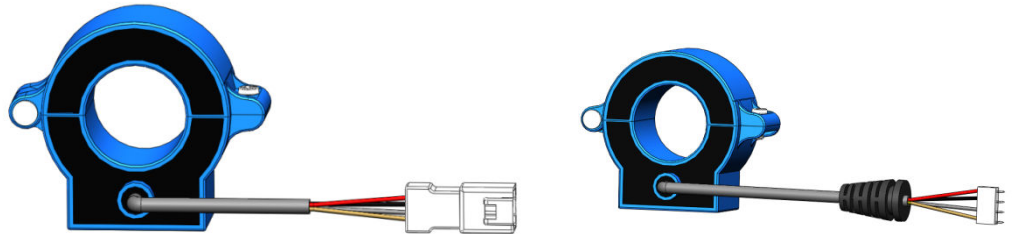


# Split Core Hall effect Current Sensor

## SCY13



## SCY13, SCY13A, SCY13C, SCY13B

### Product description

#### Features

- Based on Hall effect measurement principle, open loop circuit mode.
- The isolation voltage between primary and secondary is greater than 3000VAC.
- Can be opened and closed up and down, no need to disassemble the busbar, easy to install.
- Comply with UL94-V0 flame retardant rating.
- Use automotive-specific lead connector output

#### 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 communication power supply, UPS, photovoltaic inverter, electric vehicle drive 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	SCY13-/SCY13A-				
	200A	300A	500A	750A	1000A
Parameters (25°C)					
Primary Current (A) $I_{PN}$	200A	300A	500A	750A	1000A
Primary Current Max. Peak Value (A) $I_{PM}$	±200A	±300A	±500A	±750A	±1000A
Output voltage (V) $V_{out}$ @± $I_{PN}$ , $R_L=25K\Omega$	2.5V±2V				

## Electrical Data

Item	Min.	Max.	Typical	Unit
Input power supply voltage range $V_c$ (±5%) (Remark 1, Remark 2)	-	+5	-	$V_{DC}$
Current consumption $I_c$	-	+15	+20	mA
Withstand resistance $R_{INS}$ @500V DC	1000	-	-	$M\Omega$
Output voltage $V_{out}$ @ $I_{PN}$ , $R_L=25K\Omega$ , $T_A=25^\circ C$	$V_{OUT} = 2.5 + 2.008 * \frac{R_L}{102 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$			V
Output internal resistance $R_{OUT}$	-	102	-	$\Omega$
Load Resistance $R_L$ (Remark 3)	-	25	-	$K\Omega$
Accuracy $X$ @ $I_{PN}$ , $T_A=25^\circ C$	-	±1	-	%
Linearity $\epsilon_L$ @ $R_L=10K\Omega$ , $T_A=25^\circ C$	-	±1	-	% $I_{PN}$
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 $TCV_{out}$	-	±0.08	±0.15	%/°C
Response time $t_D$ @ $0 \rightarrow I_{PN}$ (Remark 4)	-	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		$V_{AC}$
Weight $m$		80		g

