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**TECHSPEC® 118mm Telecentric Backlight Illuminator**



118mm Telecentric Backlight Illuminator, #35-428

Stock **#35-428** **12 In Stock**

⊖ 1 ⊕ **SS\$2,814<sup>00</sup>**

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Volume Pricing	
Qty 1-5	<b>SS\$2,814.00</b> each
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**Note:** This item requires accessories for use | [Learn More](#)

Product Downloads

**General**

Specialty **Type of Illumination:**

Aperture is not adjustable **Note:**

Edmund Optics® **Manufacturer:**

**Geometry:**

## Physical & Mechanical Properties

150.00 **Diameter (mm):**

267.40 **Length (mm):**

8 **Light Mount Inner Diameter (mm):**

## Optical Properties

118 **Beam Diameter (mm):**

## Threading & Mounting

200 **Mounting Flange Diameter (mm):**

## Regulatory Compliance

[View](#) **Certificate of Conformance:**

## Product Details

TECHSPEC® Telecentric Backlight Illuminators use the optical design principal of telecentricity to illuminate objects with truly collimated light and produce high contrast, silhouetted images. Standard backlights are diffuse to avoid hot spots, but these diffuse reflections can also reduce edge contrast. TECHSPEC® Telecentric Backlight Illuminators have collimated light rays (not diffuse) to increase edge contrast, thereby increasing measurement accuracy. Used in combination with a telecentric imaging lens, these illuminators are ideal for machine vision applications that require accurate measurements and are compatible with 8mm coaxial LEDs or 1/4" (0.312") fiber optic light guides.

**Note:** Additional light source and light source power supply required for operation.

- Optically Collimated Light for Increased Edge Contrast
- Superior Collimation Ideal for use with Telecentric Lenses
- Easily Compatible with 8mm Coaxial LEDs or 1/4" (0.312") Fiber Light Guides

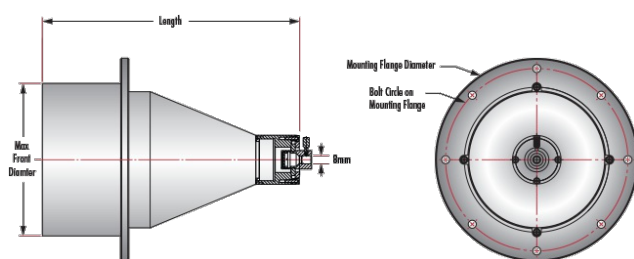
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## Technical Information

- [Why Use Telecentric Illumination?](#)
- [Importance of Numerical Aperture \(NA\) Matching](#)

