



DATA SHEET

Hall Effect Voltage Sensor

PN: CHV_AL15D25

IPN=100~1000V

Feature

- Closed- loop (compensated) hall effect current mode voltage transducer
- The output from the voltage sensor can be expressed as a voltage by passing it through a resistor.
- Input voltage can be expressed as a current by passing it through a input resistor.
- It provides accurate electronic measurement of DC AC or pulse and pulsed voltage.
- Supply voltage: DC $\pm 12 \sim \pm 15$

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- High immunity to external interference
- Very good linearity
- Can be customized

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Variable speed drives
- Power supplies for welding applications
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)



RoHS

Electrical data: (Ta=25°C±5°C, Vc= +5VDC)

Parmeter	Ref	CHV100	CHV200	CHV300	CHV400	CHV500	CHV800	CHV1000
		AL15D25	AL15D25	AL15D25	AL15D25	AL15D25	AL15D25	AL15D25
Rated input voltage Vpn(V)		100	200	300	400	500	800	1000
Measuring range Vp(V)		0 ~ +200	0 ~ +400	0 ~ +600	0 ~ +800	0 ~ +1000	0 ~ +1600	0 ~ +2000
Turns ratio Np/NS (T)		5000:1000						
Rated input Ipn (mA)		5.0						
Rated output current Isn(mA)		@Vp=±Vpn			±25±0.5%			
Measure resistor (Ω) with ±12V		@±Vpn max			100(min)	300(max)		
		@±2Vpn max			60(min)	150(max)		
Measure resistor (Ω) with ±15V		@±Vpn max			100(min)	360(max)		
		@±2Vpn max			60(min)	180(max)		
Supply voltage VC(V)		±12 ~ ±15±5%						



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Accuracy XG(%)	@IPN,T=25°C	< ±0.5
Offset current IOE(mA)	@IP=0,T=25°C	≤ ±0.2
Offset drift (mA)	@ -40~+25°C ≤±0.6; @ 25°C~+85°C	≤±0.5
Linearity (%FS)	@Ip=0- ±Ipn	≤0.1
Response time tra(μs)		≤50
Current consumption IC(mA)		15+IpX(Np/Ns)
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40 ~ +125
Mass M(g)	75
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN60947-1:2004
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

5 faston 6.3x0.8

1.6 17.5 $\langle 19 \rangle$

128 118 4x $\phi 4.2$

20.32 50 60

10 16 10 16

Secondary terminals

terminal + :supply voltage+12..15V
terminal M :measure
terminal - :supply voltage-12..15V

Connection

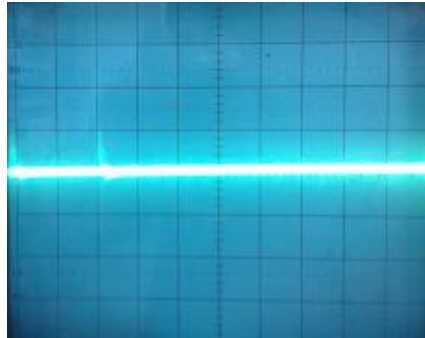
Remarks:

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



Characteristics chart:

Effects of Impulse Noise



← (Output voltage)

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.

