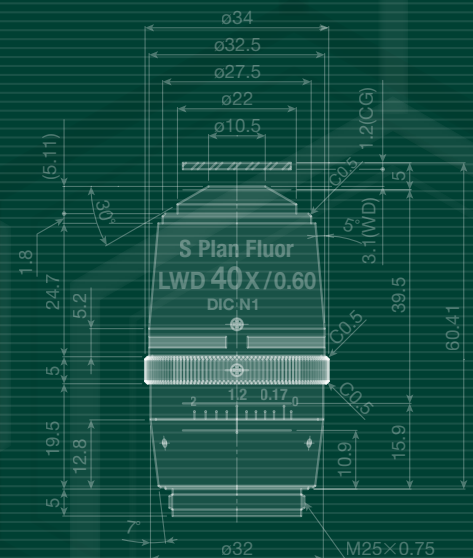
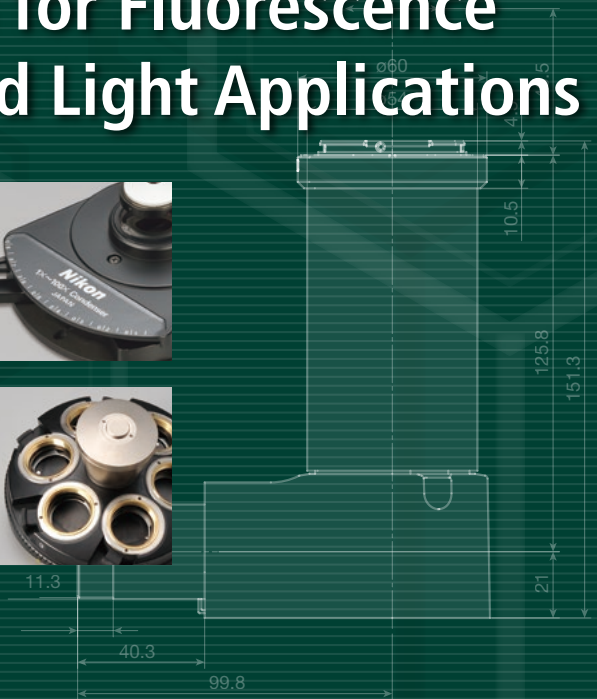






Nikon microscope units provide outstanding optical performance for experimental equipment and inspection systems for biomedical research.

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

High optical performance through improved 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.

