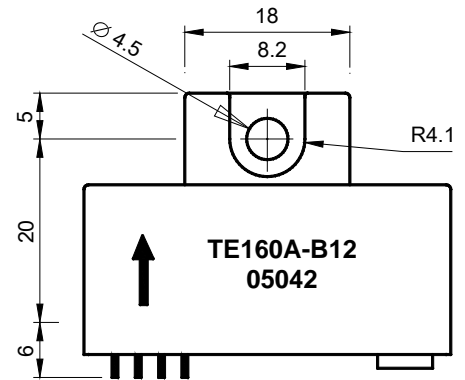


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**Appearance, dimensions and pin identification**  
 All dimensions in mm  $\pm 0.5$ , holes  $-0, +0.2$  except otherwise noted.



Pin Assignment	
①	+12V
②	-12V
③	Vout
④	0V



← Positive current flow direction

