

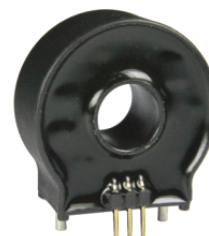
B203T 系列闭环型霍尔电流传感器
B203T Series Closed Loop Mode
Hall Effect Current Sensor

正角电子™



B203T 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。

B203T 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	B203T-10A	B203T-25A	B203T-50A	B203T-100A	单位 Unit
额定输入电流 (I _{pn}) Rated current (I _{pn})	10	25	50	100	A
测量电流范围 (I _p) Measure range (I _p)	12	30	60	120	A
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	1: 1000	1: 1000	1: 2000	1: 2000	T
次级线圈内阻 Coil resister	35	35	60	60	Ω
额定输出电压 Rated output	@I _p = ± I _{pn} ± 2 ± 0.2%				V
电源电压 Supply voltage	+12V				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 +5 ± 0.4%				V
失调电压温漂 Offset drift	@ -40~+85°C ≤ ± 0.05				mV / °C
输出电压温漂 Output drift	@ -40~+85°C ≤ ± 0.05				mV / °C
线性度 Linearity	@I _p =0- ± I _{pn} ≤ 0.1				%FS
响应时间 Response time	@100A/μ S, 10%-90% ≤ 1				μ s
绝缘电压 Galvanic isolation	@ 50HZ, AC, 1min 2.5				KV

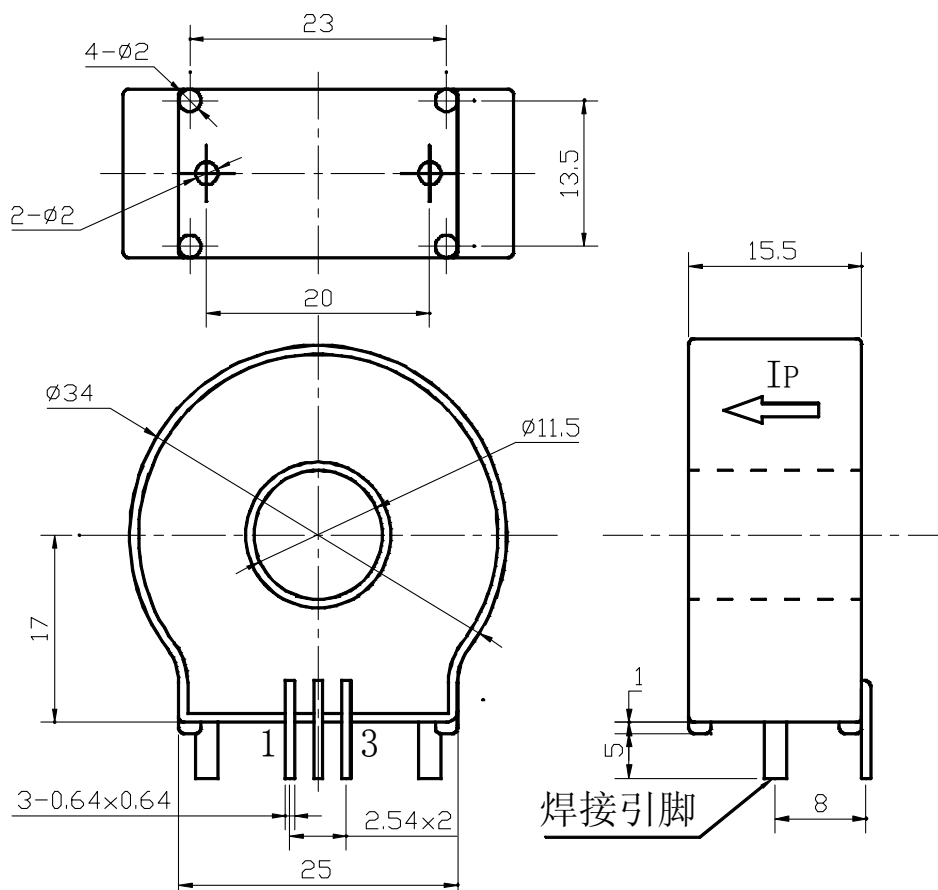
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带宽 Bandwidth	@ -1db	0~100	KHZ
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应用 Applications

- 交流变频驱动器
- 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: +12V 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流大小。(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 current 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流的传感器。

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

执行标准 Standards

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

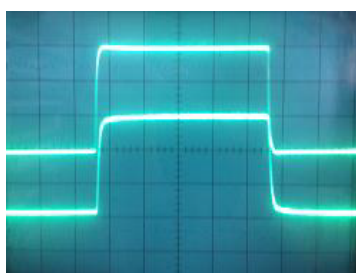
总体参数 General date

	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)	25	g

特性图 Characteristics chart

脉冲电流信号响应特性

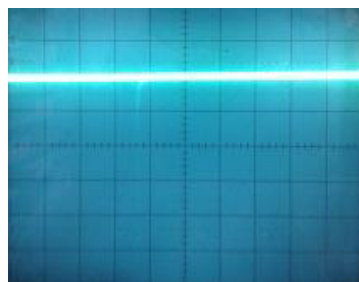
Pulse current signal response characteristic



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)