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20X Mitutoyo Plan Apo NIR B Infinity Corrected Objective

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20X Mitutoyo Plan Apo NIR B Infinity Corrected Objective, #89-350

Stock **#89-350** **1 In Stock**

⊖ 1 ⊕ €5.630⁰⁰

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Product Downloads

General

378-867-5 **Model Number:**

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

Microscope Objective **Type:**

Infinity Corrected **Style:**

Mtutoyo **Manufacturer:**

Note:
Enhanced transmission for the fundamental and second harmonic of Nd:YAG laser (1064nm and 532nm). Example Application: cutting and trimming of semiconductor wafer and circuits

Physical & Mechanical Properties

69.50 **Length excluding Threads (mm):**

37 **Maximum Diameter (mm):**

300.00 **Weight (g):**

Optical Properties

N/A **Compatible Cover Glass Thickness (mm):**

532, 1064 **Design Wavelength DWL (nm):**

0.32mm **Horizontal Field of View, 1/2" Sensor:**

0.44mm **Horizontal Field of View, 2/3" Sensor:**

10.00 **Focal Length FL (mm):**

20X **Magnification:**

0.40 **Numerical Aperture NA:**

0.7 **Resolving Power (μm):**

1.70 **Depth of Field (μm):**

1.2 **Field of View, 24 Diameter Field Eyepiece (mm):**

0.9 **Field of View, 18 Diameter Field Eyepiece (mm):**

25.5 **Working Distance (mm):**

420 - 1064 **Wavelength Range (nm):**

95 **Parfocal Length (mm):**

N/A **Immersion Liquid:**

Sensor

2/3" **Maximum Sensor Format:**

Threading & Mounting

M26 x 36 TPI **Mounting Threads:**

Environmental & Durability Factors

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

20 - 80% **Operating Humidity:**

Regulatory Compliance

[Exempt](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

[Contains SVHC\(s\)](#) **REACH 241:**

Product Details

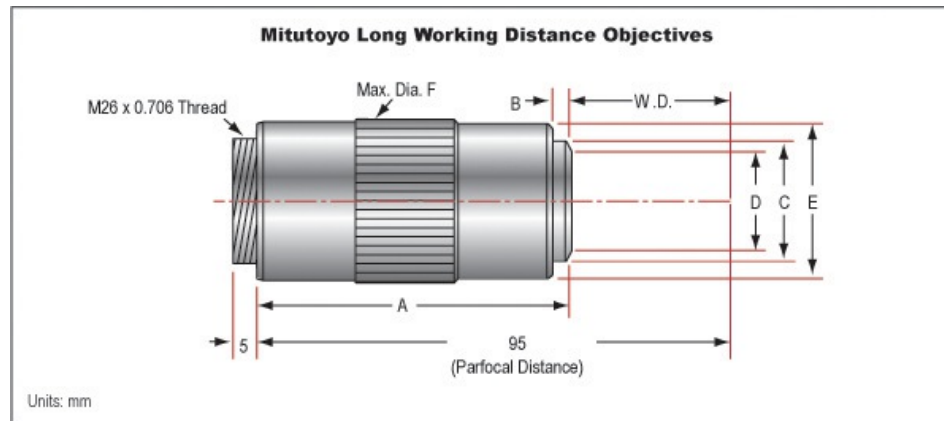
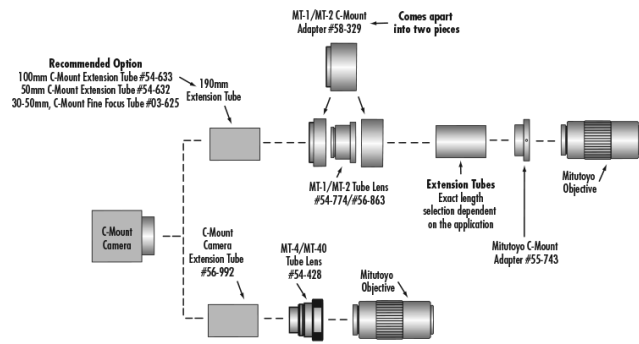
- Ideal for Bright Field Imaging in UV, Visible, and NIR Spectral Regions
- Excellent Performance at Nd:YAG Laser Lines
- Broad Spectral Ranges