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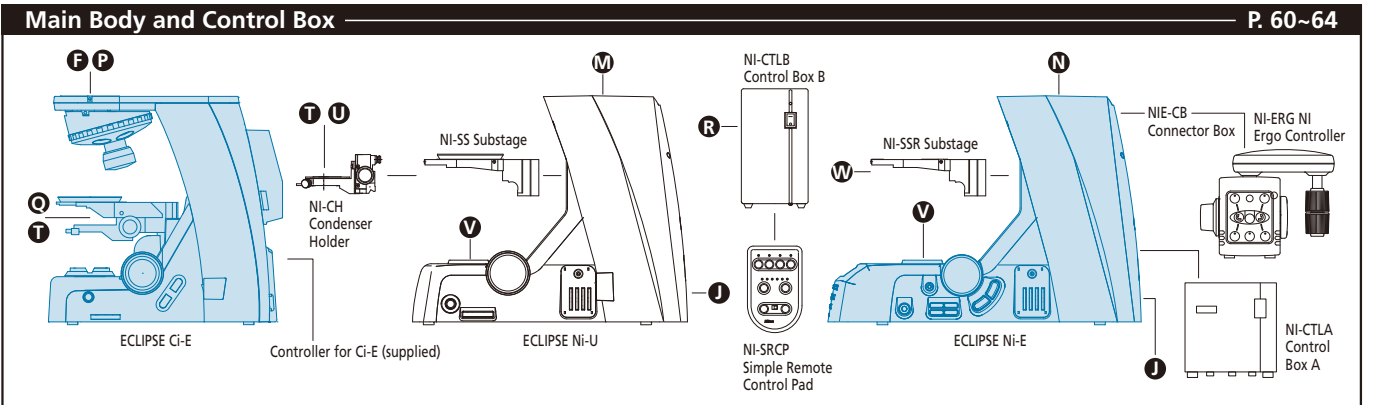
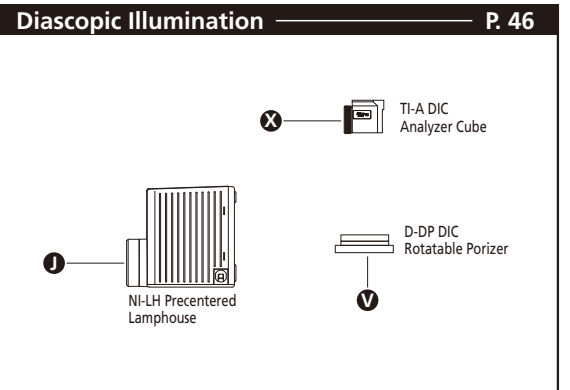
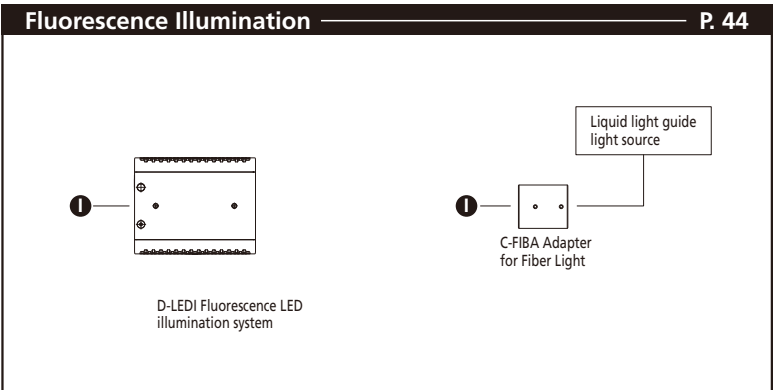
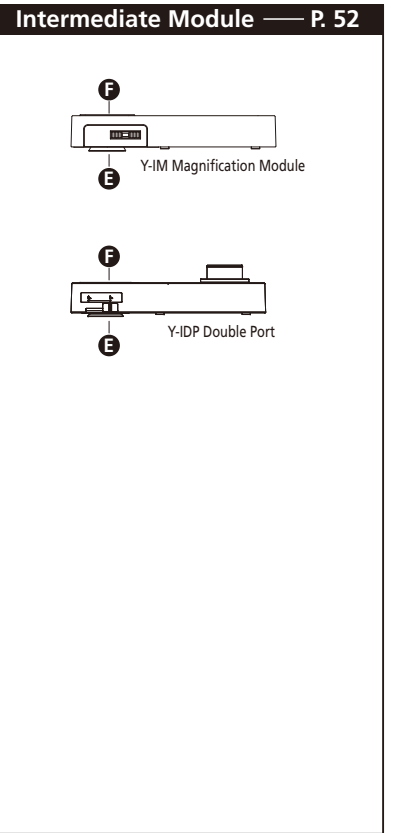
