

Topstek Current Transducer TQM200A

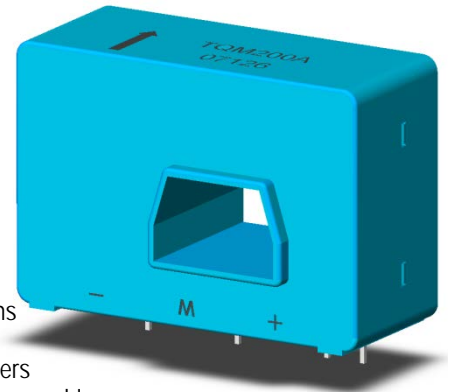
TQM200A

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 (> 200 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



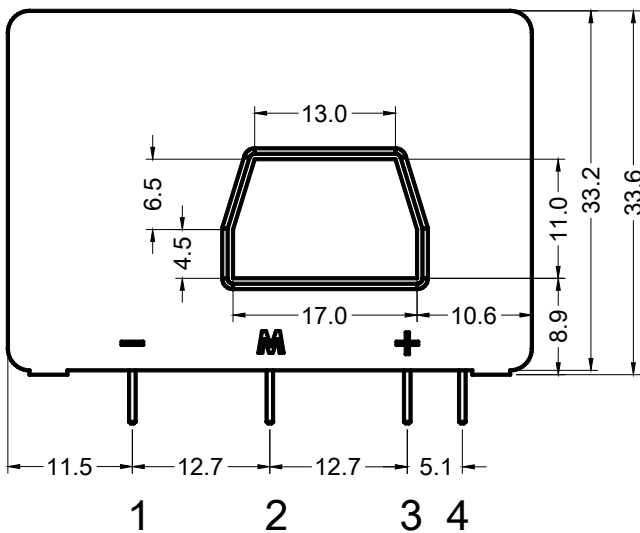
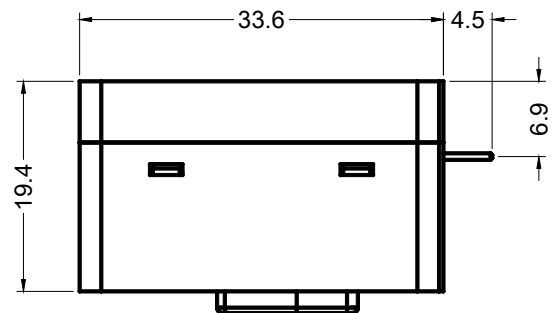
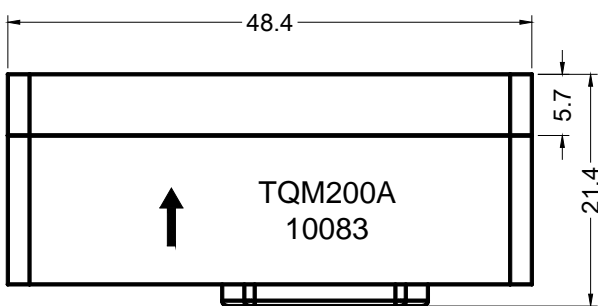
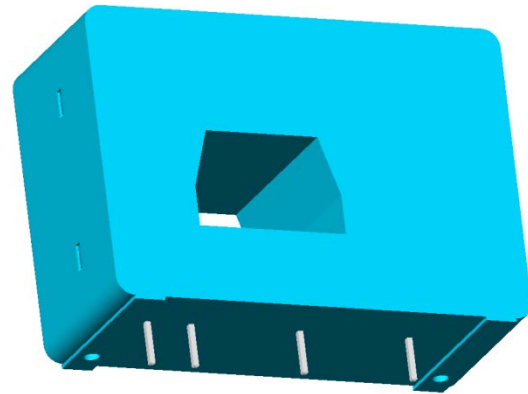
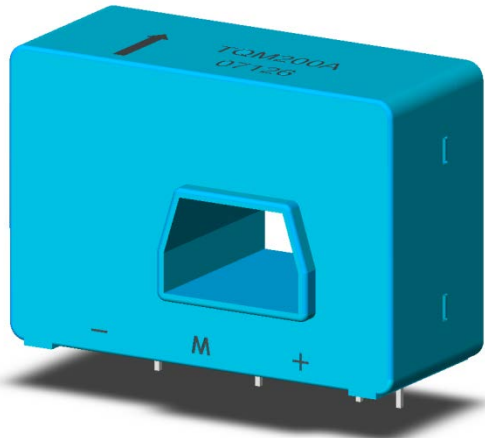
Specifications

Parameter	Symbol	Unit	TQM200A			
Nominal Input Current	I_{pn}	A DC	±200			
Supply Voltage Range	V_{CC}/V_{EE}	V	±12 --- ±15			
Supply Voltage ±5%	V_{CC}/V_{EE}	V	±12		±15	
Consumption Current	I_{CC}	mA	15 mA + I_s			
Measuring Range	I_{fs}	A DC	±200	±250	±200	±300
Maximum Load Resistance	R_{Mmax}	Ω	26	4	56	8
Minimum Load Resistance	R_{Mmin}	Ω	0	0	0	0
Conversion Ratio	K_N		1:2000			
Secondary Current @ I_{pn}	I_s	mA	100			
Secondary Resistance	R_{Mmax}	Ω	<72Ω@ 25°C, <80Ω@ 80°C			
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_m			
Linearity	ρ	%	Within ±0.1% of I_m			
Response Time (90% V_{hn})	T_r	μsec	1 μsec max. @ $dI/dt = I_{pn}/\mu\text{sec}$			
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 100kHz			
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	51 g			

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Appearance, dimensions and pin identification

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



Pin Assignment		Description
1	V-	-12 ~ -15V
2	M	Measure (connect R_L to 0V Ground)
3	V+	+12 ~ +15V
4		No Connection