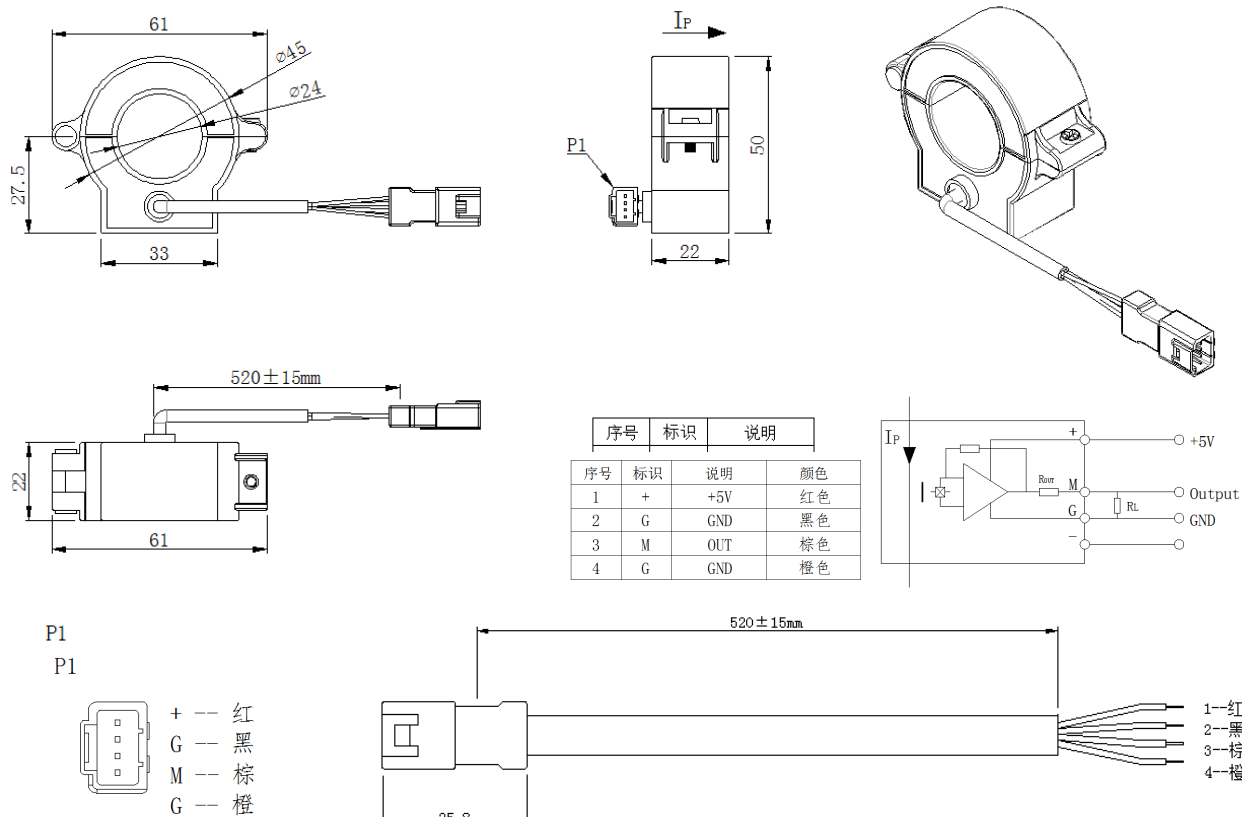
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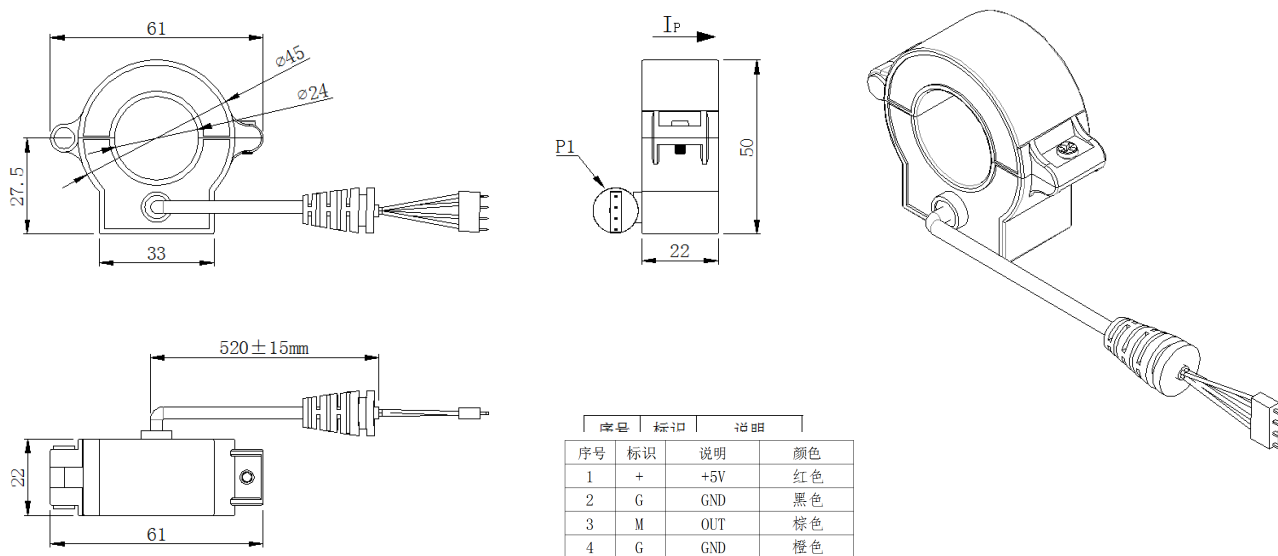
## Dimensions (in mm)

