TKC-EKAA2410 Series Open Loop Mode Dismountable Hall Effect Current Sensor

TKC-EKAA2410 series dismountable hall effect 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.

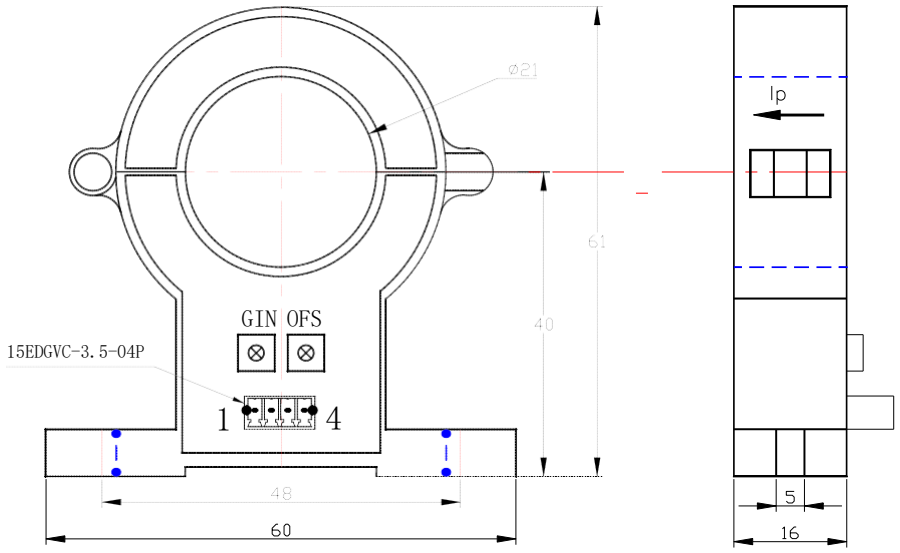
Electrical data (Ta=25℃±5℃, RL=250Ω, CL=10000PF)

Parameter \ Type	TKC50 EKAA2410	TKC100 EKAA2410	TKC300 EKAA2410	TKC400 EKAA2410	TKC500 EKAA2410	Unit
Rated current (Ipn)	±50	±100	±300	±400	±500	A
Measuring range (Ip)	-50-+100	-100-+200	-300-+600	-400-+800	-500-+1000	A
Rated output (Io)	@Ip=±Ipn	10±10±1%				mA
Supply voltage	+24 ±10%					V
Power Consumption	+35+Io					mA
Offset current	@Ip=0	0.1				mA
Magnetic offset	@Ip=±Ipn-0	0.1				mA
Offset drift	≤±0.005					mA/℃
output drift	≤±0.005					mA/℃
Linearity	@Ip=0-±Ipn	≤1				%FS
Response time	@50A/μS, 10%-90%	≤5				μS
Band-width	@-3dB	DC-25				KHz
Galvanic isolation	@ 50Hz, AC,1min	2.5				KV

Applications

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

Mechanical dimension (for reference only)



PINS	
1	+12/24V
2	GND
3	OUT
4	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 current 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 current available.

Standards

UL94-V0

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

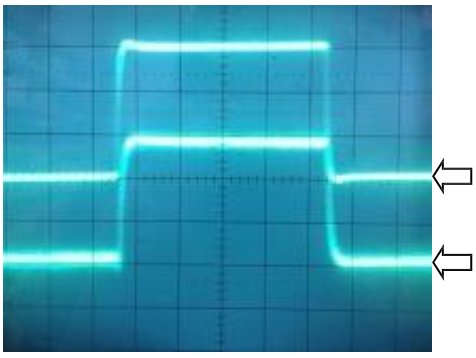
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	71	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise