

HNC151-100 Series Hall Current Sensor

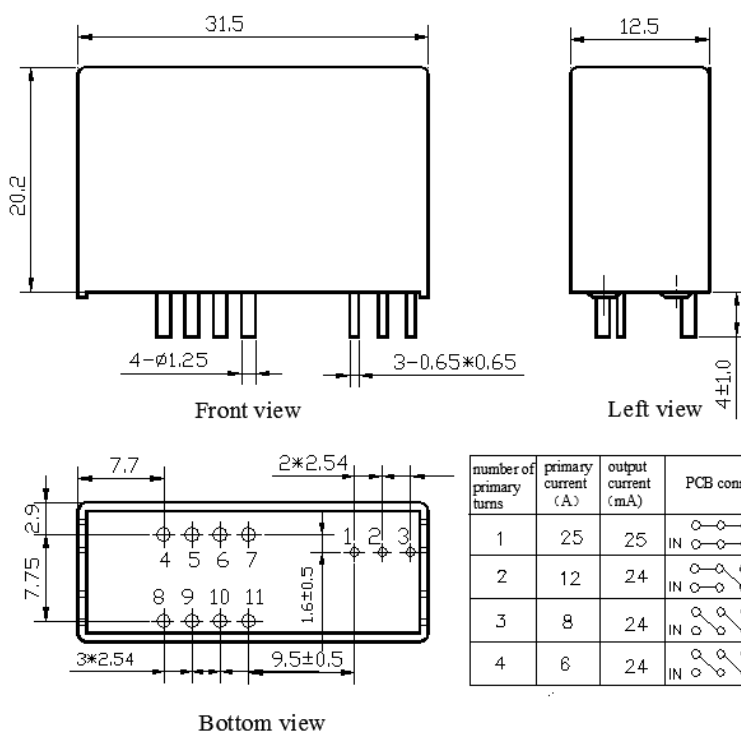
Introduction

HNC151-100 Series Hall current transducer is the new generation product based on Hall effect. It is able to measure DC, AC, pulse and other currents with irregular waves under the condition of electrical isolation.

△Electrical Parameters (Ta=25°C)

Type		HNC151-100
Parameters	Symbols	
Nominal measuring current	I_{PN}	25A
Linear range	I_P	0~±50A
Turns ratio	K_N	1-2-3-4:1000
Coil resistance	R_i	45Ω
Nominal output current	I_{SN}	25 mA±0.5%
Zero offset current	I_o	≤ ±0.3mA($I_{PN}=0$)
Linear error	ξ_L	±0.2%
Supply voltage	V_c	±15V ±5%
Response time	T_r	≤1 μS
Temperature drift of bridge offset	I_{OT}	≤±0.6mA
Power dissipation current	I_C	(15+ K*I _p /1000) mA
Recommended load resistance	R_M	54~360 Ω
Isolation voltage	V_d	3.0KV/50 or 60Hz/1min
Frequency bandwidth	f	DC~ 200KHZ (-3dB)
Operating temperature	T_a	-25°C~+85°C
Storage temperature	T_s	-40°C~+90°C

△Dimension: (mm)



number of primary turns	primary current (A)	output current (mA)	PCB connections
1	25	25	IN ○ ○ ○ OUT
2	12	24	IN ○ ○ ○ OUT
3	8	24	IN ○ ○ ○ OUT
4	6	24	IN ○ ○ ○ OUT



Features:

- ◆ Use close-loop current transducer based on Hall effect
- ◆ Adopt UL94V-0-recognized insulated casing
- ◆ High precision
- ◆ Low temperature drift
- ◆ Wide frequency bandwidth
- ◆ High immunity against external disturbance

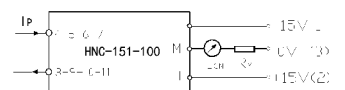
Applications:

- ◆ AC variable-frequency speed control system and servo motor
- ◆ Uninterruptible power supplies (UPS)
- ◆ Switched-mode power supply
- ◆ Power supply for electric welding machine
- ◆ Battery supply

Instructions for Use:

- ◆ Connect the wire of transducer in correct way as required.
- ◆ Inputting measured current from punched core of transducer, the in-phase current signal can be obtained from output end by sampling.

Pin arrangement:



- ◆ 1: -Vc (-15V)
- ◆ 2: +Vc (+15V)
- ◆ 3: Output
- ◆ 4-7: primary In
- ◆ 8-11: primary Out