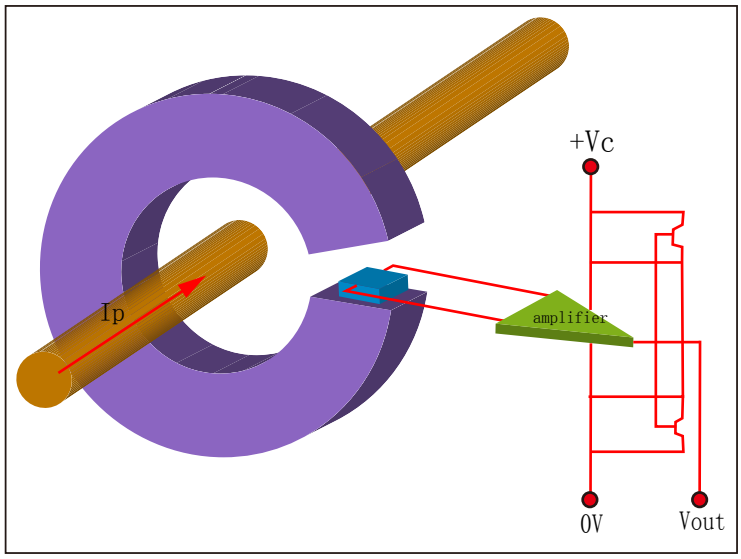
Hall open loop current sensor

Detect dc, ac, pulse current, high insulation between primary and secondary circuit.

Serial number	input	output	Supply	code
①	100A	2.5V±0.625V	+5V	HKS05D-D100S5B6
②	100A	2.5V±1V	+5V	HKS05D-D100S5B1
③	100A	2.5V±2V	+5V	HKS05D-D100S5B2

Characteristics:

- •Small size
- •Light-weight
- •Low power dissipation
- •Good linearity
- •No insertion loss
- •Low response time
- •Good anti-interference ability



Product application:

- •Railway
- •Metallurgy
- •Welding machine
- •Wattmeter
- •Robot
- •DC motor
- •Inverter
- •Variable-frequence governor
- •Vehicle power management system
- •UPS Uninterruptible power supply and communication power supply

Principle: Hall devices are used to directly detect the primary magnetic field generated by the current in the primary conductor, Output voltage signal after linear amplification.Inside the sensor, special stability and temperature compensation circuit areadopted, Thus the outside voltage and temperature on the sensor to minimize the impact.

Technical index and electrical parameter

IP	Rated input	±100A			
IPM	Measuring range	±100A	±100A	±100A	
VOUT	Rated output	2.5V±0.625V	2.5V±1V	2.5V±2V	*Output either
X	Accuracy	1%			
εL	Linearity	1%			
VC	Supply voltage(±5%)	+5V			
IC	Current consumption	＜15mA			
RL	Load impedance	≥10KΩ			
VOE	Zero Offset TA=25℃	≤±15mV			
TR	Response time	＜5μs			*Subject to actual measurement
N.W	Weight	6g			
BW	Work temperature	-25～+85℃			
Ta	Storage temperature	-40～+105℃			
Ts	Band width	DC~100KHz			*Factory test according to DC
Vd	Dielectric strength	2.5KV 50Hz 1min			

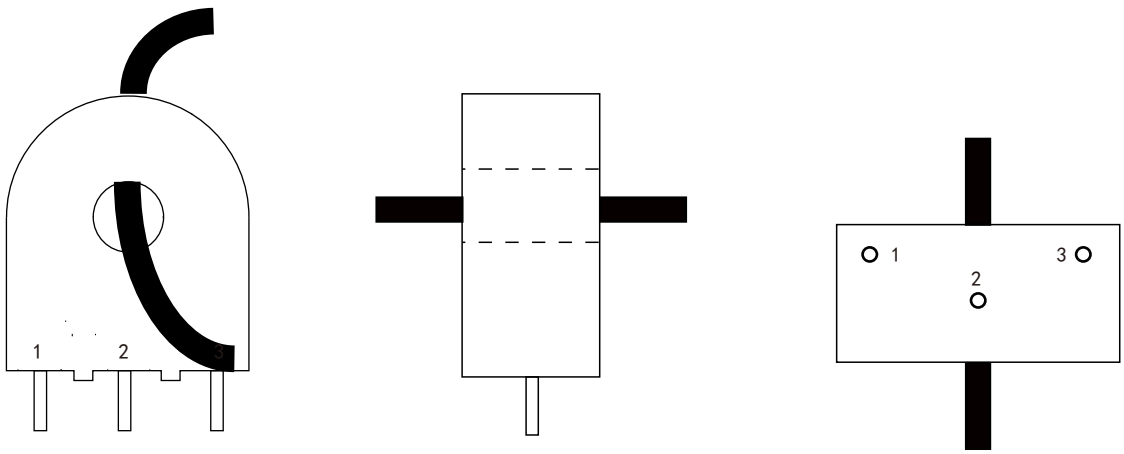
Instructions for use:

1.Pay attention to the direction of the current and wire it according to marked wiring.

