

DATA SHEET

Hall Effect Voltage Sensor



PN: CHV_T15D50

IPN=200~1000V

Feature

- Closed- loop (compensated) 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	CHV200 T15D5	CHV400 T15D5	CHV600 T15D5	CHV800 T15D5	CHV1000 T15D5
Rated input voltage $V_{pn}(V)$	200	400	600	800	1000
Measuring range $V_p(V)$	0 ~ ± 280	0 ~ ± 560	0 ~ ± 840	0 ~ ± 1120	0 ~ ± 1400
Turns ratio N_p/N_S (T)	500	500	500	500	500
Secondary coil resistance R_S (Ω)	30	30	30	30	30
Output current I_S (mA)	$\pm 50 * V_P / V_{PN}$				
Inside resistance R_M (Ω)	$[(V_C - 3.0) / (I_S * 0.001)] - R_S$				
Supply voltage V_C (V)	$(\pm 12 \sim \pm 15) \pm 5\%$				
Accuracy X_G (%)	@IPN, $T=25^\circ\text{C}$		< ± 0.5		
Offset current IOE (mA)	@IP=0, $T=25^\circ\text{C}$		< ± 0.15		
Temperature variation of IOE IOT (mA/ $^\circ\text{C}$)	@IP=0, $-40 \sim +85^\circ\text{C}$		< ± 0.5		
Linearity error ϵ_r (%FS)	< 0.2				
Response time t_{ra} (μs)	@90% of IPN		< 40.0		

Power consumption IC(mA)		15+Is
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	5.0

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	90
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	<p>Connection</p>
	<p>General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Size of Primary pin: 2pin ,M5.2*8.0±0.15mm; Secondary pin: 4pin M5.2*8.0±0.15mm</p>

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.