

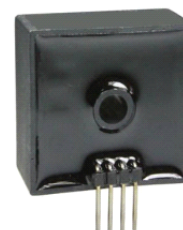
B201X 系列闭环型霍尔电流传感器
B201X Series Closed Loop Mode
Hall Effect Current Sensor

正角电子™



B201X 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。

B201X 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	B201X-10A	B201X-20A	B201X-30A	B201X-50A	单位 Unit
额定输入电流 (I _{pn}) Rated current (I _{pn})	10	20	30	50	A
测量电流范围 (I _p) Measure range (I _p)	20	30	45	75	A
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	1: 1000	1: 1000	1: 1000	1: 1000	T
测量电阻 Measure resister	960±0.1%	490±0.1%	306±0.1%	169±0.1%	Ω
额定输出电流 Rated output	10	20	30	50	mA
次级线圈内阻 Coil resister	36	36	36	36	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

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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
带宽 Bandwidth	@ -1db	DC~100	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)

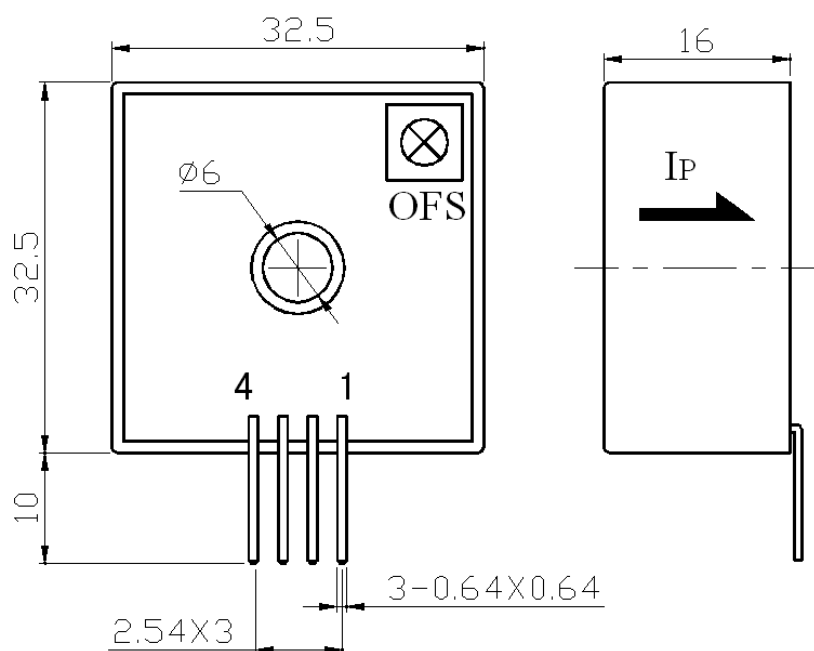
- 开关电源

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: Iout 3: NC

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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

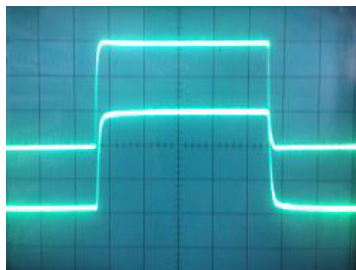
总体参数 General date

	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)	26	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)