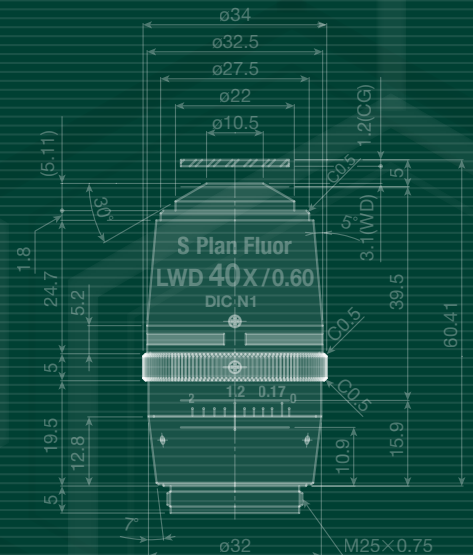
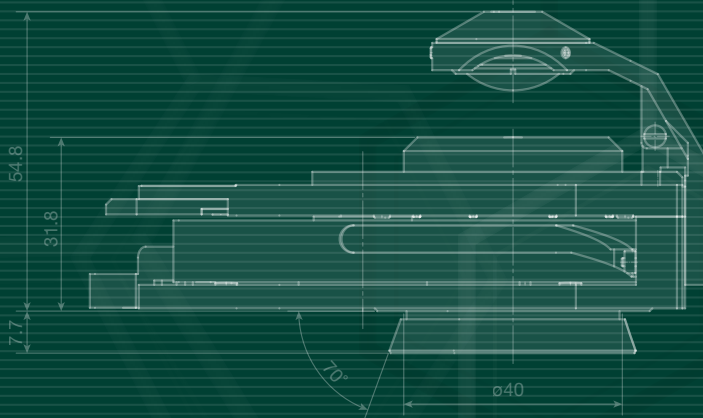
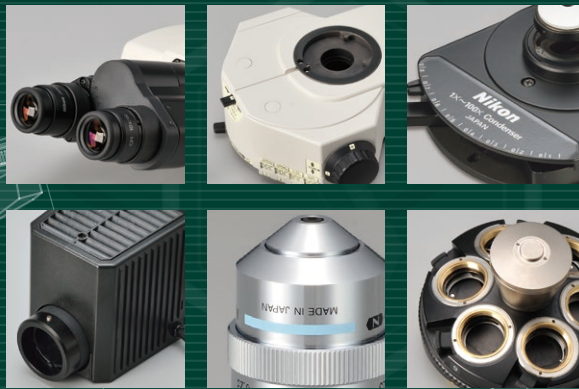


# Microscope Components for Fluorescence Illumination and Transmitted Light Applications





**For experimental equipment and inspection systems for biomedical research,  
the optical performance of Nikon's microscope units is always outstanding**

Nikon's biological microscope units, including objective lenses and eyepiece tubes,  
provide high precision and superior operability.

Excellent optical performance through high resolution and aberration correction,  
make them optimal for both image acquisition and observation.

This catalog presents the technical data for microscope units that are integrated with a variety of  
equipment for biomedical research and testing.

## Contents

System Diagram	4
CFI60 Objectives	
CFI Achromat Series for Brightfield/Phase Contrast (DL)/Apodized Phase Contrast (ADL)	10
CFI Plan Achromat Series for Brightfield/Phase Contrast (DL)	12
CFI Plan Fluor Series for Brightfield/Phase Contrast (DLL)/Apodized Phase Contrast (ADH)	14
CFI Plan Fluor Series for Phase Contrast (DL)	15
CFI S Plan Fluor Series for Brightfield/Apodized Phase Contrast (ADM/ADL)	16
CFI Plan Apochromat Lambda Series for Brightfield/Phase Contrast (DM)	17
CFI Plan Apochromat VC Series	19
CFI Plan Apochromat IR Lens	19
CFI Apochromat TIRF Series	20
CFI SR/HP/SR HP Series	21
CFI Apochromat Lambda S Series	22
CFI Super Fluor Series	23
Water Dipping Series	24
Nikon Advanced Modulation Contrast (NAMC) Series	26
No Cover Glass Objective Lenses	27
Multi-Immersion Objective for Brightfield	27
CFI Tube Lens Unit	28
Condenser	30
Eyepiece	32
Eyepiece Tube	33
Fluorescence Cube Turret and Fluorescence Module	38
Fluorescence Illumination	45
Diascopic Illumination	46
Intermediate Module	52
Contact Arm	53
Nosepiece	54
Camera Adapter	57
Main Body and Control Box	60
Main Body and Accessory for Stereo Microscope	67

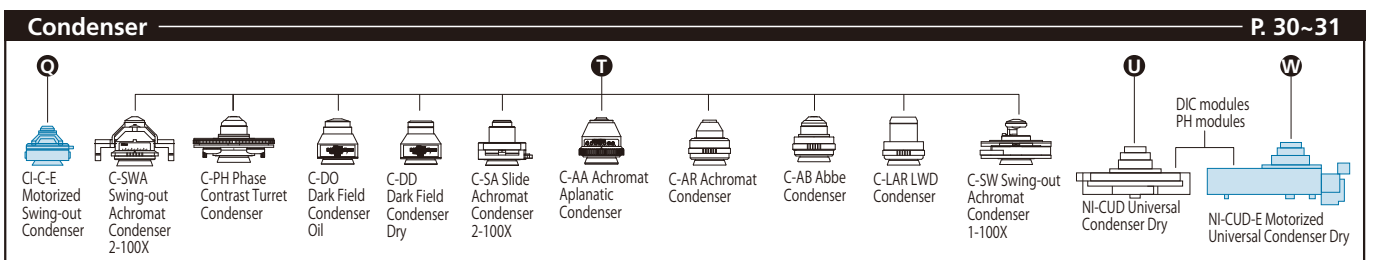
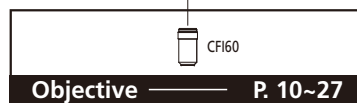
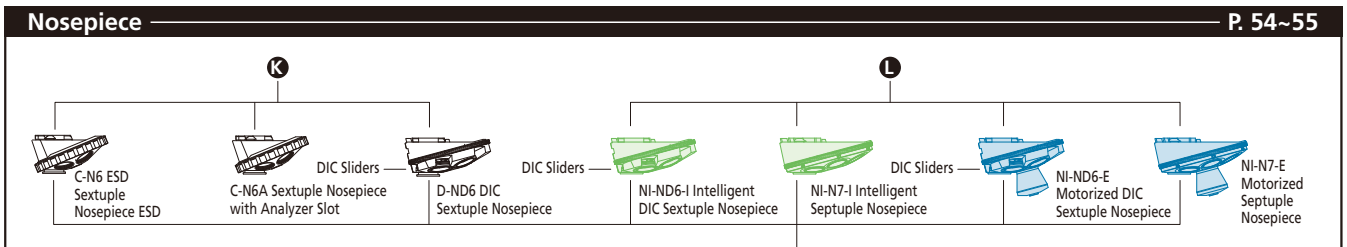
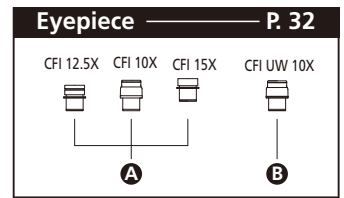
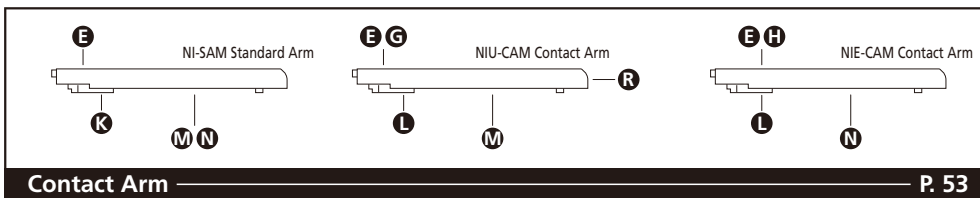
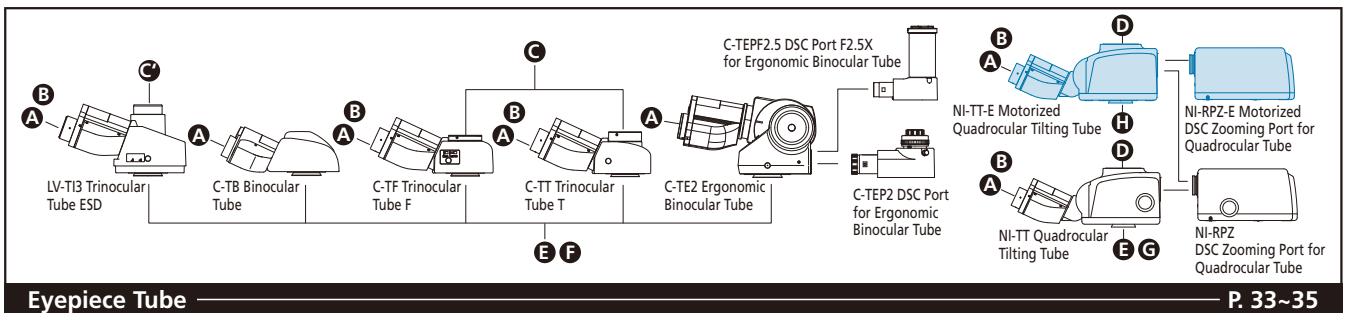
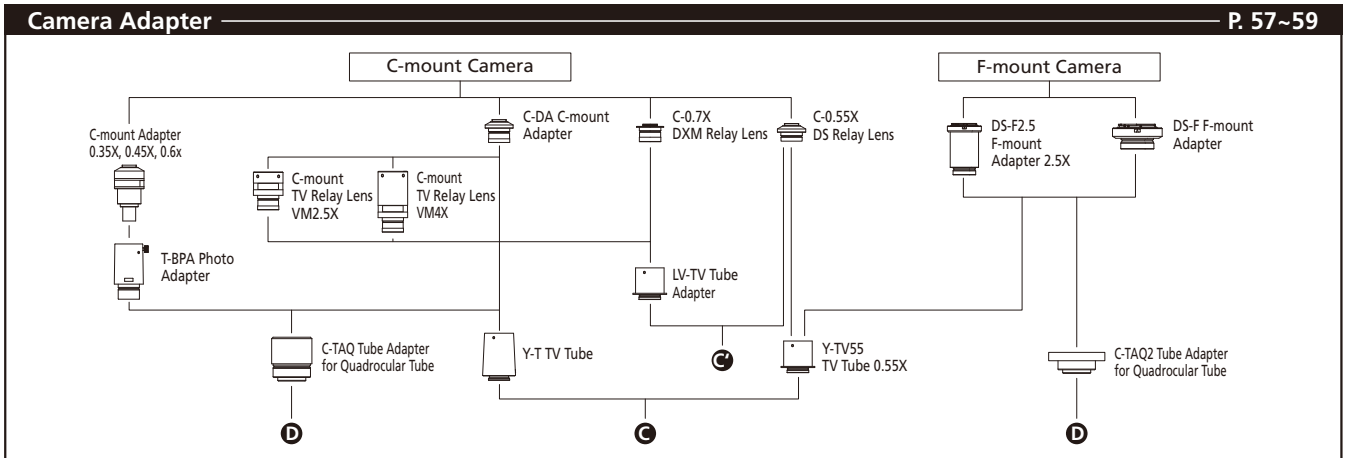
For information about the optical values of objectives and the dimensions of units and modules that are not included in this brochure, please contact Nikon.

# System Diagram

## System diagram for Upright Microscope ECLIPSE Ni/Ci

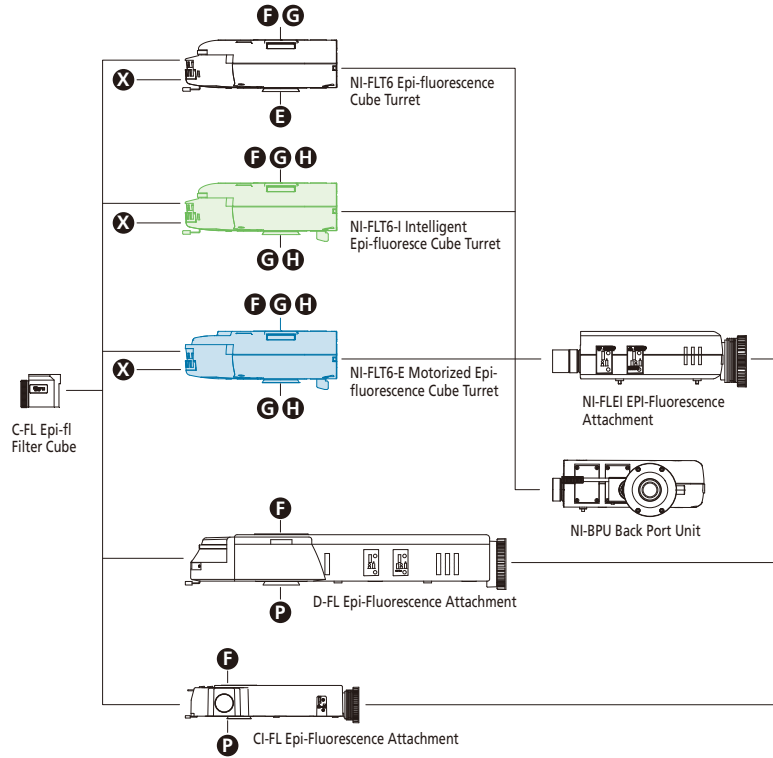
Motorized accessories (with status detection function)

Accessories with status detection function



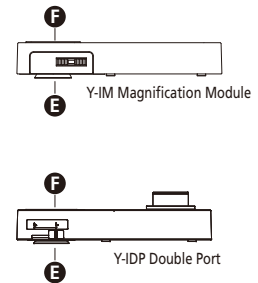
**Fluorescence Cube Turret and Module**

**P. 38~39**



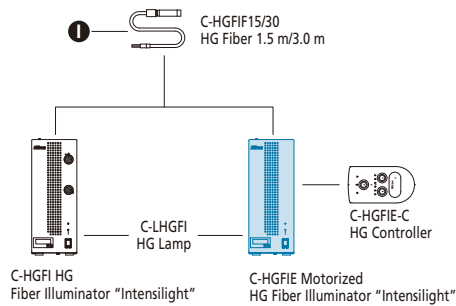
**Intermediate Module**

**P. 52**



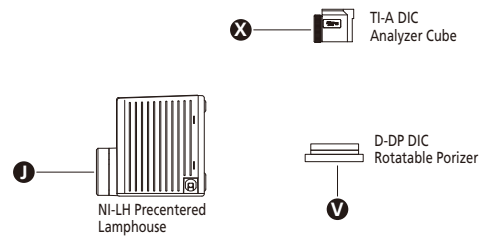
**Fluorescence Illumination**

**P. 45**



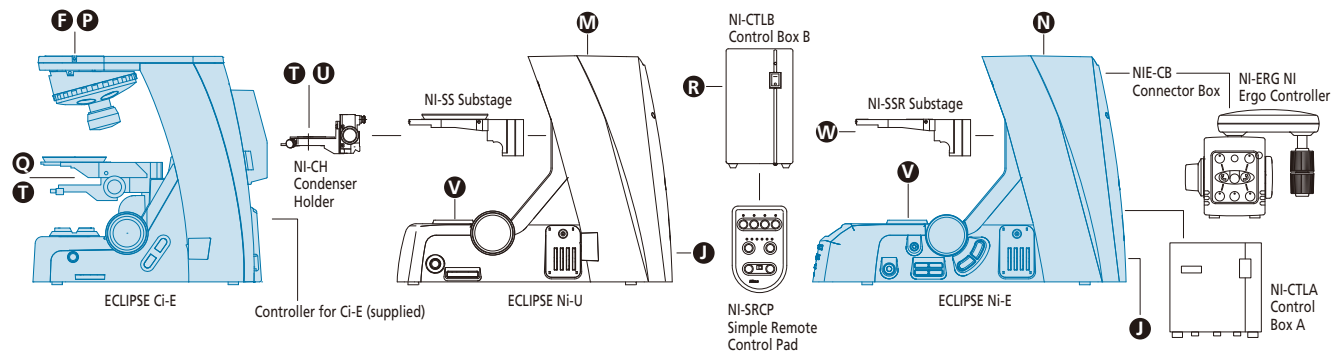
**Diascopic Illumination**

**P. 46**



**Main Body and Control Box**

**P. 60~64**



# System Diagram

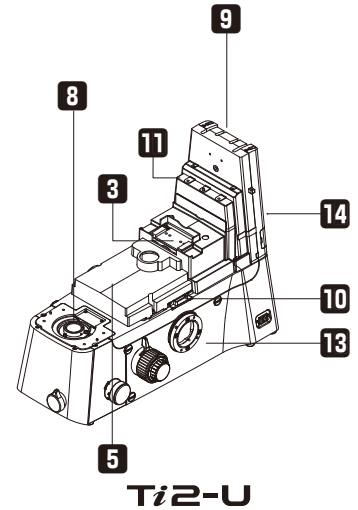
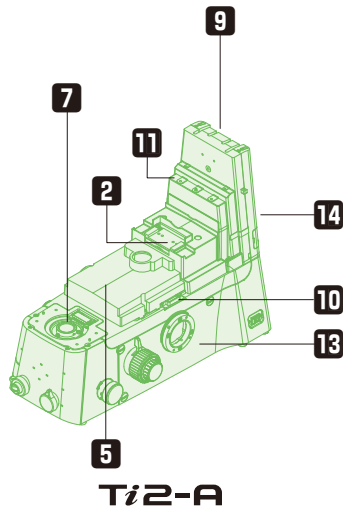
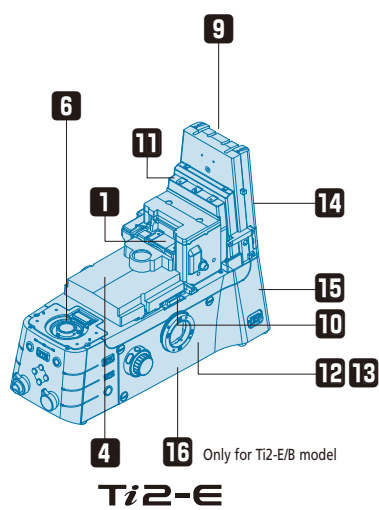
## System diagram for Inverted Microscope ECLIPSE Ti2

Motorized accessories (with status detection function)

Accessories with status detection function

### Main Body and Control Box

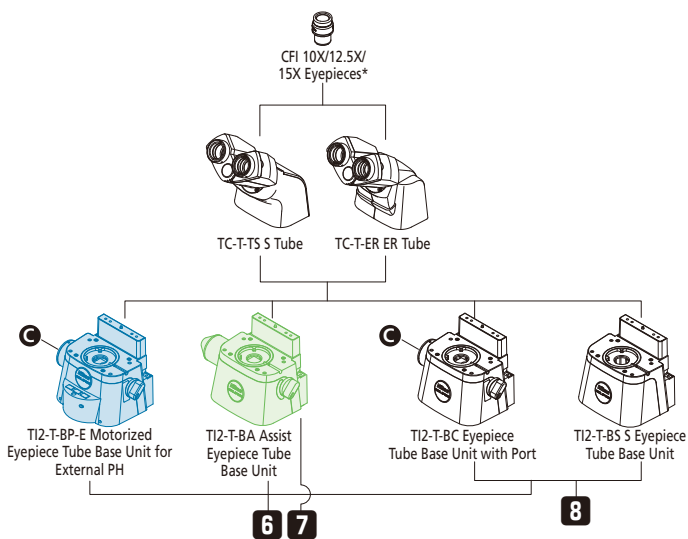
P. 65~66



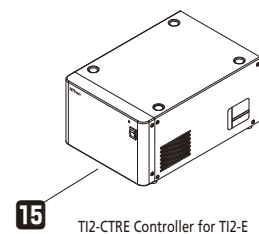
\* Illustrations show configurations with a side port

### Eyepiece and Eyepiece Tube

P. 36~37

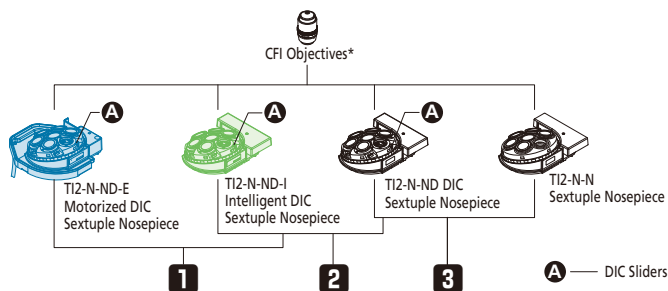


\*See page 32



### Nosepiece

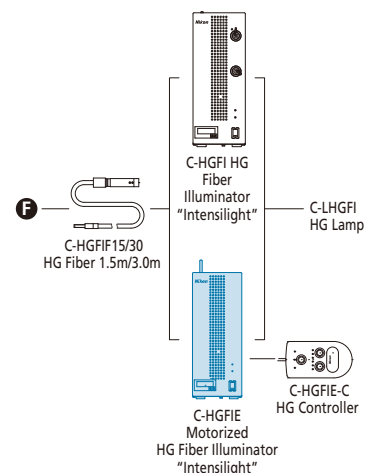
P. 56



\*See page 10~27

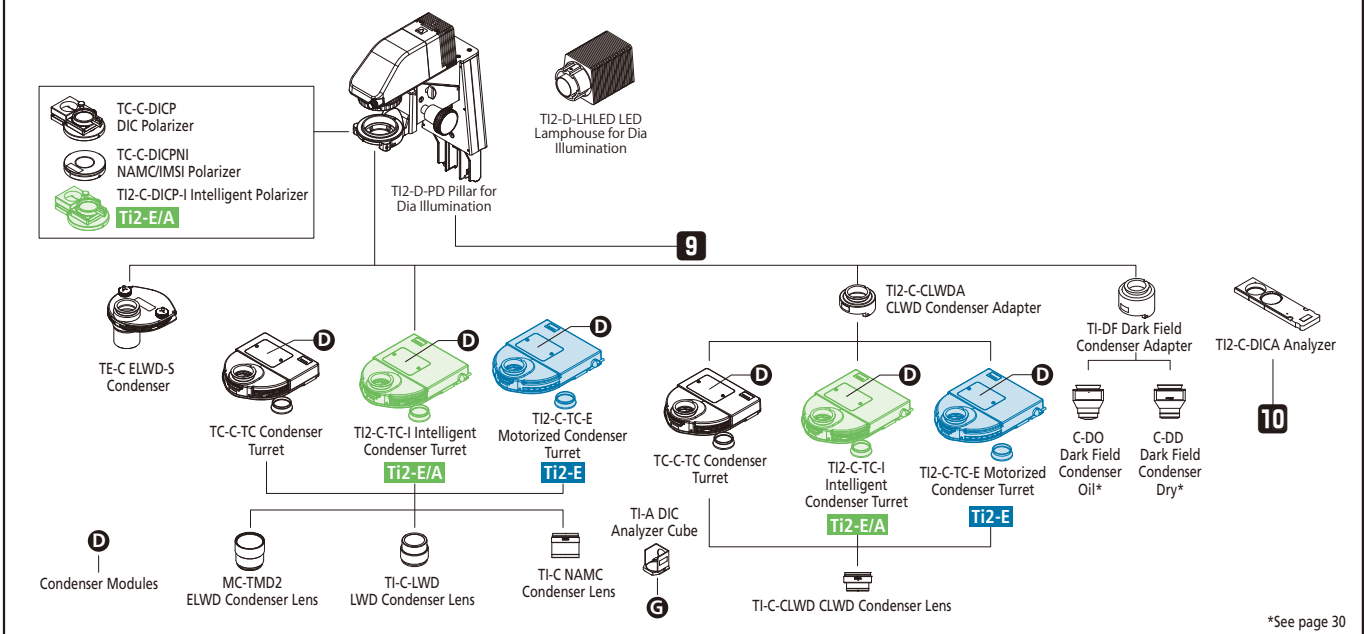
### Fluorescence Illumination

P. 45



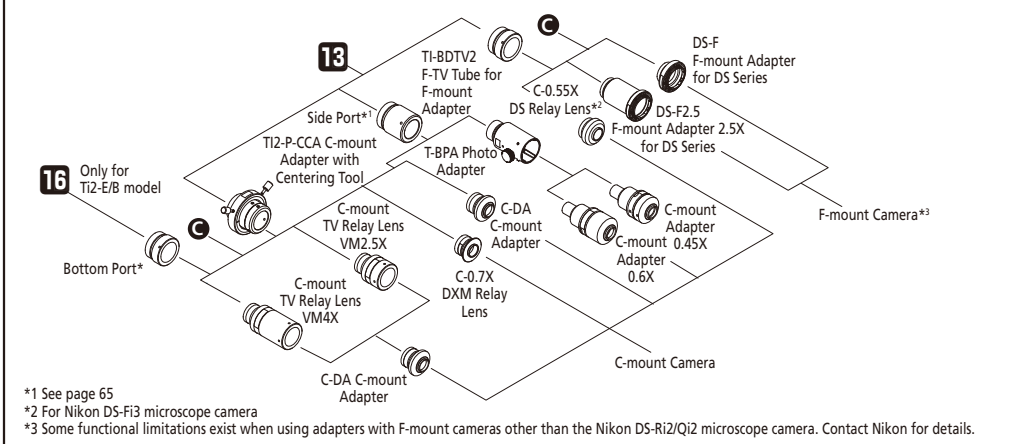
## Diascopic Illumination

P. 46~51



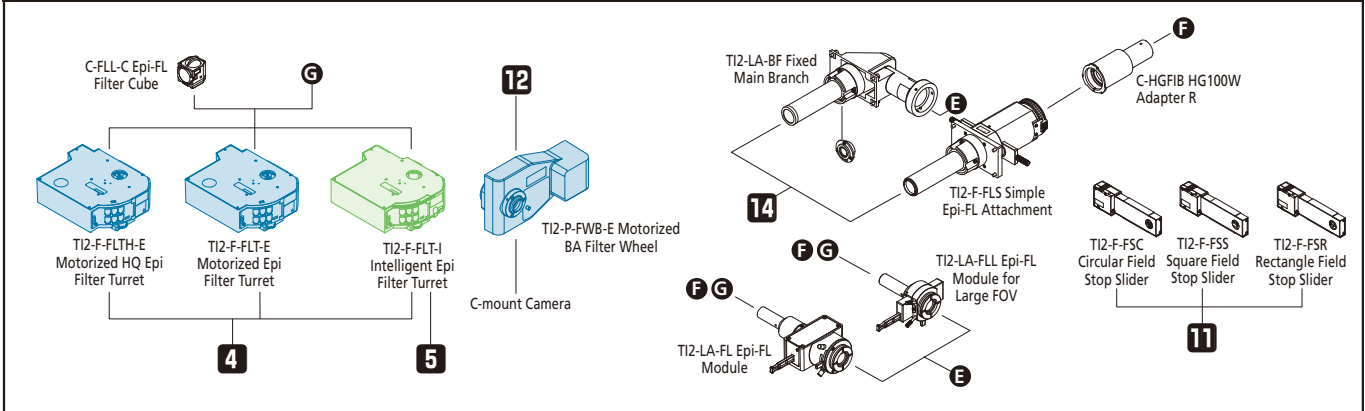
## Camera Adapter

P. 57~59



## Fluorescence Cube Turret and Fluorescence Module

P. 40~44

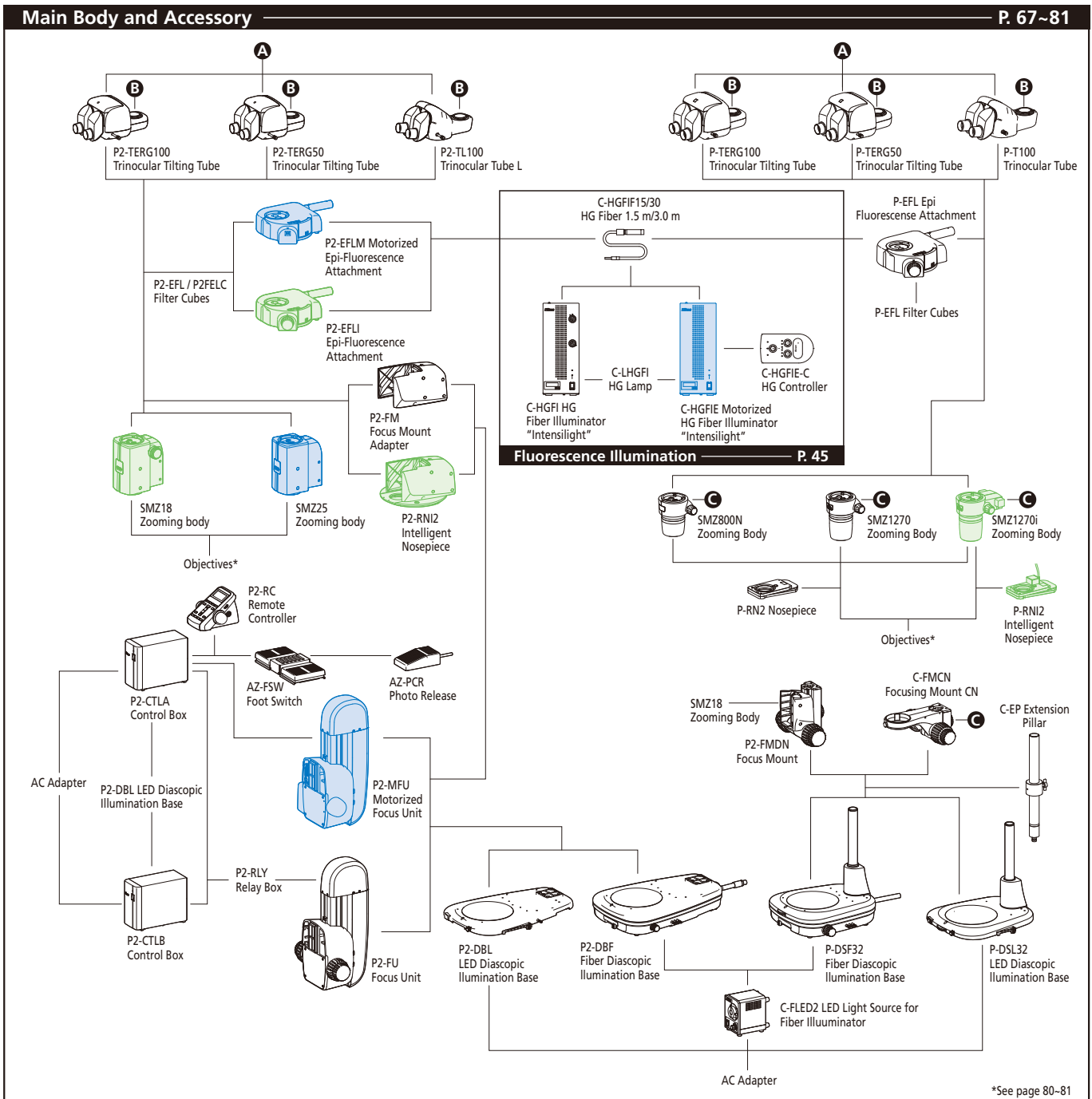
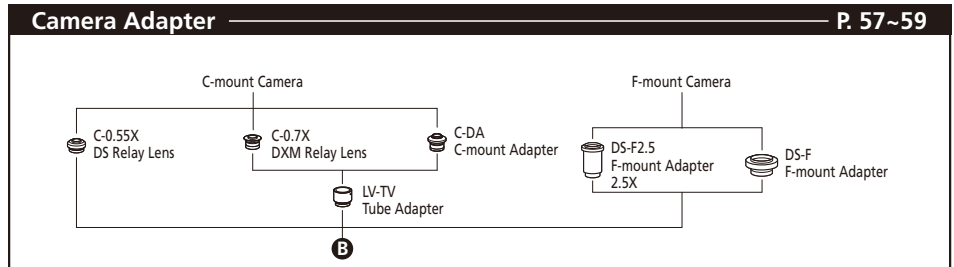
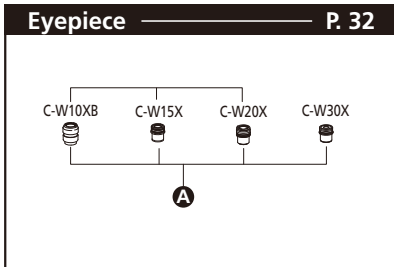


# System Diagram

## System diagram for Stereo Microscope SMZ25/18, SMZ1270i/1270/800N

Motorized accessories (with status detection function)

Accessories with status detection function



\*See page 80-81



# Nikon Biological Microscope Line up

This brochure shows dimensional diagrams of the main bodies, major modules and objectives of Nikon biological and stereo microscopes, to support our customers adopting these components into their products, and experimental and testing equipment.

Nikon also provides detailed brochures for each microscope for the customer's reference.

## Upright Microscope



**Ni-E**



**Ni-U**



**Ci-E**

## Inverted Microscope



**Ti2-E**



**Ti2-A**



**Ti2-U**

## Stereo Microscope



**SMZ25**



**SMZ18**



**SMZ1270i**



**SMZ1270**



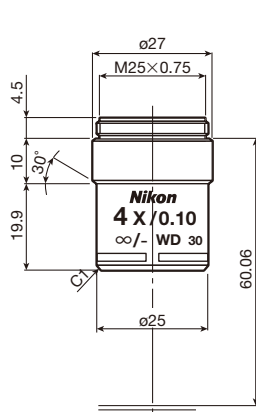
**SMZ800N**

Brochure download: <http://www.nikon.com/products/microscope-solutions/support/download/brochures/>

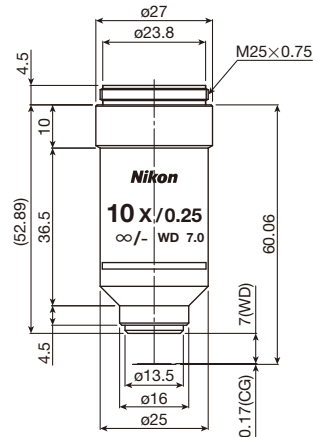
# CFI60 Objectives

## CFI Achromat Series for Brightfield/Phase Contrast (DL)/ Apodized Phase Contrast (ADL)

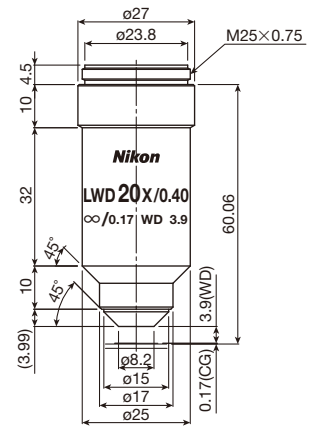
Correction of chromatic aberration, spherical aberration and coma has been dramatically improved, with significantly better image flatness.



