

# **BUILDING** **VALUE-ADDED** **SOLUTIONS**

On Highly Reliable  
Magnetic Sensing Technologies

A woman with dark hair, wearing a white lab coat, is shown in profile, focused on her work. She is using a magnifying glass to inspect a green printed circuit board (PCB) populated with various electronic components. The background is a blurred laboratory or industrial setting with various pieces of equipment and shelving. The overall lighting is bright and professional.

**Honeywell**

# HALL-EFFECT AND ANISOTROPIC MAGNETORESISTIVE (AMR) VALUE-ADDED PACKAGES

Honeywell offers the possibility to package any of its magnetic sensor Integrated Circuits (IC), allowing customers that do not have this capability to benefit from Honeywell's comprehensive product portfolio. Custom designs are possible to meet specific customer needs, and include IC sensitivity (Bop, Brp, and hysteresis), custom packages and over molded housings, and various termination types (wire length, wire insulation, connectors). Whether you are looking for a remote sensing function away from the main pcb board, an integrated sensing function embedded into your system, or simply a cost reduction/remedy to a quality issue, Honeywell can tailor solutions to your specific application needs.

## FEATURES AND BENEFITS

- Up-front and on-going technical support throughout the process
- Adding value by tailoring solutions to specific application needs
- Building value-added solutions on highly reliable, proven, and accurate sensing platforms you can trust
- Responsive quoting and rapid prototyping processes to meet demanding deadlines
- Velocity product development enables built-in quality, reliability, and repeatability

## VALUE TO CUSTOMERS

- Improved time to market
- Reduced production cycle time
- Reduced design time
- Lower total system costs
- Reduced and simplified supply chain
- Improved reliability
- Honeywell tested and warranted sub-assemblies
- Simplified qualification and manufacturing



**LEARN MORE ABOUT VALUE-ADDED PACKAGES:**  
<https://sensing.honeywell.com/contact-support-form>

# 103SR SERIES WITH SEALED METAL HOUSING

The 103SR Series Hall-effect position sensors are sealed in aluminum or stainless-steel threaded housings. These rugged non-contact sensing products use versatile, reliable Hall-effect ICs that are operated by a magnetic field and are designed to respond to alternating North and South poles or to South pole only.



FEATURES	BENEFITS
Digital unipolar, latching, and linear magnetics	Meet a variety of application requirements
Current open-collector sinking output (digital), push-pull output (linear)	Easily interfaced to common electric circuitry
Sealed to NEMA 3, 3R, 3S, 4, 4X, 12, 13	For various environmental conditions
Lead wire gauge, length and insulation options	Various product options allow the customer to choose the best fit for specific application requirements
4.5 Vdc to 24 Vdc (digital), 4.5 Vdc to 10 Vdc (linear)	Wide supply ranges
-40°C to 100°C (digital), -40°C to 125°C (linear)	Reduced operating/installation issues, greater design flexibility



## INDUSTRIAL

- Position sensing
- Robotics control
- Linear/angular displacement
- Speed and RPM sensing
- Tachometer, counter pick-up
- Flow rate sensing
- Motor and fan control



## TRANSPORTATION

- Seat position
- Tachometer, counter pick-up
- Motor and fan control
- Speed and RPM sensing



## MEDICAL

- Motion detection in motorized equipment
- Position sensing in hospital beds

**LEARN MORE ABOUT THE 103SR SERIES:**  
<https://sensing.honeywell.com/sensors/value-added-magnetic-sensors/digital-103SR-series>

## SR3 & SR4 SERIES HALL-EFFECT AND AMR WITH SEALED PLASTIC HOUSING

The SR3/4 Series Hall-effect and AMR position sensors are sealed in plastic threaded housings. These non-contact sensing products use versatile, reliable Hall-effect or AMR ICs that are operated by a magnetic field and are designed to respond to North and South poles (alternating bipolar hall and omni polar AMR) or to South pole only (unipolar Hall).



FEATURES	BENEFITS
Digital unipolar or bipolar (Hall SR3), omnipolar (AMR SR4)	Meet a variety of application requirements
Current open-collector sinking output	Easily interfaced to common electric circuitry
Sealed to NEMA 3, 3R, 3S, 4, 4X, 12, 13	For various environmental conditions
Various Bop/Brp sensitivity options	Various product options allow the customer to choose the best fit for specific application requirements
4.5 Vdc to 24 Vdc (Hall SR3), 3.8 Vdc to 30 Vdc (AMR SR4)	Wide supply ranges
-40°C to 85°C temperature range	Reduced operating/installation issues, greater design flexibility



### INDUSTRIAL

- Factory automation/CNC machine tool
- HVAC
- Test and measurement
- Paper/printing/packaging machine



### TRANSPORTATION

- Elevator/escalator controls
- Seat position
- Tachometer, counter pick-up
- Motor and fan control
- Speed and RPM sensing



### MEDICAL

- Motion detection in motorized equipment
- Position sensing in hospital beds

#### LEARN MORE ABOUT THE SR3/SR4 SERIES:

<https://sensing.honeywell.com/sensors/value-added-magnetic-sensors>

## SR13/15 SERIES HALL-EFFECT POSITION, QUICK SNAP-IN HOUSING

The SR13/15 Series packages allow quick and easy sensor installation. These devices can be installed without additional mounting hardware. The snap-in (SR13) and flat mount (SR15) packages can house any of the present SS400 Series hall-effect sensors or any similarly sized sensing elements.



