Hall open loop current sensor

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

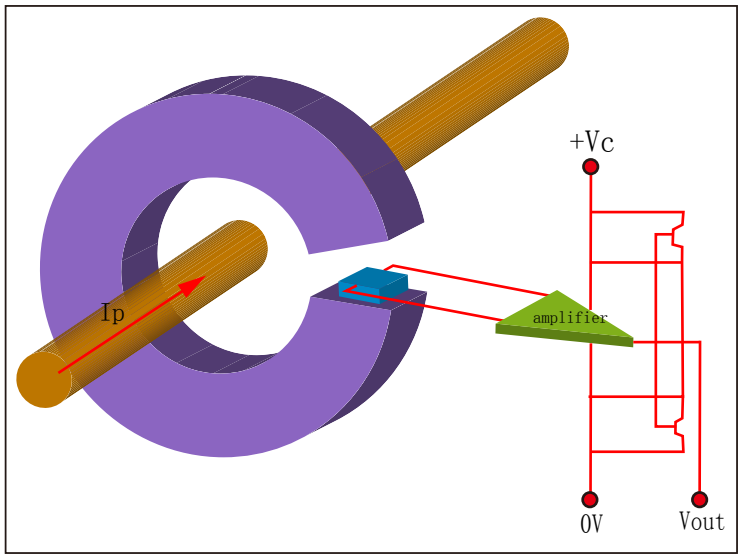
Serial number	input	output	Supply	code
①	10A	2.5V±0.625V	+5V	HKS05DW-D10S5B6
②	10A	2.5V±1V	+5V	HKS05DW-D10S5B1

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	±10A		
IPM	Measuring range	±20A	±20A	
VOUT	Rated output	2.5V±0.625V	2.5V±1V	*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		

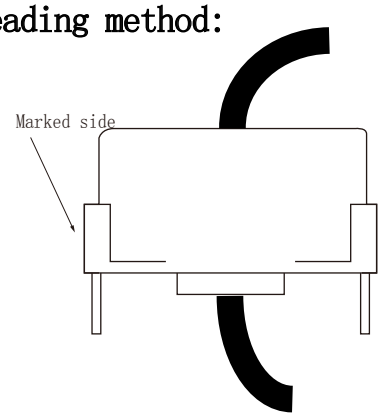
Instructions for use:

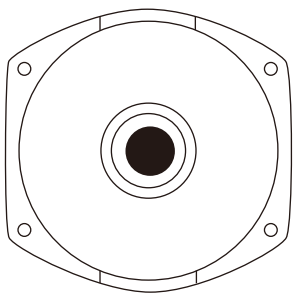
1.Pay attention to the direction of the current and wire it according to marked wiring.

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

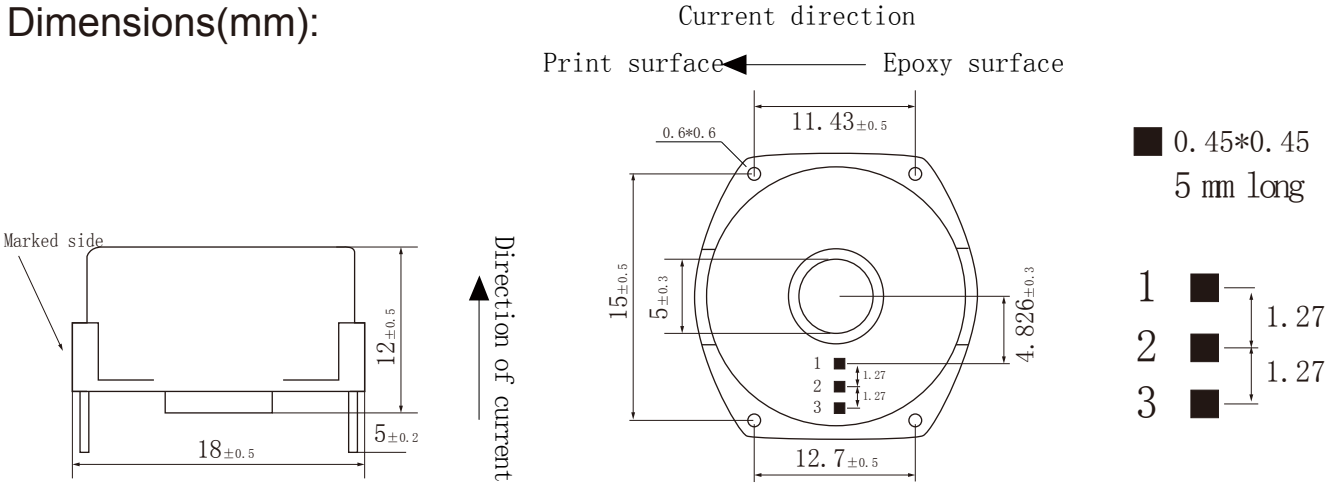
3.Response time and follow-up are optimal for full hole measurement.

Primary threading method:

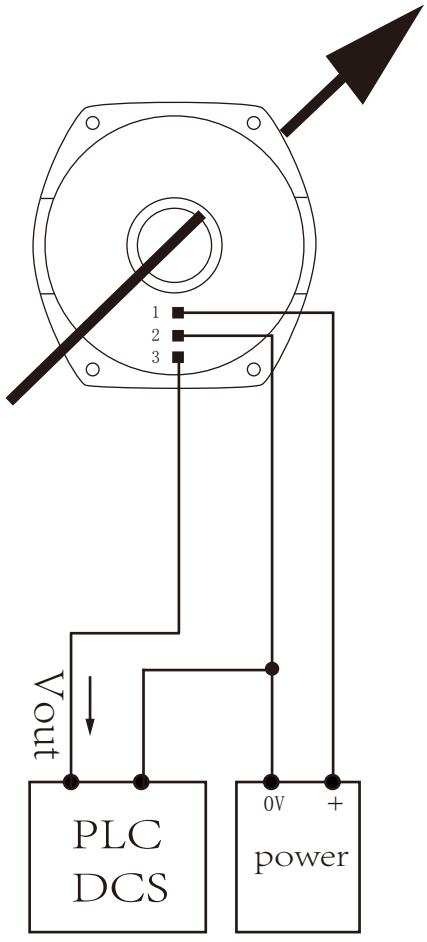




Dimensions(mm):



Dimensions(mm):



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