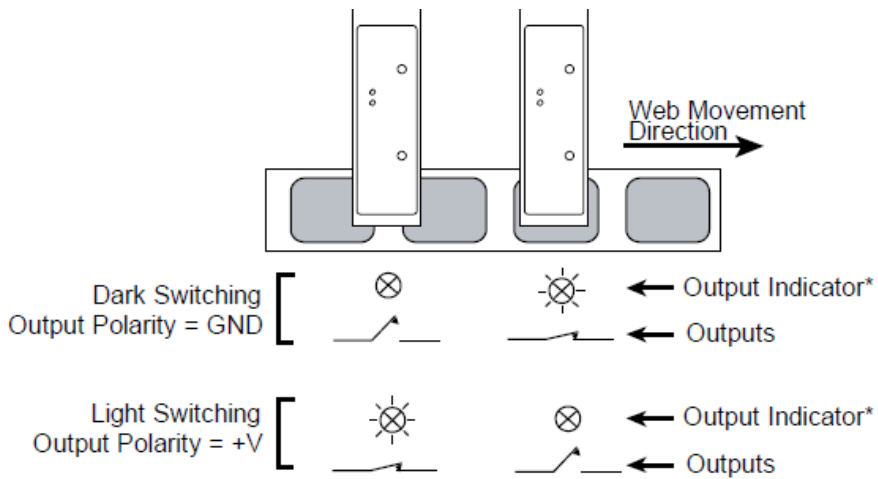


# LION 标签传感器LRD2100操作手册

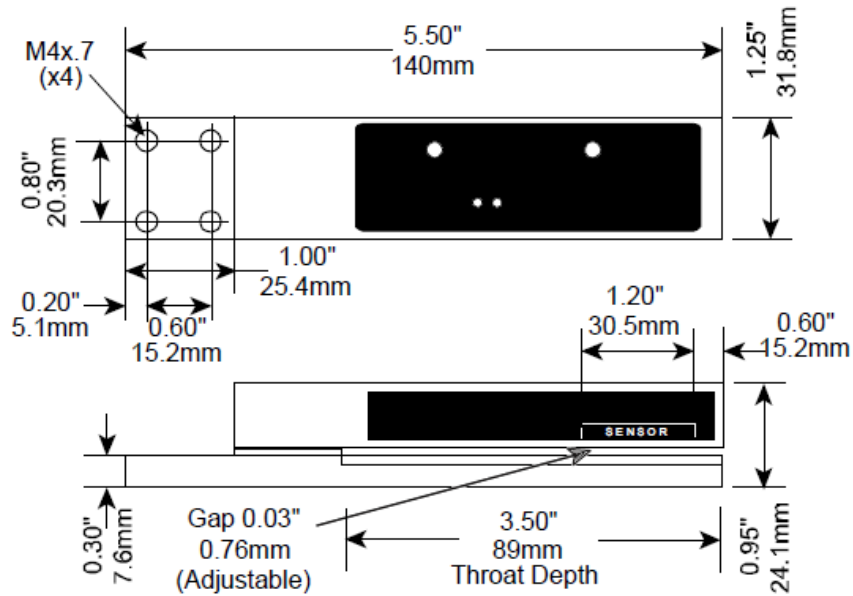
## Output and Mechanical Detail(输出和机械详情)

Light/Dark switching is affected by the direction of label movement and the Output Polarity connection. Output descriptions below are for web direction indicated in the illustration and **are reversed** for web movement in the other direction.

(亮/暗开关受标签运动和输出极性的影响。下面的插图描述输出的箭头正向的方向和反向的方向)



\*Some models label this indicator as "Edge"



规格

电源	电压	11-28VDC (反极性保护)
	电流	最大 50mA
响应时间	开关	最大 20 微秒
	切换频率	最大 10KHZ
响应时间	输出电流	最大 150mA
	切换输出	PNP 或者 NPN 暗或者亮切换
操作温度	操作温度	4-60 摄氏度
属性	支持	反极性保护
	切换输出	短路和超负荷保护

