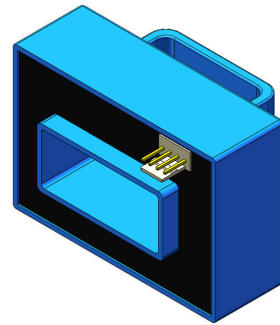


# Hall effect Current Sensor

## SCK35



### 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.
- Using automatic adjustment technology, product performance is better.

#### 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



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](http://www.szsocan.com)

## Technical Parameters

Model Parameters (25°C)	SCK35-						
	300A	500A	600A	800A	1000A	1500A	2000A
Primary Current (A) $I_{PN}$	300A	500A	600A	800A	1000A	1500A	2000A
Primary Current Max. Peak Value (A) $I_{PM}$	±900A	±1500A	±1800A	±2400A	±3000A	±3000A	±3000A
Output voltage (V) $V_{out}$ @± $I_{PN}$ , $R_L=10K\Omega$	±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 <sub>DC</sub>
Current consumption $I_c$	-	±15	±20	mA
Withstand resistance $R_{INS}$ @500V DC	1000	-	-	MΩ
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	-	KΩ
Accuracy $X$ @ $I_{PN}$ , $T_A=25^\circ C$	-	±1	-	%
Linearity $\varepsilon_L$ @ $R_L=10K\Omega$ , $T_A=25^\circ C$	-	±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		3000		V <sub>AC</sub>
Weight m		240		g

Remarks:

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

Shenzhen SoCan Technologies Co.,Ltd

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

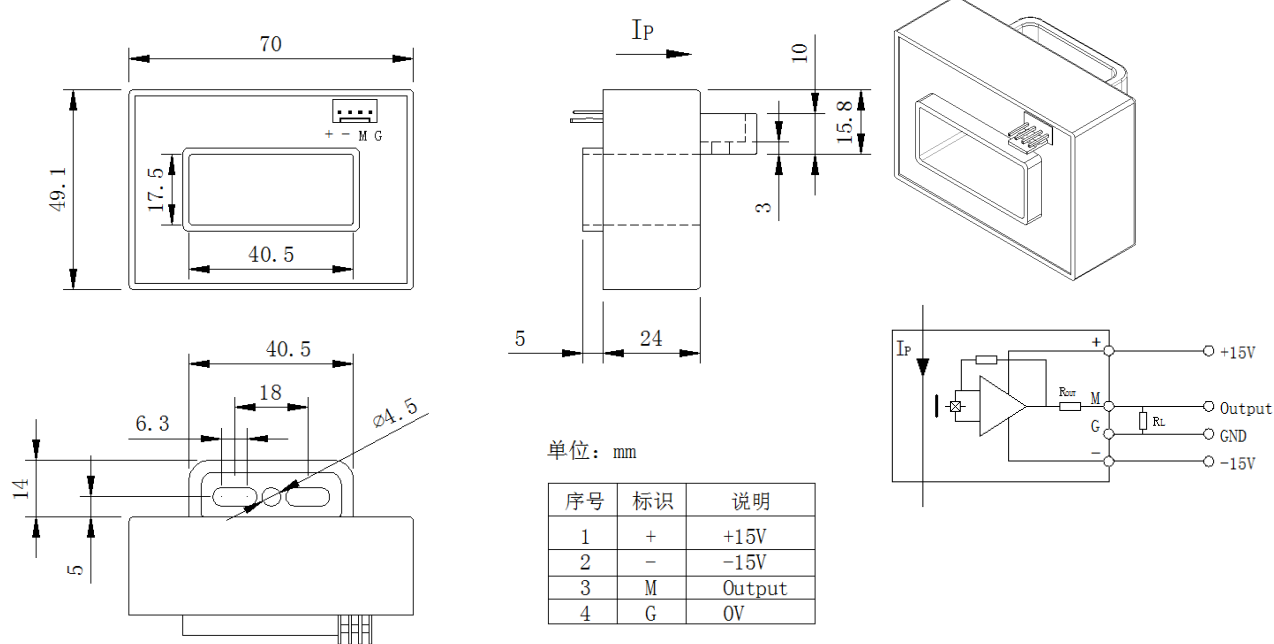
[www.szsocan.com](http://www.szsocan.com)