### SCY13



04T-JWPT-VSLE-S/JST

### SCY13A



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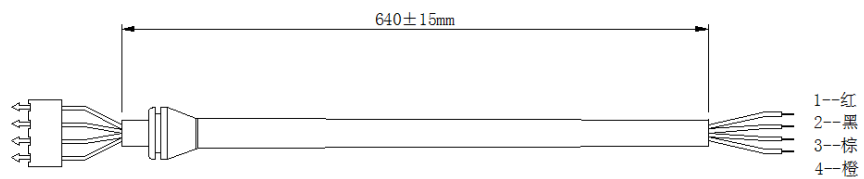
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P1

□	+	--	红
□	G	--	黑
□	M	--	棕
□	G	--	橙

2520H-04/ECI



### Concentrate:

1. Size error:  $\pm 0.5\text{mm}$ ;
2. Primary aperture:  $\phi 24\text{mm}$ ;
3. SCY13 wire rubber shell: 04T-JWPT-VSLE-S/JST,

Terminal: SWPT-001T-P025/JST;

4. SCY13A wire shell: 2520H-04/ECI,

Terminal: 2521-2/ECI;

5. The IP indication direction is the positive direction of the current;
6. Incorrect wiring may cause damage to the sensor.

## Technical Parameters

Model Parameters (25°C)	SCY13B-/SCY13C-				
	200A	300A	500A	750A	1000A
Primary Current (A) $I_{PN}$	200A	300A	500A	800A	1000A
Primary Current Max. Peak Value (A) $I_{PM}$	±200A	±300A	±500A	±800A	±1000A
Output Voltage (V) $V_{out}$ @± $I_{PN}$ , $R_L=25K\Omega$	±4.5V (±1%)				

## Electrical Data

Item	Min.	Max.	Typical	Unit
Input power supply voltage range $V_c$ (±5%) (Remark 1, Remark 2)	-	±5	-	$V_{DC}$
Current consumption $I_c$	-	±15	±20	mA
Withstand resistance $R_{INS}$ @500V DC	1000	-	-	$M\Omega$
Output voltage $V_{out}$ @ $I_{PN}$ , $R_L=25K\Omega$ , $T_A=25^\circ C$	$V_{OUT} = 4.518 * \frac{R_L}{102 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$			V
Output internal resistance $R_{OUT}$	-	102	-	$\Omega$
Load Resistance $R_L$ (Remark 3)	-	25	-	$K\Omega$
Accuracy X @ $I_{PN}$ , $T_A=25^\circ C$	-	±1	-	%
Linearity $\epsilon_L$ @ $R_L=10K\Omega$ , $T_A=25^\circ C$	-	±1	-	% $I_{PN}$
Offset voltage $V_{OE}$ @ $T_A=25^\circ C$	-	±20	±30	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 $TCV_{out}$	-	±0.08	±0.15	%/°C
Response time $t_D$ @ $0 \rightarrow I_{PN}$ (Remark 4)	-	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		$V_{AC}$
Weight m		80		g

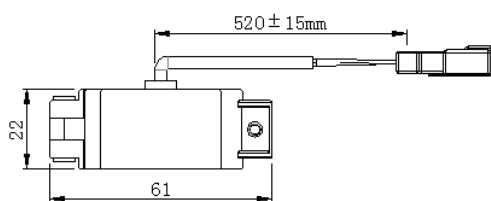
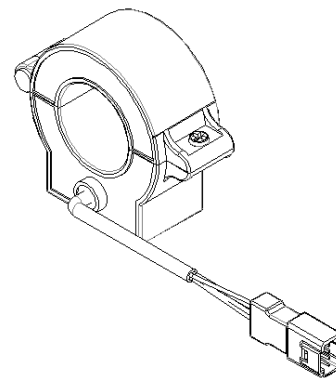
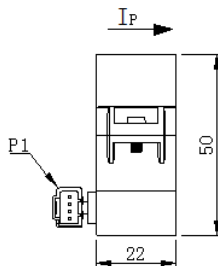
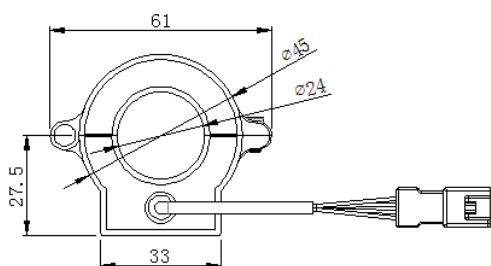
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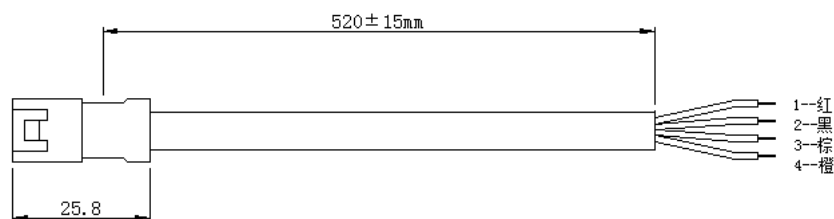
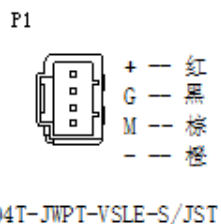
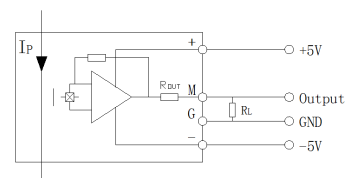
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## Dimensions (in mm)