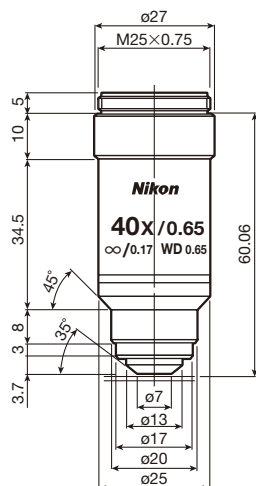
**CFI Achromat 4X**



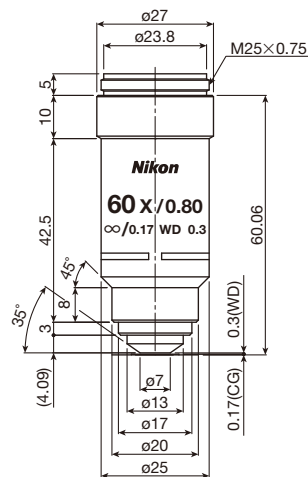
**CFI Achromat 10X  
CFI Achromat DL 10X**



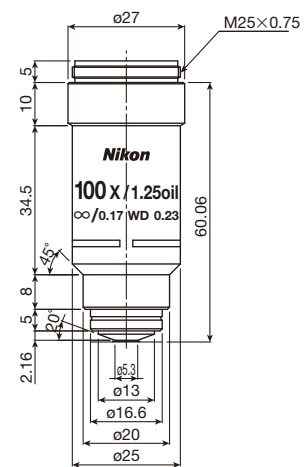
**CFI Achromat LWD 20X  
CFI Achromat LWD DL 20X**



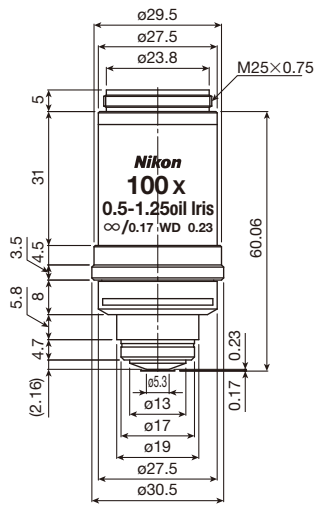
**CFI Achromat 40X  
CFI Achromat DL 40X**



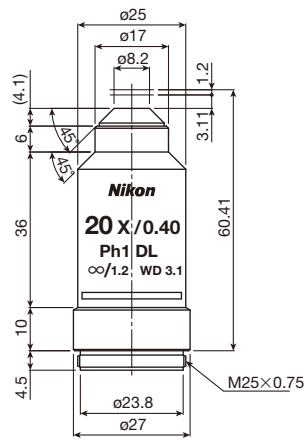
**CFI Achromat 60X**



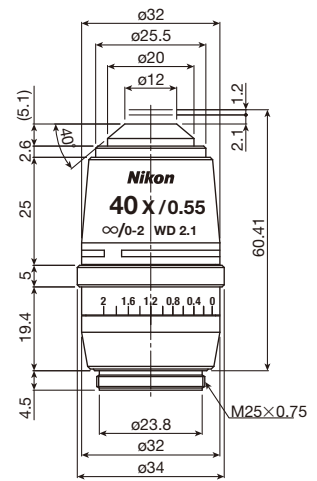
**CFI Achromat 100X Oil  
CFI Achromat DL 100X Oil**



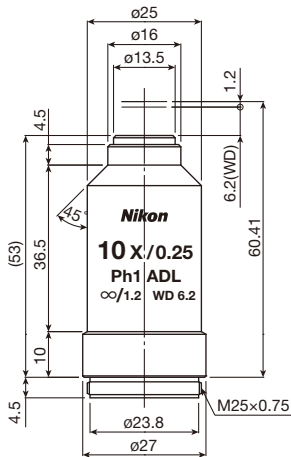
**CFI Achromat 100XS Oil**



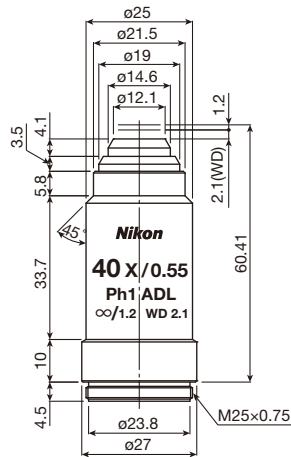
**CFI Achromat LWD DL 20XF  
CFI Achromat LWD ADL 20XF**



**CFI Achromat LWD 40XC  
CFI Achromat LWD DL 40XC  
CFI Achromat LWD ADL 40XC**



**CFI Achromat ADL 10XF**



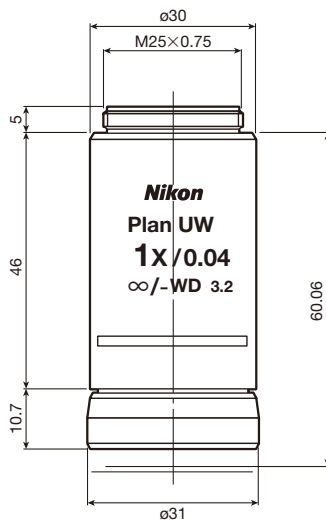
**CFI Achromat LWD ADL 40XF**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRP00042	CFI Achromat 4X	0.10	30.00	27.50	5.50	72		
MRP00102	CFI Achromat 10X	0.25	7.00	4.40	2.20	85		
MRP20102	CFI Achromat DL 10X	0.25	7.00	4.40	2.20	85		Ph1
MRP00202	CFI Achromat LWD 20X	0.40	3.90	1.72	1.10	90		
MRP20202	CFI Achromat LWD DL 20X	0.40	3.90	1.72	1.10	90		Ph1
MRP00402	CFI Achromat 40X	0.65	0.65	0.65	0.55	130	Spring-loaded	
MRP20402	CFI Achromat DL 40X	0.65	0.65	0.65	0.55	130	Spring-loaded	Ph2
MRP00602	CFI Achromat 60X	0.80	0.30	0.43	0.37	130	Spring-loaded	
MRP01902	CFI Achromat 100X Oil	1.25	0.23	0.27	0.22	130	Spring-loaded	
MRP21902	CFI Achromat DL 100X Oil	1.25	0.23	0.27	0.22	130	Spring-loaded	Ph3
MRP02902	CFI Achromat 100XS Oil	0.50-1.25	0.23	0.27	0.22	130	Spring-loaded, with iris diaphragm	
MRP26202	CFI Achromat LWD DL 20XF	0.40	3.10	1.72	1.10	90	Cover glass thickness 1.2mm	Ph1
MRP46202	CFI Achromat LWD ADL 20XF	0.40	3.10	1.72	1.10	90	Cover glass thickness 1.2mm	Ph1
MRP05422	CFI Achromat LWD 40XC	0.55	2.70-1.70	0.91	0.55	195	Cover glass correction 0-2mm	
MRP25422	CFI Achromat LWD DL 40XC	0.55	2.70-1.70	0.91	0.55	195	Cover glass correction 0-2mm	Ph2
MRP45422	CFI Achromat LWD ADL 40XC	0.55	2.70-1.70	0.91	0.55	195	Cover glass correction 0-2mm	Ph2
MRP40102	CFI Achromat ADL 10XF	0.25	6.20	4.40	2.20	85	Cover glass thickness 1.2mm	Ph1
MRP46402	CFI Achromat LWD ADL 40XF	0.55	2.10	0.91	0.55	90	Cover glass thickness 1.2mm	Ph1

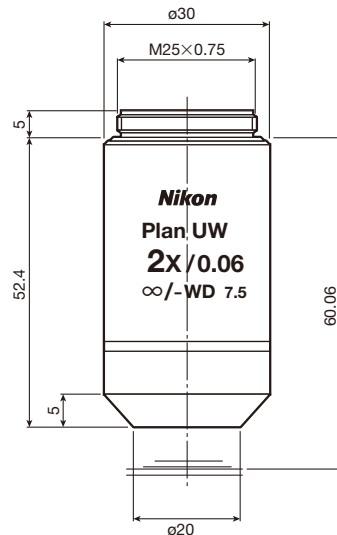
# CFI60 Objectives

## CFI Plan Achromat Series for Brightfield/Phase Contrast (DL)

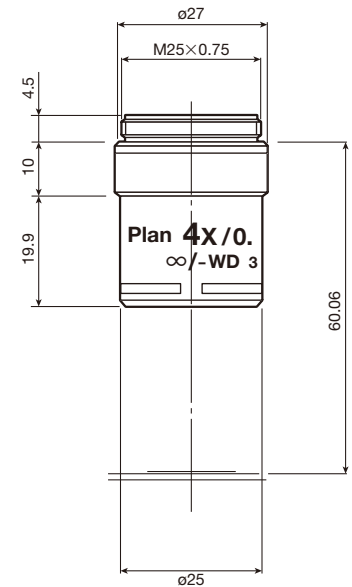
Nikon's CFI Plan Achromat series provides incredible image flatness, with chromatic aberration corrected throughout the entire visible spectrum. These objectives are suitable not only for observation but also for capturing images.



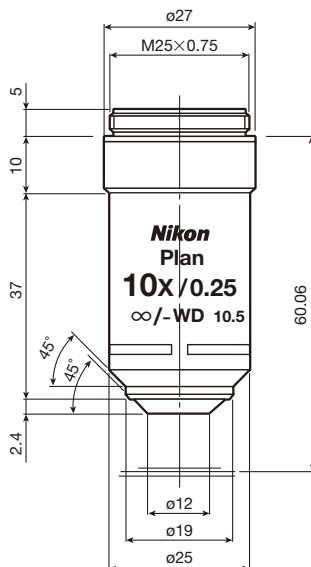
**CFI Plan Achromat 1X**



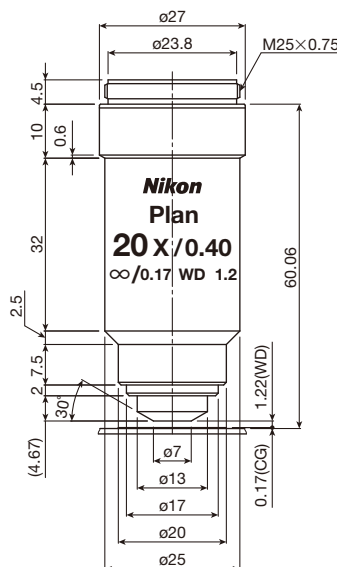
**CFI Plan Achromat 2X**



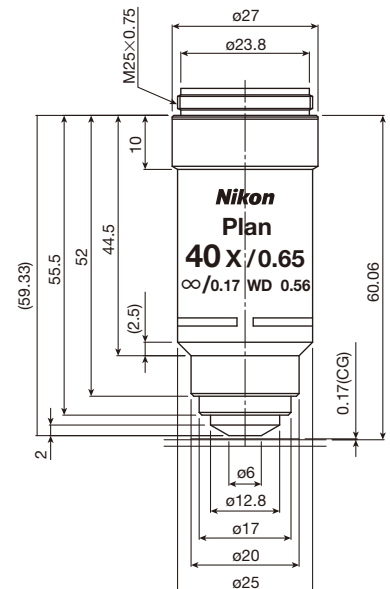
**CFI Plan Achromat 4X**



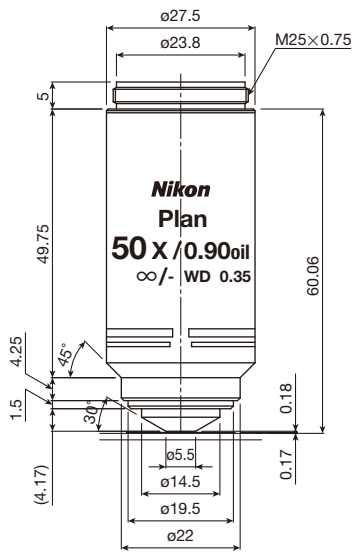
**CFI Plan Achromat 10X  
CFI Plan Achromat DL 10X**



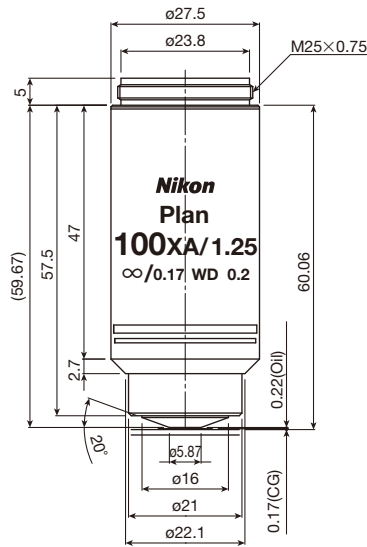
**CFI Plan Achromat 20X  
CFI Plan Achromat DL 20X**



**CFI Plan Achromat 40X  
CFI Plan Achromat DL 40X**



**CFI Plan Achromat 50X Oil**



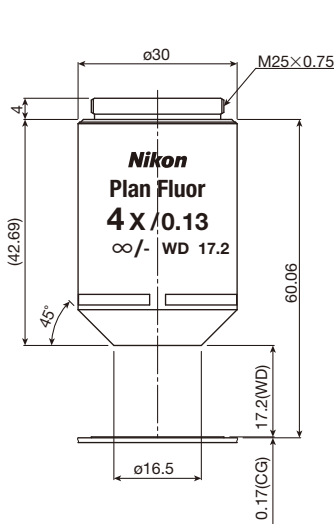
**CFI Plan Achromat 100X Oil  
CFI Plan Achromat DL 100X Oil**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (mm)	Weight (g)	Remarks	Phase ring
MRL00012	CFI Plan Achromat 1X	0.04	3.20	171.88	25.00	180		
MRL00022	CFI Plan Achromat 2X	0.06	7.50	76.39	12.50	110		
MRL00042	CFI Plan Achromat 4X	0.10	30.00	27.50	6.25	65		
MRL00102	CFI Plan Achromat 10X	0.25	10.50	4.40	2.50	85		
MRL20102	CFI Plan Achromat DL 10X	0.25	10.50	4.40	2.50	85		Ph1
MRL00202	CFI Plan Achromat 20X	0.40	1.20	1.70	1.25	85		
MRL20202	CFI Plan Achromat DL 20X	0.40	1.20	1.72	1.25	85		Ph1
MRL00402	CFI Plan Achromat 40X	0.65	0.56	0.65	0.63	115	Spring-loaded	
MRL20402	CFI Plan Achromat DL 40X	0.65	0.56	0.65	0.63	115	Spring-loaded	Ph2
MRL01502	CFI Plan Achromat 50X Oil	0.90	0.35/0.18	0.51	0.44	160	Spring-loaded No cover glass	
MRL01903	CFI Plan Achromat 100X Oil	1.25	0.20	0.27	0.22	160	Spring-loaded	
MRL21903	CFI Plan Achromat DL 100X Oil	1.25	0.20	0.27	0.22	160	Spring-loaded	Ph3

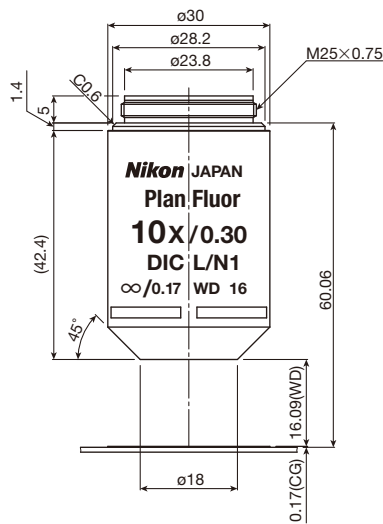
# CFI60 Objectives

## CFI Plan Fluor Series for Brightfield/Phase Contrast (DLL)/Apodized Phase Contrast (ADH)

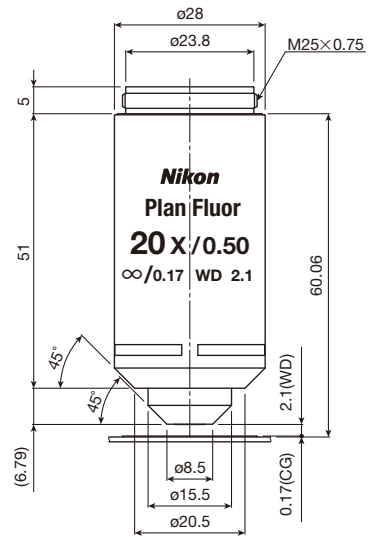
Featuring an extra-high transmission rate, especially in the ultraviolet wavelength, and flatness of field, this series is designed for fluorescence observation and imaging. These objectives can function as multi-purpose objectives for brightfield, fluorescence, simple polarizing, and DIC observations.



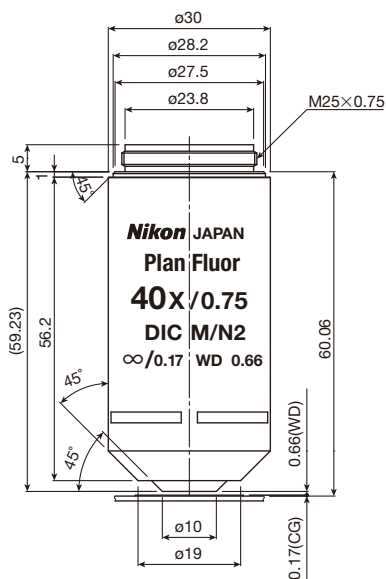
**CFI Plan Fluor 4X**



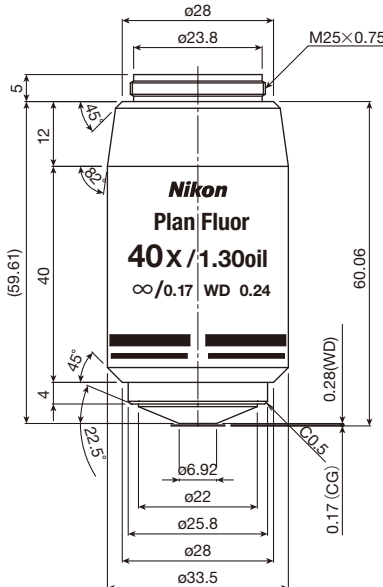
**CFI Plan Fluor 10X  
CFI Plan Fluor DLL 10X**



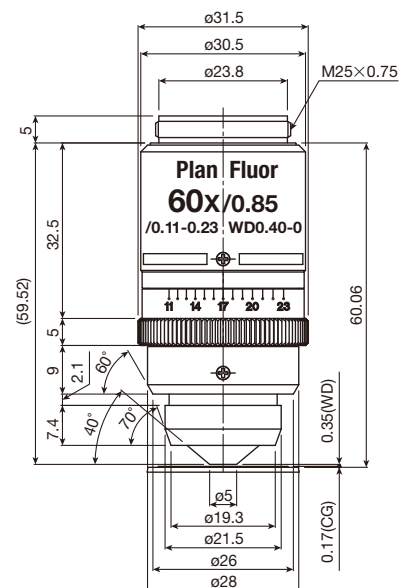
**CFI Plan Fluor 20X  
CFI Plan Fluor DLL 20X**



**CFI Plan Fluor 40X  
CFI Plan Fluor DLL 40X**

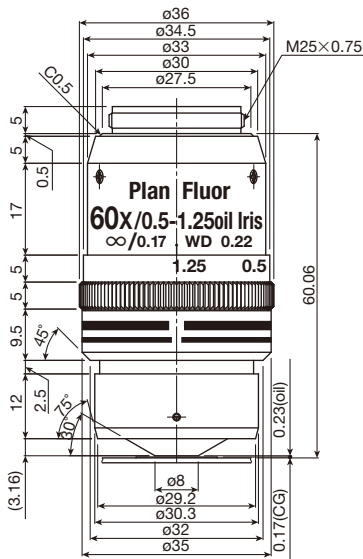


**CFI Plan Fluor 40X Oil**

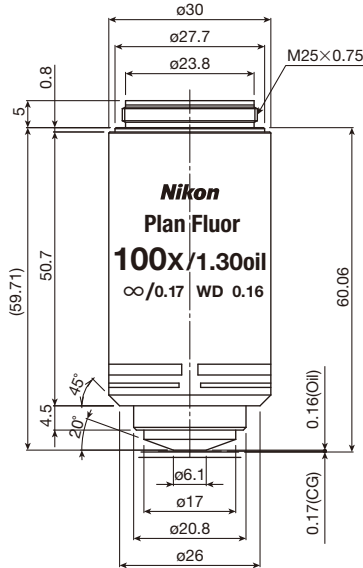


**CFI Plan Fluor 60XC**

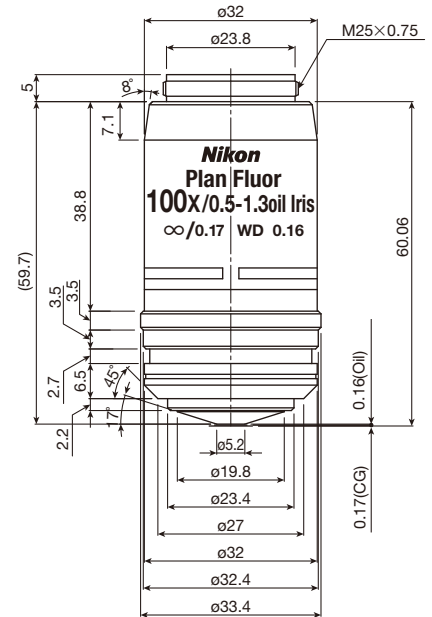
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRH00041	CFI Plan Fluor 4X	0.13	17.20	16.27	6.25	110		
MRH00101	CFI Plan Fluor 10X	0.30	16.00	3.06	6.25	120		
MRH10101	CFI Plan Fluor DLL 10X	0.30	16.00	3.06	2.50	120		Ph1
MRH00201	CFI Plan Fluor 20X	0.50	2.10	1.10	1.25	175		
MRH10201	CFI Plan Fluor DLL 20X	0.50	2.10	1.10	1.25	175		Ph1
MRH00401	CFI Plan Fluor 40X	0.75	0.66	0.49	0.63	210	Spring-loaded	
MRH10401	CFI Plan Fluor DLL 40X	0.75	0.66	0.49	0.63	210	Spring-loaded	Ph2
MRH01401	CFI Plan Fluor 40X Oil	1.30	0.24	0.25	0.63	230	Spring-loaded, with stopper	
MRH00602	CFI Plan Fluor 60XC	0.85	0.40-0.31	0.38	0.42	265	Spring-loaded Cover glass correction 0.11-0.23mm	
MRH02601	CFI Plan Fluor 60XS Oil	0.50-1.25	0.22	0.27	0.42	230	Spring-loaded, with iris diaphragm	
MRH01902	CFI Plan Fluor 100X Oil	1.30	0.16	0.25	0.25	250	Spring-loaded, with stopper	
MRH11902	CFI Plan Fluor DLL 100X Oil	1.30	0.16	0.25	0.25	250	Spring-loaded, with stopper	Ph3
MRH41902	CFI Plan Fluor ADH 100X Oil	1.30	0.16	0.25	0.25	250	Spring-loaded, with stopper	Ph3
MRH02902	CFI Plan Fluor 100XS Oil	0.50-1.30	0.16	0.25	0.25	285	Spring-loaded, with iris diaphragm	



**CFI Plan Fluor 60XS Oil**



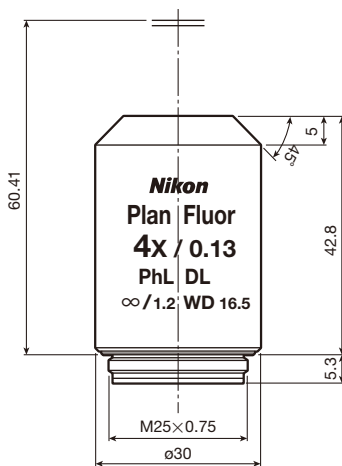
**CFI Plan Fluor 100X Oil  
CFI Plan Fluor DLL 100X Oil  
CFI Plan Fluor ADH 100X Oil**



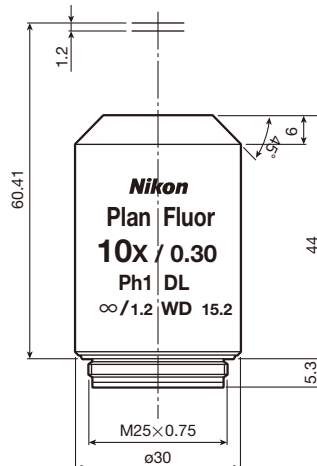
**CFI Plan Fluor 100XS Oil**

## CFI Plan Fluor Series for Phase Contrast (DL)

These objectives have more contrast than the DLL objectives for enhanced contrast with tissue culture specimens. These objectives are designed for use on inverted microscopes and therefore their markings are upside-down for easy reading.



**CFI Plan Fluor DL 4XF**



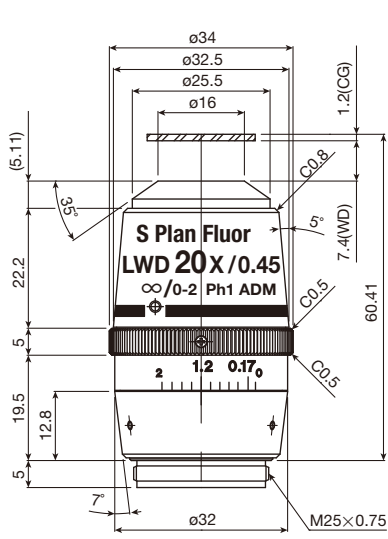
**CFI Plan Fluor DL 10XF**

Code.No	Objectives	N.A.	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (mm)	Weight (g)	Remarks	Phase ring
MRH20041	CFI Plan Fluor DL 4XF	0.13	16.50	16.27	6.25	105	Cover glass thickness 1.2mm	PhL
MRH20101	CFI Plan Fluor DL 10XF	0.30	15.20	3.06	2.50	120	Cover glass thickness 1.2mm	Ph1

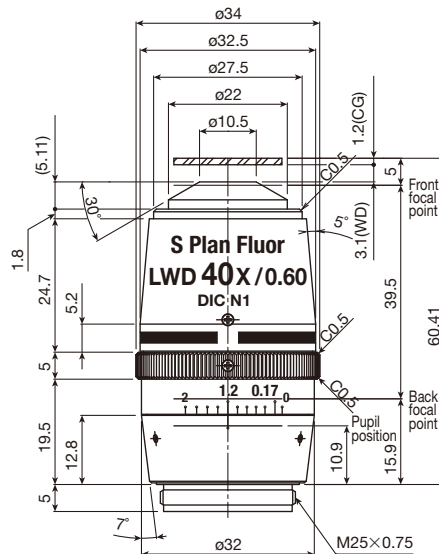
# CFI60 Objectives

## CFI S Plan Fluor Series for Brightfield/Apodized Phase Contrast (ADM/ADL)

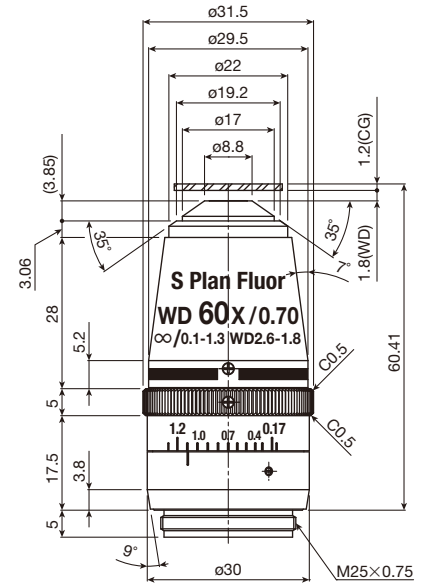
The broadband multilayer coating realizes high transmittance from ultraviolet to near-infrared wavelengths, with superior chromatic correction. The correction collar allows these objectives to be used with a diverse range of culture vessels and specimen thicknesses. High-quality images with no aberrations can be obtained under a broad range of illumination techniques.



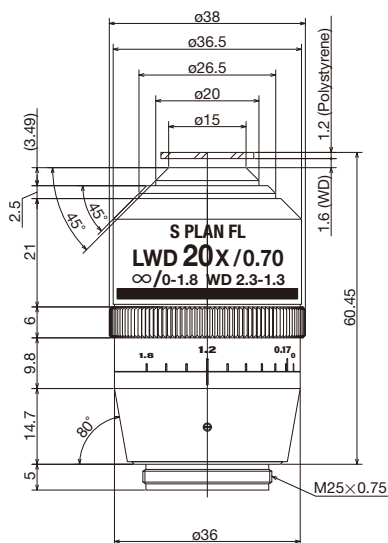
**CFI S Plan Fluor ELWD 20XC**  
**CFI S Plan Fluor ELWD ADM 20XC**



**CFI S Plan Fluor ELWD 40XC**  
**CFI S Plan Fluor ELWD ADM 40XC**



**CFI S Plan Fluor ELWD 60XC**  
**CFI S Plan Fluor ELWD ADL 60XC**



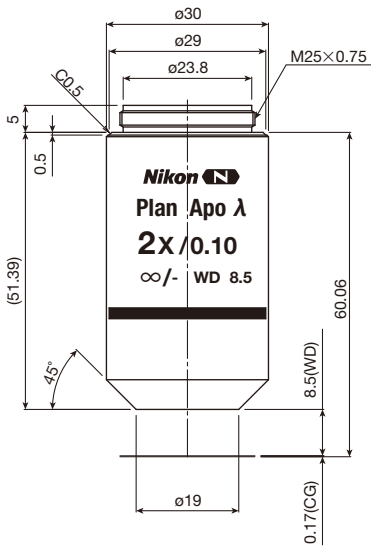
**CFI S Plan Fluor LWD 20XC**  
**CFI S Plan Fluor LWD ADM 20XC**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRH08230	CFI S Plan Fluor ELWD 20XC	0.45	8.20-6.90	1.36	1.10	195	Cover glass correction 0-2mm	
MRH48230	CFI S Plan Fluor ELWD ADM 20XC	0.45	8.20-6.90	1.36	1.10	195	Cover glass correction 0-2mm	Ph1
MRH08430	CFI S Plan Fluor ELWD 40XC	0.60	3.60-2.80	0.76	0.55	195	Cover glass correction 0-2mm	
MRH48430	CFI S Plan Fluor ELWD ADM 40XC	0.60	3.60-2.80	0.76	0.55	195	Cover glass correction 0-2mm	Ph2
MRH08630	CFI S Plan Fluor ELWD 60XC	0.70	2.60-1.80	0.56	0.37	210	Cover glass correction 0.1-1.3mm	
MRH48600	CFI S Plan Fluor ELWD ADL 60XC	0.70	2.60-1.80	0.56	0.37	210	Cover glass correction 0.1-1.3mm	Ph2
MRH08250	CFI S Plan Fluor LWD 20XC	0.70	2.30-1.30	0.56	1.10	280	Cover glass correction 0-1.8mm	
MRH48250	CFI S Plan Fluor LWD ADM 20XC	0.70	2.30-1.30	0.56	1.10	280	Cover glass correction 0-1.8mm	Ph2

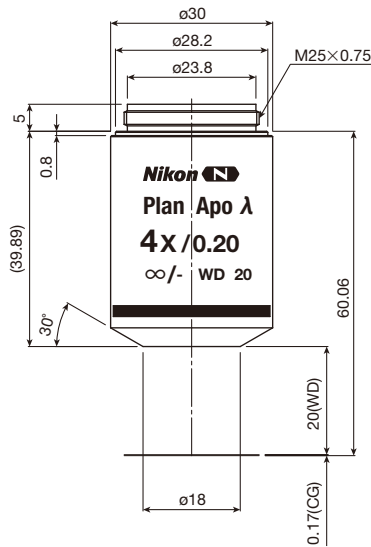


# CFI Plan Apochromat Lambda Series for Brightfield/Phase Contrast (DM)

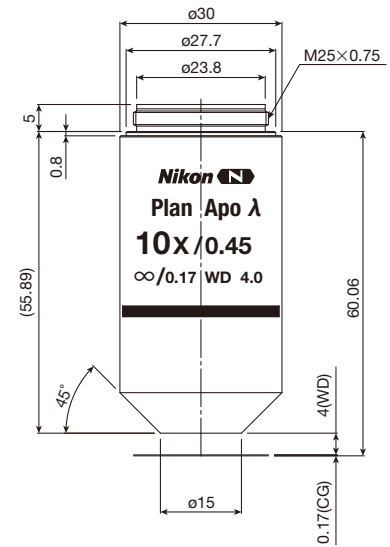
The ultra-low, refractive index coating technology “Nano Crystal Coat” enables the Lambda series’ remarkably high transmission throughout a broad range of wavelengths up to the near-IR region. As chromatic aberrations are corrected throughout a wavelength range from visible to near infrared, bright, high-contrast images are captured during long-wavelength imaging, which is less phototoxic to live-cells. Moreover, the unmatched chromatic aberration correction, resolution and image flatness of the Lambda series ensure the capture of high-quality brightfield images.



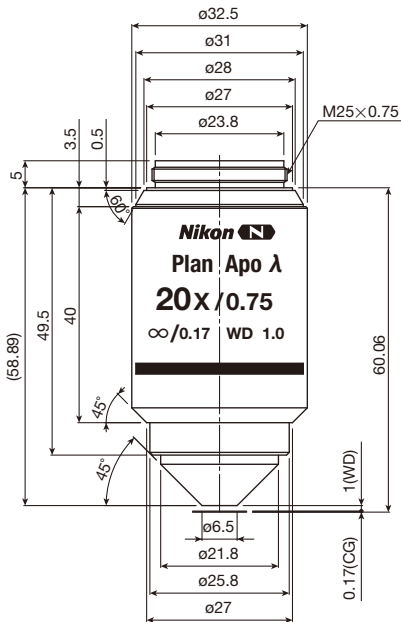
**CFI Plan Apochromat Lambda 2X**



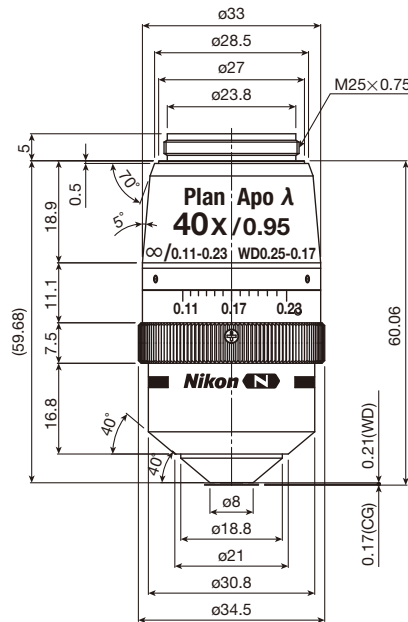
**CFI Plan Apochromat Lambda 4X**



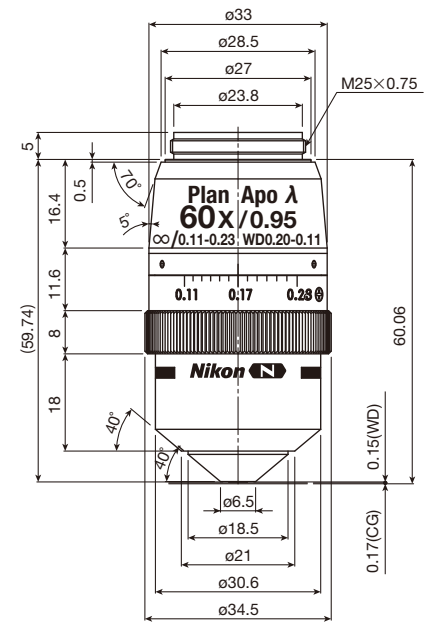
**CFI Plan Apochromat Lambda 10X**



**CFI Plan Apochromat Lambda 20X  
CFI Plan Apochromat DM Lambda  
20X**



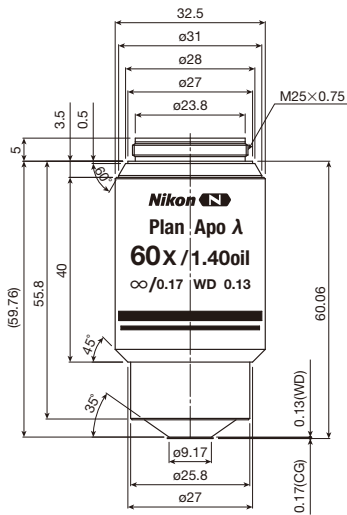
**CFI Plan Apochromat Lambda 40XC  
CFI Plan Apochromat DM Lambda  
40XC**



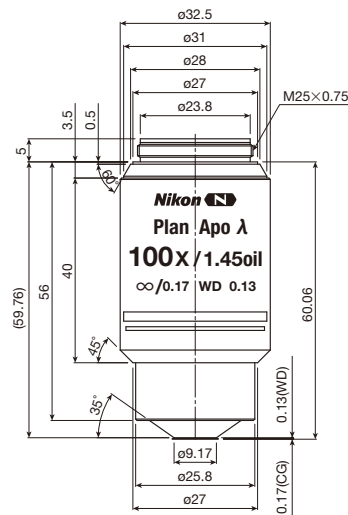
**CFI Plan Apochromat Lambda 60XC  
CFI Plan Apochromat DM Lambda  
60XC**

# CFI60 Objectives

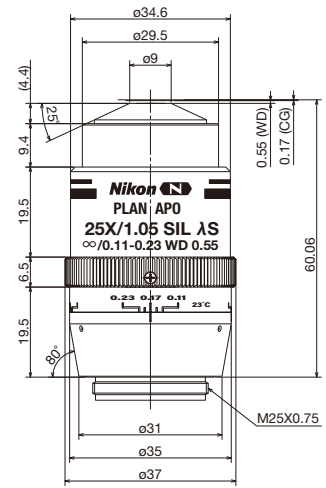
## CFI Plan Apochromat Lambda Series for Brightfield/Phase Contrast (DM)



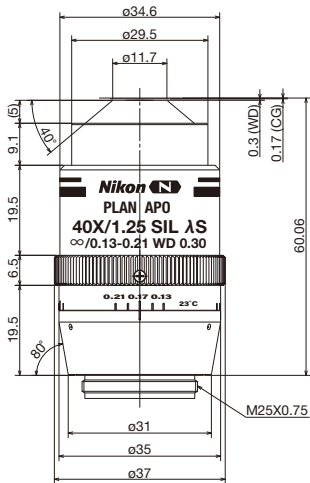
**CFI Plan Apochromat Lambda 60X Oil**  
**CFI Plan Apochromat DM Lambda 60X Oil**



**CFI Plan Apochromat Lambda 100X Oil**  
**CFI Plan Apochromat DM Lambda 100X Oil**



**CFI Plan Apochromat Lambda S 25XC Sil**



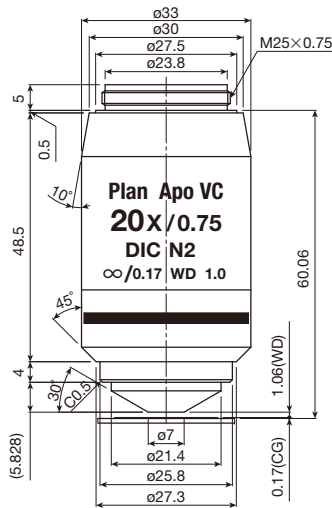
**CFI Plan Apochromat Lambda S 40XC Sil**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRD00025	CFI Plan Apochromat Lambda 2X	0.10	8.50	27.50	12.50	180		
MRD00045	CFI Plan Apochromat Lambda 4X	0.20	20.00	6.88	6.25	180		
MRD00105	CFI Plan Apochromat Lambda 10X	0.45	4.00	1.36	2.50	220		
MRD00205	CFI Plan Apochromat Lambda 20X	0.75	1.00	0.49	1.25	240	Spring-loaded	
MRD30205	CFI Plan Apochromat DM Lambda 20X	0.75	1.00	0.49	1.25	240	Spring-loaded	Ph2
MRD00405	CFI Plan Apochromat Lambda 40XC	0.95	0.25-0.16	0.30	0.63	270	Spring-loaded Cover glass correction 0.11-0.23mm	
MRD30405	CFI Plan Apochromat DM Lambda 40XC	0.95	0.25-0.16	0.30	0.63	270	Spring-loaded Cover glass correction 0.11-0.23mm	Ph2
MRD00605	CFI Plan Apochromat Lambda 60XC	0.95	0.21-0.11	0.30	0.42	285	Spring-loaded Cover glass correction 0.11-0.23mm	
MRD30605	CFI Plan Apochromat DM Lambda 60XC	0.95	0.21-0.11	0.30	0.42	285	Spring-loaded Cover glass correction 0.11-0.23mm	Ph2
MRD01605	CFI Plan Apochromat Lambda 60X Oil	1.40	0.13	0.21	0.42	285	Spring-loaded	
MRD31605	CFI Plan Apochromat DM Lambda 60X Oil	1.40	0.13	0.21	0.42	285	Spring-loaded	Ph3
MRD01905	CFI Plan Apochromat Lambda 100X Oil	1.45	0.13	0.20	0.25	245	Spring-loaded	
MRD31905	CFI Plan Apochromat DM Lambda 100X Oil	1.45	0.13	0.20	0.25	245	Spring-loaded	Ph3
MRD73250	CFI Plan Apochromat Lambda S 25XC Sil	1.05	0.55	0.35	1.00	237	Cover glass correction 0.11-0.23mm	
MRD73400	CFI Plan Apochromat Lambda S 40XC Sil	1.25	0.30	0.25	0.63	240	Cover glass correction 0.13-0.21mm (23°) 0.15-0.23mm (37°)	

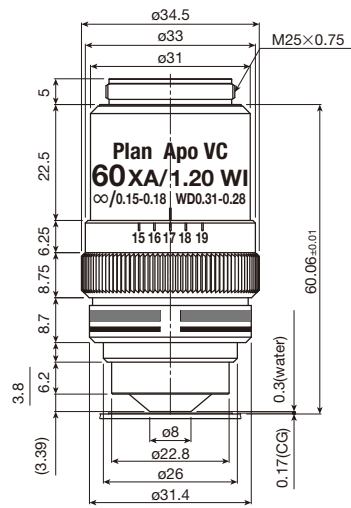
# CFI Plan Apochromat VC Series

These objectives provide perfect correction of chromatic aberrations in the visible light range and excellent resolution throughout the view field, and are the perfect choice for multi-stained, fluorescence specimens, and for brightfield and DIC observation. In addition to the correction range of the conventional Plan Apochromat series (435–660nm), axial chromatic aberration has been corrected up to the violet range (405nm), making these objectives highly effective for confocal applications.

