

## LCZ Series

### Hall-effect Zero Speed Sensors



#### DESCRIPTION

The LCZ Series Hall-effect Zero Speed Sensors provide a durable, cost-effective solution in most harsh environments.

The sensor is available in 9,5 mm [3/8 in/0.375 in] and 15,9 mm [5/8 in/0.625 in] diameters, in both 50,8 mm [2.00 in] and 76,2 mm [3.00 in] lengths.

#### FEATURES

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

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

#### POTENTIAL APPLICATIONS

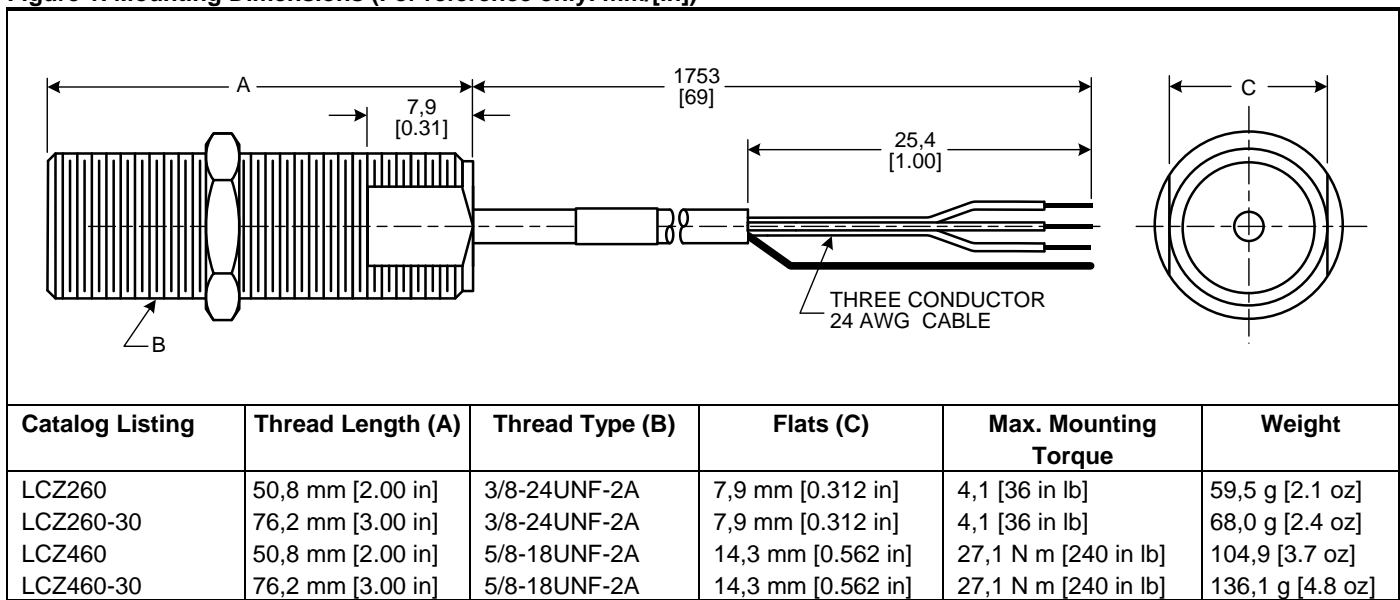
- Industrial process control
- Factory automation
- Rotary applications, such as:
  - Pumps
  - Rollers
  - Mixers
  - Fan speed measurement
  - Transmission
  - Spindles
  - Gear reducer RPM
  - Process speed
  - Synchronization
  - Generator set
  - Compressor speed
  - Dyno testing

# LCZ Series

**Table 1. Sensor Specifications**

Characteristic	Minimum	Maximum	Unit	Condition
Supply voltage	4.5	26	Vdc	–
Supply current	–	20	mA	load = infinity, Vcc = 26
Reverse polarity	30	–	Vdc	–
Output sinking	–	20	mA	0.4 V max. short circuit protected
Voltage low	–	0.4	V	at 30 mA max. sink
Voltage high	–	30	Vdc	–
Duty cycle	20	80	%	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 Figure 3)
Output impedance	4.7	5.3	kOhm	–
Operating temperature range	-40 [-40]	125 [257]	°C [°F]	–
Storage temperature	–	125 [257]	°C [°F]	–
Sealing	IP68			
Shock	50 G, 11 ms			–
Vibration	15 G, 10 Hz to 2000 Hz			–
Housing material	stainless steel			–
Weight	see Figure 1			–

