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## **SNDJ-H3\*-G0\* Series**

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### Hall-Effect Zero-Speed Sensors



#### **DESCRIPTION**

The H3C and H3L series Hall-effect speed sensors are designed for use with a ferromagnetic gear or pole wheel to generate impulse frequencies proportional to the speed of the target.

#### **FEATURES**

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- Back biased hall sensor
- Direct sensing of ferrous metal target
- Zero speed capability
- Rugged 12 mm [0.47 in] and 5/8 in [15,88 mm] stainless steel housing
- IP68 sealing
- 1,5 mm [0.06 in] sensing range
- Prelead cable of connector versions available

The sensors are capable of zero speed and rotational orientation is independent of sensor function.

#### **POTENTIAL APPLICATIONS**

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- High speed gear tooth sensing
- Over-speed detection
- Monitor shaft rotation
- Detect rotary position of gear or shaft
- Position sensing of any ferrous target

# SNDJ-H3\* -G0\* Series

## SENSOR SPECIFICATIONS

Characteristic	Parameter
Supply voltage	8 Vdc to 25 Vdc
Current consumption	10 mA max. (without load)
Signal outputs	Square wave signal from NPN output transistor with 2.7 kOhm pull-up, dc-coupled to the supply (negative pole = reference voltage) 25 mA max. load Output voltage HI: power supply voltage Output voltage LO: <0.5 Volt @ I = 25 mA
Frequency range	0 Hz to 15 kHz
Insulation	Housing and electronics are galvanically isolated (500 V/50 Hz/1 min.)
Operating temperature	-20 °C to 100 °C [-4 °F to 212 °F]
Housing	Stainless steel 1.4305. Dimensions per drawings.
Cable/connector	L version: PUR cable, three conductor 0.34 mm <sup>2</sup> [0.013 in <sup>2</sup> ](AWG 22) C version: Euro M12 thread 4-pin connector
Protection class	Sensor head IP68, cable/entrance IP67, connector IP68 (mated)
Vibration immunity	30 g in the range 5 Hz to 2000 Hz
Shock immunity	50 g during 20 ms, half-sine wave
Weight	L version: ~120 g, including 1 m [39.37 in] cable C version: ~80 g
Air gap	For pole wheel M1 (DP 25,4): 0,3 mm to 0,5 mm [0.012 in to 0.02 in] For pole wheel M2 (DP 12,7): 0,3 mm to 1,5 mm [0.012 in to 0.06 in]
Pole wheel	Ferromagnetic toothed wheel, i.e. B. USt37-2, type 1018 CRS, preferred involute gear form Module $\geq$ (DP 25.4 [1.0 in]), min. tooth width 6 mm [0.24 in], side offset with min. tooth width: <0,2 mm [0.008 in]

## NOTICE

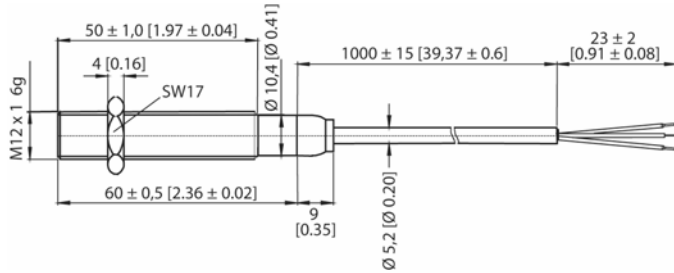
### INSTALLATION INFORMATION

- The sensor wires must be laid as far as possible from large electrical machines. They must not run parallel with power cables. The maximum permissible cable length is 20 m [65 ft].
- Using radial or axial mounting, the sensor should be mounted with the center of the sensor face over the center of the gear teeth or targets. Using radial sensor mounting, some axial movement is permissible.
- A solid and vibration-free mounting of the sensor is important.

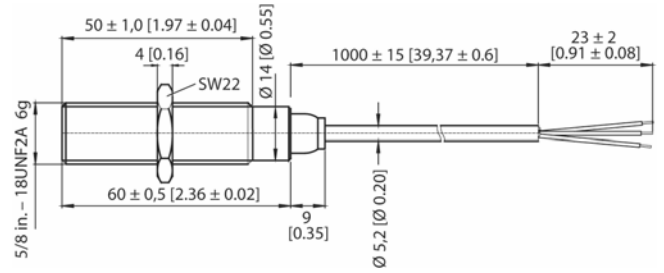
# Hall-Effect Zero-Speed Sensors

## MOUNTING DIMESIONS (For reference only) mm [in]

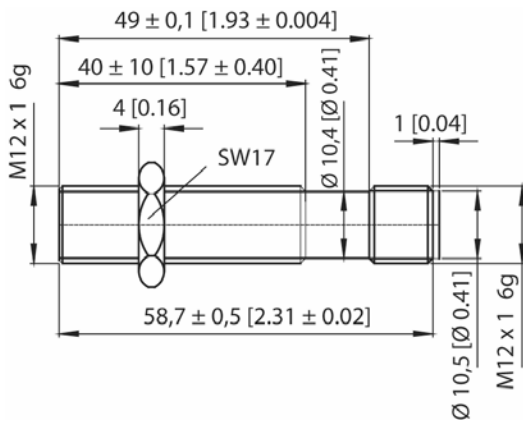
**H3L-G01**



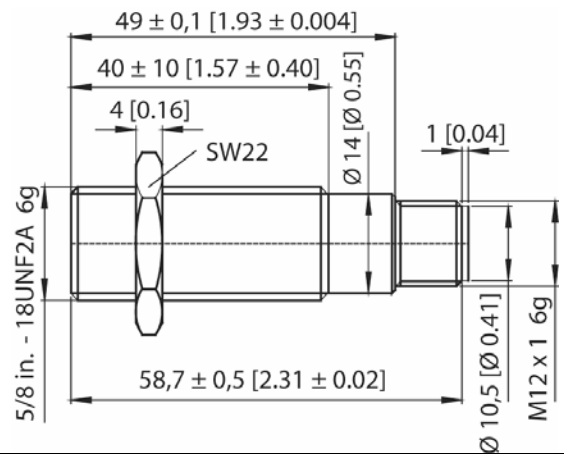
**H3L-G02**



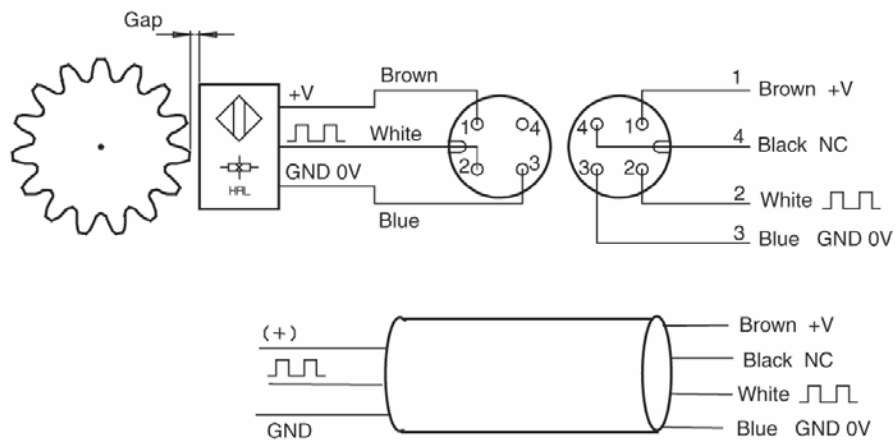
**H3C-G01**



**H3C-G02**



## WIRING DIAGRAM





## **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.**

### **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.

## **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.**

### **SALES AND SERVICE**

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