



TBC-PXH series current sensor is a two closed loop device based on the measuring principle of the hall effect , with a galvanic isolation between primary and secondary circuit. It has strong anti-jamming ability and provides accurate electronic measurement of DC, AC or pulsed currents.

Electrical data ((Ta=25°C±5°C, RL=2KΩ, CL=1000PF)

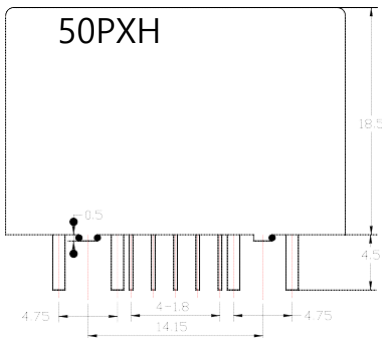
Type Parameter	TBC03 PXH	TBC05 PXH	TBC10 PXH	TBC15 PXH	TBC20 PXH	TBC25 PXH	TBC30 PXH	TBC40 PXH	TBC50 PXH	Unit
Rated input (I _{pn})	±3	±5	±10	±15	±20	±25	±30	±40	±50	A
Measuring range (I _p)	±9	±15	±30	±45	±60	±75	±90	±120	±125	A
Turns ratio (N _p /N _s)	5 : 1500	3 : 1500	2 : 2000	2 : 2250	1 : 2000	1 : 2500	1 : 2250	1 : 2000	1 : 2000	T
Inside resistance	200 ±0.1%	200 ±0.1%	200 ±0.1%	100 ±0.1%	200 ±0.1%	200 ±0.1%	100 ±0.1%	50 ±0.1%	40 ±0.1%	Ω
Rated output	@ I _p =±I _{pn} ±4±0.5%									V
Supply voltage	±15±5%									V
Power consumption	24+I _p X (N _p /N _s)									mA
Zero voltage	@I _p =0 ≤±0.03									V
Offset drift	≤0.3									mV/°C
Output drift	≤0.2									mV/°C
Linearity	@ I _p =0-±I _{pn} ≤0.1									%FS
Response time	@ I _p =I _{pn} , 50 A/μS ,10%-90% < 1.0									μs
Band-width	@-3dB DC-200									KHz
Galvanic isolation	@ 50/60Hz , AC , 1min 3.0									KV
Dielectric strength	> 1000									MΩ

Applications

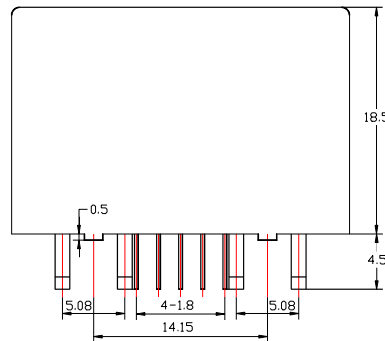
- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical
- DC motor drive

Mechanical dimension (for reference only)

TBC03--25PXH



TBC30--

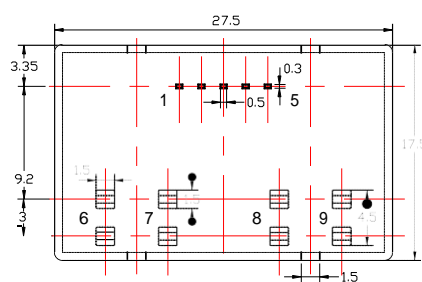
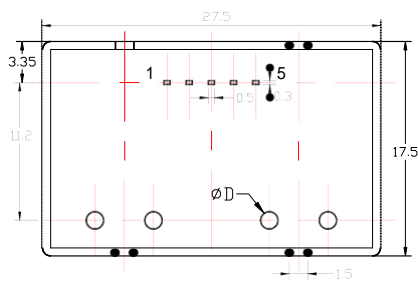


Terminal Pin Identification

- 1.....+15V
- 2.....-15V
- 3.....Output1
- 4.....Output2
- 5.....0V
- 6.....primary input current(+)
- 7.....primary input current(--)
- 8.....primary input current(+)
- 9.....primary input current(--)

Primary conductor diameter

TBC	03PXH	05PXH	10PXH	15PXH
D	0.6	0.8	1.0	1.0
TBC	20PXH	25PXH	30PXH	50PXH
D	1.4	1.4	4.5X1.5	4.5X1.5



Remarks :

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

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 available.

Standards

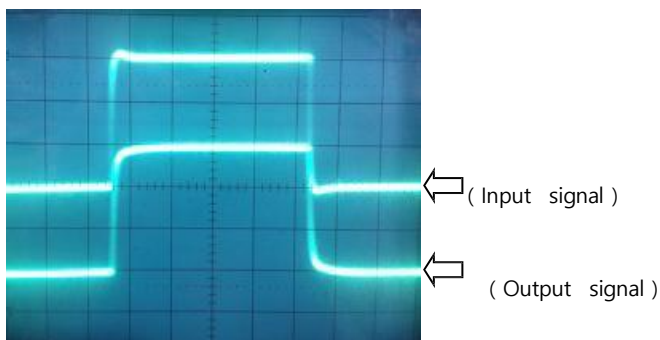
- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

General data

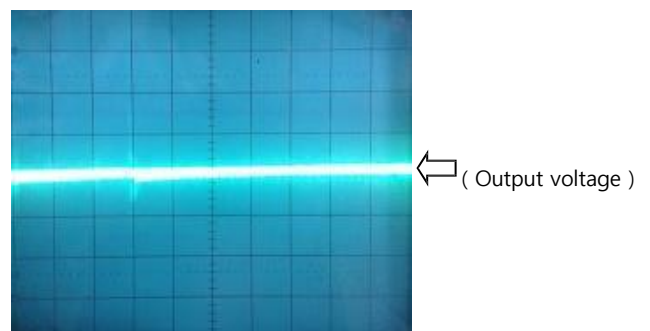
	Value	Unit	Symbol
Operating temperature	-40 to +85	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	16	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise



Input current-Output Voltage characteristic

