



DATA SHEET

Hall Effect Voltage Sensor

PN: CHV_LV15D50

IPN=100~4000V

Feature

- It is a current mode voltage sensor, 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.
- Supply voltage: $\pm 15 \sim \pm 24$ V

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- High immunity to external interference

- Very good linearity
- Can be customized

Applications

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



RoHS



Electrical data: ($T_a = 25^\circ\text{C} \pm 5^\circ\text{C}$)

Type Parmeter	CHV100 LV15D50	CHV200 LV15D50	CHV300 LV15D50	CHV500 LV15D50	CHV750 LV15D50	CHV1000 LV15D50	CHV2000 LV15D50	CHV3000 LV15D50	CHV4000 LV15D50
Rated input $V_{pn}(V)$	100	200	300	500	750	1000	2000	3000	4000
Measure range $V_p(V)$	200	400	600	1000	1500	2000	4000	6000	6000
Total input consumption (W)	0.25	0.5	0.75	1.25	1.25	2.5	5.0	7.5	10
Rated input $I_p(mA)$	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Turns ratio $N_p/N_s (T)$	20000:1000								
Secondary coil resiste (Ω)	@+85°C 55								
Rated output $I_{sn}(mA)$	@ $V_p = \pm V_{pn}$ $\pm 50 \pm 0.5\%$								
Resister measured (Ω)	@ $\pm 15V$ V_{pn} 50 (min), 200 (max)								
	@ $\pm 15V$ 2XVPN 0 (min), 100 (max)								
	@ $\pm 24V$ VPN 100 (min), 330 (max)								
	@ $\pm 24V$ 2XVPN 100 (min), 200 (max)								
Supply voltage (V)	$\pm 15 \sim 24V (\pm 10\%)$								
Consumption current (mA)	$20 + I_p X (N_p/N_s)$								



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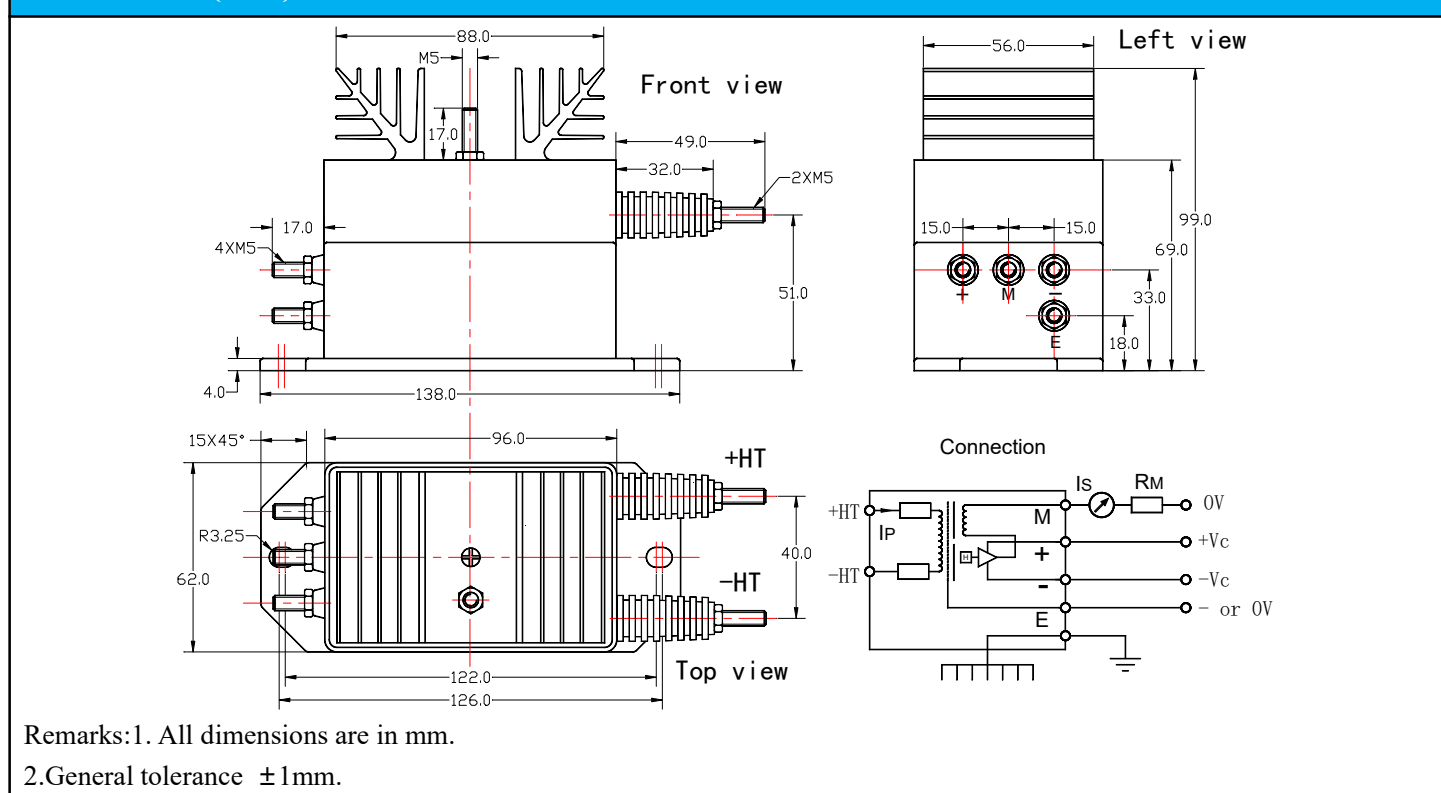
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Offset current (mA)	@V _p =0	≤ ±0.2
Offset drift (mV/°C)	@-40 ~ +85°C	≤ ±0.6
Linearity (%FS)	@V _p =0~±V _{pn}	≤0.1
Response time (μS)		≤200
Galvanic isolation (KV)	@50Hz, AC, 1min Between primary and secondary + shield	12.0
	@ 50HZ,AC,1min Between secondary and shield	2.0

