

# TKC-DH 系列高精度霍尔电流传感器

## TKC-DH Series High Precision Hall Effect Current Sensor



TKC-DH 系列高精度开环型霍尔电流传感器的初、次级之间是绝缘的，无位置误差，用于精密测流、交流和脉冲电流。

TKC-DH Series high precision current sensor is a open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit, the size of primary not affect test precision, no matter the location of primary in the hole of current sensor. It uses for precision measurement of DC, AC and pulse current.

**电参数 Electrical data** (RL=2.0KΩ, CL=1000PF, 25°C)

参数 Parameter	型号 Type	TKC-20DH	TKC-50DH	TKC-100DH	TKC-200DH	TKC-300DH	TKC-400DH	TKC-500DH	TKC-600DH	TKC-1000DH	单位 Unit
额定输入电流 (I <sub>pn</sub> ) Rated input (I <sub>pn</sub> )		±20	±50	±100	±200	±300	±400	±500	±600	±1000	A
测量电流范围 (I <sub>p</sub> ) Measure range (I <sub>p</sub> )		±60	±150	±300	±600	±900	±1000	±1500	±1500	±1500	A
额定输出电压 Rated output		@I <sub>p</sub> =±I <sub>pn</sub> ±4.0±0.2%									V
电源电压 Supply voltage		±15±5%									V
消耗电流 Power consumption		≤35									mA
失调电压 Offset voltage		@I <sub>p</sub> =0 ≤±10									mV
磁失调电压 Magnetic offset		@I <sub>p</sub> =±I <sub>pn</sub> -0 ≤±10									mV
失调电压温漂 Offset drift		@-40°C~85°C ≤±0.2									mV/°C
输出电压漂移 Output drift		@-40°C~85°C ≤±0.2									mV/°C
线性度 Linearity		@I <sub>p</sub> =0-±I <sub>pn</sub> ≤0.2									%FS
响应时间 Response time		@100A/μS, 10%-90% ≤3									μS
带宽 Bandwidth		@-3dB DC~50									KHZ
绝缘电压 Galvanic isolation		@50HZ, AC, 1min 4									KV

