



TBC-PH 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.

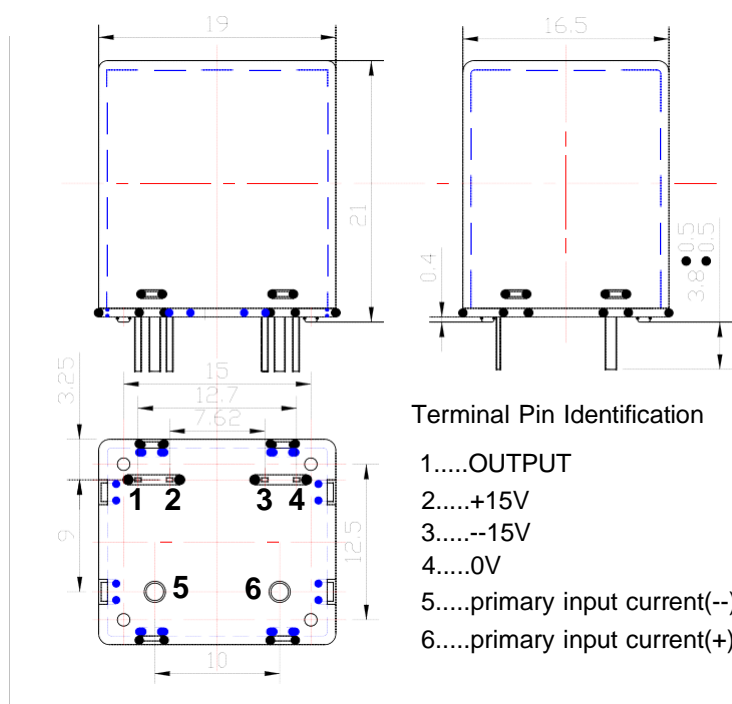
## Electrical data ((Ta=25°C±5°C, RL=2KΩ, CL=10000PF)

Type Parameter	TBC03PH	TBC05PH	TB7.5PH	TBC10PH	TBC15PH	TBC20PH	TBC25PH	TBC30PH	Unit
Rated input (I <sub>pn</sub> )	±3	±5	±7.5	±10	±15	±20	±25	±30	A
Measuring range (I <sub>p</sub> )	±9	±15	±22.5	±30	±45	±60	±75	±90	A
Size of input pins	ø 0.6	ø 0.6	ø 0.8	ø 0.8	ø 1.0	ø 1.4	ø 1.4	ø 1.6	mm
Turns ratio (N <sub>p</sub> /N <sub>s</sub> )	5 : 1500	5 : 2500	3 : 2250	3 : 3000	2 : 3000	1 : 2000	1 : 2500	1 : 3000	T
Inside measuring resistance	400	400	400	400	400	400	400	400	Ω
Rated output	@ I <sub>p</sub> =±I <sub>pn</sub> ±4±0.5%FS								V
Supply voltage	±15±5%								V
Power consumption	20+I <sub>p</sub> X (N <sub>p</sub> /N <sub>s</sub> )								mA
Zero offset voltage	@ I <sub>s</sub> =0 ≤±30								mV
Offset drift	≤±0.5								mV/°C
Linearity	@ I <sub>p</sub> =0-±I <sub>pn</sub> ≤0.1								%FS
Response time	@ I <sub>p</sub> =I <sub>pn</sub> , 50 A/μS, 10%-90% < 1.0								μS
Bandwidth	@-3dB DC-200								KHz
Galvanic isolation	@ 50Hz, AC, 1min 3.0								KV

## Applications

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

## Mechanical dimension (for reference only)



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

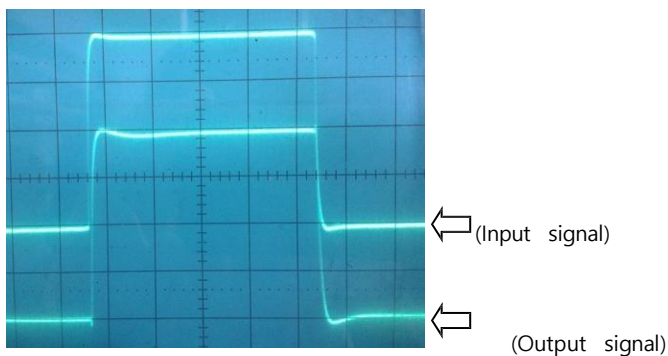
- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

## General data

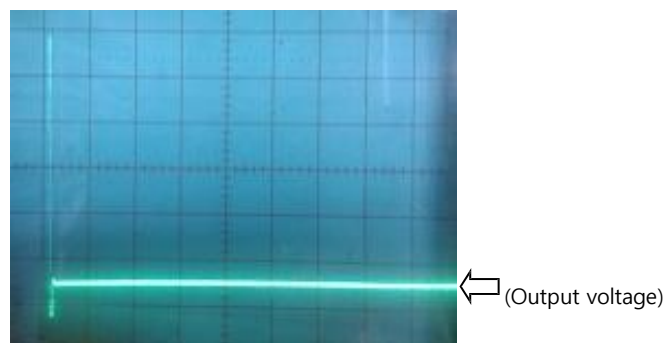
	Value	Unit	Symbol
Operating temperature	-40 to +85	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	12	g	M

## Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise



Input current-Output Voltage characteristic

