

**LION PRECISION LRD5100R TEAR STRIP SENSOR
INSTRUCTION SHEET**

M014-4690.02

INTRODUCTION:

The LION PRECISION LRD5100R is an electronic sensor used to monitor the presence of strip material on web material. The sensor output indicates the presence or absence of the strip material.

Mounting the Sensor

Mount the remote sensing head securely on the machine with a constant 0.02" to 0.03" gap to a grounded plate against which the strip material will ride. Align the head so the strip being detected lines up with the area on the sensor labeled [].

Connecting Power and Signal Out

- Be sure all unused wires are insulated from each other and any other conductive object.
- All power **must** be off when installing the sensor.
- **WARNING:** DC Ground is connected to sensor body.

WIRE COLOR	SIGNAL	Notes
RED	+VDC Power In	+11-30VDC +24VDC optimum.
BLACK	GND (Case)	
GREEN	NPN Output	Open Collector, 150mA sinking maximum, +90V maximum
BLUE	PNP Output	Open Collector, 150mA sourcing maximum, source from +Vin
BROWN	Not Used	
SHIELD	Cable Shield	Ground connection is recommended but not required

Adjusting Gain and Zero

NOTE: The two adjustments are four turn adjustments. Once at the end of adjustment they will continue to turn but have no effect.

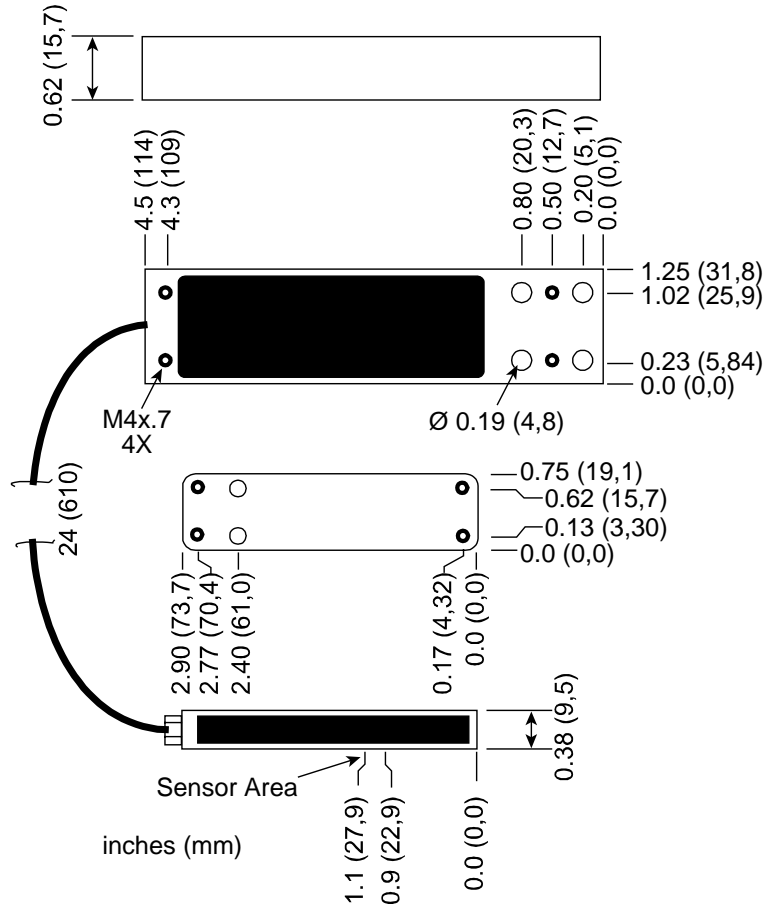
For Non-Metallic Strip Material:

1. With web material placed in the gap of the sensor and the strip properly lined up on the "STRIP" marker, adjust the ZERO control until the ZERO led just comes on or off.
2. Remove a section of strip material.
3. Pass the web back and forth under the sensor between the "strip present" and the "missing strip" sections and observe the EDGE led flashing on and off at the transition. If this does not occur, increase the gain by turning the GAIN control clockwise until it does. Once the EDGE led starts flashing, turn the GAIN control another 1/2 turn clockwise.

For Metallic Strip Material:

1. Center the GAIN adjustment by turning it counter-clockwise four turns, then two turns clockwise.
2. With no material, or web material only (no tear strip) placed in the gap, adjust ZERO until the EDGE led just turns off. Then turn ZERO 1/2 turn clockwise.
3. Verify proper operation with tear strip present.

LRD DIMENSIONAL DATA -- FIGURE 1



SIGNAL OUTPUT DIAGRAM -- FIGURE 2

