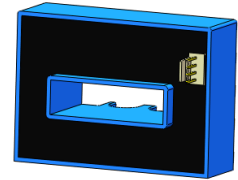


Hall effect Open-loop current sensor

SCK4



Product description

Features

- Based on Hall effect measurement principle, open loop circuit mode.
- The isolation voltage between primary and secondary is greater than 3000VAC.
- Comply with UL94-V0 flame retardant rating.

Performance

- Can measure DC, AC, pulse, and various irregular waveforms under isolated conditions.
- Wide measurement range, fast response speed, low zero drift, low temperature drift, high accuracy and good linearity.
- Dynamic performance (di/dt and response time) is optimal when the busbar is fully filled with primary perforations.
- Strong ability to resist external electromagnetic interference (BCI, EFT, CS, CE, ESD, dv/dt, etc.).

Application:

- It can be widely used in inverters, UPS, photovoltaic inverters, electric vehicle drives, high-frequency power supplies, inverter welding machines and other products.

Implementation standards

- GB/T 7665-2005
- JB/T 7490-2007
- JB/T 25480-2010
- JB/T 9473-2020
- SJ 20792-2000

Certification



Shenzhen SoCan Technologies Co.,Ltd

SoCan is committed to continuously improving product quality, and the company reserves the right to update its products.

www.szsoacan.com

sales@szsoacan.com

Technical Parameters

Model Parameters (25°C)	SCK4-						
	300A	500A	600A	800A	1000A	1500A	2000A
Primary Current I_{PN}	300A	500A	600A	800A	1000A	1500A	2000A
Primary Current Max. Peak Value I_{PM}	±900A	±1500A	±1800A	±2400A	±2400A	±2400A	±2400A
Output voltage V_{out} @ ± I_{PN} , $R_L=10K\Omega$	±4V±1%						

Electrical Data

Item	Min.	Max.	Typical	Unit
Input power supply voltage range V_c (±5%) (Remark 1, Remark 2)	±11	±15	±18	V_{DC}
Current consumption I_c	-	±15	±20	mA
Withstand resistance R_{INS} @500V DC	1000	-	-	$M\Omega$
Output voltage V_{out} @ I_{PN} , $R_L=10K\Omega$, $T_A=25^\circ C$	3.960	4.000	4.040	V
Output internal resistance R_{OUT}	-	102	-	Ω
Load Resistance R_L (Remark 3)	1	10	-	$K\Omega$
Accuracy X @ I_{PN} , $T_A=25^\circ C$	-	±1	-	%
Linearity ϵ_L @ $R_L=10K\Omega$, $T_A=25^\circ C$	-	±0.5	-	% I_{PN}
Offset voltage V_{OE} @ $T_A=25^\circ C$	-	±10	±20	mV
Hysteresis voltage V_{OM} @ $I_{PN} \rightarrow 0$	-	±10	±20	mV
Temperature Coefficient of Offset Voltage TCV_{OE}	-	±0.5	±1	mV/ $^\circ C$
Output voltage temperature coefficient TCV_{out}	-	±0.05	±0.1	%/ $^\circ C$
Response time t_D @ $0 \rightarrow I_{PN}$	-	3	5	us
Ambient operating temperature T_A	-40	25	125	$^\circ C$
Ambient storage temperature T_s	-40	25	125	$^\circ C$
Withstand voltage V_D @50Hz,60s,0.1mA		3000		V_{AC}
Weight m		210		g

Remarks:

1. If V_C is less than the minimum value, the measurement will be inaccurate. If V_C is greater than the maximum value, it may cause permanent failure of the measuring device.

Shenzhen SoCan Technologies Co.,Ltd

SoCan is committed to continuously improving product quality, and the company reserves the right to update its products.

www.szsocan.com

sales@szsocan.com

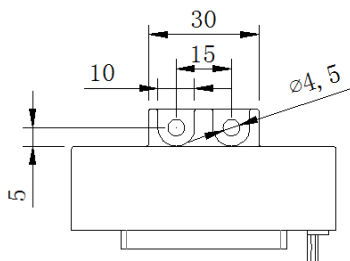
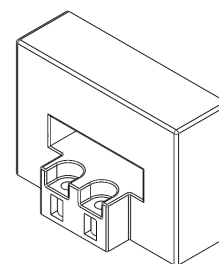
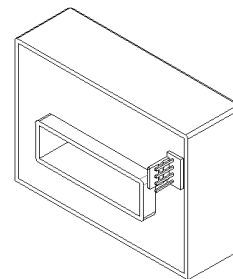
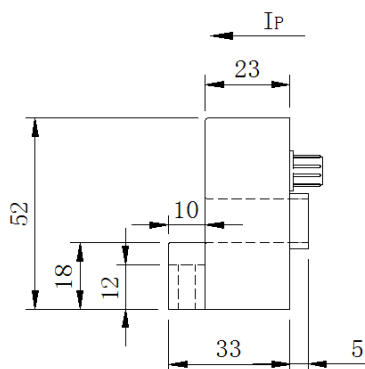
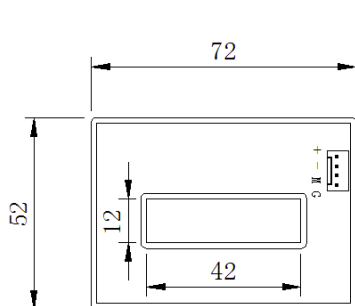
2. When $\pm 12V < VCC < \pm 15V$, will reduce the measurement range.