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

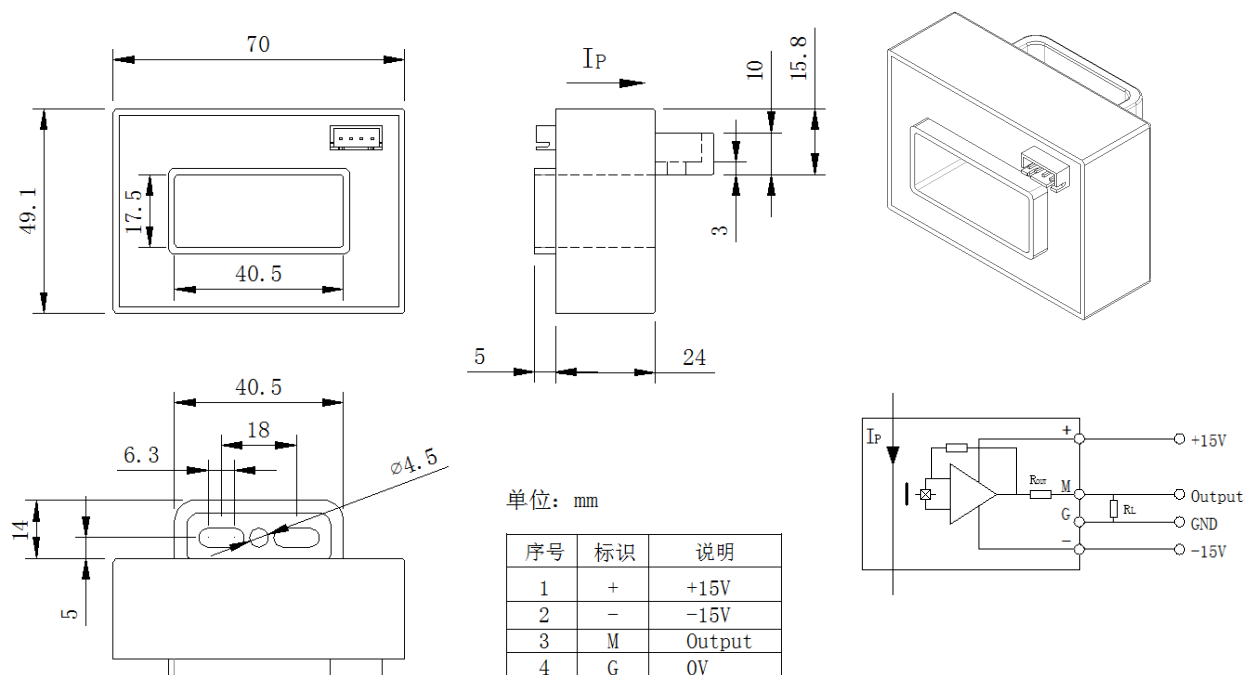
4. Follow the speed  $di/dt > 50A/uS$

## Dimensions (in mm)

### SCK35



### SCK35A

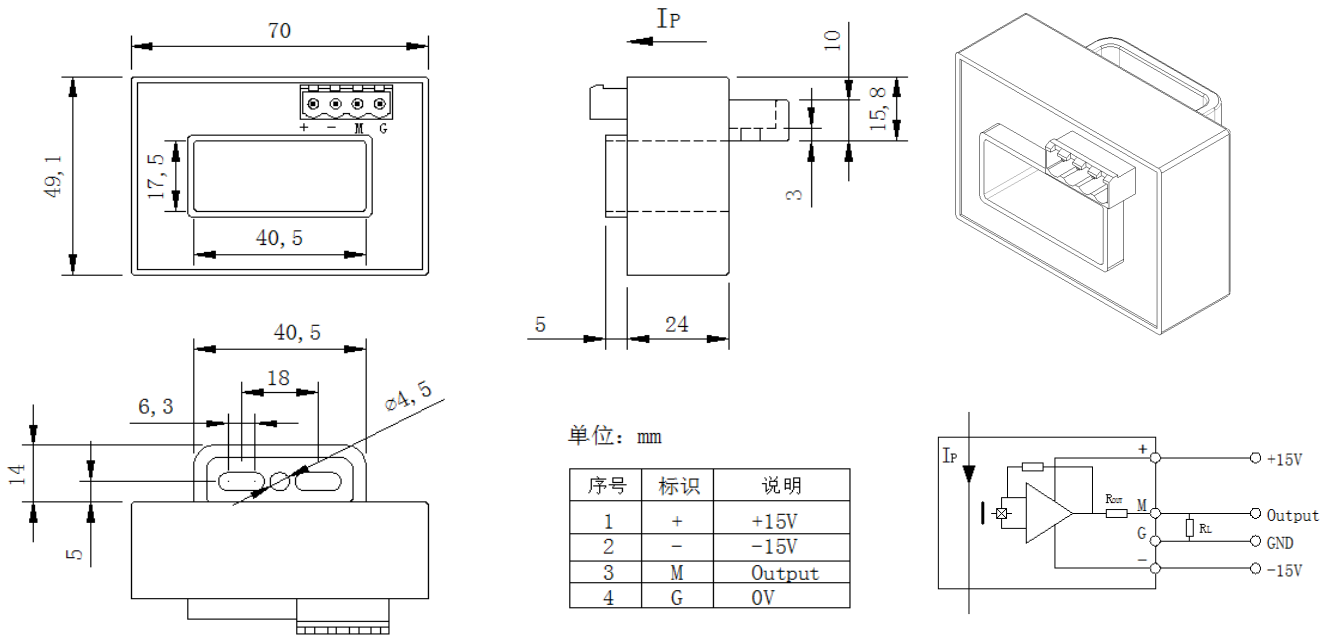


Shenzhen SoCan Technologies Co.,Ltd

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

[www.szsocan.com](http://www.szsocan.com)

## SCK35T



### Notes:

1. Size error:  $\pm 1\text{mm}$ ;
2. Primary aperture:  $\square 41.5 \times 17.5\text{mm}$ ;
3. Fastening hole:  $\phi 4.5\text{mm} \times 2$ ;
4. SCK35 output terminal: Molex 5045-04AG;  
SCK35T output terminal: 2EDGVC-5.08-4P  
SCK35T mating plug: 2EDGK-5.08-4P;
5. The  $I_P$  indication direction is the positive direction of the current;
6. The temperature of the primary conductor shall not exceed  $105^\circ\text{C}$ ;
7. Incorrect wiring may cause damage to the sensor.