

NT100-S/SP5 电流传感器 Current Transducer

版本: A

产品说明

Applications

该磁平衡式霍尔电流传感器适用于对交流、直流和脉动电流的隔离精确测量，测量时一次侧与二次侧之间完全绝缘。

For the electronic measurement of currents: AC, DC IMPL.,etc.,with galvanic isolation between the primary (high power) and the secondary (electronic) circuits.



产品优点 Advantages	产品应用 Applications	参照标准 Standards
高精度 Excellent accuracy	交流变频器 AC variable-frequency drives	EN50178
线性度好 Very good linearity	电池供电 Battery supplied applications	EN50155
低温漂 Low temperature drift	变流器/逆变器 converter /inverter	
宽频带 Wide frequency bandwidth	UPS/SVG	
快速响应 Optimized response time		

主要电气参数 Main electrical data

额定测量电流 I_{PN} (A)	Primary nominal current rms	100
测量范围 I_p (A)	Primary current measuring range	0~±200
匝比	Conversion ratio	1:1000
电源电压 V_c (V)	Supply voltage	DC± (12~18)×(1±10%)
额定测量输出 I_{SN} (mA)	Secondary nominal current rms	100
测量电阻 R_M (Ω)	Measuring resistance	@±12V, ±100A: 0~50 @±12V, ±200A: 0~20 @±15V, ±100A: 0~80 @±15V, ±200A: 0~30 @±18V, ±100A: 0~100 @±18V, ±200A: 0~40
二次侧电流消耗 I_c (@±18V)	Current consumption	≤30mA+ Secondary output current I_{SN}
隔离耐压	Isolation test: Between the primary circuit to the secondary circuit	6 kVrms/50Hz/1min

精度 - 动态参数 Accuracy - Dynamic performance data

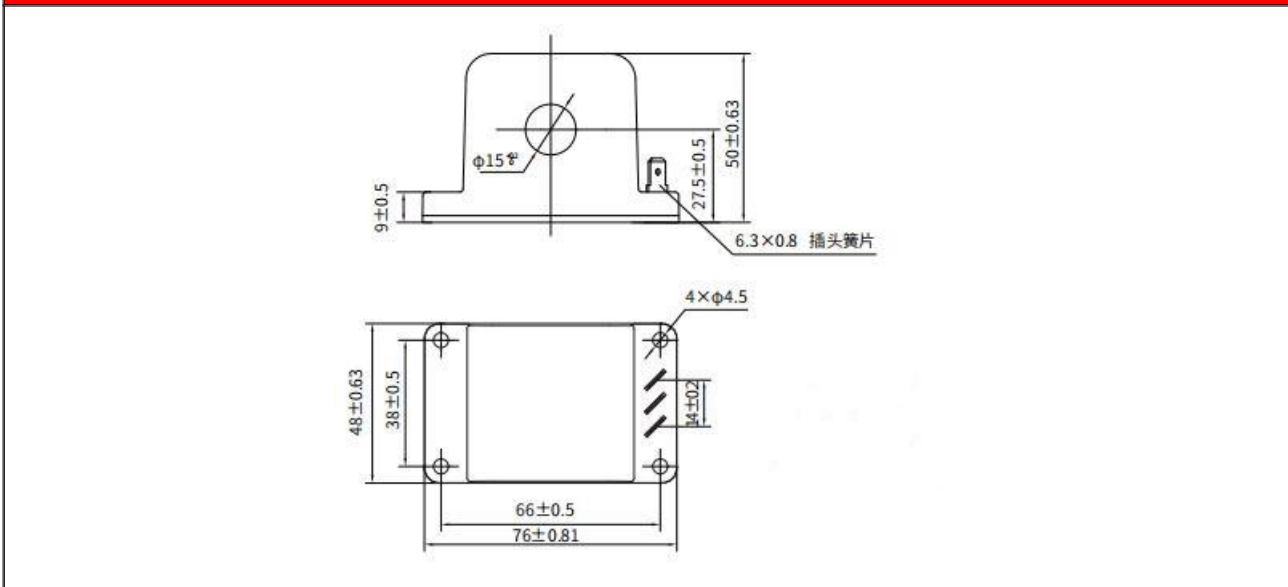
基本误差 δ_i (@ I_{PN} , $T_A=25^\circ\text{C}$)	Overall Accuracy	≤±0.5%
线性度误差 δ_L (@ I_{PN} , $T_A=25^\circ\text{C}$)	Linearity error	<0.1%

