

## ZH10 Series

### Hall-effect Zero Speed Sensors



#### DESCRIPTION

The ZH10 Hall-effect Speed Sensor Sensors provide a durable, cost-effective solution in most harsh environments.

The sensor is available in a 11,9 mm [15/32 in/0.46875 in] diameter, in a 25,4 mm [1.00 in] length.

#### FEATURES

- Low cost
- Omni-directional sensor to target orientation
- Digital output
- Small size
- Low power consumption

The aluminum package is simple to install and adjust. It does not require rotational orientation.

#### POTENTIAL APPLICATIONS

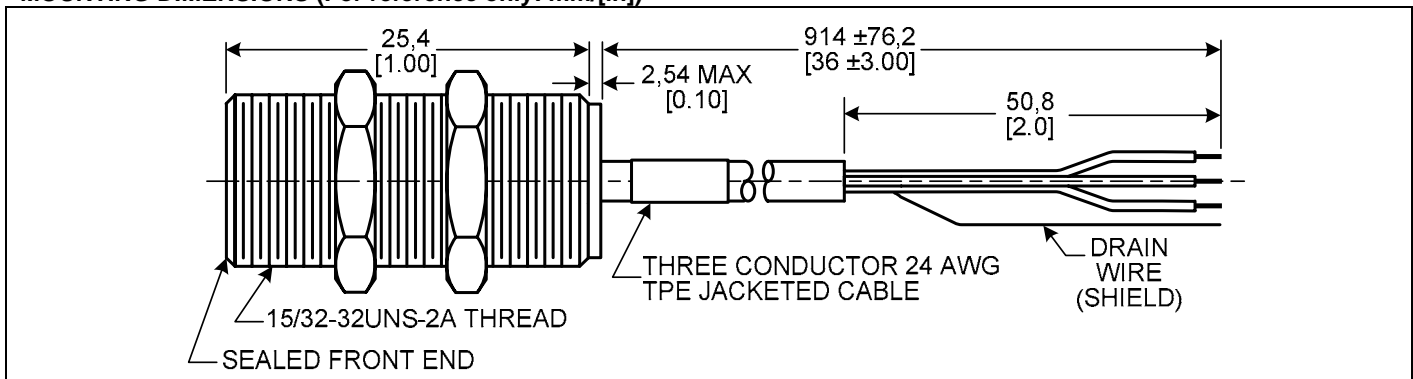
- Industrial process control
- Factory automation
- Rotary applications, such as:
  - Pumps
  - Rollers
  - Mixers
  - Fan speed measurement
  - Transmission
  - Spindles
  - Gear reducer RPM
  - Process speed
  - Synchronization
  - Generator set
  - Compressor speed
  - Dyno testing

# ZH10 Series

## SENSOR SPECIFICATIONS

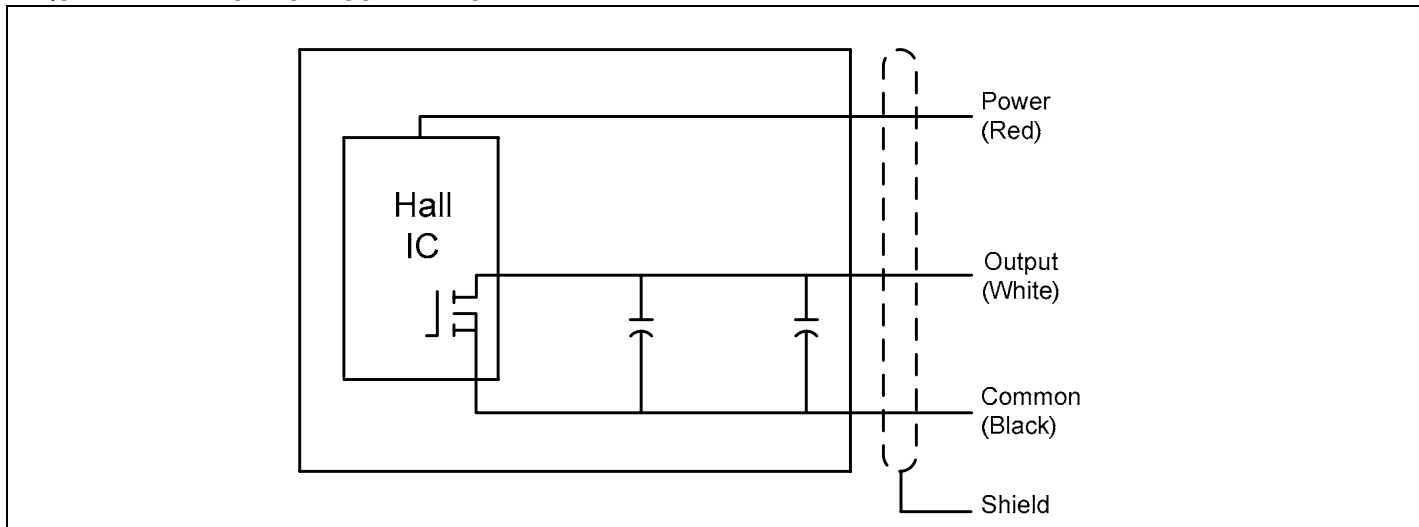
Characteristic	Minimum	Maximum	Unit	Condition
Supply voltage	4	24	Vdc	–
Supply current	–	6	mA	–
Output current	–	30	mA	short circuit protected
Output on voltage	–	0.6	Vdc	at 25 mA load
Output configuration	–	–	–	open drain MOFSET
Voltage low	–	0.4	V	at 30 mA max. sink
Voltage high	–	30	Vdc	–
Target orientation	–	–	–	omnidirectional
Duty cycle	35	65	%	within operating gap
Operating frequency	0	15 k	Hz	no orientation required
Output signal rise/fall time	–	4.0	μs	880 Ohm, 20 pF
Dielectric strength	200	–	Vac	<2 mA leakage
Operation gap	–	–	–	at gaps below curve (see Air Gap Performance Curve)
Output impedance	4.7	5.3	kOhm	–
Operating temperature range	-40 [-40]	100 [212]	°C [°F]	–
Storage temperature	–	125 [257]	°C [°F]	–
Sealing	IP67			–
Shock	50 Gs, 11 ms			–
Vibration	15 Gs, 10 Hz to 2000 Hz			–
Housing material	aluminum			–

