TKC-EKB Series Open Loop Mode Hall Effect Current Sensor

TKC-EKB series current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

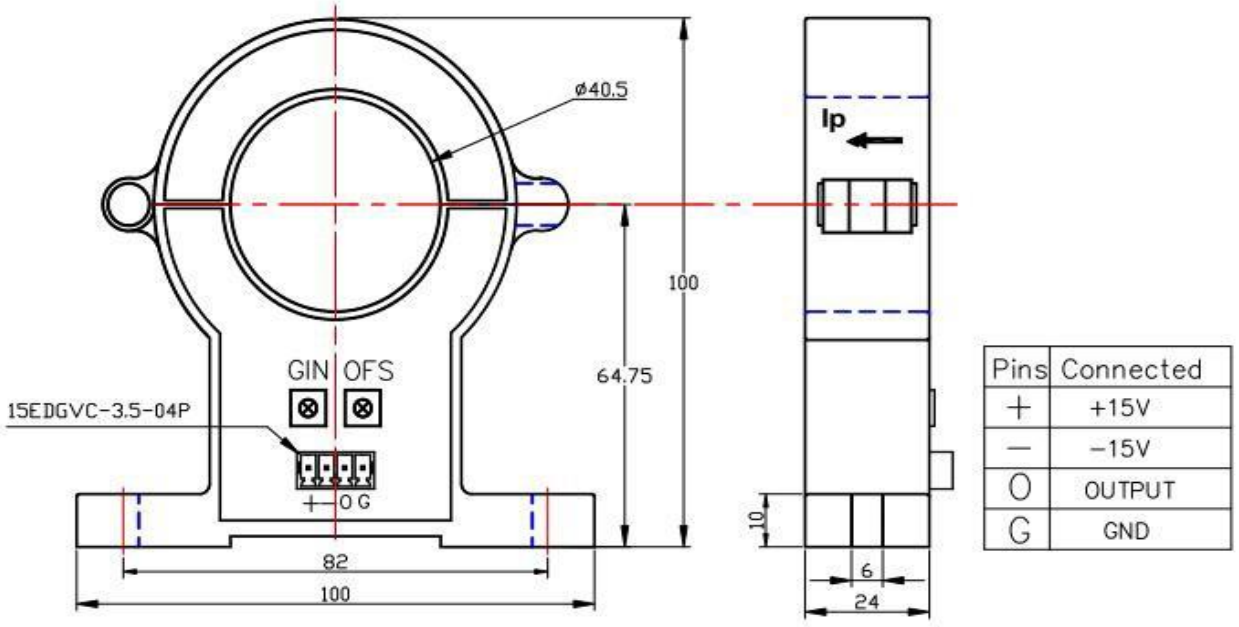
Electrical data (Ta=25℃±5℃, RL=2KΩ, CL=10000PF)

Parameter \ Type	TKC200EKB	TKC400EKB	TKC600EKB	TKC800EKB	TKC1000EKB	TKC2000EKB	Unit
Rated input (Ipn)	±200	±400	±600	±800	±1000	±2000	A
Measure range (Ip)	±400	±800	±1200	±1600	±2000	±4000	A
Rated output	@Ip=±Ipn	±4±1%					V
Supply voltage	±15 ±5%						V
Power Consumption	+25,-10						mA
Offset voltage	@Ip=0	±20					mV
Magnetic offset	@Ip=±Ipn-0	±20					mV
Offset drift	≤1						mV/℃
output drift	≤1						mV/℃
Linearity	@Ip=0-±Ipn	≤1					%FS
Response time	@50A/μS, 10%-90%	≤5					μS
Galvanic isolation	@ 50HZ, AC,1min	5					KV
Band-width	@-3dB	DC-25					KHz
Isolation resistance	@ DC 500V	1000					MΩ

Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

Mechanical dimension (for reference only)



Pins	Connected
+	+15V
−	−15V
O	OUTPUT
G	GND

Remarks：

1. All dimensions are in mm.
2. General tolerance ±1mm

Directions for use

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)

2. The output amplitude of the sensor can be adjusted according to users' requirements.
3. Custom design in the different rated input current and the output voltage are available.

Standards

UL94-V0

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

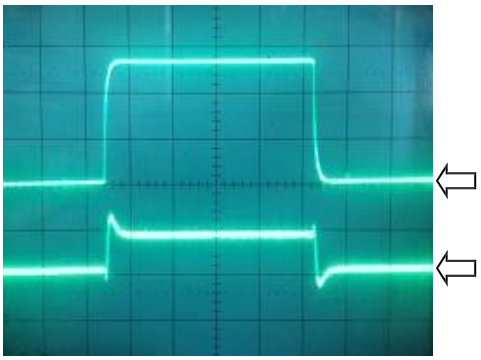
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	300	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise