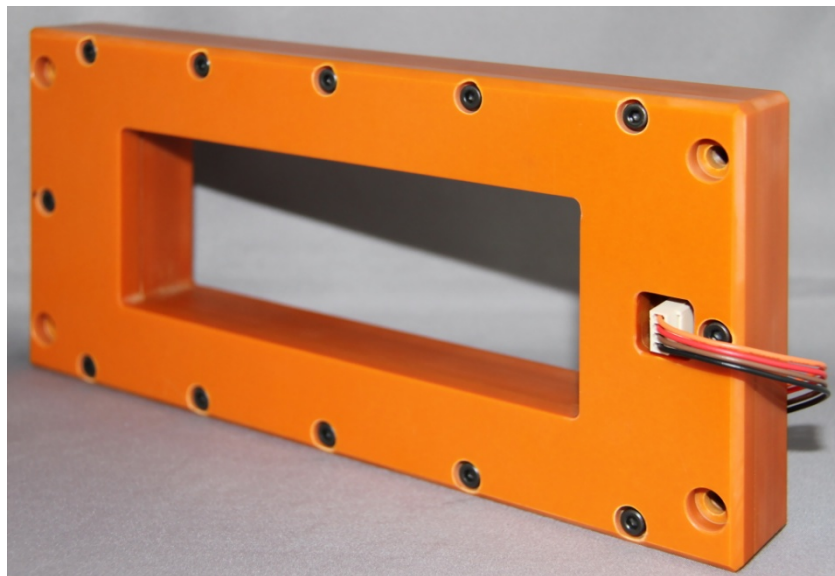


# Topstek Current Transducer TMH5000A .. TMH30000A

## TMH 5000A~30000A

### Features

- ◆ Highly reliable Hall Effect device
- ◆ Compact and light weight, ONLY 1Kg
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (75 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

- ◆ Inverter-controlled welding machines
- ◆ General and special purpose inverters
- ◆ Controller for traction equipment e.g. electric trains

