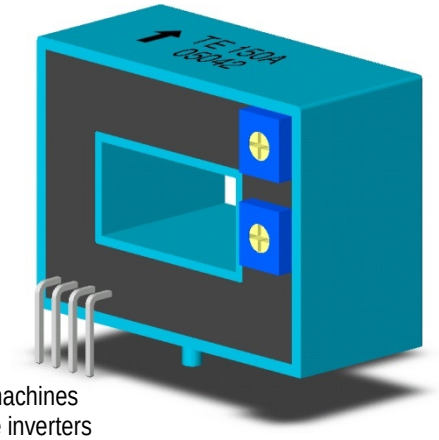
Topstek Current Transducers TE50A .. TE600A

TE 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

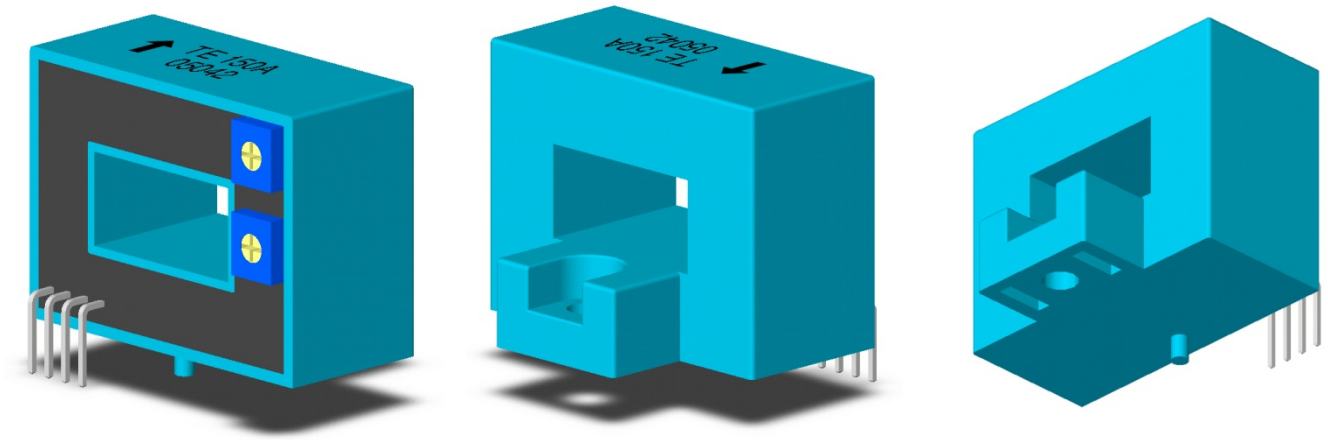
- ♦ UPS systems
- ♦ Industrial robots
- ♦ NC tooling machines
- ♦ Elevator controllers
- ♦ Process control devices
- ♦ AC and DC servo systems
- ♦ Motor speed controller
- ♦ Electrical vehicle controllers
- ♦ Inverter-controlled welding machines
- ♦ General and special purpose inverters
- ♦ Power supply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

Specifications

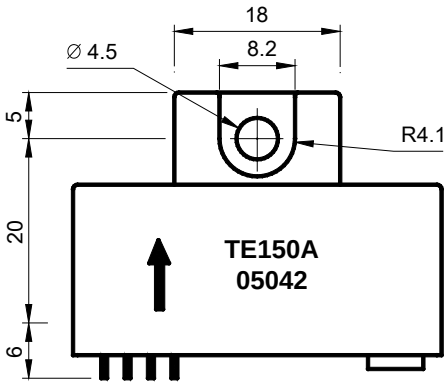
Parameter	Symbol	Unit	TE 50A	TE 75A	TE 100A	TE 125A	TE 150A	TE 175A	TE 200A	TE 250A	TE 300A	TE 400A	TE 600A
Nominal Input Current	I_{fn}	A DC	50	75	100	125	150	175	200	250	300	400	600
Linear Range	I_{fs}	A DC	±150	±225	±300	±375	±450	±525	±600	±750	±900	±1000	±1000
Nominal Output Voltage	V_{hn}	V	4 V±1% 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	±15V ±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										

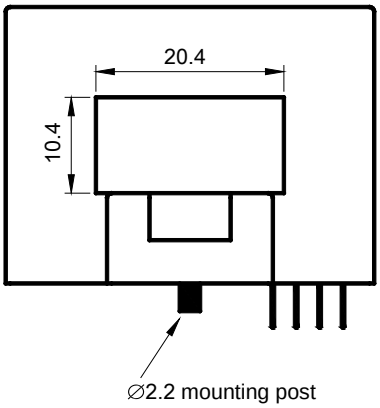
Appearance, dimensions and pin identification

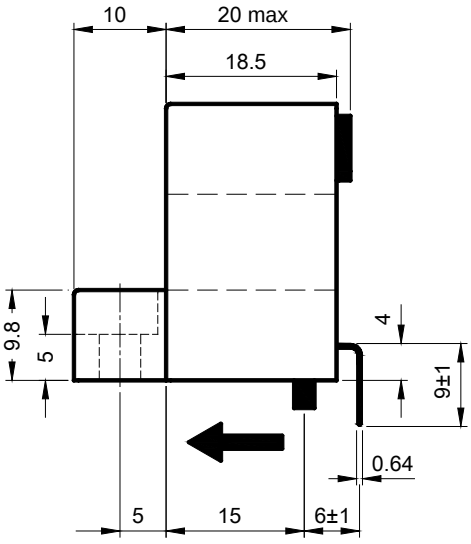
All dimensions in mm ±0.5, holes –0, +0.2 except otherwise noted.

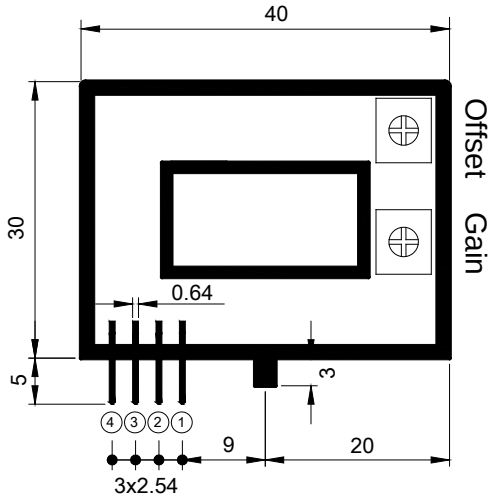


Pin Assignment	
①	+15V
②	-15V
③	VOUT
④	0V









Positive current flow direction