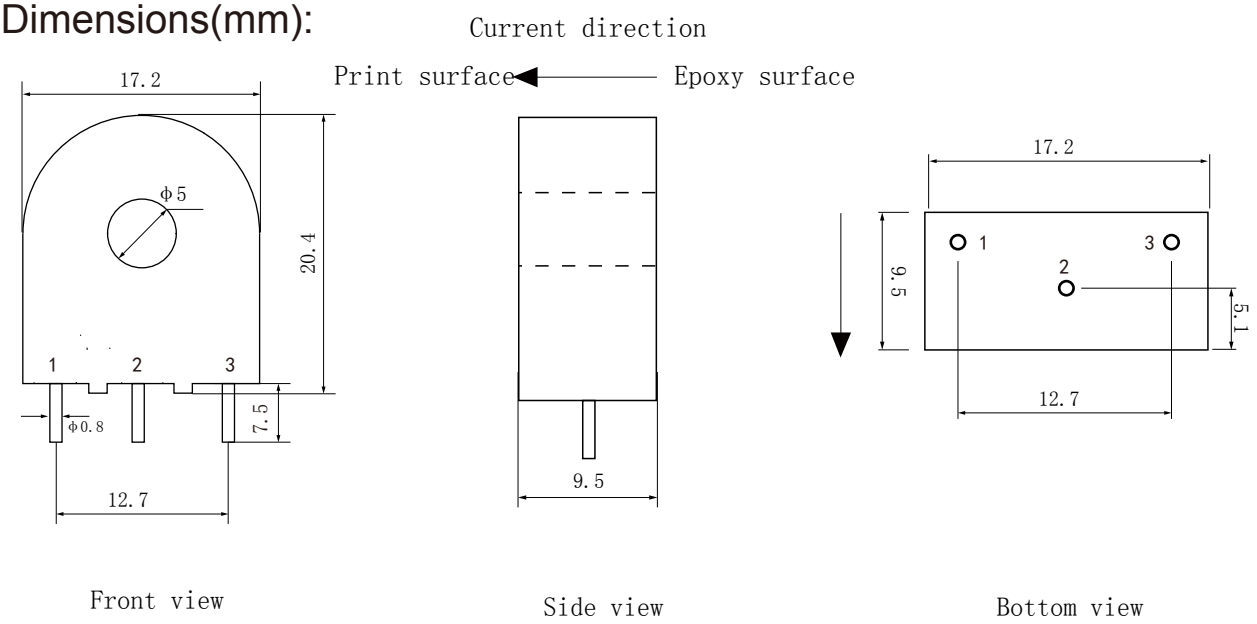
2.The temperature of the primary conductor should not exceed 100 degrees.

3.Response time and follow-up are optimal for full hole measurement.

Primary threading method:

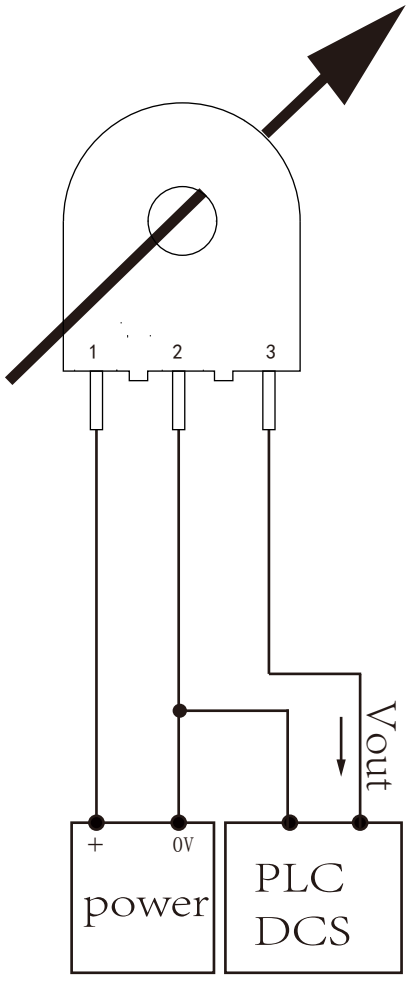


Dimensions(mm):



Front view　　Side view　　Bottom view

Connection diagram:



Pin definition:

1: +V
2: 0V
3: Vout

※Testing:

①Auxiliary power supply with small ripple (≤10mV) to stabilize voltage is selected

②Switch on auxiliary power

③Connect auxiliary power to sensor

④The sensor detects a primary current