

CSPV-LF05 Closed Loop Hall Transducer

CSPV-LF05 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



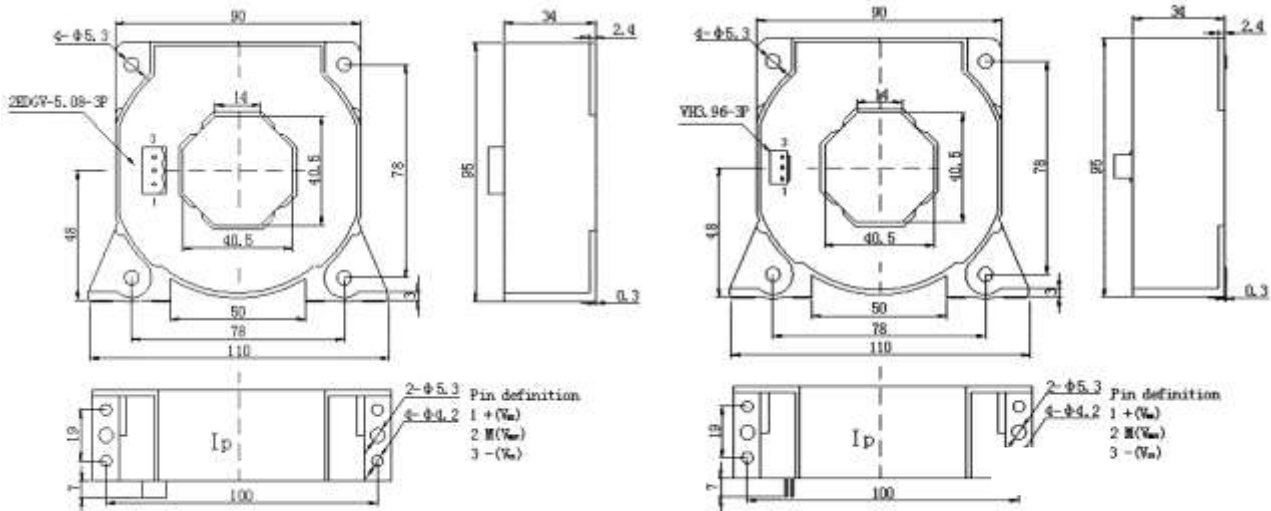
Dynamic Characteristics:

Accuracy X_G @ I_{PN} , $T=25^\circ\text{C}$	± 0.2	%
Zero Offset Current I_o @ $I_P=0$, $T=25^\circ\text{C}$	$\leq \pm 0.2$	mA
Temp. Effect on Zero I_o @ -40°C -- 85°C	$\leq \pm 0.5$	mA
Linearity ϵ_r	≤ 0.1	%FS
di/dt Following Accuracy	> 100	A/ μs
Response Time t_r	< 1	μs
Bandwidth (-3db)	DC ~ 100	kHz

Electrical Characteristics:

TYPE		CSPV-LF05-500A	CSPV-LF05-1000A
Rated Current $I_{PN}(A)$		500A	1000A
Measurement Range $I_P(A)$		$\pm 1000A$	$\pm 1800A$
Load Resistance R_M	with $\pm 15V$	@ $\pm 1000A$ $R_{min}=0 \Omega, R_{max}=15 \Omega$	
		@ $\pm 1200A$ $R_{min}=0 \Omega, R_{max}=4\Omega$	
	with $\pm 24V$	@ $\pm 1000A$ $R_{min}=5\Omega, R_{max}=57.5 \Omega$	
		@ $\pm 1500A$ $R_{min}=5\Omega, R_{max}=21\Omega$	
Ratio (T) - N_p/N_s		1:5000	
Rated Output Current(I_{SN})		100 mA $\pm 0.2\%$	200 mA $\pm 0.2\%$
Secondary Coil Resistance		40 Ω	
Operating Voltage V_C		$\pm 15 \sim \pm 24(\pm 5\%) V$	
Dielectric Strength		50Hz, 1min, 3.8kV	
Operating Temperature		$-40^\circ C \sim 85^\circ C$	
Storage Temperature		$-40^\circ C \sim 125^\circ C$	
Operating Humidity		20~90% Non condensing	
Power Consumption		$20+I_p X(N_p/N_s) mA$	
Weight		550g	
UL94 -V0			

Dimensions (mm) $\pm 0.5\text{mm}$



Nots:

1. When IP flows in the arrow direction, IS is positive.
2. The temperature of primary conductor shall not exceed 100 °C.
3. The dynamic performance (di/dt and response time) is the best when the bus is fully filled with primary perforation.
4. In order to achieve the best magnetic coupling, the primary wire turn should be wound around the top of the sensor.