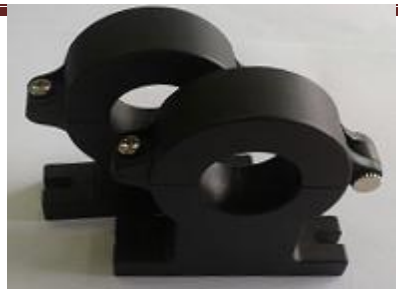
Rongtech Industry (ShangHai) Inc.,

RTO500K1T5 Series Open Loop Mode Dismountable Hall Effect Current Sensor



RTO500K1T5 series dismountable hall effect current sensor is a open loop device based on the measuring principle of the hall effect ,with a galvanic isolation between primary and secondary circuit,it provides accurate electronic measurement of DC,AC or pulsed currents.

Electrical data(Ta=25℃±5℃,RL=2KΩ,CL=10000PF)

Parameter \ Type	RTO30K1T5	RTO50K1T5	RTO100K1T5	RTO200K1T5	RTO300K1T5	RTO400K1T5	RTO500K1T5	Unit
Rated current(Ipn)	±30	±50	±100	±200	±300	±400	±500	A
Measuring range(Ip)	±60	±100	±200	±400	±600	±800	±1000	A
Rated output	@Ip=±Ipn	2.5±1(1%FS)						V
Supply voltage	+5±10%							V
Power Consumption	≤25							mA
Zero voltage	@Ip=0	+2.5±0.5%						V
Offset voltage	@Ip=0	±20						mV
Magnetic offset	@Ip=±Ipn-0	±20						mV
Offset drift	@ -40～+85℃	≤±1						mV/℃
output drift	@ -40～+85℃	≤±1						mV/℃
Linearity	@Ip=0-±Ipn	≤1						%FS
Response time	@50A/μS, 10%-90%	≤5						μS
Galvanic isolation	@ 50Hz,AC,1min	2.5						KV
Isolation resistance	@ DC 500V	1000						MΩ

General date

	Value	Unit	Symbol
Operating temperature	-40 to +85	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	72	g	M

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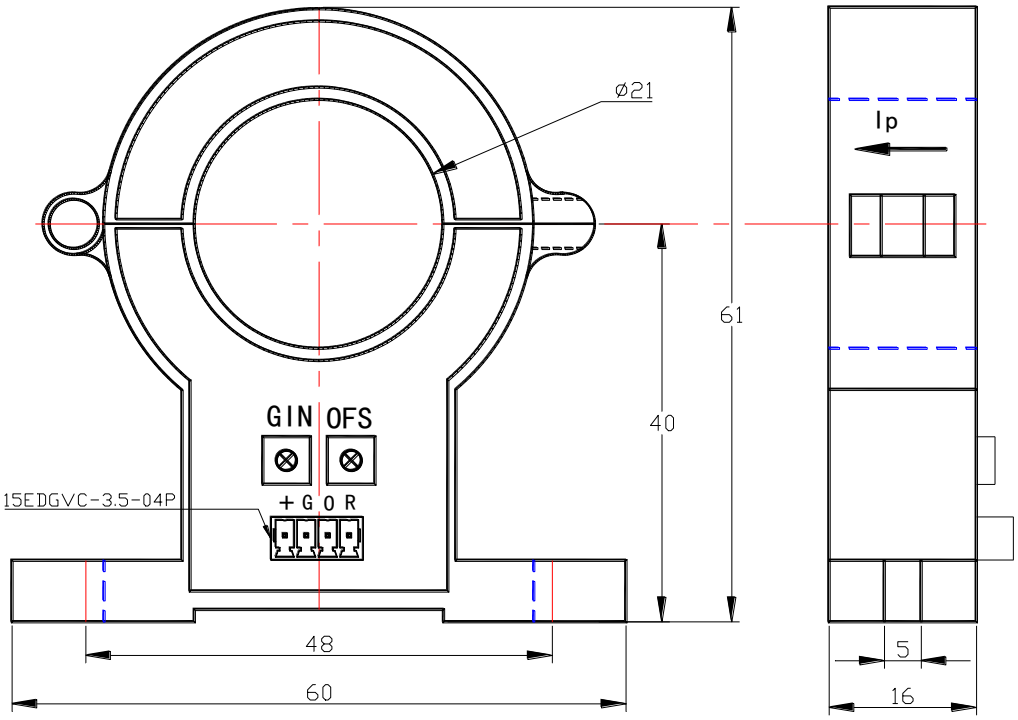
Applications

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

Mechanical dimension(for reference only)



pins	connected
+	+5V
G	0V
O	OUT
R	+2.5V(OUT)

Remarks: 1. All dimensions are in mm. 2. General tolerance ±1mm.

Directions for use

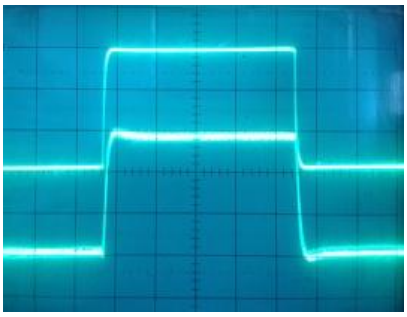
1. When the current will be measured goes through a sensor, the voltage will be measured at the output end.
   (Note: The false wiring may result in the damage of the sensor)
2. Custom design in the different rated input current and the output voltage are available.

Standards

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

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise