

Model CLSM-50S

Closed Loop Hall Effect

Description

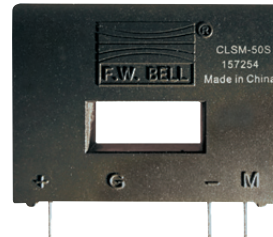
The Model CLSM-50S is a closed loop Hall effect current sensor that accurately measures DC and AC currents and provides electrical isolation between the current carrying conductor and the output of the sensor.

Features

- Moistureproof, Shockproof
- Noncontact measurement of high current
- Measures DC, AC and impulse currents
- Current sensing up to 400A peak ⁽¹⁾
- Very fast response and high accuracy
- High overload capacity

Applications

- Variable speed drives for motors
- Welding Equipment
- Power supply Equipment
- Measure and control system
- Over current protection
- Protection of power semiconductors



Electrical Specifications

Nominal current (I _N)	±50 A
Current range	0 to ±100 A
Nominal output current (I _M)	±50 mA
Turns Ratio	1000 / 1
Measuring Resistance (R _M)	0 to 100Ω
Overall accuracy at 25°C	±0.5% of I _N
Supply voltage (V _{dc})	±12 to ±18
Current consumption	15 mA + Output current

CLSM-50S

Accuracy-Dynamic Performance

Zero current offset at 25°C	< ±0.2mA
Offset current temperature drift (0°C to +70°C) ⁽²⁾	< 0.3mA
Linearity	better than ±0.1%
Response time	better than 0.5μs
di / dt	better than 50A/μs
Frequency range	DC to 200KHz (-3dB)

General Information

Operating temperature	-25°C to +85°C
Storage temperature	-25°C to +90°C
Package	flame retardant plastic case, UL94V-0
Isolation voltage	5kV/50Hz/min.
Output reference	To obtain a positive output on terminal M, input current must flow in the direction of the arrow (conventional flow)
Weight	28 grams
Mounting	Designed to mount directly on PCB via through hole connection pins
Aperture size	0.276" x 0.630" (7 x 16 mm)

Notes:

1. With ±18V R_m < 1Ω, at +25°C, for 3 seconds only.
2. Excludes zero current offset
3. Busbar temperature should not exceed 100°C.
4. The dynamic performance is the best when the busbar fills the aperture.

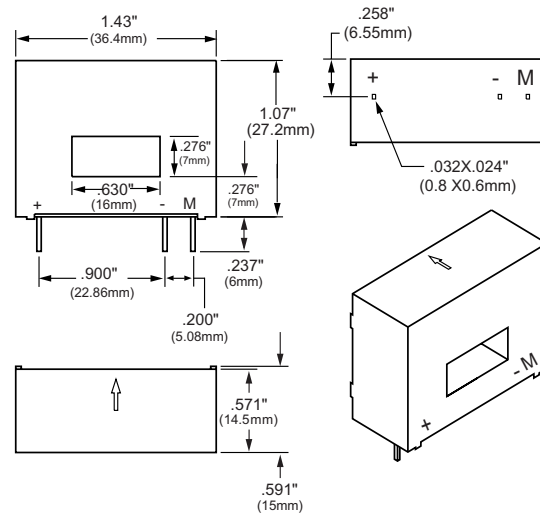


Mechanical Dimensions

All dimensions are in inches (millimeters)

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Connection Schematic

