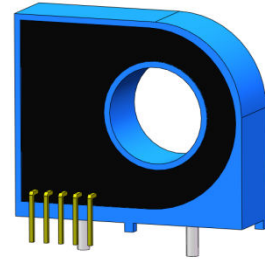


# Hall effect Open-loop current sensor

## SCK8L



### Product description:

#### Features

- Based on Hall effect measurement principle, open loop circuit mode.
- The isolation voltage between primary and secondary is greater than 2500VAC.
- Header output, PCB mounting method.
- Comply with UL94-V0 flame retardant rating.
- Using automatic adjustment technology, product performance is better.

#### 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



## Technical Parameters

Model Parameters (25°C)	SCK8L-			
	50A	100A	150A	200A
Primary Current $I_{PN}$	50A	100A	150A	200A
Primary Current Max. Peak Value $I_{PM}$	±150A	±300A	±450A	±450A
Output voltage $V_{out}$ @± $I_{PN}$ , $R_L=10K\Omega$	±4V±1%			

## Electrical Data

Item	Min.	Typical	Max.	Unit
Input power supply voltage range $V_c$ (±5%) (Remark 1, Remark 2)	±11	±15	±18	$V_{DC}$
Current consumption $I_c$	-	±13	±15	mA
Withstand resistance $R_{INS}$ @500V DC	500	-	-	$M\Omega$
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	-	$\Omega$
Load Resistance $R_L$ (Remark 3)	1	10	-	$K\Omega$
Accuracy X @ $I_{PN}$ , $T_A=25^\circ C$	-	±1	-	%
Linearity $\epsilon_L$ @ $R_L=10K\Omega$ , $T_A=25^\circ C$	-	±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/°C
Output voltage temperature coefficient $TCV_{out}$	-	±0.05	±0.1	%/°C
Response time $t_D$ @ $0\rightarrow I_{PN}$	-	3	5	us
Ambient operating temperature $T_A$	-40	25	125	°C
Ambient storage temperature $T_s$	-40	25	125	°C
Withstand voltage $V_D$ @50Hz,60s,0.1mA		2500		$V_{AC}$
Weight m	-	25	-	g

### Remarks:

1. If VC is less than the minimum value, the measurement will be inaccurate. If VC 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.

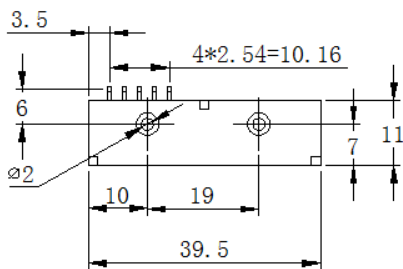
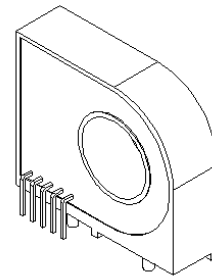
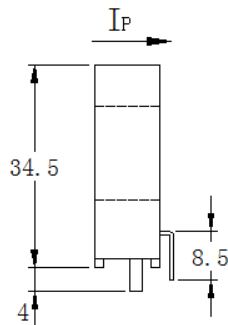
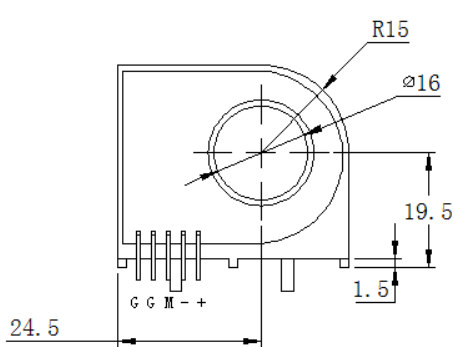
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2. When  $\pm 12V < VCC < \pm 15V$ , will reduce the measurement range.

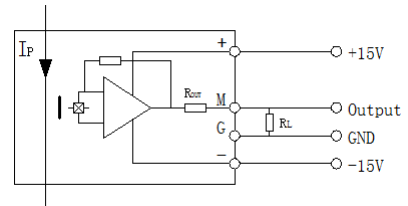
$$V_{OUT} = 4.04 * \frac{R_L}{102 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$$

3.  
4.  $di/dt > 50A/uS$

### Dimensions (in mm)



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



### Notes:

1. Size error:  $\pm 1mm$ ;
2. Primary aperture:  $\phi 16mm$ ;
3. The IP indication direction is the positive direction of the current;
4. Lead pin output, spacing  $2.54 * 4$ ;
5. Two  $\phi 2mm$  pins on the bottom for welding positioning;
6. The temperature of the primary conductor shall not exceed  $105^{\circ}C$ ;
7. Incorrect wiring may cause damage to the sensor.