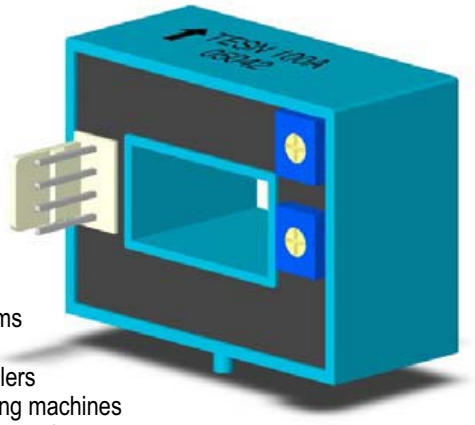
Topstek Current Transducers TESN50A .. TESN600A

TESN 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

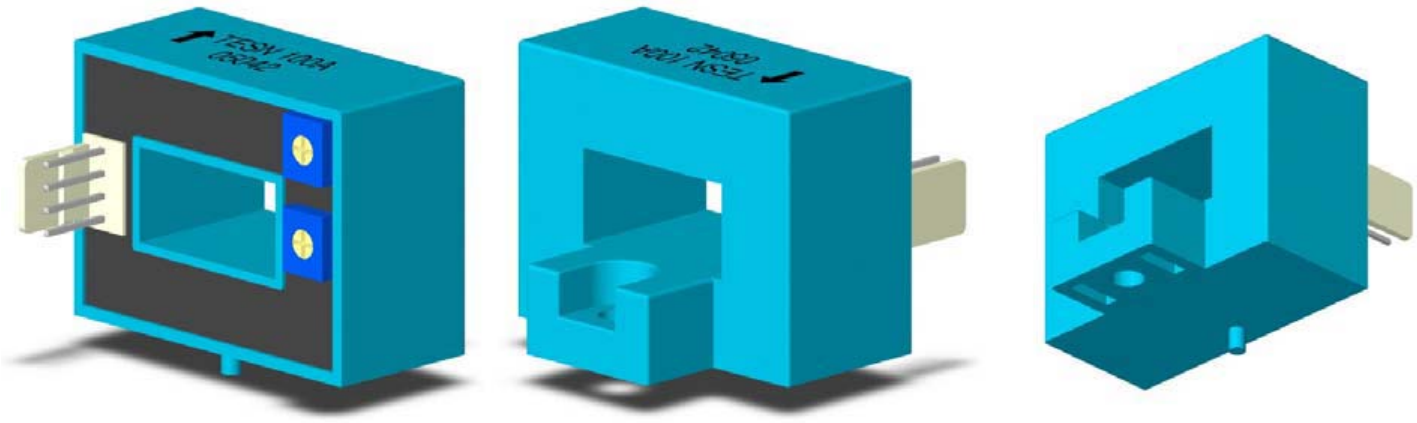
- ♦ UPS systems
- ♦ Industrial robots
- ♦ NC tooling machines
- ♦ Elevator controllers
- ♦ Process control devices
- ♦ AC and DC servo systems
- ♦ Motor speed controller
- ♦ Electrical vehicle controllers
- ♦ Inverter-controlled welding machines
- ♦ General and special purpose inverters
- ♦ Power supply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

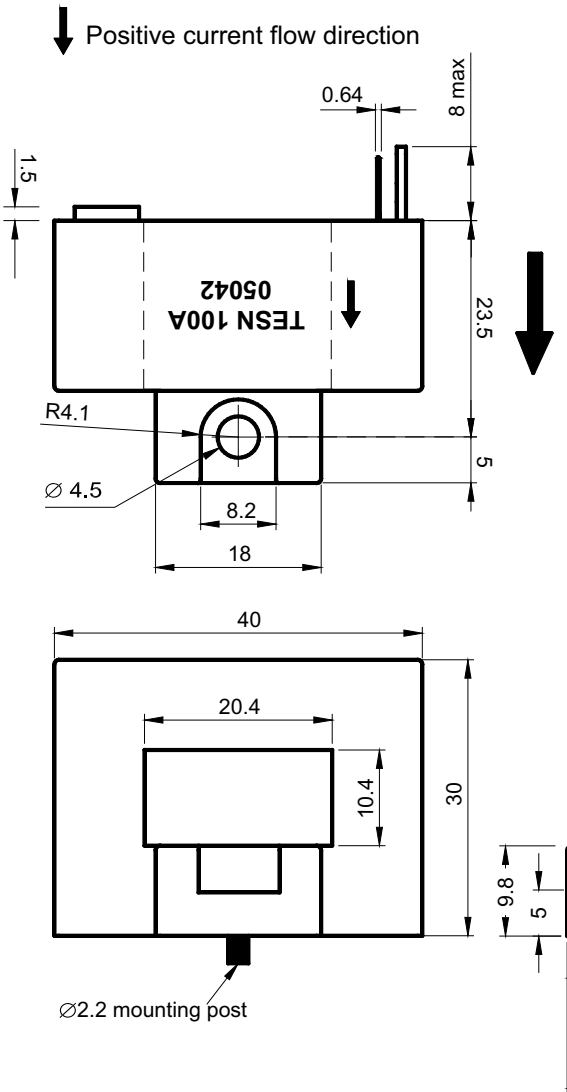
Specifications

Parameter	Symbol	Unit	TESN 50A	TESN 75A	TESN 100A	TESN 125A	TESN 150A	TESN 200A	TESN 250A	TESN 300A	TESN 400A	TESN 600A
Nominal Input Current	I_{fn}	A DC	50	75	100	125	150	200	250	300	400	600
Linear Range	I_{fs}	A DC	±150	±225	±300	±375	±450	±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									
Response Time (90%V_{hn})	T_r	μsec	7 μsec max. @ $d I_f / dt = I_{fn}$ / 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 ±0.1, holes –0, +0.2 except otherwise noted.





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

