



**Product Training Module:  
High Sensitivity Bipolar Latching Digital  
Hall-effect Sensor ICs  
SS360NT/SS360ST/SS460S**



**Honeywell**

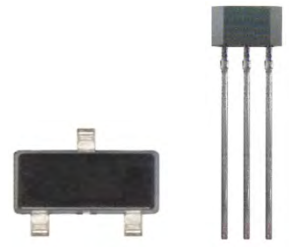
## Summary of Contents

- **In this training module, you will learn the following about Honeywell's High Sensitivity Bipolar Latching Digital Hall-effect Sensor ICs:**
  - An introduction to what these sensors are
  - Their key features and benefits
  - The applications in which these devices may potentially be used
  - Where to obtain additional information



## Introduction

- **The SS360NT/SS360ST/SS460S High Sensitivity Bipolar Latching Digital Hall-effect Sensor ICs are small, sensitive and versatile 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**
  - The SS360NT is turned ON by a North pole
  - The SS360ST and SS460S are turned ON by a South pole



Small, sensitive, and versatile devices

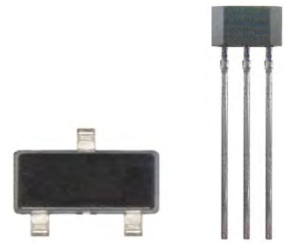
## Value to the Customer

- **Fastest response**

- For brushless dc motor manufacturers that need latching sensor ICs with reliable, consistent performance for efficient and small designs, these devices respond to low magnetic fields and offer consistent repeatability while providing the fastest response to a change in magnetic field for enhanced motor efficiency

- **No chopper stabilization**

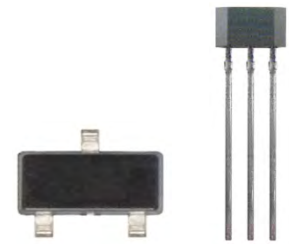
- Unlike competitive high sensitivity Hall-effect latches, Honeywell offers reliable switching points with high magnetic sensitivity of 30 G typical (55 G maximum) without using chopper stabilization on the Hall element, resulting in a clean output signal and the fastest latch response time in its class



Clean output signal and fastest latch response time

## Features and Benefits

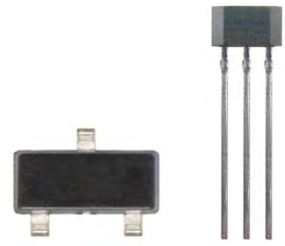
- **High sensitivity**
  - Operates from only 30 Gauss typical, at 25 °C [77 °F] and 55 Gauss maximum over the full -40 °C to 150 °C [-40 °F to 302 °F] temperature range
  - Allows for use of smaller, magnets or a wider air gap
- **Fastest response time in its class**
  - Provides for more efficiency in commutating a brushless dc motor
  - Offers a clean output signal due to no chopper stabilization
- **Sub-miniature, SOT-23 surface mount package (SS360NT/SS360ST)**
  - Supplied on tape and reel
  - Allows for compact design with automated component placement
- **Small, leaded, flat TO-92-style package (SS460S)**
  - Allows for a compact PC board layout



High sensitivity. Fastest response time.

## Features and Benefits

- **Bipolar latching magnetics**
  - Makes these products well-suited for accurate speed sensing and RPM (revolutions per minute) measurement
- **Wide operating voltage range of 3 to 24 Vdc**
  - Allows for potential use in a wide range of applications
- **Built-in reverse voltage**
  - Enhances the protection of the sensor and the circuits
- **Durable design**
  - Allows operation up to 150 °C [302 °F]
- **RoHS-compliant material**
  - Meets Directive 2002/95/EC



Accurate. Flexible. Durable.

## Potential Applications

### Industrial and Commercial

- Brushless dc (direct current) motor commutation
- Flow-rate sensing for appliances
- Speed and RPM sensing
- Tachometer, counter pickup
- Motor and fan control
- Robotics control



### Transportation

- Speed and RPM sensing
- Tachometer, counter pickup
- Motor and fan control
- Electric window lift
- Convertible roof position



