QIOPTIQ
Photonics for Innovation
An Excelitas Technologies Company

Optem® Long Working Distance
Infinity-Corrected Objectives

With a generous parfocal distance of 95mm[a], Optem Long Working Distance Objectives are the perfect machine vision and industrial imaging solution when you need added magnification and resolving power without compromising working space around your subject.

Select from the complete line of Optem M Plan APO Objectives when flat-field precision, color accuracy and even illumination are critical... ideal for metrology! The re-engineered Optem M Plan APO Objectives introduce a novel optical design optimized to meet the apochromatic flat-field demands of large-format sensors and advanced image processing techniques.

Alternatively, leverage a 50% boost in numerical aperture with the field-proven imaging power of Optem High-Resolution Objectives, designed for use with Optem Zoom Products. All Optem Objectives afford a 95mm parfocal distance as measured from the shoulder to the object plane and feature M26x36T threads.

Optem LWD Infinity-Corrected Objectives

- 28-21-50-001*..... 50X M Plan APO, LWD
- 28-21-11-001*..... 20X M Plan APO, LWD
- 28-21-10-000..... 10X M Plan APO, LWD
- 28-21-05-001*..... 5X M Plan APO, LWD
- 28-21-02-001*..... 2X M Plan APO, LWD

- 28-20-46-000..... 20X High-Resolution, LWD
- 28-20-45-000..... 10X High-Resolution, LWD
- 28-20-44-000..... 5X High-Resolution, LWD

[a] Parfocal distance measured from the objective shoulder to the object plane

Maximize your working space...

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TECHNICAL SPECIFICATIONS

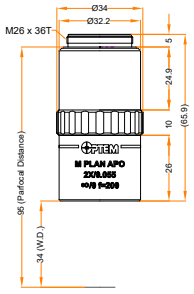
Optem Long Working Distance, Infinity-Corrected Objectives

Optem M Plan APO Objectives

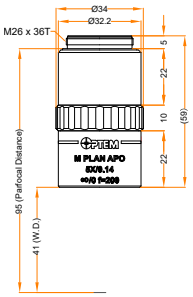
Realize flat-field precision that is free of chromatic aberration when imaging accuracy really counts. Optem M Plan Apo Objectives feature M26x36T threads and are optimized for use with Optem Micro-Inspection Lenses, A-Zoom® & A-Zoom µ Probing Microscopes and a range of popular industrial inspection and semiconductor microscopes. Optem M Plan APO Objectives are a parallel replacement for Mitutoyo 378 Series objectives.

Cat. No.	Objective Description	Numerical Aperture	Working Distance	EFL (mm)	Resolution (µm)	DOF (µm)	Real FOV (mm) (Ø24 eyepiece)	Real FOV (VxH, mm) (1/2" Sensor)	Mass (g)
28-21-02-001	LWD 2X	0.055	34mm	100	6.1	181.8	ø12.00	2.40 x 0.3.2	233
28-21-05-001	LWD 5X	0.14	41mm	40	2.4	28.1	ø4.80	0.96 x 0.1.28	220
28-21-10-000	LWD 10X	0.30	34mm	20	1.1	6.1	ø2.40	0.48 x 0.64	240
28-21-11-001	LWD 20X	0.42	20mm	10	0.8	3.1	ø1.20	0.24 x 0.32	284
28-21-50-001	LWD 50X	0.55	13mm	4	0.61	1.8	ø0.48	0.10 x 0.13	299

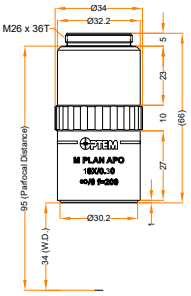
M Plan APO 2X
28-21-02-001



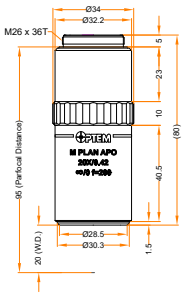
M Plan APO 5X
28-21-05-001



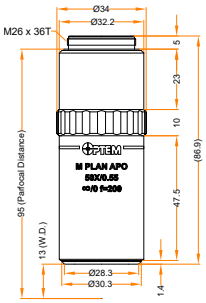
M Plan APO 10X
28-21-10-000



M Plan APO 20X
28-21-11-001



M Plan APO 50X
28-21-50-001



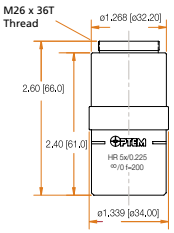
Optem High-Resolution Objectives

Optem High-Resolution Objectives are specifically designed for use with Optem zoom modules, including the A-Zoom and A-Zoom µ Microscopes[b]. These High-Resolution Objectives are the ideal solution for high-end imaging applications where extremely fine detail and edge distinction is critical.

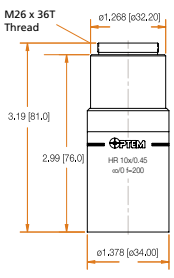
Cat. No.	Objective Description	Numerical Aperture	Working Distance	EFL (mm)	Resolution (µm)	DOF (µm)	Real FOV (mm) (Ø24 eyepiece)	Real FOV (VxH, mm) (1/2" Sensor)	Mass (g)
28-20-44-000	High-Res 5X	0.225	34mm	40	1.5	10.9	N/A[b]	N/A	210
28-20-45-000	High-Res 10X	0.45	19mm	20	0.74	2.7	N/A[b]	N/A	190
28-20-46-000	High-Res 20X	0.60	13mm	10	0.56	1.5	N/A[b]	N/A	290

[b]Optem High-Resolution Objectives are specifically designed for use with Optem Lens Systems. Not intended for use with conventional microscope optics.

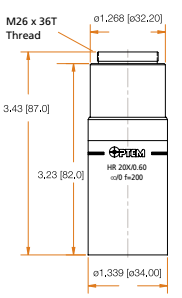
High-Resolution 5X
28-20-44-000



High-Resolution 10X
28-20-45-000



High-Resolution 20X
28-20-46-000



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