General data:

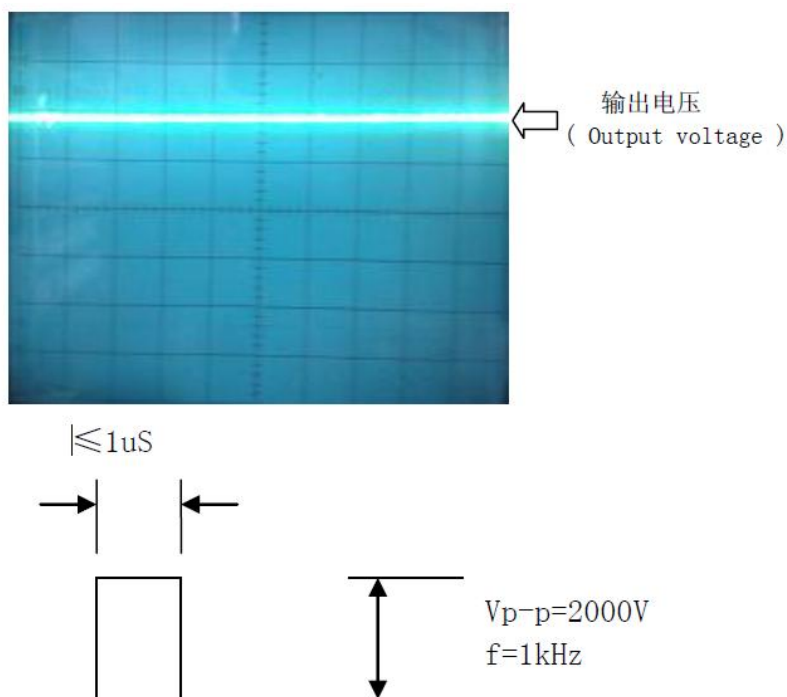
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40~ +125
Mass M(g)	850
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000
	UL94-V0
	EN60947-1:2004

Dimensions(mm):



Characteristics chart:

Effects of impulse noise



Remarks:

- It is positive when the I_p is applied to the terminal +HT. Temperature of the primary conductor should not exceed $100^{\circ}C$.
- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.

WARNING : Incorrect wiring may cause damage to the sensor.

