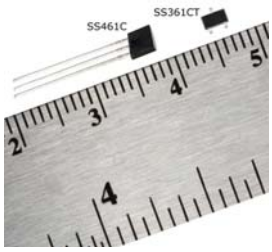
Honeywell

Sales Resource – Product Overview
SS361CT, SS461C High Sensitivity Bipolar Latching Hall-Effect Digital Position Sensor ICs

Description

The SS361CT/SS461C High Sensitivity Bipolar Latching Hall-Effect Digital Sensor ICs are small, versatile digital Hall-effect devices that are operated by the magnetic field from a permanent magnet or an electromagnet. They are designed to respond to alternating North and South poles. These bipolar sensor ICs have enhanced sensitivity which often allows for the use of less expensive magnets. They offer reverse polarity protection and deliver a stable output over a -40 °C to 125 °C [-40 °F to 257 °F] temperature range. Operation from any dc supply voltage from 4 Vdc to 24 Vdc is acceptable. These Hall-effect devices are available in two package styles:

- SS361CT: subminiature SOT-23 surface mount (tape and reel packing, 3,000 units per reel)
- SS461C: leaded flat TO-92 style (bulk packaging, 1,000 units per bag)



Value Propositions

Enhanced sensitivity: These devices will operate from only 50 Gauss typical, at 25°C [77 °F], 80 G max. at -40 °C to 85 °C [-40 °F to 185 °F], and 95 Gauss over the full temperature range of -40 °C to 125 °C [-40 °F to 257 °F], allowing the use of smaller, potentially lower-cost magnets or wider air gaps.

- **Price competitive:** Honeywell has downsized the integrated circuit, saving on manufacturing costs while meeting customer requirements; these savings result in lower costs to customers.
- **Economical:** The SS361CT is supplied on tape and reel, allowing for automated, lower-cost pick and place assembly which can help the customer reduce manufacturing costs.
- **Subminiature size:** The SS361CT's subminiature SOT-23 package size uses less space on the printed circuit board than standard Hall-effect sensor packages such as TO-92 or SOT-89, allowing for use in smaller assemblies.

Features/Benefits

- Bipolar latching magnetics respond to alternating North and South poles, making these products suited for accurate speed sensing and RPM (revolutions per minute) measurement
- Wide operating voltage range of 4 to 24 Vdc allows for use in a wide range of applications
- Built-in reverse voltage capability enhances the protection of the sensor and the circuits
- Robust design allows devices to operate up to 125 °C [257 °F]
- RoHS-compliant materials meet Directive 2002/95/EC

Potential Applications

Transportation	Industrial	Medical
• Speed and RPM sensing	• Flow-rate sensing for appliances	• Medical equipment using electric motors
• Tachometer, counter pickup	• Speed and RPM sensing	
• Motor and fan control	• Tachometer, counter pickup	
• Electric window lift	• Brushless dc motor commutation	
• Convertible roof position	• Motor and fan control	
	• Robotics control	

Competitors

Honeywell vs. Allegro A1221ELH /LLH and A1221EUA /LUA: Honeywell's product does not have an internal chopper, so it does not need external filtering components. Allegro's product has an internal chopper and requires external components for reliable operation.

Honeywell vs. Melexis US1881EUA/ESE, and Melexis US1881KUA/KSE: Honeywell's product has reverse voltage protection, while Melexis' product does not. Honeywell's product does not have an internal chopper, so it does not reed external filtering components. Melexis' product has an internal chopper and requires external components for reliable operation.

Contact Information

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⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

E-mail: info.sc@honeywell.com

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