TKC-BSW1 Series Open Loop Mode Hall Effect

TKC-BSW1 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.

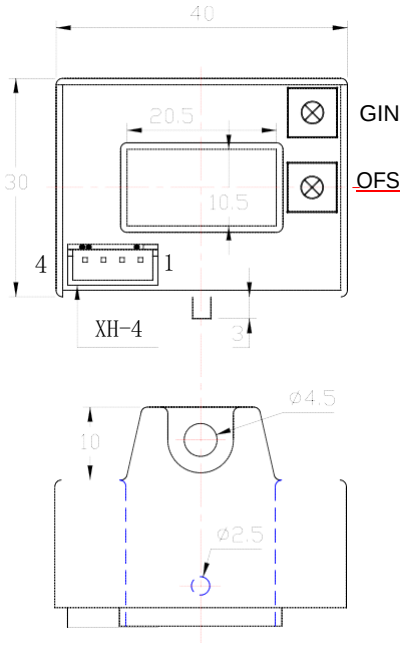
Electrical data (Ta=25℃±5℃,RL=10KΩ,CL=10000PF)

Parameter \ Type	TKC-50 BSW1	TKC-75 BSW1	TKC-100 BSW1	TKC-200 BSW1	TKC-300 BSW1	TKC-400 BSW1	TKC-500 BSW1	TKC-600 BSW1	Unit
Rated input (Ipn)	±50	±75	±100	±200	±300	±400	±500	±600	A
Measure range (Ip)	±150	±225	±300	±600	±900	±900	±900	±900	A
Rated output	@Ip=±Ipn ±4±1%								V
Supply voltage	±15 ±5%								V
Power Consumption	+18,-10								mA
Offset voltage	±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).

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

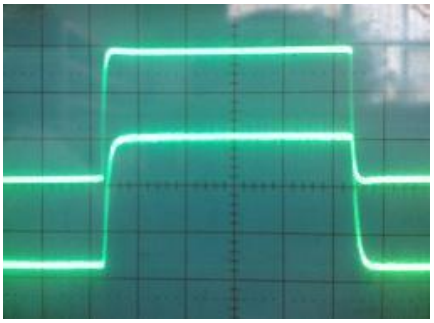
SJ 20790-2000

General data

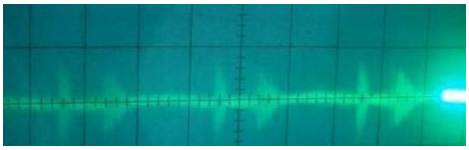
	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	65	g	M

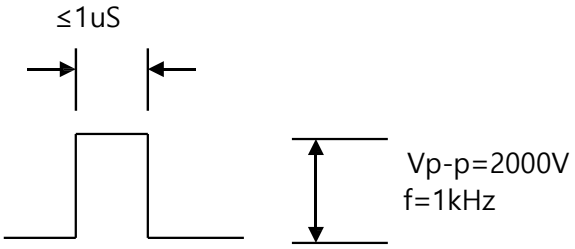
Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise





Input current-Output Voltage characteristic