

DATA SHEET

Hall Effect Voltage Sensor



PN: CHV_AC15D25

IPN=200~1000V

Feature

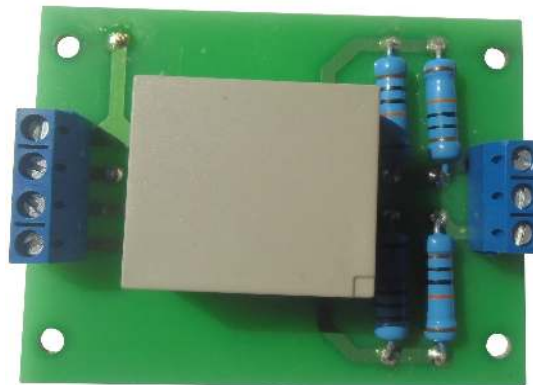
- Closed- loop (compensate) voltage transducer
- Capable measurement of DC and AC voltage with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 12 \sim 15$ V

Advantages

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

Applications

- The application of induction cooker
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications



RoHS



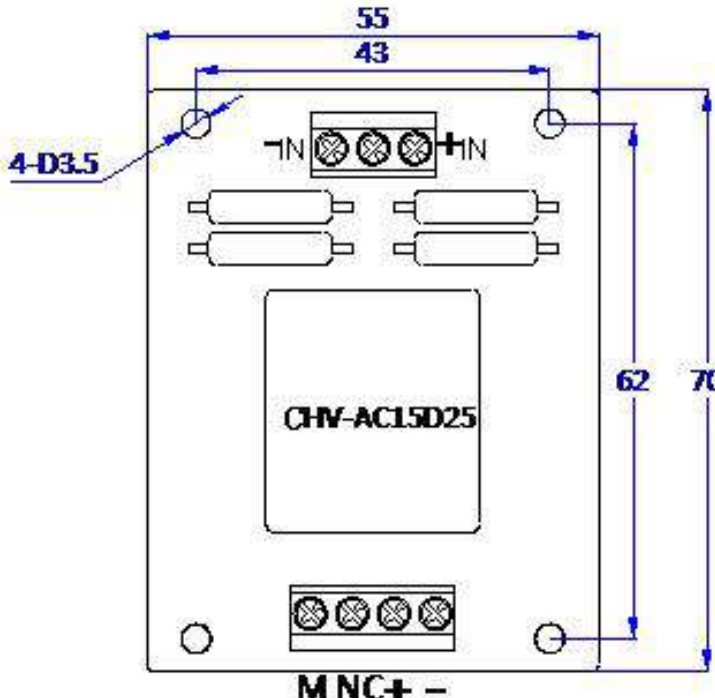
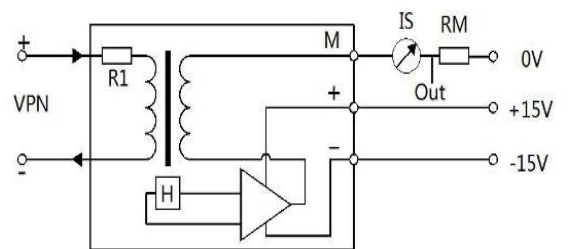
Electrical data: ($T_a=25^\circ\text{C}$, $V_c= \pm 15\text{VDC}$)

Parmeter	Ref	Electrical data: ($T_a=25^\circ\text{C}$, $V_c= \pm 15\text{VDC}$)				
		CHV200 AC15D25	CHV400 AC15D25	CHV600 AC15D25	CHV800 AC15D25	CHV1000 AC15D25
Rated input voltage $V_{pn}(V)$		200	400	600	800	1000
Measuring range $V_p(V)$		0 \sim ± 280	0 \sim ± 360	0 \sim ± 840	0 \sim ± 1120	0 \sim ± 1400
Turns ratio $N_p/N_s (T)$		1000	1000	1000	1000	1000
Secondary coil resistance $R_S (\Omega)$		60	60	60	60	60
Output current rms $I_S(mA)$		$\pm 25 * V_p / V_{PN}$				
Inside resistance $R_M (\Omega)$		$[(V_c - 3.0V) / (I_S * 0.001)] - R_S$				
Supply voltage $V_C(V)$		$(\pm 12 \sim \pm 15) \pm 5\%$				
Accuracy $X_G(\%)$		@IPN, $T=25^\circ\text{C}$		$< \pm 0.5$		
Offset current $I_{OE}(mA)$		@IP=0, $T=25^\circ\text{C}$		$< \pm 0.15$		
Temperature variation of IOE $I_{OT}(mA/^\circ\text{C})$		@IP=0, $-40 \sim +85^\circ\text{C}$		$< \pm 0.5$		
Linearity error $\epsilon_r(\%FS)$		< 0.2				
Response time $t_{ra}(\mu s)$		@90% of IPN		< 40.0		
Power consumption $I_C(mA)$		$15 + I_s$				
Insulation voltage $V_d(KV)$		@50/60Hz, 1min, AC		2.5		

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55 ~ +125
Mass M(g)	50
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

 <p>The drawing shows a rectangular sensor module with the following dimensions: overall width 55mm, internal width 43mm, overall height 70mm, and internal height 62mm. It features four mounting holes (4-D3.5) at the top corners. The top edge has two input terminals labeled -IN and +IN. The bottom edge has four terminals labeled M, N, C, and -. A central component is labeled CHV-AC15D25. Two pairs of cylindrical components are located below the top terminals.</p>	<p style="text-align: center;">Connection</p>  <p>The circuit diagram shows a transformer with primary resistance R1 and secondary resistance R2. The primary is connected to a voltage source VPN. The secondary is connected to a bridge rectifier circuit. The output terminals are labeled 0V, +15V, and -15V. A load resistor RM and a current source IS are connected to the +15V output.</p> <p style="text-align: center;">General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> size of Primary pin: DG301-5.0-03P; Secondary pin: DG301-5.0-04P</p>
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Remarks:

- 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.