

Topstek Current Transducer TQE500A-T2-B15

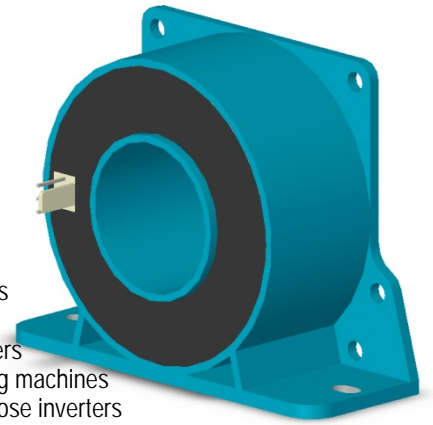
TQE500A-T2-B15

Features

- ◆ Highly reliable Closed Loop 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 (9 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 encapsulant, 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 eg. electric trains
- ◆ Other automatic control systems



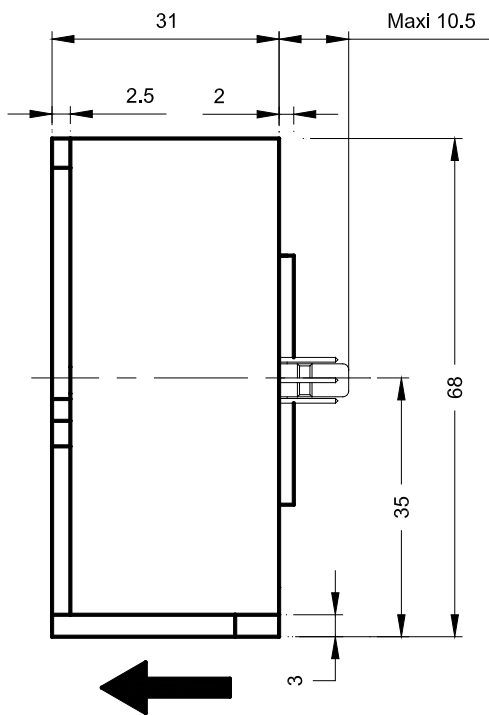
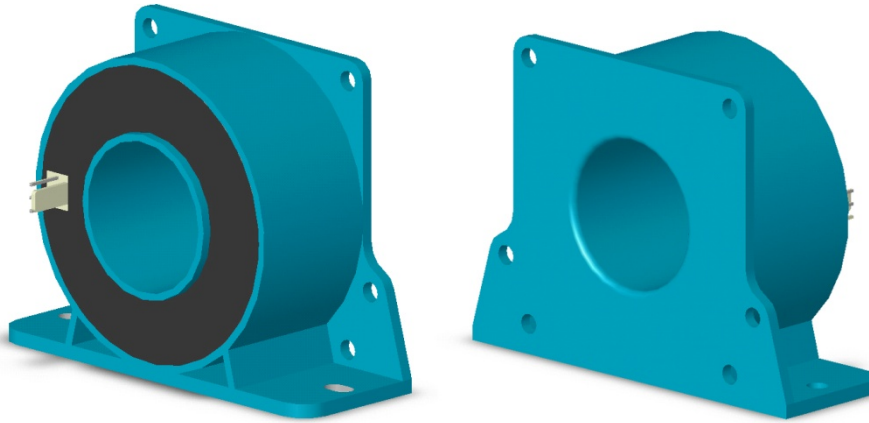
Specifications

Parameter	Symbol	Unit	TQE500A-T2-B15								
Nominal Input Current	I _{pn}	A DC	±500								
Supply Voltage Range	V _{CC} /V _{EE}	V	±12 --- ±18								
Supply Voltage ±5%	V _{CC} /V _{EE}	V	±12			±15			±18		
Consumption Current	I _{CC}	mA	15 mA + I _s								
Measuring Range	I _{fs}	A DC	±200	±300	±500	±200	±300	±600	±200	±300	±600
Maximum Load Resistance	R _{Mmax}	Ω	30	30	12	50	50	15	70	70	25
Minimum Load Resistance	R _{Mmin}	Ω	0	0	0	5	5	5	20	20	20
Conversion Ratio	K _N		1:2000								
Secondary Current @ I _{pn}	I _s	mA	250								
Secondary Resistance	R _{Mmax}	Ω	25								
Offset Current	I _{os}	mA	Within ±0.3 mA @ I _p =0, T _a =25°C								
Overall Accuracy @ I _{pn}		%	Within ±0.3% of I _{fn}								
Linearity	ρ	%	Within ±0.1% of I _{fn}								
Response Time (90%V _{hn})	T _r	μsec	1 μsec max. @ d I _f / d t = I _{pn} / μsec								
Frequency bandwidth (-3dB)	f _{BW}	Hz	DC to 150kHz								
Thermal Drift of Output	-	mA	Within ±0.5mA 0°C~80°C								
Dielectric Strength	-	V	AC2.5KV X 60 sec								
Isolation Resistance @ 1000 VDC	R _{IS}	MΩ	>1000 MΩ								
Operating Temperature	T _a	°C	-20°C to 80°C								
Storage Temperature	T _s	°C	-20°C to 85°C								
Mass	W	g	200 g								

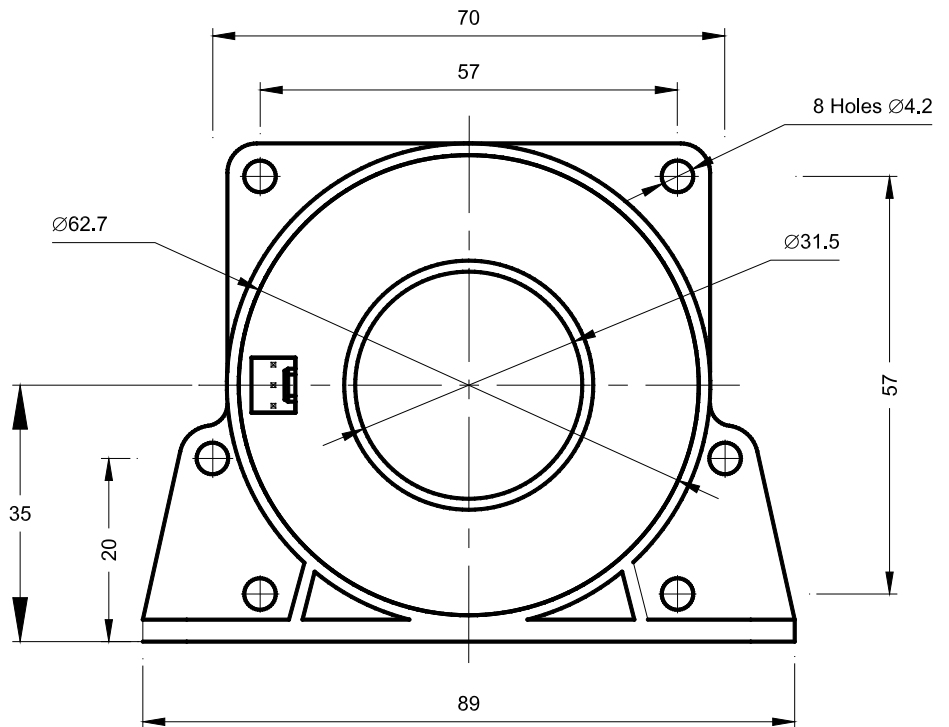
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Appearance, dimensions and pin identification

All dimensions in mm ± 0.5 , holes -0 , $+0.2$ except otherwise noted.



Positive current flow direction



Molex Connector
(with 2.54 mm pitch)



JST Connector
(with 3.81 mm pitch)