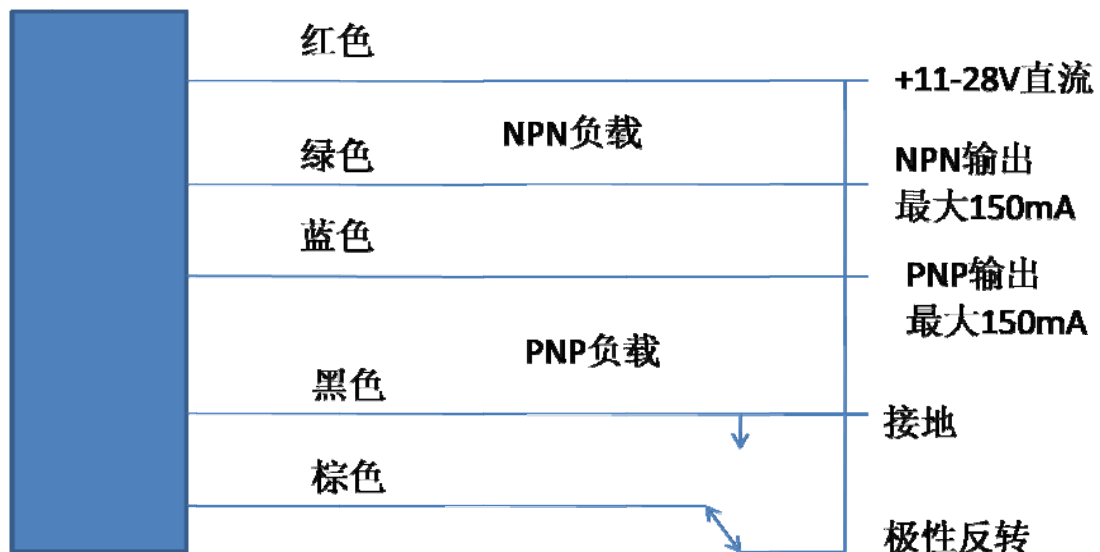
警告:

1. 传感器本体必须接地
2. 传感器不能连接到电压超过 30 vrms 或 60 伏直流。
3. 安装传感器时所有电源必须关闭
4. 使用的设备在任何其他方式可能影响其安全性和 EMI 的保护

LRD2100接线

线颜色	连接	信息
红色	正极(11-28VDC)	最大 50mA
黑色	接地	连接到传感器
绿色	NPN 输出	最大 150mA
蓝色	PNP 输出	最大 150mA
棕色	输出极性 (亮/暗开关)	+V 或者接地 (具体看板子上面)

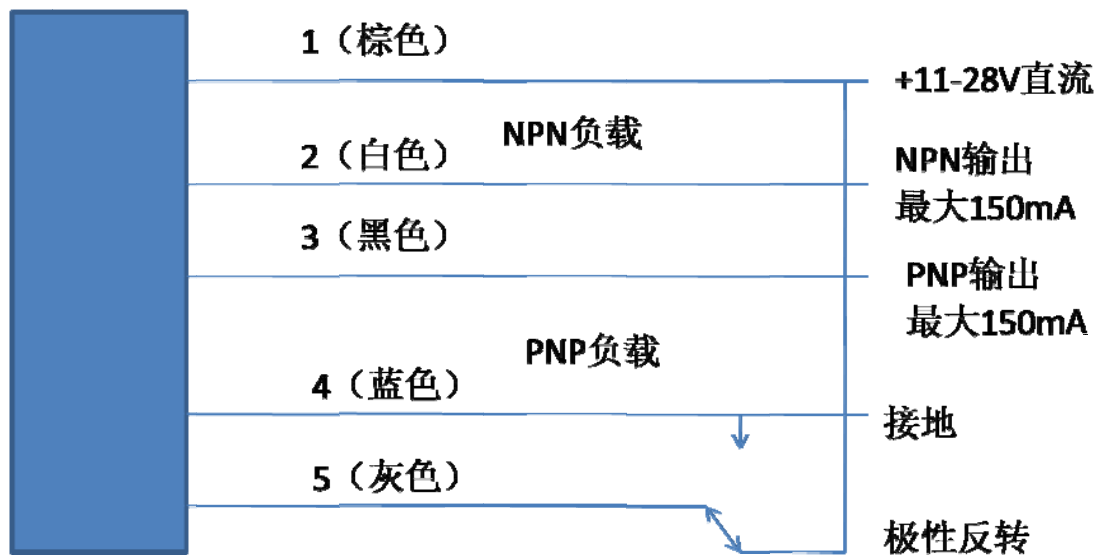
警告: 棕色的线必须接正极或者接地



### LRD2100C接线

线颜色	连接	信息
棕色	正极(11-28VDC)	最大 50mA
白色	接地	连接到传感器
黑色	NPN 输出	最大 150mA
蓝色	PNP 输出	最大 150mA
灰色	输出极性 (亮/暗开关)	+V 或者接地 (具体看板子上面)

警告：灰色的线必须接正极或者接地



### Adjusting the LRD2100 (调整LRD2100)

The adjustments on the LRD2100 have a maximum of four (4) turns. If they are turned beyond the end points, the adjustments will continue to turn without damaging the sensor, but no further adjustment will occur.

