

## **TECHSPEC® 0.274X In-Line Illumination CobaltTL Telecentric Lens**

#21-069



#21-069: 0.274X In-Line Illumination CobaltTL Telecentric Lens

TECHSPEC® CobaltTL Telecentric Lenses are designed for semiconductor and electronics inspection, measurement, and gauging applications. These telecentric lenses achieve high light throughput with industry leading low  $f/\#$ s. Featuring less than  $0.015^\circ$  telecentricity and low 0.013% distortion, these lenses are ideal for image stitching applications. These 17.6mm diagonal sensor format lenses are compatible with the Sony IMX304 1.1" sensors and other similar format sensors such as the Sony IMX183. TECHSPEC® CobaltTL Telecentric Lenses produce unparalleled levels of contrast yielding maximum image quality with the highest degree of measurement accuracy. In-line versions provide the ability to rotate/reposition the inline illumination port to allow for maximum flexibility when machine building. TECHSPEC® CobaltTL Telecentric Lenses are compatible with high vibration environments and feature a removable recessed set screw for securely locking the iris in place.

Length excluding Threads (mm):	222.50
Flange Distance (mm):	17.5
Coating:	425 - 675nm BBAR
Depth of Field (mm):	±15.59mm at f/10 (20% @ 20 lp/mm)

## Optical

Horizontal Field of View, 1/2" Sensor:	29.20mm
Horizontal Field of View, 2/3" Sensor:	40.14mm
Horizontal Field of View, 1" Sensor:	58.40mm
Numerical Aperture NA, Object Side:	0.027
Horizontal Field of View, 1.1" Sensor:	51.39mm
Horizontal Field of View, 1/1.8" Sensor:	32.85mm
Typical Telecentricity @ 588nm (°):	<0.146
Typical Distortion @ 588nm (%):	<0.037
Primary Magnification PMAG:	0.274X
Maximum Sensor Format:	1.1"
Working Distance (mm):	110
Aperture (f/#):	f/4.5 - f/22
FOV @ Max Sensor Format, H x V (mm):	51.39 x 38.54

## Mechanical

Length (mm):	226.50
Filter Thread:	M77 x 0.75 (Female)
Maximum Diameter (mm):	81.80
Number of Elements (Groups):	10 (7)
Mount:	C-Mount

## General

Stock No. of Mounting Clamp:	<a href="#">#63-441</a> Sold Separately
Type:	Telecentric Lens
Style:	In-Line Illumination



September 08, 2023

To Whom It May Concern,

This document certifies that the product stated below has been reviewed as requested by Edmund Optics:

<i>Stock No.</i>	<i>Description</i>
21-069	0.274X In-Line Illumination CobaltTL Telecentric Lens

This item is EU RoHS (2015/863/EU) compliant without the use of exemptions.

This certification means that:

- EO's suppliers have confirmed the material composition of this product.
- EO has implemented rigorous procedures to document this compliance.
- The information provided may, or may not, be based upon actual test data, or on information from our Vendors, Raw Material Suppliers or Subcontractors.



Jay Budd, Director of Corporate Compliance  
September 08, 2023

Edmund Optics Inc. - 101 E Gloucester Pike, Barrington, NJ 08007 | 1-800-363-1992 | [Compliance@edmundoptics.com](mailto:Compliance@edmundoptics.com)



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<i>Stock No.</i>	<i>Description</i>
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Edmund Optics certifies that all articles included in this shipment are in compliance with the terms and conditions of this order. The company also certifies that the articles included in this shipment are in accordance to all agreed upon specifications and quality assurance provisions. Please call 1-800-363-1992 should any questions arise from this shipment.



Jeff Harvey- EVP of Operations



September 08, 2023

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This item does not contain any of the substances listed on the Reach SVHC list as of 17 January 2023 in quantities exceeding 0.1% weight by weight.

