



DATA SHEET

Hall Effect Voltage Sensor

PN: CHV10LVA15D50

$I_{PN}=10\text{mA}$
 $V_{PN}=100 \dots 4500\text{V}$

Feature

- Closed- loop (compensated) voltage transducer
- Capable measurement of DC and AC voltage with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: $\pm 15 \sim \pm 24\text{V}$

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 (UPS)
- Electrochemical



RoHS



Electrical data: ($T_a=25^\circ\text{C}$, $V_c=\pm 15\text{VDC}$)

Model	CHV10LVA15D50	
Rated input current(I_{pn})(mA)	10	
Measure range(I_p)(mA)	20	
Turns ratio(N_p/N_s)	5000: 1000	
Primary resistor(Ω)	1.5K Ω , 6H	
Secondary resistor(Ω)	@ +85 $^\circ\text{C}$	55
Rated output (I_{sn})(mA)	@ $I_p = \pm I_{pn}$	$\pm 50 \pm 0.5\%$
Resistor measured(Ω)	@ $\pm 15\text{V}$ I_{pn}	50 (min), 200 (max)
	@ $\pm 15\text{V}$ $2XI_{pn}$	0 (min), 100 (max)
	@ $\pm 24\text{V}$ I_{pn}	100 (min), 330 (max)
	@ $\pm 24\text{V}$ $2XI_{pn}$	100 (min), 200 (max)
Supply voltage(V)	$\pm 15 \sim \pm 24(\pm 10\%)$	
Offset current(mA)	@ $I_p=0$	$\leq \pm 0.2$
Offset drift(mA)	@ $-40 \sim +85^\circ\text{C}$ $\leq \pm 0.5$;	@ $-50 \sim -40^\circ\text{C}$ $\leq \pm 1.0$;
Linearity(%FS)	@ $I_p=0 \sim \pm I_{pn}$	≤ 0.1



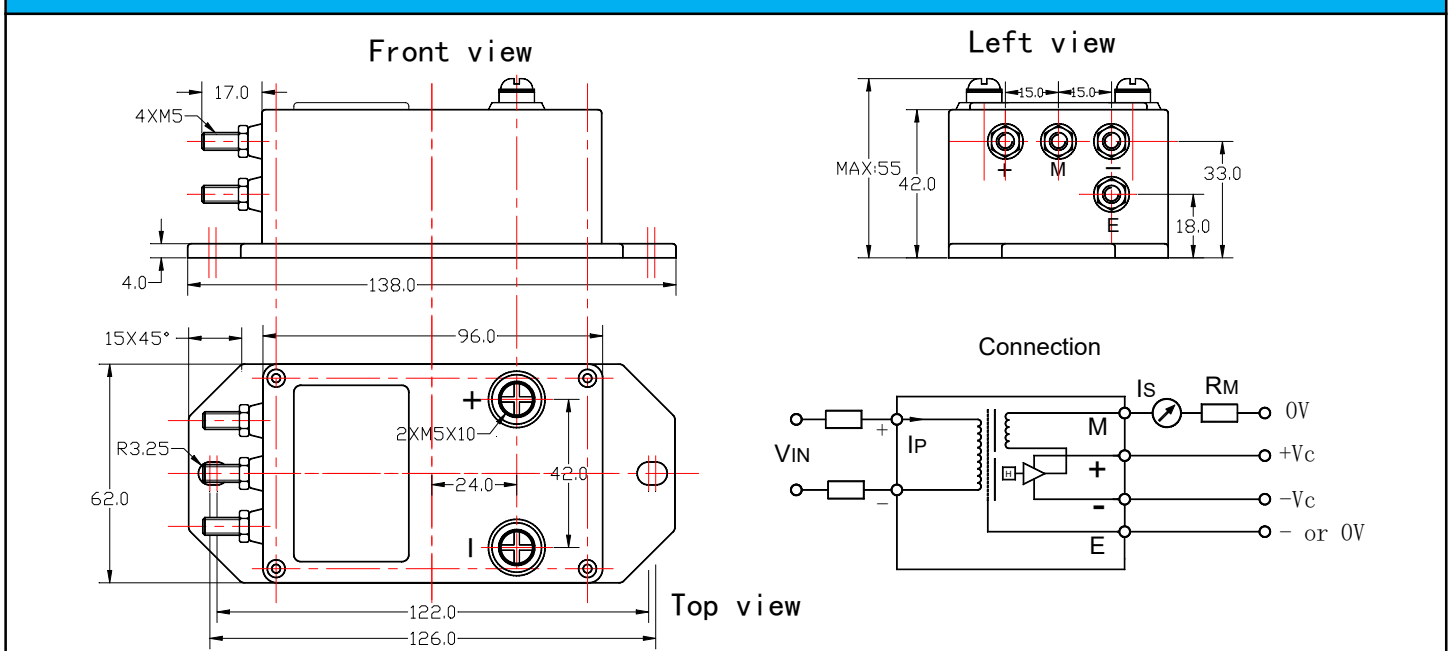
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Response time(μ S)	≤ 200		
Galvanic isolation(KV)	@ 50HZ,AC,1min	Between primary and secondary + shield	12.0
	@ 50HZ,AC,1min	Between secondary and shield	2.0

General data:

Parameter	Value
Operating temperature TA($^{\circ}$ C)	-40 ~ +85
Storage temperature TS($^{\circ}$ C)	-55 ~ +125
Mass M(g)	450
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000
	EN60947-1:2004
	UL94-V0.

Dimensions(mm):



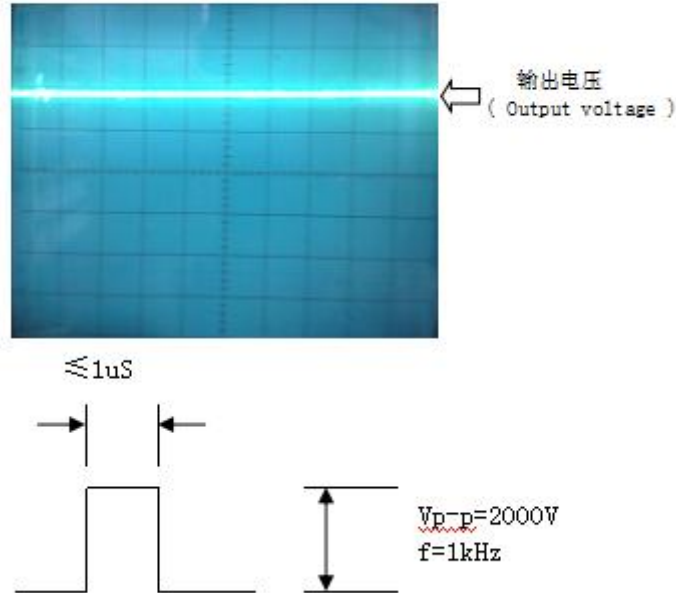
Remarks:

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



Characteristics chart:

抗脉冲电压干扰特性
Effects of impulse noise



Remarks:

- 1. It is positive when the I_p is applied to the terminal “+”, Temperature of the primary conductor should not exceed 100°C
- 2. When the voltage will be measured goes 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 nominal input voltage and the output current available.

WARNING : Incorrect wiring may cause damage to the sensor.

