

HS06-P SERIES CURRENT SENSOR/TRANSDUCER

1. Features

- ① It is directly welded and installed on the printed circuit board , which is small in size and beautiful in appearance;
- ② Using the Hall effect open-loop principle, the circuit under test is isolated from the test circuit;
- ③ It is used to measure the current of DC, AC, pulsating current and various irregular waveforms;
- ④ Low temperature drift, fast response time, strong anti-interference ability.

2. Ambient Conditions

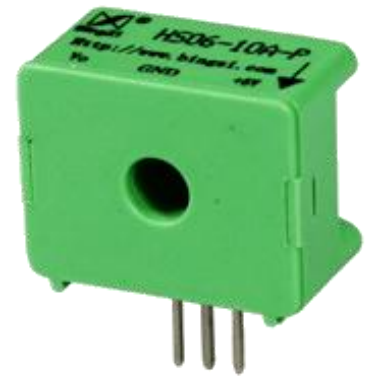
- ① Environmental operating range: $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$;
- ② Ambient temperature: $-40^{\circ}\text{C}\sim+100^{\circ}\text{C}$;
- ③ Relative humidity: $\leq 90\%$ at 40°C ;
- ④ Atmospheric pressure: 860~1060m bar (about 650 ~ 800mmHg).

3. Range of working frequency: 0-20 kHz.

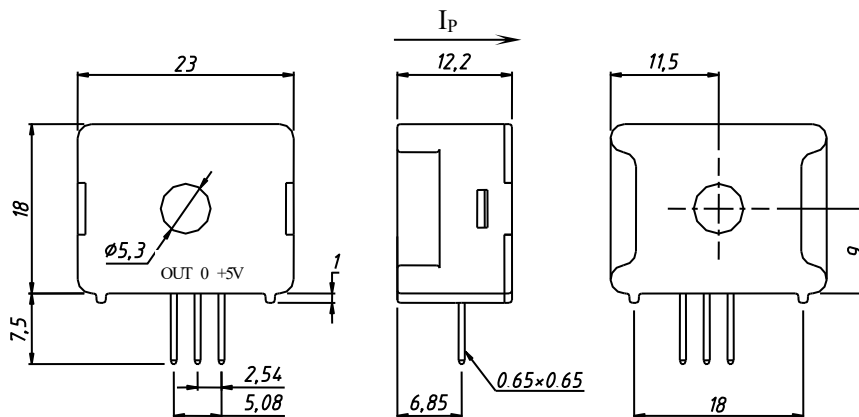
4. Insulation Rating: Class B (130°C).

5. Safety Features:

- ① Insulation resistance: $> 1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: 2.5k V/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.



6. Outline drawing and installation dimensions: as shown in the figure (in mm)



**7. Performance parameters :**

| Technical parameter \ Model | HS06-10A-P | HS06-20A-P | HS06-30A-P | HS06-40A-P |
|------------------------------|-----------------------------|------------|------------|------------|
| Rated input current IPN | 10A | 20A | 30A | 40A |
| Measuring range | 0~±20A | 0~±40A | 0~±60A | 0~±80A |
| Rated output voltage VSN | 2.5V ± 1V (± 1 %) | | | |
| Operating Voltage | 5V DC(±5%) | | | |
| Load Resistance | ≥ 10kΩ | | | |
| Zero offset voltage | IP = 0 TA = 25°C 2.5 V ± 1% | | | |
| Linearity | <1% | | | |
| Current consumption | 20mA | | | |
| Bandwidth | DC~20kHz | | | |
| Insulation withstand voltage | 2.5 kV rms/50Hz/1min | | | |
| Response time | < 3 μs | | | |
| Temperature drift | <±0.01%/°C | | | |

8. Instructions for use and precautions

- ① In order to obtain a forward output voltage at OUT , the input current must flow in the direction indicated by the arrow.
- ② When using, first connect the load and connect the 5V working voltage, and then connect the input current.
- ③ The sensor output signal type is the same as the input signal.
- ④ Secondary connection:
+5V: +5V DC
0: 0V
OUT: output terminal

9. Typical applications

- DC variable frequency speed regulation, servo motor drives
- Static converters for DC motor drives
- Uninterruptible Power Supplies (UPS)
- Switched Model Power Supplies (SMPS)
- Power supplies for welding applications