

# TKC-EKA242 Series Open Loop Mode Dismountable Hall Effect Current Sensor



TKC-EKA242 series dismountable hall effect current sensor is a 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.

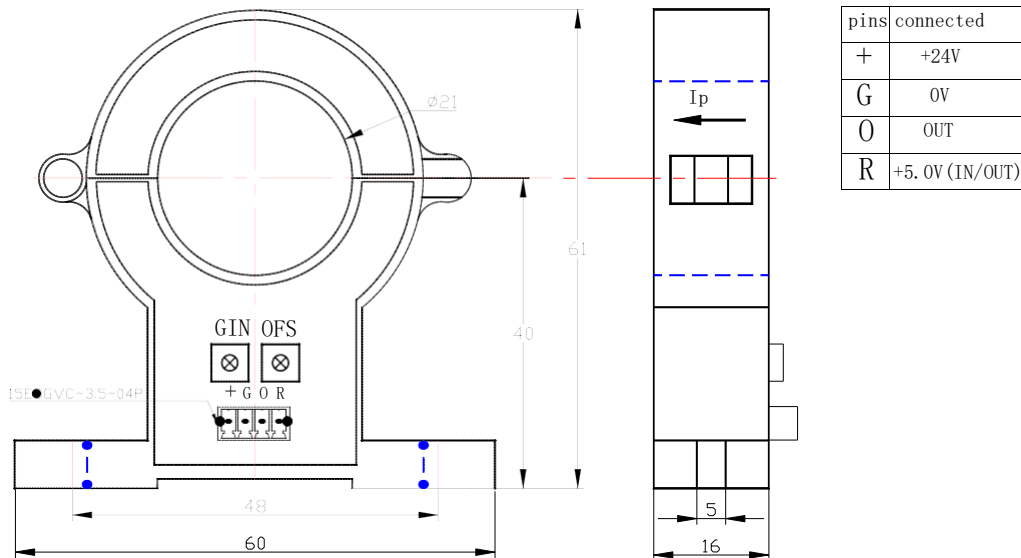
**Electrical data (Ta=25°C±5°C, RL=10KΩ, CL=10000PF)**

Type Parameter	TKC50 EKA242	TKC100 EKA242	TKC200 EKA242	TKC300 EKA242	TKC400 EKA242	TKC500 EKA242	Unit	
Rated current (Ipn)	±50	±100	±200	±300	±400	±500	A	
Measuring range (Ip)	±55	±110	±220	±330	±400	±550	A	
Rated output	@Ip=0-±Ipn , DC						5.0±2.0±1%	V
Supply voltage							+24±5%	V
Power Consumption							≤35	mA
Reference voltage							+5.0±0.4%(In/Out)	V
Zero voltage	@Ip=0						+5.0±0.5%	V
Offset voltage	@Ip=0						±50	mV
Magnetic offset	@Ip=±Ipn-0						±30	mV
Offset drift							≤±1	mV/°C
output drift							≤±1	mV/°C
Linearity	@Ip=0-±Ipn						≤1	%FS
Response time	@50A/μS, 10%-90%						≤5	μS
Galvanic isolation	@ 50Hz,AC,1min						2.5	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)



Remarks :

1. All dimensions are in mm.
2. General tolerance  $\pm 1$ mm.

## 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. Custom design in the different rated input current and the output voltage are available.

**Standards**

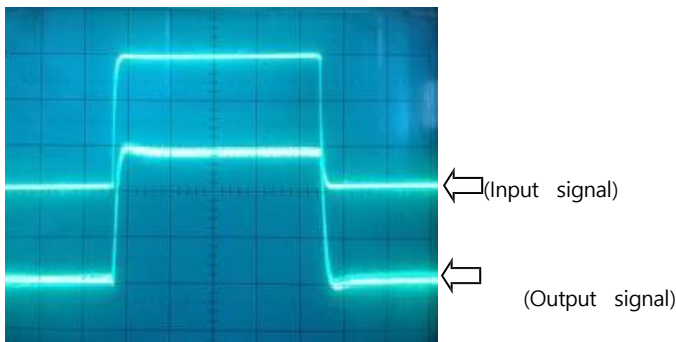
UL94-V0.  
 EN60947-1:2004  
 IEC60950-1:2001  
 EN50178:1998  
 SJ 20790-2000

**General data**

	Value	Unit	Symbol
Operating temperature	-40 to +105	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	72	g	M

**Characteristics chart**

Pulse current signal response characteristic



Effects of impulse noise