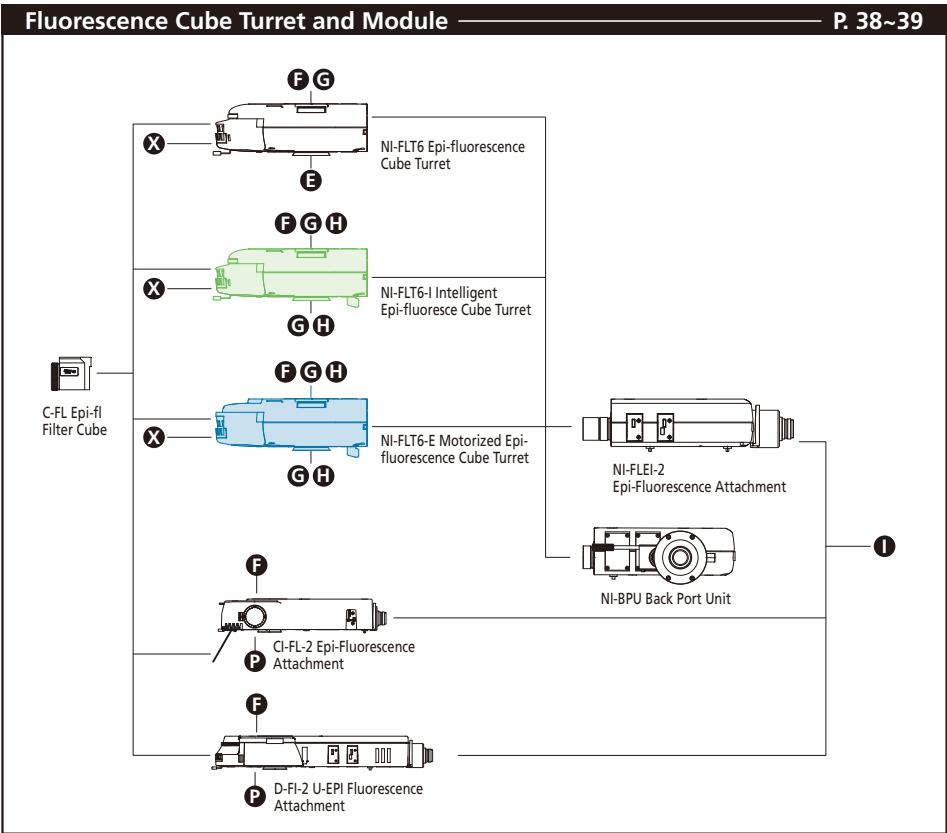
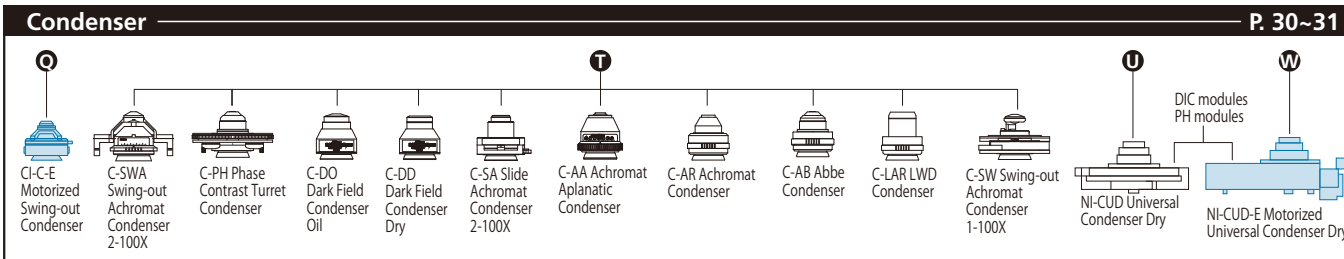
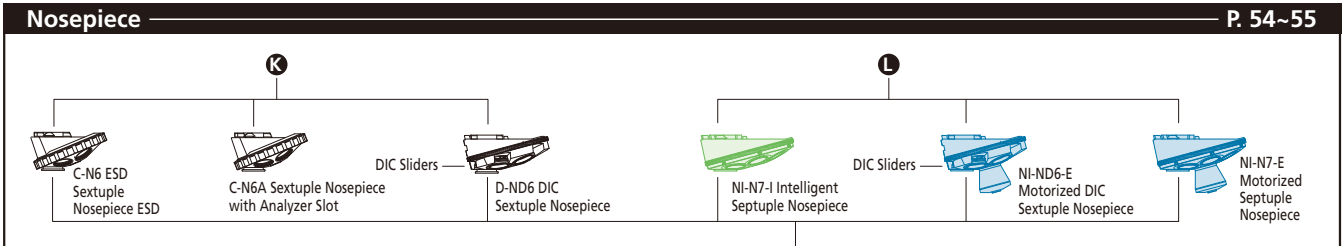
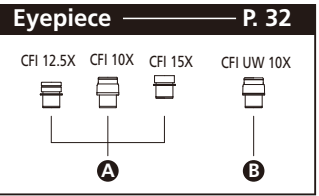
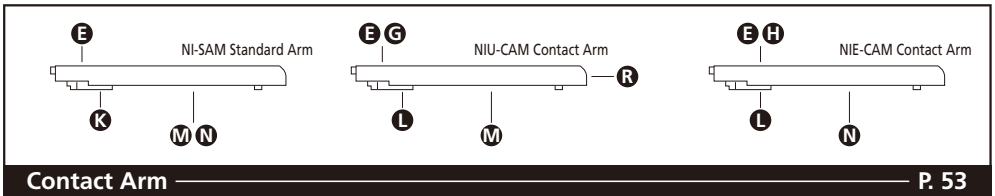
