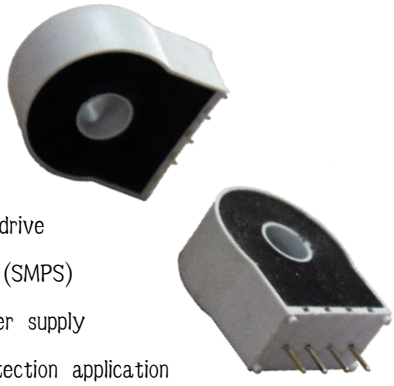
THK_ES5S6L-51S



Product introduction:

- Power supply: +5v DC
- Hall effect principle — open loop current sensor;
- The primary and secondary of the current sensor are insulated and can measure DC, AC, pulse, etc;

Application:

- Application on Inverter
- AC/DC variable speed drive
- Switching power supply (SMPS)
- UPS uninterruptible power supply
- Photovoltaic current detection application

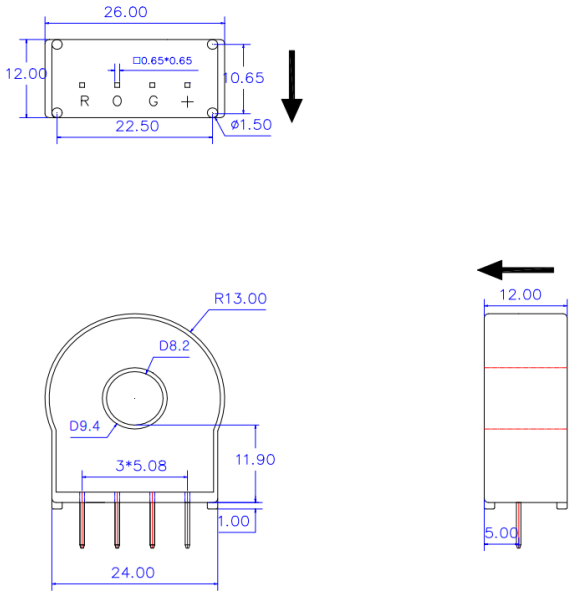
Electrical characteristics:

Parameter	Symbol	THK15ES 5S6L—51S	THK20ES 5S6L—51S	THK25ES 5S6L—51S	THK50ES 5S6L—51S	THK100ES 5S6L—51S
Rated current	I_{PN}(A)	15	20	25	50	100
Measuring range	I_P(A)	0～±48	0～±64	0～±80	0～±160	0～±250
Overload current	I_{PM}(A)	300				
Output voltage	V_O(V)	2.5±0.625*(I_P/I_{PN})				
Offset voltage	V_{OE}(mV)	＜±10				
Working power supply	V_C(V)	±5V DC±5%				
Insulation voltage	V_D(V)	50/60Hz, 1min, 4kV; RMS				
Insulation impedance	R_{IS}(MΩ)	500VDC,＞1000				

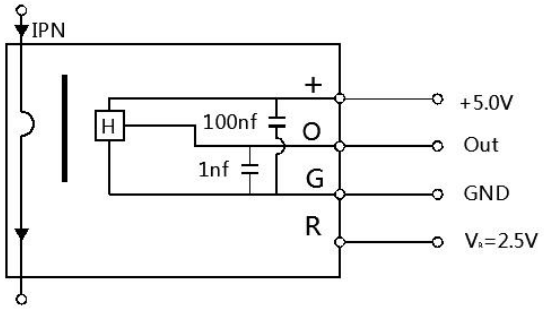
General parameters:

Project	Condition	Date	Unit
Accuracy X_G	@ I_{PN},T=25℃	＜±1.0	%
Voltage offset temperature drift V_{OT}	@ I_P=0,—40～+85℃	＜±0.07	mV/℃
Amplitude temperature drift V_{OS}	@ I_P= I_{PN},—40～+85℃	＜±2.0	mV/℃
Linearity εr		≤0.5	%FS
Follow accuracy di/dt		＞50	A/μs
Response time tra	@ 90% of I_{PN}	＜1.0	ms
Operating bandwidth Bw	—3dB	DC—50	kHZ
Working temperature T_A		—40～+125	℃
Storage temperature T_S		—55～+150	℃
Static power consumption Ic		12+Is	mA
Product weight m		12	g
Shell material	PBT material containing 30% glass fiber, flame retardant grade: UL94— V0;		
Standard	IEC60950—1:2001 EN50178:1998 SJ20790—2000		

Structural drawing: (mm)



Connection diagram:



Remarks:

1. When the measured current passes through the primary pin of the sensor, there is a corresponding voltage signal output at the output end;(Note: wrong wiring may damage the sensor)

2. Products with different rated current can be designed according to the requirements of customers, and the output voltage of the sensor can be selected;

3. When the busbar is fully filled with holes, the dynamic performance is the best;

4. The temperature of primary conductor shall not exceed 100℃;