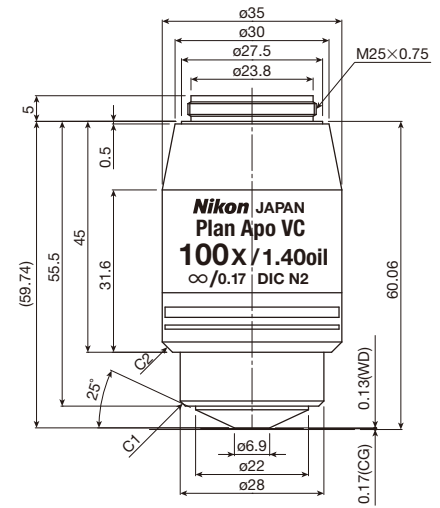
The 60x water-immersion type features high spectral transmittance, even in the 360nm wavelength ultra-violet range, making it perfect for the fluorescence observation of living organisms.



**CFI Plan Apochromat VC 20X**



**CFI Plan Apochromat VC 60XC WI**

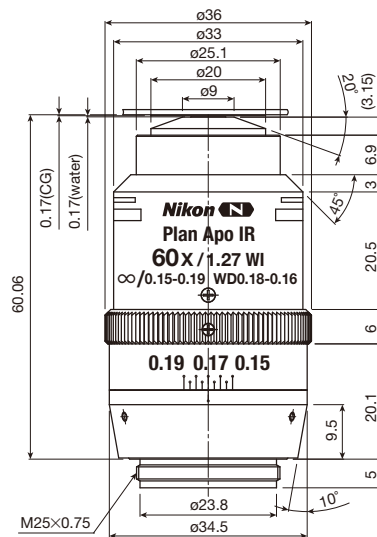


**CFI Plan Apochromat VC 100X Oil**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD70200	CFI Plan Apochromat VC 20X	0.75	1.00	0.49	1.25	170	Spring-loaded
MRD07602	CFI Plan Apochromat VC 60XC WI	1.20	0.31–0.28	0.25	0.37	220	Spring-loaded Cover glass correction 0.15–0.18mm
MRD01901	CFI Plan Apochromat VC 100X Oil	1.40	0.13	0.21	0.25	300	Spring-loaded

# CFI Plan Apochromat IR Lens

With the world's highest NA (1.27) for a 60x water immersion objective, this lens achieves a high level of resolution and sharp image acquisition. It corrects chromatic aberration up to 1,064 nm.



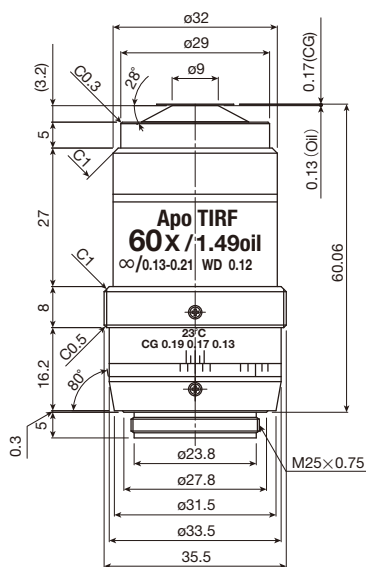
**CFI Plan Apochromat IR 60XC WI**

Code.No	Objectives (magnification)	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD07650	CFI Plan Apochromat IR 60XC WI	1.27	0.18–0.16	0.23	0.37	250	Spring-loaded Cover glass correction 0.15–0.19mm

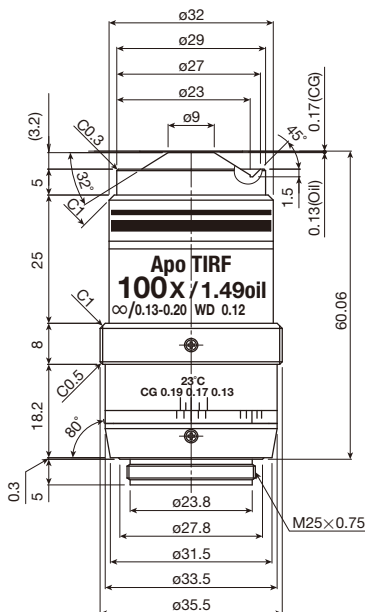
# CFI60 Objectives

## CFI Achromat TIRF Series

Because of the unprecedented high NA of 1.49—for use with a standard coverslip and immersion oil—these objectives enable the acquisition of high-resolution, high S/N ratio images during TIRF observation, epi-fluorescence and confocal observation, as well as DIC observation. The spherical aberration correction ring reduces deterioration in image quality caused by deviations in cover glass thickness or temperature fluctuations, and provides optimal optical performance at both 23°C and 37°C. The 100x objective can be optimally applied for laser tweezers microscopy.



**CFI Achromat TIRF 60XC Oil**

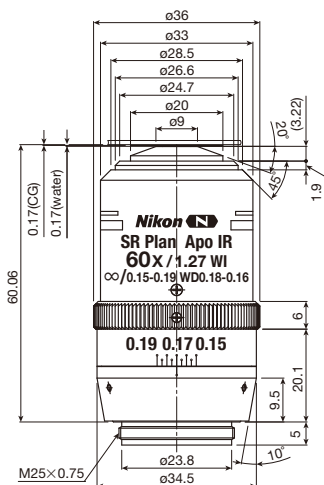


**CFI Achromat TIRF 100XC Oil**

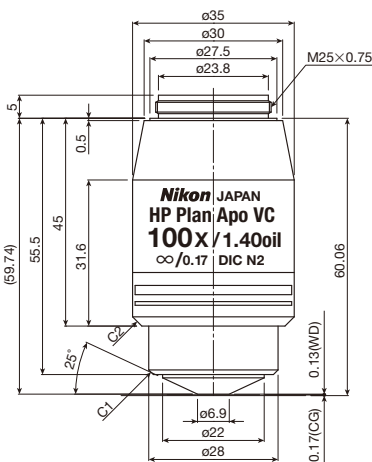
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD01691	CFI Achromat TIRF 60XC Oil	1.49	0.16-0.10 (23°C) 0.13-0.07 (37°C)	0.19	0.37	265	Cover glass correction 0.13-0.19mm (23°C) 0.15-0.21mm (37°C)
MRD01991	CFI Achromat TIRF 100XC Oil	1.49	0.16-0.10 (23°C) 0.15-0.09 (37°C)	0.19	0.18	275	Cover glass correction 0.13-0.19mm (23°C) 0.14-0.20mm (37°C)

# CFI SR/HP/SR HP Series

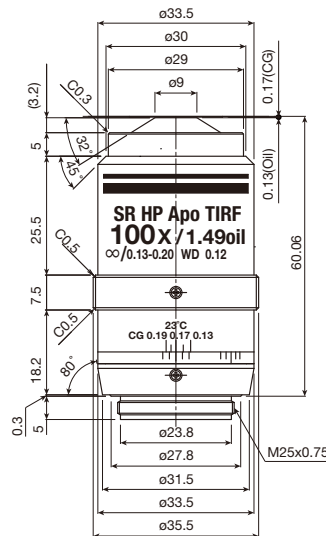
Adjustment and inspection that include wavefront aberration measurement minimize the SR objective's asymmetric aberration, optimizing its optical performance for the N-SIM super-resolution microscope. The HP objective is compatible with the high power lasers required for the fast blinks of fluorophores under the N-STORM super-resolution microscope. Highly precise 3D multi-color fluorescence imaging is possible thanks to improved axial chromatic aberration correction. The SR HP objective offers both excellent optical performance for super-resolution imaging and high durability against high power laser excitation with minimum axial chromatic aberration, eliminating the need to switch objectives between N-SIM and N-STORM systems.



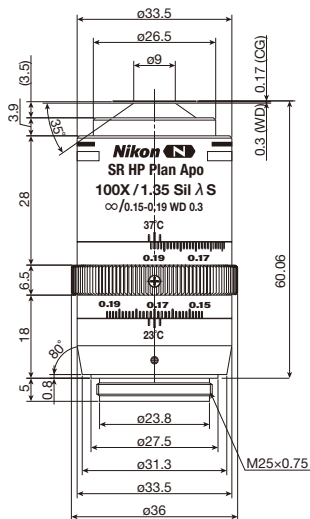
**CFI SR Plan Apochromat IR 60XC WI**



**CFI HP Plan Apochromat VC 100X Oil**



**CFI SR HP Apochromat TIRF 100XC Oil**



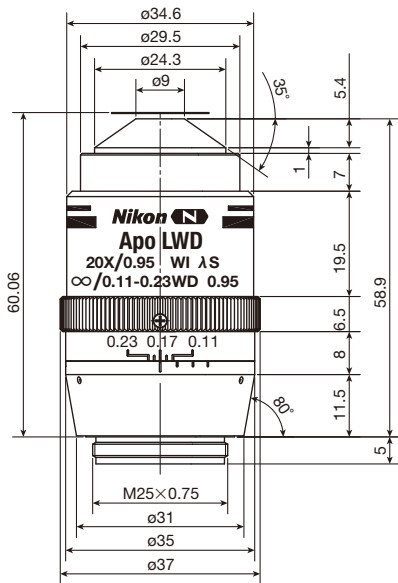
**CFI SR HP Plan Apochromat Lambda S 100XC Sil**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRY10060	CFI SR Plan Apochromat IR 60XC WI	1.27	0.18–0.16	0.23	0.37	250	Cover glass correction 0.15–0.19mm
MRD01902	CFI HP Plan Apochromat VC 100X Oil	1.40	0.13	0.21	0.25	300	Spring-loaded
MRD01995	CFI SR HP Apochromat TIRF 100XC Oil	1.49	0.16–0.10mm (23°) 0.15–0.09mm (37°)	0.19	0.18	275	Cover glass correction 0.13–0.19mm (23C°) 0.14–0.20mm (37C°)
MRD73950	CFI SR HP Plan Apochromat Lambda S 100XC Sil	1.35	0.31–0.29mm (23°) 0.30–0.28mm (37°)	0.21	0.25	300	Cover glass correction 0.15–0.19mm

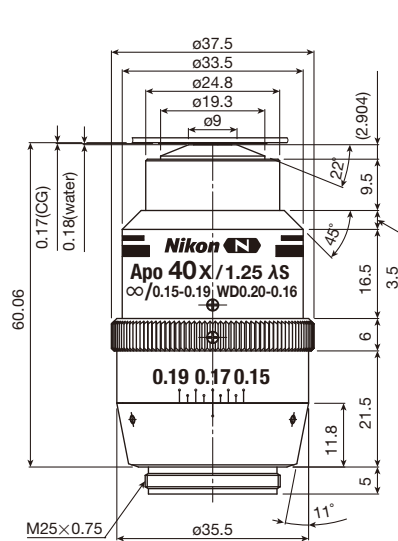
# CFI60 Objectives

## CFI Apochromat Lambda S Series

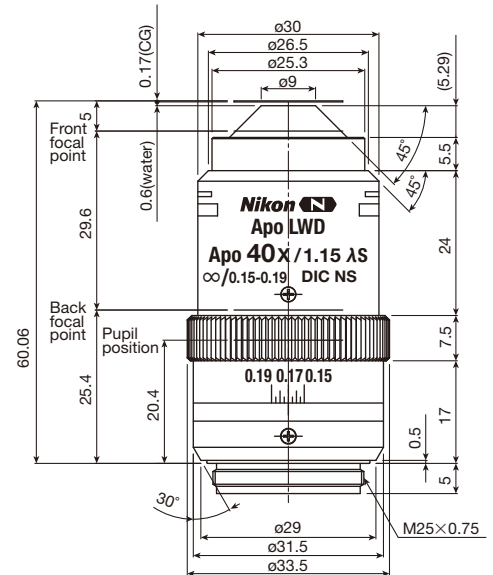
The Lambda S series objectives provide chromatic aberration correction over a wide wavelength range from 405nm, and are powerful enough for spectral imaging and simultaneous multi-wavelength acquisition. The LWD Lambda S 40XC has an wide chromatic aberration correction range of 405nm to 950nm, while that of the LWD Lambda S 20XC WI is even wider at 405nm to 1083nm, both being suitable for multiphoton observation. The 40X WI Lambda S lens has an NA of 1.25, the world's highest for a 40x water immersion objective. The 60x oil Lambda S lens offers high level chromatic aberration correction across the whole visible range and is a powerful tool for confocal spectral imaging and photostimulation.



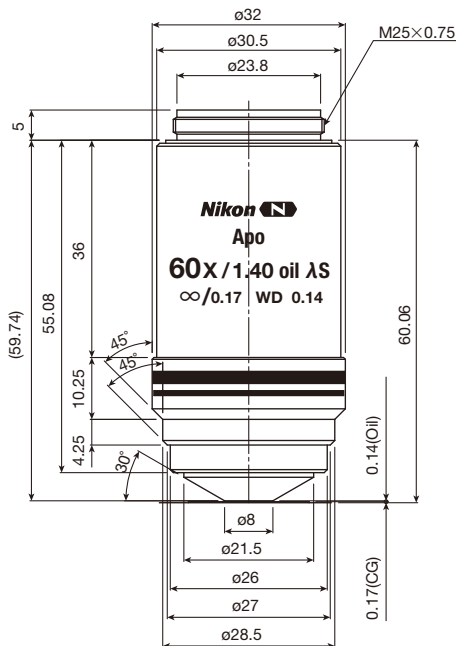
**CFI Apochromat LWD Lambda S 20XC WI**



**CFI Apochromat Lambda S 40XC WI**



**CFI Apochromat LWD Lambda S 40XC WI**

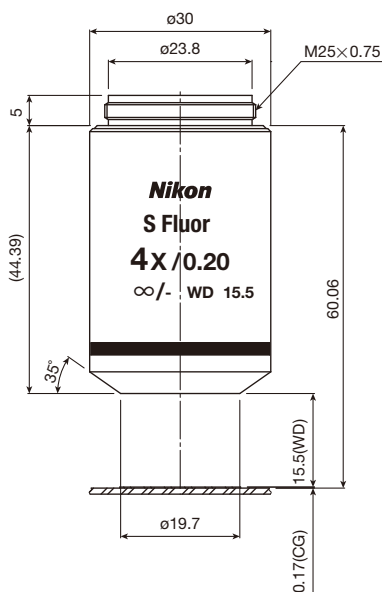


**CFI Apochromat Lambda S 60X Oil**

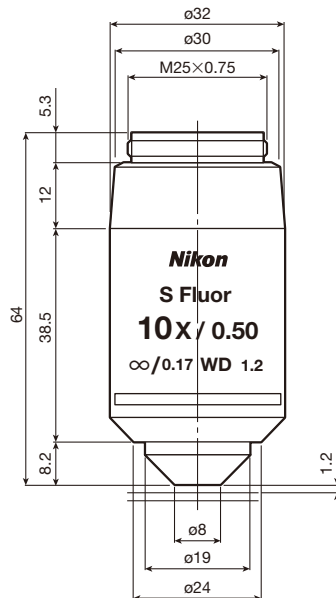
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD77200	CFI Apochromat LWD Lambda S 20XC WI	0.95	0.99-0.90	0.41	1.10	245	Cover glass correction 0.11-0.23mm
MRD77400	CFI Apochromat Lambda S 40XC WI	1.25	0.20-0.16	0.23	0.55	260	Spring-loaded Cover glass correction 0.15-0.19mm
MRD77410	CFI Apochromat LWD Lambda S 40XC WI	1.15	0.61-0.59	0.28	0.55	205	Cover glass correction 0.15-0.19mm
MRD71600	CFI Apochromat Lambda S 60X Oil	1.40	0.14	0.21	0.37	180	Spring-loaded

# CFI Super Fluor Series

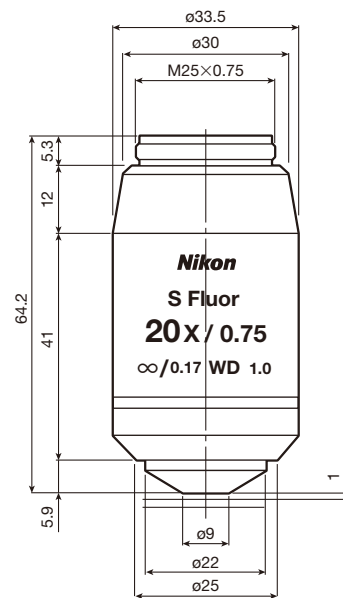
This CFI Super Fluor series ensures a high transmission rate of ultraviolet wavelengths down to 340nm for fluorochromes like indo-1 and fura-2. Also, these objectives have improved S/N ratios for short wavelengths and have high NA, making the fluorescence images they produce significantly sharper and brighter.



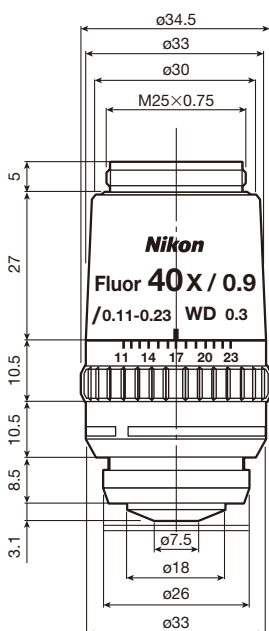
**CFI Super Fluor 4X**



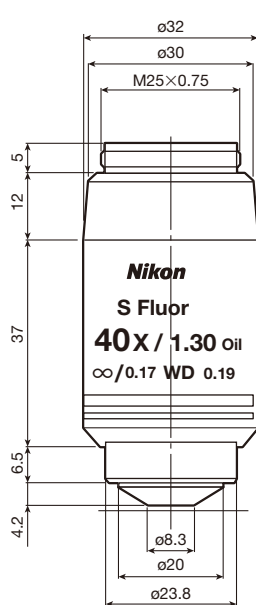
**CFI Super Fluor 10X**



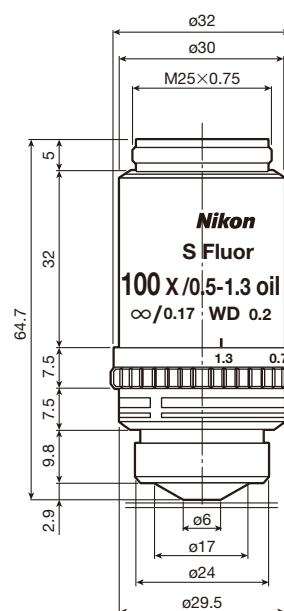
**CFI Super Fluor 20X**



**CFI Super Fluor 40XC**



**CFI Super Fluor 40X Oil**



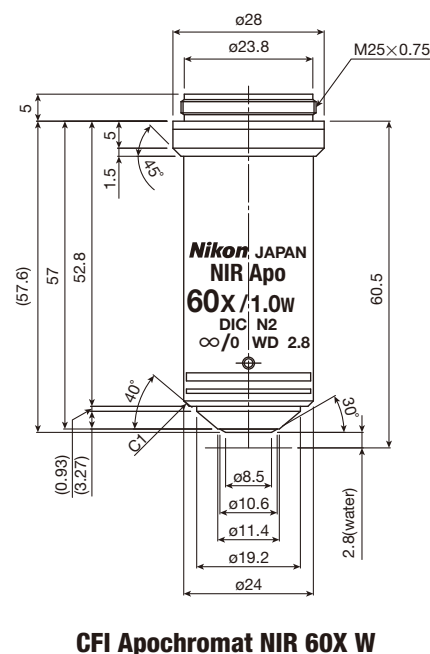
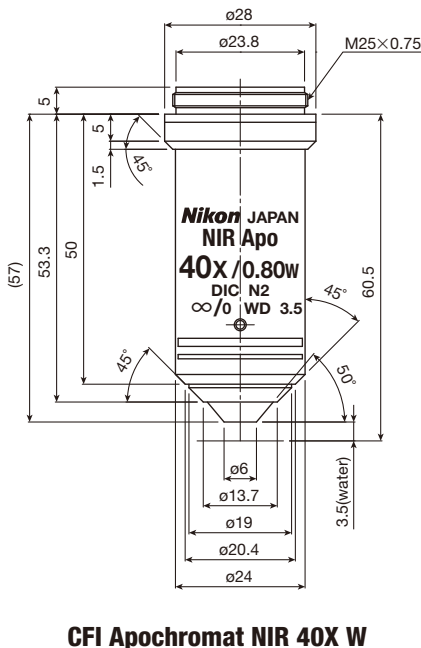
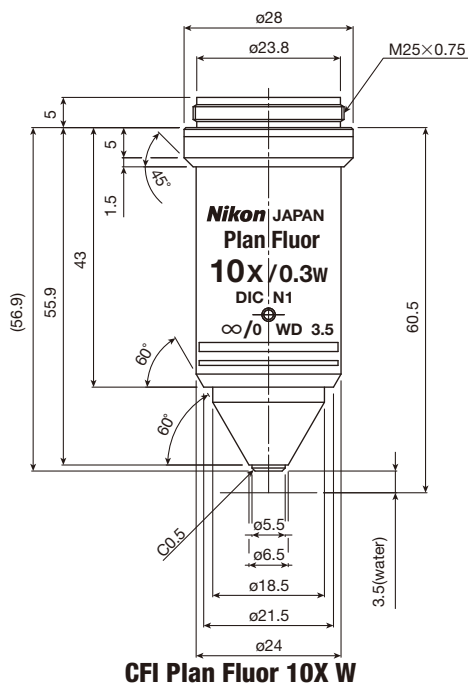
**CFI Super Fluor 100XS Oil**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRF00040	CFI Super Fluor 4X	0.20	15.50	6.88	5.50	115	
MRF00100	CFI Super Fluor 10X	0.50	1.20	1.10	2.20	275	Spring-loaded
MRF00200	CFI Super Fluor 20X	0.75	1.00	0.49	1.10	275	Spring-loaded
MRF00400	CFI Super Fluor 40XC	0.90	0.34-0.26	0.34	0.55	285	Spring-loaded Cover glass correction 0.11-0.23mm
MRF01401	CFI Super Fluor 40X Oil	1.30	0.19	0.25	0.55	275	Spring-loaded, with stopper
MRF02900	CFI Super Fluor 100XS Oil	0.50-1.30	0.20	0.25	0.22	285	Spring-loaded, with iris diaphragm

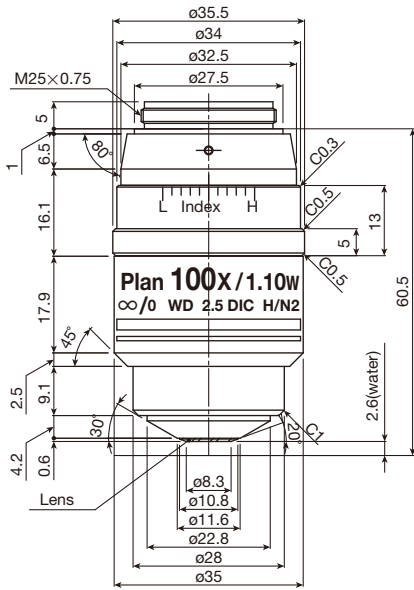
# CFI60/CFI75 Objectives

## Water Dipping Series

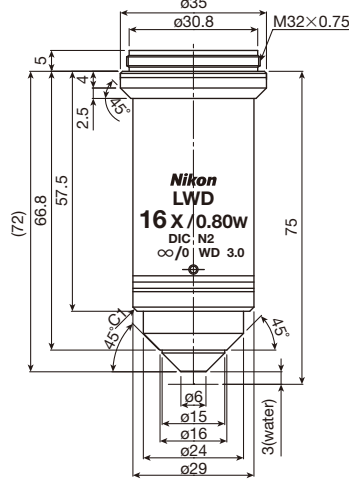
- Long WD and high NA at any magnification.
- Sharper tips and broad approach angles provide improved accessibility for manipulator control.
- Aberrations are corrected even in the infra-red range with the high-magnification objectives, making them suitable for multi-photon imaging using infra-red light.
- 100XW objective with a correction ring that corrects spherical aberration induced by imaging depth or temperature fluctuations. With excellent infra-red transmission, this lens assures best quality images of even a thick specimen.
- The 16X objective is ideal for patch-clamp experiments when combined with the FN1 microscope and magnification module. With its excellent IR transmission and high NA, this lens is suitable for IR-DIC observation and provides superb image quality in combination with confocal microscopes.
- The 25XC W objectives provide the high numerical aperture of 1.10 and a long 2.0 mm working distance, and are ideal for deep multiphoton imaging with a collar that corrects spherical aberrations depending on the depth of the specimen. Chromatic aberrations are effectively corrected from ultraviolet to infrared wavelengths, and transmission is increased by applying a Nano Crystal Coat.



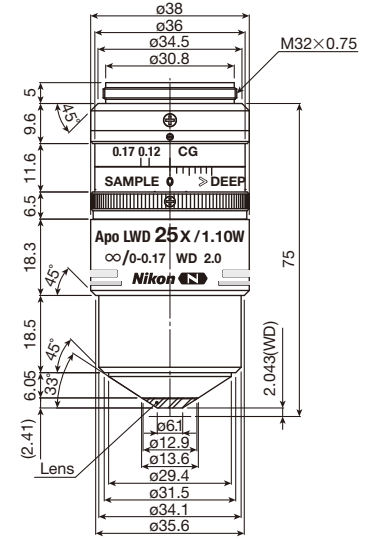




**CFI Plan 100XC W**



**CFI75 LWD 16X W**



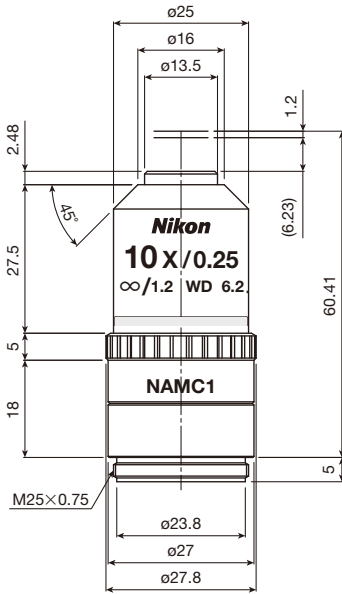
**CFI75 Apochromat 25XC W  
CFI75 Apochromat 25XC W 1300**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRH07120	CFI Plan Fluor 10X W	0.30	3.50	4.07	2.50	110	No cover glass
MRD07420	CFI Apochromat NIR 40X W	0.80	3.50	0.57	0.55	120	No cover glass
MRD07620	CFI Apochromat NIR 60X W	1.00	2.80	0.37	0.37	125	No cover glass
MRL07920	CFI Plan 100XC W	1.10	2.50	0.30	0.22	225	With Correction ring 0-0.13mm No cover glass
MRP07220	CFI75 LWD 16X W	0.80	3.00	0.57	1.38	195	No cover glass
MRD77220	CFI75 Apochromat 25XC W	1.10	2.00	0.30	0.88	360	With Correction ring Cover glass correction 0-0.17mm
MRD77225	CFI75 Apochromat 25XC W 1300	1.10	2.00	0.30	0.88	360	With Correction ring Cover glass correction 0-0.17mm

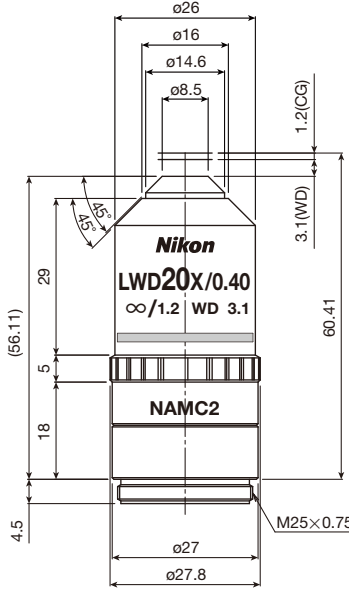
# CFI60 Objectives

## Nikon Advanced Modulation Contrast (NAMC) Series

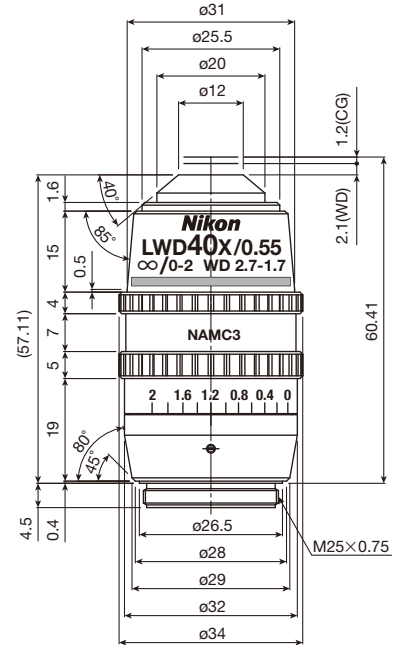
Nikon has developed dedicated objectives for advanced modulation contrast. Colorless and transparent samples can be observed in high relief with a plastic dish, which is not possible in DIC observation. The direction of contrast can be matched to S Plan Fluor ELWD NAMC objectives, thereby allowing optimal contrast selection for techniques like microinjection and ICSI.



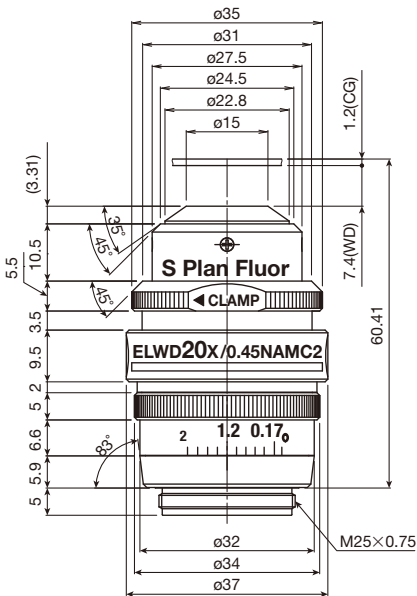
**CFI Achromat NAMC 10XF**



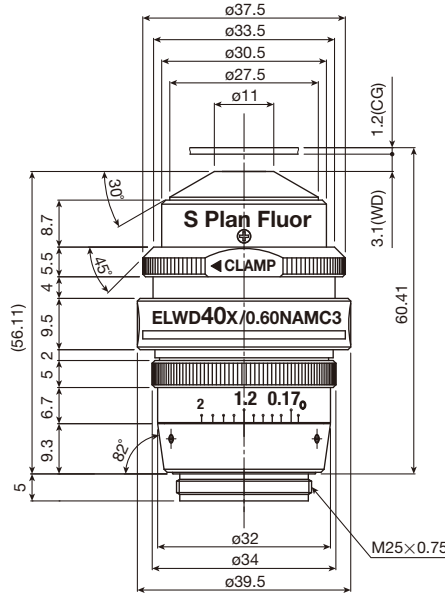
**CFI Achromat LWD NAMC 20XF**



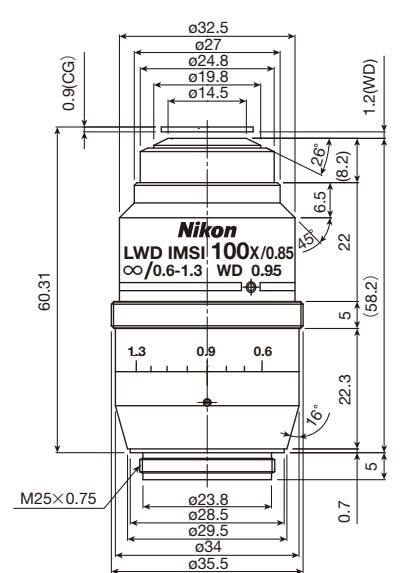
**CFI Achromat LWD NAMC 40XC**



**CFI S Plan Fluor ELWD NAMC 20XC**



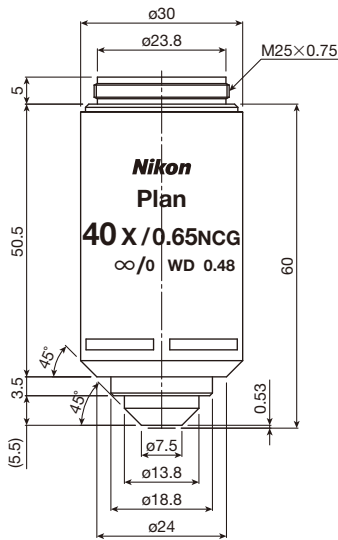
**CFI S Plan Fluor ELWD NAMC 40XC**



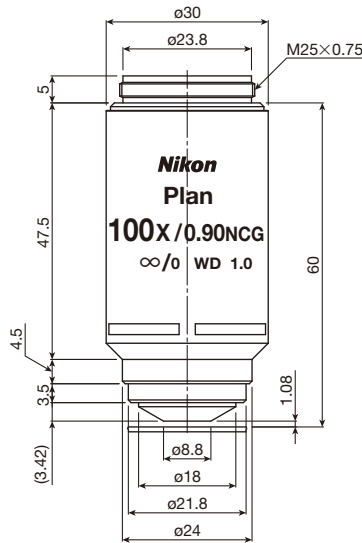
**CFI Plan LWD IMSI 100XC**

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRP60105	CFI Achromat NAMC 10XF	0.25	6.20	4.40	2.20	165	Cover glass thickness 1.2mm
MRP66205	CFI Achromat LWD NAMC 20XF	0.40	3.10	1.72	1.10	180	Cover glass thickness 1.2mm
MRP65425	CFI Achromat LWD NAMC 40XC	0.55	2.70-1.70	0.91	0.55	250	Cover glass correction 0-2mm
MRH68200	CFI S Plan Fluor ELWD NAMC 20XC	0.45	8.20-6.90	1.36	1.10	225	Cover glass correction 0-2mm
MRH68400	CFI S Plan Fluor ELWD NAMC 40XC	0.60	3.60-2.80	0.76	0.55	275	Cover glass correction 0-2mm
MRL65900	CFI Plan LWD IMSI 100XC	0.85	1.30-0.95	0.38	0.25	260	Spring-loaded Cover glass correction 0.6-1.3mm

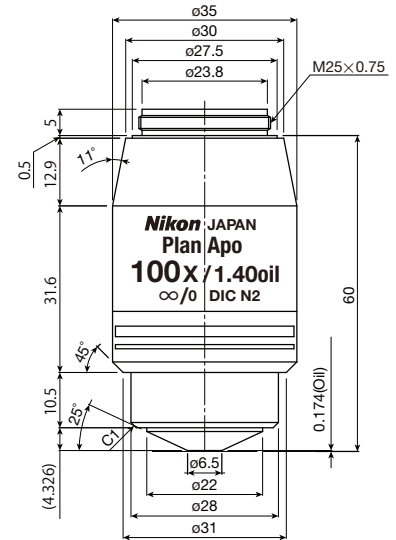
# No Cover Glass Objective Lenses



**CFI Plan Achromat NCG 40X**



**CFI Plan Achromat NCG 100X**

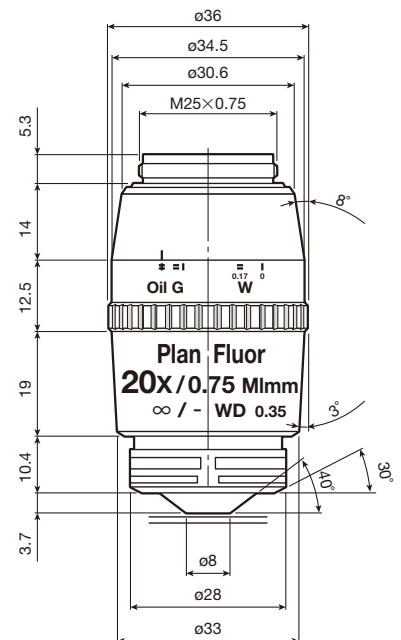


**CFI Plan Apochromat NCG 100X Oil**

Code.No	Objectives (magnification)	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRL03401	CFI Plan Achromat NCG 40X	0.65	0.48	0.65	0.63	160	Spring-loaded No cover glass
MRL03901	CFI Plan Achromat NCG 100X	0.90	1.00	0.34	0.25	160	Spring-loaded No cover glass
MRD04901	CFI Plan Apochromat NCG 100X Oil	1.40	0.16	0.21	0.25	300	Spring-loaded No cover glass

# Multi-Immersion Objective for Brightfield

This multi-purpose immersion objective has a higher numerical aperture and superior contrast. The use of immersion media helps eliminate surface reflections and provides an image with higher contrast. It is an excellent objective for fluorescence, brightfield, and DIC observation techniques. This unique objective has a correction collar that allows it to be used with immersion oil, glycerin, and water (with and without a cover glass).



