

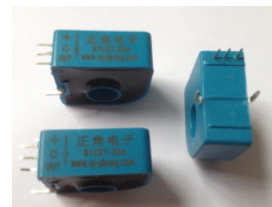
B102T 系列闭环型霍尔电流传感器
B102T Series Closed Loop Mode
Hall Effect Current Sensor

正角电子™



B102T 闭环型霍尔电流传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电流。

B102T series current sensor is a closed loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



电参数 Electrical data (Ta=25°C ± 5°C)

Type	B102T-20A	B102T-25A	单位 Unit
额定输入电流 (I _{pn}) Rated current (I _{pn})	20	25	A
测量电流范围 (I _p) Measure range (I _p)	±20	±25	A
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	1: 1000	1: 625	T
内接取样电阻 Internal resister	100±0.1%	50±0.1%	Ω
额定输出电压 Rated output	@I _p =±I _{pn}	±2±0.5%	V
电源电压 Supply voltage		+5V	V
功耗电流 Power Consumption		≤20+ I _p X(N _p /N _s)	mA
零点电压 Zero voltage	@I _p =0	+2.5±0.5%	V
零点电压温漂 Zero voltage drift	@ -40~+85°C	≤±0.5	mV /°C
线性度 Linearity	@I _p =0-±I _{pn}	≤0.1	%FS
总精度 Total precision		≤±0.7	%
di/dt 跟随精度 di/dt accurately followed		>50	A / μ S
响应时间 Response time	@100A/μ S,10%-90%	≤1	μ S

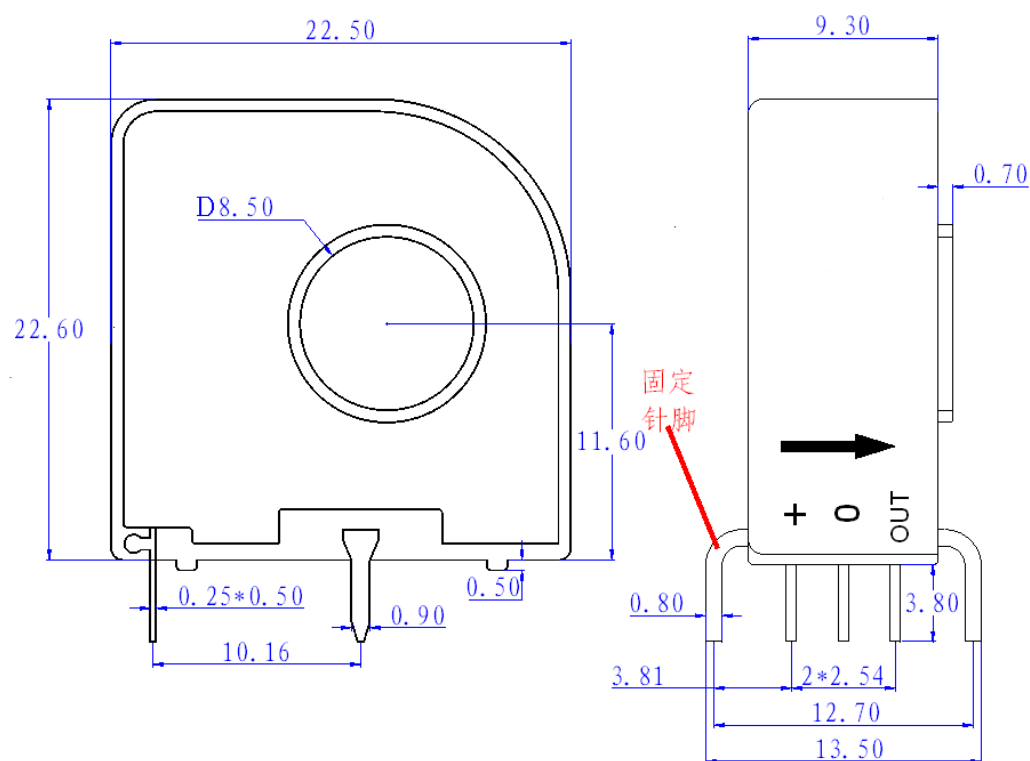
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绝缘电压 Galvanic isolation	@ 50HZ,AC,1min	2.5	KV
带宽 Bandwidth	@ -1db	DC~200	KHZ

应用 Applications

- 交流变速驱动器
- AC variable speed drives
- 直流电机驱动静态转换器
- Static converters for DC motor drives
- 通讯电源
- Battery supplied applications
- 不间断电源 UPS
- Uninterruptible Power Supplies (UPS)
- 开关电源
- Switched Mode Power Supplies (SMPS)
- 电焊机
- Power supplies for welding applications

结构参数 Mechanical dimension(for reference only)



Remarks:

1. All dimensions are in mm.
2. General tolerance ± 1 mm.
3. Elucidation: 1:+5V 2:OV 3:V_{OUT}

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使用说明 Directions for use

1. 当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)

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. 可按用户需求定制不同额定输入电流和输出电压的传感器。

Custom design in the different rated input current and the output voltage are available.

执行标准 Standards

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

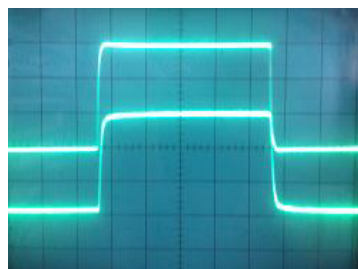
总体参数 General date

	数值 Value	单位Unit
工作温度 (TA) Operating temperature	-40 to +85	℃
储存温度 (TS) Storage temperature	-40 to +125	℃
毛重(约) (M) Mass(approx)	10	g

特性图 Characteristics chart

脉冲电流信号响应特性

Pulse current signal response characteristic



输入信号

(Input signal)

输出信号

(Output signal)

抗脉冲电压干扰特性

Effects of impulse noise



输出电压

(Output voltage)