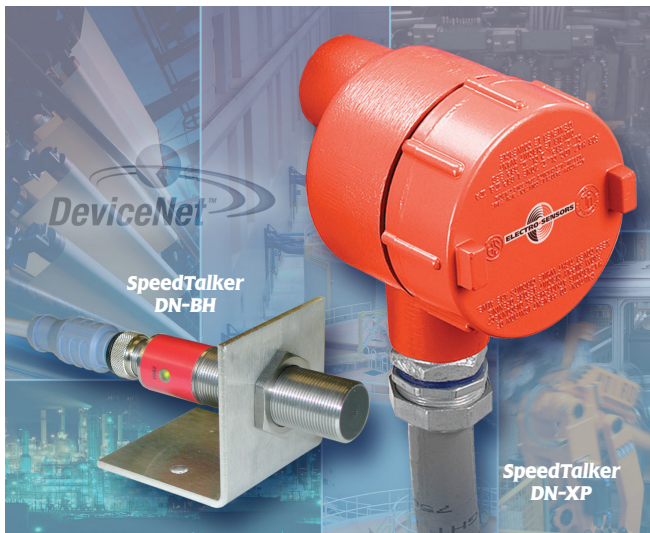


# ELECTRO•SENSORS

Superior • Systems • Solutions

## Devicenet Shaft Speed Sensor With Alarms — SpeedTalker DN-XP, SpeedTalker DN-BH

- DeviceNet Shaft Speed Sensor
- Provides both measured shaft RPM and alarm states
- State of the art shaft speed measurement and analysis
- Integrates into any DeviceNet network
- SpeedTalker DN-XP: Explosionproof, waterproof housing
- SpeedTalker DN-BH: Waterproof, stainless steel housing
- Predictive maintenance feedback and machine diagnostics



DeviceNet

## Product Information

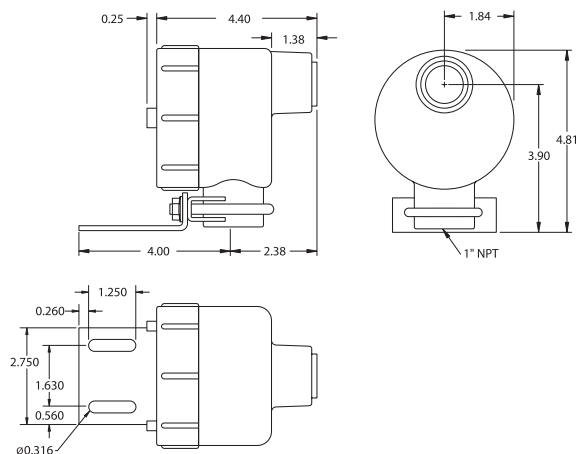
### Description

The SpeedTalker DN is a first-of-its-kind DeviceNet Shaft Speed Sensor. It is designed to operate in demanding, hazardous and industrial environments, and provides measured shaft RPM and the status of up to four under/over speed alarms over DeviceNet. The SpeedTalker DN incorporates state of the art sensing and signal processing technology that make it ideal for providing real-time predictive maintenance feedback and machine diagnostics ensuring process protection and efficiency. All SpeedTalker DN speed measurement and alarm functions are completely field-selectable and settable.

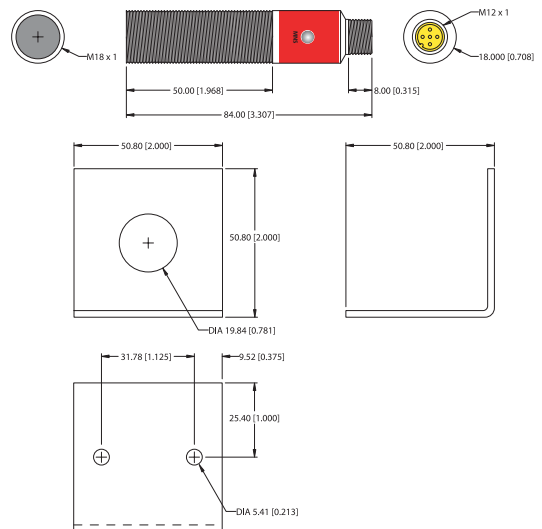
The Electro-Sensors SpeedTalker DN range of sensors are ODVA conformance tested and interface directly into any DeviceNet network. SpeedTalker DN Sensors have a built-in Hall Effect sensor that is compatible with all Electro-Sensors pulse generators. The SpeedTalker DN-XP is packaged in a rugged cast aluminum NEMA 4, 7 and 9 housing with a plated steel mounting bracket. The SpeedTalker DN-XP can also be mounted using the optional EZ-mount bracket assembly when required. The SpeedTalker DN-BH is packaged in an 18mm stainless steel barrel housing and comes with a bracket and two hex nuts for mounting and adjustment.

