BWI EAGLE INC.

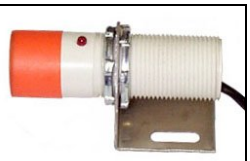
457 ROUTE 422 EAST ¨ BUTLER, PA 16002 ¨ 724-283-4681 ¨ (FAX) 724-283-5939 ¨ www.bwieagle.com

PRODUCT INFORMATION BULLETIN

PROX SENSOR

Inductive Proximity Type

MODELS 10-7135, 10-7136, 10-7139

 General Mounting	 Conduit Compatible	
10-7135	**10-7136**	**10-7139**

DESCRIPTION

The Eagle® Proximity Sensor is designed to measure signals from any rotating apparatus and transmit this information by low-voltage 2-conductor twisted pair cable back to an Eagle control unit located up to 2 miles away. This sensor's inductive proximity technology is further enhanced with additional circuitry to reduce or eliminate the adverse effects of electrical noise. This sensor can easily be identified by its bright orange end-cap(s).

COMPATIBILTY

Eagle Proximity sensors are compatible with all Eagle Speed Switches and Dust Suppression Systems with the exception of the Eagle 2, Model 11-7000, which lacks our pulse conditioning circuitry.

THEORY OF OPERATION

The Eagle Proximity type sensor senses a target as it approaches the internal oscillator coil encapsulated in the sensor head. When the target approaches the front of the coil, this causes a decrease in the amplitude of the internal oscillator. This damping effect can be sensed at any RPM, thus the sensor can be used to sense speeds below 1 RPM and as high as several thousand RPM's.

Because this type of sensor is not sensitive to the *speed* of the targets, the sensing distance remains approximately 1/8" at any speed. This eliminates "missed" targets as monitored speed changes.

INSTALLATION

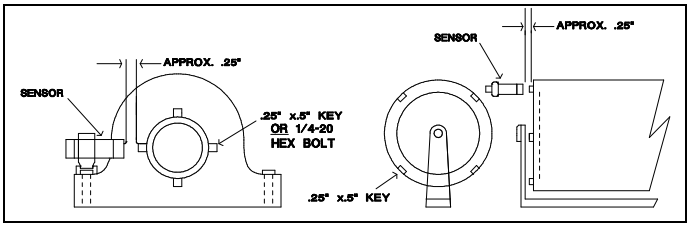
1. Select the roller or shaft to be monitored. If a roller is to be monitored, be sure it is always contacting the belt.

2. Affix a target on the roller or shaft. The target should be a piece of key-stock, 1/4-20 Hex Nut, etc. (Figure 1) NOTE: The use of a notch or a dent is not an acceptable target for the prox sensor. This sensor must see the presence of a target, not an absence of a target as there would be with a notch or dent.

3. Mount sensor firmly with hose clamps or U-bolts to prevent if from moving or working loose. Tape is NOT recommended as a fastener.

4. Before tightening, check that the target passes through the center area of the sensor face. This will produce the greatest sensitivity and sensing distance. With the roller or shaft spinning, move the sensor toward the target. The LED on the sensor should blink in direct proportion to the speed of the shaft or roller. Effective distance between the sensor and target is approximately 1/8 inch.

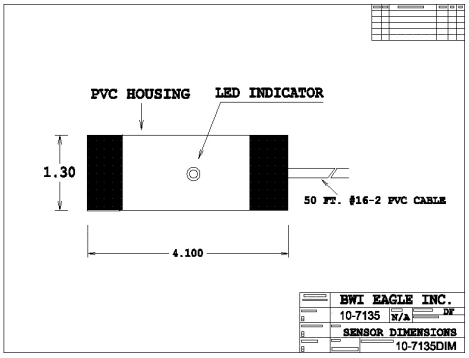
FIGURE 1



**NOTE - When mounting sensor on small idler rollers (less than 6 inches in diameter), install a maximum of 2 targets*

***NOTE - Shielded cable is recommended for all above ground applications. The shield of the cable should be attached to earth ground within 2 feet of the sensor head. In severe noise environments, grounding the shield at the control module also, will eliminate any E.M.I. interference.*

10-7135 SPECIFICATIONS



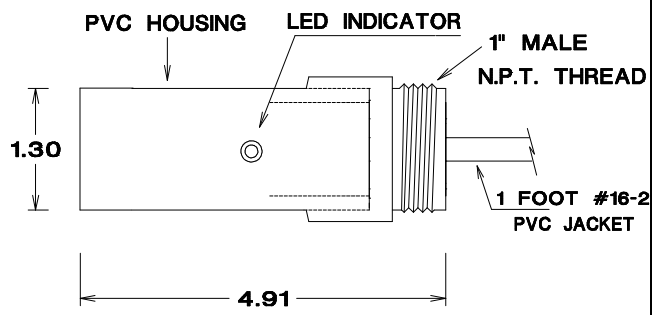
Dimensions	4.12 in. x 1.32 in. O.D.
Sensor Type	Inductive Proximity (Metal)
Housing / Mounting	PVC / General Mount
Sensor Power Requirement	Current Limited 12VDC from Control
Unit Sensor Cable	Unshielded** Twisted Pair 16/2 - 50 Ft. with Connector
Distance	Sensor to Control Unit - 2 Miles
Operating Temperature Range	-40°C to 145°C / -40°F to 293°F
Minimum Sensing Speed	Less than 1 RPM

PROX SENSOR

Inductive Proximity Type

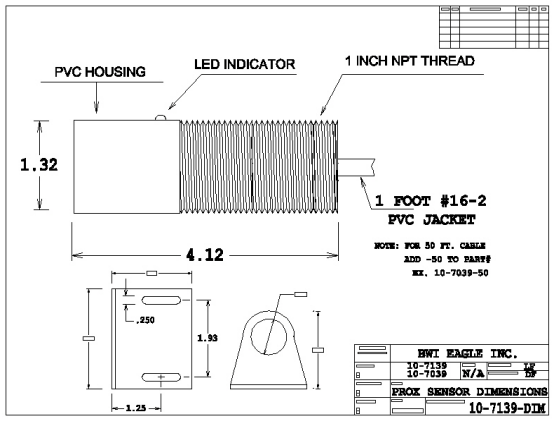
MODELS 10-7135, 10-7136, 10-7139

10-7136 SPECIFICATIONS



Dimensions	4.91 x 1.30 in. O.D.
Sensor Type	Inductive Proximity (Metal)
Housing / Mounting	PVC / Conduit Mount
Sensor Power Requirement	Current Limited 12VDC from Control
Unit Sensor Cable	Unshielded ** Twisted Pair 16/2 - 3 Ft. Pigtail
Distance	Sensor to Control Unit - 2 Miles
Operating Temperature Range	-40°C to 145°C / -40°F to 293°F
Minimum Sensing Speed	Less than 1 RPM

10-7139 SPECIFICATIONS



Dimensions	4.12 in. x 1.32 in. O.D.
Sensor Type	Inductive Proximity (Metal)
Housing / Mounting	Threaded PVC / Conduit or Bracket Mounting
Sensor Power Requirement	Current Limited 12VDC from Control
Unit Sensor Cable	Unshielded ** Twisted Pair 16/2 - 3 Ft. Pigtail
Distance	Sensor to Control Unit - 2 Miles
Operating Temperature Range	-40°C to 145°C / -40°F to 293°F
Minimum Sensing Speed	Less than 1 RPM

DOCUMENT DATE: 17-Oct-03

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