

## Honeywell Sensing and Control

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### SNDH-T4C-G01



Quadrature speed and direction sensor

Actual product appearance may vary.

#### Features

- Hall-effect magnetic sensing technology
- Advanced performance dynamic offset self calibration
- Air gap up to 2 mm [0.08 in]
- Near zero speed
- Automotive under-the-hood packaging integrity
- EMI hardened
- High frequency switching capability (up to 15 kHz)
- -40 °C to 150 °C [-40 °F to 302 °F] continuous operating temperature
- Multiple connector options
- Short circuit protection
- Reverse voltage protection
- Open collector output
- Low jitter output
- O-ring seal

#### Description

The SNDH Series is a dual differential hall sensor that provides speed and direction information using a quadrature output with signals 90 degree phase shifted from each other. Target direction is determined by output ead/lag phase shifting. This product is designed for applications where extremely high resolution is required at wide frequency ranges, 0 kHz to 15 kHz, and large air gaps. BiCMOS (bipolar complementary metal-oxide-semiconductor) Hall-effect technology, using advanced digital signal processing for dynamic off-set cancellation, provides enhanced air gap performance and phase shift accuracy over most conditions. Unique patented (pending) IC (integrated circuit) packaging provides output phase shift tolerancing with enhanced accuracy. The robust package is automotive under-the-hood grade for most environmental conditions as well as EMI (electromagnetic interference) hardened. Multiple connection options, including wire harness and integral connector versions using AMP super seal or AMP Jr. Timer connectors, are available. Package design includes an o-ring seal for pressure applications and a fixed mounting flange.

#### Supporting Documentation

- [Installation Instructions](#)
- [Product Sheet](#)
- [Engineering Drawing](#)

#### Potential Applications

- Steering position
- Tachometers/counter
- Encoders
- Speed and direction of gears and shafts in transmissions, hydraulic motors, pumps and gear boxes

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Product Specifications	
Sensing Type	Quadrature Speed and Direction
Housing Diameter	15 mm [0.6 in]
Barrel Length	45 mm [1.77 in]
Supply Voltage	4.5 Vdc to 18 Vdc
Operating Frequency	0 Hz to 15 kHz
Operating Temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Connection (s)	500 mm [19.7 in] Leads
Availability	Global
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Series Name	SNDH