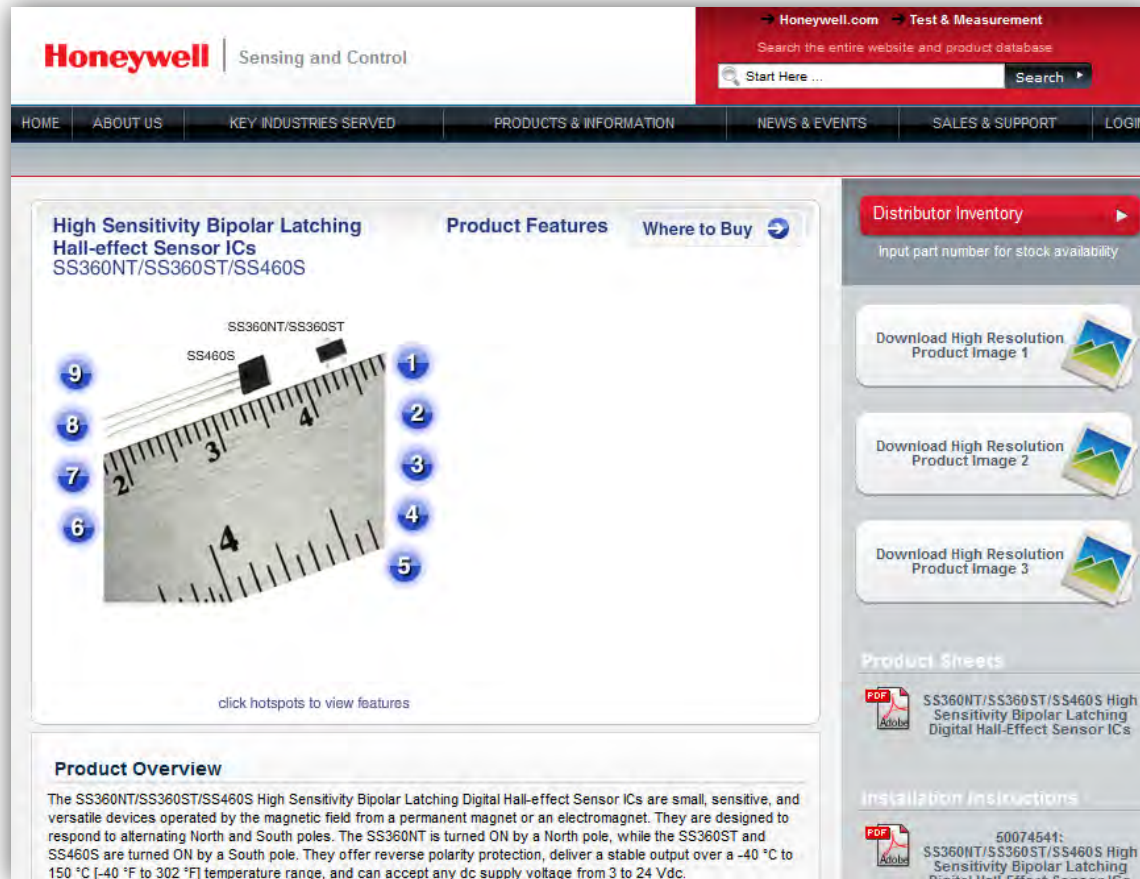
### Medical

- Medical equipment using electric motors



## Online Resources

- To access more information about the High Sensitivity Bipolar Latching Hall-effect Sensor ICs, [click here](#).



The screenshot shows the Honeywell website interface for the product "High Sensitivity Bipolar Latching Hall-effect Sensor ICs SS360NT/SS360ST/SS460S". The page includes a navigation menu with options like HOME, ABOUT US, KEY INDUSTRIES SERVED, PRODUCTS & INFORMATION, NEWS & EVENTS, SALES & SUPPORT, and LOGIN. A search bar is located in the top right corner. The main content area features a product image of the sensor ICs with numbered hotspots (1-9) for viewing features. Below the image is a "Product Overview" section with a detailed description of the sensor's characteristics and operating conditions. On the right side, there are several interactive elements: a "Distributor Inventory" section with a search input, three "Download High Resolution Product Image" buttons, a "Product Sheets" section with a PDF download link, and an "Installation Instructions" section with a PDF download link.

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Search the entire website and product database

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**High Sensitivity Bipolar Latching Hall-effect Sensor ICs**  
SS360NT/SS360ST/SS460S

Product Features Where to Buy

SS360NT/SS360ST  
SS460S

click hotspots to view features

**Product Overview**

The SS360NT/SS360ST/SS460S High Sensitivity Bipolar Latching Digital Hall-effect Sensor ICs are small, sensitive, and versatile devices operated by the magnetic field from a permanent magnet or an electromagnet. They are designed to respond to alternating North and South poles. The SS360NT is turned ON by a North pole, while the SS360ST and SS460S are turned ON by a South pole. They offer reverse polarity protection, deliver a stable output over a -40 °C to 150 °C [-40 °F to 302 °F] temperature range, and can accept any dc supply voltage from 3 to 24 Vdc.

**Distributor Inventory**

Input part number for stock availability

Download High Resolution Product Image 1

Download High Resolution Product Image 2

Download High Resolution Product Image 3

**Product Sheets**

SS360NT/SS360ST/SS460S High Sensitivity Bipolar Latching Digital Hall-Effect Sensor ICs

**Installation Instructions**

50074541: SS360NT/SS360ST/SS460S High Sensitivity Bipolar Latching Digital Hall-Effect Sensor ICs



## About Honeywell Sensing and Control Products

- For more information about all of Honeywell Sensing and Control sensor and switch solutions, visit <http://sensing.honeywell.com>



<http://sensing.honeywell.com>

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