

# Model CLSM-100S

# Closed Loop Hall Effect

## Description

The Model CLSM-100S 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

- Noncontact measurement
- Measures DC, AC and impulse currents
- 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

### CLSM-100S

Nominal current (I <sub>N</sub> ) .....	±100 A
Current range .....	0 to ±200 A
Nominal output current (I <sub>M</sub> ) .....	50 mA
Turns Ratio .....	2000 / 1
Measuring Resistance (R <sub>M</sub> ) .....	0 to 100 Ω
Overall accuracy at 25°C .....	±0.5 % of I <sub>N</sub>
Supply voltage (V <sub>dc</sub> ).....	±12 to ±18
Current consumption .....	15 mA + output current

## Accuracy-Dynamic Performance

Zero current offset at 25°C .....	< ±0.2mA
Offset current temperature drift (-25°C to +85°C) .....	< ±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 .....	-25°C to +85°C
Storage temperature .....	-40°C to +100°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 (mm).....	7 x 16

## Notes:

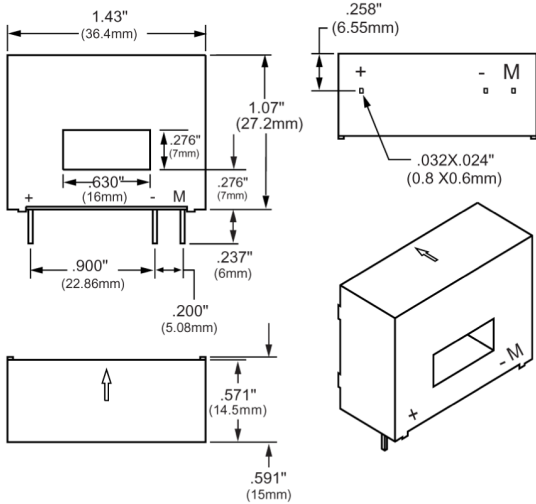
1. Busbar temperature should not exceed 100°C.
2. The dynamic performance is the best when the busbar fills the aperture.
3. Due to continuous process improvement, all specifications are subject to change without notice.

# Mechanical Dimensions

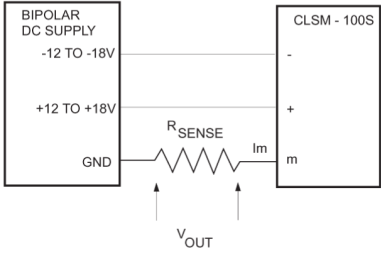
All dimensions are in inches (millimeters)

## Model CLSM-100S

### Mechanical Dimensions



### Connection Schematic



**Note:** Due to continuous process improvement, all specifications are subject to change without notice.



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