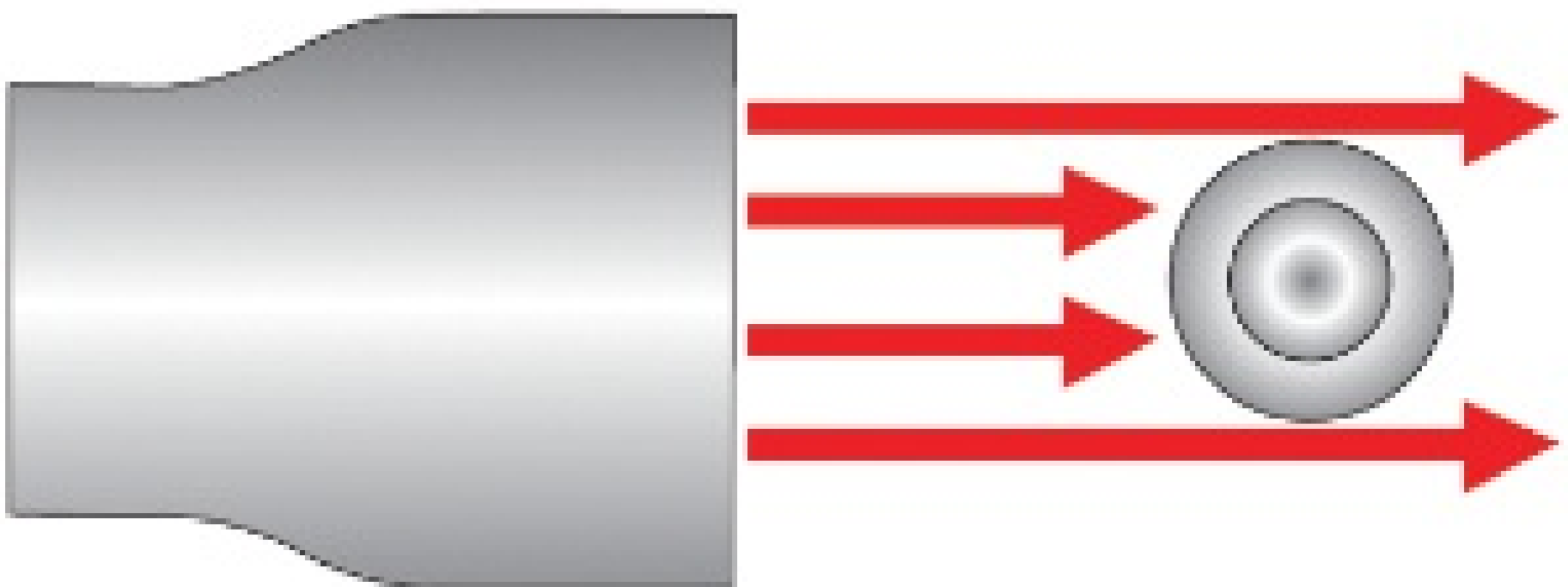
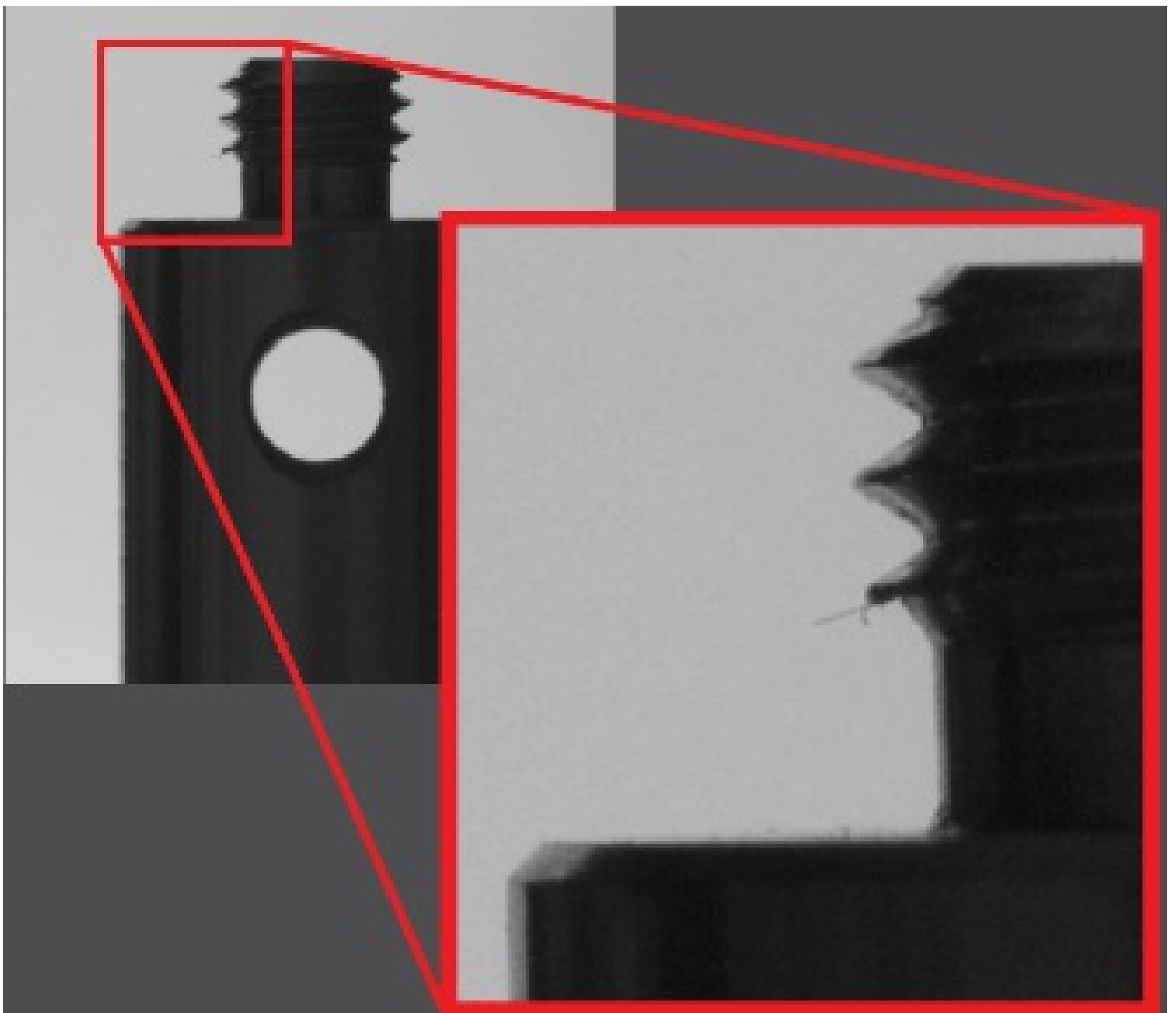
## Technical Information



### WHY USE TELECENTRIC ILLUMINATION?

- Increased edge contrast compared to conventional backlight illumination
- Ideal for precise measurement applications
- Superior detection of small defects, measurement accuracy, and repeatability
- Increased distance between illumination source and object





**Figure 1:** Comparison of the edge contrast achieved using telecentric illumination (left) and conventional backlighting (right). The collimated light rays from the telecentric illuminator lead to a high contrast silhouette while diffuse reflections from the standard backlight lead to blurred edges.