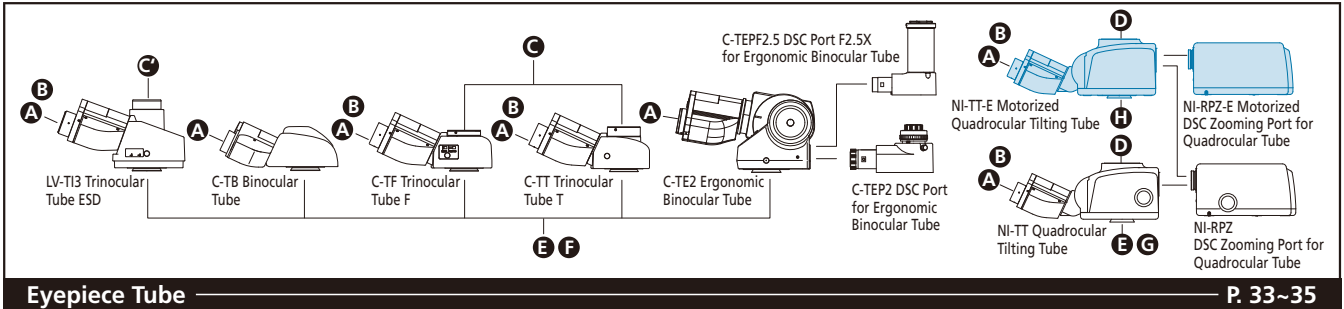
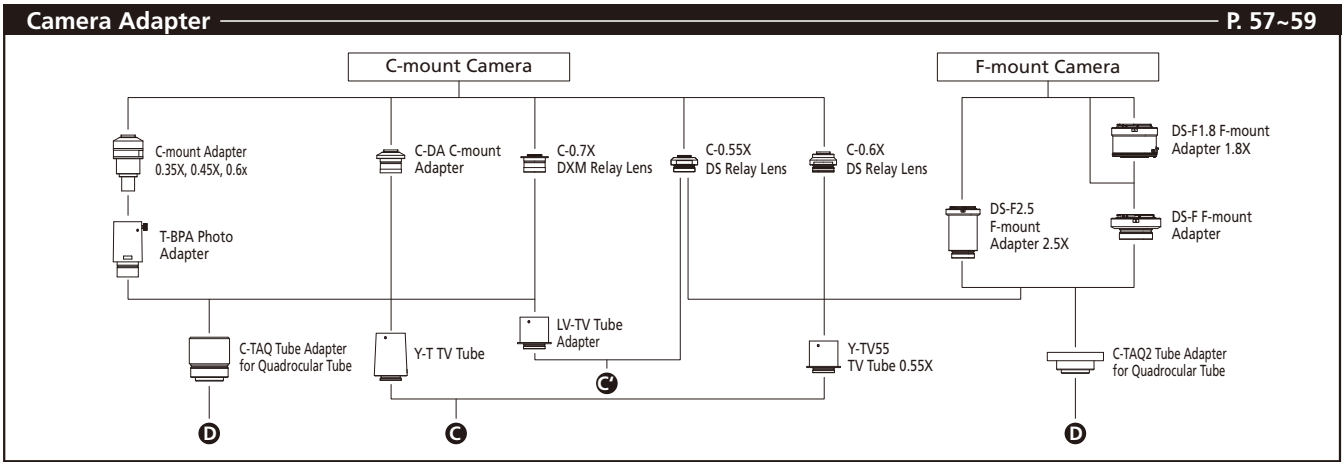
For information about the optical values of objectives and the dimensions of units and modules that are not included in this brochure, please contact Nikon.

