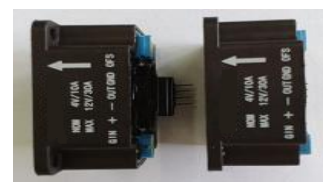


# Rongtech Industry (ShangHai) Inc.,

## RTC-TAS52 Series High Precision Closed Loop Current Sensor

Rongtech®



The RTC-TAS52 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	RTC 0.3TAS52	RTC 0.5TAS52	RTC 0.6TAS52	RTC 1.0TAS52	RTC 5TAS52	RTC 7.5TAS52	RTC 10TAS52	Unit
Rated input (Ipn)	±0.3	±0.5	±0.6	±1.0	±5	±7.5	±10	A
Measure range (Ip)	±0.5	±0.55	±0.75	±1.1	±5.5	±8.25	±11	A
Turns ratio (Np/Ns)	1:1000	1:1000	1:1000	1:1000	1:1000	1:1500	1:2000	T
Internal resistor	1.0K ±0.1%	1.0K ±0.1%	0.5K ±0.1%	0.5K ±0.1%	100± 0.1%	100 ±0.1%	100±0.1%	Ω
Rated output	@Ip=±Ipn ±2.0±0.5%							V
Supply voltage	+5.0 ±2%							V
Power consumption	≤20+IpX (Np/Ns)							mA
Reference voltage	+2.5±0.4%							V
Zero voltage	@Ip=0 +2.5±0.4%							V
Zero voltage	≤±10							mV
Magnetic Offset voltage	≤±7	≤±5	≤±3.0					mV
Offset drift	≤±0.75	≤±0.5	≤±0.2					mV/°C
output drift	≤±0.75	≤±0.5	≤±0.2					mV/°C
Linearity	@Ip=0-±Ipn ≤0.5							%FS
Response time	@5.0A/μ S, 10%-90% ≤7							μ s
Bandwidth	@ -1db DC~50							KHz
Galvanic isolation	@ 50Hz, AC, 1min 5.0							KV

### Applications

1. Variable speed drives
2. Welding machine
3. Battery supplied applications
4. Power Supplies (UPS)
5. Electrochemical

### Standards

- UL94-V0. EN60947-1:2004 IEC60950-1:2001  
EN50178:1998 SJ 20790-2000

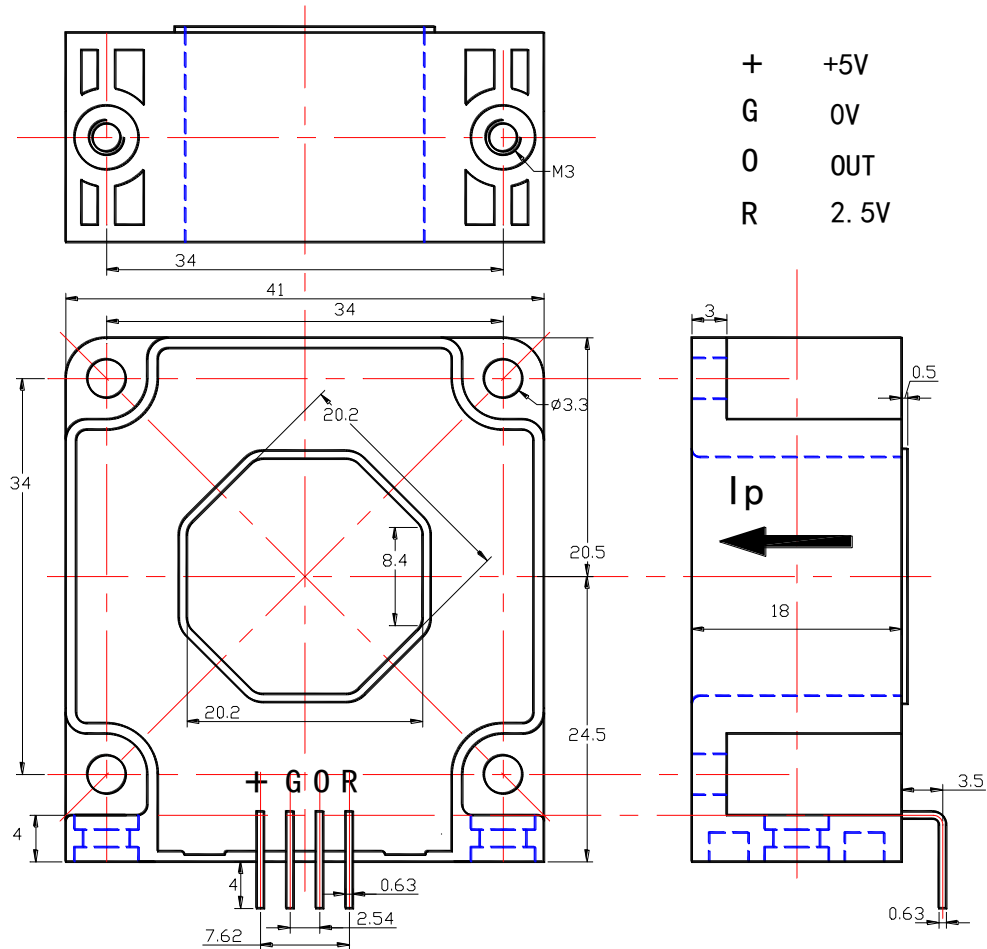
### Directions for use

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.

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## RTC-TAS52 Series High Precision Closed Loop Current Sensor

Mechanical dimension(for reference only)



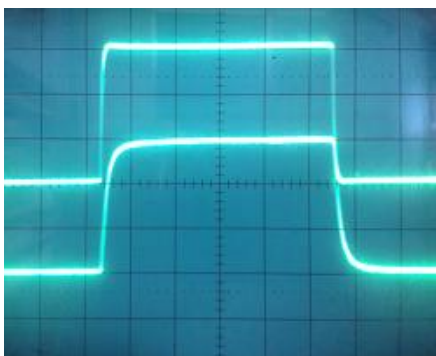
Remarks: 1. All dimensions are in mm. 2. General tolerance  $\pm 1\text{mm}$

General data			
	Value	Unit	Symbol
Operating temperature	-40 to +105	$^{\circ}\text{C}$	TA
Storage temperature	-40 to +125	$^{\circ}\text{C}$	TS
Mass (approx)	65	g	M

### Characteristics chart

Pulse current signal response characteristic

Effects of impulse noise



输入信号  
(Input signal)

输出信号  
(Output signal)



输出电压  
(Output voltage)