

# 4X 120mm WD, In-Line Illumination Telecentric Lens



Stock **#59-838** 1 In Stock

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£1,185<sup>75</sup>

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## SPECIFICATIONS

### General

Series:

In-Line Illumination C-Mount Telecentric Lenses

Type:

Telecentric Lens

Compatible Light Guide/Source:

|                                               |                       |
|-----------------------------------------------|-----------------------|
| 1/4" (0.312")                                 | Type of Illumination: |
| In-Line Illumination                          |                       |
| Physical & Mechanical Properties              |                       |
| Length (mm):                                  | 110.00                |
| Ferrule Diameter (inches):                    | 0.312                 |
| Maximum Diameter (mm):                        | 17.0                  |
| Optical Properties                            |                       |
| Horizontal Field of View @ Max Sensor Format: | 2.2mm                 |
| Horizontal Field of View, 2/3" Sensor:        | 2.2mm                 |
| Horizontal Field of View, 1/2" Sensor:        | 1.6mm                 |
| Maximum Image Circle (mm):                    | 11.00                 |
| Primary Magnification PMAG:                   | 4X                    |
| Telecentric Lens Magnification:               | 4.00                  |
| Working Distance (mm):                        | 120.00                |
| Aperture (f/#):                               | f/43.9                |
| Distortion (%):                               | ≤0.1                  |
| Magnification:                                | 4X                    |
| Lens Wavelength Range:                        | VS                    |
| Sensor                                        |                       |
| Maximum Sensor Format:                        | 2/3"                  |
| Pixel Size (µm):                              | 4.20                  |
| Threading & Mounting                          |                       |
| Filter Thread:                                | N/A                   |
| Mount:                                        | C-Mount               |
| Regulatory Compliance                         |                       |
| Certificate of Conformance:                   | <a href="#">View</a>  |

## PRODUCT DETAILS

- Fiber Optic Input for In-line Illumination
- Long Working Distance
- 2/3" Max Sensor Format

This compact series of telecentric lenses offers a versatile solution for many applications. The compact size and long working distance are necessary for some environments. Each lens offers an in-line illumination port that accepts a ¼" fiber optic light guide. In-line illumination is convenient for situations in which there is no room for light sources between the lens and the object under test. Although contrast may decrease compared to other lighting techniques, the 1X through 6X lenses offer extremely even in-line illumination over a 10mm horizontal sensor size. These lenses offer the same measuring advantages as our other telecentric lenses. They correct perspective errors throughout the depth of field to avoid changes in magnification. This correction is vital to the majority of automated measurement applications. M3 set screws are incorporated in the in-line illumination port to secure the light guide. Each lens also includes a lockable ring to rotate the lens and ensure alignment with the camera sensor.

**Note:** ¼" [Fiber optic light guides](#) are sold separately.

## TECHNICAL INFORMATION

| Magnification | A     | B    | C     | D      |
|---------------|-------|------|-------|--------|
| 0.5X          | 170mm | 25mm | 113mm | 40mm   |
| 0.75X         | 160mm | 42mm | 86mm  | 29.5mm |
| 1X            | 137mm | 34mm | 71mm  | 29.5mm |

|    |       |      |      |      |
|----|-------|------|------|------|
| 2X | 110mm | 33mm | 45mm | 17mm |
| 3X | 100mm | 23mm | 45mm | 17mm |
| 4X | 110mm | 33mm | 45mm | 17mm |
| 5X | 115mm | 38mm | 45mm | 17mm |
| 6X | 120mm | 43mm | 45mm | 17mm |

