

Honeywell Sensing and Control

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Home> Products > PCB level Position Sensors (Miniature Plastic package) > SS400 > Product Page

SS443A-S



Actual product appearance may vary.

SS400 Series Unipolar Hall-Effect Digital Position Sensor; surface mount package

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Specification Search

Features

Digital current sinking output
Quad-Hall design virtually eliminates
mechanical stress effects
Temperature compensated magnetics
Operate/release points can be
customized
High output current capability
Operate/release points symmetrical
around zero gauss (bipolar/latch)
Package material: Plaskon 3300H
Surface mount version available:

SS400-S (with cut and formed leads)

Potential Applications

Speed and RPM sensor Brushless DC motor commutation Motor and fan control Magnetic encoding Tachometer, counter pickup Disc speed, tape rotation sensing Flow-rate sensing

Description

SS400 Series position sensors have a thermally balanced integrated circuit over full temperature range. The negative compensation slope is optimized to match the negative temperature coefficient of lower cost magnets. Bipolar, latching and unipolar magnetics are available.

Band gap regulation provides extremely stable operation over 3.8 Vdc to 30 Vdc supply voltage range.

NOTE: Interruption of power to a latching device may cause the output to change state when power is restored. If a magnetic field of sufficient strength is present, the sensor output will be in the condition dictated by the magnetic field.

Supporting Documentation

- Dimensions
- Operate and Release Point
- Required
 Accessories—
 Magnets

Tape and Reel Dimensions Engineering Drawing

Product Type Hall-Effect Digital Position Sensor IC Package Quantity/Type Available in 1,000/Bag Package Style Surface Mount Supply Voltage 3.8 Vdc to 30.0 Vdc Output Type Sink Termination Type Magnetic Actuation Type Unipolar Operating Temperature Range Operating Temperature Range For to 150 °C [-40 °F to 302 °F] Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Output Voltage Output Voltage Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Switching Time Fall (90 % to 10 %) Availability Global Supply Current (max.) Output Current (max.) Operate Point @ 25 °C 18.0 mT [180 G] max. Release Point @ 25 °C 7.5 mT [75 G] min. Leakage Current max. Differential O.5 mT [5 G] min.	Product Specifications	
Package Style Surface Mount Supply Voltage 3.8 Vdc to 30.0 Vdc Output Type Sink Termination Type Surface Mount Magnetic Actuation Type Unipolar Operating Temperature Range Performance Storage Temperature Performance Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Switching Time Fall (90 % to 10 %) Supply Current (max. @ 25 °C) Output Current (max.) Operate Point @ 25 °C Release Point @ 25 °C Leakage Current max. Differential Surface Mount Surface Mo	Product Type	
Supply Voltage Output Type Sink Termination Type Magnetic Actuation Type Operating Temperature Range Storage Temperature -65 °C to 150 °C [-40 °F to 302 °F] Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Output Voltage 0.4 Vdc max. Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Switching Time Fall (90 % to 10 %) Supply Current (max. @ 25 °C) Output Current (max.) Operate Point @ 25 °C Release Point @ 25 °C 10 µA Differential O.5 mT [5 G] min.	Package Quantity/Type	Available in 1,000/Bag
Output Type Sink Termination Type Magnetic Actuation Type Operating Temperature Range Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Output Voltage 0.4 Vdc max. Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Switching Time Fall (90 % to 10 %) Supply Current (max. @ 25 °C) Output Current (max.) Operate Point @ 25 °C Release Point @ 25 °C 7.5 mT [75 G] min. Leakage Current max. Differential	Package Style	Surface Mount
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Magnetic Actuation Type Operating Temperature Range Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Output Voltage 0.4 Vdc max. Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Availability Global Supply Current (max. @ 25 °C) Output Current (max.) Operate Point @ 25 °C Release Point @ 25 °C Leakage Current max. Unipolar -60 °C to 150 °C [-85 °F to 320 °F] 1.5 μs max. 1.5 μs max. 1.5 μs max. 20 mA Output Current (max.) 20 mA Operate Point @ 25 °C 7.5 mT [180 G] max. Release Current max. 10 μA Differential	Output Type	Sink
Operating Temperature Range -40 °C to 150 °C [-40 °F to 302 °F] Storage Temperature -65 °C to 160 °C [-85 °F to 320 °F] Output Voltage 0.4 Vdc max. Switching Time Rise (10 % to 90 %) Switching Time Fall (90 % to 10 %) Availability Global Supply Current (max. @ 25 °C) Output Current (max.) Operate Point @ 25 °C Release Point @ 25 °C 10 µA Differential 0.5 mT [5 G] min.	Termination Type	Surface Mount
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Leakage Current max. 10 μA Differential 0.5 mT [5 G] min.	Operate Point @ 25 °C	18.0 mT [180 G] max.
Differential 0.5 mT [5 G] min.	Release Point @ 25 °C	7.5 mT [75 G] min.
	Leakage Current max.	10 μΑ
Series Name SS400	Differential	0.5 mT [5 G] min.
	Series Name	SS400