

**NACF.200C-S5/V(NCA1C-200A) 电流传感器 Current Transducer**
**版本： A**
**产品说明**
**Applications**

NACF.200C-S5/V 开环霍尔电流传感器适用于对交流、直流、脉冲电流的隔离精确测量，测量时一次侧与二次侧间完全绝缘。

For the electronic measurement of currents: AC, DC, pulsed ..., with galvanic separation between the primary circuits and the secondary circuits.



产品优点 Advantages	产品应用领域 Applications	参照标准 Standards
体积小 Small size and space savings	变频器 Static converters 不间断电源 Uninterruptible Power Supplies (UPS)	EN 50178: 1997 IEC60950-1:2001 UL94-V0

主要电气参数 Main electrical data (@ $\pm I_{PN}$ , $R_L = 10 \text{ k}\Omega$ , $T_A = 25^\circ\text{C}$ )		
额定测量电流 $I_{PN}$	Primary nominal current	200A
测量范围 $I_{PM}$	Primary current measuring range	$\pm 600\text{A}$
电源电压 $V_c$	Supply voltage	DC $\pm 15(1 \pm 5)\text{V}$
电流消耗 $I_c$	Current consumption	$\leqslant \pm 30\text{mA}$
额定测量输出 $V_{OUT}$	Output voltage	$\pm 4\text{V}$
输出内阻 $R_{OUT}$	Output internal resistance	$100 \Omega$
负载电阻 $R_L$	Load resistance	$\geqslant 10\text{k}\Omega$

精度 - 动态参数 Accuracy - Dynamic performance data		
基本误差 $\delta_i(I_{PN}, T_A=25^\circ\text{C})$	Accuracy(excluding offset)	$\leqslant \pm 1\%$ of $I_{PN}$
线性度 $\delta_L(0 \dots \pm I_{PN})$	Linearity error	$\leqslant \pm 1\%$ of $I_{PN}$
零点输出误差 $\delta_z(T_A = 25^\circ\text{C})$	Electrical offset voltage	$\leqslant \pm 30\text{mV}$
磁滞失调电压 $V_{OH}(I_p=0,1 \times I_{PN} \text{ 冲击后 })$	Hysteresis offset voltage @ $I_p=0$ , after an excursion of $1 \times I_{PN}$	$\leqslant \pm 35\text{mV}$
零点温度漂移 $\delta_{z_t}(T_A = -40^\circ\text{C} \sim +85^\circ\text{C})$	Temperature coefficient of $\delta_z$	$\leqslant \pm 1\text{mV}/^\circ\text{C}$
满量程温度漂移 $\delta_{FS_t}(T_A = -40^\circ\text{C} \sim +85^\circ\text{C})$	Temperature coefficient of $V_{OUT}$	$\leqslant \pm 0.1\%/\text{ }^\circ\text{C}$
响应时间 $T_R(90\% \text{ of } I_{PN} \& \frac{di}{dt} > 50 \text{ A}/\mu\text{s})$	Step response time to 90 % of $I_{PN}$	$\leqslant 3\mu\text{s}$

带宽(-3dB)BW

Frequency bandwidth (-3dB)

