

TKC-HB 系列开环型霍尔电流传感器 TKC-HB Series Open Loop Mode Hall Effect Current Sensor



TKC-HB 系列开环型电流传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电流。

The TKC-HB series 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°C ±5°C, RL=2KΩ, CL=10000PF)

型号 Type 参数 Parameter	TKC 1000HB	TKC 2000HB	TKC 3000HB	TKC 5000HB	TKC 8000HB	TKC 15000HB	TKC 20000HB	单位 Unit
额定输入电流 (I _p) Rated current (I _p)	±1000	±2000	±3000	±5000	±8000	±10000	±20000	A
测量电流范围 (I _p) Measuring range (I _p)	±2000	±6000	±9000	±10000	±16000	±20000	±30000	A
额定输出电压 Rated output	@I _p =±I _p ±4±1%							V
电源电压 Supply voltage	±15 ±5%							V
功耗电流 Power Consumption	+45, -15							mA
失调电压 Offset voltage	@I _p =0 ±20							mV
磁失调电压 Magnetic offset	@I _p =±I _p -0 ±30							mV
失调电压温漂 Offset drift	@ -40~+85°C ≤±0.5							mV/°C
输出电压温漂 Output drift	@ -40~+85°C ≤±0.5							mV/°C
线性度 Linearity	@I _p =0-±I _p ≤1							%FS
响应时间 Response time	@50A/μ S, 10%-90% ≤10							μ S
绝缘电压 Galvanic isolation	@ 50HZ, AC, 1min 6							KV

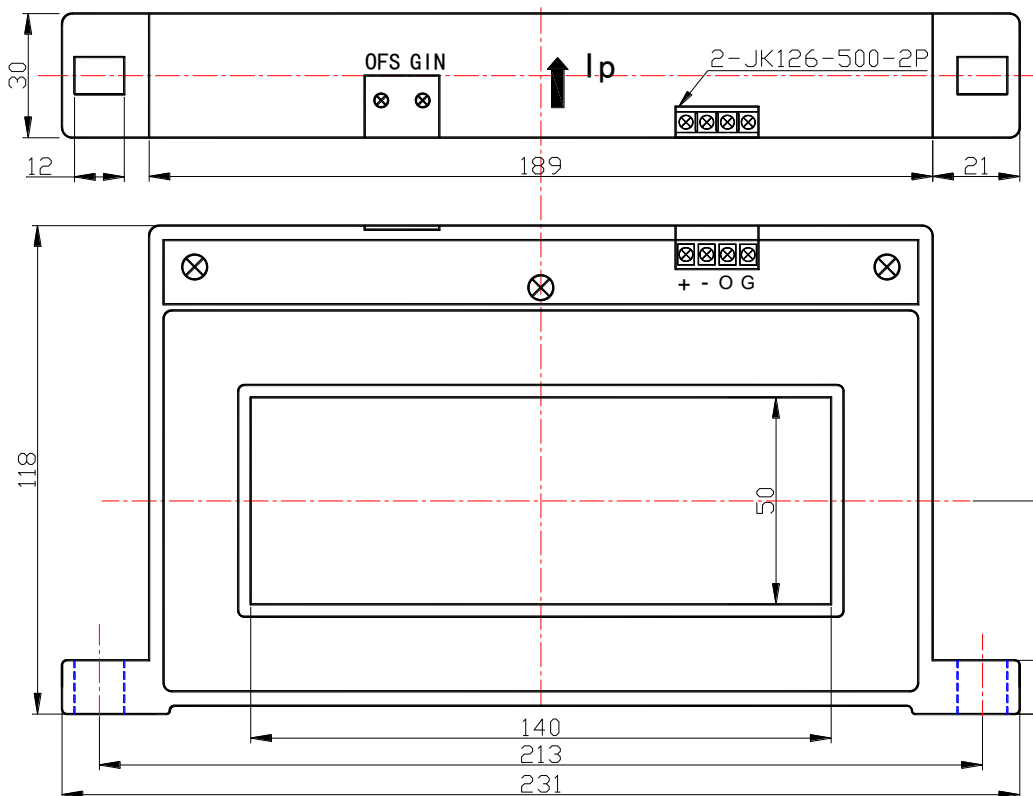
TKC-HB 系列开环型霍尔电流传感器

TKC-HB Series Open Loop Mode Hall Effect Current Sensor

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)



Pins	Connected
+	+15V
-	-15V
O	OUTPUT
G	GND

Remarks:

1. All dimensions are in mm.
2. General tolerance $\pm 1\text{mm}$

使用说明 Directions for use

1. 在 I_p 按箭头方向流动时, I_s 是正向。
Is will be in a forward direction when the I_p flows according to the direction of the arrowhead.
2. 初级导体温度不应超过 120°C 。
The primary conductor should be $\leq 120^\circ\text{C}$.
3. 母排完全充满初级穿孔时动态表现 (di/dt 和响应时间) 为最佳。
The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.

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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	符号 Symbol
工作温度 Operating temperature	-40 to +85	°C	TA
储存温度 Storage temperature	-40 to+125	°C	TS
毛重(约) Mass (approx)	1.25	kg	M

特性图 Characteristics chart

脉冲电流信号响应特性

Pulse current signal response characteristic

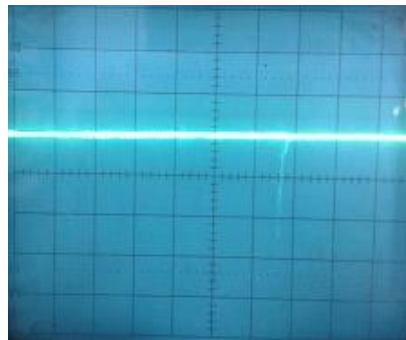


输入信号
(Input signal)

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)