## Topstek Current Transducers TN40A .. TN800A

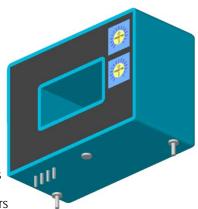
#### TN 40A~800A

#### **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** 

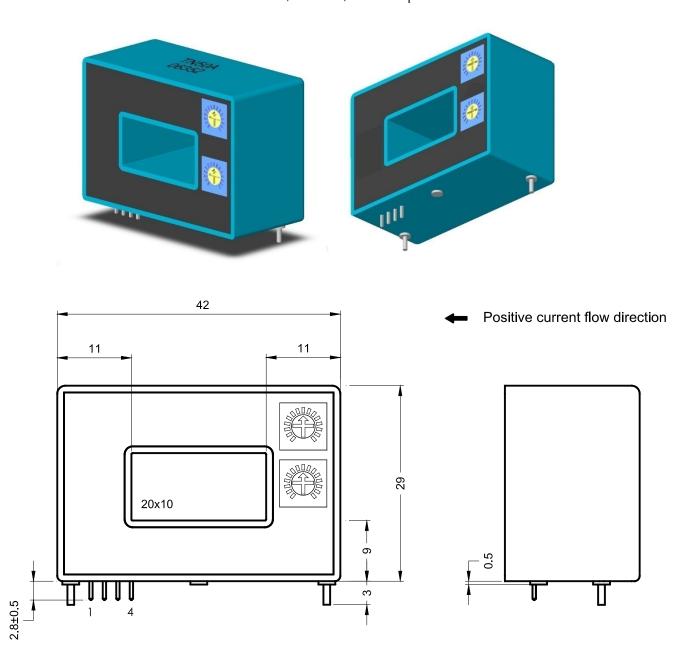
Parameter	Symbol	Unit	TN 40A	TN 50A	TN 75A	TN 100A	TN 150A	TN 200A	TN 300A	TN 400A	TN 600A	TN 800A
Nominal Input Current	I <sub>fn</sub>	A DC	40	50	75	100	150	200	300	400	600	800
Linear Range	I <sub>fs</sub>	A DC	±120	±150	±225	±300	±450	±600	±900	±900	±1000	±1000
Nominal Output Voltage	$V_{hn}$	V	4 V $\pm 1\%$ at If=I <sub>fn</sub> ( R <sub>L</sub> =10k $\Omega$ )									
Offset Voltage	Vos	mV	Within ±35 mV @ I <sub>f</sub> =0, T <sub>a</sub> =25°C									
Output Resistance	Rout	Ω	<100Ω									
Hysteresis Error	$V_{oh}$	mV	Within ±30 mV @ I <sub>f</sub> =I <sub>fn</sub> →0									
Supply Voltage	V <sub>CC</sub> /V <sub>EE</sub>	V	±15V ±5%									
Linearity ( 0 ±l <sub>fn</sub> )	ρ	%	Within ±1% of I <sub>fn</sub>									
Consumption Current	I <sub>CC</sub>	mA	±15 mA max									
Response Time (90%V <sub>hn</sub> )	Tr	μsec	7 μsec max. @ $d I_f / dt = I_{fn} / \mu sec$									
Frequency bandwidth (-3dB)	$f_{BW}$	Hz	DC to 50kHz									
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I <sub>fn</sub>									
Thermal Drift of Zero Current Offset	-	mV/°C	< ±2.5	mV/°C	< ±1.5	mV/°C	< ±1.0 mV/°C					
Dielectric Strength	-	V	AC2.5KV X 60 sec									
Isolation Resistance @ 1000 VDC	R <sub>IS</sub>	ΜΩ	>1000 MΩ									
Operating Temperature	Ta	°C	-15°C to 85°C									
Storage Temperature	Ts	°C	-20°C to 85°C									
Mass	W	g	66g									

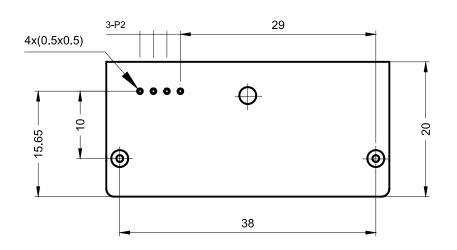


TN

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# Appearance, dimensions and pin identification All dimensions in mm $\pm 0.5$ , holes -0, +0.2 except otherwise noted.





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



ΤN