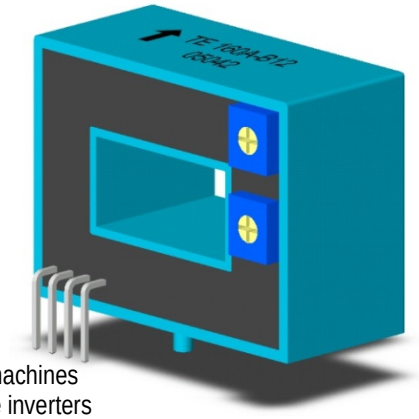
Topstek Current Transducers TE100A .. TE600A-B12

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

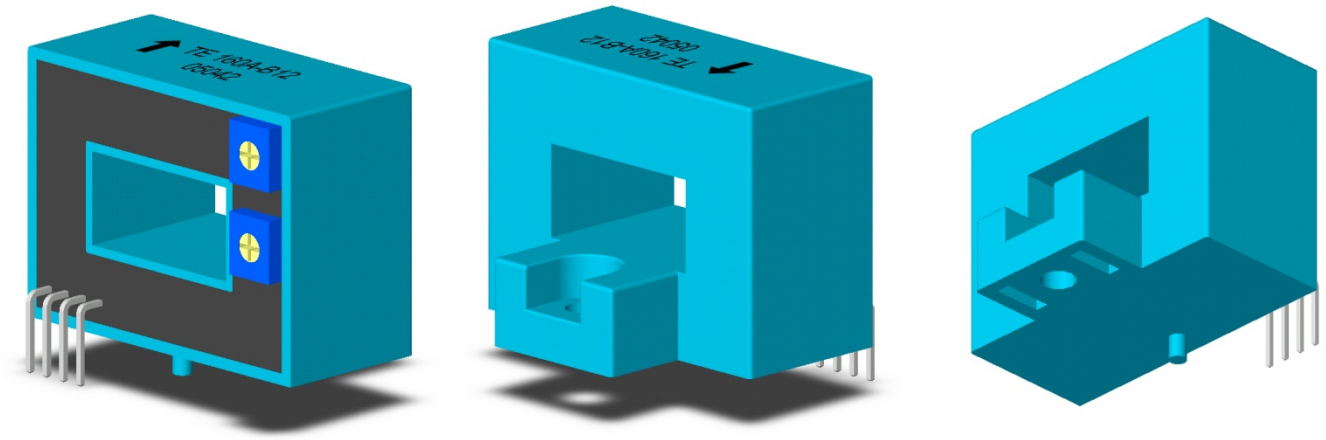
- ♦ UPS systems
- ♦ Industrial robots
- ♦ NC tooling machines
- ♦ Elevator controllers
- ♦ Process control devices
- ♦ AC and DC servo systems
- ♦ Motor speed controller
- ♦ Electrical vehicle controllers
- ♦ Inverter-controlled welding machines
- ♦ General and special purpose inverters
- ♦ Power supply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