**CFI Plan Fluor 20XC MI**

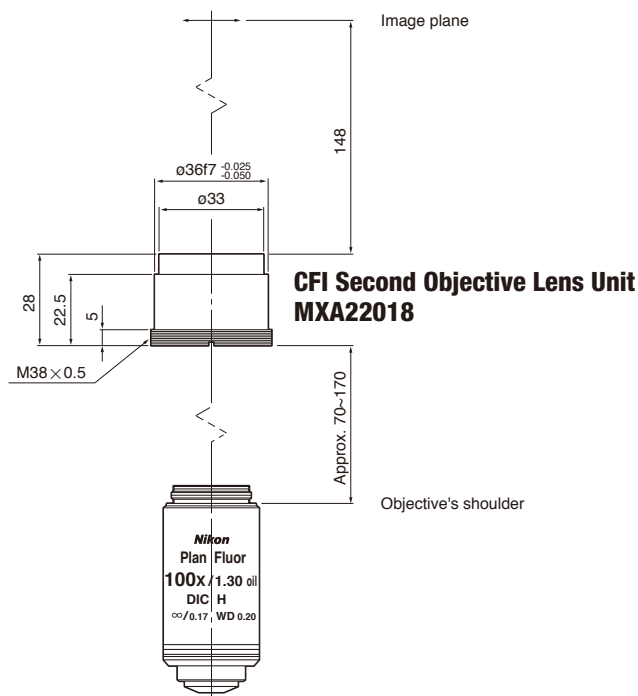
Code.No	Objective	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRH07241	CFI Plan Fluor 20XC MI	0.75	0.51-0.35 (oil) 0.51-0.34 (glycerin) 0.49-0.33 (water)	0.74	1.25	300	Multi-immersion Oil-glycerine-water Spring-loaded Cover glass correction 0-0.17mm

# CFI60 Objectives

## CFI Tube Lens Unit

This unit is attached to infinity objectives when neither a binocular or trinocular eyepiece tube is used.

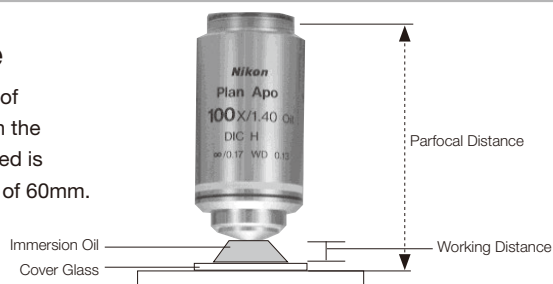
- Infinity Tube Lens Unit for CFI objectives (chromatic aberration-free infinity corrected objectives).
- Focal length: 200mm (7.87 in.)
- To obtain the optimal objective performance, keep the distance between the tube lens and the objective's shoulder within 70–170 mm (2.76–6.69 in.).



## Glossary

### ■ Working Distance (W.D.) and Parfocal Distanece

Working distance is the distance between the top lens of the objective and the surface of the specimen (or the cover glass) when the specimen is focused. The distance between the objective's shoulder and the specimen (or the cover glass) when the specimen is focused is referred to as parfocal distance. Nikon's CF infinity objectives have a parfocal distance of 60mm.

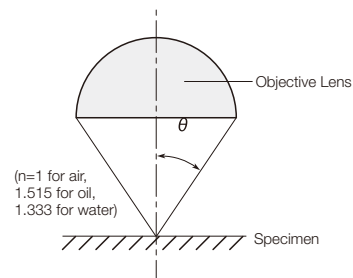


### ■ Numerical aperture (NA)

Numerical aperture is generally indicated by the equation below.

Where,  $NA = n \times \sin \theta$    
 $n$  = Refractivity of the substance existing between the specimen and the objective.   
 $\sin \theta$  = Angle that is formed by the optical axis and the light ray that passes to the extreme periphery of the objective lens.

Numerical aperture is the most important factor in judging the objective's resolving power, brightness, and depth of focus.



### ■ Resolving Power

The closest proximity of two objects that can be seen as two distinct regions of the image. Resolving power is generally indicated by the equatuon below, where the larger the NA the greater the resolving power.

$$\text{Resolving Power} = 0.61 \times \frac{\lambda}{NA}$$

Where,   
 $\lambda$  = Light source's wavelength (generally  $0.55\mu\text{m}$ )   
 NA = Numerical aperture of objective

## ■ Depth of Focus (When observing with eyepieces)

The range in front of and behind the target plane of the specimen, within which the observed structure can be sharply focused. The accommodation power of the human eye varies from person to person, so does depth of focus. Depth of focus is indicated by the equation below.

$$\text{Depth of focus} = \frac{n \times \lambda}{2 \times (\text{NA})^2} + \frac{n}{7 \times \text{NA} \times M} \times 1000$$

$\lambda$  = Light source's wavelength (generally 0.55 $\mu\text{m}$ )  
 NA = Numerical aperture of objective  
 M = Total magnification  
 n = Refractivity of the substance existing between the specimen and the objective.  
 (n=1 for air, 1.515 for Oil, 1.333 for water)

$$\text{Physical depth of focus} = \frac{n \times \lambda}{2 \times (\text{NA})^2}$$

## ■ Focal length

$$f = 200/M_o \quad M_o = \text{Objective's magnification}$$

## ■ Pupil Diameter

The pupil diameter of the objective lens is expressed by the following equation:

$$\text{Pupil diameter} = 2 \times f \times \text{NA}$$

$f$  = Focal length of objective lens  
 $\text{NA}$  = Numerical aperture of objective

## ■ Total Magnification

### When viewed through eyepieces

Eyepiece observation magnification (M) = objective's magnification  $\times$  eyepieces magnification

### When viewed on monitors

Monitor observation magnification = objective's magnification  $\times$  TV adapter magnification  $\times$  monitor magnification

Monitor magnification varies depending on the imaging device size of the TV camera used and the monitor size. For information, see the table below.

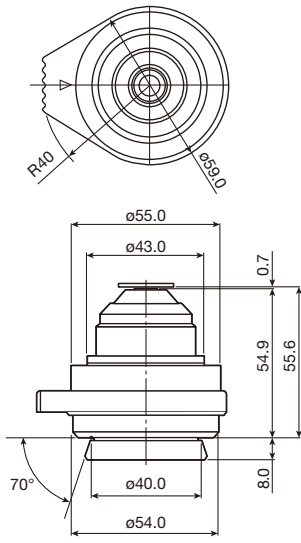
### ■ Imaging device size

Type	Diagonal length	Longer side	Shorter side
1/3-inch	6.0mm	4.8mm	3.6mm
1/2-inch	8.0mm	6.4mm	4.8mm
2/3-inch	11.0mm	8.8mm	6.6mm

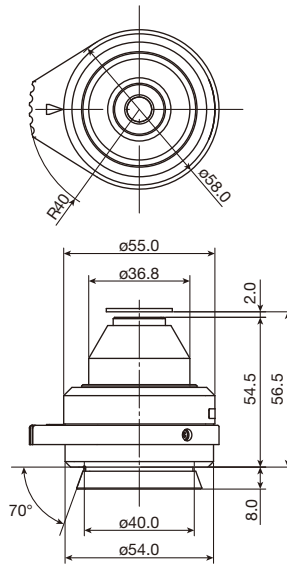
### ■ Monitor magnification

Imaging device size	Monitor Size		
	9-inch	14-inch	20-inch
1/3-inch	38.1 $\times$	59.2 $\times$	84.6 $\times$
1/2-inch	28.6 $\times$	44.4 $\times$	63.5 $\times$
2/3-inch	20.8 $\times$	32.3 $\times$	46.2 $\times$

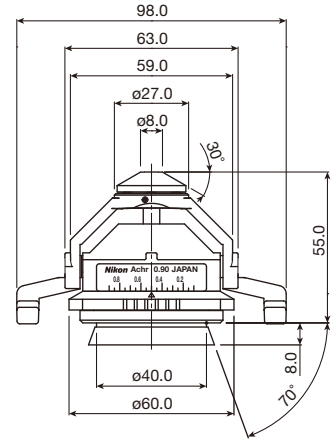
# Condenser



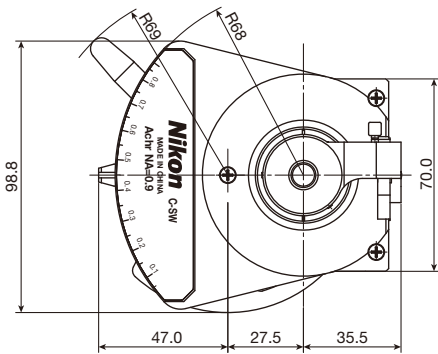
**C-AB Abbe Condenser  
MBL71105**



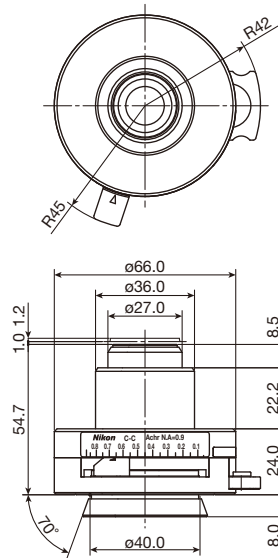
**C-AR Achromat Condenser  
MBL71205**



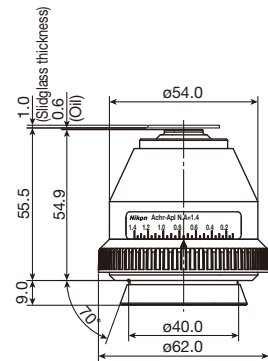
**C-SWA Swing-out Achromat  
Condenser 2X-100X  
MBL11300**



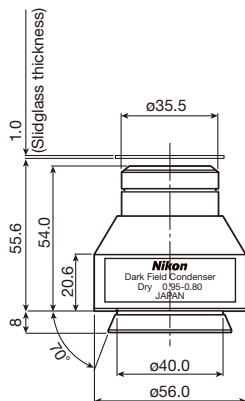
**C-SW Swing-out Achromat  
Condenser 1X-100X  
MBL71305**



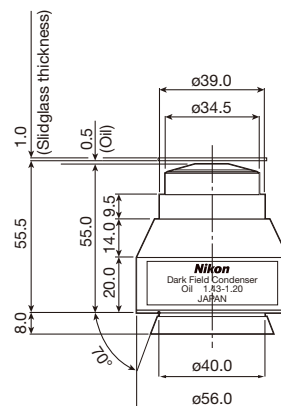
**C-SA Slide Achromat  
Condenser 2X-100X  
MBL71505**



**C-AA Achromat /Aplanat Condenser  
MBL71405**



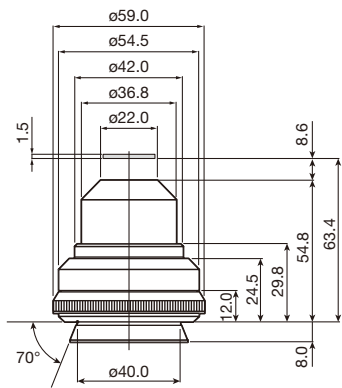
**C-DD Dark Field Condenser Dry  
MBL12010**



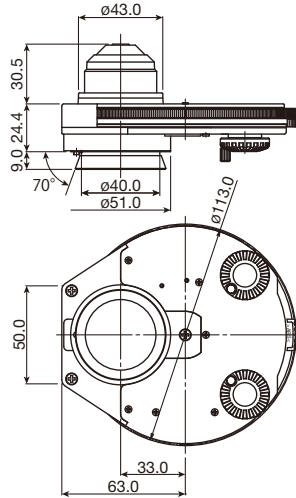
**C-DO Dark Field Condenser Oil  
MBL12000**



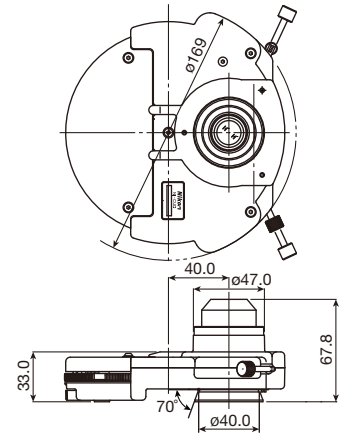
**C-CEL Expander Lens  
for C-DO Dark Field Condenser Oil  
MXA20740**



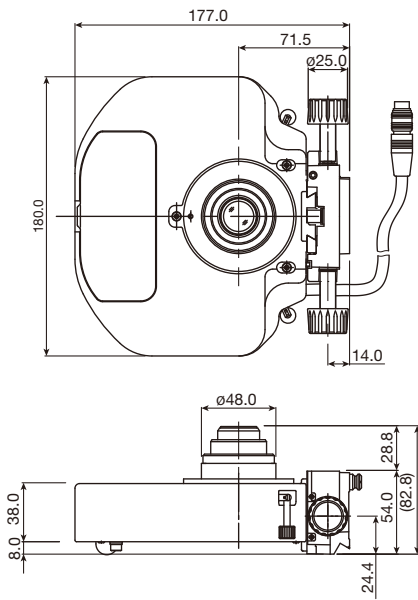
**C-LAR LWD Achromat Condenser  
MBL16105**



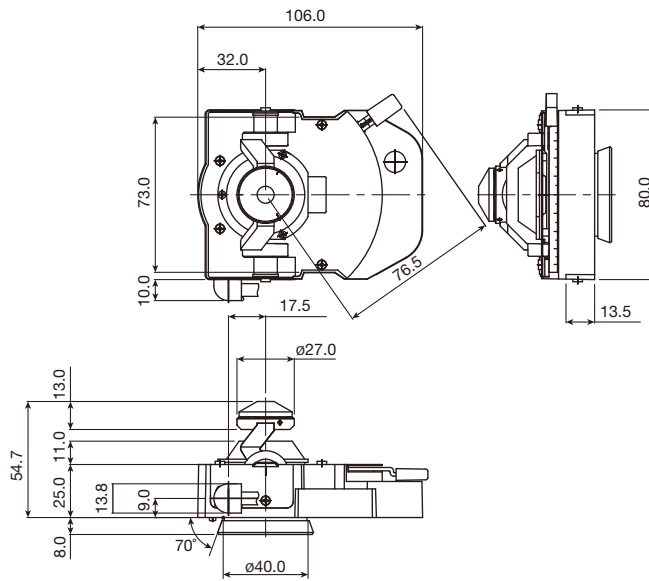
**C-PH Phase Contrast Turret Condenser  
MBL73105**



**NI-CUD Universal Condenser Dry  
MBL99005**



**NI-CUD-E Motorized  
Universal Condenser Dry  
MBL99800**

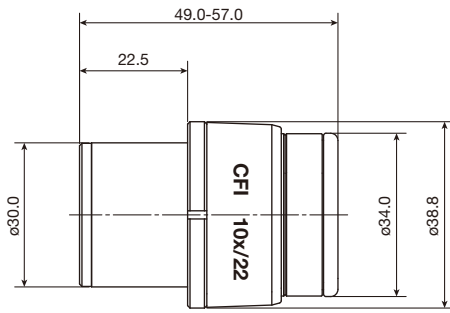


**CI-C-E Motorized  
Swing-out Condenser  
MBL99300**

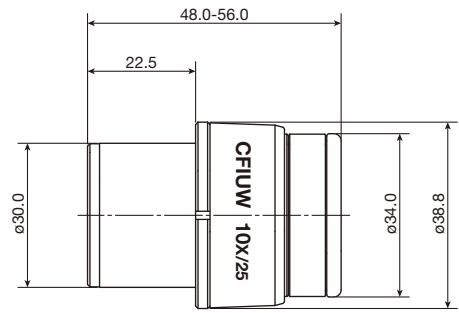
Code.No	Condensers	NA	O.D (mm)*	Magnification	Weight (g)**
MBL71105	C-AB Abbe Condenser	0.90	1.90	4-100X	90
MBL71205	C-AR Achromat Condenser	0.80	4.20	4-100X	150
MBL11300	C-SWA Swing-out Achromat Condenser 2X-100X	0.90/0.22	1.80	2-100X	105
MBL71305	C-SW Swing-out Achromat Condenser 1X-100X	0.90/0.11	1.40	1-100X	500
MBL71505	C-SA Slide Achromat Condenser 2X-100X	0.90	2.20	2-100X	250
MBL71405	C-AA Achromat /Aplanat Condenser	1.40	1.60	10-100X	180
MBL12010	C-DD Dark Field Condenser Dry	0.80-0.95	4.00	20-40X	175
MBL12000	C-DO Dark Field Condenser Oil	1.20-1.43	1.50	20-100X	163
MXA20740	C-CEL Expander Lens for C-DO Dark Field Condenser Oil	1.20-1.43	-	60-100X	100
MBL16105	C-LAR LWD Achromat Condenser	0.65	10.20	4-40X	118
MBL73105	C-PH Phase Contrast Turret Condenser	0.90	1.90	10-100X	370
MBL99005	NI-CUD Universal Condenser Dry	0.88	2.50	2-100X	800
MBL99800	NI-CUD-E Motorized Universal Condenser Dry	0.88	2.50	2-100X	1200
MBL99300	CI-C-E Motorized Swing-out Condenser	0.90/0.22	1.80	2-100X	250

\*Object Distance \*\*Approximately

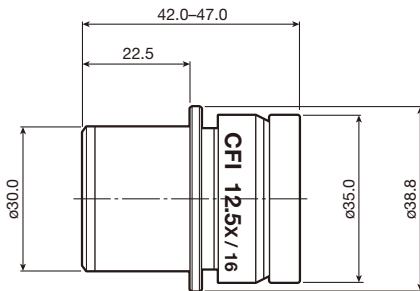
# Eyepiece



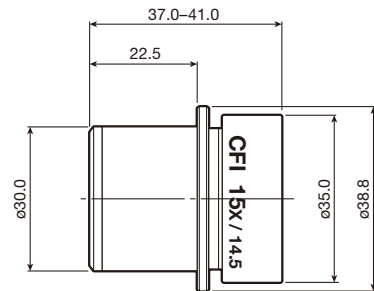
**CFI 10X  
MAK10110**



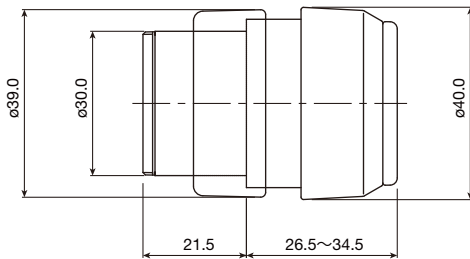
**CFI UW 10X  
MAK30105**



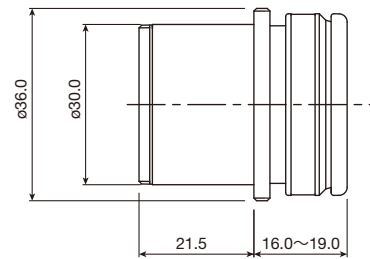
**CFI 12.5X  
MAK10120**



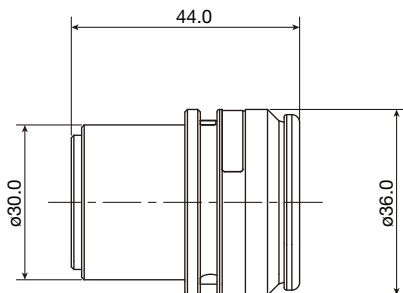
**CFI 15X  
MAK10150**



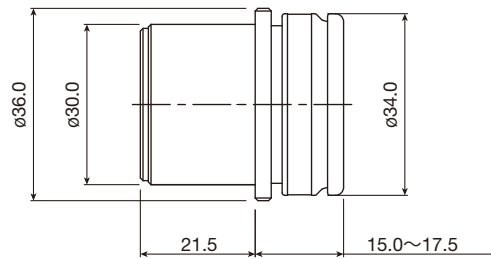
**C-W 10XB  
MAK30102**



**C-W 15X  
MAK30155**



**C-W 20X  
MMK30205**



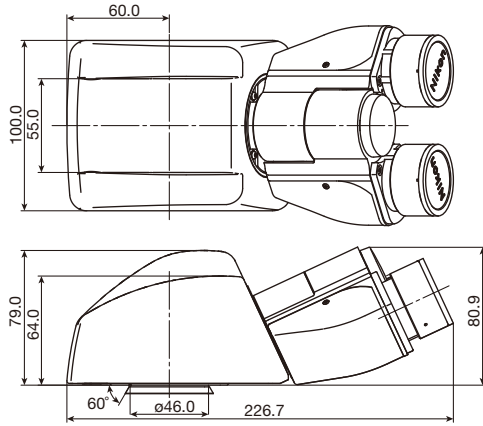
**C-W 30X  
MMK30300**

Code.No	Eyepieces	Field number	Weight (g)*
MAK10110	CFI 10X	22	75
MAK30105	CFI UW 10X	25	100
MAK10120	CFI 12.5X	16	63
MAK10150	CFI 15X	14.5	48
MMK30102	C-W 10XB	22	75
MMK30155	C-W 15X	16	50
MMK30205	C-W 20X	12.5	60
MMK30300	C-W 30X	7	70

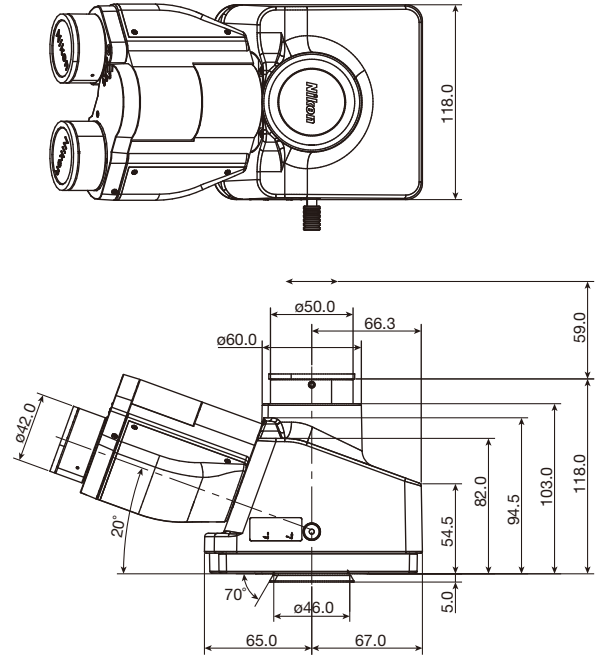
\*Approximately



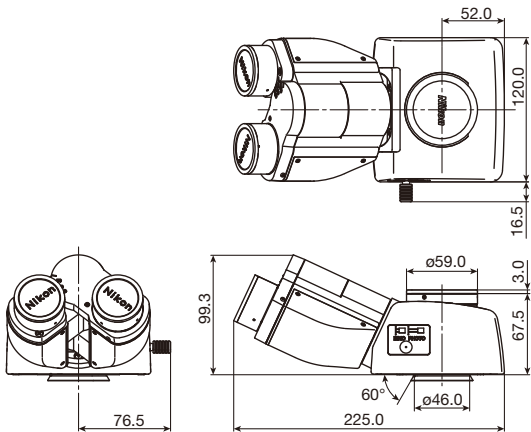
# Eyepiece Tube



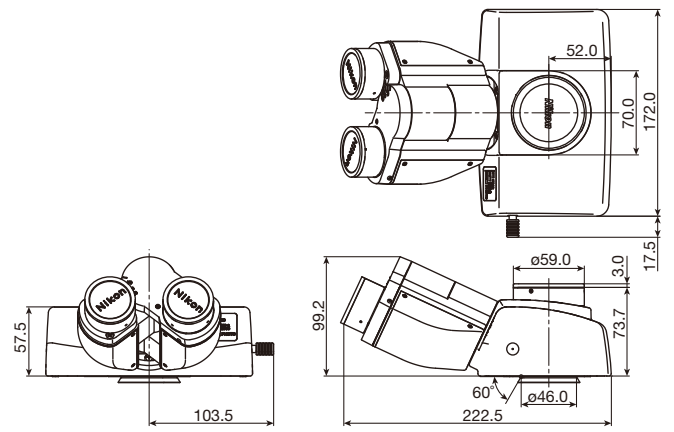
**C-TB Binocular Tube  
MBB92106**



**LV-TI3 Trinocular Tube  
MBB63425**



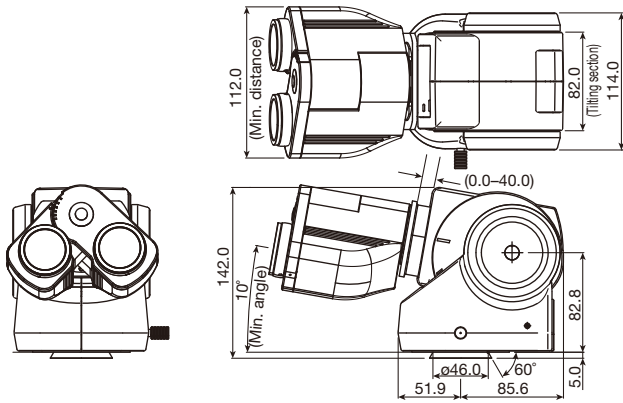
**C-TF Trinocular Tube F  
MBB93106**



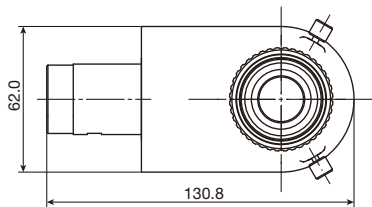
**C-TT Trinocular Tube T  
MBB93115**

Code.No	Eyepiece Tubes	Field number	Observation Inclination	Observation Image	Interpupillary adjustment	Intensity split ratio (Eyepiece:Port)	Weight (g)*
MBB92106	C-TB Binocular Tube	22	25°	Inverted image	50 to 75mm		1400
MBB63425	LV-TI3 Trinocular Tube	25	20°	Upright image	50 to 75mm	100:0 or 0:100 two-way switching	1800
MBB93106	C-TF Trinocular Tube F	25	25°	Inverted image	50 to 75mm	100:0 or 0:100 two-way switching	2000
MBB93115	C-TT Trinocular Tube T	25	25°	Inverted image	50 to 75mm	100:0, 20:80 or 0:100 three-way switching	2500
MBB93800	C-TE2 Ergonomic Binocular Tube	22	10°-30°	Inverted image	50 to 75mm	100:0 or 50:50 two-way switching	2000

\*Approximately

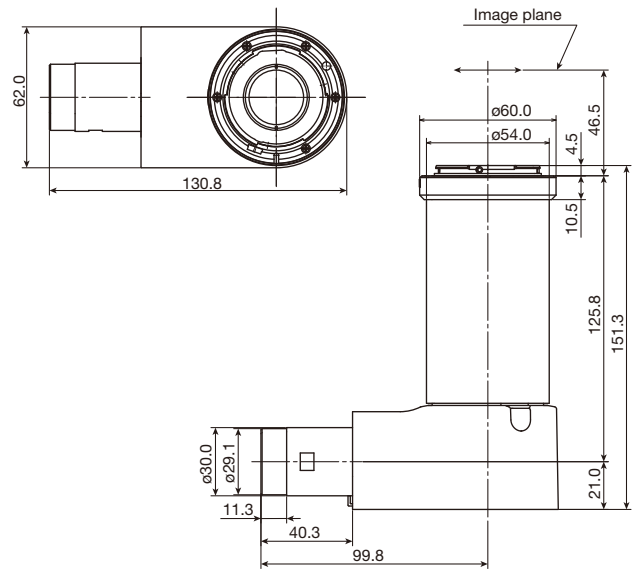


**C-TE2 Ergonomic Binocular Tube  
MBB93800**



**C-TEP2 DSC Port for Ergonomic Binocular Tube  
MBB96800**

C-mount camera port with built-in 0.7x relay lens.

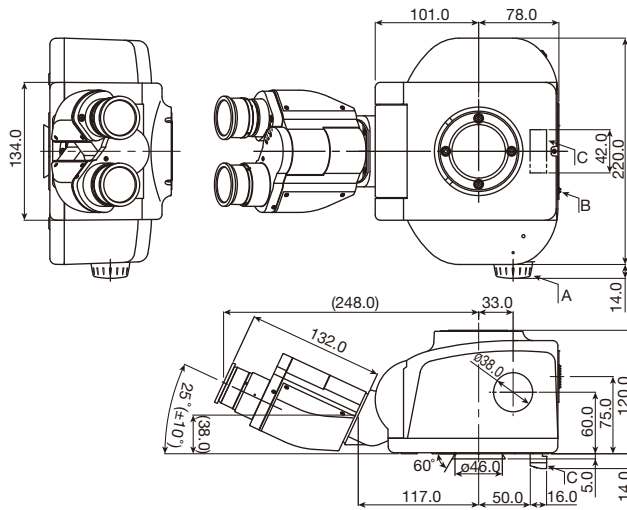


**C-TEPF2.5 DSC Port F2.5X for Ergonomic Binocular Tube  
MBB96810**

F-mount camera port with built-in 2.5x relay lens.

Code.No	Camera Ports for Ergonomic Binocular Tube	Weight (g)*
MBB96800	C-TEP2 DSC Port for Ergonomic Binocular Tube	600
MBB96810	C-TEPF2.5 DSC Port F2.5X for Ergonomic Binocular Tube	500

\*Approximately



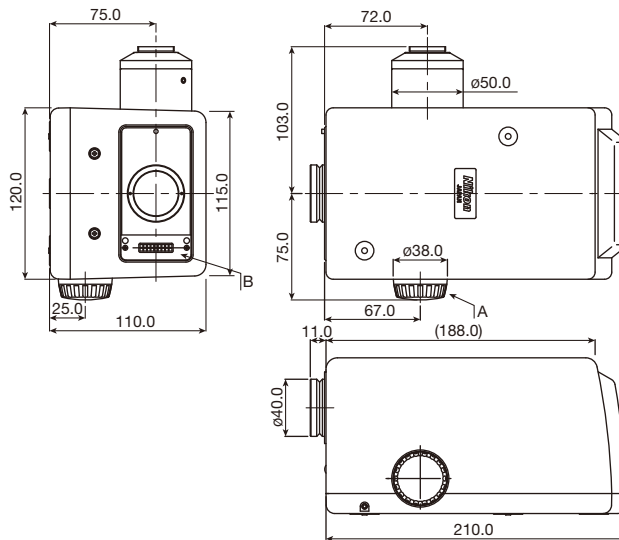
Note 1. Optical path switching dial (shown as A) is equipped on MBB94521 only.  
 Note 2. Connectors (shown as B and C) are equipped on MBB94510 only.

**NI-TT Quadrocular Tilting Tube  
 MBB94521  
 NI-TT-E Motorized Quadrocular Tilting Tube  
 MBB94510**

Code.No	Eyepiece Tubes	Field number	Observation Inclination	Observation Image	Interpupillary adjustment	Intensity split ratio Eyepiece:Upper port:Rear port	Weight (g)*
MBB94521	NI-TT Quadrocular Tilting Tube	25**	15°- 35°	Inverted image	50 to 75mm	100:0:0, 0:100:0 or 0:0:100 Manual three-way switching	4200
MBB94510	NI-TT-E Motorized Quadrocular Tilting Tube	25**	15°- 35°	Inverted image	50 to 75mm	100:0:0, 0:100:0 or 0:0:100 Motorized three-way switching	4200

\* Approximately

\*\* Field number is 22 when used with two overlapping epi-fluorescence cube turrets.

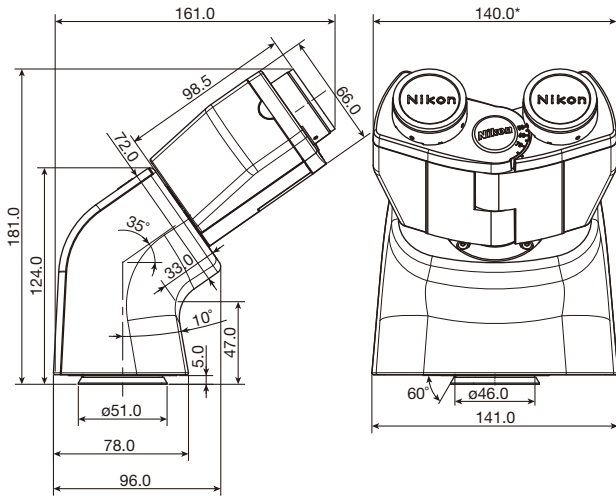


Note 1. Zoom dial (shown as A) is equipped on MBB96721 only.  
 Note 2. Connector (shown as B) is equipped on MBB96710 only.

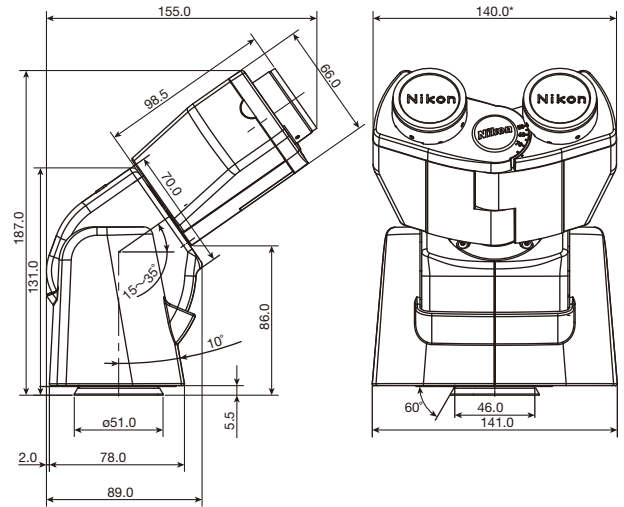
**NI-RPZ DSC Zooming Port for Quadrocular Tube  
 MBB96721  
 NI-RPZ-E Motorized DSC Zooming Port for Quadrocular Tube  
 MBB96710**

Code.No	Zooming Port for Quadrocular Tube	Camera mount	Remarks	Weight (g)*
MBB96721	NI-RPZ DSC Zooming Port for Quadrocular Tube	C-mount	Manual zooming available from 0.6X to 2.0X	1500
MBB96710	NI-RPZ-E Motorized DSC Zooming Port for Quadrocular Tube	C-mount	Motorized zooming available from 0.6X to 2.0X	1500

\* Approximately



**TC-T-TS S Tube  
MEB52340**

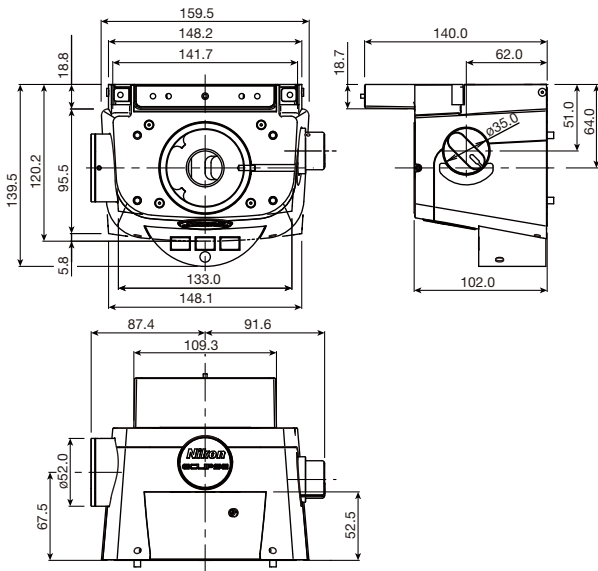


**TC-T-ER ER Tube  
MEB52520**

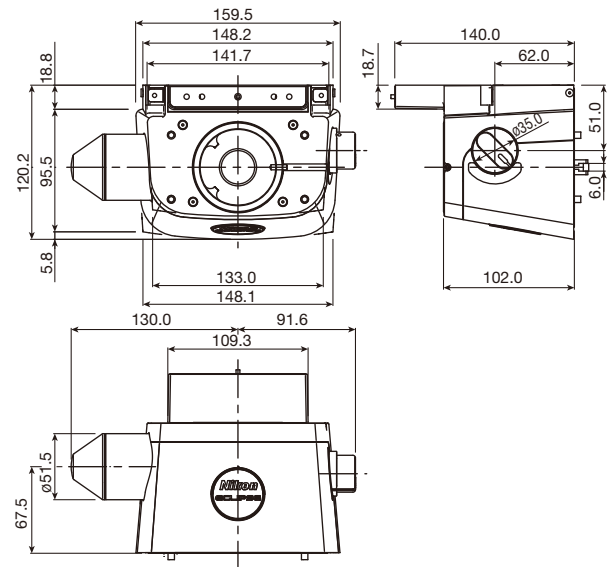
\* When the interpupillary distance is set to maximum.

