

# Topstek Current Transducers TW25A .. TW300A

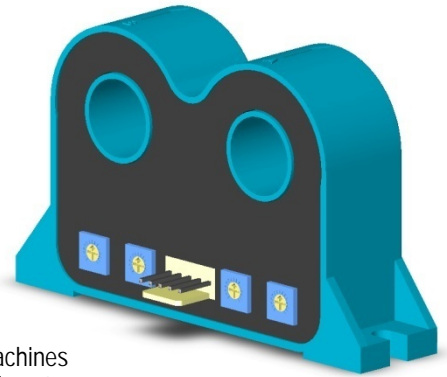
## TW 25A~300A

### Features

- ◆ Highly reliable Hall Effect device
- ◆ Compact and light weight. Two sensors in one package
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (22 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	TW 25A	TW 37.5A	TW 50A	TW 75A	TW 100A	TW 125A	TW 150A	TW 175A	TW 200A	TW 250A	TW 300A
Nominal Input Current	I <sub>in</sub>	A DC	25	37.5	50	75	100	125	150	175	200	250	300
Linear Range	I <sub>fs</sub>	A DC	±75	±112.5	±150	±225	±300	±375	±450	±525	±600	±750	±750
Nominal Output Voltage	V <sub>hn</sub>	V	4 V±1% @ If=I <sub>in</sub> ( R <sub>L</sub> =10kΩ)										
Offset Voltage	V <sub>os</sub>	mV	Within ±35 mV @ I <sub>f</sub> =0, T <sub>a</sub> =25°C										
Output Resistance	R <sub>OUT</sub>	Ω	<100Ω(50Ωnominal)										
Hysteresis Error	V <sub>oh</sub>	mV	Within ±30 mV @ I <sub>f</sub> =I <sub>in</sub> →0										
Supply Voltage	V <sub>CC</sub> /V <sub>EE</sub>	V	±15V ±5%										
Linearity	ρ	%	Within ±1% of I <sub>in</sub>										
Consumption Current	I <sub>CC</sub>	mA	±22 mA nominal, ±30 mA max										
Response Time (90%V <sub>hn</sub> )	T <sub>r</sub>	μsec	5 μsec max. @ d I <sub>f</sub> /dt = I <sub>in</sub> / μsec										
Frequency bandwidth (-3dB)	f <sub>BW</sub>	Hz	DC to 50kHz										
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I <sub>in</sub>										
Thermal Drift of Zero Current Offset	-	mV/°C	< ±3 mV/°C	< ±1.5 mV/°C		< ±1 mV/°C							
Dielectric Strength	-	V	AC2.5KV X 60 sec										
Isolation Resistance @ 1000 VDC	R <sub>IS</sub>	MΩ	>1000 MΩ										
Operating Temperature	T <sub>a</sub>	°C	-15°C to 80°C										
Storage Temperature	T <sub>s</sub>	°C	-20°C to 85°C										
Mass	W	g	150 g										

