








WHB-AP15D50/100/125Series Closed-loop Hall Current sensor

简介 Feature :

<ul style="list-style-type: none"> <li>应用闭环原理制作的霍尔电流传感器 Closed loop (compensated) current transducer using the hall effect</li> <li>电流传感器的初、次级是绝缘的，能够测量直流，交流，脉冲等 For the electronic measurement of currents: DC, AC,pulsed,..., with galvanic separation between primary circuit and secondary circuit</li> <li>供电：DC ±9 .. 15V Supply voltage: DC ±9 .. 15V</li> </ul>	 <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>
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特性与应用 Advantages & Applications:

特性 Advantages	应用 Applications
<ul style="list-style-type: none"> <li>◇ 高精度 Excellent accuracy</li> <li>● 良好的线性 Very good linearity</li> <li>◇ 低温漂 Low temperature drift</li> <li>◇ 抗干扰能力强 High immunity to external interference</li> <li>● 响应时间快 Optimized response time</li> </ul>	<ul style="list-style-type: none"> <li>◇ 电磁炉的电流监控与应用 The application of induction cooker</li> <li>● AC/DC 变速驱动 AC/DC variable-speed drive</li> <li>◇ 开关电源 Switched Mode Power Supplies (SMPS)</li> <li>● UPS 不间断电源 Uninterruptible Power Supplies (UPS)</li> <li>◇ 逆变器上的应用 The applications of inverter</li> </ul>

电气参数 Electrical data : ( Ta=25°C , Vc=±15VDC )

参数 Parameter	型号 Type		WHB50 AP15D50	WHB100 AP15D50	WHB125 AP15D125	WHB200 AP15D100	Unit
	符 号 Symbol						
额定输入 Rated input	IPN		50	100	125	200	A
测量范围 Measuring range	IP		0 ~ ±150	0 ~ ±300	0 ~ ±375	0 ~ ±600	A
线圈匝比 Turns ratio	Np/ NS		1:1000	1:2000	1:1000	1:2000	T
输出电流 Output current rms	IS		±50*IP/IPN	±50*IP/IPN	±125*IP/IPN	±100*IP/IPN	mA
线圈内阻 Secondary coil resistance	RS		30	50	30	50	Ω
测量电阻 Inside resistance	RM		[(VC-0.6V)/(IS*0.001)]-RS				Ω
供电电压 Supply voltage	VC		( ±9 ~ ±15 ) ±5%				V
精度 Accuracy	XG	@IPN,T=25°C	< ±0.5				%
偏移电流 Offset current	IOE	@IP=0,T=25°C	< ±0.2				mA
零点温度漂移 Temperature variation of IOE	IOT	@IP=0,-40 ~ +85°C	< ±0.005				mA/°C
线性度 Linearity error	εr		< 0.1				%FS
跟随精度 di/dt			> 100				A/μs
响应时间 Response time	tra	@90% of IPN	< 1.0				μs
静态功耗 Power consumption	IC		15+Is				mA
带宽 Bandwidth	BW	@-3dB,IPN	DC-200				KHZ
绝缘电压 Insulation voltage	Vd	@50/60Hz, 1min,AC	3.0				KV



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总体参数 General data :

参数 Parameter	符号 Symbol	数值 Value	单位 Unit
工作温度 Operating temperature	TA	-40 ~ +85	°C
储存温度 Storage temperature	Ts	-55~ +125	°C
重量 Mass	m	21	g
外壳材料 Plastic material	PBT G30/G15 , UL94- V0;		
标准 Standards	IEC60950-1:2001		
	EN50178:1998		
	SJ20790-2000		

结构参数 Dimensions( in mm):

<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>WHB-AP15D50/100</p> </div> <div style="text-align: center;"> <p>WHB125AP15D125</p> </div> </div>	<div style="text-align: center;"> <p>接线 Connection</p> </div> <div style="text-align: center; margin-top: 10px;"> <p>公差 General tolerance</p> <p>总公差 General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;                      初级过孔尺寸                      Primary through-hole : 10.5*16.2±0.15mm                      次级引脚尺寸 Secondary pin:3pin 0.6*0.65</p> </div>
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备注 Remarks :

- 1,当被测电流通过传感器的初级引脚时，在输出端有对应的电流信号输出。（注意：错误的接线可能损坏传感器）  
 When the current will be measured goes through the primary pin of a sensor,the current will be measured at the output end.(Note:The false wiring may result in the damage the sensor).
- 2,可以根据客户的要求设计不同额定电流的产品，并且传感器的输出电压时可选择的；  
 Custom design in the different rated input current and the output voltage are available.
- 3,母排完全充满孔时，动态性能最佳；  
 The dynamic performance is the best when the primary hole if fully filled with;
- 4,初级导体温度不应超过 100°C；  
 The primary conductor should be <math>< 100^{\circ}\text{C}</math>;