TBV-LV series current mode voltage sensor is a device based on the principle of the hall effect, with a galvanic isolation between primary and secondary circuit, it provides accurate electronic measurement of DC、AC or pulsed voltage.

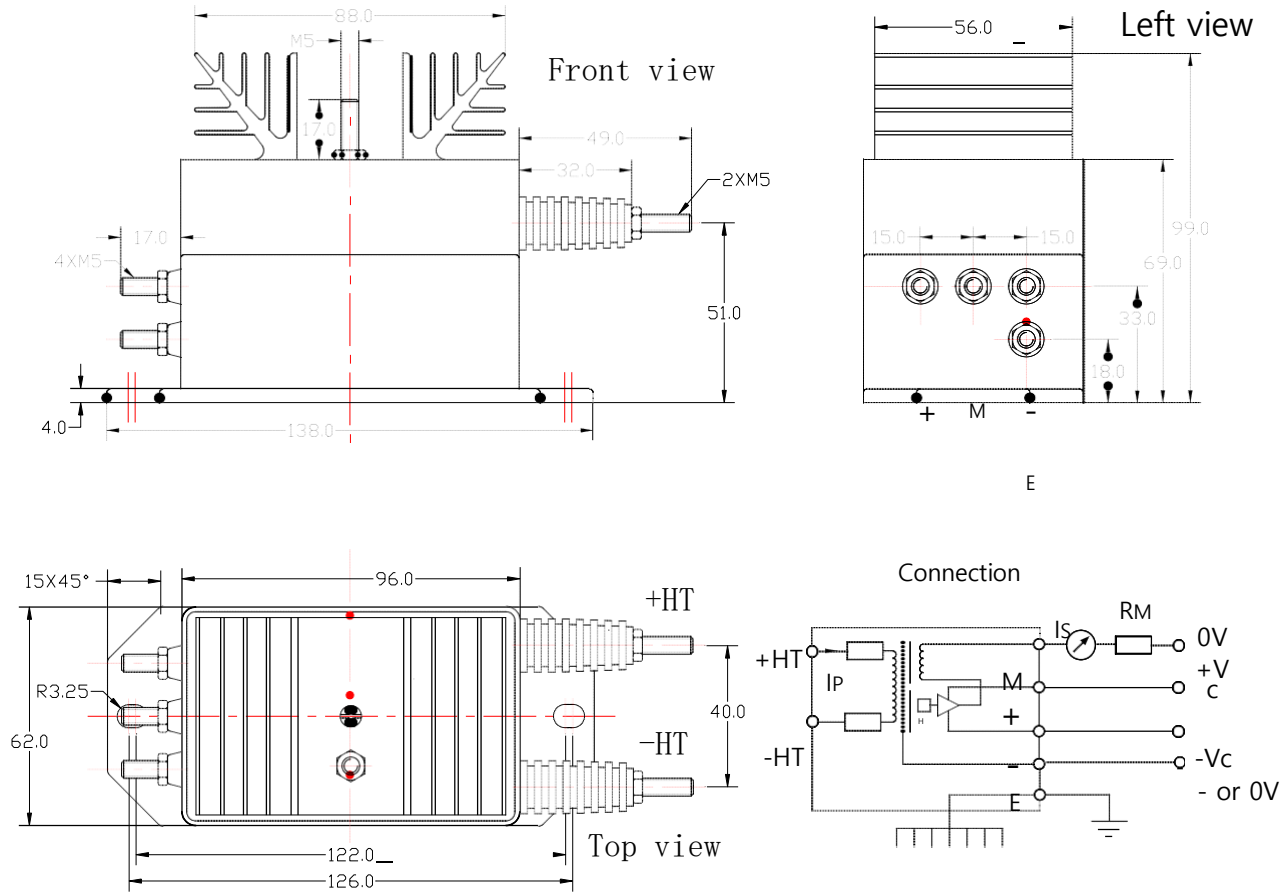
Electrical data (Ta=25℃±5℃)

Parameter \ Type	TBV 100LV	TBV 300LV	TBV 500LV	TBV 1000LV	TBV 2000LV	TBV 3000LV	TBV 4000LV	TBV 5000LV	Unit
Rated input (Vpn)	±100	±300	±500	±1000	±2000	±3000	±4000	±5000	V
Measure range (Vp)	±200	±600	±1000	±2000	±4000	±6000	±6000	±7500	V
Total input consumption	1.000	1.500	3.125	2.500	5.000	5.625	10	8	W
Rated input (Ip)	10.000	5.000	6.250	2.500	2.500	1.875	2.500	1.600	mA
Turns ratio (Np/Ns)	5000:1000	10000:1000	8000:1000	20000:1000	20000:1000	26666:1000	20000:1000	30000:960	T
Secondary coil resister	@ +85℃ 55								Ω
Rated output (Isn)	@Vp=±Vpn ±50±0.5%								mA
Resister measured	@ ±15V V_{PN} 50 (min), 200 (max)								Ω
	@ ±15V 2XV_{PN} 0 (min), 100 (max)								Ω
	@ ±24V V_{PN} 100 (min), 330 (max)								Ω
	@ ±24V 2XV_{PN} 100 (min), 200 (max)								Ω
(±10%) Supply voltage	±15 - ±24								V
Consumption current	20+IpX(Np/Ns)								mA
Offset current	@ Vp=0 ≤±0.2								mA
Offset drift	@ -40～+85℃ ≤±1.5 ; @ -50～-40℃ ≤±1.0 ;								mA
Linearity	@ Vp =0-±Vpn ≤0.1								%FS
Response time	≤200								uS
Galvanic isolation	@ 50HZ, AC,1min Between primary and secondary + shield 10.0								KV
	@ 50HZ, AC,1min Between secondary and shield 2.0								KV

Applications

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

Mechanical dimension (for reference only)



Remarks :

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

Directions for use

1. Is is positive when the Ip is applied to the terminal +HT. Temperature of the primary conductor should not exceed 100℃.
2. When the voltage is measured through a sensor, the current 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 voltage and the output current available.

Standards

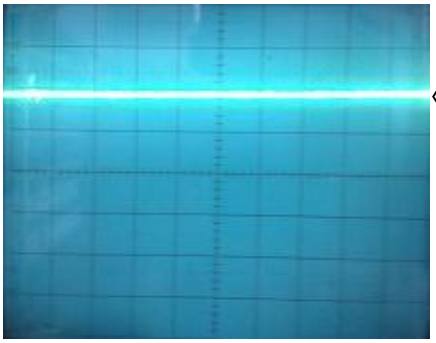
- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	850	g	M

Characteristics chart

Effects of impulse noise



(Output voltage)

≤1uS