



Representative photograph, actual product appearance may vary.

SS495A

SS490 Series Standard Miniature Ratiometric Linear Sensors, Radial Lead I.C.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

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

SS490 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 temperature stability and sensitivity. Laser trimmed thin film resistors on the chip provide high accuracy and temperature compensation to reduce null and gain shift over temperature. 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.

NOTICE: *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.*

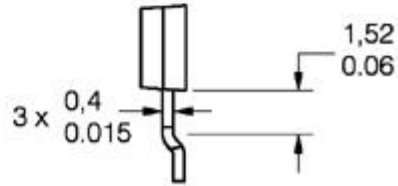
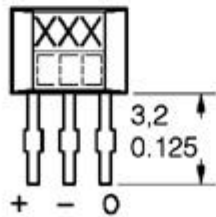
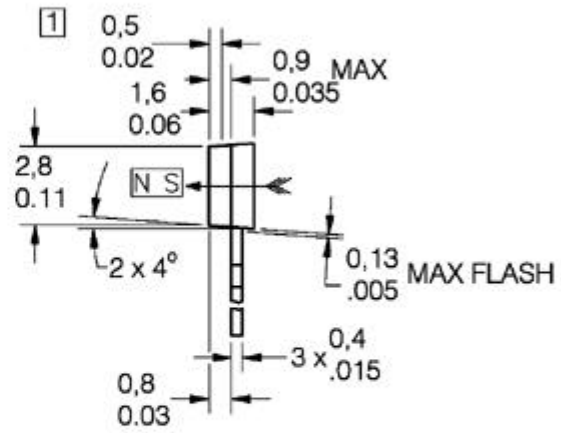
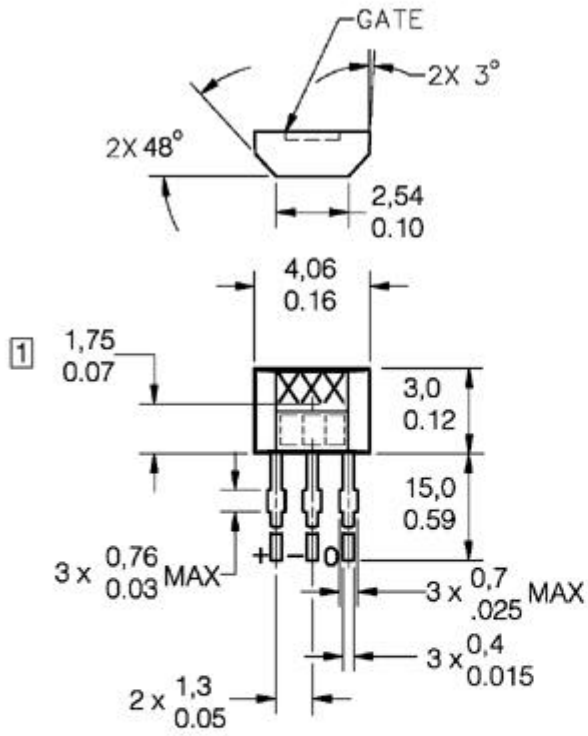
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Product Specifications	
Product Type	Hall Effect Linear Position Sensor
Package Quantity/Type	Available in 1,000/Bag
Package Style	Radial Lead I.C.
Supply Voltage	4.5 Vdc to 10.5 Vdc
Supply Current max., (mA) @ 25 °C	8.7 @ 5 Vdc
Output Type	Sink/Source
Magnetic Actuation Type	Ratiometric
Sensitivity @ 25 °C	3.125 mV ± 0.125 mV/gauss
Operating Temperature Range	-40 °C to 150 °C [-40 °F to 302 °F]
Output Voltage	0.2 to (Vs-0.2) typical/0.4 to (Vs-0.4) min.
Output Voltage Swing (Negative Gauss)	0.4 V
Output Voltage Swing (Positive Gauss)	Vs-0.4 V
Linearity (% of Span)	-1.0 % typical/-1.5 % max.
Temperature Error (@ 25 °C) Null Shift (%/°C)	-0.06 % min., +0.06 % max.
Temperature Error (@ 25 °C) Sensitivity (%/°C)	-0.01 % min., +0.05 % max.
Output current (mA) Typical Source Vs > 4.5 Vdc	1.5
Output Current (mA) Minimum Source Vs > 4.5 V	1
Output Current (mA) Minimum Sink Vs > 4.5 V	0.6
Output Current (mA) Minimum Sink Vs > 5.0 V	1
Magnetic Range (Typical)	-670 Gauss to + 670 Gauss [-67 mT to +67 mT]
Magnetic Range min.	-600 Gauss to + 600 Gauss [-60 mT to +60 mT]
Output Voltage Span (Typical)	0.2 to (Vs -0.2)
Output Voltage Span (min.)	0.4 to (Vs-0.4)
Null (Output @ 0 Gauss, V)	2.50 ± 0.075
Response Time (µs)	3 µs
Availability	Global
Series Name	SS490 Series

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BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT

