



# Product Training Module: Quadrature Speed and Direction Sensors, SNG-Q Series

**Honeywell**

# Summary of Contents

## **In this presentation, you will learn the following about Honeywell's Quadrature Speed and Direction Sensors, SNG-Q Series**

- Overview of the products and value they provide
- Key features and benefits
- Portfolio of products
- Applications in which they may potentially be used

# Introduction

- Honeywell's new SNG-Q Series Quadrature Speed and Direction Sensors are the first release of the new Speed Sensor Platform
- The sensor design and manufacturing use a platform-based approach that enables cost-competitiveness and mechanical and electrical configurability
- The SNG-Q Series is designed for applications where enhanced accuracy is required to detect small target features
- This enhanced accuracy is enabled by dual differential Hall-effect sensor IC technology



35 mm cable with leads available now



35 mm integral connector coming soon

# Portfolio

- Products in the SNG-Q Series portfolio include:

	Available now	Coming soon
<b>Connection type</b>		
<b>L:</b> 500 mm [19.7 in] cable with leads, right angle exit	x	
<b>M:</b> 500 mm [19.7 in] cable with leads, straight exit		x
<b>S:</b> Integral Amp Superseal 1.5 connector, straight exit		x
<b>R:</b> Integral Amp Superseal 1.5 connector, right angle exit		x
<b>C:</b> Cable with Amp Superseal 1.5 connector, right angle exit		x
<b>D:</b> Cable with Amp Superseal 1.5 connector, straight exit		x
<b>Housing length</b>		
<b>A:</b> 35 mm [1.38 in]	x	
<b>B:</b> 45 mm [1.77 in]		x



35 mm cable with leads available now



35 mm integral connector coming soon

45 mm variants coming soon

## Key Features and Benefits

- ★ **Wide operating temperature range:** -40 to 150 °C [-40 to 302 °F]
  - ★ **Environmental sealing:** Moisture ingress protection rated to IP67/69K
  - ★ **Robust electrical noise immunity:** Electrical noise radiated immunity (EMC) rated to 100 volts/meter
  - **Configurable:** Variety of housing materials (i.e., plastic, stainless steel, brass, aluminum) and connection types (see nomenclature tree on next page)
  - Honeywell's experienced engineers are available to provide **design and application support** throughout the customers' product development cycle
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- ★ Honeywell competitive differentiator

# Configurable

For example, **SNG-QPLA-000** defines an SNG-Q Series quadrature speed and direction sensor, 500 mm [19.7 in] cable with leads, right angle exit, 35 mm [1.38 in] housing length.

<b>SNG-Q</b> Series	<b>P</b> Housing Material	<b>L</b> Connection Type	<b>A</b> Housing Length	<b>000</b> For Internal Use Only
4-wire quadrature speed and direction sensor	<b>P</b> Plastic	<b>S</b> Integral Amp Superseal 1.5 connector, straight exit	<b>A</b> 35 mm [1.38 in]	
	Stainless steel <sup>1</sup>	<b>R</b> Integral Amp Superseal 1.5 connector, right angle exit	<b>B</b> 45 mm [1.77 in]	
	Brass <sup>1</sup>	<b>L</b> 500 mm [19.7 in] cable with leads, right angle exit		
	Aluminum <sup>1</sup>	<b>M</b> 500 mm [19.7 in] cable with leads, straight exit		
	Special <sup>1</sup>	<b>C</b> Cable with Amp Superseal 1.5 connector, right angle exit		
		<b>D</b> Cable with Amp Superseal 1.5 connector, straight exit		
		<b>X</b> Special (refer to last three digits)		

<sup>1</sup> To learn more about Honeywell's sensing and control products, call +1-815-235-6847 or 1-800-537-6945, visit [sensing.honeywell.com](https://sensing.honeywell.com), or e-mail inquiries to [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

# Potential Industrial Applications

- **AC induction motors in material handling, agriculture, and construction machines:**
  - May be used to help control power delivered by the ac induction motor
- **Hydraulic pump motors in material handling, agriculture, and construction machines:**
  - May be used to help control power delivered by the hydraulic pump motor
- **Escalators and elevators:**
  - May be used to help control speed and position



# Potential Transportation Applications

- **Hybrid electric transmissions in heavy duty trucks, buses, agriculture and construction machines:**
  - May be used to help control power regulation of the hybrid system
- **Wheel speed detection in material handling, agriculture, and construction machines:**
  - May be used to detect the speed and direction of the wheels, which translates to the speed and direction of the machine
- **Hybrid engines in heavy duty trucks, buses, agriculture and construction machines:**
  - May be used to help control power regulation of the hybrid system





# About Honeywell Sensing and Control's Products

- For more information about all of Honeywell Sensing and Control's sensor and switch solutions, visit [sensing.honeywell.com](https://sensing.honeywell.com)



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