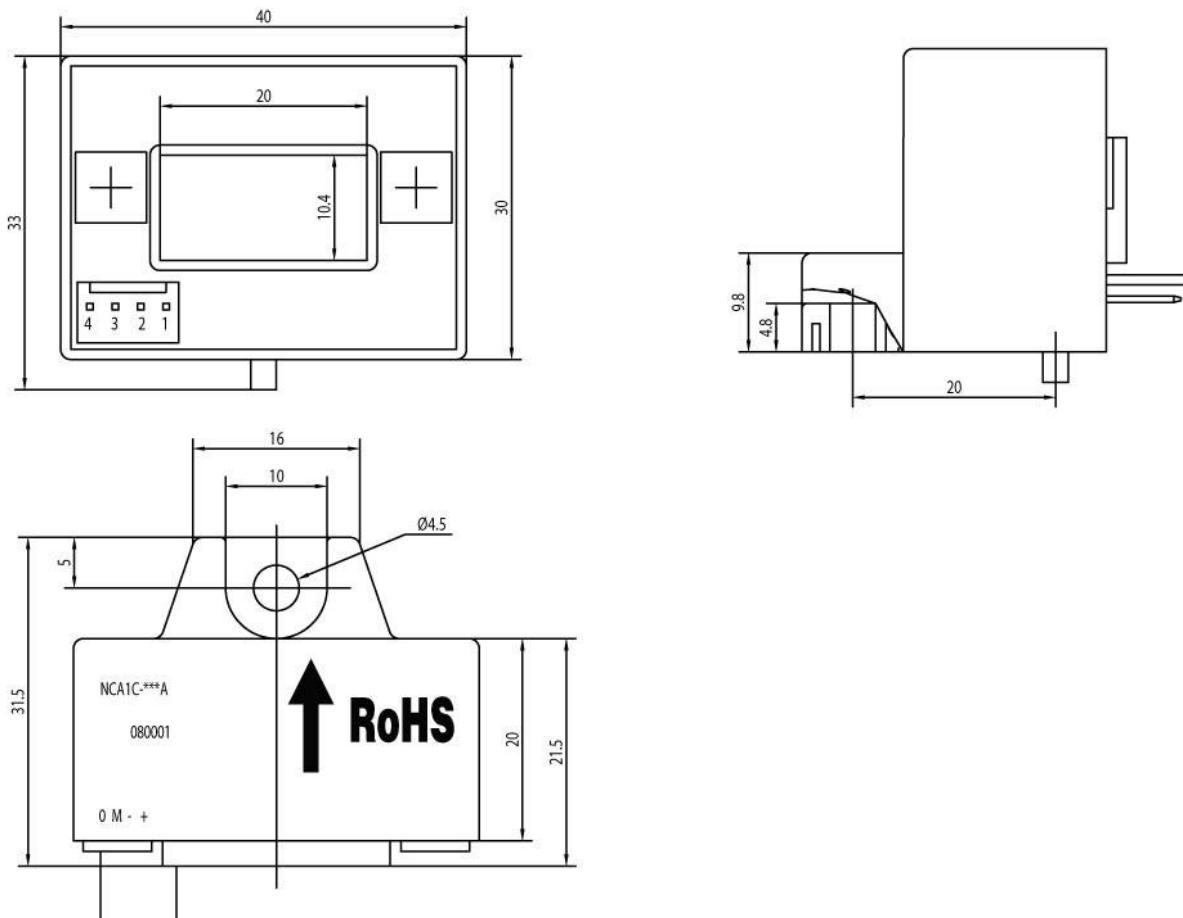
DC ... 25kHz

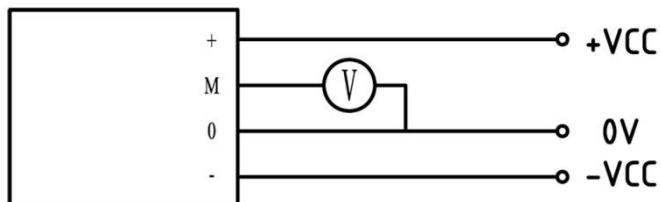
**一般数据 General data**

工作温度 Ta	Ambient operating temperature	-40~+85 °C
储存温度 Ts	Ambient storage temperature	-45~+125 °C
重量 m	Mass	≤80g

**绝缘耐压 Insulation coordination**

耐压	Voltage for AC insulation test, 50Hz,1min	3kV
绝缘电阻 R <sub>IS</sub>	Isolation resistance	≥1000M Ω
爬电距离	Creepage distance	7.08mm
电气间隙	Clearance	6.23mm

**NACF.200C-S5/V 电压传感器外形图 Dimensions NACF.200C-S5/V Series (in mm)**

**电气连接 Connection**



机械特征 Mechanical characteristics	备注 Remark
未注公差 General tolerance	±0.5mm
传感器安装 Transducer fastening	1 hole ø4.5mm 1 M4 steel screws
推荐力矩 Recommended fastening torque	0.75 N • m
穿心孔 Primary through-hole	20.4 × 10.4mm
次边电气连接 Connection of secondary	MOLEX 5045-04A

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  $I_{SN}$  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.

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).

4. 电量传感器安装面平面度要求: Sensor mounting surface flatness requirements:  
(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;