



THK_EKA15D4

Product introduction:

- Removable structure
- Power supply: $\pm 12 \sim 15V$ 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
- Current monitoring and control of induction cooker



Electrical characteristics:

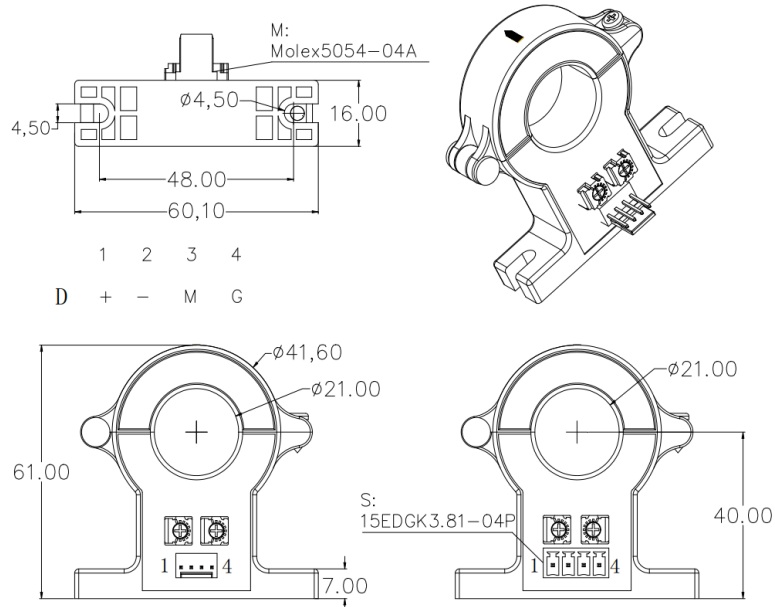
Parameter	Symbol	THK50 EKA15D4	THK100 EKA15D4	THK200 EKA15D4	THK300 EKA15D4	THK400 EKA15D4	THK600 EKA15D4
Rated current	$I_{PN}(A)$	50	100	200	300	400	600
Measuring range	$I_P(A)$	$0 \sim \pm 150$	$0 \sim \pm 300$	$0 \sim \pm 600$	$0 \sim \pm 900$	$0 \sim \pm 900$	$0 \sim \pm 900$
Output voltage	$V_O(V)$	$\pm 4.0 * (I_P / I_{PN})$					
Load resistance	$R_L(k\Omega)$	> 10					
Working power supply	$V_C(V)$	$\pm 12V \sim \pm 15V$ DC $\pm 5\%$					
Insulation voltage	$V_D(V)$	50/60Hz, 1min, 2.5kV; RMS					

General parameters:

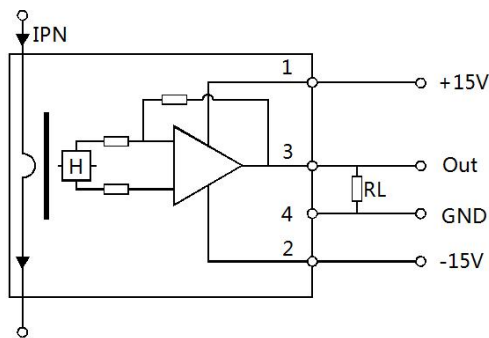
Project	Condition	Date	Unit
Accuracy X_G	@ $I_{PN}, T=25^\circ C$	$< \pm 1.0$	%
Accuracy X_G	@ $I_{PN}, T=40 \sim +85^\circ C$ relative to $25^\circ C$	$< \pm 2.0$	%
Offset voltage V_{OE}	@ $I_P=0, T=25^\circ C$	$< \pm 25$	mV
Voltage offset temperature drift V_{OT}	@ $I_P=0, -40 \sim +85^\circ C$	$< \pm 1.0$	mV/ $^\circ C$
Hysteresis offset voltage V_{OH}	@ $I_P=0$, after $1 * I_{PN}$	$< \pm 15$	mV
Linearity ϵ_r		≤ 1.0	%FS
Follow accuracy di/dt		> 100	A/ μs
Response time τ_{ra}	@ 90% of I_{PN}	< 5.0	μs
Operating bandwidth B_w	-3dB	DC-20	KHZ
Working temperature T_A		$-40 \sim +85$	$^\circ C$
Storage temperature T_s		$-55 \sim +125$	$^\circ C$
Static power consumption I_c		$15 + I_s$	mA
Product weight m		70	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°C ;