Code.No	Eyepiece Tubes	Field number	Observation Inclination	Observation Image	Interpupillary adjustment	Weight (g)*
MEB52340	TC-T-TS S Tube	22	35°	Upright, Back side image	50 to 75mm	1600
MEB52520	TC-T-ER ER Tube	22	15°-45°	Upright, Back side image	50 to 75mm	1800

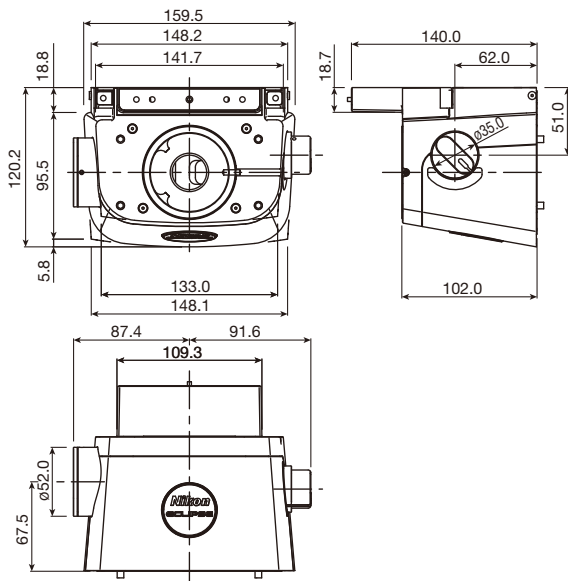
\*Approximately



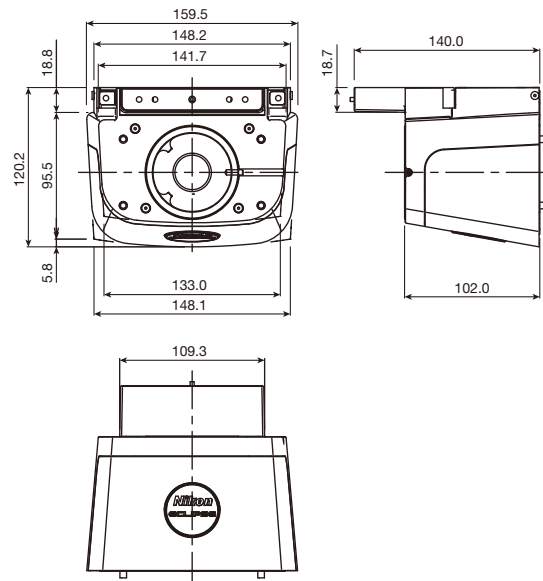
**T12-T-BP-E Motorized Eyepiece Tube Base Unit for External PH  
MEB55840**



**T12-T-BA Assist Eyepiece Tube Base Unit  
MEB55860**



**T12-T-BC Eyepiece Tube Base Unit with Port  
MEB55850**

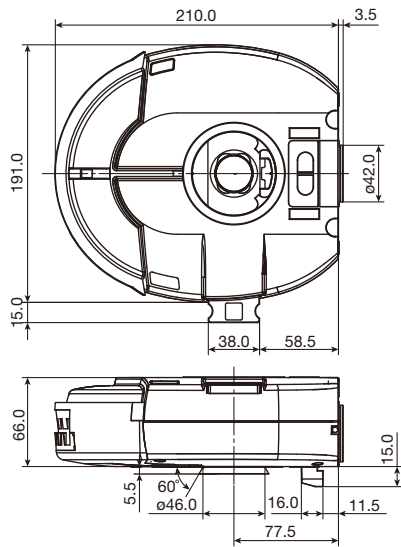


**T12-T-BS S Eyepiece Tube Base Unit  
MEB55830**

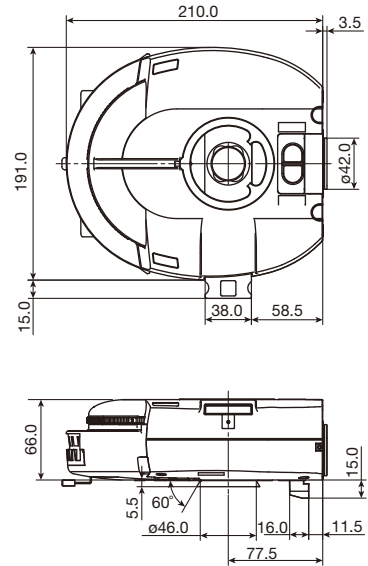
Code.No	Eyepiece Tube Base Unit	External Phase Contact observation	Camera port	Weight (g)*
MEB55840	T12-T-BP-E Motorized Eyepiece Tube Base Unit for External PH	Available with Motorized control	C-mount	2300
MEB55860	T12-T-BA Assist Eyepiece Tube Base Unit	Not available	Not available	2100
MEB55850	T12-T-BC Eyepiece Tube Base Unit with Port	Not available	C-mount	1900
MEB55830	T12-T-BS S Eyepiece Tube Base Unit	Not available	Not available	1600

\*Approximately

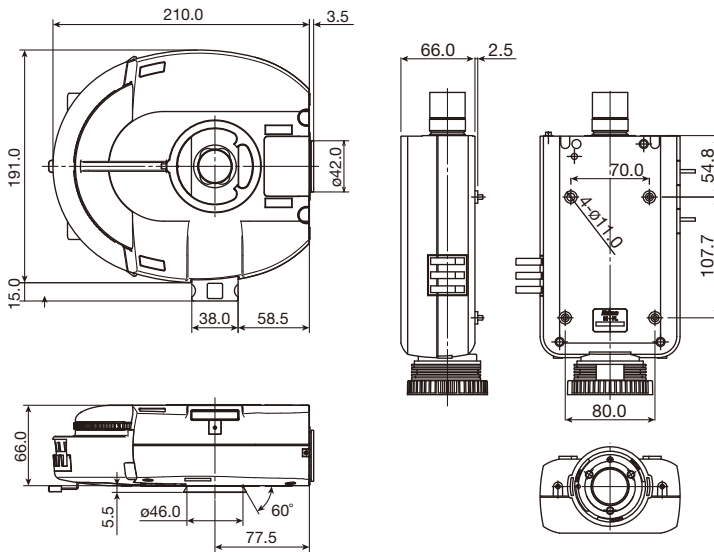
# Fluorescence Cube Turret and Fluorescence Module



**NI-FLT6-E Motorized Epi-fluorescence Cube Turret  
MBE94300**

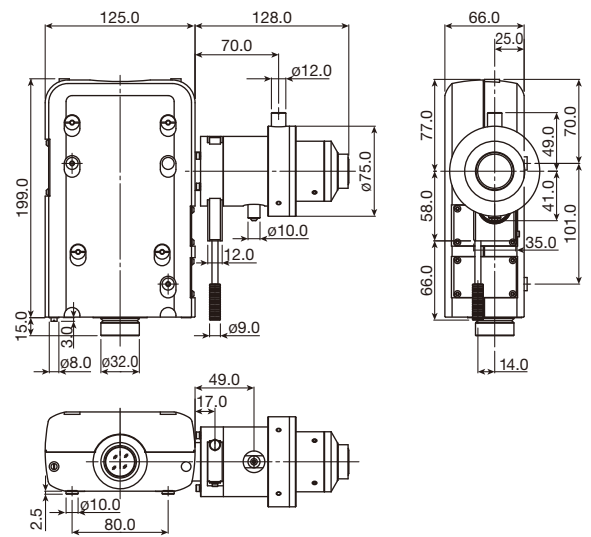


**NI-FLT6-I Intelligent Epi-fluorescence Cube Turret  
MBE94400**

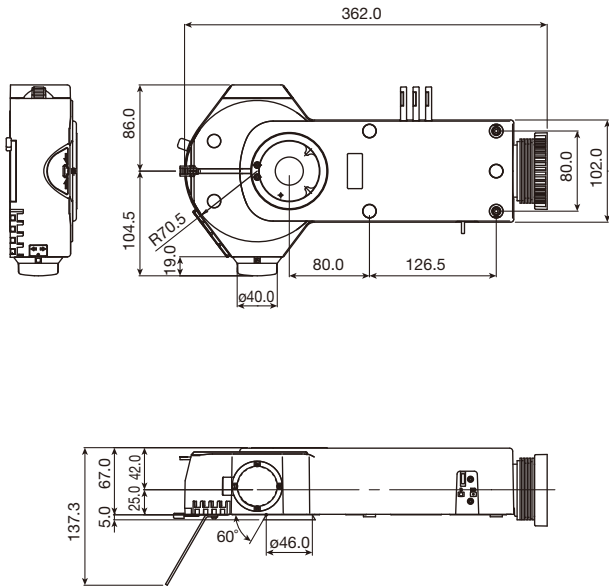


**NI-FLT6 Epi-fluorescence  
Cube Turret  
MBE94500**

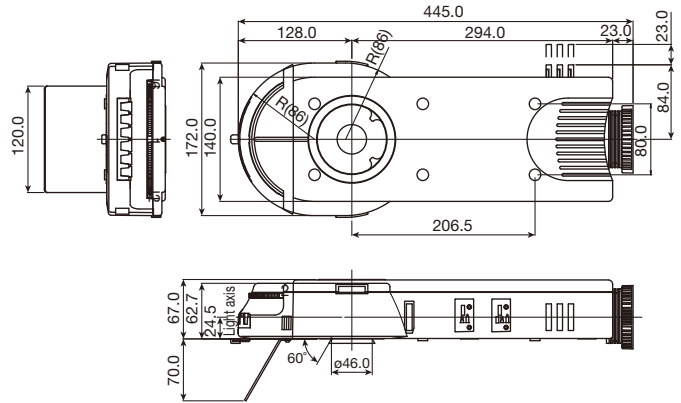
**NI-FLEI Epi-fluorescence  
Attachment  
MBE94100**



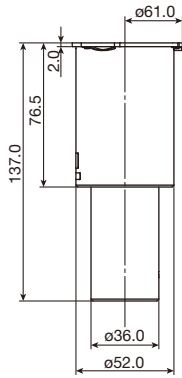
**NI-BPU Back Port Unit  
MBE94200**



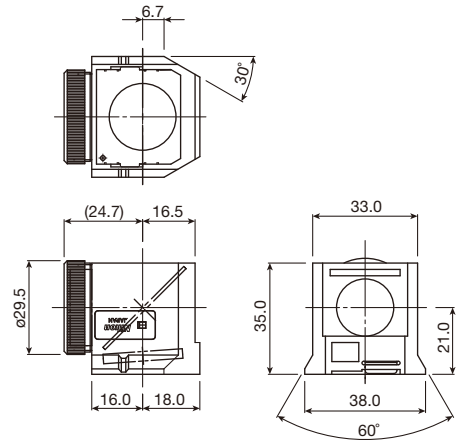
**CI-FL Epi-Fluorescence Attachment  
MBE94310**



**D-FL Epi-Fluorescence Attachment  
MBE74100**



**C-HGFIB HG 100W Adapter R  
MBF72315**

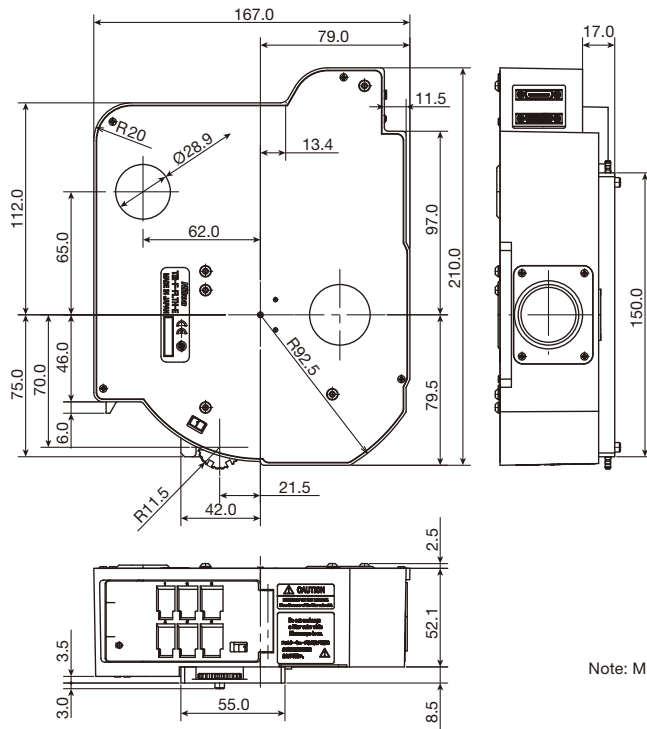


**C-FL BLK Blank Filter Cube  
MXA22030**

Same as outline images of C-FL Epi-fl Filter Cubes.

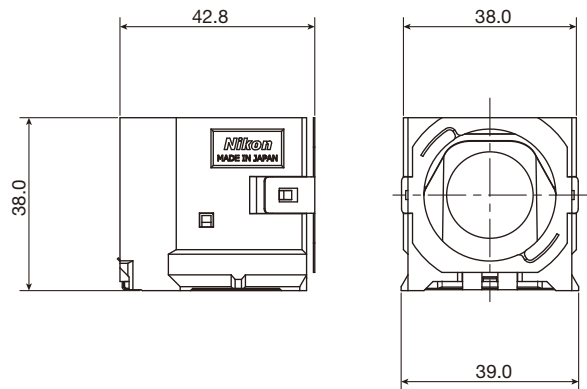
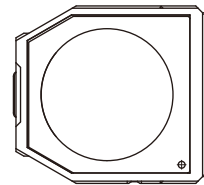
Code.No	Intermediate Tubes	Weight (g)*	Remarks
MBE94300	NI-FLT6-E Motorized Epi-fluorescence Cube Turret	2500	Motorized rotation, Intelligent, 6 filter cubes mountable
MBE94400	NI-FLT6-I Intelligent Epi-fluorescence Cube Turret	2500	Manual rotation, Intelligent, 6 filter cubes mountable
MBE94500	NI-FLT6 Epi-fluorescence Cube Turret	2500	Manual rotation, 6 filter cubes mountable
MBE94100	NI-FLEI Epi-fluorescence Attachment	1500	
MBE94200	NI-BPU Back Port Unit	2500	C-mount
MBE94310	CI-FL Epi-Fluorescence Attachment	2000	Manual rotation, 4 filter cubes mountable
MBE74100	D-FL Epi-Fluorescence Attachment	3300	Manual rotation, 6 filter cubes mountable
MBF72315	C-HGFIB HG 100W Adapter R	450	

\*Approximately



Note: Manual shutter lever for epi-illumination blocking is equipped on MEV51020.

- T12-F-FLTH-E Motorized HQ Epi Filter Turret**  
**MEV51040**
- T12-F-FLT-E Motorized Epi Filter Turret**  
**MEV51030**
- T12-F-FLT-I Intelligent Epi Filter Turret**  
**MEV51020**

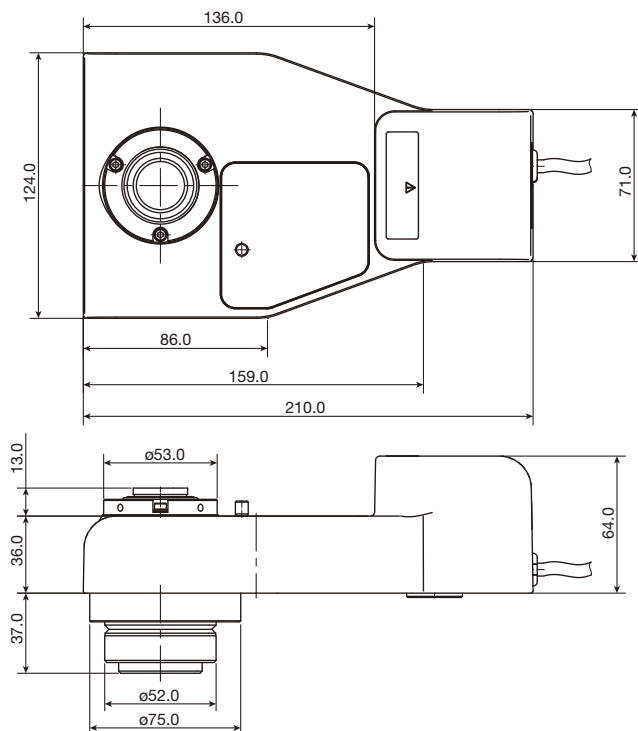


**C-FLL-C Blank Filter Cube for Large FOV**  
**MXA22145**

Same as outline images of C-FLL-C Epi-Fi Filter Cubes.



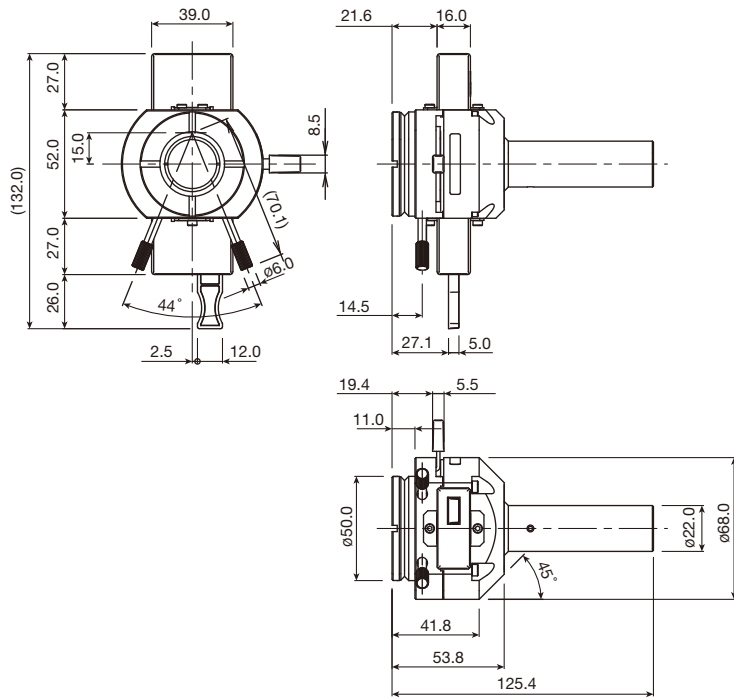
# Fluorescence Cube Turret and Fluorescence Module



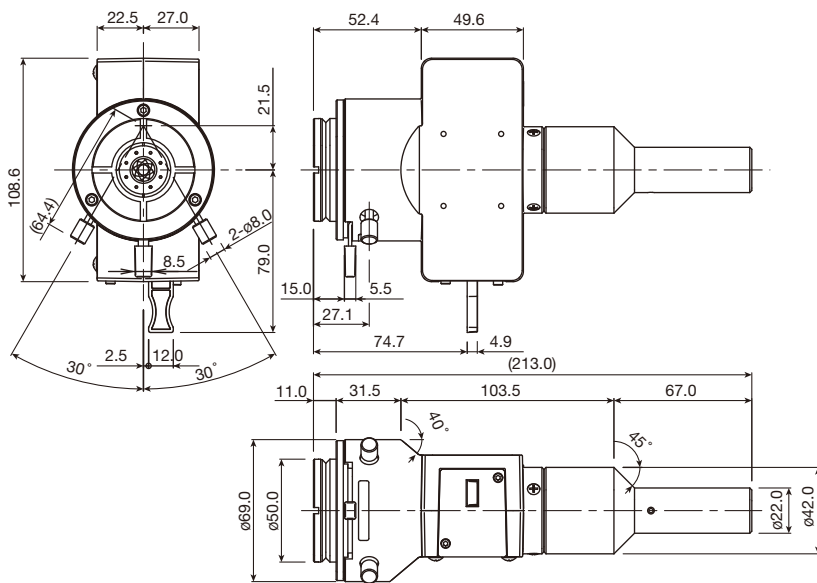
**TI2-P-FWB-E Motorized BA Filter Wheel  
MEE54405**

Code.No	Fluorescence Cube Turret	Weight (g)*	Remarks
MEV51040	TI2-F-FLTH-E Motorized HQ Epi Filter Turret	2000	Motorized rotation, Intelligent, 6 filter cubes mountable
MEV51030	TI2-F-FLT-E Motorized Epi Filter Turret	1700	Motorized rotation, Intelligent, 6 filter cubes mountable
MEV51020	TI2-F-FLT-I Intelligent Epi Filter Turret	1400	Manual rotation, Intelligent, 6 filter cubes mountable
MEE54405	TI2-P-FWB-E Motorized BA Filter Wheel	1500	Motorized rotation, Intelligent, 7 filters mountable

\*Approximately

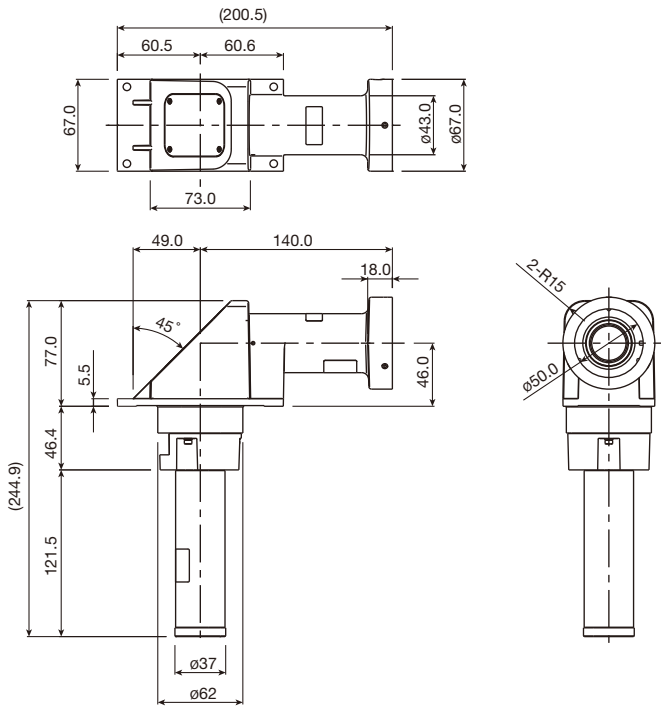


**T12-LA-FLL EPI-FL Module for Large FOV  
MEE54730**

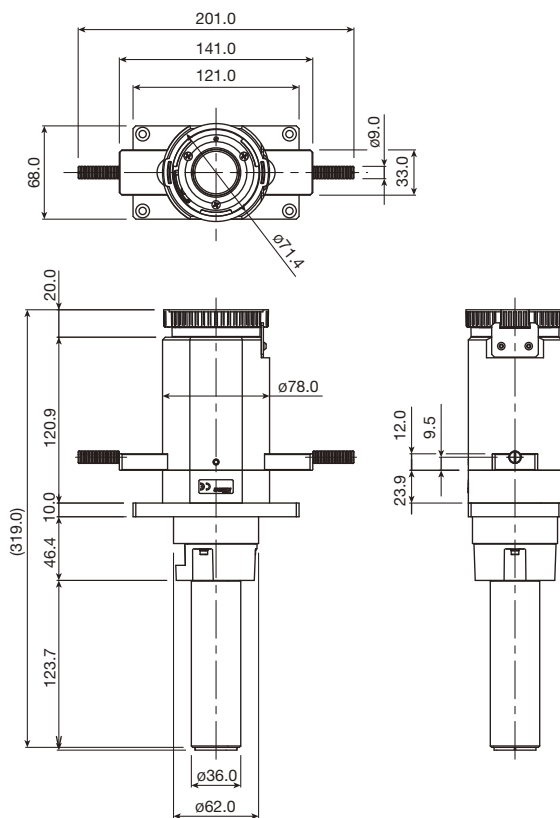


**T12-LA-FL EPI-FL Module  
MEE54720**

# Fluorescence Cube Turret and Fluorescence Module

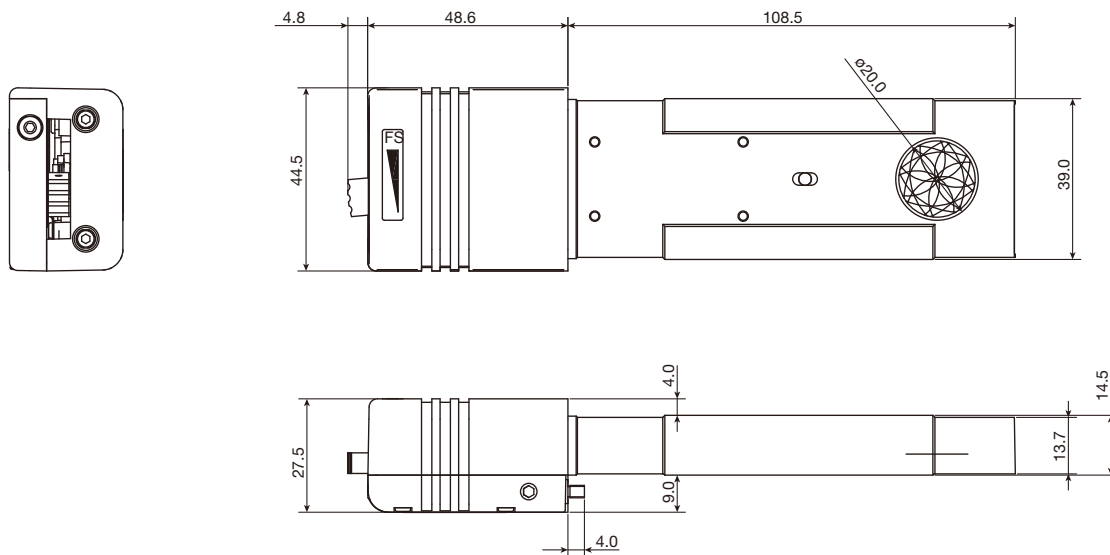


**T12-LA-BF Fixed Main Branch  
MEE54860**



**T12-F-FLS Simple Epi-FL Attachment  
MEE54110**

# Fluorescence Cube Turret and Fluorescence Module

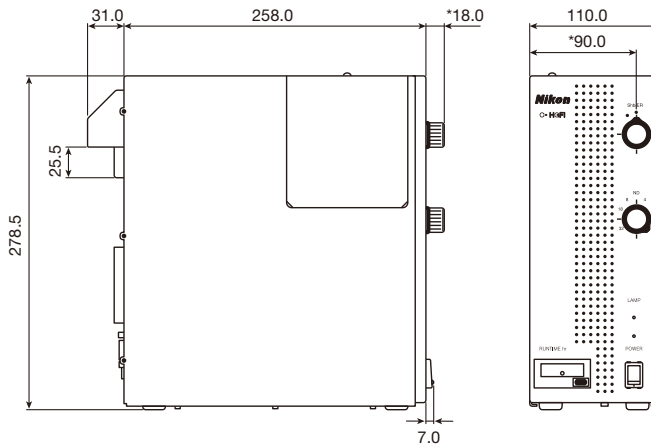


**T12-F-FSC Circular Field Stop Slider  
MEV50020**  
**T12-F-FSS Square Field Stop Slider  
MEV50030**  
**T12-F-FSR Rectangle Field Stop Slider  
MEV50040**

Code.No	Illumination Systems	Weight (g)*
MEE54730	T12-LA-FLL EPI-FL Module for Large FOV	2000
MEE54720	T12-LA-FL EPI-FL Module	1700
MEE54860	T12-LA-BF Fixed Main Branch	1400
MEE54110	T12-F-FLS Simple Epi-FL Attachment	1500
MEV50020	T12-F-FSC Circular Field Stop Slider	200
MEV50030	T12-F-FSS Square Field Stop Slider	200
MEV50040	T12-F-FSR Rectangle Field Stop Slider	200

\*Approximately

# Fluorescence Illumination

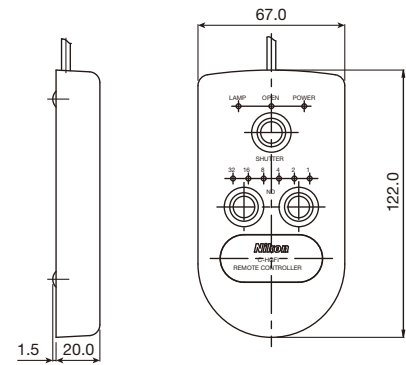


**C-HGFI HG Fiber Illuminator "Intensilight"**

**MBF72655**

**C-HGFIE HG Motorized Fiber Illuminator "Intensilight"**

**MBF72665**

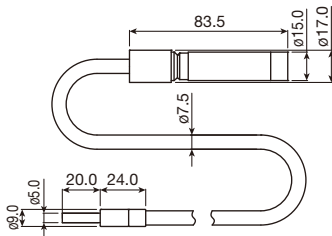


**C-HGFIE-C HG Controller**

**MBF75600**

\*With the "Intensilight" C-HGFI HG Fiber Illuminator only.

C-HGFIE is not equipped with a shutter opening/closing function and ND compensation dial, because the shutter and ND are electrically controlled.



**C-HGFIF 15 HG Fiber 1.5m**

**MBF71610**

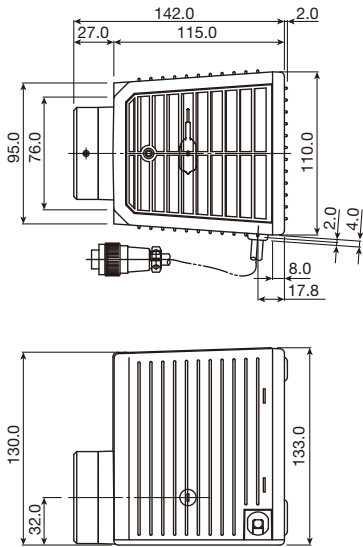
**C-HGFIF 30 HG Fiber 3.0m**

**MBF71630**

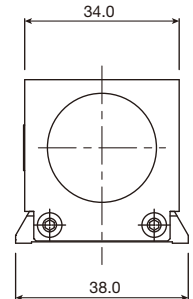
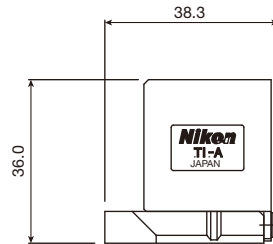
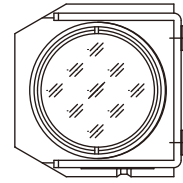
Code.No	Illumination Systems	Weight (g)*
MBF72655	C-HGFI HG Fiber Illuminator "Intensilight"	6000
MBF72665	C-HGFIE HG Motorized Fiber Illuminator "Intensilight"	6000
MBF75600	C-HGFIE-C HG Controller	200
MBF71610	C-HGFIF 15 HG Fiber 1.5m	100
MBF71630	C-HGFIF 30 HG Fiber 3.0m	150

\*Approximately

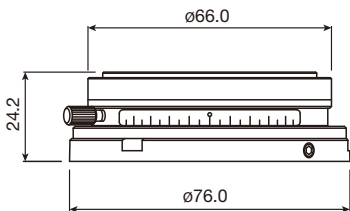
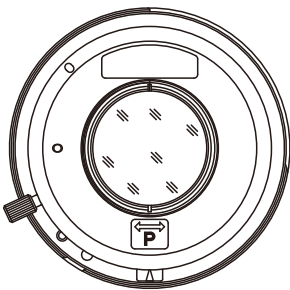
# Diascopic Illumination



**NI-LH Precentered Lamphouse**  
**MBE95205**



**TI-A DIC Analyzer Cube**  
**MEN51980**

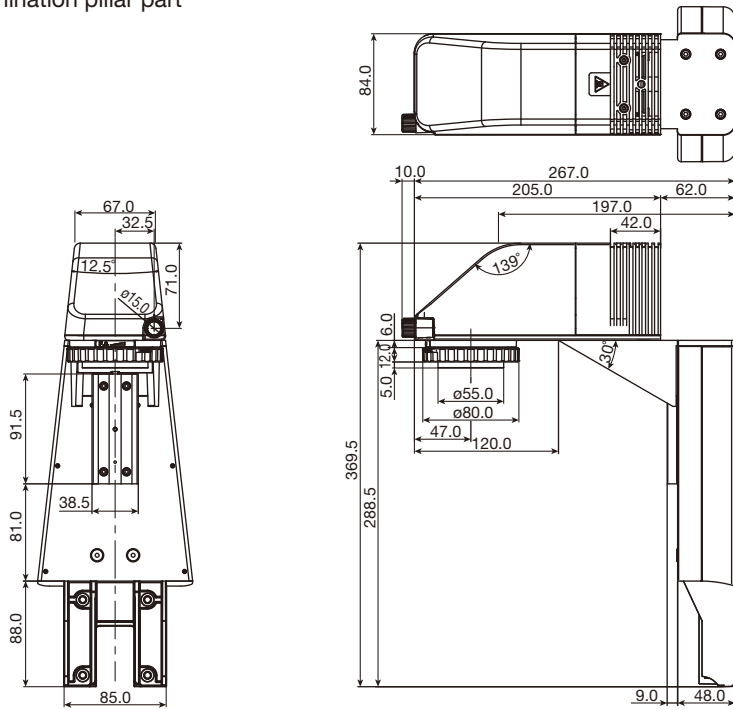


**D-DP DIC Rotatable Polarizer**  
**MBN74940**

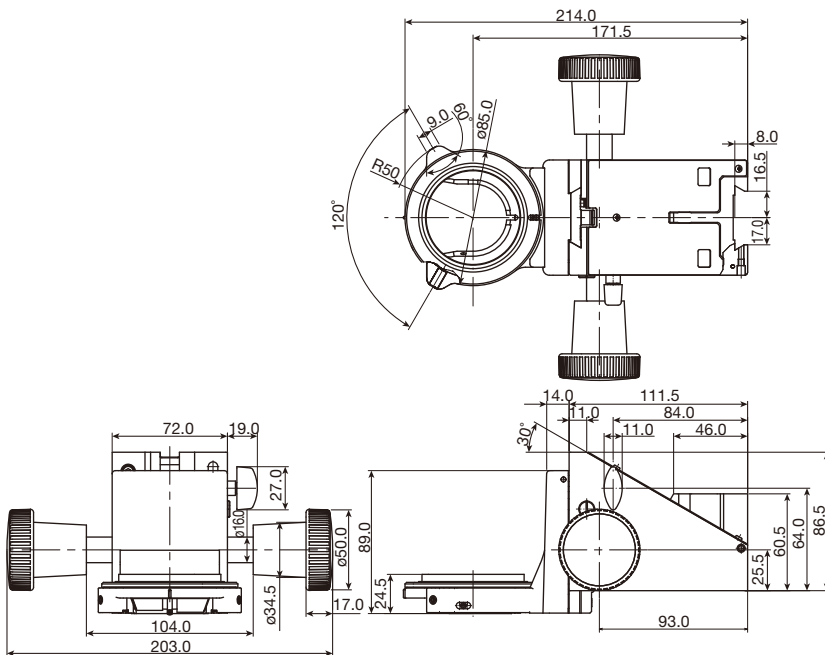
Code.No	Diascopic Illumination for Upright Microscope ECLIPSE Ni	Weight (g)*
MBE95205	NI-LH Precentered Lamphouse	1000
MEN51980	TI-A DIC Analyzer Cube	100
MBN74940	D-DP DIC Rotatable Polarizer	300

