

## 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

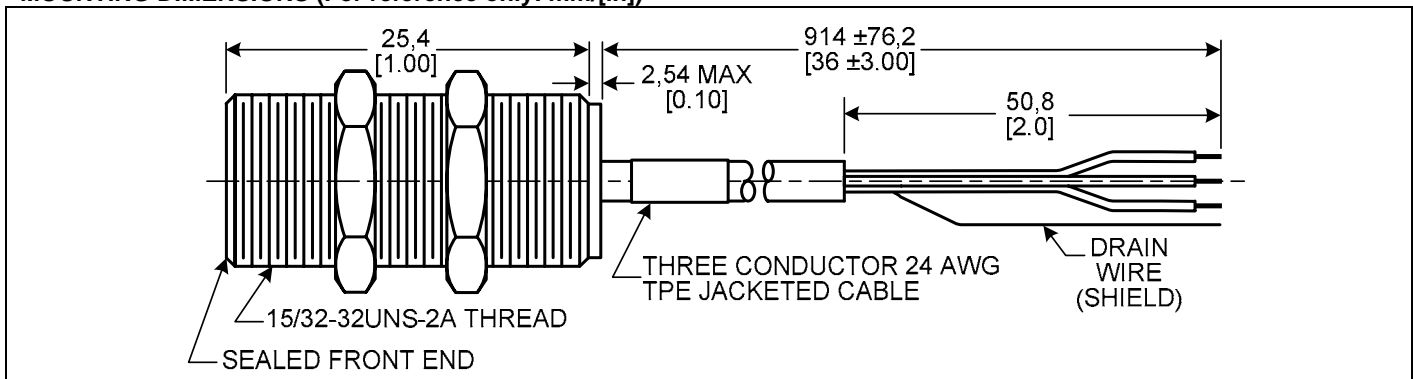
- Industrial process control
- Factory automation
- Rotary applications, such as:
  - Pumps
  - Rollers
  - Mixers
  - Fan speed measurement
  - Transmission
  - Spindles
  - Gear reducer RPM
  - Process speed
  - Synchronization
  - Generator set
  - Compressor speed
  - Dyno testing

# ZH10 Series

## SENSOR SPECIFICATIONS

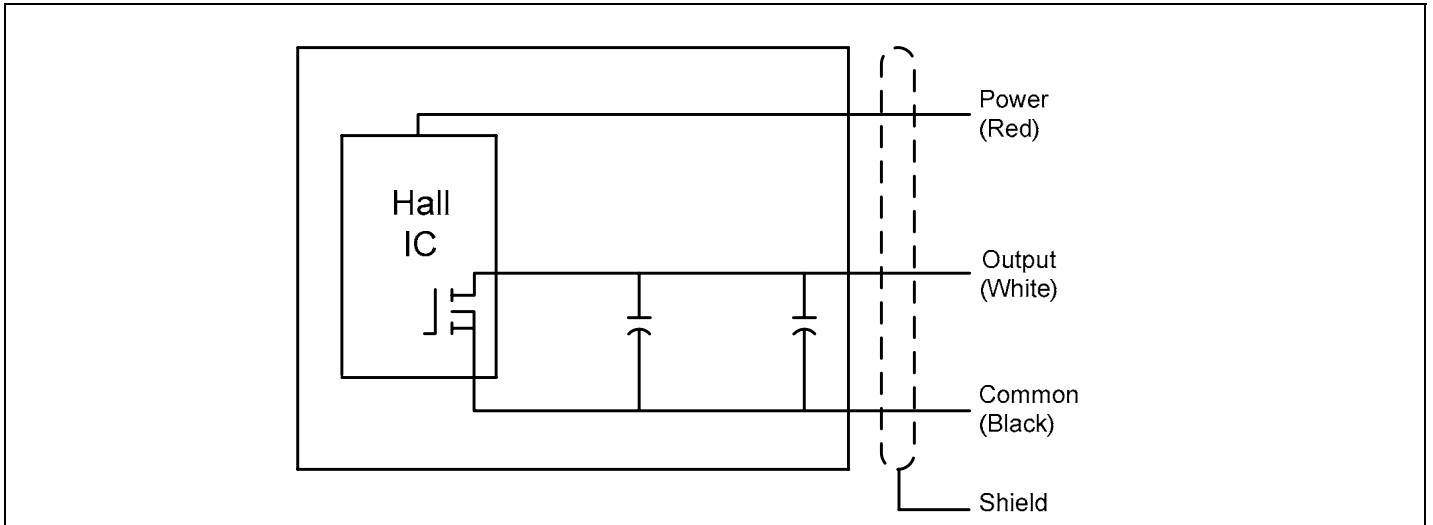
Characteristic	Minimum	Maximum	Unit	Condition
Supply voltage	4	24	Vdc	–
Supply current	–	6	mA	–
Output current	–	30	mA	short circuit protected
Output on voltage	–	0.6	Vdc	at 25 mA load
Output configuration	–	–	–	open drain MOFSET
Voltage low	–	0.4	V	at 30 mA max. sink
Voltage high	–	30	Vdc	–
Target orientation	–	–	–	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])

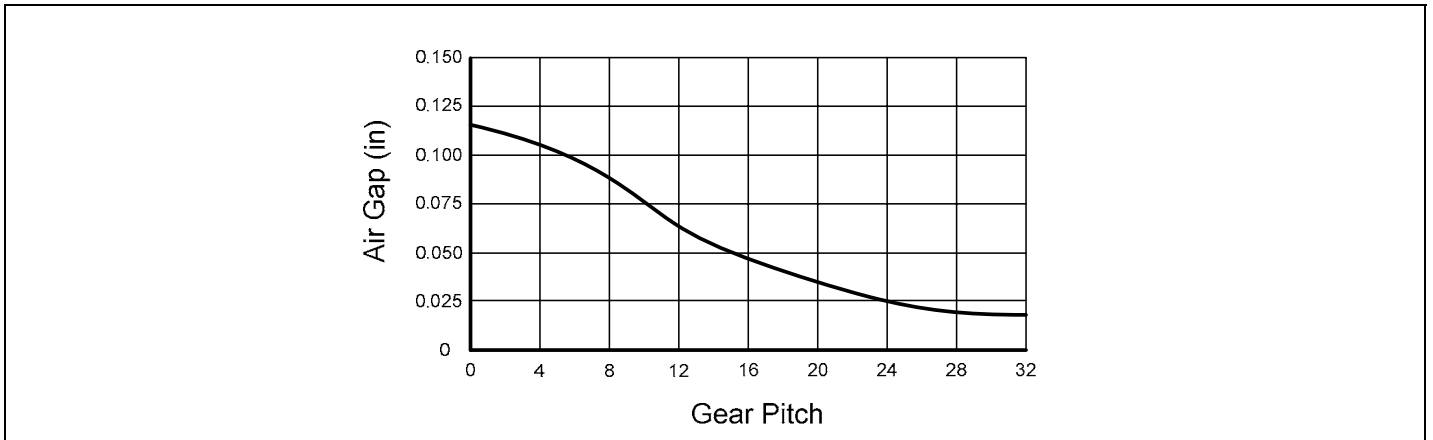


# Hall Effect Zero Speed Sensor

## EQUIVALENT ELECTRICAL SCHEMATIC



## AIR GAP PERFORMANCE CURVE



## TARGET MOTION

