

Topstek Current Transducer TQDV25A .. TQDV200A

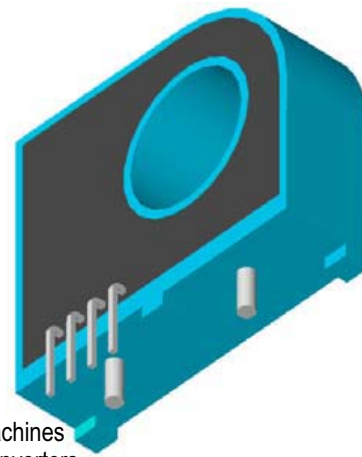
TQDV25A ~150A

Features

- ◆ Highly reliable Closed Loop Hall Effect device
- ◆ Open Loop CT voltage output format: 4V out at nominal input
- ◆ Compact and light weight
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 150 kHz)
- ◆ Low power consumption at quiescent state (10 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



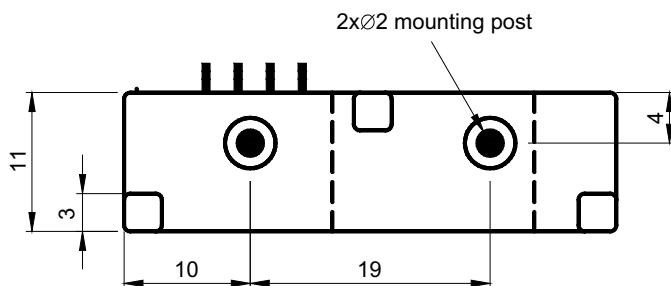
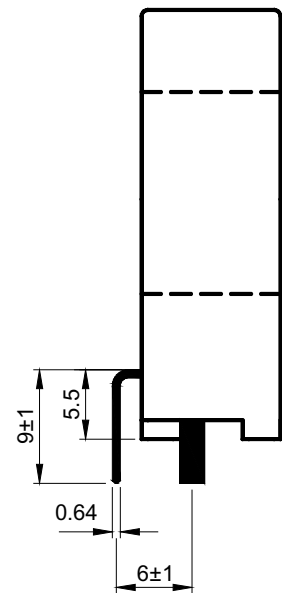
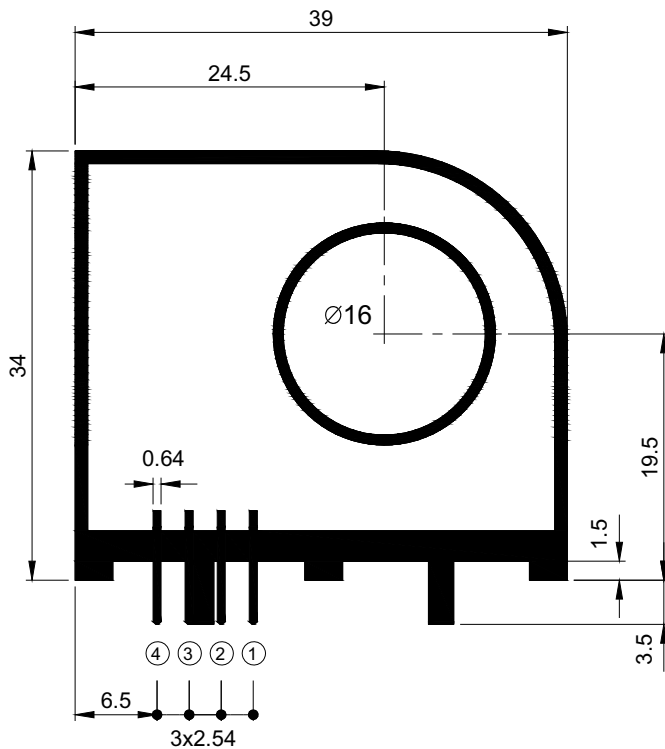
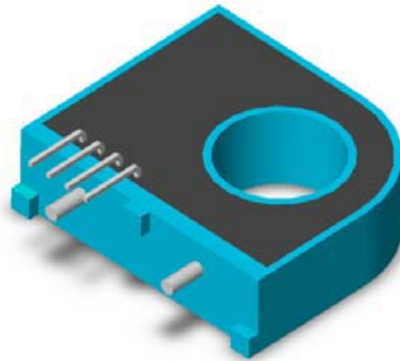
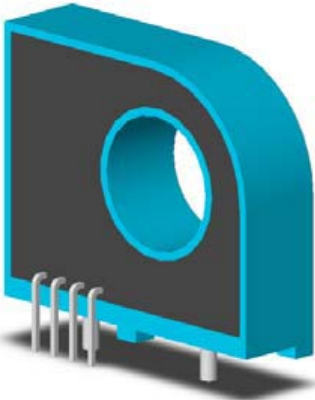
Specifications

Parameter	Symbol	Unit	TQDV 25A	TQDV 37.5A	TQDV 50A	TQDV 75A	TQDV 100A	TQDV 125A
Nominal Input Current	I_{fn}	A DC	±25	±37.5	±50	±75	±100	±125
Linear Range	I_{fs}	A DC	±63	±94	±125	±188	±250	±313
Secondary Coil Current	I_s	A	$I_f / 1000$			$I_f / 2000$		
Consumption Current@ $I_f = I_{fn}$	I_{CC}	mA	35	50	60	48	60	72
Nominal Output Voltage	V_{hn}	V	±4 V ±1% at $I_f = I_{fn}$ ($R_L = 10k\Omega$) , $T_a = 25^\circ C$					
Supply Voltage Range	V_{CC}/V_{EE}	V	±15V ±5%					
Offset Voltage	V_{os}	mV	Within ±40 mV @ $I_f = 0$, $T_a = 25^\circ C$					
Output Resistance	R_{OUT}	Ω	<100 Ω (50 Ω nominal)					
Hysteresis Error	V_{oh}	mV	Within ±35 mV @ $I_f = I_{fn} \rightarrow 0$					
Linearity	ρ	%	Within ±0.2% of I_{fn}					
Response Time (90% V_{hn})	T_r	μsec	3 μsec max. @ $d I_f / dt = I_{pn} / \mu sec$					
Frequency Bandwidth (-3dB)	f_{BW}	Hz	DC to 150kHz					
Thermal Drift of Output	-	%/°C	Within ±0.02 %/°C @ I_{fn}					
Thermal Drift of Zero Current Offset	-	mV/°C	Within ±1.5 mV/°C @ I_{fn}					
Dielectric Strength	-	V	AC2.5KV X 60 sec					
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω					
Operating Temperature	T_a	°C	-40°C to 80°C					
Storage Temperature	T_s	°C	-40°C to 85°C					
Mass	W	g	28 g					

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Appearance, dimensions and pin identification

All dimensions in mm ± 0.1 , holes -0 , $+0.2$ except otherwise noted.



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