

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

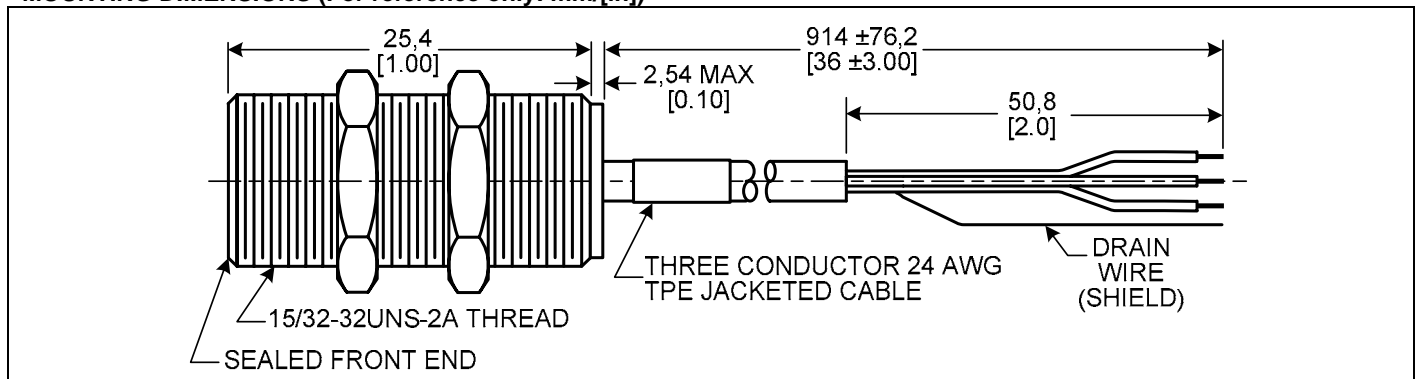
- Industrial process control
- Factory automation
- Rotary applications, such as:
 - Pumps
 - Rollers
 - Mixers
 - Fan speed measurement
 - Transmission
 - Spindles
 - Gear reducer RPM
 - Process speed
 - Synchronization
 - Generator set
 - Compressor speed
 - Dyno testing

ZH10 Series

SENSOR SPECIFICATIONS

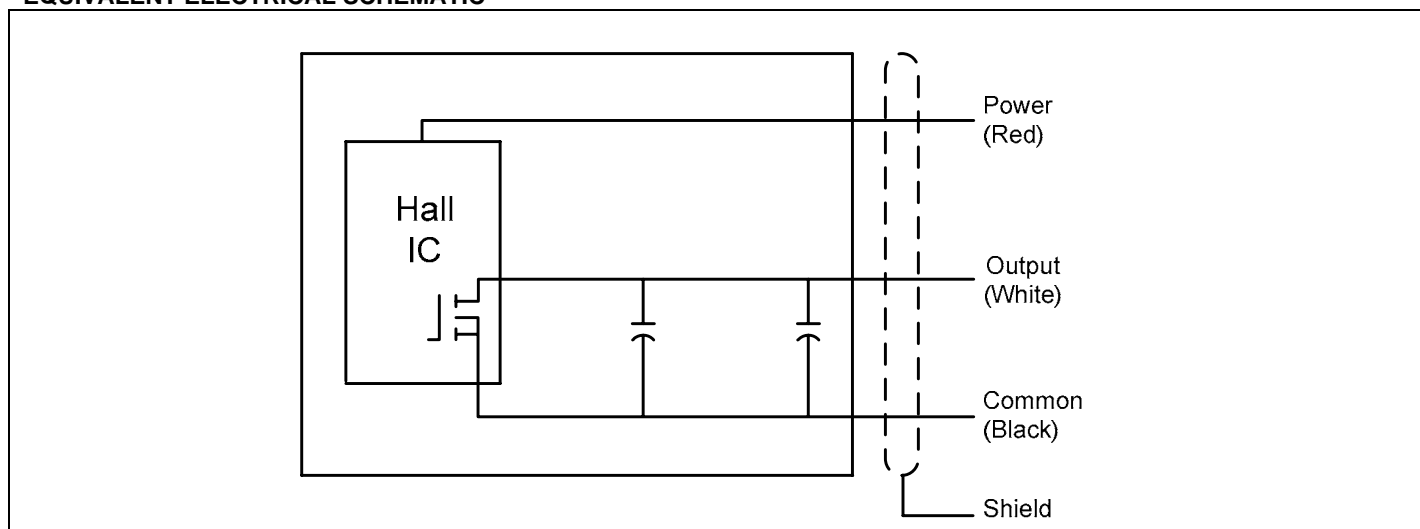
| Characteristic | Minimum | Maximum | Unit | Condition |
|------------------------------|-------------------------|-----------|---------|---|
| Supply voltage | 4 | 24 | Vdc | – |
| Supply current | – | 6 | mA | – |
| Output current | – | 30 | mA | short circuit protected |
| Output on voltage | – | 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])

