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50X T0.7 Mitutoyo LCD Plan Apo NIR Infinity Corrected Objective

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50XT0.7 Mitutoyo LCD Plan Apo NIR Infinity Corrected Objective

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⊖ 1 ⊕ £5,272⁰⁰

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General

378-829-17 **Model Number:**

Compatible Tube Lens Focal Length (mm):
Focal Length: 200mm

Microscope Objective **Type:**

Infinity Corrected **Style:**

Mtutoyo **Manufacturer:**

Note:
0.7mm thick LCD cover-glass Example Application:
High magnification inspection through liquid crystal
glass (LCD) or cutting and trimming of
semiconductor wafer and circuits

Physical & Mechanical Properties

Length excluding Threads (mm):
78.04

Maximum Diameter (mm):
34

Weight (g):
320.00

Optical Properties

Compatible Cover Glass Thickness (mm):
0.7

Design Wavelength DWL (nm):
532, 1064

Horizontal Field of View, 1/2" Sensor:
Not Listed

Horizontal Field of View, 2/3" Sensor:
0.18mm

Focal Length FL (mm):
4.00

Magnification:
50X

Numerical Aperture NA:
0.42

Resolving Power (μm):
0.7

Depth of Field (μm):
1.60

Field of View, 24 Diameter Field Eyepiece (mm):
0.48

Working Distance (mm):
17.26

Wavelength Range (nm):
480 - 1800

Parfocal Length (mm):
95.24

Immersion Liquid:
N/A

Sensor

Maximum Sensor Format:
2/3"

Threading & Mounting

Mounting Threads:
M26 x 36 TPI

Environmental & Durability Factors

Operating Temperature ($^{\circ}\text{C}$):
-5 to +45

Operating Humidity:
20 - 80%

Performance Assurance Temperature ($^{\circ}\text{C}$):
23 \pm 2

Regulatory Compliance

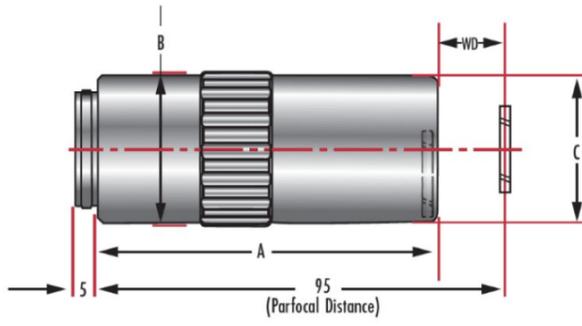
Certificate of Conformance:
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Product Details

- Ideal for Brightfield Imaging and Laser-Based Applications through LCD Glass
- Excellent Performance at Nd:YAG Laser Lines
- Compensate for Cover-Glass Thickness of 0.7mm or 1.1mm

Mtutoyo NIR, NUV, and UV LCD Infinity Corrected Objectives combine the benefits of the standard MPlan Apo and MPlan Apo SL series objectives with enhanced spectral ranges. The NIR objectives are corrected from 480 to 1800nm, making them ideal for semiconductor and telecommunication inspection, or for laser cutting with common Nd:YAG lasers. The HR series offers an increased numerical aperture, providing smaller spot sizes and higher resolution. Mtutoyo NIR, NUV, and UV LCD Infinity Corrected Objectives compensate for common LCD glass thicknesses. The NUV and UV series of objectives have excellent performance at the second, third, and fourth Nd:YAG harmonics of 532nm, 355nm, and 266nm respectively.

Technical Information



Units: mm

Dimensions				
M Plan NIR	A (mm)	B (mm)	C (mm)	W.D. (mm)
20X, T0.7	75.00	34	32.2	20.0
20X, T1.1	75.02	34	32.2	19.98
50X, T0.7	78.04	34	32.2	17.26
50X, T0.7 HR	77.74	34	32.2	9.60
50X, T1.1	77.87	34	32.2	17.13
100X	82.94	34	32.2	12.06
HR 100X	85.13	39	37	9.87
M Plan NUV	A (mm)	B (mm)	C (mm)	W.D. (mm)
20X, T0.7	78	34	32.2	16.96
50X, T0.7	80	34	32.2	14.76
100X, T1.1	83.97	34	32.2	11.03
M Plan UV	A (mm)	B (mm)	C (mm)	W.D. (mm)
20X, T0.7	80	34	32.2	14.98
50X, T0.7	83	34	32.2	12.38