**Figure 1. Mounting Dimensions (For reference only: mm/[in])**



# Hall Effect Zero Speed Sensor

Figure 2. Equivalent Electrical Schematic

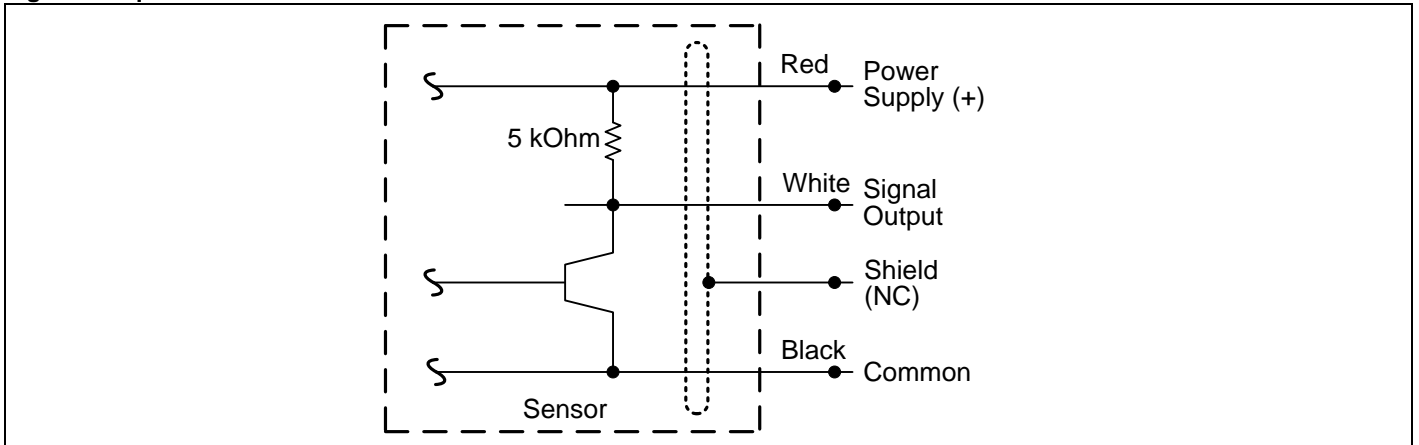


Figure 3. Air Gap Performance Curve

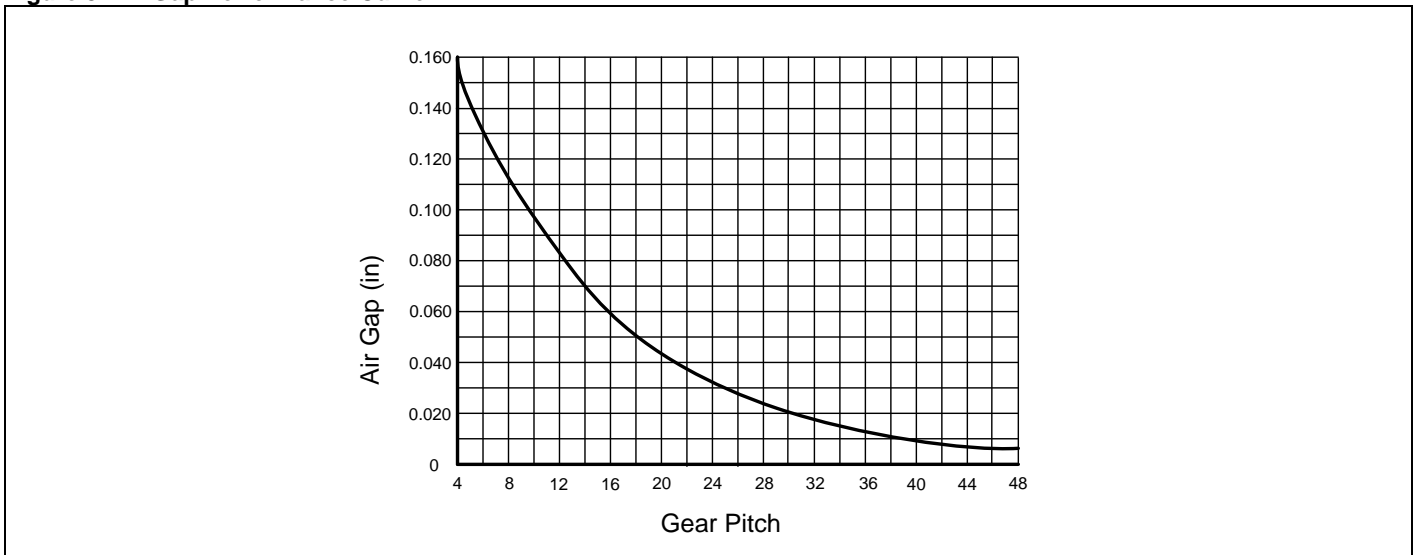
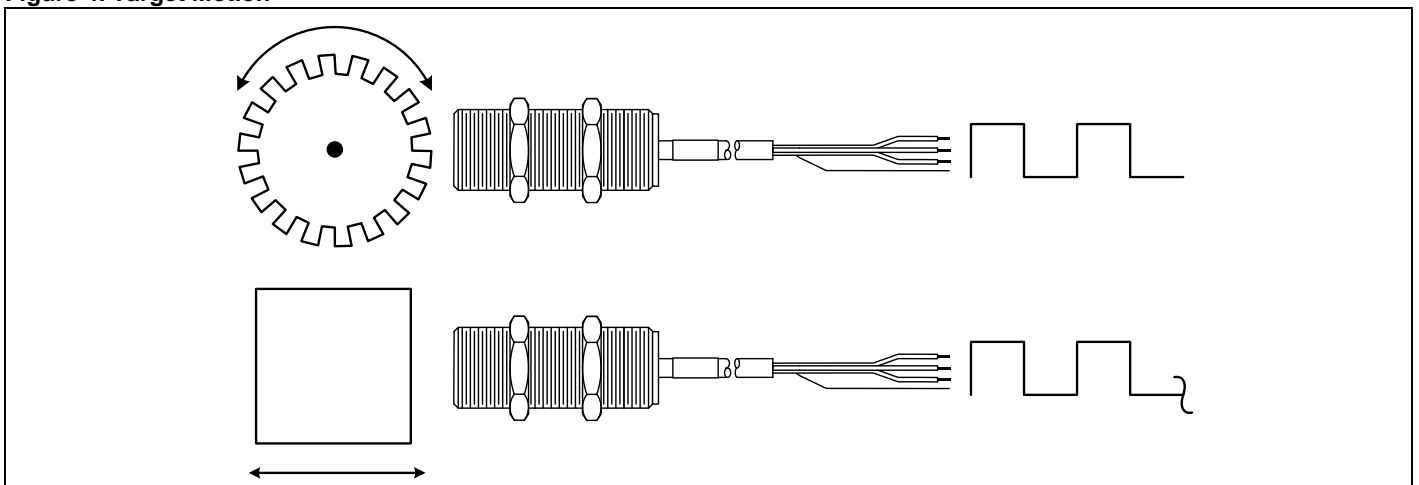


Figure 4. Target Motion



## Order Guide

Catalog Listing	Description
LCZ260	Hall-effect speed sensor, 3/8-24UNF-2A thread, 50,8 mm [2.00 in] length
LCZ260-30	Hall-effect speed sensor, 3/8-24UNF-2A thread, 76,2 mm [3.00 in] length
LCZ460	Hall-effect speed sensor, 5/8-18UNF-2A thread, 50,8 mm [2.00 in] length
LCZ460-30	Hall-effect speed sensor, 5/8-18UNF-2A thread, 76,2 mm [3.00 in] length

### **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.

#### **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:

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