

B-LA15D25/50 闭环系列霍尔电流传感器

B-LA15D25/50Series Closed-loop Hall Current sensor

简介 Feature :

- 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
- 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
- 供电：DC $\pm 12 \sim 15V$
Supply voltage: DC $\pm 12 \sim 15V$



RoHS



特性与应用 Advantages & Applications:

特 性 Advantages	应 用 Applications
◇ 高精度 Excellent accuracy ● 良好的线性 Very good linearity ◇ 低温漂 Low temperature drift ◇ 抗干扰能力强 High immunity to external interference ● 响应时间快 Optimized response time	◇ 电磁炉的电流监控与应用 The application of induction cooker ● AC/DC 变速驱动 AC/DC variable-speed drive ◇ 开关电源 Switched Mode Power Supplies (SMPS) ● UPS 不间断电源 Uninterruptible Power Supplies (UPS) ◇ 逆变器上的应用 The applications of inverter

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

型号 Type 符 号 参数 Parameter		WHB25 LA15D25	WHB50 LA15D50	WHB75 LA15D50	WHB100 LA15D50	Unit
额定输入 Rated input	IPN	25	50	75	100	A
测量范围 Measuring range	IP	0 ~ ±55	0 ~ ±70	0 ~ ±105	0 ~ ±150	A
线圈匝比 Turns ratio	Np/ NS	1:1000	1:1000	1:1500	1:2000	T
输出电流 Output current rms	IS	±25*IP/IPN	±50*IP/IPN	±50*IP/IPN	±50*IP/IPN	mA
线圈内阻 Secondary coil resistance	RS	30	30	65	112	Ω
测量电阻 Inside resistance	RM	[(VC-2.0V)/(IS*0.001)]-RS				Ω
供电电压 Supply voltage	VC	(±12 ~ ±15) ±5%				V
精度 Accuracy	XG	@IPN,T=25℃ < ±0.5				%
偏移电流 Offset current	IOE	@IP=0,T=25℃ < ±0.2				mA
零点温度漂移 Temperature variation of IOE	IOT	@IP=0,-40 ~ +85℃ < ±0.005				mA/℃
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 2.5				KV

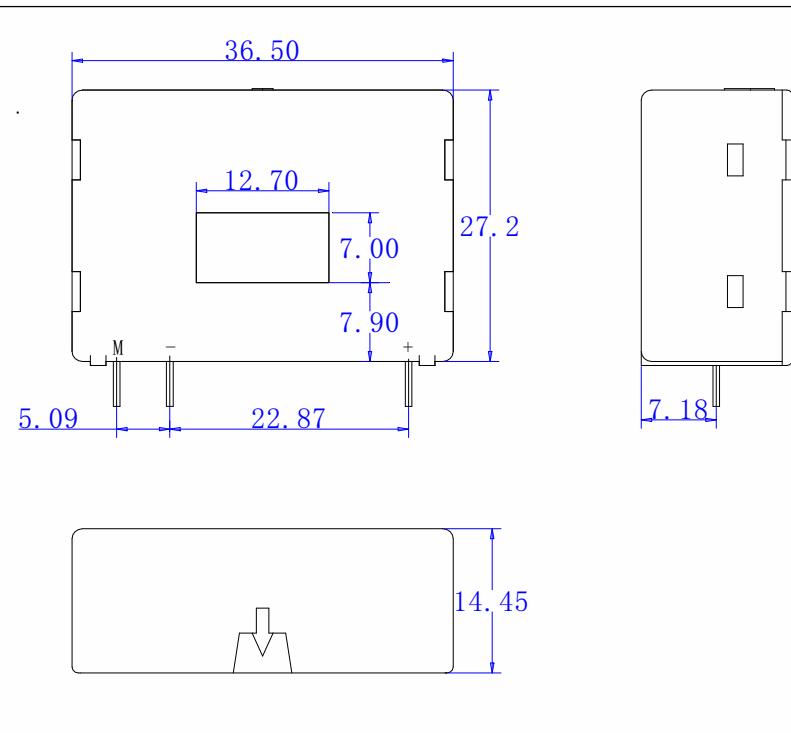
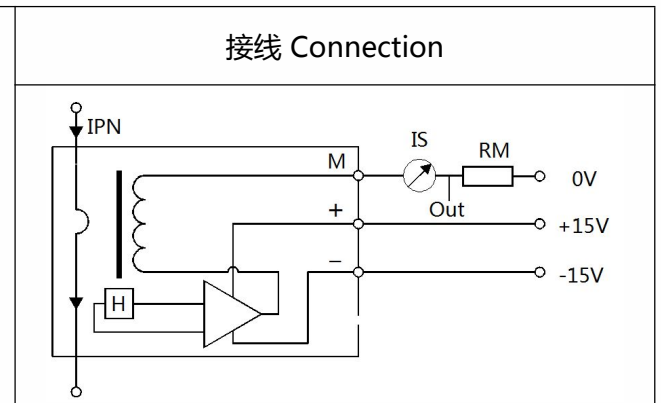
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总体参数 General data :

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	22	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):

		接线 Connection 
		公差 General tolerance 总公差 General tolerance:< ±0.5mm 初级过孔尺寸 Primary through-hole : 7.0*12.7±0.15mm 次级引脚尺寸 Secondary pin:3pin 0.6*0.65

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℃；

The primary conductor should be <100℃;