



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SS491B



Actual product appearance may vary.

SS491 Series Miniature Ratiometric Linear Hall-Effect Sensor; radial lead IC package

Features

Small size
 Low power consumption
 Single current sinking or current sourcing linear output
 Built-in thin-film resistors - laser trimmed for precise sensitivity and temperature compensation
 Rail-to-rail operation provides more useable signal for higher accuracy
 Responds to either positive or negative gauss
 Quad Hall sensing element for stable output)

Potential Applications

Current sensing
 Motor control
 Position sensing
 Magnetic code reading
 Rotary encoder
 Ferrous metal detector
 Vibration sensing
 Liquid level sensing
 Weight sensing

Description

SS491 Series MRL (Miniature Ratiometric Linear) sensors have a ratiometric output voltage, set by the supply voltage. It varies in proportion to the strength of the magnetic field.

A new Hall effect integrated circuit chip provides increased sensitivity. The quad Hall sensing element minimizes the effects of mechanical or thermal stress on the output. The positive temperature coefficient of the sensitivity helps compensate for the negative temperature coefficients of low cost magnets, providing a robust design over a wide temperature range.

NOTE: Products ordered in bulk packaging (plastic bags) may not have perfectly straight leads as a result of normal handling and shipping operations. Please order tape packaging option for applications with critical lead straightness requirements.

Supporting Documentation


 [Required Accessories—Magnets](#)

 [Engineering Drawing](#)

| Product Specifications | |
|------------------------------------|--|
| Product Type | Hall-Effect Digital Position Sensor IC |
| Package Quantity/Type | Available in 1,000/Bag |
| Package Style | Radial Lead IC |
| Supply Voltage | 4.5 Vdc to 10.5 Vdc |
| Output Type | Sink/Source |
| Termination Type | PC Board |
| Magnetic Actuation Type | Ratiometric |
| Operating Temperature Range | -40 °C to 150 °C [-40 °F to 302 °F] |
| Storage Temperature | -55 °C to 165 °C [-67 °F to 329 °F] |
| Output Voltage | 0.2 Vdc to (V _s - 0.2 Vdc) typ., 0.4 Vdc to (V _s - 0.4 Vdc) min. |
| Linearity (% of Span) | -1.0 % typ. |
| Output Voltage Span (min.) | 0.4 Vdc to (V _s - 0.4 Vdc) |
| Availability | Global |
| Supply Current (max. @ 25 °C) | 8.7 mA @ 5 Vdc |
| Sensitivity @ 25 °C | 0.60 mV to 1.25 mV/G |
| Temperature_Error_25_Null_Shift_2 | -0.06 min., 0.08 max. |
| Temperature_Error_25_Sensitivity_1 | -0.02 min., 0.08 max. |
| Magnetic Range (typ.) | -6 mT to 6 mT [-60G to 60 G] |
| Magnetic Range (min.) | -5 mT to 5 mT [-50G to 50 G] |
| Output Voltage Span (typ.) | 0.2 Vdc to (V _s - 0.2 Vdc) |
| Null (Output @ 0 G) | 5.0 Vdc ± 1.0 Vdc |
| Response Time (µs) | 3 µs |
| Series Name | SS491 |

Keyword Search

Search for product and support information.

All Sensing and Control 

Product Search

Part number search:

Use (*) to expand search

Specification Search