$$3. V_{OUT} = 4.04 * \frac{R_L}{102 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$$

4. $di/dt > 50A/uS$

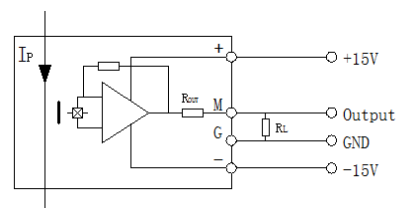
Dimensions (in mm)

SCK4 Series

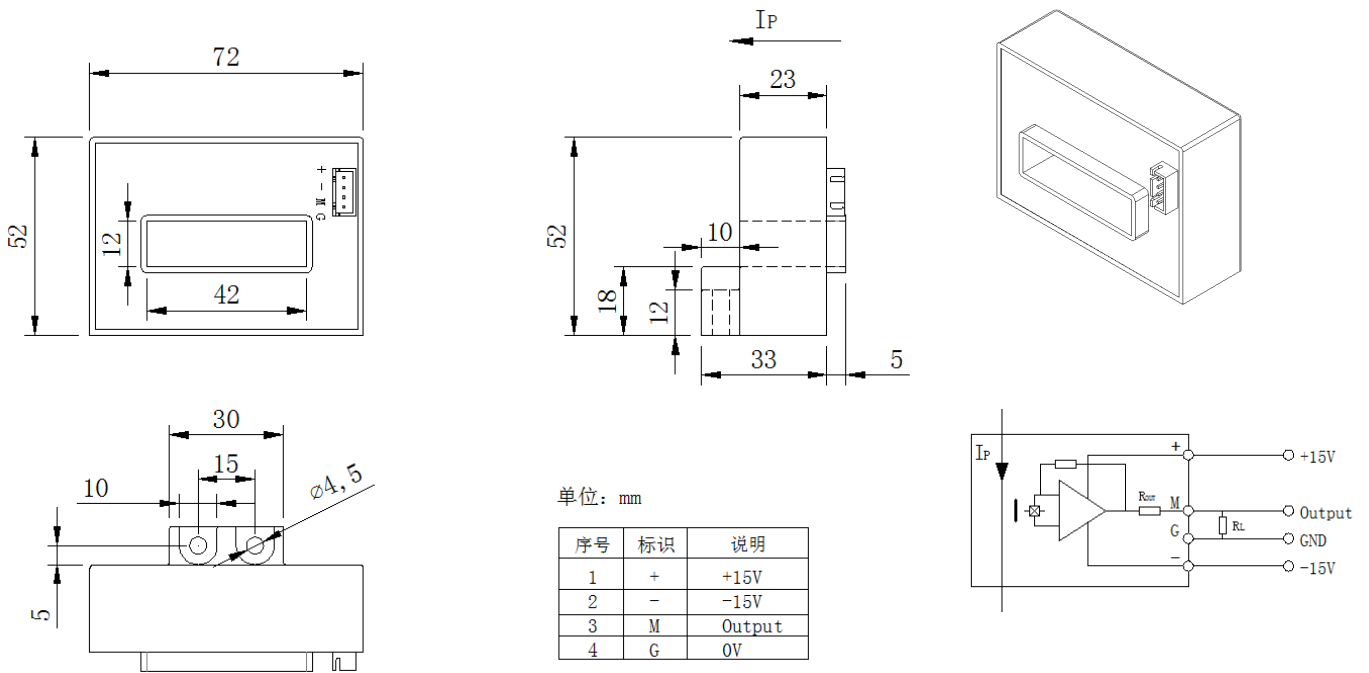


单位: mm

序号	标识	说明
1	+	+15V
2	-	-15V
3	M	Output
4	G	0V



SCK4A Series



Notes:

1. Size error: ± 1 mm;
2. Primary aperture: $\square 41.6 \times 12$ mm;
3. Fastening hole: $\phi 4.5$ mm*2;
4. SCK4 output terminal: Molex 5045-04AG;
SCK4A output terminal: JST B4B-XH-A
5. The I_p indication direction is the positive direction of the current;
6. The temperature of the primary conductor shall not exceed 105°C ;
7. Incorrect wiring may cause damage to the sensor.