

CSPV-LAH Closed Loop Hall Transducer

CSPV-LAH series is a current transducer developed based on Hall effect principle, which can measure DC, AC, pulse and various irregular waveform currents under electrical isolation conditions. The sensor is current output mode and can be converted to voltage signals by external resistance according to customer requirements.

Features:

- High Accuracy
- Good Linearity
- Low Temperature Drift
- Short Response Time
- Strong Anti-interference
- Strong Current Overload Capacity



Applications:

- Static DC Motor Drive
- Variable Speed Drive
- Current Monitoring & Battery Applications
- Switching Power Supply
- UPS
- Inverter Power & Welding Power Supply

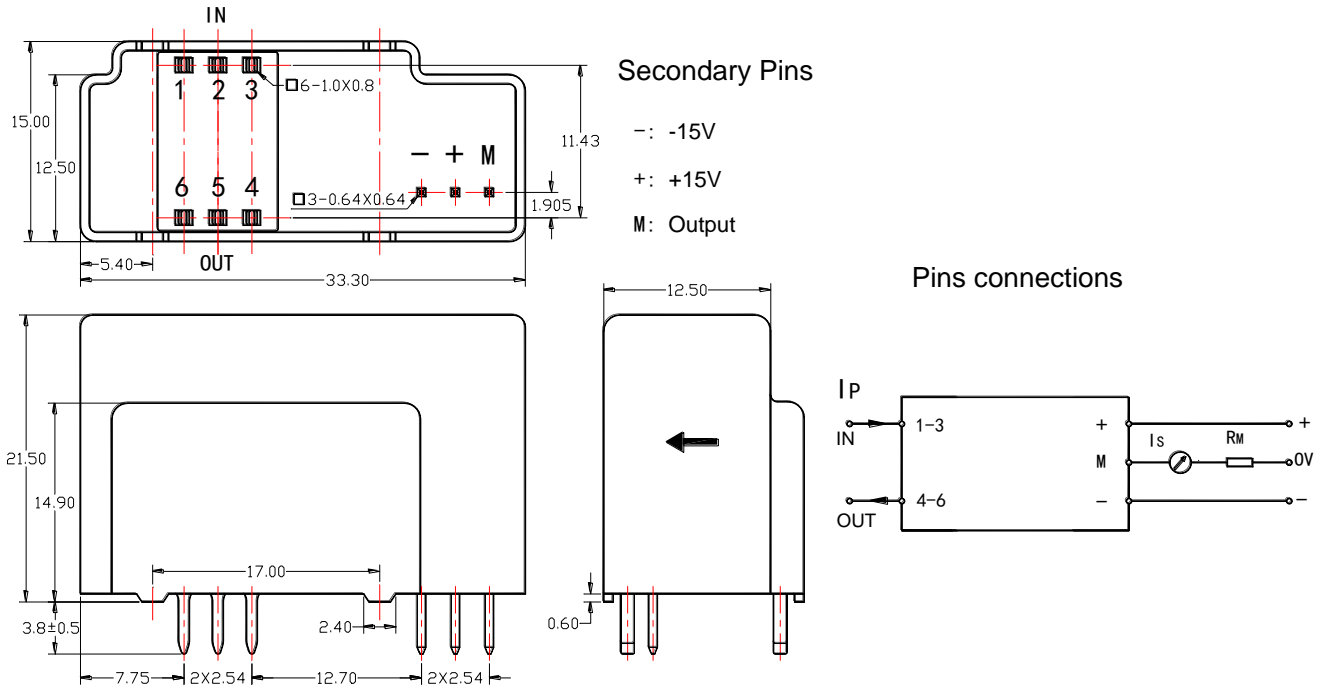
Dynamic Characteristics:

Zero Offset Current I_o @ $I_P=0, T=25^{\circ}\text{C}$	0.15	mA
Temp. Effect on Zero I_o @ $-40^{\circ}\text{C}--85^{\circ}\text{C}$	± 0.5	mA
Linearity ϵ_r	≤ 0.1	%FS
di/dt Following Accuracy	>200	A/ μs
Response Time t_r	@50A/ μS , 10%-90% < 1	μs
Bandwidth (-3db)	DC ~ 200	kHz

Electrical Characteristics:

TYPE		CSPV-LAH-50A	CSPV-LAH-100A
Rated Current IPN(A)		50	100
Measurement Range IP(A)		150	280
Load Resistance R_M (Ω)	with $\pm 12V$	@ IPN(DC) Rmin=100, Rmax=360	@ IPN(DC) Rmin=50, Rmax=170
		@ IPN(RMS) Rmin=75, Rmax=250	@ IPN(RMS) Rmin=35, Rmax=120
	with $\pm 15V$	@ IPN(DC) Rmin=120, Rmax=480	@ IPN(DC) Rmin=60, Rmax=220
		@ IPN(RMS) Rmin=82, Rmax=350	@ IPN(RMS) Rmin=42, Rmax=160
Ratio (T) -Np/Ns		1:2000	
Rated Output Current ISN)		25 mA \pm 0.5%FS	50 mA \pm 0.5%FS
Secondary Coil Resistance		75 Ω @ +70 $^{\circ}$ C	50 Ω @ +70 $^{\circ}$ C
Operating Voltage VC		$\pm 12 \sim \pm 15(\pm 5\%)$ V	
Dielectric Strength		50Hz, 1min, 5kV	
Operating Temperature		-40 $^{\circ}$ C~85 $^{\circ}$ C	
Storage Temperature		-40 $^{\circ}$ C~125 $^{\circ}$ C	
Operating Humidity		20~90% Non condensing	
Power Consumption		20+IpX(Np/Ns) mA	
Weight		15g	
UL94 -V0			

Dimensions (mm) ±0.5mm



Pin: Primary 6x(0.1mmx0.8mm), Secondary 0.64mmx0.64mm

Turns	Rated input current (A)	Measure range (A)	Rated output current (mA)	Secondary turns	Primary resistance (mΩ)	Primary inductance (uH)
1	50(100)	150(280)	25(50)	2000	0.08	0.007

Notes:

1. Connect the current according to the calibrated direction of the wiring diagram; Pay attention to the positive and negative currents.
2. Connect wires according to the definition of the calibrated function pins in the structure diagram.