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# 10X Mitutoyo BD Plan Apo Objective

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Mitutoyo Brightfield and Darkfield (BD) Infinity Corrected Objectives

Stock **#18-405** **1 In Stock**

1  C\$2,030<sup>00</sup>

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## Product Downloads

### General

**Model Number:**  
378-833-7

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

**Type:**  
Microscope Objective

**Style:**  
Infinity Corrected

**Manufacturer:**

**Note:**

#18-653 or #18-652 are required for darkfield operation.

## Physical & Mechanical Properties

Length excluding Threads (mm):

61.00

Maximum Diameter (mm):

44

Weight (g):

350

## Optical Properties

Compatible Cover Glass Thickness (mm):

N/A

Focal Length FL (mm):

20.00

Magnification:

10X

Numerical Aperture NA:

0.28

Resolving Power ( $\mu\text{m}$ ):

1

Depth of Field ( $\mu\text{m}$ ):

3.50

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

2.4

Working Distance (mm):

34

Wavelength Range (nm):

435 - 655

Parfocal Length (mm):

95

Immersion Liquid:

N/A

## Sensor

Maximum Sensor Format:

2/3"

## Threading & Mounting

Mounting Threads:

M40 x 36 TPI

## Environmental & Durability Factors

Operating Temperature ( $^{\circ}\text{C}$ ):

+5 to +40

## Regulatory Compliance

RoHS 2015:

[Exempt](#)

Certificate of Conformance:

[View](#)

REACH 241:

[Contains SVHC\(s\)](#)

## Product Details

- Ideal for Brightfield and Darkfield Microscopy Applications
- Long Working Distances and High Numerical Apertures
- Plan Achromat Design

Mitutoyo Brightfield and Darkfield (BD) Infinity Corrected Objectives offer long working distances with high numerical apertures. The high-quality plan apochromatic design allows these objectives to maintain high numerical apertures and contrast while correcting chromatic aberration in the visible wavelength region. These objectives feature M40 x 36 TPI mounting threads. Mitutoyo Brightfield and Darkfield (BD) Infinity Corrected Objectives are optimized for both brightfield and darkfield illumination for applications including surface inspection and advanced life science microscopy.

## Technical Information

Mitutoyo BD Plan Apo Objectives  
Typical Transmission



Stock No.	BD Plan Apo	A	B	C	D	E	F	W.D.
#18-402	2X	61.0	4.0	40.0	37.0	42.0	44.0	34.0
#18-403	5X	61.0	4.0	40.0	37.0	42.0	44.0	34.0
#18-404	7.5X	61.0	4.0	40.0	37.0	42.0	44.0	34.0
#18-405	10X	61.0	4.0	40.0	37.0	42.0	44.0	34.0
#18-406	20X	75.0	7.0	40.0	32.0	42.0	44.0	20.0
#18-407	50X	82.0	8.5	40.0	32.0	42.0	44.0	13.0
#18-408	100X	89.0	10.0	40.0	31.5	42.0	44.0	6.0
Stock No.	BD Plan Apo SL	A	B	C	D	E	F	W.D.
#18-409	20XSL	64.5	7.5	40.0	31.0	42.0	44.0	30.5
#18-410	50XSL	75.0	7.0	40.0	32.0	42.0	44.0	20.0
Stock No.	BD Plan APO HR	A	B	C	D	E	F	W.D.
#18-411	50XHR	89.9	4.8	40.0	32.0	42.0	44.0	5.2
#18-412	100XHR	93.7	4.7	40.0	32.0	42.0	44.0	1.3



Units: mm