System Diagram

System diagram for Upright Microscope ECLIPSE Ni/Ci

Motorized accessories (with status detection function)

Accessories with status detection function



6

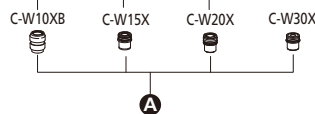
System Diagram

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

Motorized accessories (with status detection function)

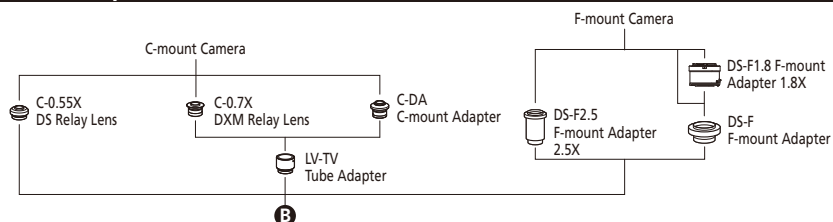
Accessories with status detection function

Eyepiece P. 32



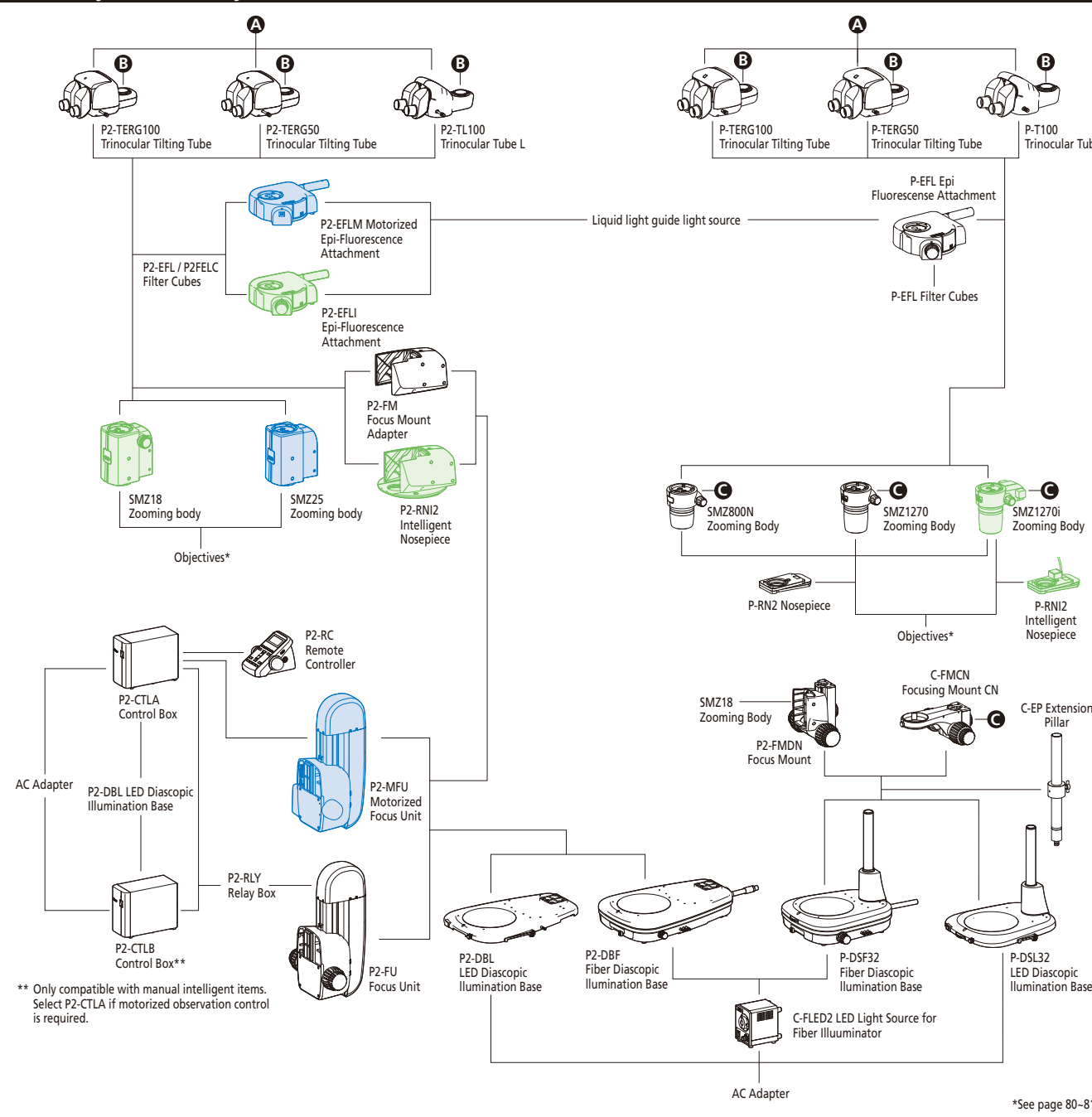
