

TBC-TAS5 Series High Precision Closed Loop Mode Hall Effect Current Sensor



TBC-TAS5 Series current sensor is a Closed loop device based on the measuring principle of the hall effect, with

a galvanic isolation between primary and secondary circuit, the size of primary doesn't affect test precision, no matter the location of primary in the hole of current sensor, It uses for precision measurement of DC, AC and pulse current.

Electrical data (Ta=25°C±5°C, RL=10KΩ, CL=4700PF)

Type Parameter	TBC 10TAS5	TBC 20TAS5	TBC 50TAS5	TBC 75TAS5	TBC 100TAS5	TBC 150TAS5	TBC 200TAS5	Unit
Rated input (Ipn)	±10	±20	±50	±75	±100	±150	±200	А
Measure range (lp)	±20	±40	±100	±150	±200	±300	±400	А
Turns ratio (Np/Ns))	1:1000	1:1000	1:1500	1:1500	1:2000	1:1800	1:2000	Т
Internal resister	25±0.1%	12.5±0.1%	7.5±0.1%	5±0.1%	5±0.1%	3±0.1%	2.5±0.1%	Ω
Rated output	@lp=±lpn ±1.0±0.5%						V	
Supply voltage	+5.0 ±2%						V	
Power consumption	≤20+lpX (Np/Ns)						mA	
Reference voltage	+2.5±0.2%							V
Zero voltage	@lp=0 +2.5±0.2%						V	
Zero voltage	≤±5							mV
Magnetic Offset voltage	≤±5 ≤±3.0						mV	
Offset drift	≤±0.2 ≤±0.1						mV/°C	
output drift	≤±0.2	≤±0.2 ≤±0.1					mV/°C	
Linearity	@lp=0-±lpn ≤0.1						%FS	
Response time	@50A/μS,10%-90% ≤0.5						μs	
Band- width	@-3dB DC-200						KHz	
Galvanic isolation	@ 50Hz, AC,1min 2.5						KV	

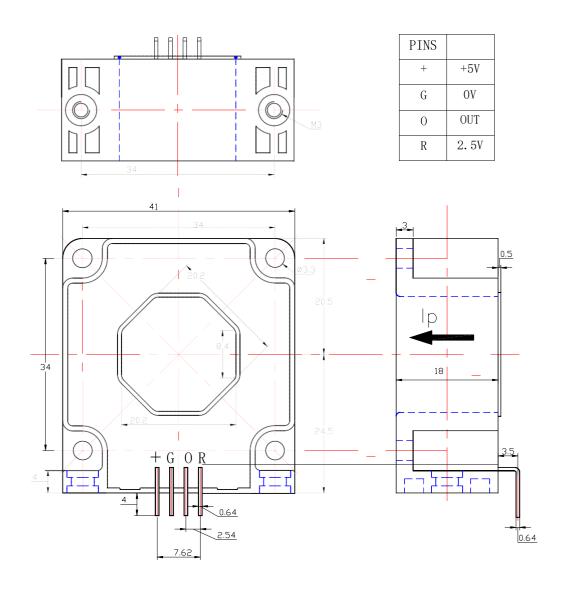


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Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

Mechanical dimension (for reference only)



Remarks:

- 1. All dimensions are in mm.
- 2. General tolerance ±1mm



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Directions for use

- 1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)
- 2. Customs can adjust Output amplitude of the sensor by needs.
- 3. Custom design in the different rated input current and the output voltage are available.

Standards

UL94-V0.

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +105	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	65	g	М

Characteristics chart

Pulse current signal response characteristic

(Input signal) (Output signal)

Effects of impulse noise

