

NT1000C-S/SP3(NACL.1000Q-S3/SP1N)
Current Transducer
B
Current Sensor
Applications

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



Advantages	Applications	Standards
Excellent accuracy	AC variable speed drives	GB/T 25119-2010 EN50178 EN50155
Very good linearity	Servo motor drives	
Low temperature drift	Battery supplied applications	
Wide frequency bandwidth	converter /inverter	
Optimized response time	UPS/SVG	

Main electrical data (@ $\pm I_{PN}$, $T_A = 25^\circ\text{C}$)		
I_{PN}	Primary nominal current	1000A
I_{PM}	Primary current measuring range	$\pm 2400A$
V_C	Supply voltage	DC $\pm (15\sim 24) \times (1 \pm 5\%)V$
$I_C(@\pm 24V)$	Current consumption	$\leq \pm 30mA + I_{SN}$
I_{SN}	Output current	200mA
	Conversion ratio	1:5000
R_M	Load resistance	@ $\pm 15V$, $\pm 1000A$: 0~15 Ω @ $\pm 15V$, $\pm 1200A$: 0~7 Ω @ $\pm 24V$, $\pm 1000A$: 0~50 Ω @ $\pm 24V$, $\pm 2000A$: 0~7 Ω

Accuracy - Dynamic performance data		
$\delta_i(@I_{PN}, T_A=25^\circ\text{C})$	Overall Accuracy	$\leq \pm 0.4\%$
$\delta_L(@I_{PN}, T_A=25^\circ\text{C})$	Linearity error	$\leq \pm 0.1\%$
$I_O(@I_P=0, T_A=25^\circ\text{C})$	Offset current	$\leq \pm 0.5mA$
I_{OT}	Temperature coefficient of δ_{Zt}	$\leq \pm 1.0mA$
$T_R(90\% \text{ of } I_{PN} \& di/dt > 50 A/\mu S)$	Step response time to 90 % of I_{PN}	$\leq 1\mu S$

General data		
Ta	Ambient operating temperature	-40~+85°C
Ts	Ambient storage temperature	-45~+90°C
m	Mass	≤900g

Insulation coordination	
Voltage for AC insulation test, 50Hz,1min	13.4kV

NT1000C-S/SP3	Dimensions NT1000C-S/SP3 Series (in mm)
<p>Technical drawing showing front, side, and bottom views of the NT1000C-S/SP3 sensor. Dimensions include: 127±1 (total height), 15 (top terminal spacing), 42 (central opening diameter), 59±0.63 (lower section height), 70±0.5 (top terminal width), 82±0.81 (total width), 66±0.5 (lower section width), 101±0.81 (bottom width), 6.5 (bottom offset), and 6.3×0.6 (mechanical detail). Labels include '4xM5', '4xφ5.5±0.2', 'φ42', and '6.3×0.6 机械接口'.</p>	<p>Side view technical drawing of the sensor showing its profile and a 15mm dimension at the top.</p>
	<p>1、未注公差±0.5； 2、电气接口：采用4个M5锁紧螺母，拧紧扭矩2±0.1N·m； 3、机械接口：底座4个φ6.5半腰孔推荐使用M6螺栓，安装固定扭矩为4.5±0.2N·m。</p>

Connection	
<p>Wiring diagram showing connections for terminals: + to +VCC, M to 0V, - to -VCC, and E to -VCC. A current measurement point 'Im' is shown between M and 0V.</p>	
Mechanical characteristics	Remark

<p>1. Sensors installed aperture: 4 x ϕ 5.5 mm</p>	<p>1. When measuring the current direction of arrow mark on direction and sensor, the sensor output ISN is positive.</p>
<p>2. It is recommended to use: M5 bolt</p>	<p>2. 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.</p>
<p>3. The installation of fixed torque: 3.5 N · m</p>	<p>3. Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below 0.06).</p>
<p>4. The original hole: ϕ 42mm</p>	<p>4. Sensor mounting surface flatness requirements: Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25);</p> <p>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;</p>
<p>5. Electrical connections: The plug of the M5 bolt (or 6.3 x 0.8 reed) 2.2N · m</p>	<p>5. 未注公差\pm0.5mm; Did not note the tolerance + / - 1mm;</p>