Specifications

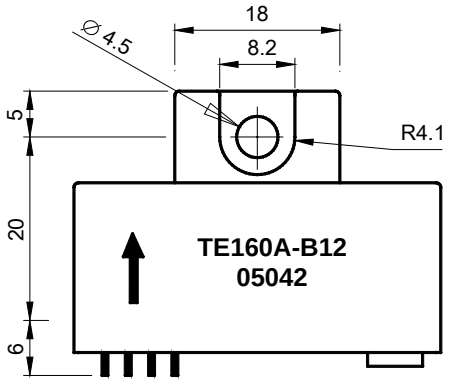
Parameter	Symbol	Unit	TE 100A -B12	TE 150A -B12	TE 160A -B12	TE 200A -B12	TE 220A -B12	TE 250A -B12	TE 300A -B12	TE 400A -B12	TE 500A -B12	TE 600A -B12
Nominal Input Current	I_{fn}	Arms	100	150	160	200	220	250	300	400	500	600
Linear Range	I_{fs}	Arms	105	157	168	210	231	262	315	420	525	630
Nominal Output Voltage	V_{hn}	V	7.07 Vrms(10Vdc peak)±1% at If=I_{fn} (R_L=10kΩ)									
Offset Voltage	V_{os}	mV	Within ±35 mV @ I_f=0, T_a=25°C									
Output Resistance	R_{OUT}	Ω	<100Ω									
Hysteresis Error	V_{oh}	mV	Within ±15 mV @ I_f=I_{fn}→0									
Supply Voltage	V_{CC}/V_{EE}	V	±12V ±5%									
Linearity	ρ	%	Within ±1% of I_{fn}									
Consumption Current	I_{CC}	mA	±12 mA nominal, ±15 mA max									
di/dt accurately followed	dI_f/dt	A/μsec	>50 A/μsec									
Response Time (90%V_{hn})	T_r	μsec	5 μsec max. @ $dI_f/dt = I_{fn}$/ μsec									
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 50kHz									
Thermal Drift of Output	-	%/°C	Within ±0.05 %/°C @ I_{fn}									
Thermal Drift of Zero Current Offset	-	mV/°C	Within ±1.0 mV/°C @ I_{fn}									
Dielectric Strength	-	V	AC2.5KV X 60 sec									
Isolation Resistance @ 1000 VDC	R_{IS}	MΩ	>1000 MΩ									
Operating Temperature	T_a	°C	-15°C to 80°C									
Storage Temperature	T_s	°C	-20°C to 85°C									
Mass	W	g	50g									

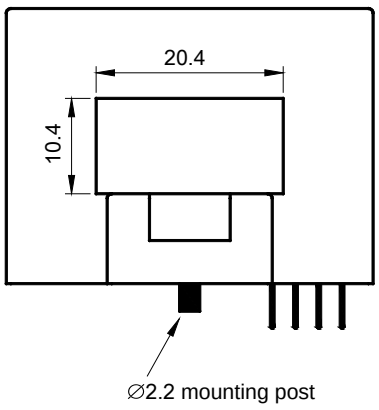
Appearance, dimensions and pin identification

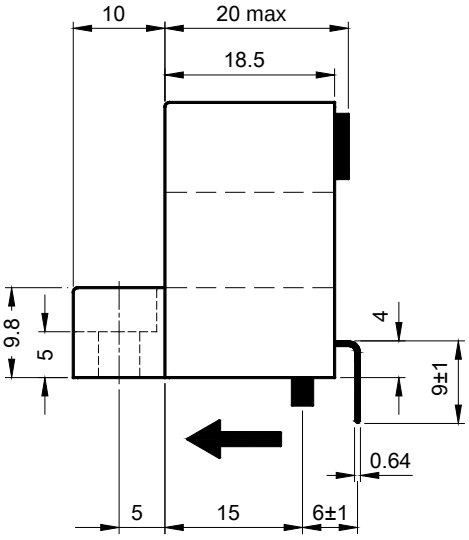
All dimensions in mm ±0.5, holes –0, +0.2 except otherwise noted.

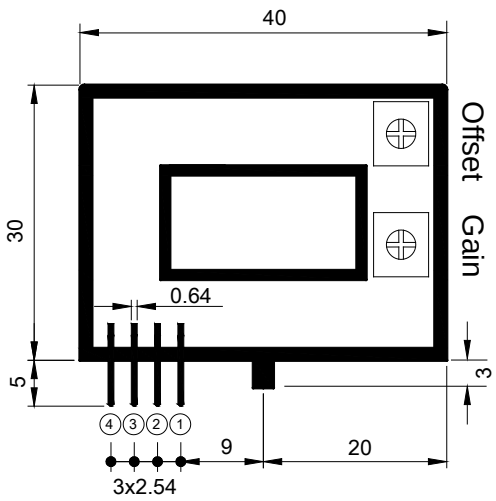


Pin Assignment	
①	+12V
②	-12V
③	Vout
④	0V









Positive current flow direction