



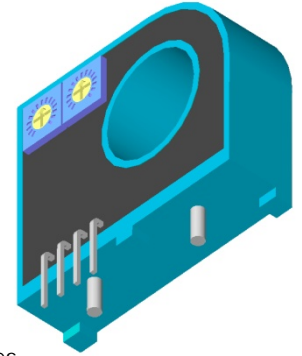
TD 25A~400A-SP1

Features

- ◆ High reliability Hall effect device
- ◆ Compact and light weight
- ◆ Quick response speed (7 μ sec)
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (12 mA nominal)
- ◆ Capability of measuring both DC, AC, 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 encapsulant, using UL classified materials, protect against environmental contaminants and vibration over a wide temperature and humidity range

Applications

- ◆ UPS systems
- ◆ Industrial robots
- ◆ NC tooling machines
- ◆ Controller of elevators
- ◆ Process control devices
- ◆ AC and DC servo systems
- ◆ Speed controller of motors
- ◆ Controller of electrical vehicles
- ◆ Inverter-controlled welding machines
- ◆ General and special purpose inverters
- ◆ Power supply of laser processing machines
- ◆ Controller of traction equipment such as electric trains
- ◆ Other automatic control systems



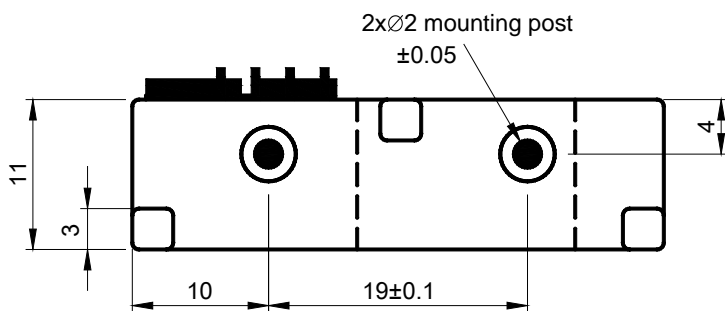
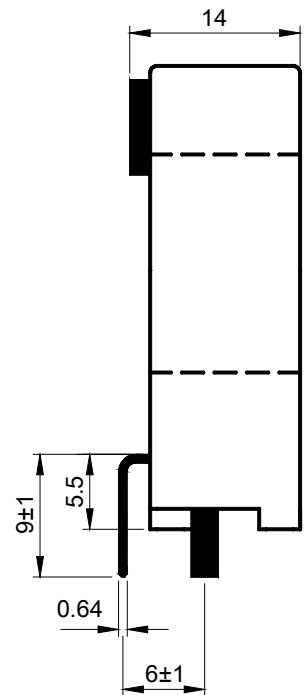
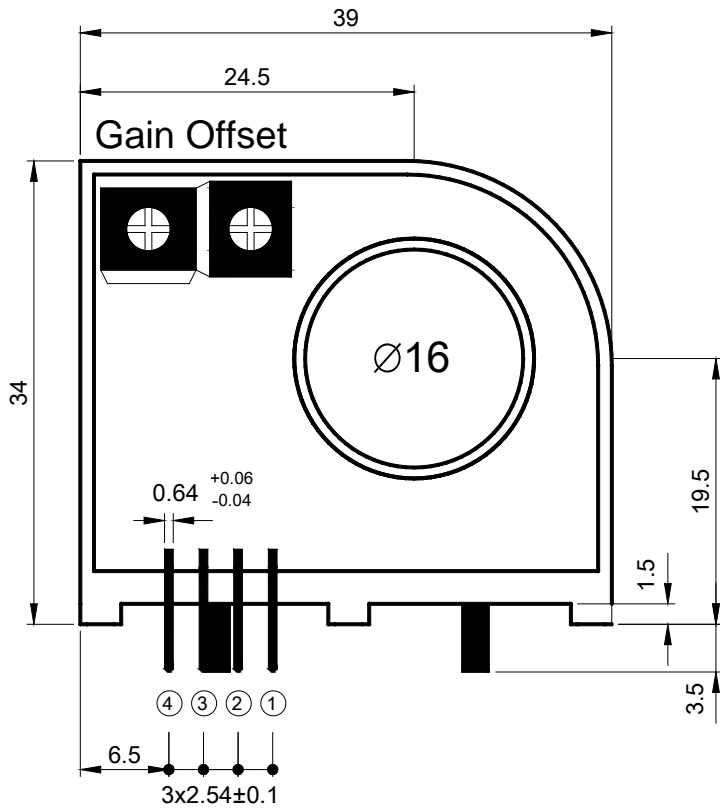
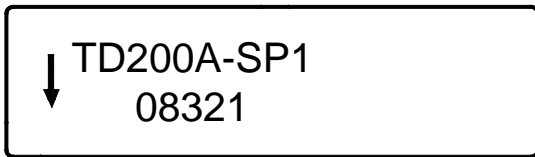
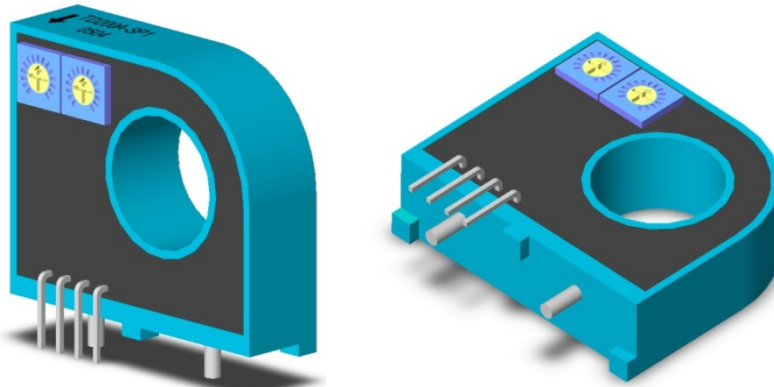
Specifications

