

Rodagon 80mm FL - Video Lens



Lens + Modular Focus Tube + Machine Vision Camera

Stock **#14-702** **3 In Stock**

⊖ 1 ⊕ **\$794⁰⁰**

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Note: This item requires accessories for use | [Learn More](#)

Product Downloads

General

Product Family:
Rodagon Large Format Lenses

Note:
Requires Leica Lens Adapter M39 x 1/26" [#14-705](#),
Modular Focus Tube [#14-707](#), and a lens mount
adapter ([C-Mount](#), [F-Mount](#), [T-Mount](#), [SLR](#), or [M72](#))

Type:
Fixed Focal Length Lens

Physical & Mechanical Properties

Variable	Iris Option:
44.50	Length (mm):
50.0	Maximum Diameter (mm):
50	Outer Diameter (mm):

Optical Properties

41.9	Field of View @ Min Working Distance (mm):
4.4°	Horizontal Field of View, 1/2" Sensor:
65.00	Maximum Image Circle (mm):
80.00	Focal Length FL (mm):
0.15X	Primary Magnification PMAG:
580 - ∞	Working Distance (mm):
f/4 - f/22	Aperture (f#):
VIS	Lens Wavelength Range:

Sensor

65mm (Image Circle)	Maximum Sensor Format:
7.00	Pixel Size (µm):

Threading & Mounting

M40.5 x 0.50	Filter Thread:
Adapter Required	Mount:

Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

Product Details

- Up to 174mm Image Circle for Line Scan or Area Scan
- C-Mount, F-Mount, T-Mount Lens
- Up to 1.3 MegaPixels or 8k Line Scan, 7µm Pixel Size Sensors
- 35mm to 135mm Focal Length

Originally designed as enlarging lenses, these high-resolution lenses can accommodate 1" format sensors and larger, which makes them a great choice for line scan cameras. This unmatched adaptability, combined with low distortion and constant resolution over the entire viewable field, makes Rodagon lenses optimal for close focus applications for which they consistently yield higher magnifications and better resolution than standard fixed focal length lenses. This makes them ideal for use with high-resolution cameras.

Lenses have M39 x 1/26" base threading. A Leica Lens Adapter ([#14-705](#) for the 35, 50, 60, 80, and 105mm lenses or [#54-126](#) for the 135mm lens) is required and sold separately to allow attachment to the Modular Focus Tube (MFT). The MFT is required for focusing the lens and for connection to standard camera mounts. The MFT does not ship with a camera adapter; camera adapters for [C-Mount](#), [F-Mount](#), [T-Mount \(M42 x 0.75\)](#), [SLR-mount \(M42 x 1.0\)](#), and [M72 x 0.75](#) are available and sold separately. For closer working distances, additional extension tubes can be added (see "Working With Spacers" specification table); values should be used for reference only; choose [#57-791](#) for M72 cameras and [#56-965](#) for all others.

Note: See Technical Image section for spacer length.

Rodagon Modular Focus Tube ([#14-707](#)) and Camera Adapters

To use with a camera, attach a [C-Mount](#), [F-Mount](#), [T-Mount](#), [SLR](#), or [M72](#) adapter (each sold separately) to the [Rodagon Modular Focus Tube](#). Extended range (25mm full stroke) accommodates a range of working distances without requiring spacers. Precision design allows lens to remain centered and unrotatable during focusing. Locking screw included.

Please contact [Applications Engineering](#) for assistance in properly configuring this lens for your application.

Technical Information

Focal Length	25mm of Spacers	50mm of Spacers	75mm of Spacers
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		WD	FOV*	System Mag**	WD	FOV*	System Mag**	WD	FOV*	System Mag**
28mm	min	†			†			†		
	max	†			†			†		
35mm	min	26mm	4mm	66.0X	†			†		
	max	44mm	7.3mm	36.2X	†			†		
50mm	min	78mm	7.4mm	35.7X	56mm	4.7mm	56.2X	†		
	max	155mm	17.3mm	15.3X	77mm	7.4mm	35.7X	†		
60mm	min	153mm	12.7mm	20.8X	99mm	7.0mm	37.7X	78mm	4.9mm	53.9X
	max	655mm	64.7mm	4.1X	153mm	12.7mm	20.8X	99mm	7.0mm	37.7X
80mm	min	580mm	41.9mm	6.3X	226mm	13.9mm	19.0X	156mm	8.3mm	31.8X
	max	∞	4.4°	N/A	580.5mm	41.9mm	6.3X	226mm	13.9mm	19.0X
105mm	min	†			974mm	54.0mm	4.9X	377mm	18.1mm	14.6X
	max	†			∞	3.4°	N/A	974mm	54.0mm	4.9X
135mm	min	†			†			2128mm	95.4mm	2.8X
	max	†			†			∞	2.6°	N/A

*FOV (Field of View) calculated horizontally for 1/2" sensor format

**System Magnification specified for 1/2" sensor format and 13" monitor

† No Image Possible with This Length of Spacers