

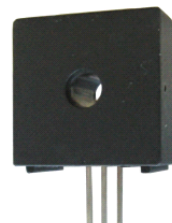
B201 系列闭环型霍尔电流传感器
B201 Series Closed Loop Mode
Hall Effect Current Sensor

正角电子™



B201 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。

B201 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	B201-10A	B201-20A	B201-30A	B201-40A	单位 Unit
额定输入电流 (I _{pn}) Rated current (I _{pn})	10	20	30	40	A
测量电流范围 (I _p) Measure range (I _p)	20	40	60	80	A
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	1: 1000	1: 1000	1: 1000	1: 1600	T
测量电阻 Measure resister	1230±0.1%	594±0.1%	467±0.1%	420±0.1%	Ω
额定输出电流 Rated output	10	20	25	25	mA
次级线圈内阻 Coil resister	43	43	43	90	Ω
电源电压 Supply voltage	±12, ±15				V
功耗电流 Power Consumption	≤20+ I _p X(N _p /N _s)				mA
失调电流 Offset current	@I _p =0	±0.15			mA
失调电流温漂 Offset drift	@ -40~+85°C	≤±0.5			mA
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

B201 系列闭环型霍尔电流传感器
B201 Series Closed Loop Mode
Hall Effect Current Sensor

响应时间 Response time	@100A/μ S,10%-90%	≤500	ns
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)

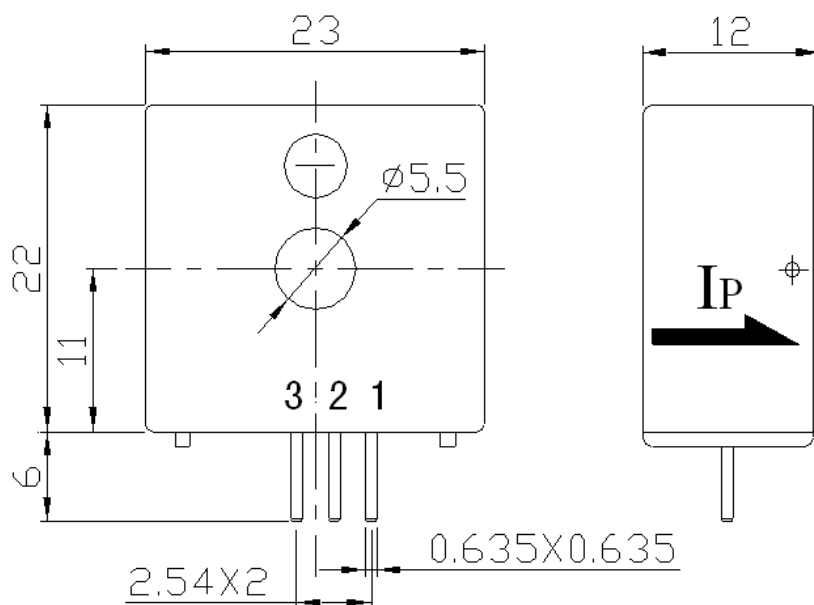
- 开关电源

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: +15V 2: -15V 3: I_{OUT}

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

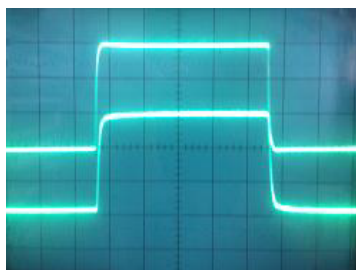
总体参数 General date

	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)	10	g

特性图 Characteristics chart

脉冲电流信号响应特性

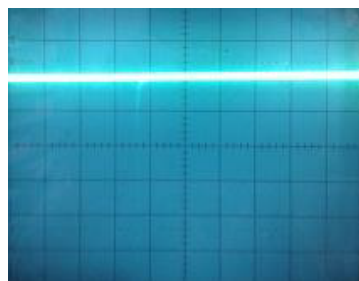
Pulse current signal response characteristic



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)