TKC-BRK12 Series Switch Mode Hall Effect Current Sensor

TKC-BRK12 series digital mode 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 and control of DC, AC or pulsed currents.

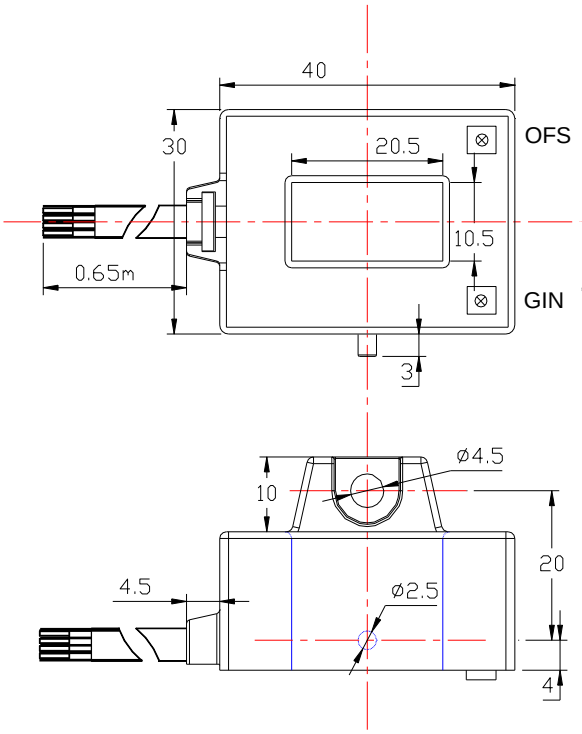
Electrical data (Ta=25℃±5℃, RL=300Ω, CL=10000PF)

Parameter \ Type	TKC10 BRK12	TKC20 BRK12	TKC30 BRK12	TKC50 BRK12	TKC100 BRK12	TKC200 BRK12	TKC300 BRK12	TKC500 BRK12	Unit
Rated input (Ipn)	10±10%	20±10%	30±10%	50±10%	100±10%	200±10%	300±10%	500±10%	A
Max output (IL)	@Ip=+Ipn			100					mA
Supply voltage	+12 ±5%								Vc
Power consumption	+18+100(max)								mA
Digital output	@Ip=0			NPN always closed					
low level (VOL)	≤0.4(IL=100mA)								V
high level (VOH)	Vc-0.5								V
hysteresis error	@Ip=+Ipn			+Ipn±10%					A
Response time	@50A/μS, 10%-90%			≤10					μS
Band-width	@-3dB			DC-25					KHz
Galvanic isolation	@ 50HZ , AC , 1min			2.5					KV

Applications

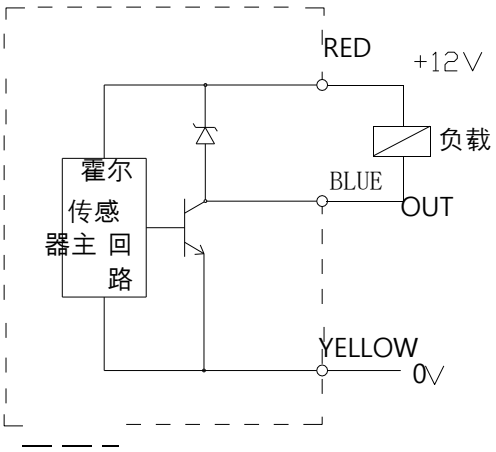
- AC variable speed drives
- Static converters for DC motor drives
- Variable speed drives
- Power supplies for welding applications
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)

Mechanical dimension (for reference only)



PINS		
1	+12V	RED
2	GND	YELLOW
3	OUT	BLUE
4	NC	BLACK

接线方式



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。

Standards

UL94-V0.

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

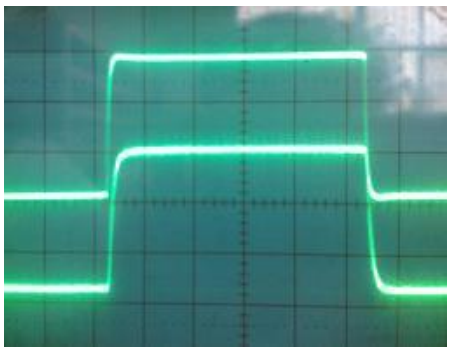
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	ºC	TA
Storage temperature	-40to +125	ºC	TS
Mass(approx)	80	g	M

Characteristics chart

Pulse current signal response



Effects of impulse noise