

NEW Ultra-violet Objective Lenses | UVOL

RoHS

This objective lens can be used for laser machining using pulsed laser of THG (355nm), YAG laser or FHG (266nm) YAG. Chromatic aberration is suppressed in both the visible and UV laser wavelength, achieving a high transmittance.

- With its long working distance and field curvature corrected, its natural observation image is obtained to the periphery of the visual field.
- It is the long working infinity correction function that is used to introduce a laser system and coaxial observation.
- It is also used for the observation of near ultra-violet light.



Guide

- ▶ Available for fixed objective lens holder (OLH-20.32, OLH-26)
Reference ▶ D033
- ▶ When the objective lens is fixed to a 2 axis holder, please consult our International Sales Division.
- ▶ For laser processing, it is available in dichoric block (DIMC) and for laser unit with coaxial illumination and observation (OUCI-2).
Reference ▶ B014

Attention

- ▶ When an objective lens is used in laser processing, use the diameter of the incident beam to extend to a size of half the pupil diameter ($1/e^2$). A small light spot cannot be achieved when the incident beam is too narrow. Please note if there is a laser energy density increase, there will be a high possibility of damage to the objective lens.
- ▶ The surface of an objective lens can be contaminated by splashes during processing. To avoid this, please have sufficient working distance (WD) and insert a thin protective glass on the objective.
- ▶ Magnification is the value when using the imaging lens $f=200\text{mm}$. When used in a microscope lens barrel from other manufacturers may have different magnifications. The actual magnification should be calculated from the ratio of the focal length of the objective lens and the focal length of the imaging lens to verify the focal length of the imaging lens barrel to be used.

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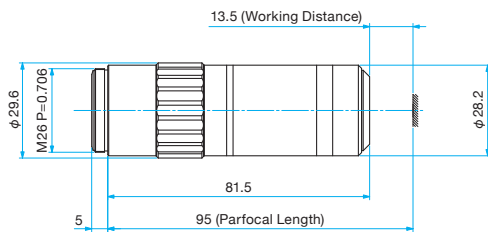
Substrates & Windows

Holder & Vibration isolator

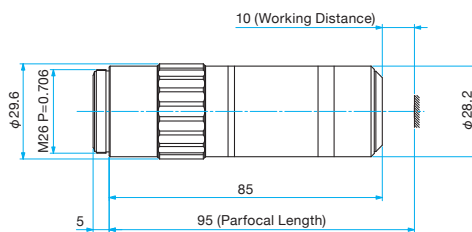
Outline Drawing

(in mm)

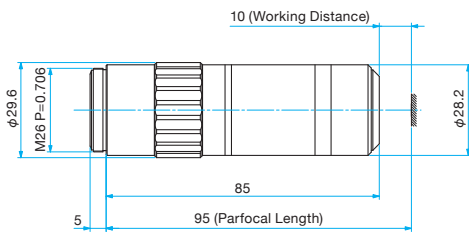
UVOL-10-UV-YSF/NPAL-10-NUV-YST



UVOL-20-UV-YSF/NPAL-20-NUV-YST



UVOL-50-UV-YSF/NPAL-50-NUV-YST



Compatible Optic Mounts

OLH-26

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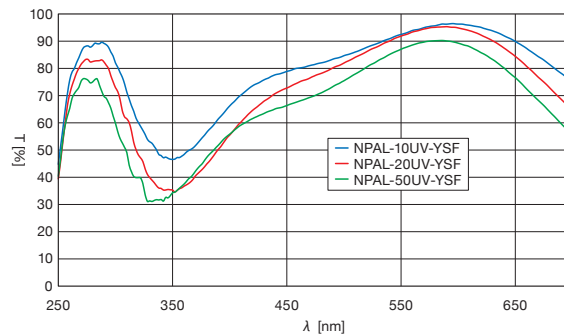
Substrates & Windows

Holder & Vibration Isolator

266nm									
Part Number	Magnification	Numerical aperture (NA)	Working distance (WD) [mm]	Focal length f [mm]	Resolution ($\lambda=546.1\text{nm}$) [μm]	Focal depth ($\lambda=546.1\text{nm}$) [μm]	Pupil diameter [mm]	Imaging device field of view (1/2-inch) [mm]	Weight [kg]
UVOL-10-UV-YSF	10	0.2	13.5	20	1.4	± 6.9	8.0	0.48x0.64	0.30
UVOL-20-UV-YSF	20	0.36	10	10	0.8	± 2.1	7.2	0.24x0.32	0.32
UVOL-50-UV-YSF	50	0.42	10	4	0.7	± 1.6	3.4	0.10x0.13	0.32

Typical Transmittance Data T: Transmission

UVOL-UV-YSF



355nm									
Part Number	Magnification	Numerical aperture (NA)	Working distance (WD) [mm]	Focal length f [mm]	Resolution ($\lambda=546.1\text{nm}$) [μm]	Focal depth ($\lambda=546.1\text{nm}$) [μm]	Pupil diameter [mm]	Imaging device field of view (1/2-inch) [mm]	Weight [kg]
UVOL-10-NUV-YST	10	0.2	13.5	20	1.4	± 6.9	8.0	0.48x0.64	0.30
UVOL-20-NUV-YST	20	0.36	10	10	0.8	± 2.1	7.2	0.24x0.32	0.32
UVOL-50-NUV-YST	50	0.42	10	4	0.7	± 1.6	3.4	0.10x0.13	0.32

Typical Transmittance Data T: Transmission

UVOL-NUV-YST