\*Approximately

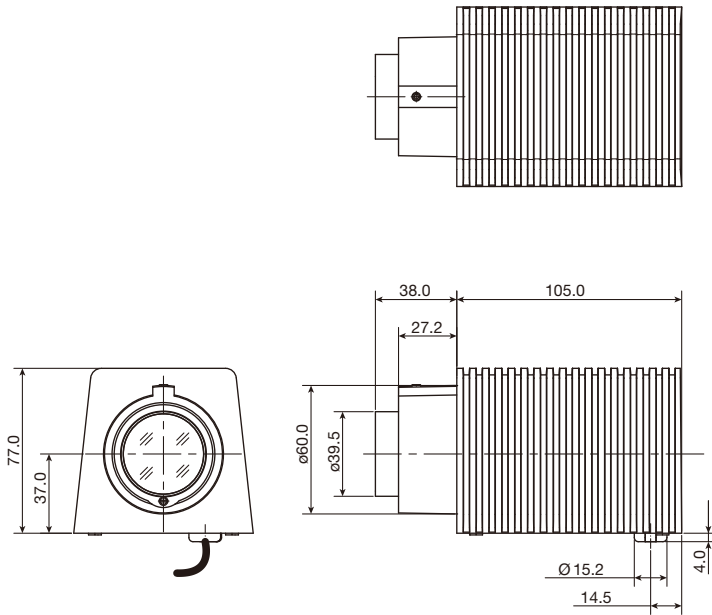
Illumination pillar part



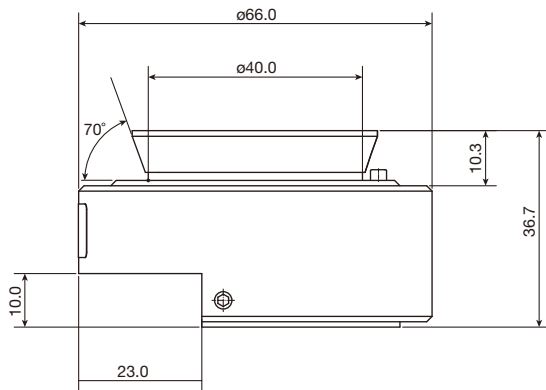
Condenser holder part



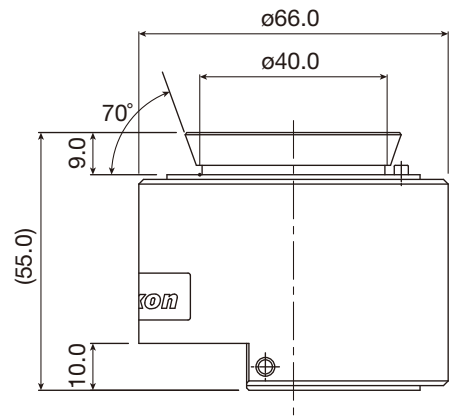
**T12-D-PD Pillar for Dia Illumination  
MEE59920**



**TI2-D-LHLED LED Lamp House for Dia Illumination  
MEE55700**



**TI2-C-CLWDA  
CLWDA Condenser Adapter  
MXA22176**

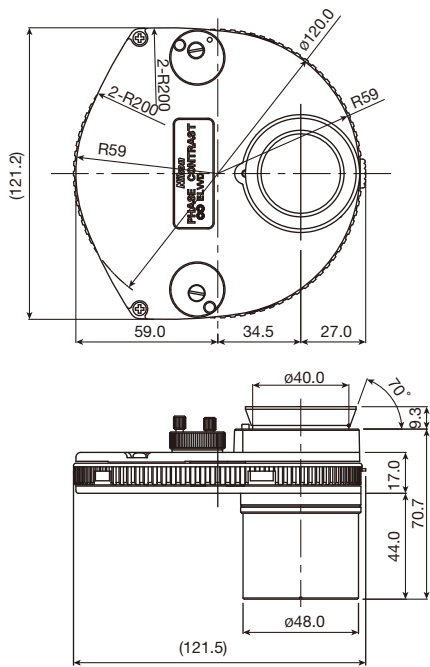


**TI-DF  
Dark-Field Condenser Adapter  
MXA22091**

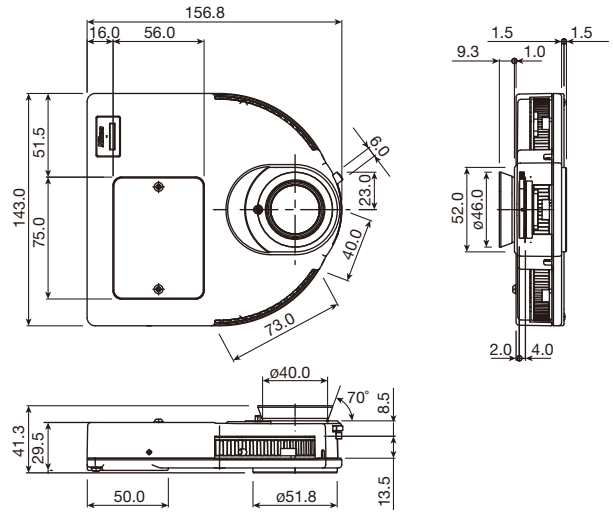
Code.No	Diascopic Illumination for Inverted Microscope ECLIPSE Ti2	Weight (g)*
MEE59920	TI2-D-PD Pillar for Dia Illumination	4500
MEE55700	TI2-D-LHLED LED Lamp House for Dia Illumination	900
MXA22176	TI2-C-CLWDA CLWDA Condenser Adapter	90
MXA22091	TI-DF Dark-Field Condenser Adapter	155

\*Approximately

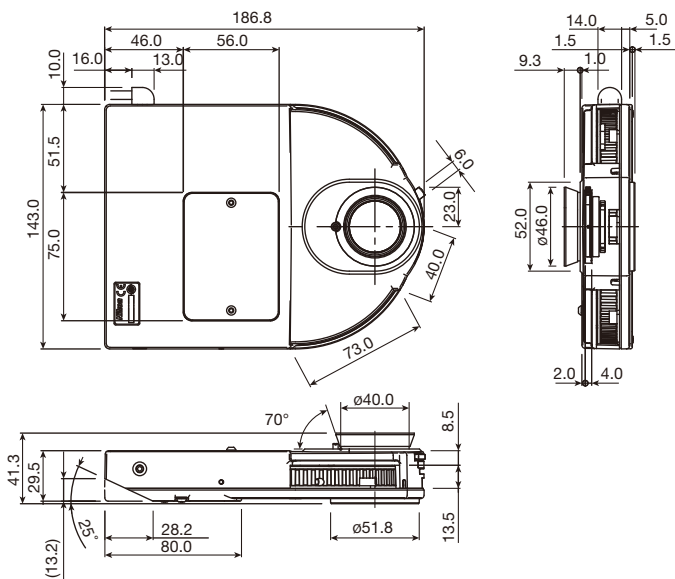




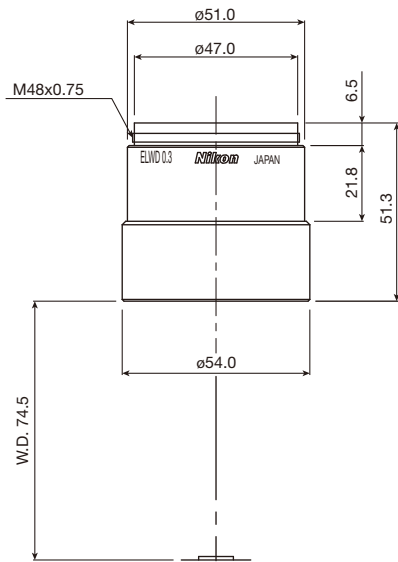
**TE-C ELWD-S Condenser  
MEL47500**



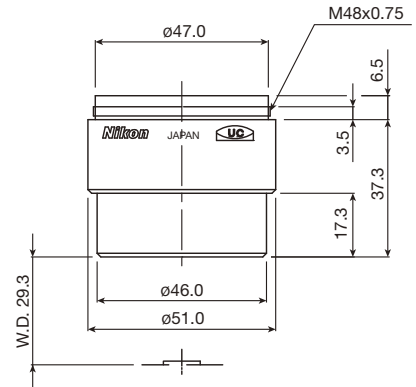
**TC-C-TC Condenser Turret  
MEL51005**



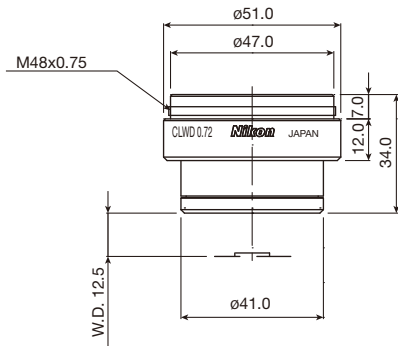
**TI2-C-TC-I Intelligent Condenser Turret  
MEL51010**  
**TI2-C-TC-E Motorized Condenser Turret  
MEL51920**



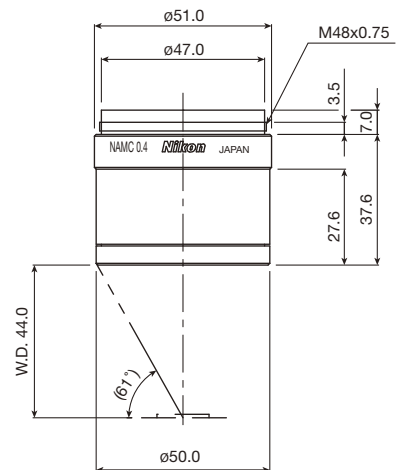
**MC-TMD2 ELWD Condenser Lens  
MEL37400**



**TI-C-LWD LWD Condenser Lens  
MEL56200**



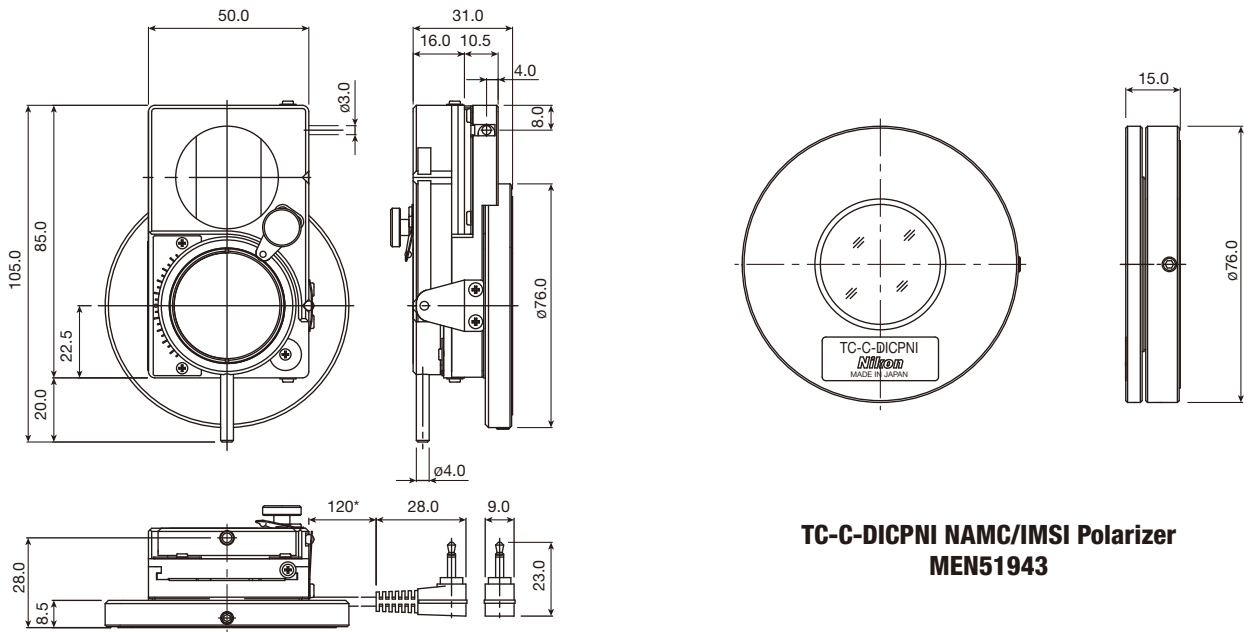
**TI-C-CLWD CLWD Condenser Lens  
MEL56100**



**TI-C NAMC Condenser Lens  
MEL59910**

Code.No	Diascopic Illumination for Inverted Microscope ECLIPSE Ti2	Weight (g)*
MEL47500	TE-C ELWD-S Condenser	450
MEL51005	TC-C-TC Condenser Turret	700
MEL51010	TI2-C-TC-I Intelligent Condenser Turret	700
MEL51920	TI2-C-TC-E Motorized Condenser Turret	700
MEL37400	MC-TMD2 ELWD Condenser Lens	200
MEL56200	TI-C-LWD LWD Condenser Lens	220
MEL56100	TI-C-CLWD CLWD Condenser Lens	170
MEL59910	TI-C NAMC Condenser Lens	200

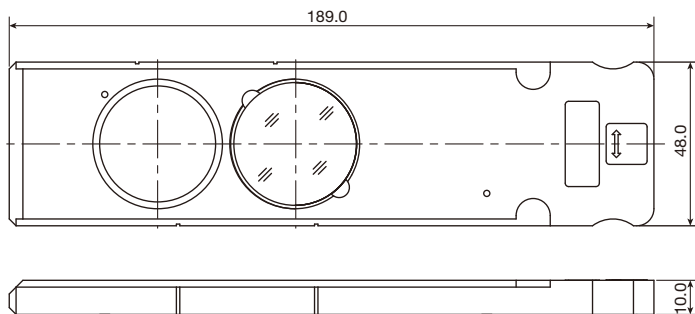
\*Approximately



**TC-C-DICPNI NAMC/IMSI Polarizer  
MEN51943**

**T12-C-DICP-I Intelligent Polarizer  
MEN51944**  
**TC-C-DICP DIC Polarizer  
MEN51942**

\*Approximately

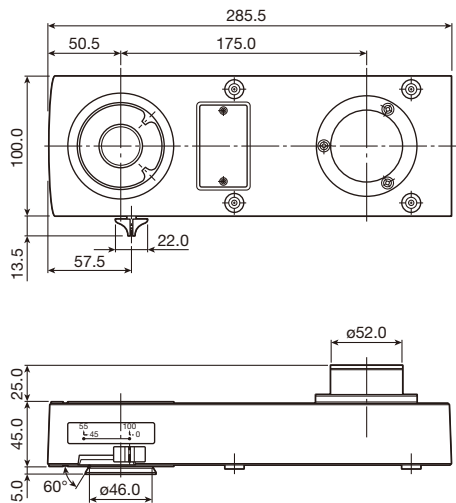


**T12-C-DICA Analyzer  
MEN51928**

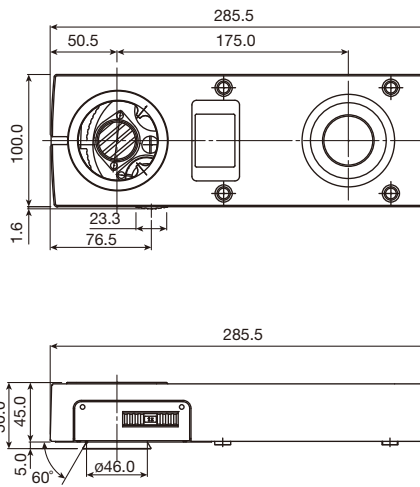
Code.No	Diascopic Illumination for Inverted Microscope ECLIPSE T12	Weight (g)*
MEN51944	T12-C-DICP-I Intelligent Polarizer	200
MEN51942	TC-C-DICP DIC Polarizer	200
MEN51943	TC-C-DICPNI NAMC/IMSI Polarizer	100
MEN51928	T12-C-DICA Analyzer	200

\*Approximately

# Intermediate Module



**Y-IDP Double Port**  
**MBB74100**  
**Y-IDP Double Port 0/100**  
**MBB74105**



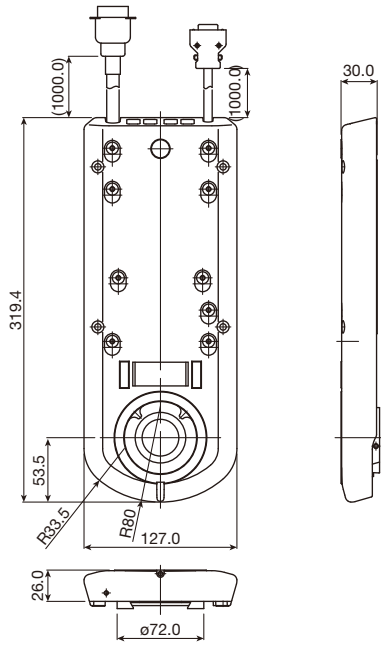
**Y-IM Magnification Module**  
**MBB75500**

Code.No	Fluorescence Illumination Module	Weight (g)*	Remarks
MBB74100	Y-IDP Double Port	1300	Intensity split ratio, Front port : Rear port = 55:45 or 100:0
MBB74105	Y-IDP Double Port 0/100	1300	Intensity split ratio, Front port : Rear port = 100:0 or 0:100
MBB75500	Y-IM Magnification Module	1300	Intermediate magnification : 1X, 1.25X, 1.5X, 2X

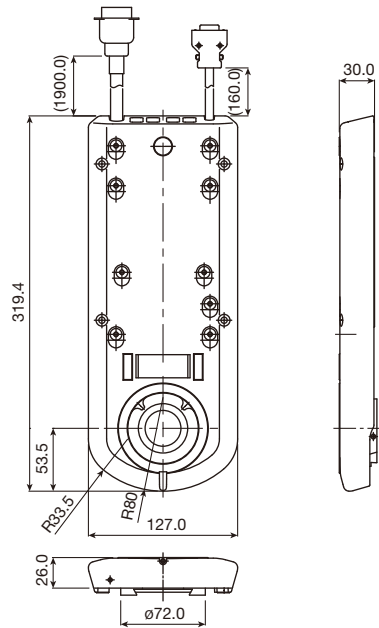
\*Approximately

# Contact Arm

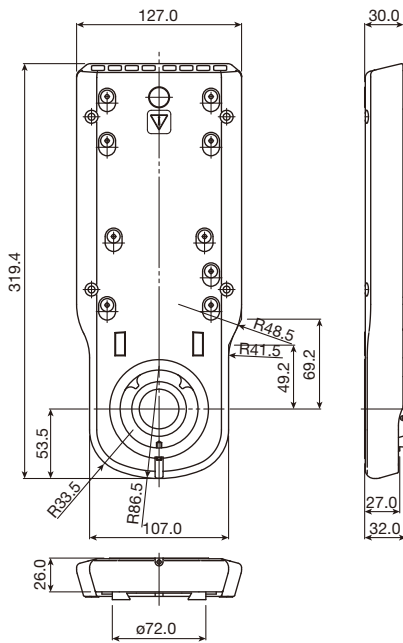
The NIU-CAM and NIE-CAM Contact Arms for use with Motorized Nosepieces and Intelligent Nosepieces on page 55, and the NI-SAM Standard Arm for use with Manual Nosepieces on page 54.



**NIU-CAM Contact Arm**  
**MBD92110**



**NIE-CAM Contact Arm**  
**MBD92100**

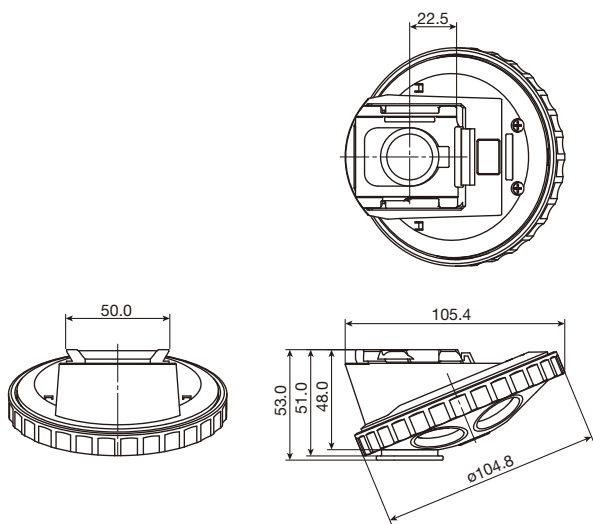


**NI-SAM Standard Arm**  
**MBD92000**

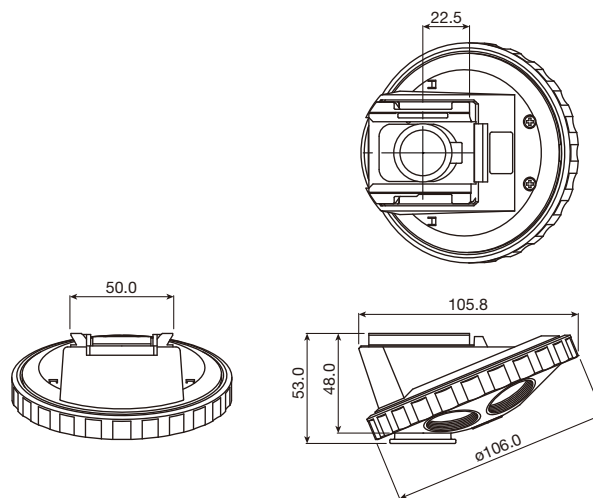
Code.No	Contact Arm	Weight (g)*
MBD92110	NIU-CAM Contact Arm	1500
MBD92100	NIE-CAM Contact Arm	1500
MBD92000	NI-SAM Standard Arm	1400

\*Approximately

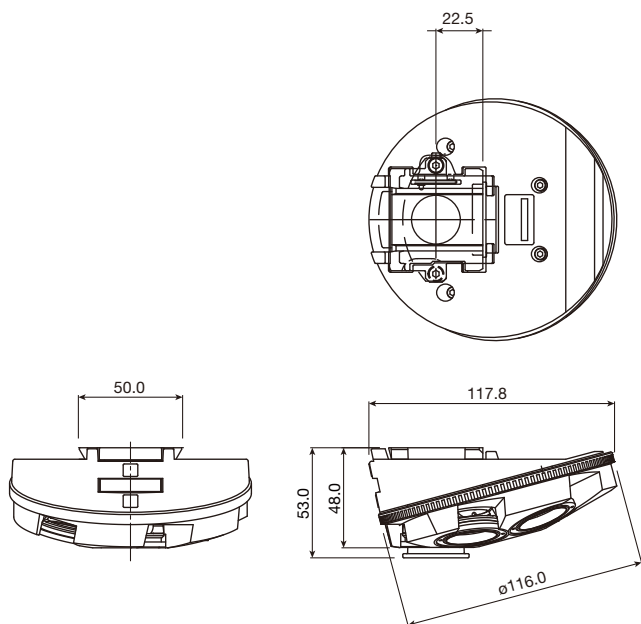
# Nosepiece



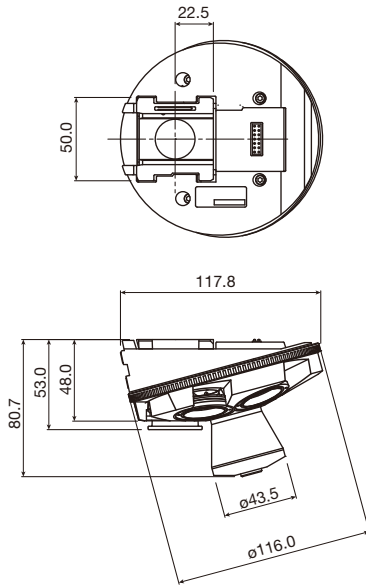
**C-N6 Sextuple Nosepiece ESD  
MBP71316**



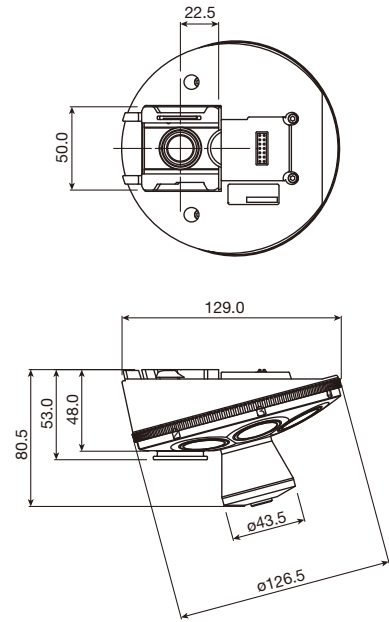
**C-N6A Sextuple Nosepiece with Analyzer Slot  
MBP71325**



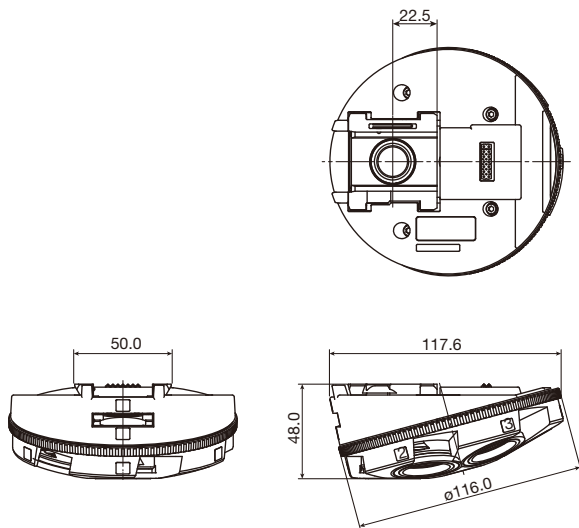
**D-ND6 DIC Sextuple Nosepiece  
MBP73325**



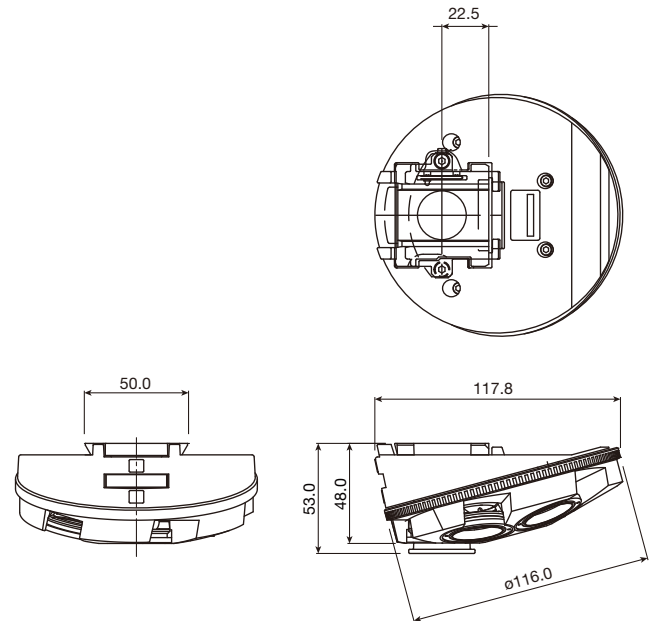
**NI-ND6-E Motorized DIC Sextuple Nosepiece  
MBP98325**



**NI-N7-E Motorized Septuple Nosepiece  
MBP98405**



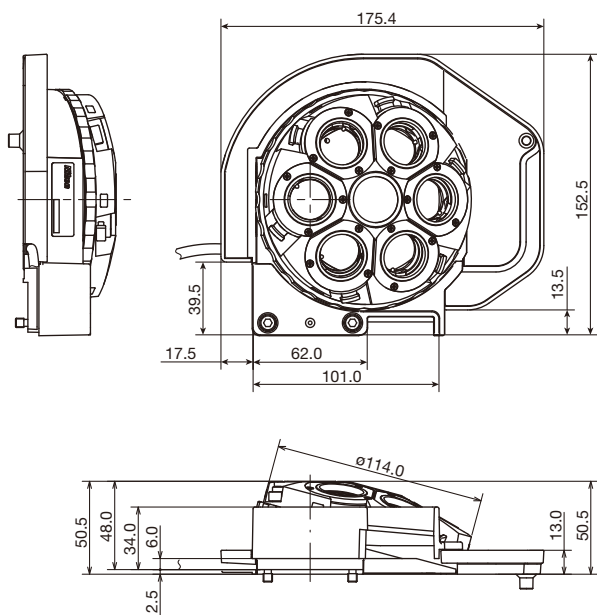
**NI-ND6-I Intelligent DIC Sextuple Nosepiece  
MBP99325**



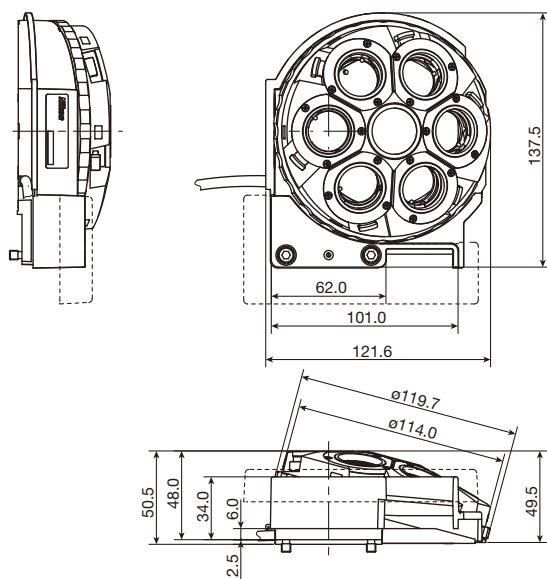
**NI-N7-I Intelligent Septuple Nosepiece  
MBP99405**

Code.No	Nosepiece	Weight (g)*	Remarks
MBP71316	C-N6 Sextuple Nosepiece ESD	450	Manual rotation
MBP71325	C-N6A Sextuple Nosepiece with Analyzer Slot	450	Manual rotation
MBP73325	D-ND6 DIC Sextuple Nosepiece	1000	Manual rotation, for DIC observation
MBP98325	NI-ND6-E Motorized DIC Sextuple Nosepiece	1300	Motorized rotation, Intelligent, for DIC observation
MBP98405	NI-N7-E Motorized Septuple Nosepiece	1300	Motorized rotation, Intelligent
MBP99325	NI-ND6-I Intelligent DIC Sextuple Nosepiece	1200	Manual rotation, Intelligent, for DIC observation
MBP99405	NI-N7-I Intelligent Septuple Nosepiece	1300	Manual rotation, Intelligent

\*Approximately



**TI2-N-ND-E Motorized DIC Sextuple Nosepiece  
MEP59320**



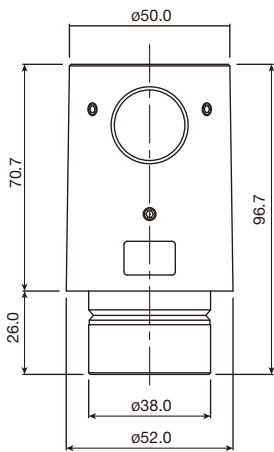
**TI2-N-ND-I Intelligent DIC Sextuple Nosepiece  
MEP53325**  
**TI2-N-ND DIC Sextuple Nosepiece  
MEP53320**  
**TI2-N-N Sextuple Nosepiece  
MEP51316**

Code.No	Nosepiece for Inverted Microscope ECLIPSE Ti2	Weight (g)*	Remarks
MEP59320	TI2-N-ND-E Motorized DIC Sextuple Nosepiece	1100	Motorized rotation, Intelligent, for DIC observation
MEP53325	TI2-N-ND-I Intelligent DIC Sextuple Nosepiece	900	Manual rotation, Intelligent, for DIC observation
MEP53320	TI2-N-ND DIC Sextuple Nosepiece	830	Manual rotation, for DIC observation
MEP51316	TI2-N-N Sextuple Nosepiece	730	Manual rotation

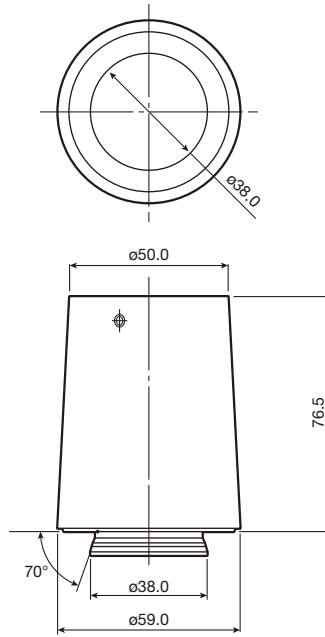
\*Approximately



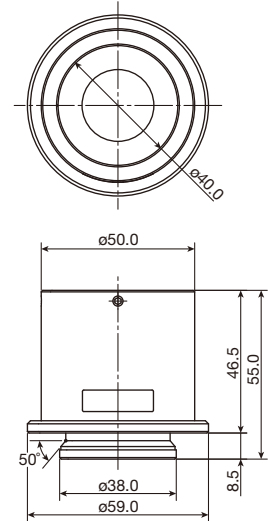
# Camera Adapter



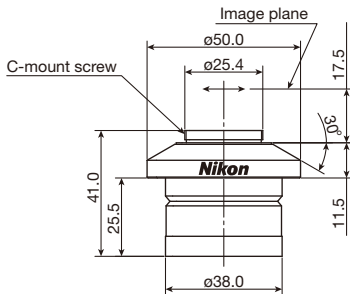
**T-BPA Photo Adapter  
MED53130**



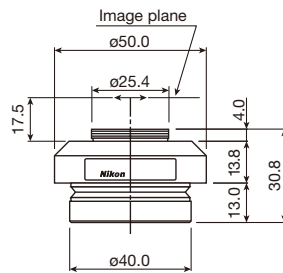
**Y-T TV Tube  
MBB73525**



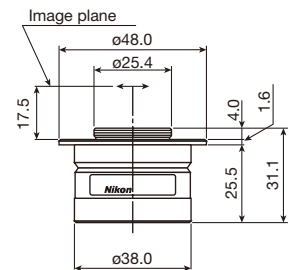
**Y-TV55X TV Tube 0.55X  
MBB73550**



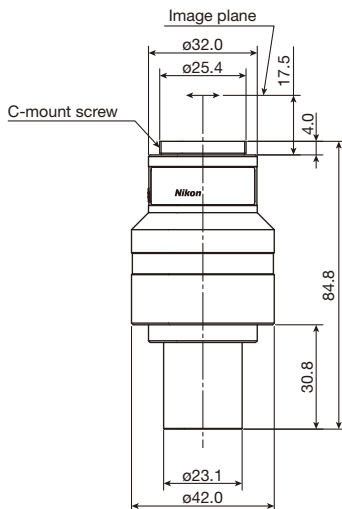
**C-DA C-mount Adapter  
MQD42005**



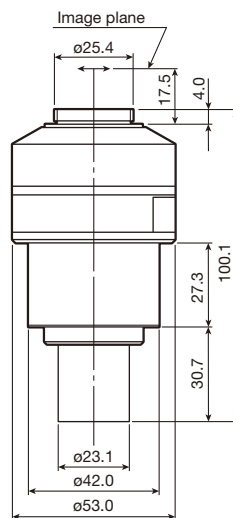
**C-0.55X DS Relay Lens  
MQD42056**



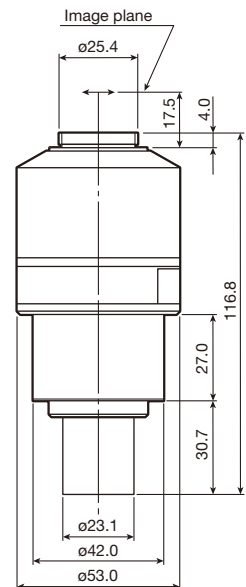
**C-0.7X DXM Relay Lens  
MQD42075**



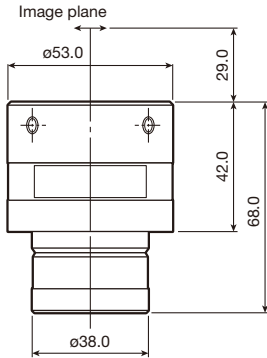
**C-mount Adapter 0.35X  
MQD51045**



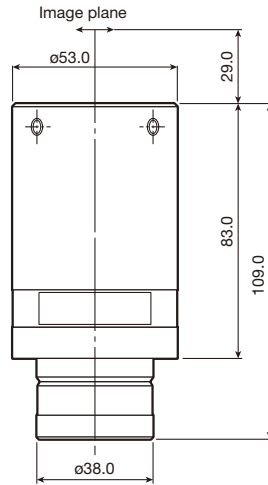
**C-mount Adapter 0.45X  
MQD42045**



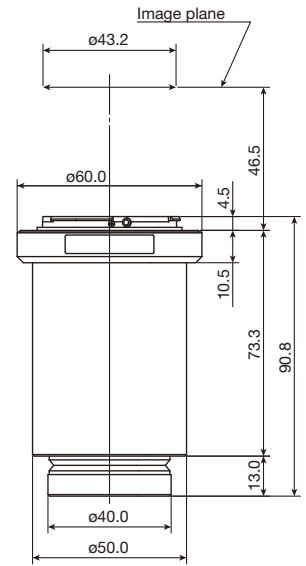
**C-mount Adapter 0.6X  
MQD42066**



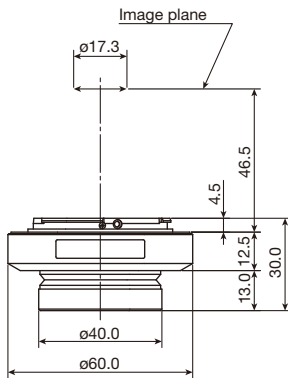
**C-mount TV Relay Lens VM2.5X  
MQD42120**



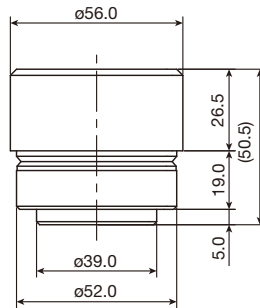
**C-mount TV Relay Lens VM4X  
MQD42140**