### Dimensional Drawings

#### SpeedTalker DN-XP



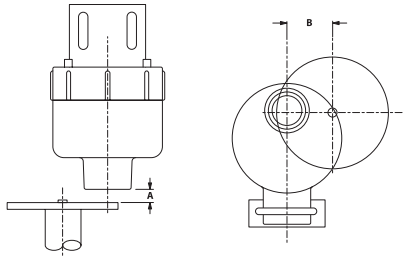
#### SpeedTalker DN-BH



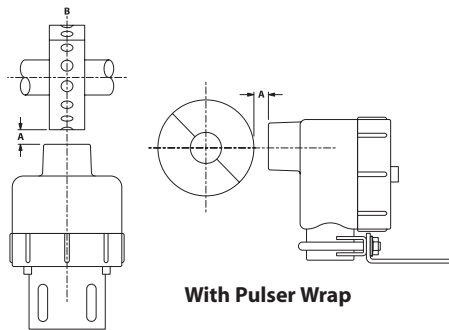
# SpeedTalker DN Speed Sensor & Switch

## Installation • SpeedTalker DN-XP

The SpeedTalker DN-XP may be mounted on rigid conduit or with the mounting bracket assembly (provided). The gap (A) between the sensing head and the Pulser Disc/Wrap must be 1/16 to 1/4 inch. The center line of the magnets (B) must align with the center of the sensing head as the Pulser Disc/Wrap rotates. After mounting, remove the round cover and pull network cable through the conduit port into the enclosure.



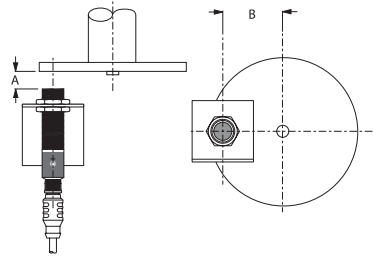
With Pulser Disc



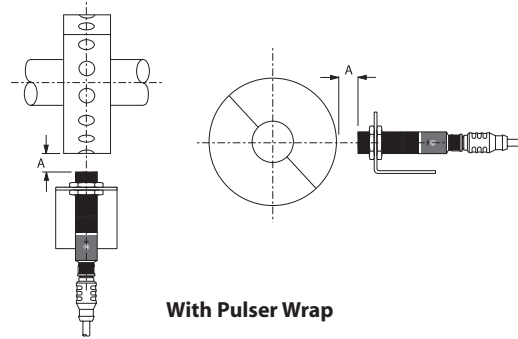
With Pulser Wrap

## Installation • SpeedTalker DN-BH

The 18mm diameter housing is threaded along 50 mm (2in) of its length. A bracket and two hex nuts are provided for mounting and adjustment. The gap (A) between the sensing head and the Pulser Disc/Wrap must be 1/16 to 1/4 inch. The center line of the magnets (B) must align with the sensor center line as the Pulser Disc/Wrap rotates.



With Pulser Disc



With Pulser Wrap

## Specifications • SpeedTalker - DN-XP • SpeedTalker - DN-BH

### General Specifications

Measurable  
 Shaft Speed Range ..... 0.0 to 6,553.5 RPM  
 Pulse Frequency Range ..... 0.0112 to 31,250 Hz  
 Speed/Alarm  
 Re-Calculation Period ..... 8.192 mS  
 Measurement Accuracy  
 (over temp) ..... 0.02% ± 0.1 RPM  
 Measurement/Setting  
 Resolution ..... 0.1 RPM  
 Pulser Disc/Wrap  
 Pulses/Revolution ..... 1 to 256 PPR  
 Airgap (sensing head  
 to Disc/Wrap) ..... 1/16" to 1/4" (2 to 6 mm)  
 Operating Power  
 (network supplied) ..... 11 Vdc (60mA) to 25 Vdc (40 mA)

### DeviceNet Implementation

Node Type ..... Group 2 Only Slave  
 Connections ..... Poll, COS, Explicit Message  
 Profile ..... Generic Device  
 Baud Rates ..... 125k, 250k, 500k

### DeviceNet Implementation (cont.)

Indicators ..... Module Status, Network Status (XP)  
 Module/Network Status (BH)

### SpeedTalker DN-XP

Connector ..... DeviceNet Open Style

### SpeedTalker DN-BH

Connector ..... Male M12 Micro-Connector

### Mechanical

Operating Temperature ..... -40°C to 85°C (-40°F to 185°F)

### SpeedTalker DN-XP

Enclosure Ratings ..... Cast Aluminum Housing  
 Class 1, Group C and D  
 Class II/Group E, F and G

Weight (with bracket) ..... 2.45 Lb (1.11 kg)

### SpeedTalker DN-BH

Enclosure Ratings ..... 303 Stainless Steel, High Temp  
 Epoxy, Polyester  
 NEMA 4X, IP67

Weight (with bracket) ..... 0.35 Lb (159 g)

Specifications subject to change without notice.

ES-500 Rev B