Please note the following:

- Entry 11 of Annex V of the REACH regulation as amended by regulation 987/2008, exempts “non-hazardous” glass components from registration.
- Items considered to be packing materials and which do not form part of, or are not required for the operation of, the product, are not considered to be within scope of this declaration.
- EO does not routinely analyze products for substances not purposely added or specified within the design specifications, drawings and assembly procedures.

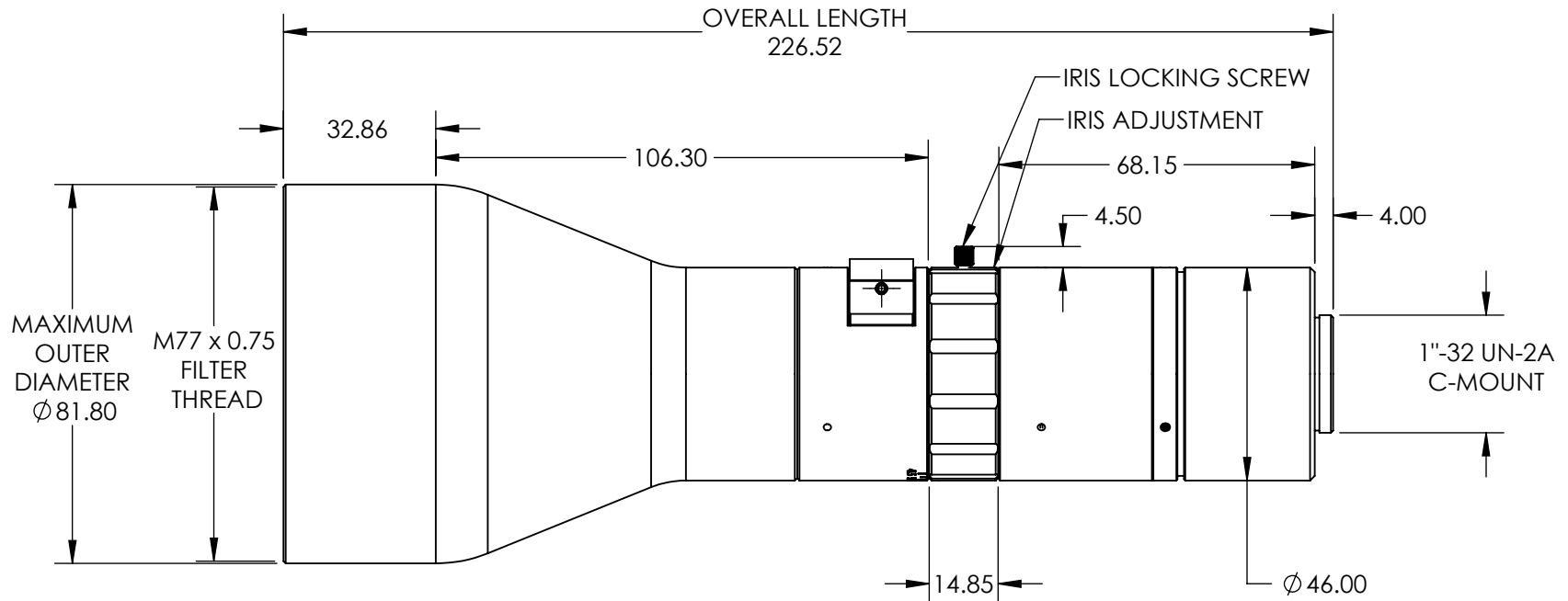
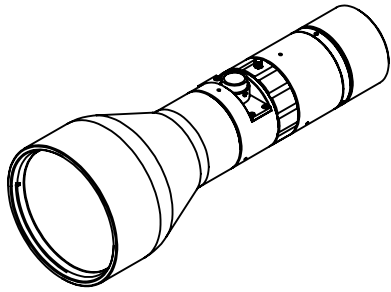
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Jay Budd, Director of Corporate Compliance  
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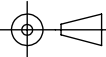
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THIRD ANGLE PROJECTION 		TITLE	0.247X In-Line Illumination CobaltTL Telecentric Lens	
ALL DIMS IN	mm	DWG NO	21069	SHEET 1 OF 1