

Topstek Current Transducer TFC30P2VS05100A..TFC30P2VS051500A

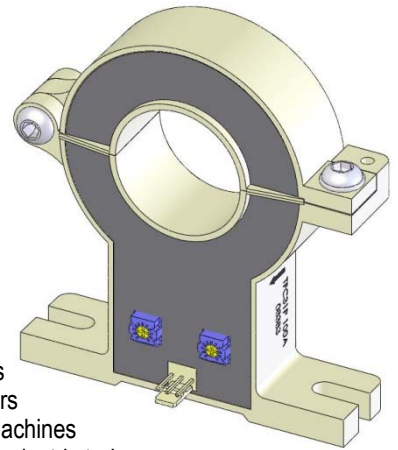
TFC30P2VS05 100A~1500A

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 (8 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
- ◆ 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



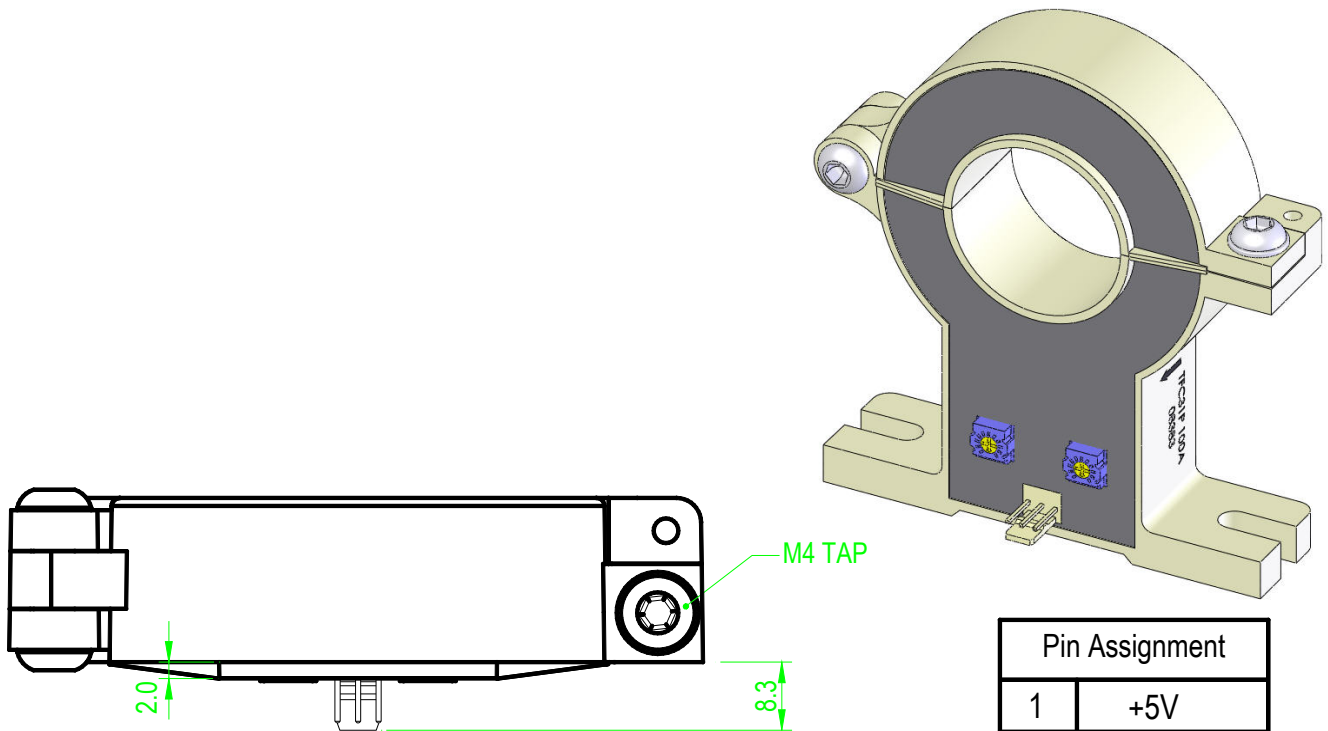
Note: This CT will response to positive current only.

Specifications

Parameter	Symbol	Unit	TFC30P 2VS05 100A	TFC30P 2VS05 150A	TFC30P 2VS05 200A	TFC30P 2VS05 300A	TFC30P 2VS05 400A	TFC30P 2VS05 500A	TFC30P 2VS05 700A	TFC30P 2VS05 750A	TFC30P 2VS05 1000A	TFC30P 2VS05 1500A
Nominal Input Current	I_{fn}	A DC	+100	+150	+200	+300	+400	+500	+700	+750	+1000	+1500
Linear Range ($\pm 5\%$)	I_{fs}	A DC	0~+250	0~+375	0~+500	0~+750	0~+1000	0~+1250	0~+1750	0~+1875	0~+2500	0~+3750
Nominal Output Voltage	V_{hn}	V	2.0 V $\pm 1\%$ 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}	Ω	<100 Ω									
Hysteresis Error	V_{oh}	mV	Within ± 20 mV @ $I_f = I_{fn} \rightarrow 0$									
Supply Voltage	V_{CC}	V	+5V $\pm 5\%$									
Linearity	ρ	%	Within $\pm 1\%$ of I_{fn}									
Consumption Current	I_{CC}	mA	+10 mA max									
Response Time (90% V_{hn})	T_r	μsec	<12 μs	<10 μs	<5 μsec @ $dI_f/dt = I_{fn}/\mu sec$							
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/ $^\circ C$	< ± 3.0	< ± 1.5 mV/ $^\circ C$	< ± 1.0 mV/ $^\circ C$							
Dielectric Strength	-	V	AC2.5KV X 60 sec									
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω									
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	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	+5V
2	V _{OUT}
3	0V