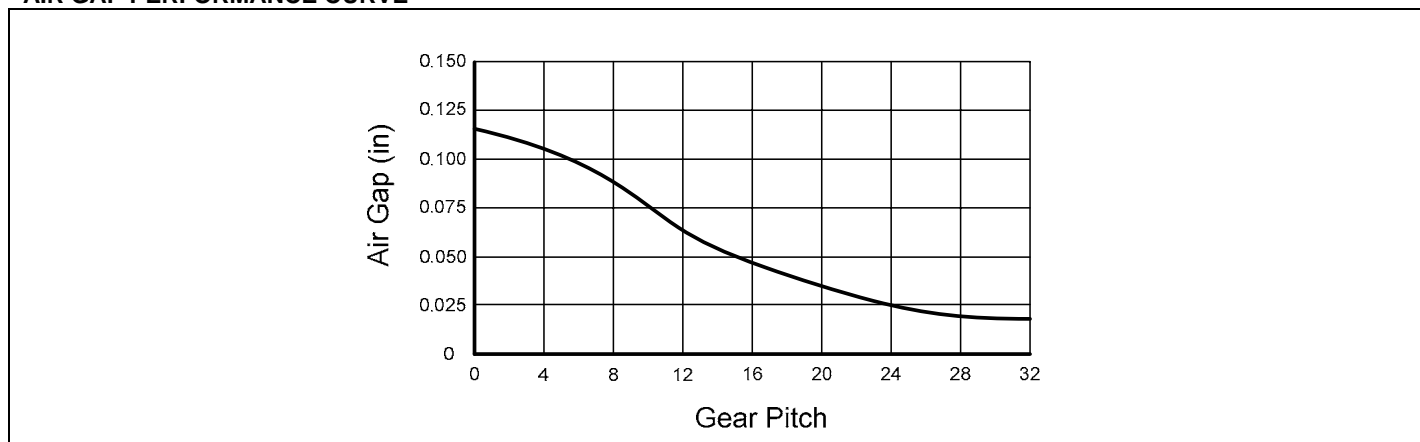


Hall Effect Zero Speed Sensor

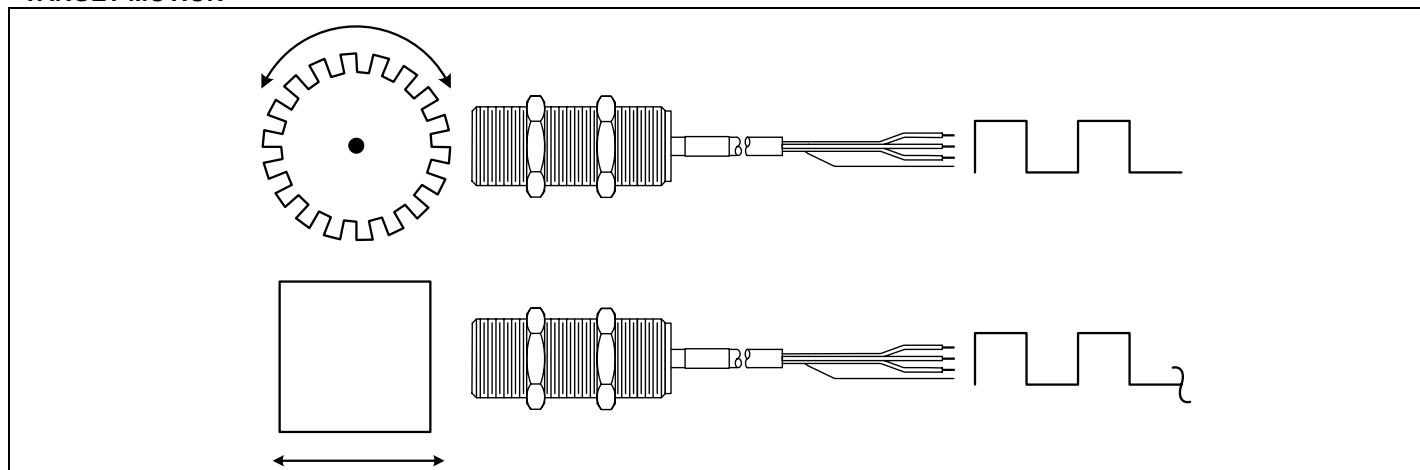
EQUIVALENT ELECTRICAL SCHEMATIC



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.

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

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

E-mail: info.sc@honeywell.com

Internet: www.honeywell.com/sensing

Phone and Fax:

| | |
|---------------|---|
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Sensing and Control

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