Camera Adapter

P. 57~59



Main Body and Accessory

P. 67~81



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

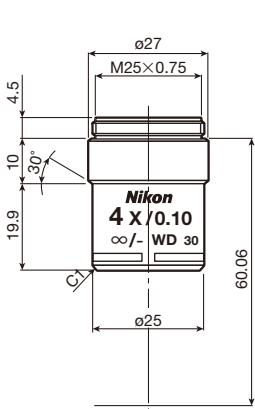


SMZ800N

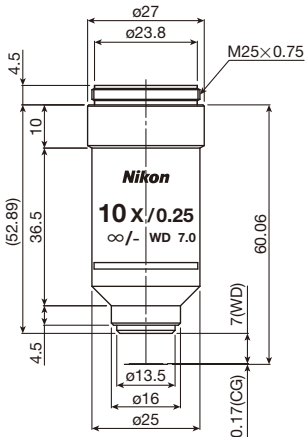
CFI60 Objectives

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

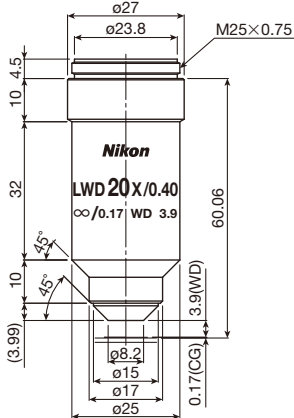
Correction of chromatic aberration, spherical aberration and coma has been dramatically improved, with significantly better image flatness.



