

C2N 系列开环型可拆卸霍尔电流传感器
C2N Series Open Loop Mode Dismountable
Hall Effect Current Sensor

正角电子™



C2N系列开环型可拆卸霍尔电流传感器的初、次级之间是绝缘的，用于控制、测量直流、交流和脉冲电流。

C2N series dismantlable hall effect current sensor is an open loop device based on the measuring principle of the hall effect, 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℃±5℃,RL=2KΩ,CL=10000PF)

Type	C2N-10A	C2N-20A	C2N-30A	C2N-40A	C2N-50A	单位 Unit
额定输入电流(Ipn) Rated current(Ipn)	±10	±20	±30	±40	±50	A
测量电流范围(Ip) Measure range(Ip)	0—±20	0—±40	0—±60	0—±80	0—±80	A
额定输出电压 Rated output	@Ip=±Ipn				±1±1%	V
电源电压 Supply voltage					±12, ±15	V
功耗电流 Power Consumption					<25	mA
失调电压 Offset voltage	@Ip=0		±20			mV
磁失调电压 Magnetic offset	@Ip=±Ipn-0		±20			mV
失调电压温漂 Offset drift	@ -40~+85℃		≤±1			mV/℃
输出电压温漂 Output drift	@ -40~+85℃		≤±1			mV/℃
线性度 Linearity	@Ip=0-±Ipn		≤1			%FS
响应时间 Response time	@50A/μS, 10%-90%		≤5			μs
绝缘电压 Galvanic isolation	@ 50HZ,AC,1min		2.5			KV
绝缘阻抗 Isolation resistance	@ DC 500V		1000			MΩ

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应用 Applications

- 变频调速系统

Variable speed drives

- 电焊机

Welding machine

- 通讯电源

Battery supplied applications

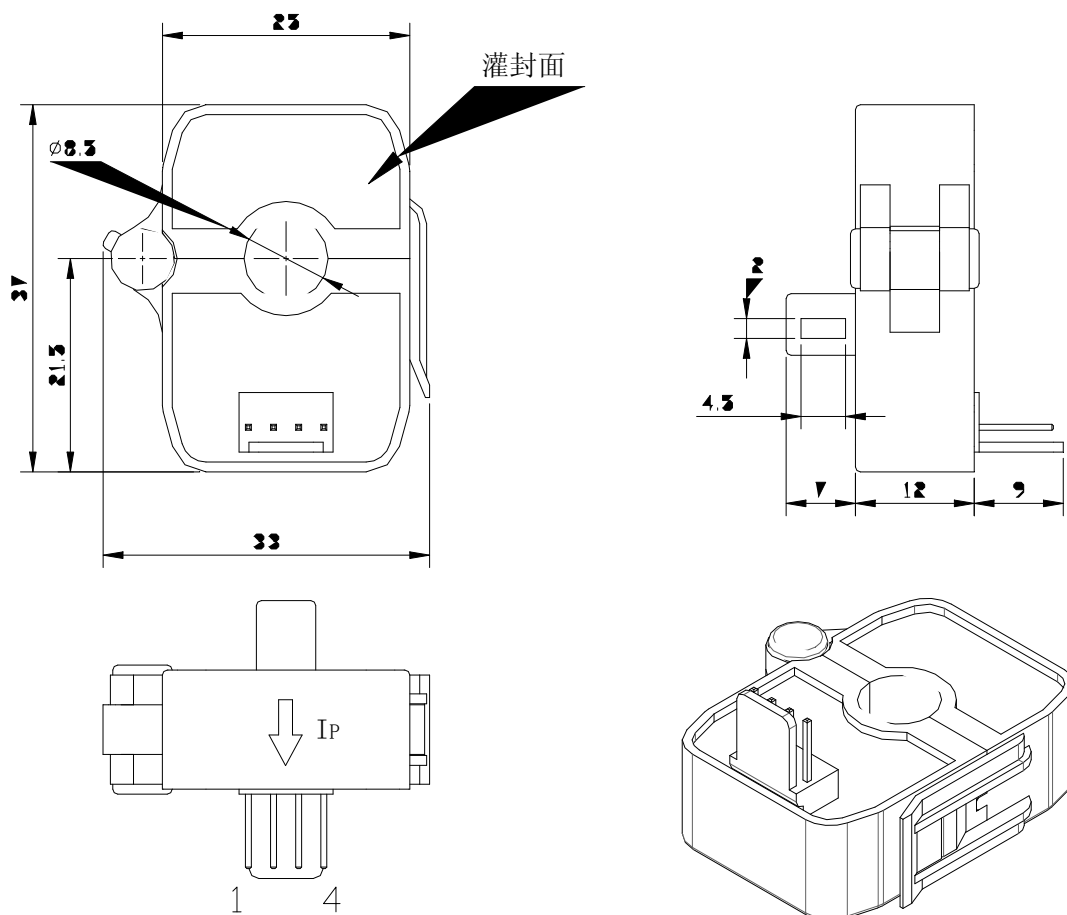
- 不间断电源 UPS

Uninterruptible Power Supplies (UPS)

- 电化学

Electrochemical

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:V_{OUT} 4:0V

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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)

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

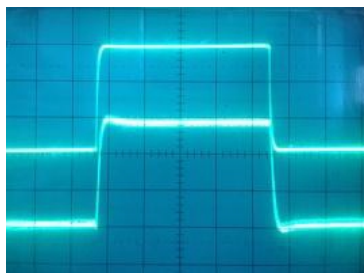
总体参数 General date

	数值 Value	单位Unit
工作温度 (TA) Operating temperature	-40 to +85	℃
储存温度 (TS) Storage temperature	-40 to +125	℃
毛重(约) (M) Mass(approx)	21	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

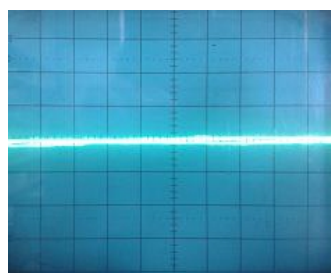
(Input signal)

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)