



## ***H3194-306-04 EAGLE EYE™***

Advancing the State-of-the-Art in a  
Discriminating Wide Field-of-View Detector  
U.S. Patent Number 5,989,368



- **Guides to tufted edge while ignoring single or double layer selvage**
- **NEW-Guide point adjustable remotely via logic inputs or locally with detector-mounted switch**
- **Exceptionally wide 4.48" (113.8 mm) field of view**
- **Sensed edge indicated on LED bar graph**
- **Maximum tolerance to lens dirt due to pattern recognition techniques**
- **Ignores sawtooth and jagged edges using digital averaging methods**

North American's ground breaking Eagle Eye detector is a microprocessor-based photoelectronic sensor designed to meet the unique requirements of the carpet, textile and other specialized industries. Using a novel method of scanning both LED's and phototransistors, this detector determines material characteristics and makes calculated decisions determining desired edge position.

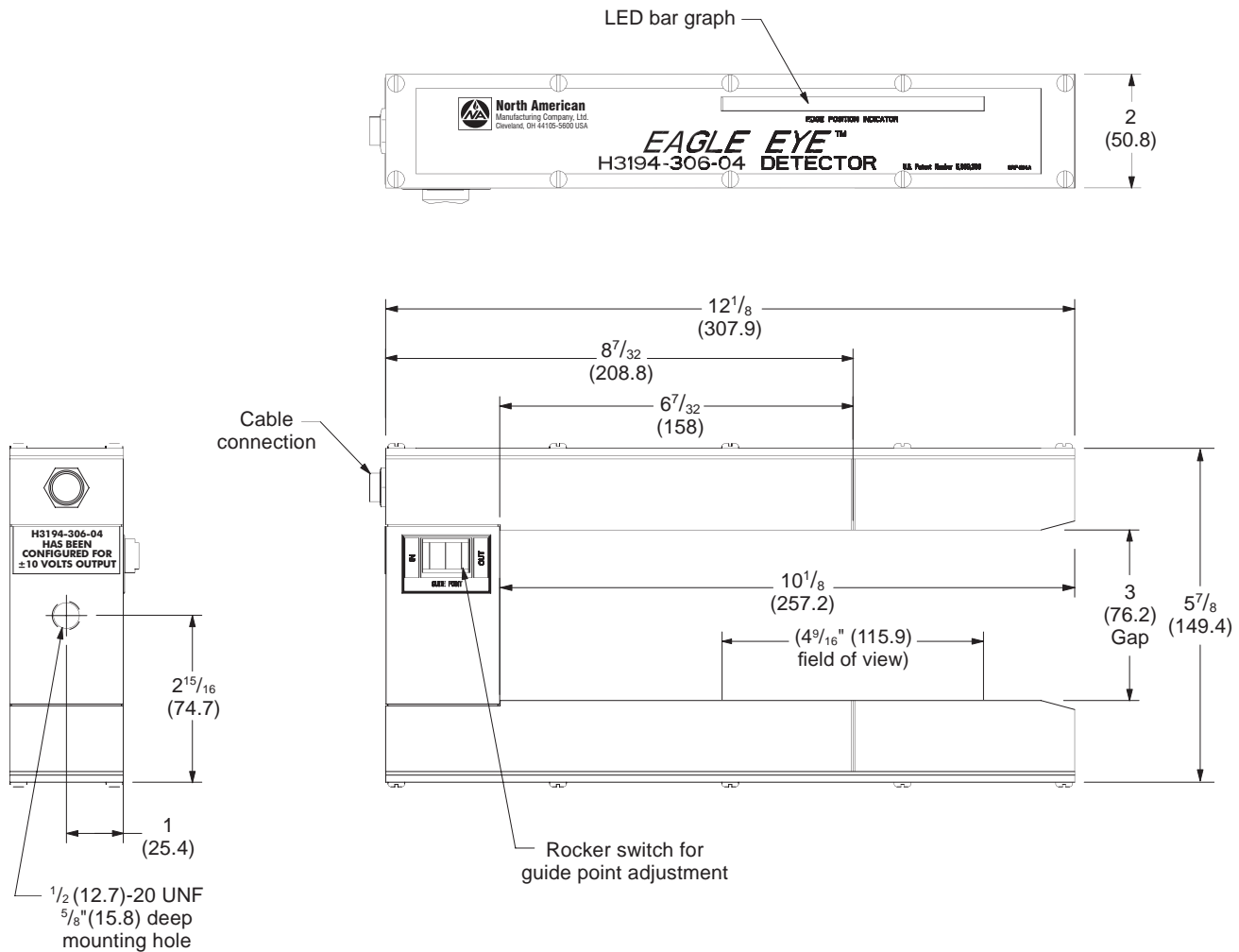
The unique ability to guide carpet tufting edge inlaid on selvage material makes this a powerful tool for coating lines and other difficult carpet processing applications. The tufted edge can be reliably sensed at locations with primary backing only, or combination primary and secondary backing. The detector is capable of sensing the edge of the tufting through both dark and translucent primary backing. Tufting edge with stepped, or sawtooth patterns can be guided with no bothersome pitch or amplitude knob adjustments due to a digital averaging algorithm employed. Similarly, a smooth response to ragged edges is enabled through this feature.

"Coarse mesh" materials such as carpet secondary backing are easily guided using the "Eagle Eye". Pattern recognition logic in the unit senses the actual outer edge while ignoring "see-through" areas. This advanced feature sets this sensor apart from other traditional photoelectric sensors that sense and react to varying translucency. Additionally, the sensor is also substantially insensitive to lens dirt buildup.

The H3194-306-04 provides logic inputs to remotely adjust the guide point to the appropriate tufted edge or backing edge. A detector-mounted switch is also provided for local guide point adjustment.

## DIMENSIONS

inches (mm)



DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM NORTH AMERICAN MFG. CO., LTD. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

## SPECIFICATIONS

**Model Number:** H3194-306-04

**Cables:** 15 ft (4.6 m) for SimPlex™ controllers; H3194-6425-15  
15 ft (4.6 m) for H6400 controller; H3194-6400-15  
15 ft (4.6 m) SimPlex extension cable;  
H6415-DETEXT-15  
15 ft (4.6 m) with un-terminated end for remote  
guide adjust; H3194-RGA-15

**Output Signal:** 0 to 2.5 V dc or ±10 V dc, jumper selectable

**Logic "1" input for remote guide point adjust:** 12 to 28 V dc

**Power Requirements:** 15 to 24 V dc, 1.8 watts

**Field of View:** 4.48" (113.8 mm)

**Protective Lens Sleeve:** H25-4194-1

**Resolution:** 0.07" (1.8 mm)

**Gap:** 3" (76.2 mm)

**Housing Material:** Aluminum

**Lens Material:** Glass

**Weight:** 4 lb (1.8 kg)

**Housing Seal Rating:** IP64

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