## MOUNTING DIMENSIONS (For reference only: mm/[in])

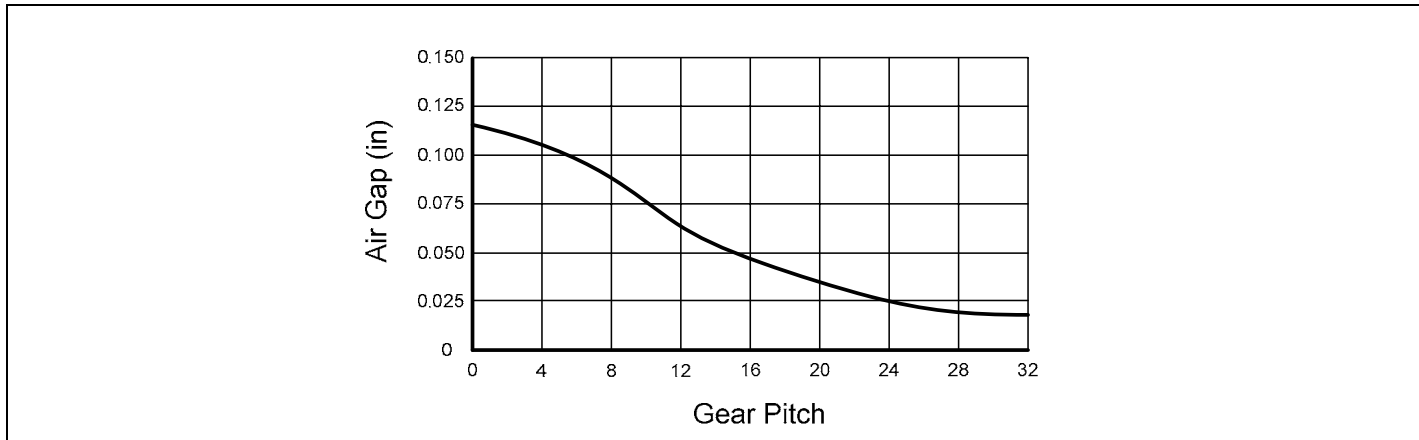


# Hall Effect Zero Speed Sensor

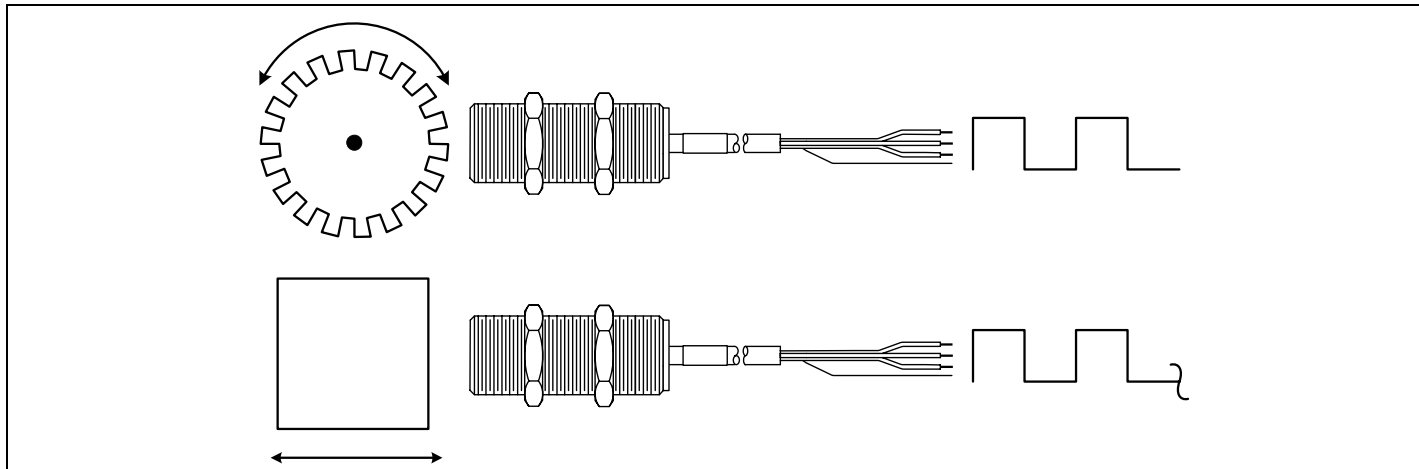
## EQUIVALENT ELECTRICAL SCHEMATIC



## AIR GAP PERFORMANCE CURVE



## TARGET MOTION



## ORDER GUIDE

Catalog Listing	Description
ZH10	Hall-effect zero speed sensor

### **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.**

### **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.**

#### **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.

#### **Automation and Control Solutions**

Sensing and Control

Honeywell

1985 Douglas Drive North

Minneapolis, MN 55422

# Honeywell