



DATA SHEET

Hall Effect Voltage Sensor

PN: CHV_LV15D50L

I_{PN}=100~5000V

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

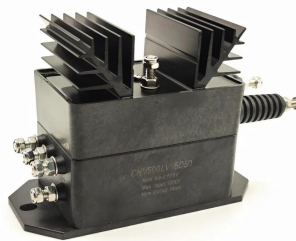
Advantages

- 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°C±5°C)

Type Parameters	CHV100 LV15D50L	CHV300 LV15D50L	CHV500 LV15D50L	CHV1000 LV15D50L	CHV2000L V15D50L	CHV3000L V15D50L	CHV4000 LV15D50L	CHV5000 LV15D50L
Rated input V _{pn} (V)	100	300	500	1000	2000	3000	4000	5000
Measure range V _p (V)	200	600	1000	2000	4000	6000	6000	7500
Total input consumption (W)	1.000	1.500	3.125	2.500	5.000	5.625	10	8
Rated input I _p (mA)	10.000	5.000	6.250	2.500	2.500	1.875	2.500	1.600
Turns ratio T(N _p /N _s)	5000:100 0	10000:1 000	8000:10 00	20000:1 000	20000:1 000	26666:1 000	20000:1 000	30000:9 60
Secondary coil resistance (Ω)	@+85°C 55							
Rated output I _{sn} (mA)	@V _p =±V _{pn} ±50 ±0.5%							
Resistor measured (Ω)	@±15V V _{pn} 50 (min) , 200 (max)							
	@ ±15V 2XV _{PN} 0 (min) , 100 (max)							
	@ ±24V V _{PN} 100 (min) , 330 (max)							
	@ ±24V 2XV _{PN} 100 (min) , 200 (max)							



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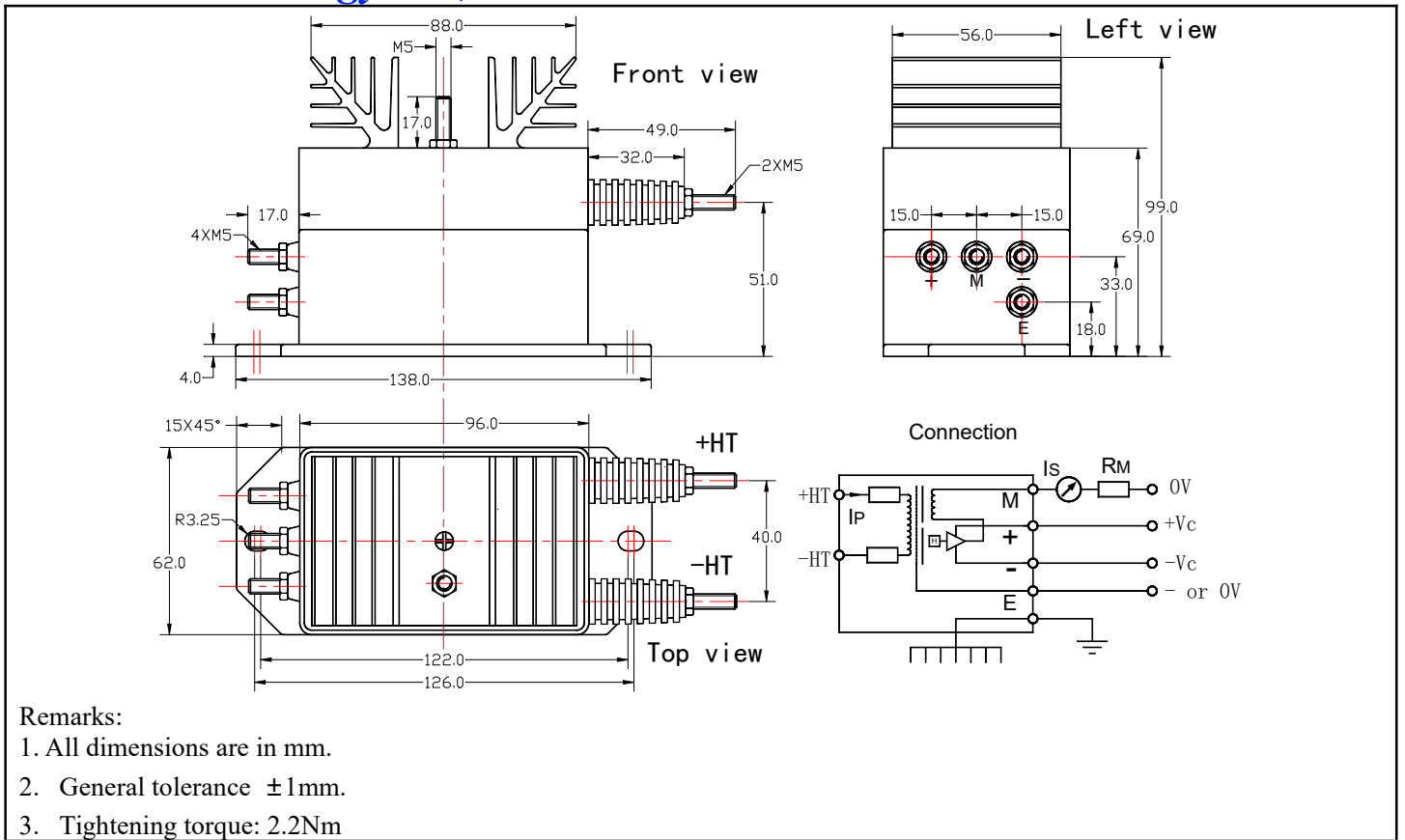
Supply voltage (V)	±15~24V (±10%)		
Consumption current (mA)	20+IpX(Np/NS)		
Offset current (mA)	@Vp=0	≤±0.2	
Offset drift (mV/°C)	@ -40~+85°C	≤±1.5;	@ -50~-40°C ≤±1.0;
Linearity (%FS)	@Vp=0-±Vpn	≤0.1	
Response time (μS)	≤200		
Galvanic isolation (KV)	@50Hz, AC, 1min	Between primary and secondary + shield	10.0
	@ 50HZ,AC,1min	Between secondary and shield	2.0

