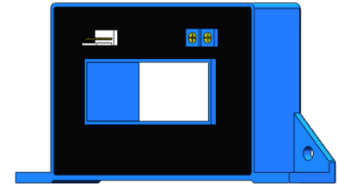


Hall effect Current Sensor

SCK25



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.
- Standing and lying two installation methods.

Performance

- It can measure DC, AC, pulse, and various irregular waveform currents of cable conductors under isolation 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



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Technical Parameters

Model Parameters (25℃)	SCK25-					
	600A	800A	1000A	1200A	1500A	2000A
Primary Current (A) I_{PN}	600A	800A	1000A	1200A	1500A	2000A
Primary Current Max. Peak Value (A) I_{PM}	$\pm 1800A$	$\pm 2400A$	$\pm 3000A$	$\pm 3000A$	$\pm 3000A$	$\pm 3000A$
Output voltage (V) V_{out} @ $\pm I_{PN}$, $R_L=10K\Omega$	$\pm 4V \pm 1\%$					

Electrical Data

Item	Min.	Typical	Max.	Unit
Input power supply voltage range V_c ($\pm 5\%$) (Remark 1, Remark 2)	± 11	± 15	± 18	V_{DC}
Current consumption I_c	-	± 15	± 20	mA
Withstand resistance R_{INS} @500V DC	1000	-	-	M Ω
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	1	10	-	K Ω
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	μs
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		490		g

Remarks:

1. V_C is less than the minimum value, which will lead to inaccurate measurement, V_C is greater than

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the maximum value, which may cause permanent failure of the measurement device.

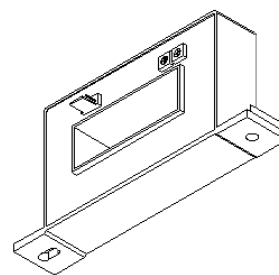
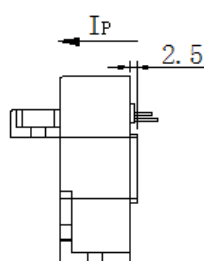
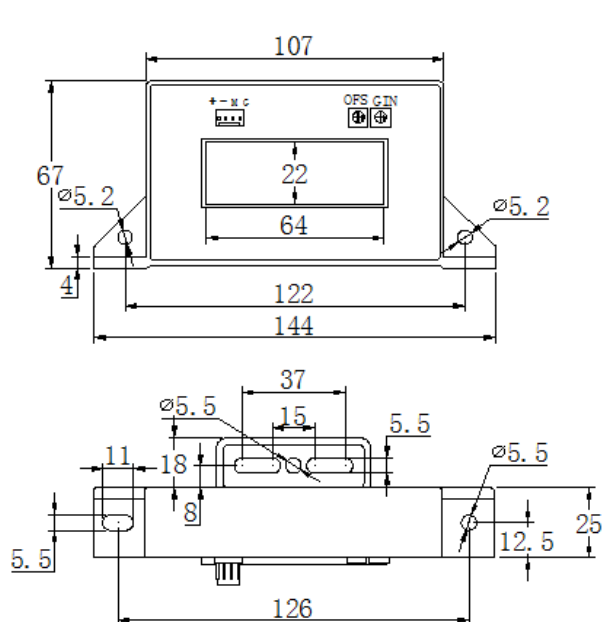
2. When $\pm 12V < V_C < \pm 15V$, the measurement range will be reduced.

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

4. Follow the speed $di/dt > 50A/uS$

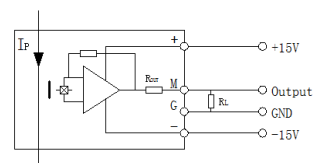
Dimensions (in mm)

SCK25

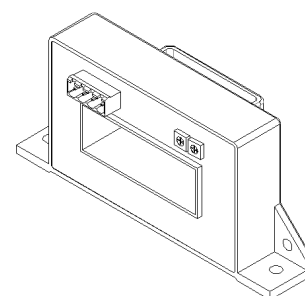
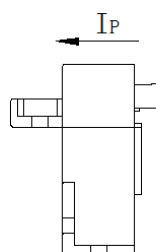
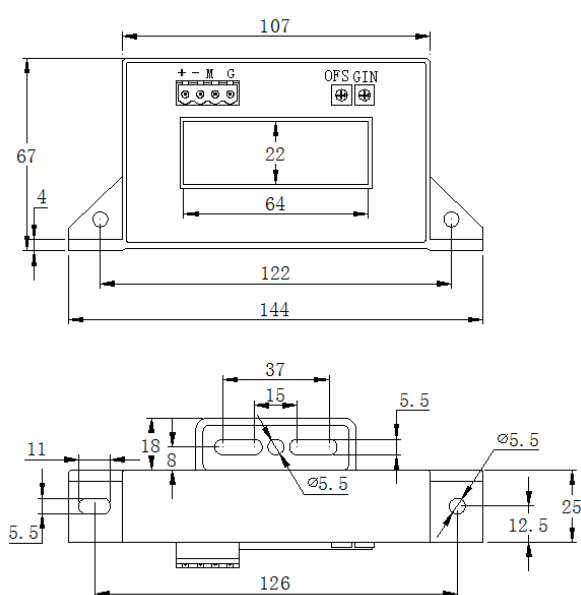


单位: mm

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



SCK25T



单位: mm

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

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Notes:

1. Size error: $\pm 1\text{mm}$;
2. Primary aperture: $\square 64*22\text{mm}$;
3. Fastening hole: $\phi 5.5\text{mm}*2$;
4. K25 Output terminal: Molex 5045-04AG;
5. K25T output terminal: 2EDGVC-5.08-4P;
K25T mating plug: 2EDGK-5.08-4P;
6. The IP indication direction is the positive direction of the current, the OFS is the zero adjustment, and the GIN is the output regulation;
7. The temperature of the primary conductor shall not exceed 105°C ;
8. Incorrect wiring may cause damage to the sensor.