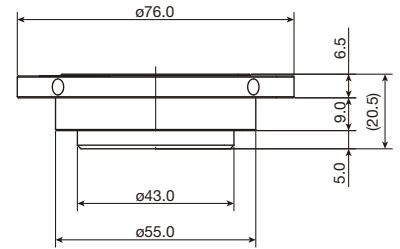
**DS-F2.5 F-mount Adapter 2.5X  
MQD43020**



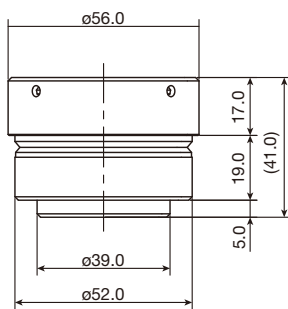
**DS-F F-mount Adapter  
MQD43000**



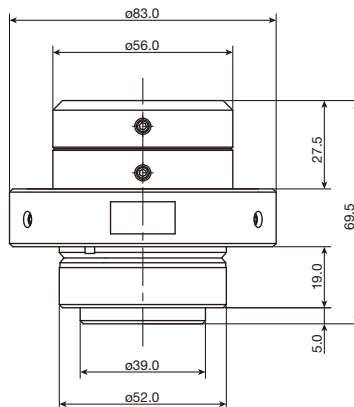
**C-TAQ Tube Adapter  
for Quadrocular Tube  
MBB94700**



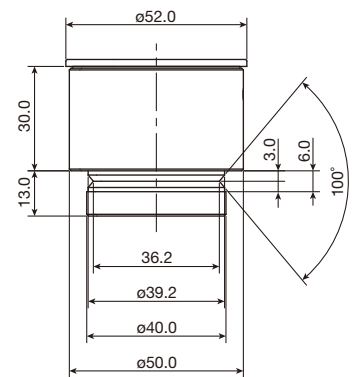
**C-TAQ2 Tube Adapter  
for Quadrocular Tube  
MBB94800**



**TI-BDTV2 F-TV Tube  
for F-mount Adapter  
MED53140**



**TI2-P-CCA C-mount Adapter  
with Centering Tool  
MQD52010**



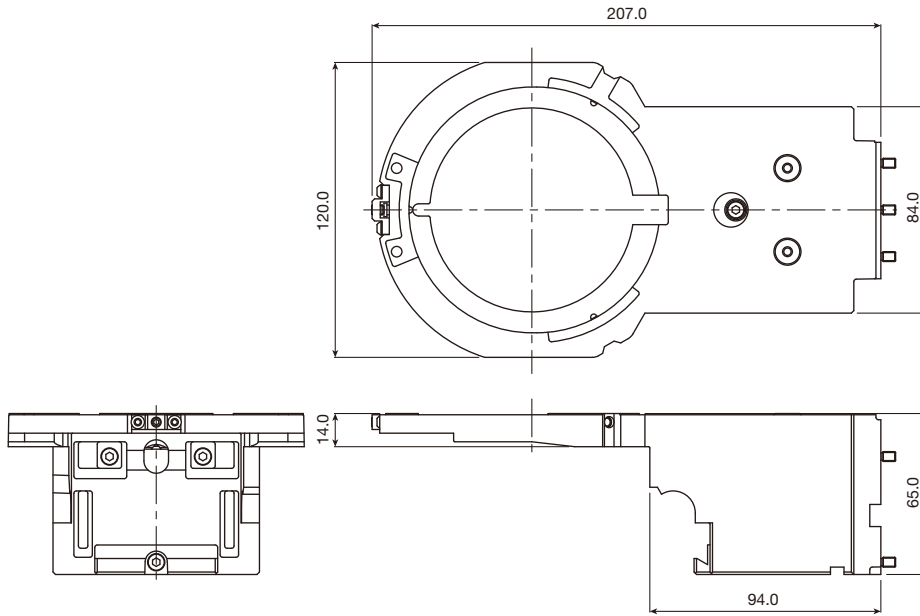
**LV-TV Tube Adapter  
MBB63435**

Code.No	CCTV Camera Adapters	Weight (g)*
MED53130	T-BPA Photo Adapter	215
MBB73525	Y-T TV Tube	350
MBB73550	Y-TV55X TV Tube 0.55X	300
MQD42005	C-DA C-mount Adapter	180
MQD42056	C-0.55X DS Relay Lens	300
MQD42075	C-0.7X DXM Relay Lens	155
MQD51045	C-mount Adapter 0.35X	300
MQD42045	C-mount Adapter 0.45X	620
MQD42066	C-mount Adapter 0.6X	650
MQD42120	C-mount TV Relay Lens VM2.5X	165
MQD42140	C-mount TV Relay Lens VM4X	338
MQD43020	DS-F2.5 F-mount Adapter 2.5X	200
MQD43000	DS-F F-mount Adapter	80
MBB94700	C-TAQ Tube Adapter for Quadrocular Tube	100
MBB94800	C-TAQ2 Tube Adapter for Quadrocular Tube	100
MED53140	TI-BDTV2 F-TV Tube for F-mount Adapter	100
MQD52010	TI2-P-CCA C-mount Adapter with Centering Tool	350
MBB63435	LV-TV Tube Adapter	200

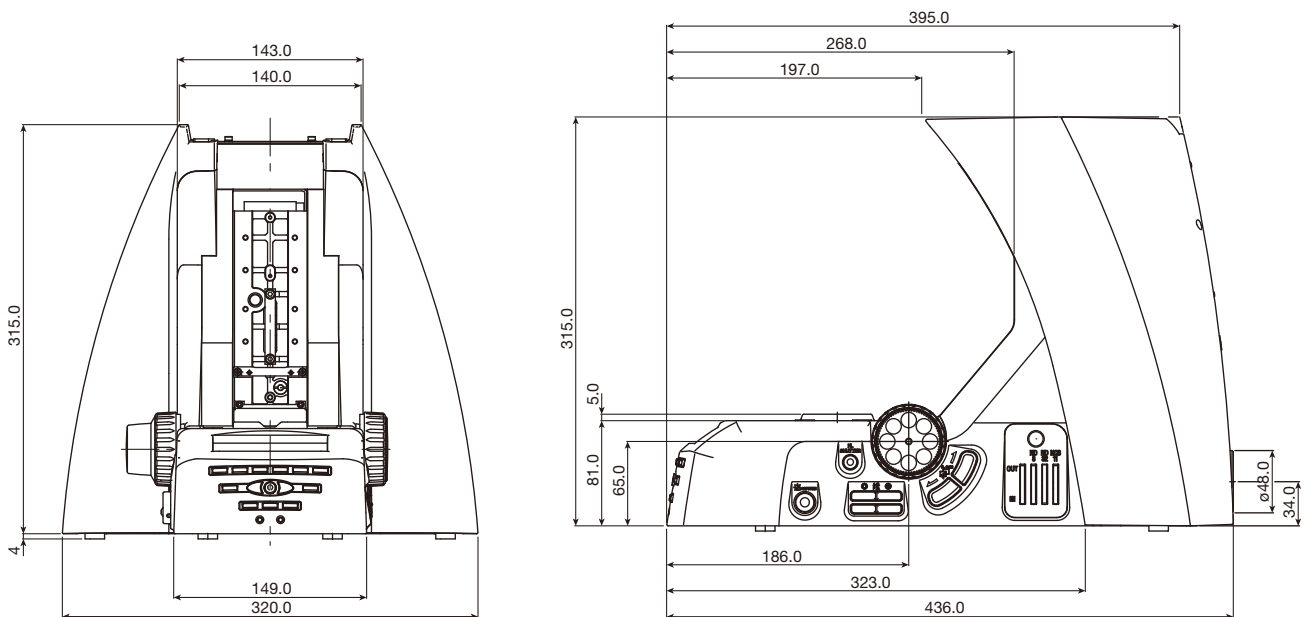
\*Approximately

# Main Body and Control Box

To mount the NI-CUD-E Motorized Universal Condenser Dry in this brochure on the Ni-E main body, the following NI-SSR substage is required.

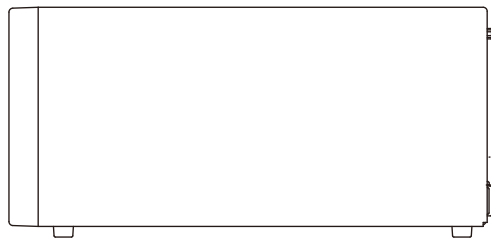
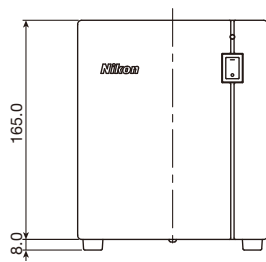
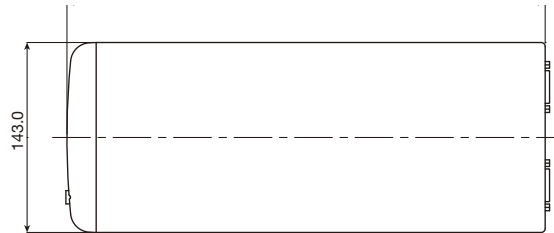


**NI-SSR Substage  
for Rotatable/Motorized Stage  
MBD93010**

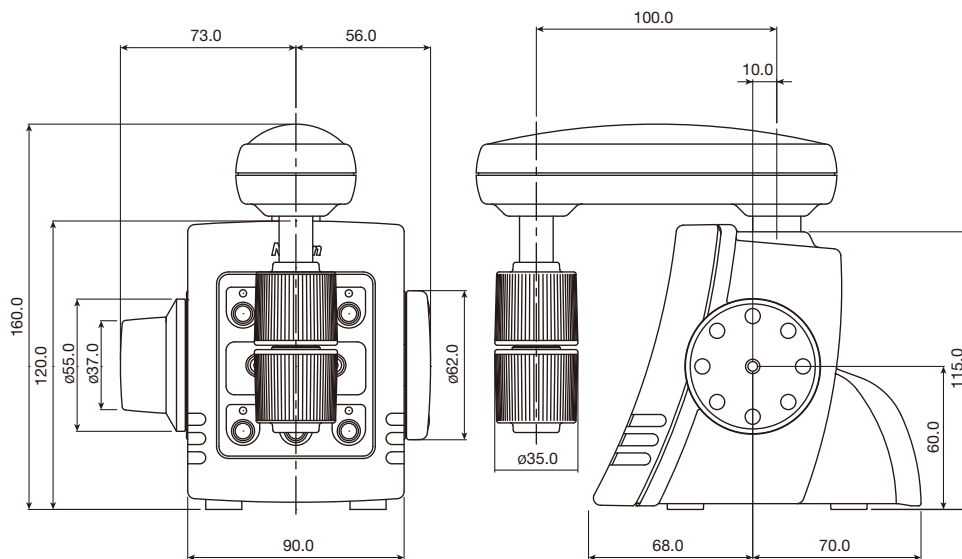


**ECLIPSE Ni-E Main Body  
MBA91000**

The Control Box A below is required to use the Ni-E.



**NI-CTLA Control Box A  
MBF95400**

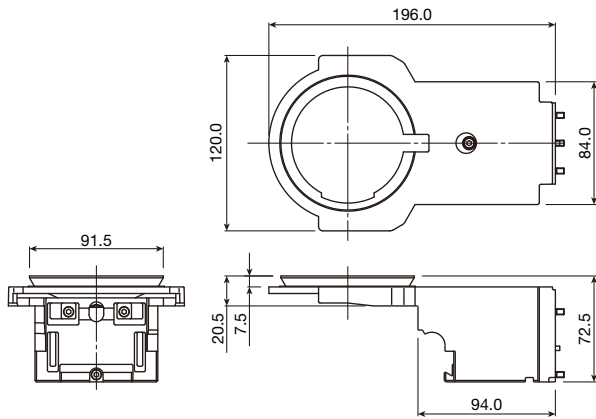


**NI-ERG NI Ergo Controller  
MBF95110**

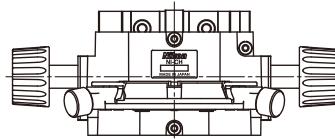
Code.No	ECLIPSE Ni-E Main Body and Controller	Weight (g)*
MBD93010	NI-SSR Substage for Rotatable/Motorized Stage	800
MBA91000	ECLIPSE Ni-E Main Body	11000
MBF95400	NI-CTLB Control Box A	5000
MBF95110	NI-ERG NI Ergo Controller	2300

\*Approximately

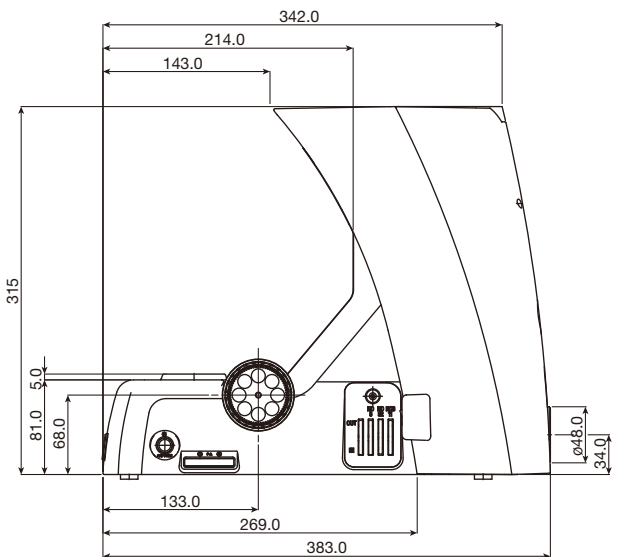
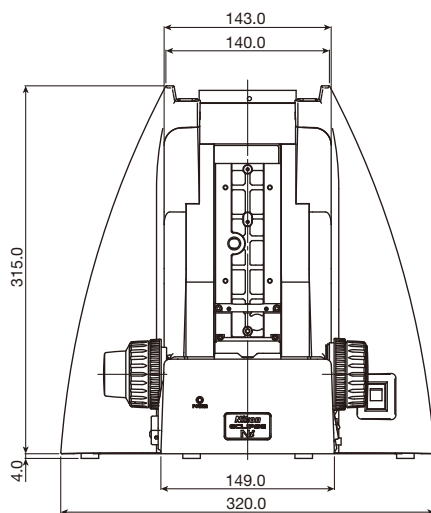
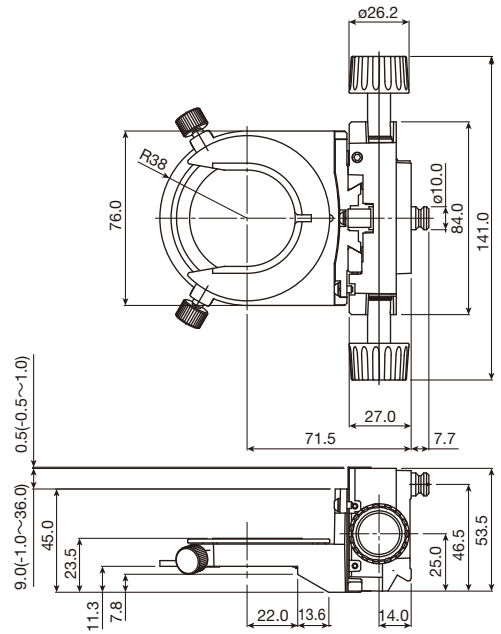
To mount the condensers in this brochure on the Ni-U main body, the following holder and substage are required.



**NI-SS Substage  
MBD93000**



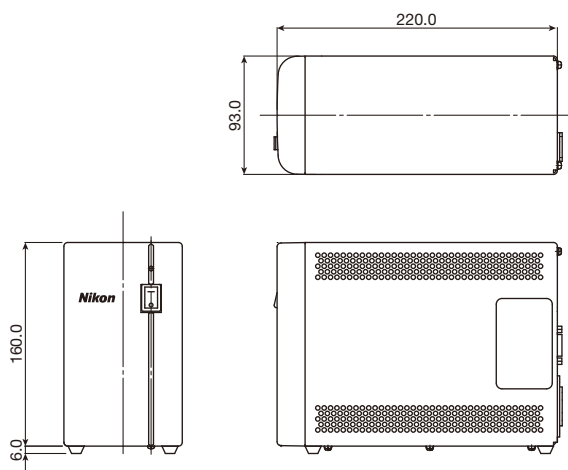
**NI-CH Condenser Holder  
MBD94000**



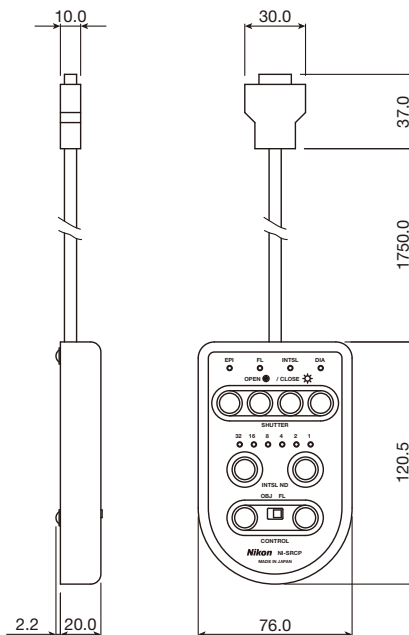
**ECLIPSE Ni-U Main Body  
MBA92010**

## Main Body and Control Box

The control box and control pad below are required to use the Ni motorized unit and intelligent unit via the NIU-CAM Contact Arm (page 53).



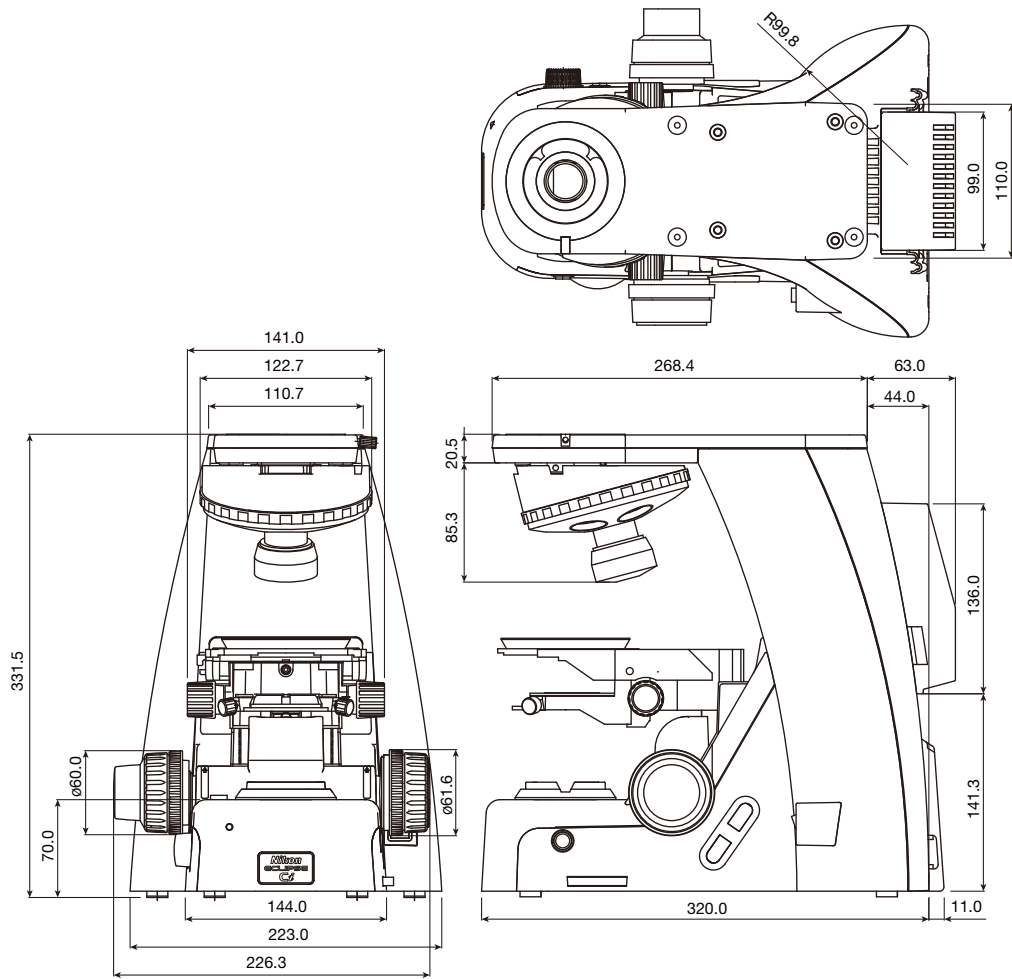
**NI-CTLB Control Box B  
MBF95410**



**NI-SRCP Simple Remote Control Pad  
MBF95120**

Code.No	ECLIPSE Ni-U Main Body and Controller	Weight (g)*
MBD93000	NI-SS Substage	800
MBD94000	NI-CH Condenser Holder	350
MBA92010	ECLIPSE Ni-U Main Body	11000
MBF95410	NI-CTLB Control Box B	2500
MBF95120	NI-SRCP Simple Remote Control Pad	200

\*Approximately



**ECLIPSE Ci-E Main Body  
MBA93000**

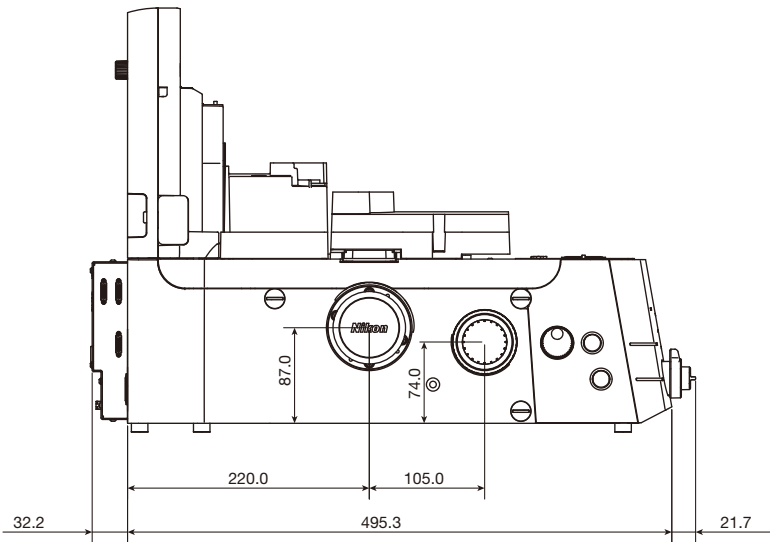
Code.No	Main Body	Weight (g)*
MBA93000	ECLIPSE Ci-E Main Body	1200

\*Approximately

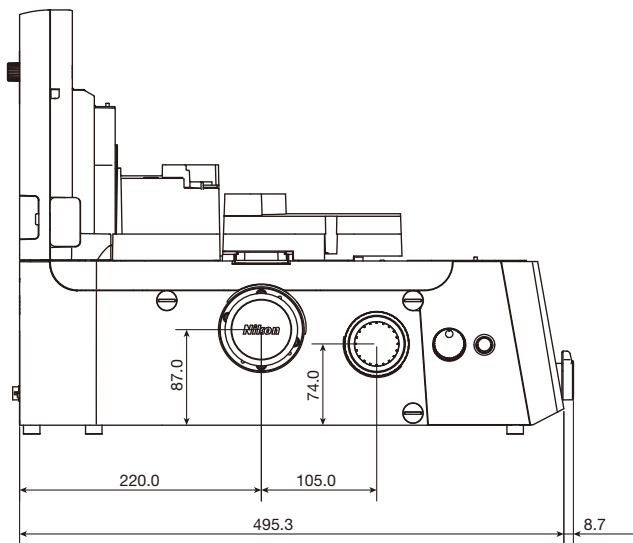




# Main Body and Control Box



**ECLIPSE Ti2-A Main Body  
MEA54100**

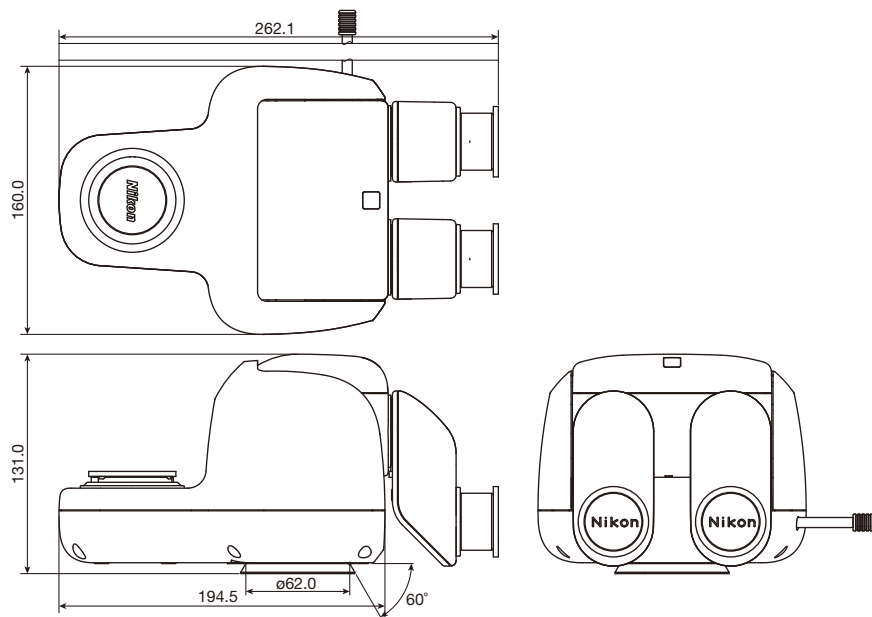


**ECLIPSE Ti2-U Main Body  
MEA54200**

Code.No	ECLIPSE Ti2 Main Body and Controller	Weight (g)*	Remarks
MEA54010	ECLIPSE Ti2-E/B Main Body	20000	Motorized model with a bottom port
MEA54000	ECLIPSE Ti2-E Main Body	20000	Motorized model
MEF55037	Ti2-CTRE Controller for Ti2-E	2400	Contoroller for Ti2-E/B and Ti2-E
MEA54100	ECLIPSE Ti2-A Main Body	20000	Manual model
MEA54200	ECLIPSE Ti2-U Main Body	20000	Manual model

\*Approximately

# Main Body and Accessory for Stereo Microscope

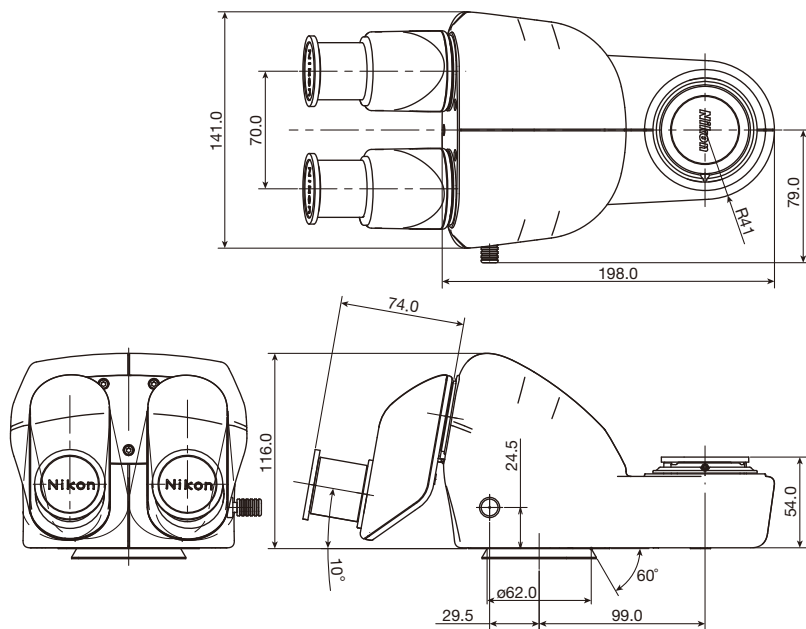


**P2-TERG 100 Trinocular Tilting Tube**

**MNB53510**

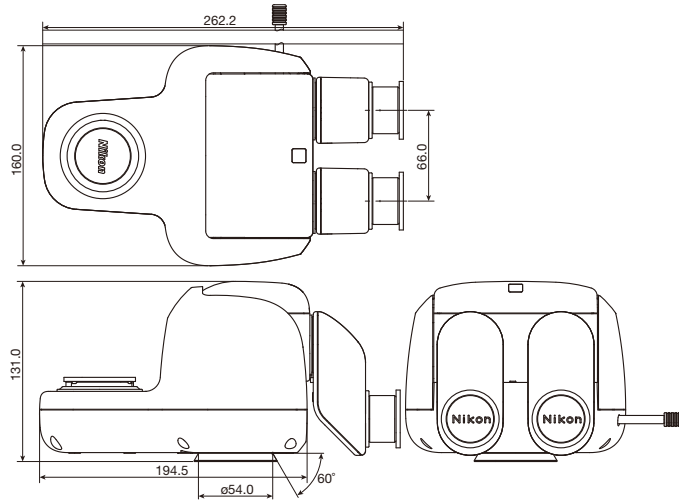
**P2-TERG 50 Trinocular Tilting Tube**

**MNB53520**

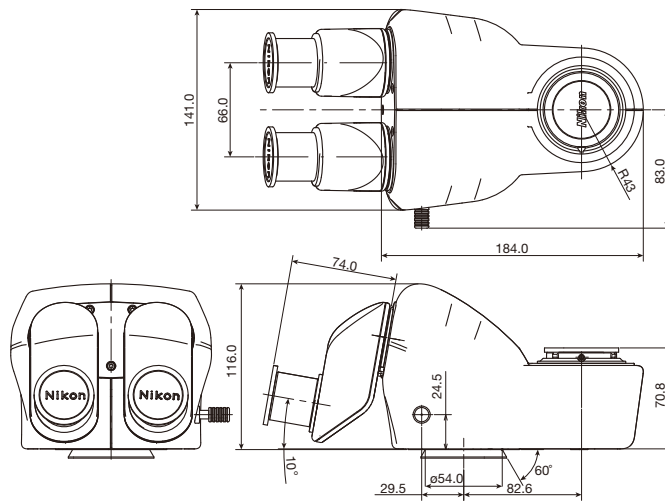


**P2-TL100 Trinocular Tube 100**

**MNB53560**



**P-TERG100 Trinocular Tilting Tube  
MNB53530**  
**P-TERG50 Trinocular Tilting Tube  
MNB53540**

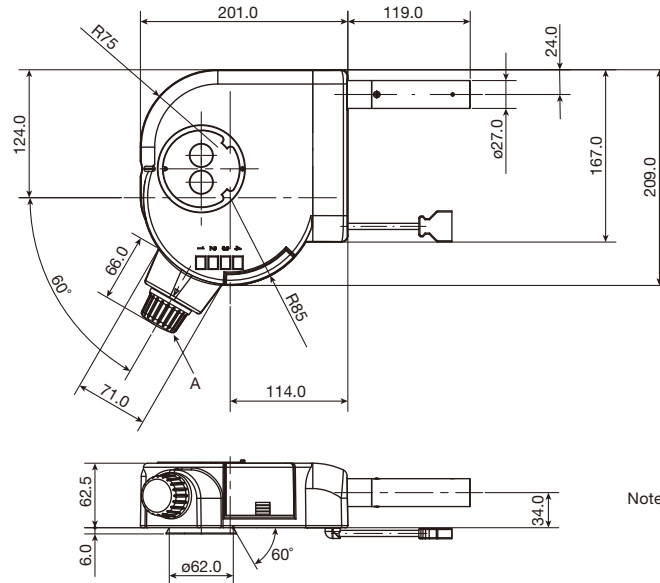


**P-T100 Trinocular tube  
MNB53551**

Code.No	Eyepiece Tube	Field number	Observation inclination	Observation Image	Interpupillary adjustment	Intensity split ratio (Eyepiece:Port)	Weight (g)*
MNB53510	P2-TERG 100 Trinocular Tilting Tube	22	0°- 30°	Upright image	50 mm or larger	100:0 or 0:100 two-way switching	2300
MNB53520	P2-TERG 50 Trinocular Tilting Tube	22	0°- 30°	Upright image	50 mm or larger	100:0 or 50:50 two-way switching	2300
MNB53560	P2-TL100 Trinocular Tube 100	22	10°	Upright image	50 to 75mm	100:0 or 0:100 two-way switching	1500
MNB53530	P-TERG100 Trinocular Tilting Tube	22	0°- 30°	Upright image	50 mm or larger	100:0 or 0:100 two-way switching	2300
MNB53540	P-TERG50 Trinocular Tilting Tube	22	0°- 30°	Upright image	50 mm or larger	100:0 or 50:50 two-way switching	2300
MNB53551	P-T100 Trinocular tube	22	10°	Upright image	50 mm or larger	100:0 or 0:100 two-way switching	1600

\*Approximately

# Main Body and Accessory for Stereo Microscope

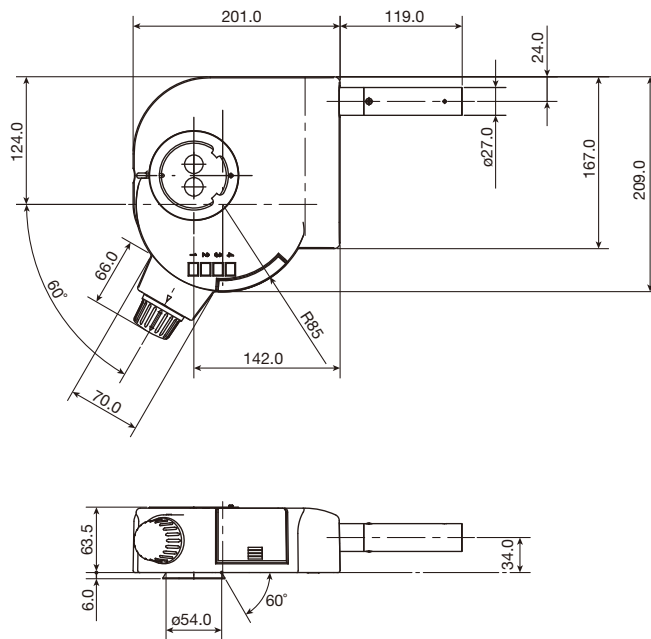


## P2-EFLI Epi Fluorescence Attachment

**MNE54320**

## P2-EFLM Motorized Epi Fluorescence Attachment

**MNE54310**

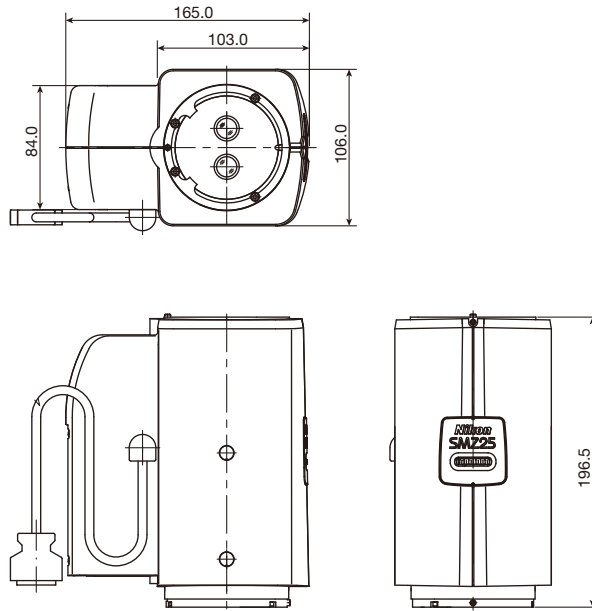


## P-EFL Epi Fluorescence Attachment

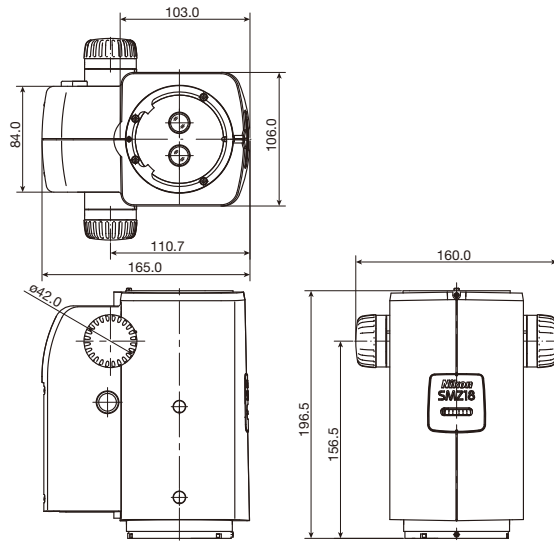
**MNE54330**

Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MNE54310	P2-EFLM Motorized Epi Fluorescence Attachment	3000	Motorized rotation type, Intelligent function
MNE54320	P2-EFLI Epi Fluorescence Attachment	2500	Manual rotation type, Intelligent function
MNE54330	P-EFL Epi Fluorescence Attachment	2500	Manual rotation type