General data:

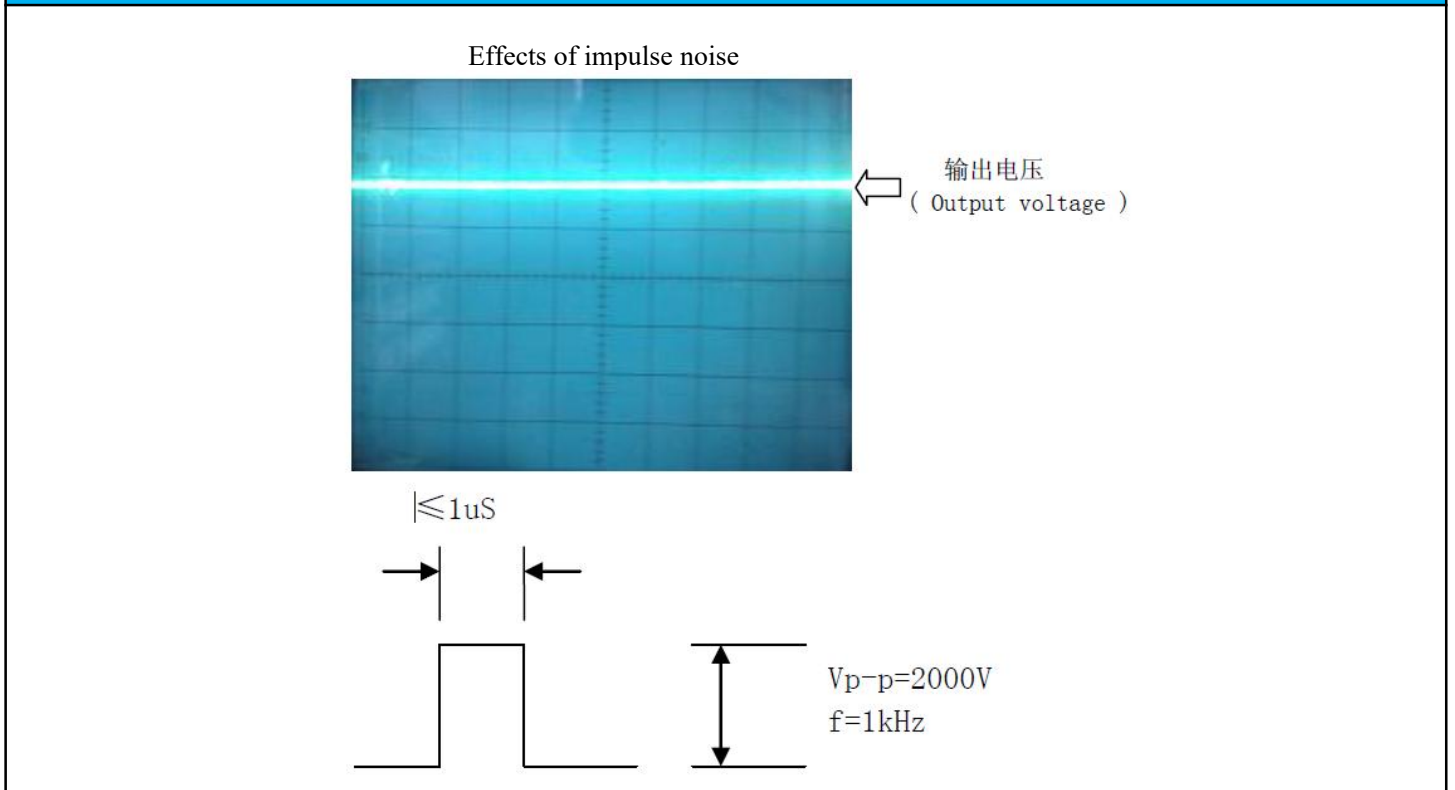
Parameter	Value
Operating temperature TA(°C)	-50 ~ +85
Storage temperature TS(°C)	-50~ +125
Mass M(g)	850
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000
	UL94-V0
	EN60947-1:2004

Dimensions(mm):





Characteristics chart:



Remarks:

- It is positive when the I_p is applied to the terminal +HT. Temperature of the primary conductor should not exceed 100°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.

