

NV25-P 电压传感器 Voltage Transducer

版本: A

产 品 说 明

Applications

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

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

$I_{PN}=10\text{mA}$
 $U_{PN}=10\ldots1500\text{V}$



CE RoHS
COMPLIANT

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 speed drives	EN50178
线性度好 Very good linearity	电池供电 Battery supplied applications	EN50155
	变流器/逆变器 converter /inverter	
	UPS/SVG	

主要电气参数 Main electrical data		
额定测量电流 I_{PN} (mA)	Primary nominal current rms	10mA
测量范围 I_P (mA)	Primary current measuring range	0~±14mA
匝比	Turns ratio	2500: 1000
电源电压 V_c (V)	Supply voltage	±15×(1±5%)V
额定测量输出 I_{SN} (mA)	Secondary nominal current rms	25mA
测量电阻 R_M (Ω)	Measuring resistance	@10mA: 100Ω~340Ω @14mA: 100Ω~180Ω
二次侧电流消耗 I_c (@±15V)	Current consumption	≤10mA+ Secondary output current I_{SN}
隔离耐压	Isolation test: Between the primary circuit to the secondary circuit	4.2 kVrms/50Hz/1min

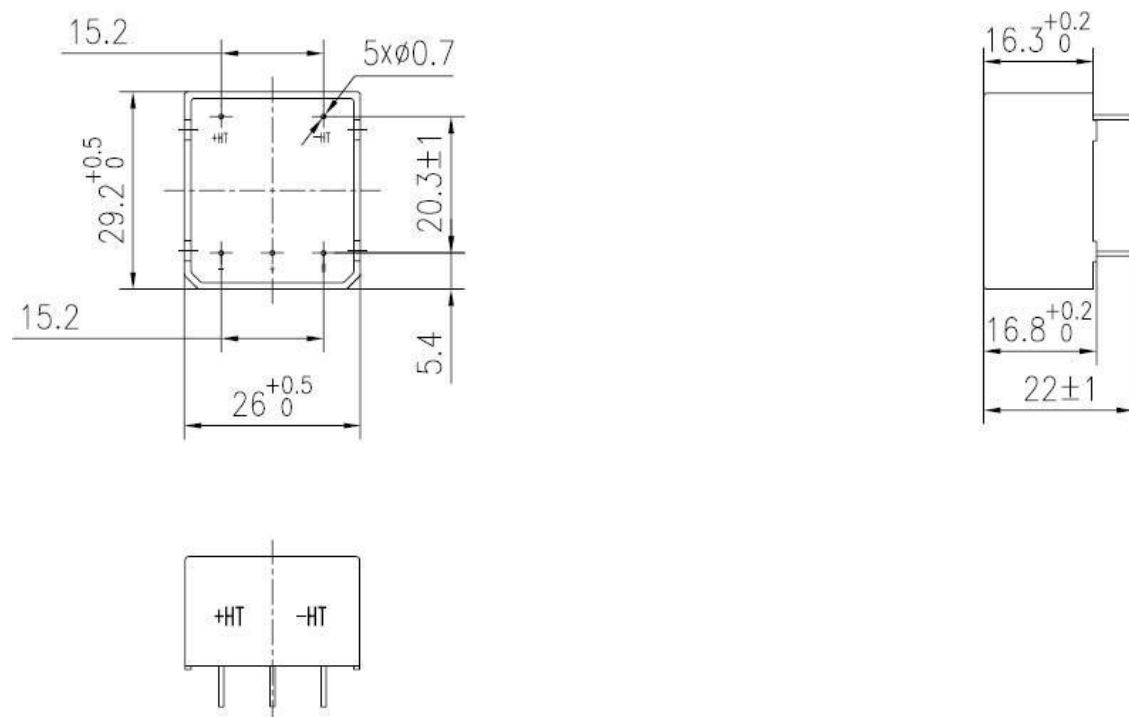
精度 - 动态参数 Accuracy - Dynamic performance data		
基本误差 δ_i (@ I_{PN} , $T_A=25^\circ\text{C}$)	Overall Accuracy	≤±0.8%
线性度误差 δ_L (@ I_{PN} , $T_A=25^\circ\text{C}$)	Linearity error	<0.2%
零点输出电流 I_o (@ $I_P=0$, $T_A=25^\circ\text{C}$)	Offset current	≤±0.15mA

