TKC-BP1 Series Open Loop Mode Hall Effect

TKC-BP1 series 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.

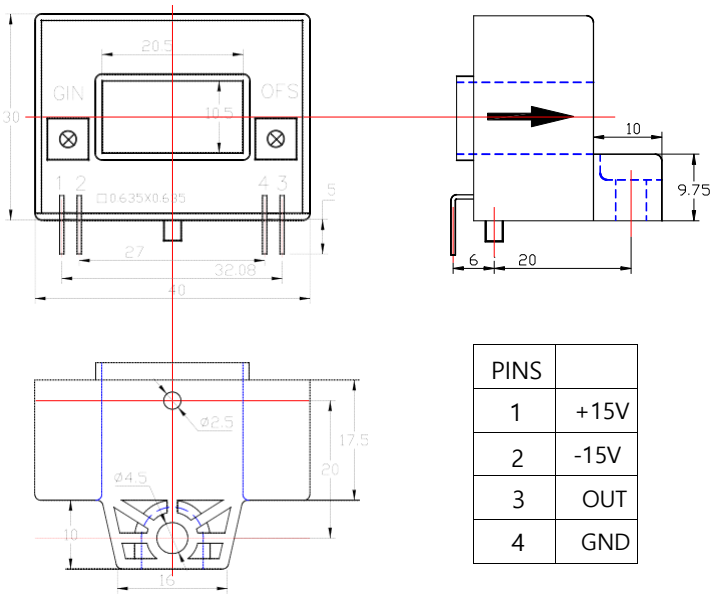
Electrical data(Ta=25℃±5℃,RL=2KΩ,CL=10000PF)

Parameter \ Type	TKC-50 BP1	TKC-75 BP1	TKC-100 BP1	TKC-200 BP1	TKC-300 BP1	TKC-400 BP1	TKC-500 BP1	TKC-600 BP1	Unit
Rated input	±50	±75	±100	±200	±300	±400	±500	±600	A
Measure range	±150	±225	±300	±600	±900	±900	±900	±900	A
Rated output	@Ip=±Ipn	±4±1%							V
Supply voltage	±15 ±5%								V
Consumption	+18,-10								mA
Offset voltage	@Ip=0	±25							mV
Magnetic offset	±30	±25							mV
Offset drift	≤±1.5	≤±1.0							mV/℃
output drift	≤±1.5	≤±1.0							mV/℃
Linearity	Ip=0-±Ipn	≤1							%FS
Response time	50A/μS, 10%-90%	≤3							μS
Band-width	@-3dB	DC-25							KHz
Galvanic isolation	@ 50HZ , AC , 1min	2.5							KV

Applications

- AC variable speed drives
- Static converters for DC motor drives
- Variable speed drives
- Power supplies for welding applications
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)

Mechanical dimension (for reference only)



PINS	
1	+15V
2	-15V
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 voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)

2 Customs can adjust Output amplitude of the sensor by needs.

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

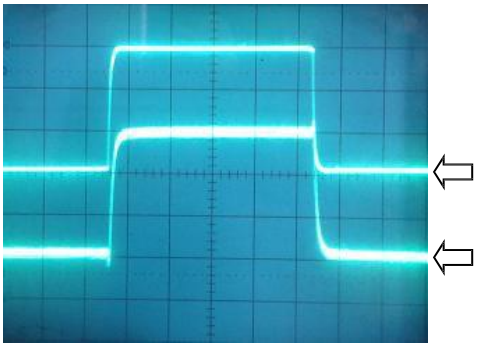
SJ 20790-2000

General data

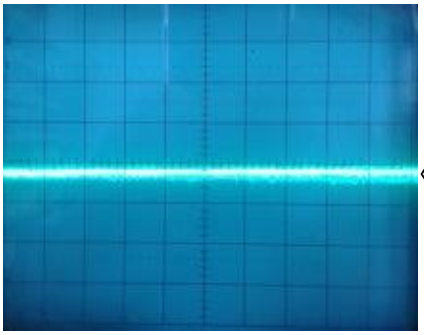
	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	65	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise



Input current-Output Voltage characteristic