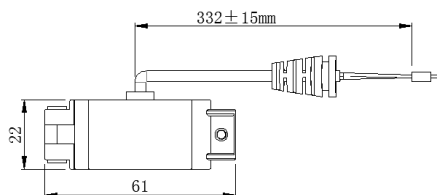
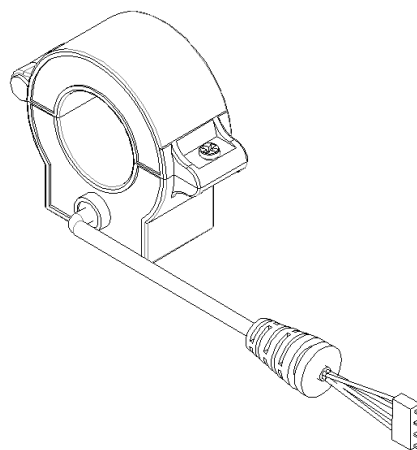
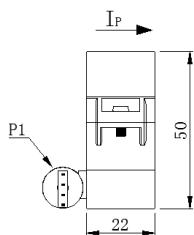
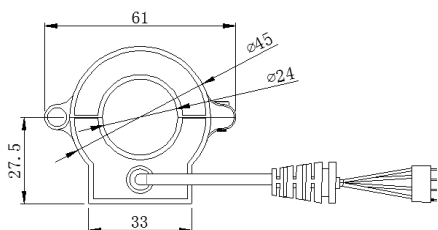
### SCY13C



序号	标识	说明	颜色
1	+	+5V	红色
2	G	GND	黑色
3	M	OUT	棕色
4	-	-5V	橙色



### SCY13B

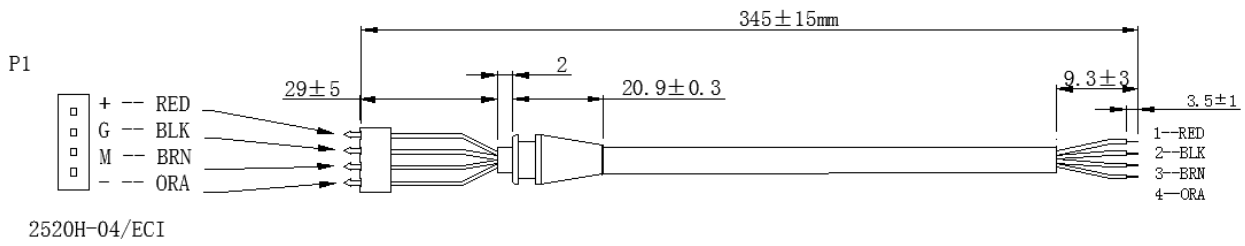


序号	标识	说明	颜色
1	+	+5V	RED
2	G	GND	BLK
3	M	OUT	BRN
4	-	-5V	ORA

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## Notes:

1. Size error:  $\pm 0.5\text{mm}$ ;
2. Primary aperture:  $\phi 24\text{mm}$ ;
3. SCY13C wire shell: 04T-JWPT-VSLE-S/JST,  
Terminal: SWPT-001T-P025/JST;
4. SCY13B wire shell: 2520H-04/ECI,  
Terminal: 2521-2/ECI;
5. The IP indication direction is the positive direction of the current;
6. Incorrect wiring may cause damage to the sensor.