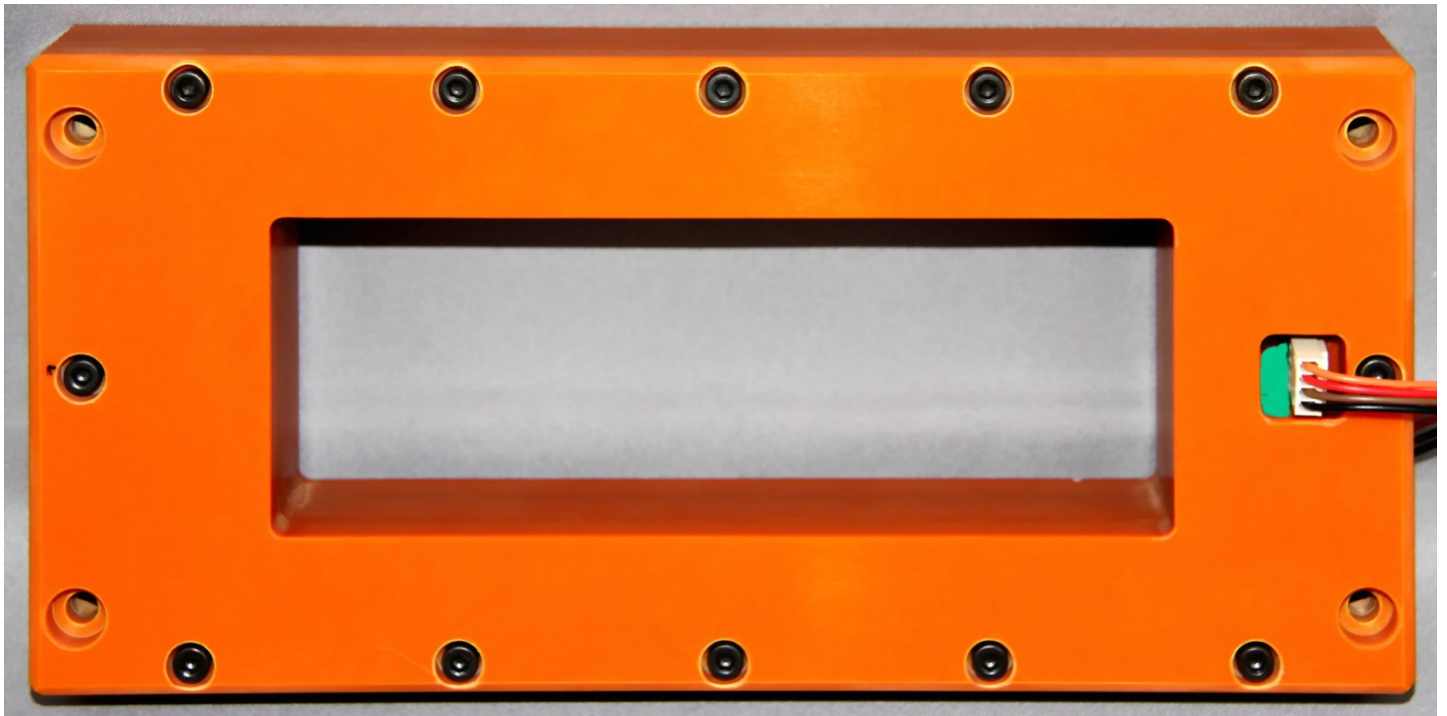
### Specifications

Parameter	Symbol	Unit	TMH 5000A	TMH 8000A	TMH 10000A	TMH 12000A	TMH 15000A	TMH 20000A	TMH 25000A	TMH 30000A
Nominal Input Current	$I_{fn}$	A DC	5000	8000	10000	12000	15000	20000	25000	30000
Linear Range	$I_{fs}$	A DC	±15000	±24000	±30000	±36000	±45000	±60000	±75000	±90000
Nominal Output Voltage	$V_{hn}$	V	4 V ±1% at $I_f = I_{fn}$ ( $R_L = 10k\Omega$ )							
Offset Voltage	$V_{os}$	mV	Within ±40 mV @ $I_f = 0$ , $T_a = 25^\circ C$							
Output Resistance	$R_{OUT}$	$\Omega$	<100 $\Omega$							
Hysteresis Error	$V_{oh}$	mV	Within ±30 mV @ $I_f = I_{fn} \rightarrow 0$							
Supply Voltage	$V_{CC}/V_{EE}$	V	±15V ±5%							
Linearity	$\rho$	%	Within ±1% of $I_{fn}$							
Consumption Current	$I_{CC}$	mA	±75 mA nominal							
Response Time (90% $V_{hn}$ )	$T_r$	$\mu sec$	7 $\mu sec$ max. @ $dI_f/dt = I_{fn}/\mu sec$							
Frequency bandwidth (-3dB)	$f_{BW}$	Hz	DC to 50kHz							
Thermal Drift of Output	-	%/ $^\circ C$	Within ±0.1 %/ $^\circ C$ @ $I_{fn}$							
Thermal Drift of Zero Current Offset	-	mV/ $^\circ C$	Within ±1.5 mV/ $^\circ C$ @ $I_{fn}$							
Dielectric Strength	-	V	AC3.5KV X 60 sec							
Isolation Resistance @ 1000 VDC	$R_{IS}$	M $\Omega$	>500 M $\Omega$							
Operating Temperature	$T_a$	$^\circ C$	-15 $^\circ C$ to 80 $^\circ C$							
Storage Temperature	$T_s$	$^\circ C$	-20 $^\circ C$ to 85 $^\circ C$							
Mass	W	g	1000 g							

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## Appearance, dimensions and pin identification

All dimensions in mm  $\pm 1$ , holes  $-0, +0.5$  except otherwise noted.



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



Positive current flow direction

