NT500C-S Current Transducer

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
Very good linearity	Servo motor drives	
Low temperature drift	Battery supplied applications	
Wide frequency bandwidth	converter /inverter	
Optimized response time	UPS/SVG	

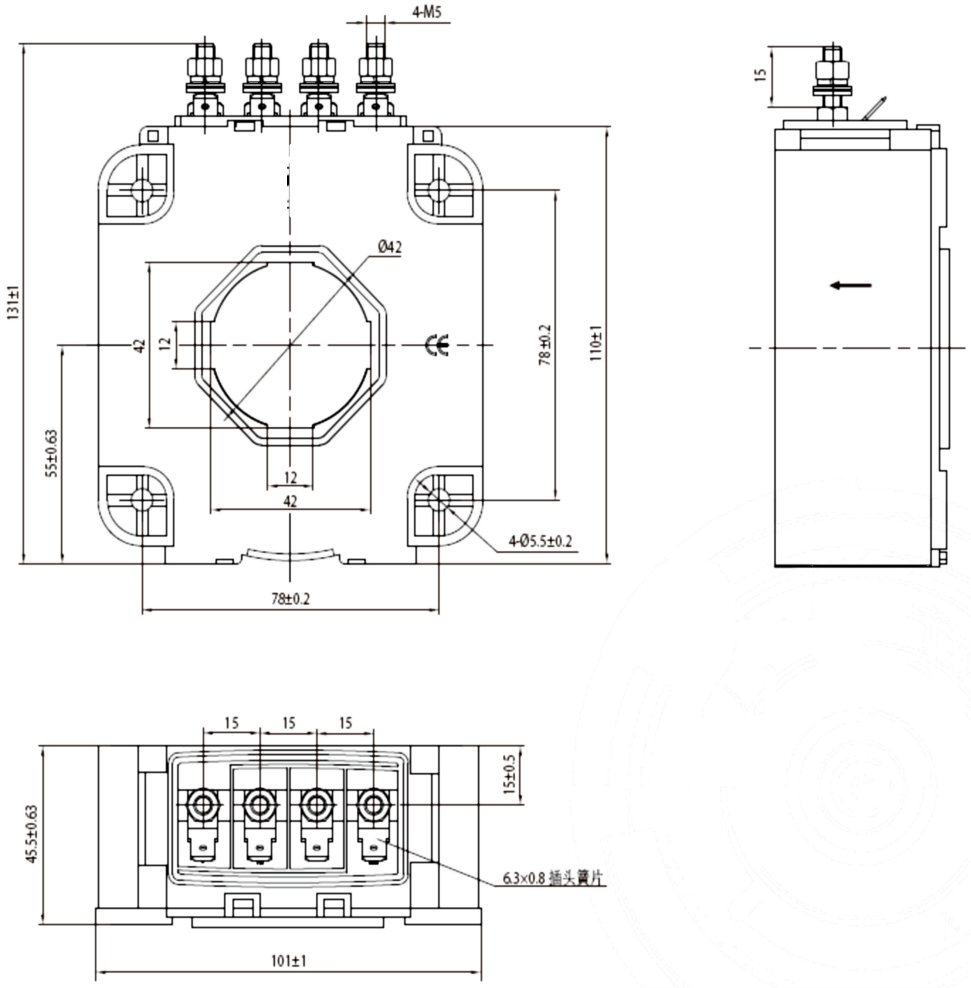
Main electrical data		
I_{PN}（A）	Primary nominal current rms	500A
I_P（A）	Primary current measuring range	0～±1500
	Conversion ratio	1:5000
V_C（V）	Supply voltage	DC±（15~24)×(1±5%)V
I_{SN}(mA)	Secondary nominal current rms	100mA
R_M（Ω）	Measuring resistance	
	$R_M$min $R_M$max with ±15V @±500A max: 0Ω 70Ω @±1200A max: 0Ω 5Ω with ±24V @±500A max: 0Ω 150Ω @±1500A max: 0Ω 20Ω	
I_C(@±24V)	Current consumption	≤30mA+ Secondary output current I_{SN}
	Isolation test: Between the primary circuit to the secondary circuit	13.4kVrms/50Hz/1min

Accuracy - Dynamic performance data		
(@I_{PN}，T_A=25℃)	Overall Accuracy	≤±0.7%
(@I_{PN}，T_A=25℃)	Linearity error	＜1.6%

(@I_P=0， T_A=25℃)	Offset current	≤±0.5mA
I_{OT}	Thermal drift	≤±1mA（-40℃~+85℃）
t_r	Response time to 90% of I_{PN} step	≤1us
di/dt	di/dt Accurately followed	＞100A/us
BW	Frequency bandwidth(-1dB)	DC..100kHz

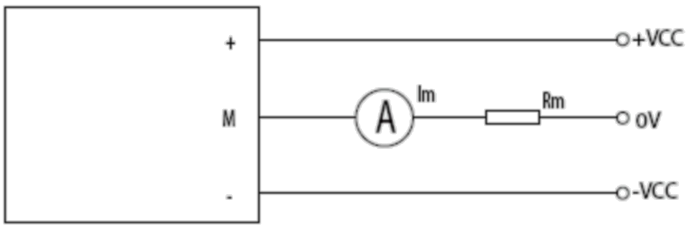
General data		
Ta	Ambient operating temperature	-40℃~+85℃
Ts	Ambient storage temperature	-45℃~+90℃
	Clearance distance dCl mm	45
	Creepage distance dCp mm	64
	CTI	＞175
	Mass	≤900g

Dimensions (in mm)



Connection

Connection of secondary： 4 M5 threaded studs



Mechanical characteristics	
General tolerance	±1 mm
Transducer fastening （Recommended）	4 hole ø5.5mm 4 screws M5
Recommended fastening torque	3.5 N • m
Bus bar(Recommended)	ø 42mm
Connection of secondary	4 M5 threaded studs Faston 6.3×0.8
Recommended fastening torque	2.2 N • m

Remark

1. ➡ When measuring the current direction of arrow mark on direction and sensor, the sensor output ISN is positive.
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.
3. Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below 0.06).
4. Sensor mounting surface flatness requirements:
   (a). Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25 mm);
   (b). 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. Did not note the tolerance + / - 1 mm;