Parameter	Symbol	Unit	25A	50A	75A	100A	125A	150A	175A	200A	250A	300A	400A
Nominal Input Current	I_{fn}	A DC	25	50	75	100	125	150	175	200	250	300	400
Linear Range	I_{fs}	A DC	± 75	± 150	± 225	± 300	± 375	± 450	± 525	± 600	± 750	± 900	± 1000
Nominal Output Voltage	V_{fn}	V	4 V \pm 2% at $I_f=I_{fn}$ ($R_L=10k\Omega$)										
Offset Voltage	V_{os}	mV	Within ± 35 mV @ $I_f=0$, $T_a=25^\circ\text{C}$										
Output Resistance	R_{OUT}	Ω	<100 Ω (50 Ω nominal)										
Hysteresis Error	V_{oh}	mV	Within ± 35 mV @ $I_f=I_{fn}\rightarrow 0$										
Supply Voltage	V_{CC}/V_{EE}	V	± 15 V $\pm 5\%$										
Linearity	ρ	%	Within $\pm 1\%$ of I_{fn}										
Consumption Current	I_{CC}	mA	± 12 mA nominal, ± 15 mA max										
Response Time (90% V_{fn})	T_r	μ sec	7 μ sec max. @ $dI_f/dt = I_{fn}/\mu$ sec										
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 50kHz										
Thermal Drift of Output	-	%/ $^\circ\text{C}$	Within ± 0.05 %/ $^\circ\text{C}$ @ I_{fn}										
Thermal Drift of Zero Current Offset	-	mV/ $^\circ\text{C}$	Within ± 1.5 mV/ $^\circ\text{C}$ @ I_{fn}										
Dielectric Strength	-	V	AC2.5KV X 60 sec										
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω										
Operating Temperature	T_a	$^\circ\text{C}$	-15 $^\circ\text{C}$ to 80 $^\circ\text{C}$										
Storage Temperature	T_s	$^\circ\text{C}$	-20 $^\circ\text{C}$ to 85 $^\circ\text{C}$										
Mass	W	g	28 g										

Topstek Current Transducers TD25A-SP1 .. TD400A-SP1

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	V _{OUT}
④	0V