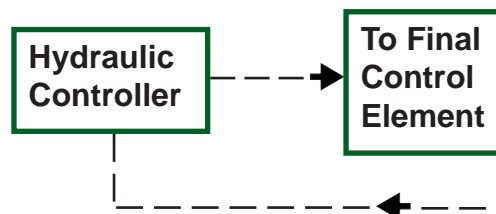


## No Separate Amplifier Required

### General Description

The Model 31510 Edge Guide Sensor is designed primarily for photoelectrically sensing the lateral edge position of materials in motion, in particular web material of an opaque quality. This information is transmitted electrically to a hydraulic controller for final control action.

The Model 31510 is available in two basic model options. One is used exclusively with the Dynaguide\* Hydraulic Controller and has an integral transistorized amplifier. The second option can be used with the model 33130 Webguide Controller.



- Reduces Cost
- Reduces Set-up Time

### Principle of Operation

The Model 31510 (used with Dynaguide) continuously senses the web edge position with a light beam directed at a photo-conductive cell, whose resistance is inversely proportional to the amount of light falling on its surface.

This resistance varies with the lateral position of the web edge. The change in resistance controls the input voltage signal to the transistorized amplifier. The amplifier provides an output voltage (in direct proportion to the lateral edge position of the web) to the moving coil of the Dynaguide Controller, which in turn provides hydraulic power to the final control element.

The sensor option used with the Webguide Controller uses a silicon photo voltaic cell operated in the short-circuit mode. Its output current is proportional to the lateral web edge position.

\*Trademark of GPE Controls.

#### ■ High Sensitivity

Detects better than .005 inches of lateral web displacement.

#### ■ High Accuracy

Maximum gain over a proportioned range plus high speed response with stability from hydraulic controller, provides the most accurate edge guide system available.

#### ■ Extreme Versatility

Sensor can provide signal for Dynaguide Controller or Webguide Controller.

#### ■ Simplified Installation

Pre-wired sensor requires only connections to controller. Compact size allow installation in confined areas.

#### ■ Simple Adjustments

Requires only gain and bias adjustments to match line process requirements.



an L&J TECHNOLOGIES Company

# Photoelectric Edge Guide Sensor GPE 31510

## PRODUCT DATA SHEET

### Specifications

<b>Power Input</b>	6VAC ±1% (regulated) 50/60 Hz., 5 VA (Option 31510 - 00 or 31510 -01) 28 VDC, 40 ma lamp power from 33130 Webguide Controller. (Option 31510 - 10 or 31510 - 11)
<b>Input Span</b>	½" lateral web displacement
<b>Output</b>	0 - 200 milliamps into 22 ohm load to Dynaguide Controller. 0 - 400 microamps to Webguide Controller.
<b>Sensitivity</b>	Full correction speed with less than .005 inches of lateral web displacement of an opaque material, when used in a typical GPE Control System.
<b>Construction</b>	Cast Aluminum
<b>Weight</b>	2 lbs.
<b>Temperature Range</b>	+10°F to +130°F (-12°C to -54°C)

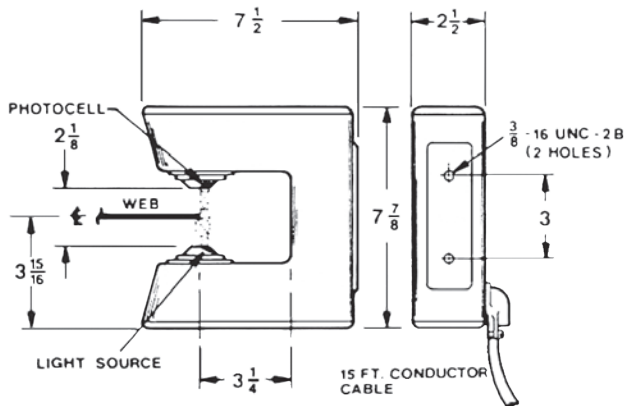
### How to Order

#### Specify:

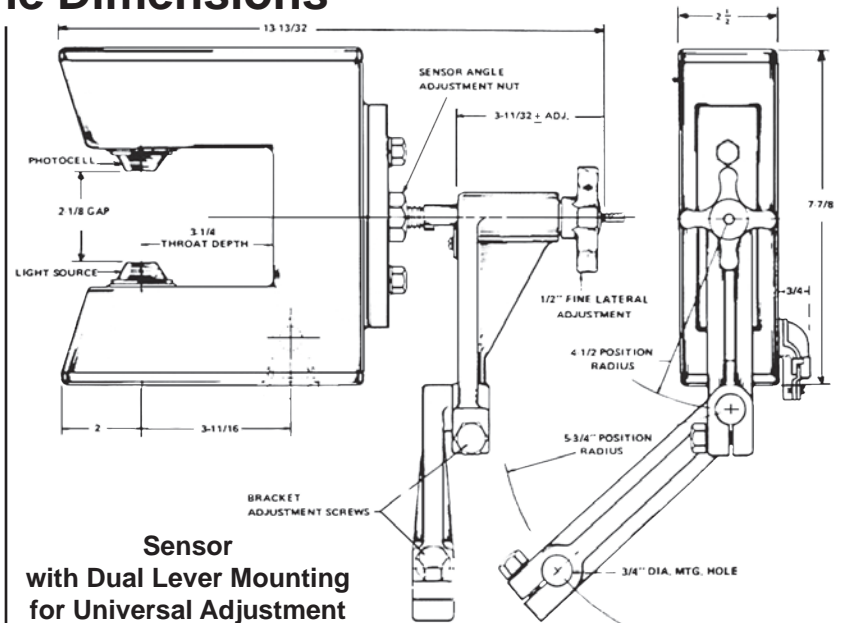
1. Model 31510 Edge Guide Sensor.
2. Sensor option with integral amplifier and fixed mounting or dual lever mounting for universal adjustment.
3. Sensor option for use with Hydraulic Controller or Webguide Controller\* with fixed mounting or dual lever mounting for universal adjustment.

\*Webguide controller and related components must be ordered separately.

### Outline Dimensions



**Sensor with Fixed Mounting**  
Options (00) and (10)



**Sensor with Dual Lever Mounting for Universal Adjustment**  
Options (01) and (11)