

B2N 系列闭环型霍尔电流传感器
B2N Series Closed Loop Mode
Hall Effect Current Sensor

正角电子™



B2N 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。

B2N 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	B2N-0.5A	B2N-1A	B2N-2A	B2N-5A	B2N-10A	B2N-20A	单位 Unit
额定输入电流 (Ip _n) Rated current (Ip _n)	0.5	1	2	5	10	20	A
测量电流范围 (Ip) Measure range (Ip)	1	2	4	10	20	30	A
匝比 (Np/Ns) Turns ratio(Np/Ns)	30: 1500	15: 1500	8: 1600	3: 1500	2: 2000	1: 2000	T
内接取样电阻 Internal resistor	400	400	400	400	400	400	Ω
额定输出电压 Rated output	@Ip=±Ip _n ±4±0.5%						V
电源电压 Supply voltage	±12, ±15						V
功耗电流 Power Consumption	≤20+ IpX(Np/Ns)						mA
零点失调电压 Zero offset voltage	@Ip=0 ≤±20						mV
失调电压温漂 Offset voltage drift	@ -40~+85°C ≤±0.5						mV / °C
线性度 Linearity	@Ip=0-±Ip _n ≤0.1						%FS
响应时间 Response time	@100A/μS, 10%-90% ≤1						μS
绝缘电压 Galvanic isolation	@ 50HZ, AC, 1min 2.5						KV

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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)

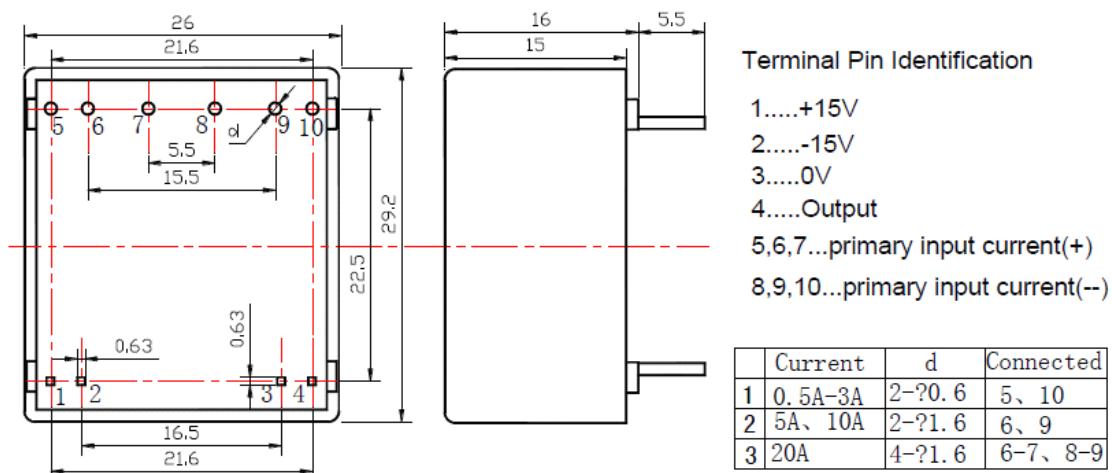
- 开关电源

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.
- General tolerance $\pm 1\text{mm}$.

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)
- 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.

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执行标准 Standards

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

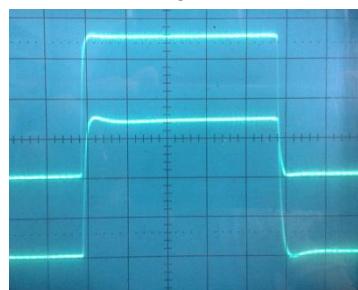
总体参数 General date

	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)	22	g

特性图 Characteristics chart

脉冲电流信号响应特性

Pulse current signal response characteristic

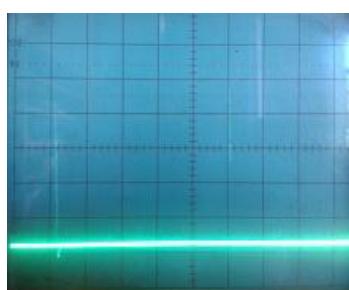


输入信号
(Input signal)

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)