零点输出电流 I_0 (@ $I_p=0$, $T_A=25^\circ\text{C}$)	Offset current	$\leq \pm 0.4\text{mA}$
零点温漂 I_{OT}	Thermal drift	$\leq \pm 0.7\text{mA}$ ($-25^\circ\text{C} \sim +70^\circ\text{C}$)
响应时间 t_r	Response time to 90% of I_{PN} step	$\leq 1\mu\text{s}$
di/dt 精确度	di/dt Accurately followed	$> 50\text{A}/\mu\text{s}$
频率带宽 BW	Frequency bandwidth(-1dB)	DC..100kHz

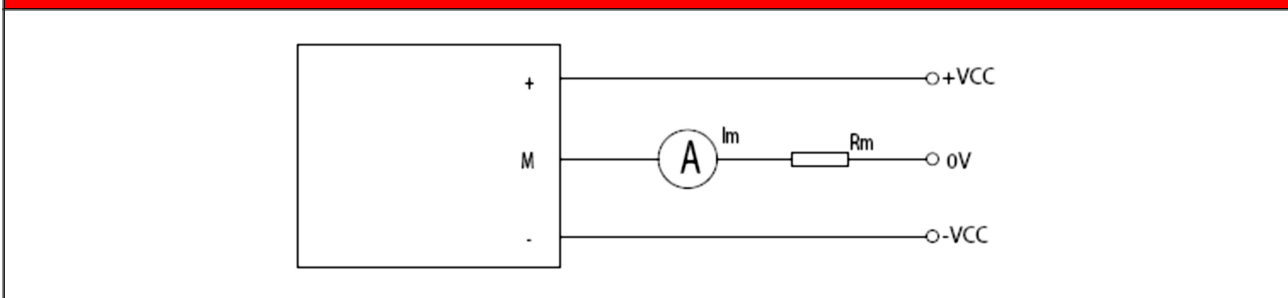
一般数据 General data

工作温度 T_a	Ambient operating temperature	$-25^\circ\text{C} \sim +70^\circ\text{C}$
储存温度 T_s	Ambient storage temperature	$-45^\circ\text{C} \sim +90^\circ\text{C}$
重量 m	Mass	$\leq 250\text{g}$

外形图 Dimensions (in mm)



电气连接 Connection



机械特征 Mechanical characteristics

备注 Remark

未注公差 General tolerance	$\pm 1\text{mm}$	1. 当测量电流方向与传感器上标示的 方向一致时，传感器输出 I_{SN} 为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output I_{SN}
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传感器安装方式(推荐) Transducer fastening (Recommended)	4hole $\varnothing 4.5\text{mm}$ 4 M4 steel screws	is positive. 2. 产品二次侧连接线优选屏蔽线，屏蔽层接近产品端连接线可接机壳，负电源或电源 0V。Product secondary side connecting line optimization shielding wire, cable shielding layer close to the product end can connect chassis, negative power or power 0 v.
推荐力矩 Recommended fastening torque	2.5 N · m	3. 电量传感器安装螺钉孔的垂直度要求：要求在国家标准 8 级或以上(或 0.06 以下)。Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below 0.06).
母排尺寸(推荐) Bus bar (Recommended)	$\varnothing 15\text{mm}$	4. 电量传感器安装面平面度要求：Sensor mounting surface flatness requirements:
次边电气连接 Connection of secondary	Faston 6.3×0.8	(a).大平面安装平面度国家标准 11 级或以上（或平面起伏小于 0.25mm）； Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25 mm);
		(b).安装面加有小圆凸台设计时平面度要求达国家标准 12 级或以上（或平面起伏小于 0.5mm）； When mounting surface with a small round convex platform design flatness requirement of national standard grade 12 or more (or less than 0.5 mm) in plane ups and downs; 5. 未注公差±1mm； Did not note the tolerance +/- 1 mm;