

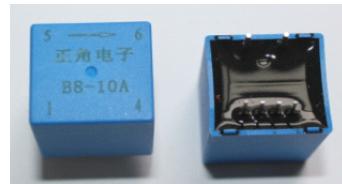
**B8 系列闭环型霍尔电流传感器**  
**B8 Series Closed Loop Mode**  
**Hall Effect Current Sensor**

**正角电子™**



B8 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。

B8 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 ( $T_a=25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )**

Type	B8-05A	B8-10A	B8-15A	B8-20A	B8-25A	B8-30A	单位 Unit
额定输入电流 (Ip)	5	10	15	20	25	30	A
Rated current (Ip)							
测量电流范围 (Ip)	10	20	30	40	50	60	A
Measure range (Ip)							
匝比 (Np/Ns)	5: 2500	3: 3000	2: 3000	1: 2000	1: 2500	1: 3000	T
Turns ratio(Np/Ns)							
内接取样电阻	400	400	400	400	400	400	$\Omega$
Internal resister							
输入脚尺寸	$\varnothing 0.6$	$\varnothing 0.8$	$\varnothing 1.0$	$\varnothing 1.4$	$\varnothing 1.4$	$\varnothing 1.6$	mm
Size of input pins							
额定输出电压	@ $I_p = \pm I_{pn}$					$\pm 4 \pm 0.5\%$	V
Rated output							
电源电压	$\pm 12V, \pm 15V$						V
Supply voltage							
功耗电流	$\leq 25$						mA
Power Consumption							
零点失调电压	@ $I_p=0$					$\leq \pm 30$	mV
Zero offset voltage							
失调电压温漂	@ $-40 \sim +85^{\circ}\text{C}$					$\leq \pm 0.5$	$\text{mV } / ^{\circ}\text{C}$
Offset voltage drift							
线性度	@ $I_p=0 \pm I_{pn}$					$\leq 0.1$	%FS
Linearity							
响应时间	@ $50\text{A}/\mu\text{s}, 10\%-90\%$					$\leq 1$	$\mu\text{s}$
Response time							
绝缘电压	@ 50HZ, AC, 1min					2.5	kV
Galvanic isolation							

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**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)

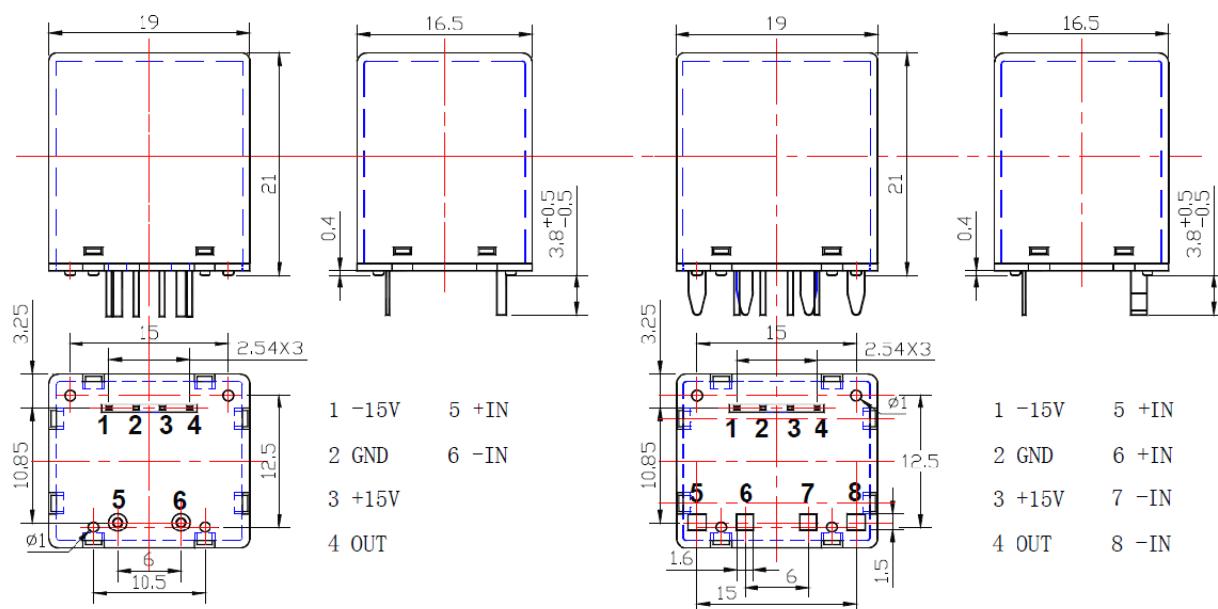
- 开关电源

Switched Mode Power Supplies (SMPS)

- 电焊机

Power supplies for welding applications

**结构参数 Mechanical dimension(for reference only)**



Remarks:

- All dimensions are in mm.
- Secondary pin size and tolerance: width:0.5±0.1mm;thickness:0.25±0.05mm
- General tolerance ±1mm

**使用说明 Directions for use**

- 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)

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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

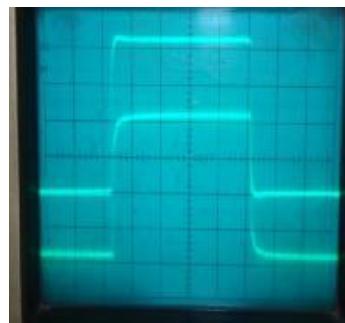
**总体参数 General date**

	数值 Value	单位 Unit
工作温度 (TA) Operating temperature	-40 to +85	°C
储存温度 (TS) Storage temperature	-40 to +125	°C
毛重(约) (M) Mass(approx)	12	g

**特性图 Characteristics chart**

脉冲电流信号响应特性

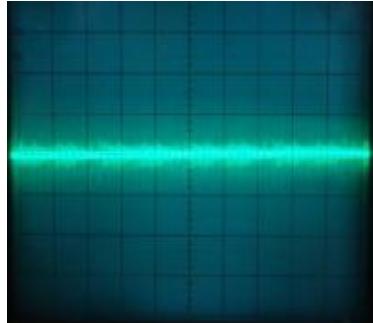
Pulse current signal response characteristic



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 )