零点温漂 I_{OT}	Thermal drift of I_O	$\leq \pm 0.5\text{mA}$ ($-25^\circ\text{C} \sim +85^\circ\text{C}$) $\leq \pm 0.8\text{mA}$ ($-40^\circ\text{C} \sim +85^\circ\text{C}$)
响应时间 t_r	Response time to 90% of I_{PN} step	$\leq 40\mu\text{s}$

一般数据 General data

工作温度 T_a	Ambient operating temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$
储存温度 T_s	Ambient storage temperature	$-50^\circ\text{C} \sim +90^\circ\text{C}$
重量 m	Mass	$\leq 22\text{g}$

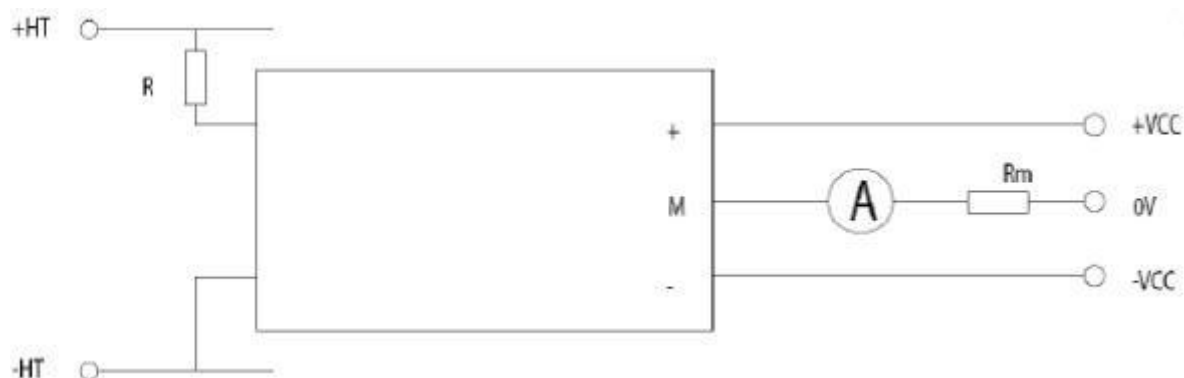
外形图 Dimensions (in mm)

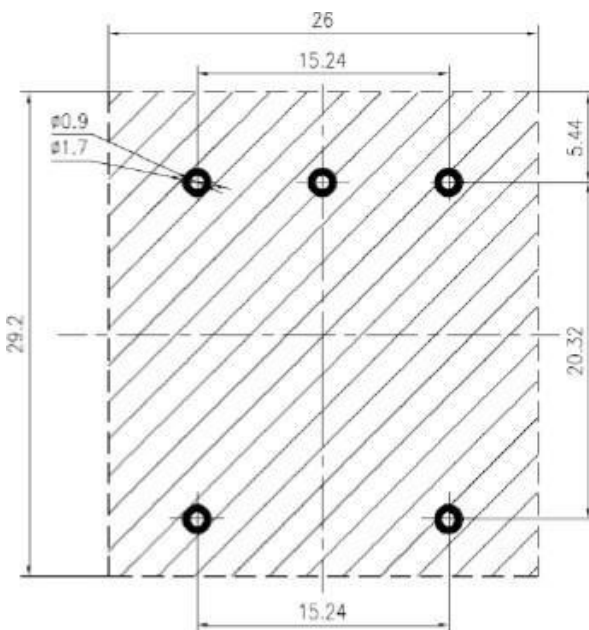


未注公差: $\pm 0.5\text{mm}$

General tolerance: $\pm 0.5\text{mm}$

电气连接 Connection



机械特征 Mechanical characteristics	备注 Remark
安装方式: PCB安装 Installation: PCB mounting 推荐封装: 单位mm Recommend PCB layout dimension(unit mm) 未注公差: $\pm 0.5\text{mm}$ General tolerance: $\pm 0.5\text{mm}$ 	1. +HT 接测量电压为正时, 传感器输出 I_{SN} 为正。 1. I_{SN} is positive when U_p is applied on terminal + HT. 2. 测量电压时应串联外接一个电阻R, 通过公式$R=U_p/0.01A$计算外接电阻 R 的值, 公式中U_p为待测电压(V)。 2. An external resistor should be connected in serial with the transducer when measuring the voltage, the value of R should be calculated according to formula of $R = U_p / 0.01 A$, where U_p is the voltage under test (V).