Mitutoyo NIR, NUV, and UV Infinity Corrected Objectives combine the benefits of the standard [M Plan Apo](#) and [M Plan Apo SL series objectives](#) with enhanced spectral ranges. The NIR objectives are corrected from 480 to 1800nm and feature enhanced transmission of the fundamental and second harmonic of Nd:YAG lasers for laser cutting applications. The NUV and UV series of objectives also have excellent performance at the second, third, and fourth Nd:YAG harmonics of 532nm, 355nm, and 266nm respectively. Mitutoyo NIR, NUV, and UV Infinity Corrected Objectives are ideal for applications that require a significant distance between the objective lens and the object such as semiconductor inspection, machine vision, and defect detection. The HR series offers an increased numerical aperture, providing smaller spot sizes and higher resolution.

Accessory Tube Lenses

[Accessory Tube Lenses](#) and [C-Mount Thread Adapters](#) can be used to adapt the Mitutoyo objectives to additional configurations.

Technical Information



| Dimensions (mm) | | | | | | | | |
|-----------------|------------|-------|------|-------|-------|-------|-------|-------|
| Stock No. | M Plan NIR | A | B | C | D | E | F | W.D. |
| #46-402 | 5XNIR | 57.50 | - | 23.80 | 23.00 | 32.20 | 34.00 | 37.50 |
| #46-403 | 10XNIR | 64.50 | 1.00 | 25.20 | 24.80 | 32.20 | 34.00 | 30.50 |
| #46-404 | 20XNIR | 75.00 | - | - | - | 32.20 | 34.00 | 20.00 |
| #46-405 | 50XNIR | 78.00 | - | - | - | 32.20 | 34.00 | 17.00 |
| #46-406 | 100XNIR | 83.00 | - | 25.00 | 24.60 | 32.20 | 34.00 | 12.00 |
| #56-982 | 50XNIR HR | 85.00 | - | - | - | 37.00 | 39.00 | 10.00 |
| #56-983 | 100XNIR HR | 85.00 | - | - | - | 37.00 | 39.00 | 10.00 |
| #89-350 | 20XNIR B | 69.50 | - | - | - | 37.00 | 37.00 | 25.50 |
| #89-351 | 50XNIR B | 69.50 | - | - | - | 37.00 | 37.00 | 25.50 |
| #37-550* | 20XNIR LCD | 75.02 | - | - | - | 32.20 | 34.00 | 20.35 |
| Stock No. | M Plan NUV | A | B | C | D | E | F | W.D. |
| #86-176 | 10XNUV | 64.50 | - | 25.20 | 24.80 | 32.20 | 34.00 | 30.50 |
| #46-407 | 20XNUV | 78.00 | - | - | - | 32.20 | 34.00 | 17.00 |
| #46-408 | 50XNUV | 80.00 | - | - | - | 32.20 | 34.00 | 15.00 |
| #46-409 | 100XNUV | 84.00 | 1.80 | 25.00 | 24.00 | 32.20 | 34.00 | 11.00 |
| #86-177 | 50XNUVHR | 85.00 | - | - | - | 37.00 | 39.00 | 10.00 |
| Stock No. | M Plan UV | A | B | C | D | E | F | W.D. |
| #86-175 | 10XUV | 75.00 | - | - | - | 32.20 | 34.00 | 20.00 |
| #56-320 | 20XUV | 80.00 | - | - | - | 32.20 | 34.00 | 15.00 |
| #56-321 | 50XUV | 83.00 | - | - | - | 32.20 | 34.00 | 12.00 |
| #56-322 | 80XUV | 85.00 | - | 22.70 | - | 32.20 | 34.00 | 10.00 |

*LCD 20X parafocal length is 95.37