

Topstek Current Transducer TFC4V-B15-100A .. 1500A

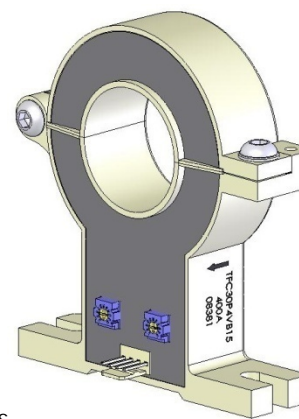
TFC30P4V-B15 100A~1500A

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



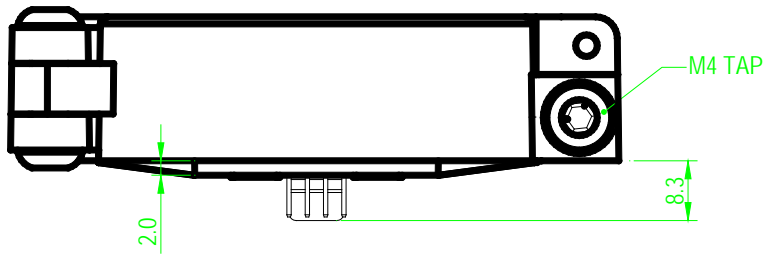
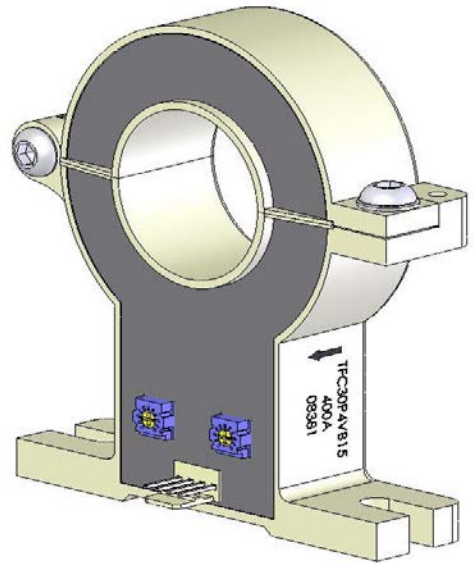
Specifications

Parameter	Symbol	Unit	TFC30P 4V-B15 100A	TFC30P 4V-B15 150A	TFC30P 4V-B15 200A	TFC30P 4V-B15 300A	TFC30P 4V-B15 500A	TFC30P 4V-B15 750A	TFC30P 4V-B15 1000A	TFC30P 4V-B15 1200A	TFC30P 4V-B15 1500A
Nominal Input Current	I_{fn}	A DC	±100	±150	±200	±300	±500	±600	±1000	±1200	±1500
Linear Range	I_{fs}	A DC	±300	±450	±600	±900	±1500	±1800	±3000	±3600	±4500
Nominal Output Voltage	V_{hn}	V	4.0 V ±1% at $I_f = I_{fn}$ ($R_L = 10k\Omega$)								
Offset Voltage	V_{os}	mV	Within ±40 mV @ $I_f = 0$, $T_a = 25^\circ\text{C}$								
Output Resistance	R_{OUT}	Ω	<100 Ω								
Hysteresis Error	V_{oh}	mV	Within ±20 mV @ $I_f = I_{fn} \rightarrow 0$								
Supply Voltage	V_{CC}/V_{EE}	V	±15V ±5%								
Linearity	ρ	%	Within ±1% of I_{fn}								
Consumption Current	I_{CC}	mA	±15 mA max								
Response Time (90% V_{hn})	T_r	μsec	7 μsec @ $dI_f/dt = I_{fn}/\mu\text{sec}$								
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 50kHz								
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I_{fn}								
Thermal Drift of Zero Current Offset	-	mV/°C	< ±3.0	< ±2.0	< ±1.0 mV/°C						
Dielectric Strength	-	V	AC3KV X 60 sec								
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω								
Operating Temperature	T_a	°C	-15 °C to 80 °C								
Storage Temperature	T_s	°C	-20 °C to 85 °C								
Mass	W	g	250 g								

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Appearance, dimensions and pin identification

All dimensions in mm ± 0.5 , holes $-0, +0.5$ except otherwise noted.



Pin Assignment	
1	+15V
2	-15V
3	V _{OUT}
4	0V

