HNC-100LA Series Hall Current Sensor

Introduction

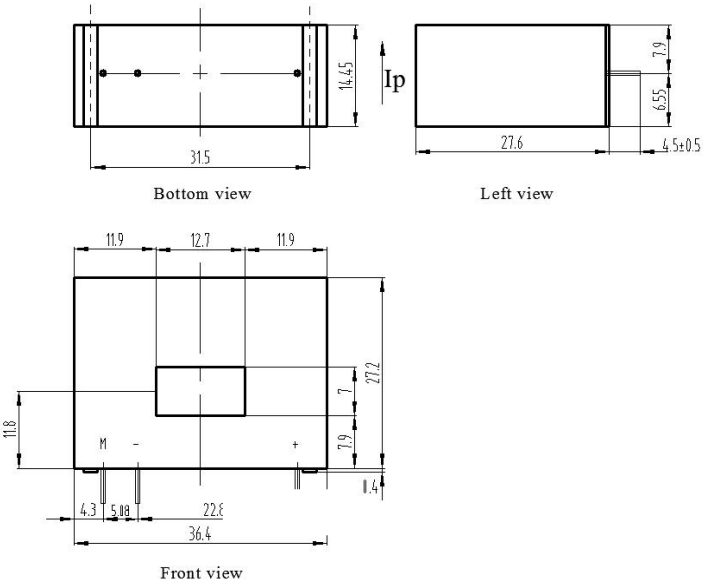
HNC-100LA Series Hall current transducer is the new generation product based on Hall effect. It is able to measure DC, AC, pulse and other currents with irregular waves under the condition of electrical isolation.

△Electrical Parameters (Ta＝25℃)

Type / Parameters	Symbols	HNC-25LA	HNC-50LA	HNC-75LA	HNC-100LA
Nominal measuring current	I_{PN}	25A	50A	75A	100A
Linear range	I_P	0~±38A	0~±75A	0~±105A	0~±150A
Turns ratio	K_N	1:1000	1:1000	1:1500	1:2000
Coil resistance	R_i	45Ω	45Ω	72Ω	105Ω
Nominal output current	I_{SN}	25 mA±0.9%	50 mA±0.9%	50mA±0.7%	
Zero offset current	Io	≤±0.2 mA		≤±0.15mA	
Linear error	ξ_L	±0.15%			
Supply voltage	Vc	±15V ±5%			
Response time	Tr	≤1 μ S			
Temperature drift of bridge offset	I_{OT}	Within ±0.1mA Type ±0.5mA Max		Within ±0.1mA Type ±0.25mA Max	
Recommended load resistance	RM	75~420Ω	30~180Ω	25~150Ω	10~120Ω
Power dissipation current	I_C	(15+ I_S) mA			
Isolation voltage	V_d	2.5KV/50 or 60Hz/1min			
Frequency bandwidth	f	DC~ 100KHz (-3dB)			
Operating temperature	Ta	-25℃~+85℃			
Storage temperature	Ts	-40℃~+90℃			

△Dimension：(mm)

General tolerance: ±0.5mm



Features：

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

Applications：

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

Instructions for Use：

- Connect the wire of transducer in correct way as required.
- Inputting measured current from input end of transducer, the in-phase current signal can be obtained from output end by sampling.
- The arrow indicates positive current direction.

Connection and adjustment：

- +：+Vc（+15V）
- −：-Vc（-15V）
- M：Output

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