

Model CLSM-50LA

Closed Loop Hall Effect

Description

The Model CLSM-50LA 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

- Low Cost
- Fast response
- High overload capacity
- Moistureproof, Shockproof
- Noncontact measurement of high current
- Measures DC, AC and impulse currents

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 80 Ω
Overall accuracy at 25°C	±0.5 % of I _N
Supply voltage (V _{dc})	±15 to ±18
Current consumption	15 mA + output current

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Accuracy-Dynamic Performance

Zero current offset at 25°C	< ±0.2mA
Offset current temperature drift (0°C to +70°C) ⁽¹⁾	< ±0.3mA
Linearity	better than ±0.1%
Response time	better than 0.5μs
di / dt	better than 70A/μs
Frequency range	DC to 200KHz (-3dB)

General Information

Operating temperature	-40°C to +85°C
Storage temperature	-40°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	38 grams
Mounting	Panel mount via 1 hole, 4.5mm dia.
Aperture size (mm)	10.2 x 26

Notes:

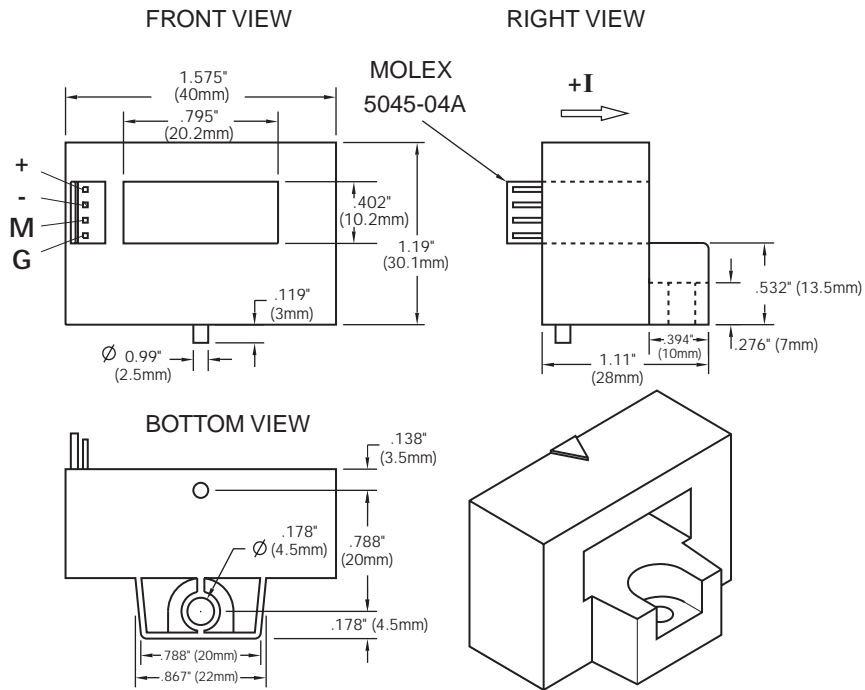
1. Excludes Zero current offset
2. Busbar temperature should not exceed 100°C.
3. The dynamic performance is the best when the busbar fills the aperture.
4. Due to continuous process improvement, all specifications are subject to change without notice.

Mechanical Dimensions

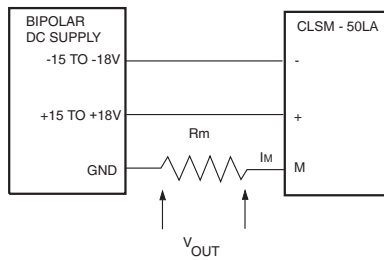
All dimensions are in inches (millimeters)

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Mechanical Dimensions



Connection Schematic



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