\*Approximately

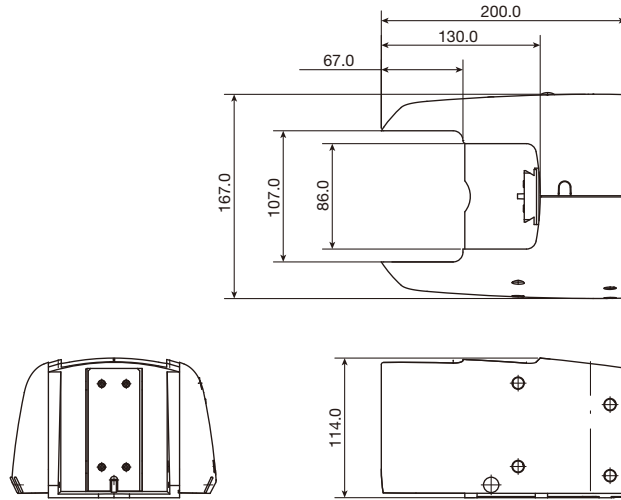


**SMZ25 Zooming Body  
MNA54000**

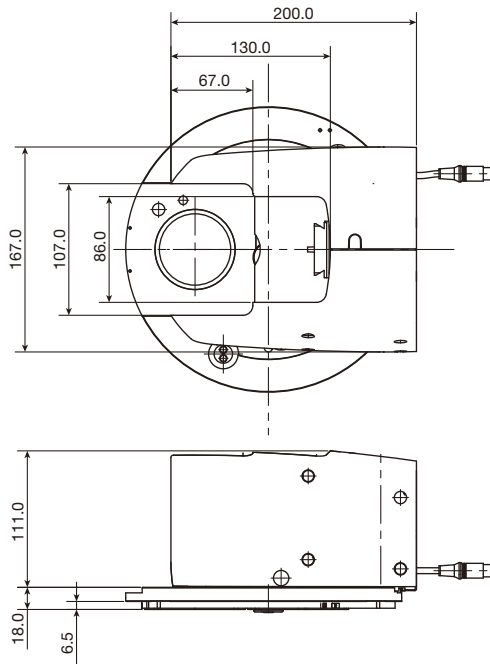


**SMZ18 Zooming Body  
MNA53000**

# Main Body and Accessory for Stereo Microscope



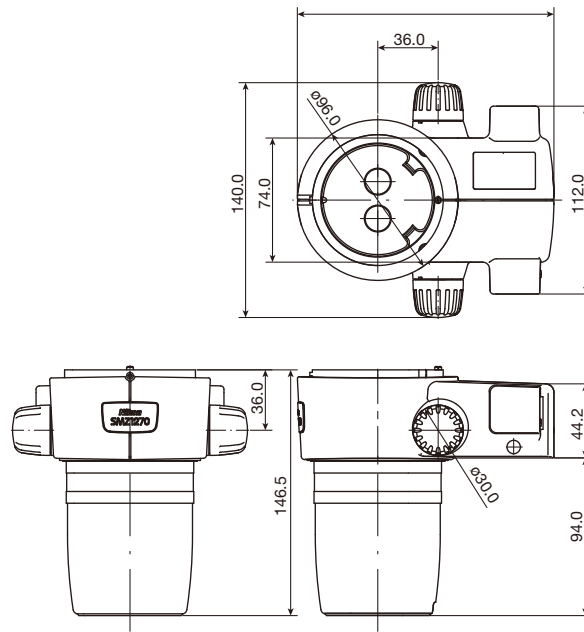
**P2-FM Focus Mount Adapter  
MND5402**



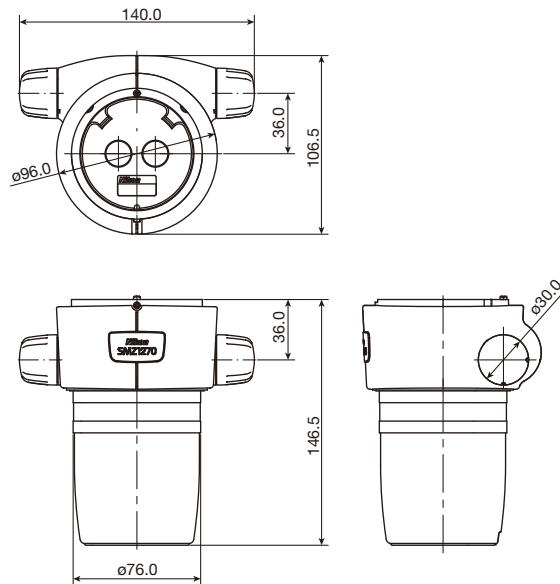
**P2-RNI2 Intelligent Nosepiece  
MNP51500**

Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MNA54000	SMZ25 Zooming Body	2400	Motorized Zooming available from 0.63X to 15.75X Intelligent function
MNA53000	SMZ18 Zooming Body	2400	Manual Zooming available from 0.75X to 13.5X Intelligent function
MND54020	P2-FM Focus Mount Adapter	1500	
MNP51500	P2-RNI2 Intelligent Nosepiece	3000	

\*Approximately



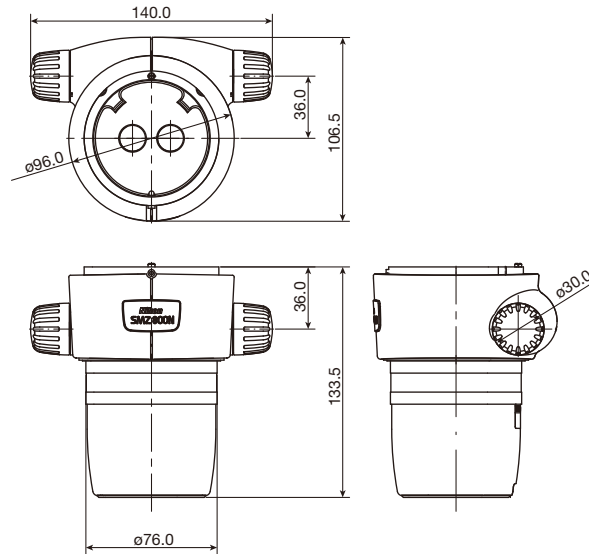
**SMZ1270i Zooming Body  
MNA52110**



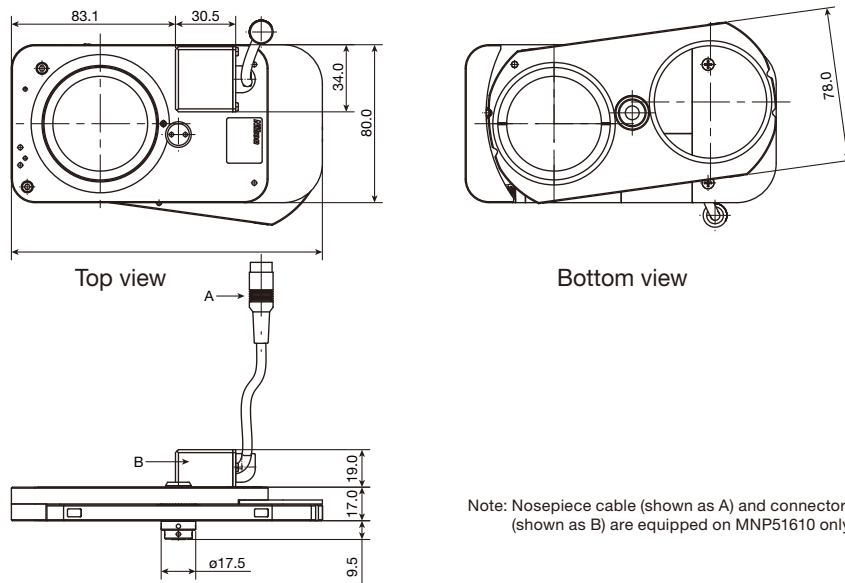
**SMZ1270 Zooming Body  
MNA52100**



# Main Body and Accessory for Stereo Microscope



**SMZ800N Zooming Body  
MNA51000**

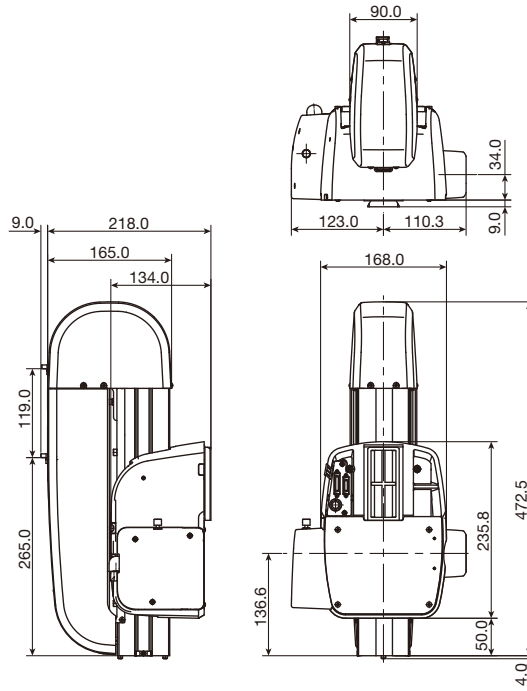


Note: Nosepiece cable (shown as A) and connector box (shown as B) are equipped on MNP51610 only.

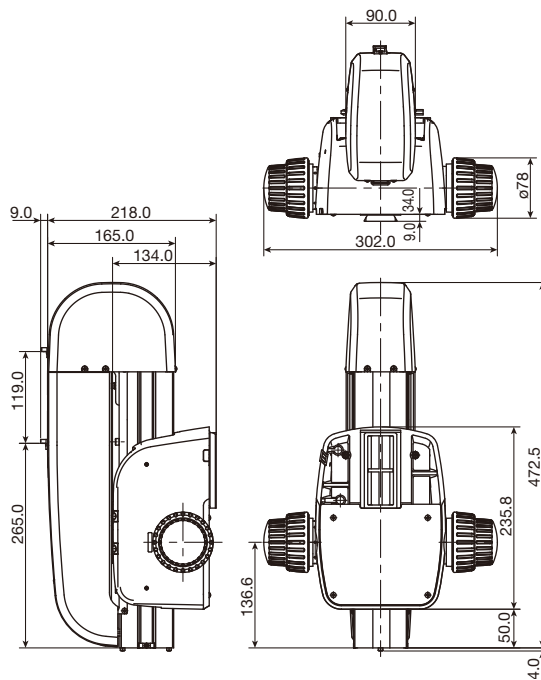
**P-RNI2 Intelligent Nosepiece  
MNP51610  
P-RN2 Nosepiece  
MNP51620**

Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MNA52110	SMZ1270i Zooming Body	870	Manual Zooming available from 0.63X to 8X Intelligent function
MNA52100	SMZ1270 Zooming Body	1000	Manual Zooming available from 0.63X to 8X
MNA51000	SMZ800N Zooming Body	780	Manual Zooming available from 1X to 8X
MNP51610	P-RNI2 Intelligent Nosepiece	350	Intelligent function
MNP51620	P-RN2 Nosepiece	350	

\*Approximately

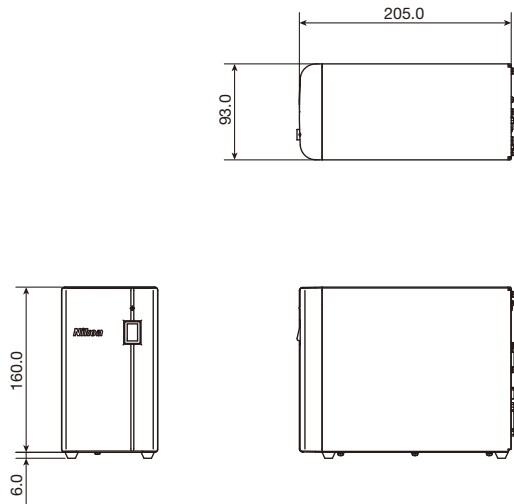


**P2-MFU Motorized Focus Unit  
MND52010**

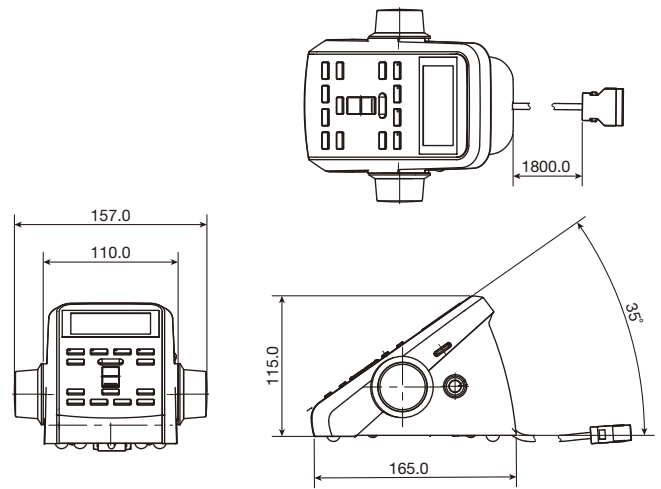


**P2-FU Focus Unit  
MND52020**

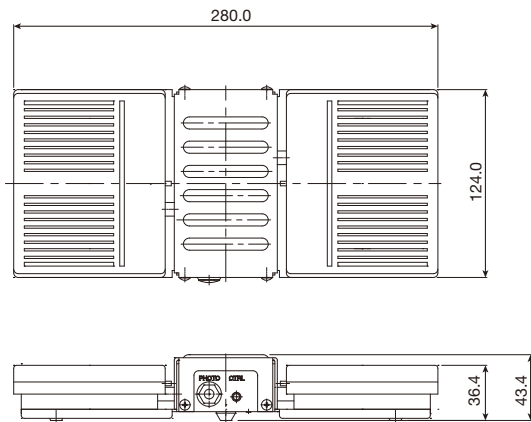
# Main Body and Accessory for Stereo Microscope



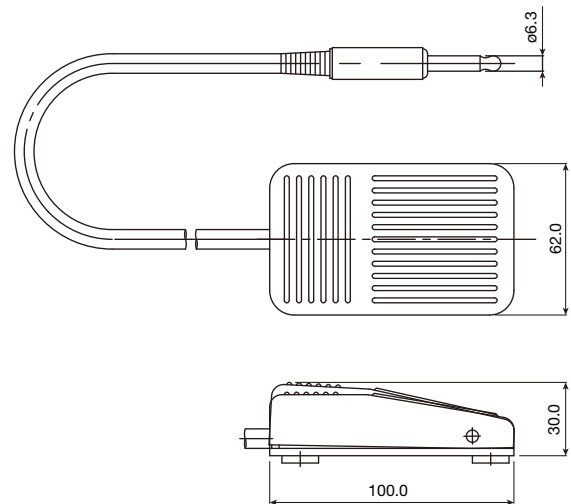
**P2-CTLA Control Box  
MN55030  
P2-CTLB Control Box  
MN55040**



**P2-RC Remote Controller  
MN55010**



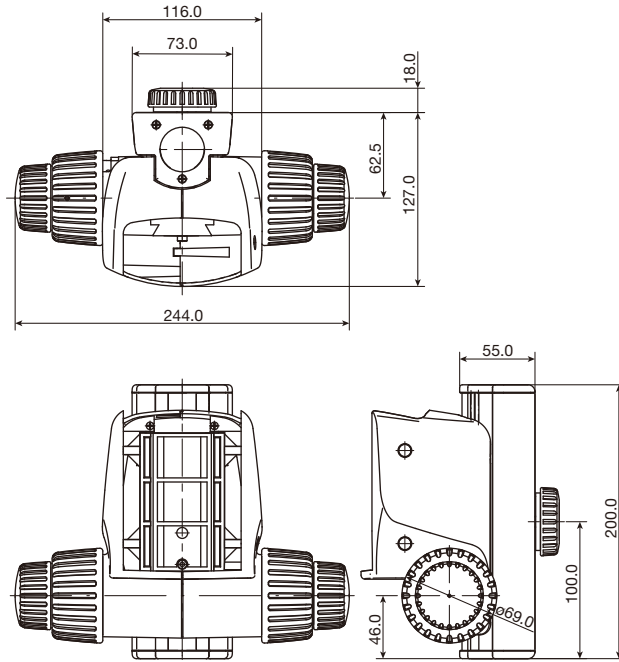
**AZ-FSW Foot Switch  
MN85030**



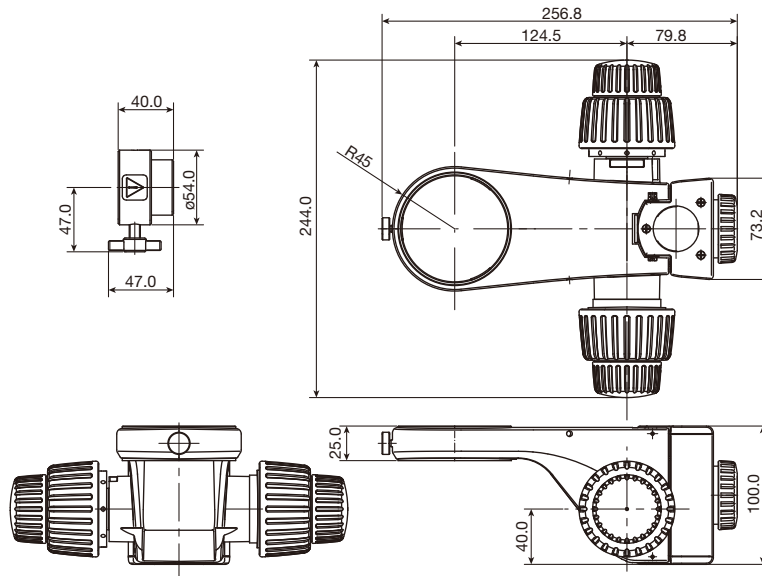
**AZ-PCR Photo Release  
MN85040**

Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MND52010	P2-MFU Motorized Focus Unit	11700	Motorized Focusing
MND52020	P2-FU Focus Unit	11300	Manual Focusing
MNF55030	P2-CTLA Control Box	1500	P2-RC Remote Controller, AZ-FSW Foot Switch and AZ-PCR Photo Release are available
MNF55040	P2-CTLB Control Box	1500	
MNF55010	P2-RC Remote Controller	500	
MNF85030	AZ-FSW Foot Switch	1300	
MNF85040	AZ-PCR Photo Release	150	With AZ-FSW Foot Switch

\*Approximately



**P2-FMDN Focus Mount  
MND54010**

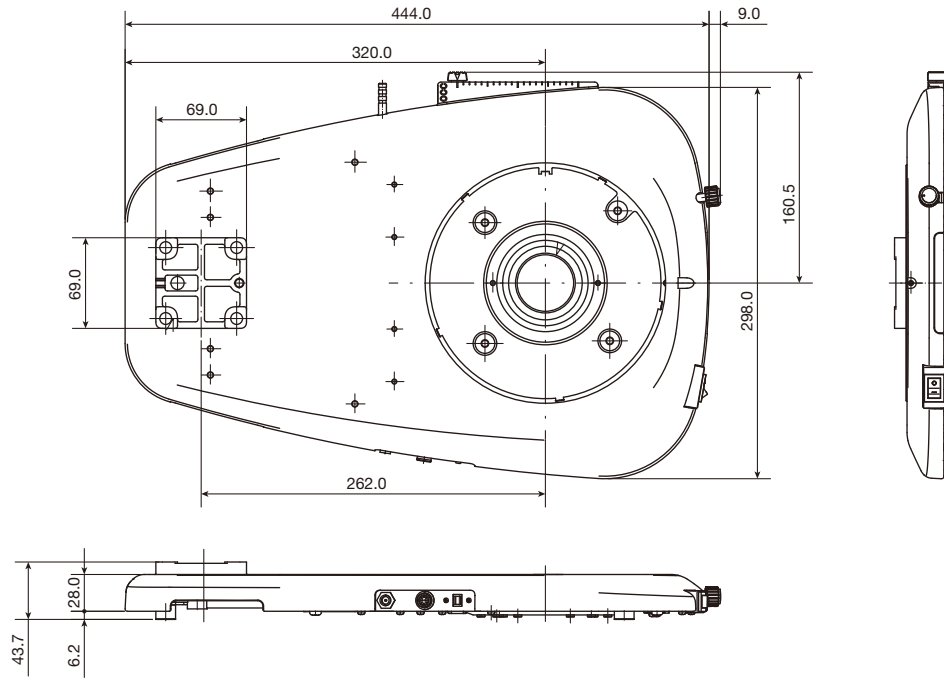


**C-FMCN Focus Mount  
MND54000**

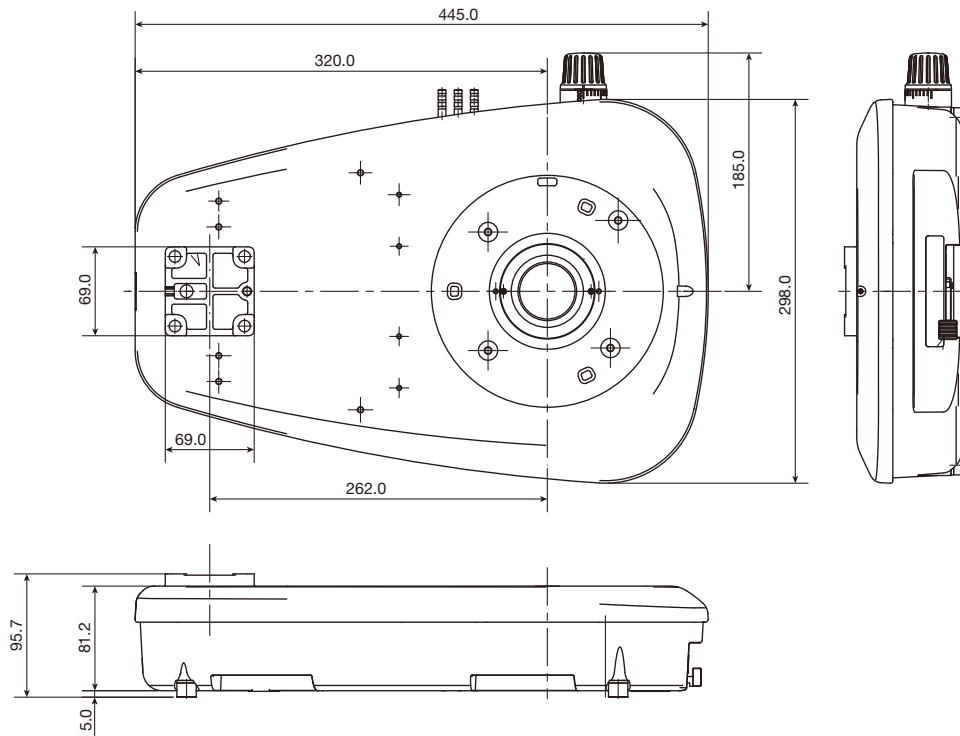
Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MND54010	P2-FMDN Focus Mount	2100	For SMZ18
MND54000	C-FMCN Focus Mount	200	For SMZ1270i, SMZ1270 and SMZ800N

\*Approximately

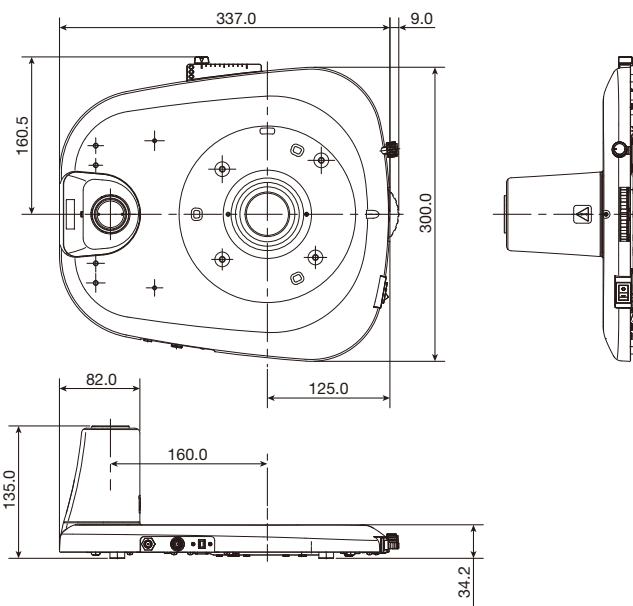
# Main Body and Accessory for Stereo Microscope



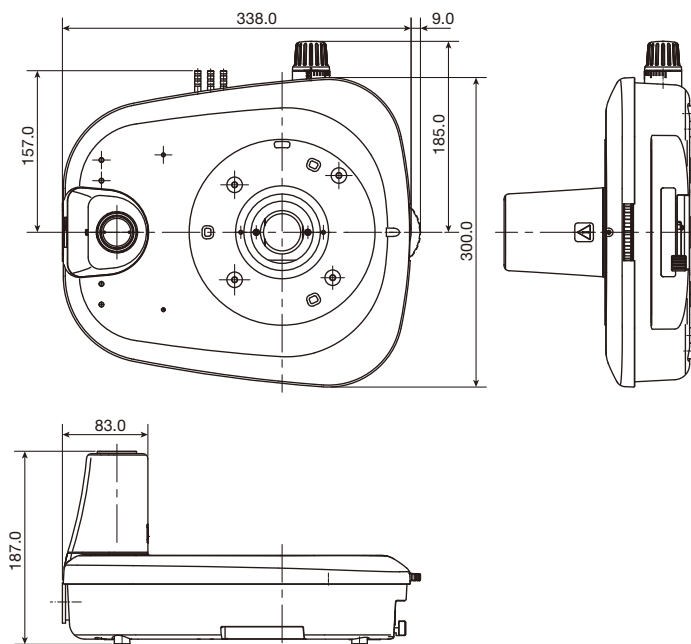
**P2-DBL LED Diascopic Illumination Base  
MND51510**



**P2-DBF Fiber Diascopic Illumination Base  
MND51610**

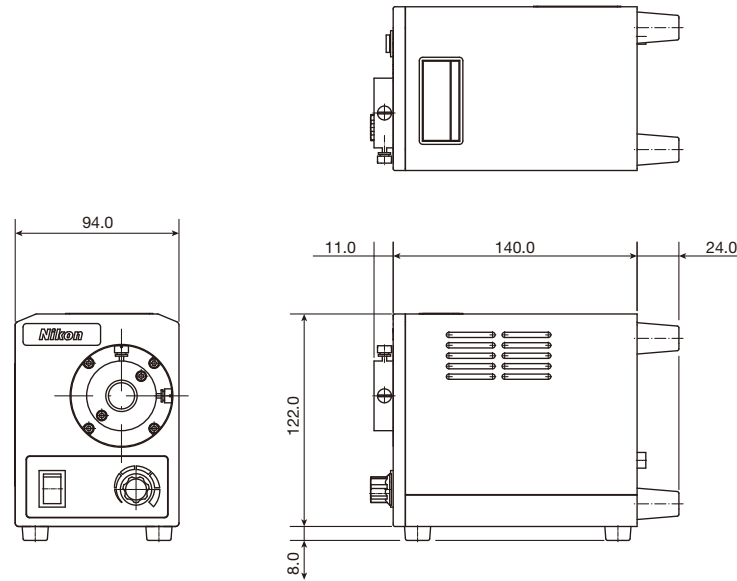


**P-DSL32 LED Diascopic Illumination Stand  
MND51520**

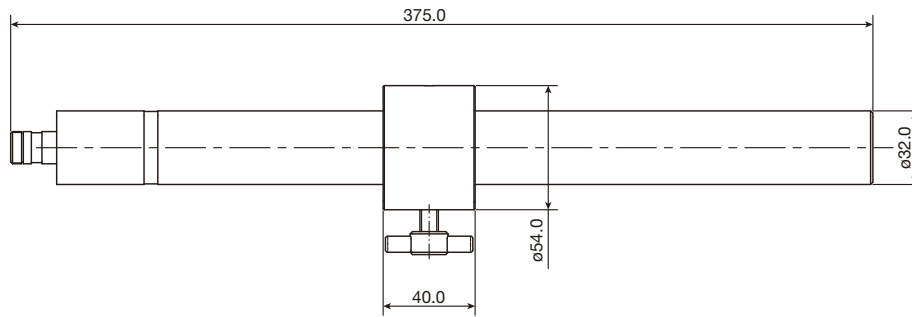


**P-DSF32 Fiber Diascopic Illumination Stand  
MND51620**

# Main Body and Accessory for Stereo Microscope



**C-FLED2 Light Source for Fiber Illumination  
MNF52760**



**C-EP Extension Pillar  
MND43025**

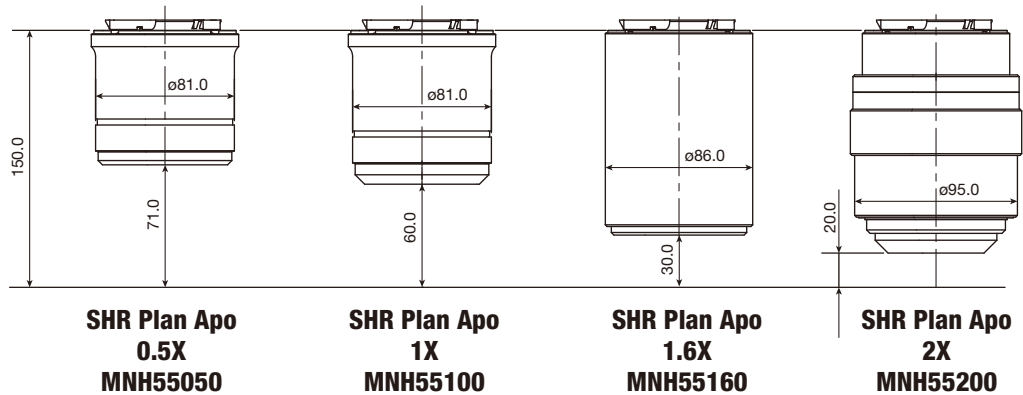
Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MND51510	P2-DBL LED Diascopic Illumination Base	4000	
MND51610	P2-DBF Fiber Diascopic Illumination Base	7800	With C-FLED2 Light Source for Fiber Illumination
MND51520	P-DSL32 LED Diascopic Illumination Stand	4300	
MND51620	P-DSF32 Fiber Diascopic Illumination Stand	6800	With C-FLED2 Light Source for Fiber Illumination
MNF52760	C-FLED2 Light Source for Fiber Illumination	2500	
MND43025	C-EP Extension Pillar	850	

\*Approximately

# Objective Lens for Stereo Microscope

## SHR Plan Apo Objective Series for SMZ25 and SMZ18

The SHR Plan Apo series features higher NA, wider field of view and superior flatness and color aberration correction. These objective lenses can be seamlessly switched because all magnifications have the same parfocal distance. The new bayonet mount design allows lenses to be safely and easily removed.

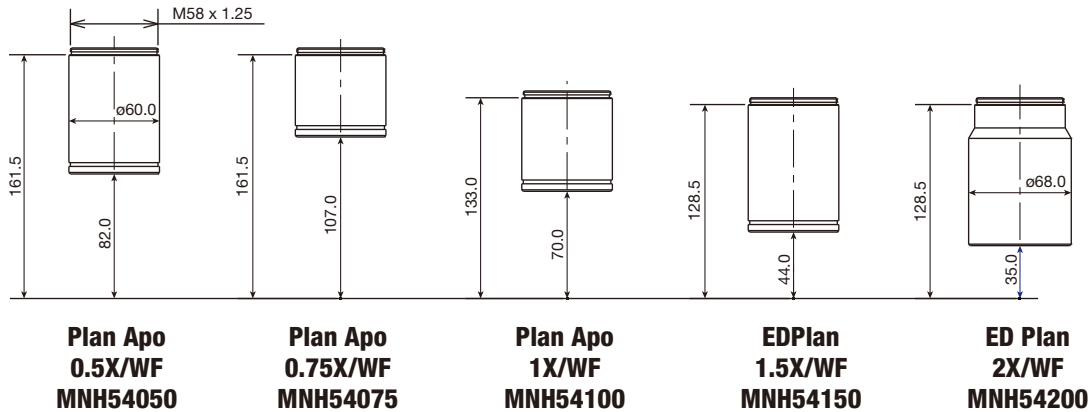


		SHR Plan Apo 0.5X	SHR Plan Apo 1X	SHR Plan Apo 1.6X	SHR Plan Apo 2X
Maximum NA	SMZ25	0.08	0.16	0.25	0.33
	SMZ18	0.08	0.15	0.24	0.30
Working distance (mm)		71.0	60.0	30.0	20.0
Correction ring		—	—	—	3.0 mm water depth
Wavelength		380-700 nm			



## Plan Apo WF / ED Plan WF Objective Series for SMZ1270i, SMZ1270 and SMZ800N

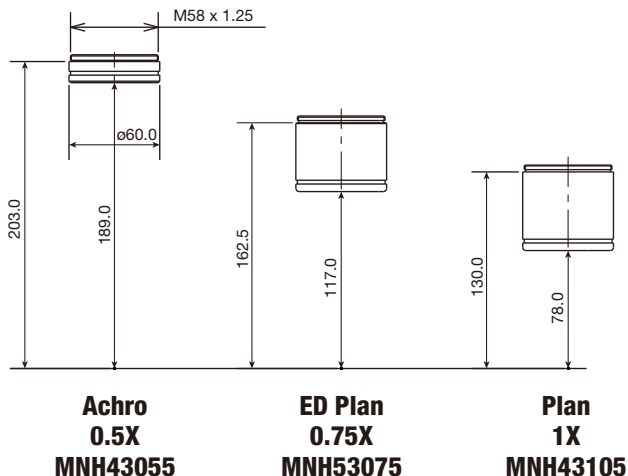
A wide selection with various magnifications and working distances is available, including high-NA, high-resolution and wide-viewfield Plan Apo WF series objectives with superior image flatness and chromatic aberration correction.



Objectives		Working distance (mm)	Zoom magnification	NA	Actual FOV*1
Plan Apo	0.5X/WF	82.0	0.63x	0.01	69.80
			8x	0.06	5.50
	0.75X/WF	107.0	0.63x	0.02	46.60
			8x	0.08	3.70
1X/WF	70.0	0.63x	0.02	34.90	
		8x	0.11	2.80	
ED Plan	1.5X/WF	44.0	0.63x	0.03	23.30
			8x	0.16	1.80
	2X/WF	35.0	0.63x	0.04	17.50
			8x	0.21	1.40

\*1 With C-W 10XB eyepiece

## Dedicated Objective Lens for SMZ800N



Objectives		Working distance (mm)	Zoom magnification	NA	Actual FOV*1
Achro	0.5X	189.00	1x	0.02	44.00
			8x	0.06	5.50
ED Plan	0.75X	117.00	1x	0.03	29.30
			8x	0.08	3.70
Plan	1X	78.00	1x	0.03	22.00
			8x	0.11	2.75

\*1 With C-W 10XB eyepiece

Enter the "Microscopy University" on the web and discover a whole new world.

**MicroscopyU**

<https://www.microscopyu.com>

Nikon's International Small World Photomicrography Competition



<https://www.nikonsmallworld.com>

N.B. Export of the products\* in this brochure is controlled under the Japanese Foreign Exchange and Foreign Trade Law. Appropriate export procedure shall be required in case of export from Japan.

\*Products: Hardware and its technical information (including software)

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. June 2019 ©1997-19 NIKON CORPORATION

 <b>WARNING</b>	TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.
--	--



**NIKON CORPORATION**

Shinagawa Intercity Tower C, 2-15-3, Konan, Minato-ku, Tokyo 108-6290, Japan  
phone: +81-3-6433-3705 fax: +81-3-6433-3785  
<https://www.healthcare.nikon.com/>

ISO 14001 Certified  
for NIKON CORPORATION

**NIKON INSTRUMENTS INC.**

1300 Walt Whitman Road, Melville, N.Y. 11747-3064, U.S.A.  
phone: +1-631-547-8500; +1-800-52-NIKON (within the U.S.A. only)  
fax: +1-631-547-0306  
<https://www.microscope.healthcare.nikon.com/>

**NIKON INSTRUMENTS EUROPE B.V.**

Tripolis 100, Burgenweeshuispad 101, 1076 ER Amsterdam, The Netherlands  
phone: +31-20-7099-000 fax: +31-20-7099-298  
[https://www.microscope.healthcare.nikon.com/en\\_EU/](https://www.microscope.healthcare.nikon.com/en_EU/)

**NIKON INSTRUMENTS (SHANGHAI) CO., LTD.**

CHINA phone: +86-21-6841-2050 fax: +86-21-6841-2060  
(Beijing branch) phone: +86-10-5831-2028 fax: +86-10-5831-2026  
(Guangzhou branch) phone: +86-20-3882-0550 fax: +86-20-3882-0580

**NIKON CANADA INC.**

CANADA phone: +1-905-602-9676 fax: +1-905-602-9953

**NIKON FRANCE S.A.S.**

FRANCE phone: +33-1-4516-45-16 fax: +33-1-4516-45-55

**NIKON GMBH**

GERMANY phone: +49-211-941-42-20 fax: +49-211-941-43-22

**NIKON INSTRUMENTS S.p.A.**

ITALY phone: +39-55-300-96-01 fax: +39-55-30-09-93

**NIKON GMBH SWITZERLAND**

SWITZERLAND phone: +41-43-277-28-67 fax: +41-43-277-28-61

**NIKON UK LTD.**

UNITED KINGDOM phone: +44-208-247-1717 fax: +44-208-541-4584

**NIKON CEE GMBH**

AUSTRIA phone: +43-1-972-6111 fax: +43-1-972-611-140

**NIKON SINGAPORE PTE LTD**

SINGAPORE phone: +65-6559-3651 fax: +65-6559-3668

**NIKON INSTRUMENTS KOREA CO., LTD.**

KOREA phone: +82-2-2186-8400 fax: +82-2-555-4415