FEATURES	BENEFITS
Digital unipolar or latching (SR13), unipolar (SR15)	Meet a variety of application requirements
Current open-collector sinking output	Easily interfaced to common electric circuitry
Sealed to NEMA 3, 3R, 3S, 4, 4X, 12, 13	For various environmental conditions
Various Bop/Brp sensitivity, lead wire lengths or connector options	Various product options allow the customer to choose the best fit for specific application requirements
3.8 Vdc to 30 Vdc supply, -40°C to 150°C operating temperature	Wide supply ranges and reduced operating/installation issues, greater design flexibility



### INDUSTRIAL

- Motors and drives
- Material handling
- Air-powered and electric power tools



### TRANSPORTATION

- Door/hood position



### CONSUMER/ WHITE GOODS

- Fridge door position
- Physical re-education material/exercise equipment

#### LEARN MORE ABOUT THE SR13/SR15 SERIES:

<https://sensing.honeywell.com/sensors/value-added-magnetic-sensors/SR13-SR15-series>

## SR16/SR17 SERIES HALL-EFFECT VANE SENSORS

The SR16/17 Series Hall effect vane sensors, designed for position and speed sensing, offer side mount packages and three termination variations. The cost effective SR16/17 Series sensors are tailored for fitness and information technology applications. They are well suited for use in moderate electrical, chemical, and mechanical environments.



FEATURES	BENEFITS
Operated by a ferrous vane interrupter	For pulse counting, position or speed sensing
No mechanical contacts	Reduces product wear
Internally sealed packages	For moderate environment applications
Current sinking (open-collector) output	Easily interfaced to common electric circuitry
3.8 Vdc to 30 Vdc power supply	Wide supply range
-20°C to 85°C operating temperature	Reduced operating/installation issues, greater design flexibility



### INDUSTRIAL

- Factory automation/turntable indexation, CNC machines
- Motors and drives
- Paper/printing/packaging equipment



### COMMERCIAL AND CONSUMER

- Appliances/coffee machines
- Fitness equipment
- Information technology applications



### MEDICAL

- Aesthetic and medical lasers
- Biotechnology and environmental test equipment
- Diagnostic equipment for clinical laboratories

#### LEARN MORE ABOUT THE SR16/SR17 SERIES:

<https://sensing.honeywell.com/sensors/value-added-magnetic-sensors/SR16-SR17-series>

## 4AV19F HALL-EFFECT VANE SENSORS

4AV19F vane operated integral magnet position sensor is operated by passing a ferrous vane through the gap between the Hall sensor and the magnet, shunting the magnetic flux away from the sensor. It can be used as a limit switch by operating with a single large vane; as tachometer sensor by using toothed wheels; or as synchronizing element by using cams or sectors.



FEATURES	BENEFITS
Operated by a ferrous vane interrupter	For pulse counting, position or speed sensing
No mechanical contacts	Reduces product wear
Internally sealed rugged package	Packaging prevents sensor from being affected by dust and dirt
Current sinking (open-collector) output	Easily interfaced to common electric circuitry
4.5 Vdc to 26.5 Vdc power supply	Wide supply range
-40°C to 125°C operating temperature	Reduced operating/installation issues, greater design flexibility



### INDUSTRIAL

- Motors and drives
- Test and measurement



### AEROSPACE

- Plane windscreen wipers
- Door position



### MEDICAL

- Motion detection in motorized equipment
- Liquid metering and dispensing systems

#### LEARN MORE ABOUT THE 4AV19F SENSOR:

<https://sensing.honeywell.com/sensors/value-added-magnetic-sensors/4AV-series>



**D**iscover the potential of Honeywell magnetic sensor value-added solutions, high-performance devices designed for a variety of applications in Industrial, Commercial & Consumer, Automotive & Transportation, Aerospace & Defense, and Medical fields. Honeywell solutions are flexible and can be tailored to exact specifications – for improved time to market, lower total system costs, and enhanced reliability.

For more information on Honeywell Advanced Sensing Technologies, visit [sps.honeywell.com/ast](https://sps.honeywell.com/ast)

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### **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.

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