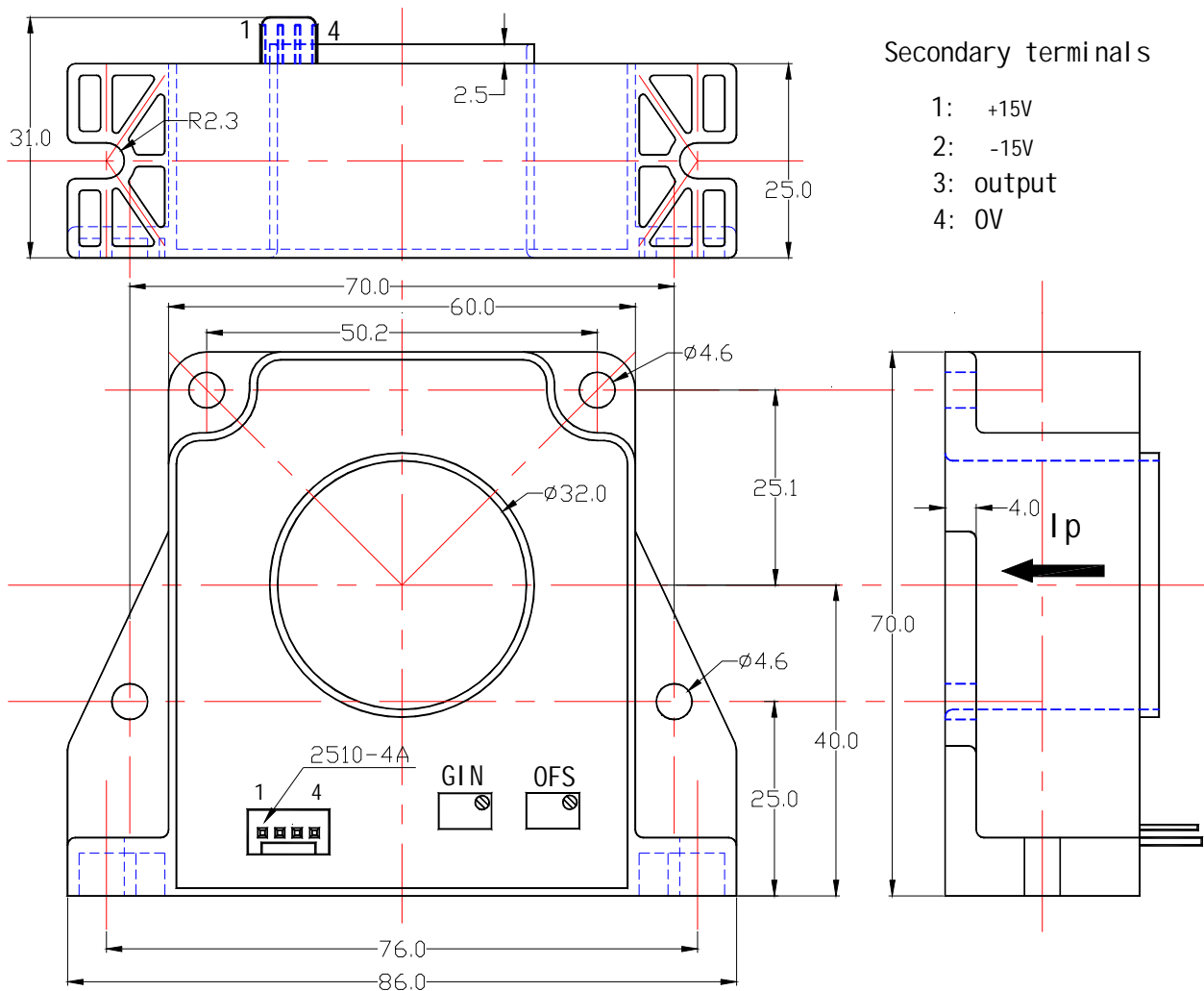
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## TKC-DH Series High Precision Hall Effect Current Sensor

### 应用 Applications

- I 变频调速系统  
Variable speed drives
- I 电焊机  
Welding machine
- I 通讯电源  
Battery supplied applications
- I 不间断电源 UPS  
Uninterruptible Power Supplies (UPS)
- I 电化学  
Electrochemical

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



Remarks:

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

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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. 传感器的输出幅度可根据用户需要进行适当调节。  
Customs can adjust Output amplitude of the sensor by needs.
3. 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

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

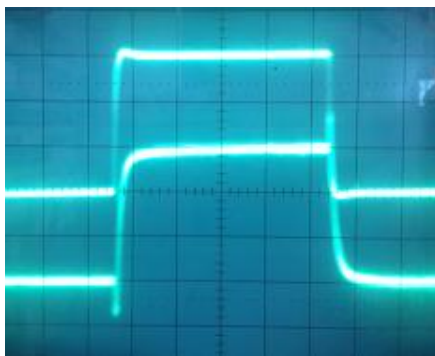
### 总体参数 General date

	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)	195	g	M

### 特性图 Characteristics chart

脉冲电流信号响应特性

Pulse current signal response characteristic

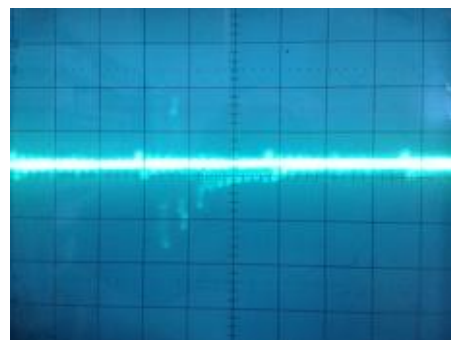


← 输入信号  
( Input signal )

← 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 )