TBV-AJ25 series current mode voltage sensor is a closed loop device based on the principle of the hall effect and null balance method. The output from the voltage sensor can be expressed as a voltage by passing it through a resister. Input voltage can be expressed as a current by passing it through an input resister. It provides accurate electronic measurement of DC AC or pulse and pulsed voltage.

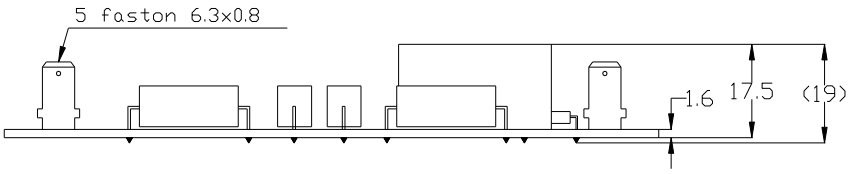
Electrical data (Ta=25℃±5℃)

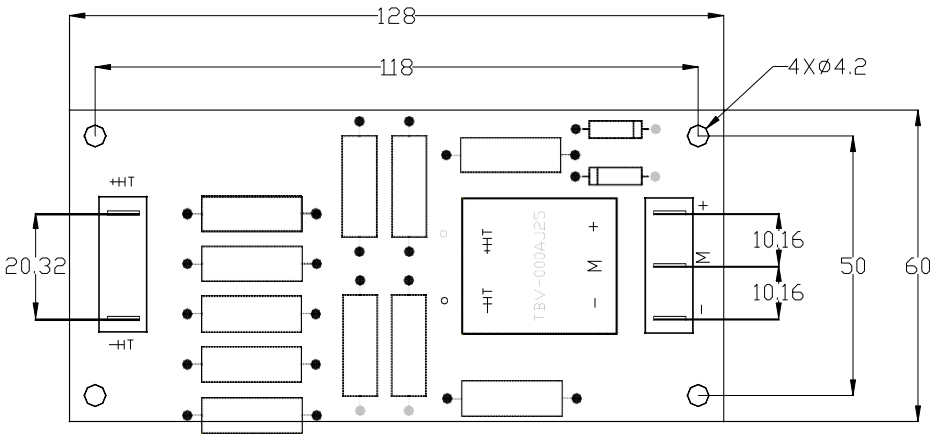
Parameter \ Type	TBV 100AJ25	TBV 200AJ25	TBV 300AJ25	TBV 400AJ25	TBV 500AJ25	TBV 800AJ25	TBV 1000AJ25	TBV 2000AJ25	Unit
Rated input (Vpn)	100	200	300	400	500	800	1000	2000	V
Measure range (Vp)	200	400	600	800	1000	1600	2000	4000	V
Turns ratio (Np/Ns)	5000:1000								T
Rated input (Ipn)	5.0								mA
Rated output (Isn)	@Vp=±Vpn ±25±0.5%								mA
Measure resister with ±12V	@±Vpn max 100(min) 300(max)								Ω
	@±2Vpnmax 60(min) 150(max)								Ω
Measure resister with ±15V	@±Vpn max 100(min) 360(max)								Ω
	@±2Vpn max 60(min) 180(max)								Ω
Supply voltage	±12～±15±5%								V
Consumption current	15+IpX(Np/Ns)								mA
Offset current	@Vp=0 ≤±0.2								mA
Offset drift	@ -40～+25℃ ≤±0.6 ; @ 25℃～+85℃ ≤±0.5								mA
Linearity	@Ip=0-±Ipn ≤0.1								%FS
Response time	≤50								uS
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)

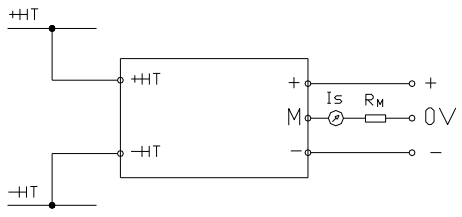




Secondary terminals

terminal + : supply voltage+12..15V
terminal M :measure
terminal − :supply voltage-12..15V

Connection



Remarks :

1. All dimensions are in mm.
2. General tolerance ±1mm

Directions for use

1. When the current is measured through a transmitter, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the transmitter).

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

3. Custom design in the different rated input current and the output voltage available.

Standards

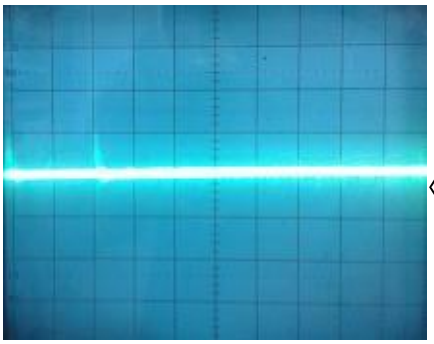
- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	75	g	M

Characteristics chart

Effects of impulse noise



⇦ (Output voltage)