对LRD2100的调整最多4个来回，如果超过了最后一个点，调整继续进行不会损坏传感器，但是不会进一步发生调整

### Adjustments When *First Installed On A Machine* (第一次在机器上安装调整)

1. Remove all material from sensor.
2. Set GAIN ADJUST to maximum by turning at least four (4) turns clockwise.
3. Set ZERO ADJUST

Turn the Zero adjustment to where the Zero light changes between On and Off. It's not important whether it is On or Off when completed, as long as it is close to where it changes.

4. It is recommended that you place a round black label (several are included with the sensor) over the Zero adjustment to prevent unnecessary adjustment in the future.
5. Set GAIN ADJUST to midpoint by turning two (2) turns counterclockwise

This setup will work with most labels and not require readjustment. The Zero may have to be adjusted again if the baseplate or spacer is ever replaced or removed.

1. 移除所有材料
2. 通过旋钮来回调整（至少4次）将增益调到最大
3. 设置零位：调整零位旋钮使零位的等在开和关之间切换。当完成时开和关就不再重要了，只要靠近它的位置不再改变。
4. 建议放置一个圆形黑色的标签（其中几个包含在传感器中）在零位的地方，防止将来不必要的调整
5. 通过旋钮逆时针旋转两次将增益调整到中点，这种设置适用于大部分的标签而不需要重新调整。  
如果基板拆卸或者更换需要再重新调整一次。

### **Adjustments When Label Stock Is Changed（当标签更换时调整）**

**Usually None.** The basic setting above (Gain at center of its range) will work for most labels.

Very small labels may require an increase in Gain.

（通常不需要调整，上面的基本调整（增益在中间范围内）适用于大多数的标签）

非常小的标签可能需要增加增益

If, and ONLY if, the new labels aren't being detected correctly, use this procedure:

（如果，仅仅是如果没有检测到标签，请按照以下步骤设置）

1. Re-Set the Gain to center of its range  
（重新将增益设置到中间位置）
  - a. Turn the Gain adjustment at least 4 full turns clockwise  
（顺时针旋转至少4个来回来调整增益）
  - b. Turn the Gain adjustment 2 turns counterclockwise  
（逆时针旋转2次）

Run and see if the sensor works correctly. If it does, the Gain had been adjusted and needed to be re-centered.

（运行并观察传感器工作是否正常，如果正常，增益将被继续调整到中间）

If it still does not work correctly, then use this procedure to fine-tune the Gain setting

（如果依然不能正常工作，请用以下过程来调整）

1. Set Gain to Minimum by turning it 4 turns counterclockwise  
（通过旋钮来回调整（至少4次）将增益调到最小）
2. Move labels through the sensor and increase GAIN (turn clockwise) until the OUTPUT light ("EDGE" on older models) just begins to flash.

If possible, it may be easier to create some slack in the web and just move one gap back-and-forth through the sensor while adjusting.

（通过传感器移动标签，顺时针旋转旋钮增加增益，直到输出灯亮（老型号在边上）开始闪烁）

如果可能的话，在网格中创建一个黑色屏幕可能更容易一些，通过传感器进行调整

2. Turn the Gain adjustment another half-turn clockwise.  
（将增益顺时针旋转半圈）
4. If the sensor still doesn't detect labels reliably, you may have label materials that require an LRD6110 or LRD8200.

（如果传感器依然不能找到标签，你可能需要LRD6110或者LRD8200的标签材料）

### **Lights During Operation:（灯的操作）**

The OUTPUT light (EDGE on older models) indicates the sensor output. It will be in one state (on or off) during the label and the other state during the gap depending on the direction of the label movement and the connection of the Polarity Invert wire (see next page for details).

The Zero light is for first-time setup only and is meaningless during operation.

输出的灯光（老型号在边缘）显示传感器的输出，它将处在一个状态（开或者关）在标签和另外一个状态之间，它们之间的间隙取决于标签的移动方向和极性反转线的连接（详情参阅下一页），零位的灯只是在第一次安装的时候有用，在操作过程中毫无意义。

**Notes:**

- 1) For best results, web should ride against sensor baseplate, not “float” in the gap.

为了得到最佳的结果，网格应该和传感器基板一起，而不是在间隙中浮动。