

3X 120mm WD, In-Line Illumination Telecentric Lens



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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):
100.00	
	Ferrule Diameter (inches):
0.312	

	Maximum Diameter (mm):
17.0	

Optical Properties

	Horizontal Field of View @ Max Sensor Format:
2.9mm	
	Horizontal Field of View, 2/3" Sensor:
2.9mm	

	Horizontal Field of View, 1/2" Sensor:
2.1mm	
	Maximum Image Circle (mm):
11.00	

	Primary Magnification PMAG:
3X	
	Telecentric Lens Magnification:
3.00	

	Working Distance (mm):
120.00	
	Aperture (f/#):
f/36.3	

	Distortion (%):
≤0.1	
	Magnification:
3X	

	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:
View	

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 1/4" 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: 1/4" [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
The diagram shows a vertical mechanical component with several features and dimensions. On the left, a vertical dimension line labeled 'A' spans the total height. A horizontal dimension line labeled '12mm' indicates the thickness of the top flange. A horizontal dimension line labeled '20mm' indicates the thickness of the middle section. On the right, a vertical dimension line labeled 'B' indicates the height of the top flange, and another vertical dimension line labeled 'C' indicates the height of the bottom section. At the bottom, a horizontal dimension line labeled 'D' indicates the width of the base. The component has a central vertical slot and a horizontal slot in the middle section. Dashed lines indicate internal features or hidden edges.				