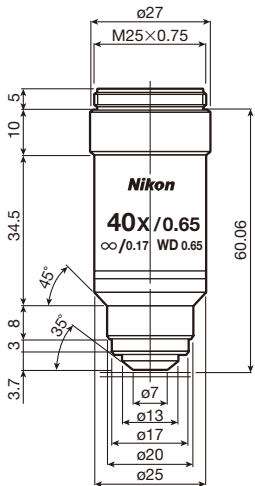
CFI Achromat 4X



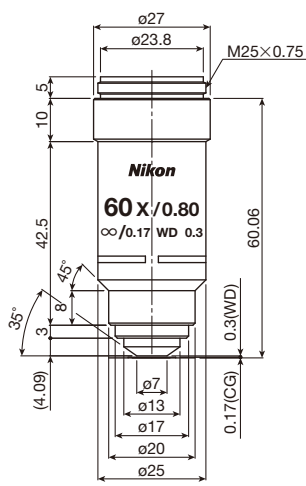
CFI Achromat 10X
CFI Achromat DL 10X



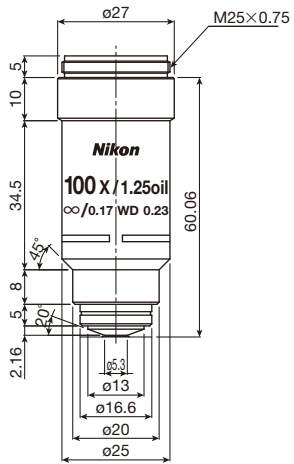
CFI Achromat LWD 20X
CFI Achromat LWD DL 20X



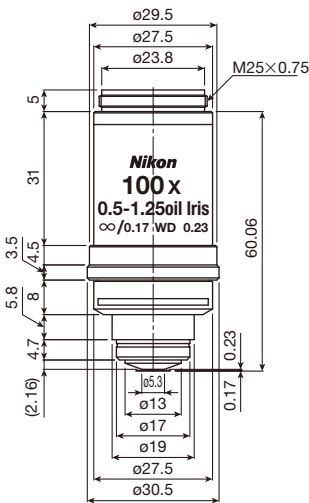
CFI Achromat 40X
CFI Achromat DL 40X



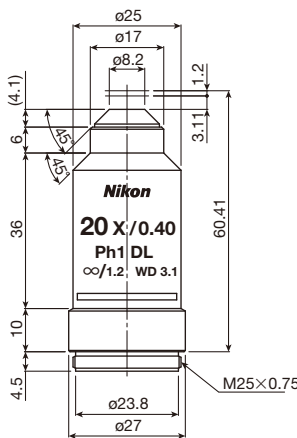
CFI Achromat 60X



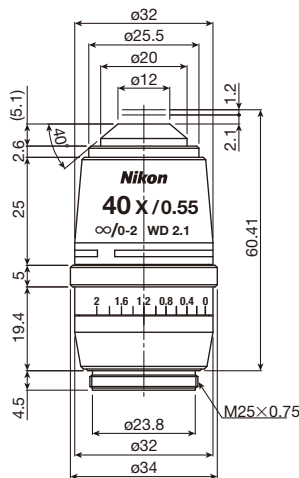
CFI Achromat 100X Oil
CFI Achromat DL 100X Oil



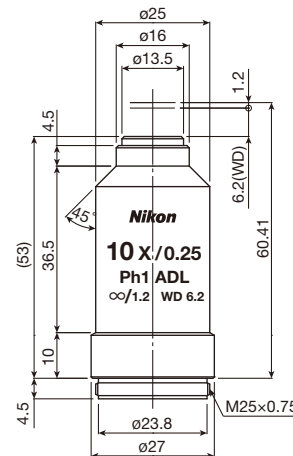
CFI Achromat 100XS Oil



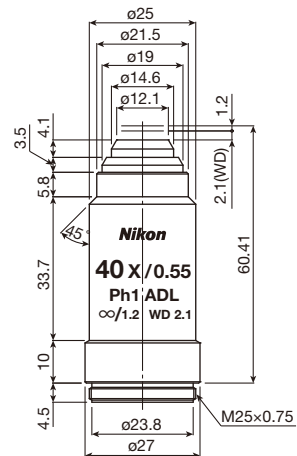
CFI Achromat LWD DL 20XF
CFI Achromat LWD ADL 20XF



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



CFI Achromat ADL 10XF



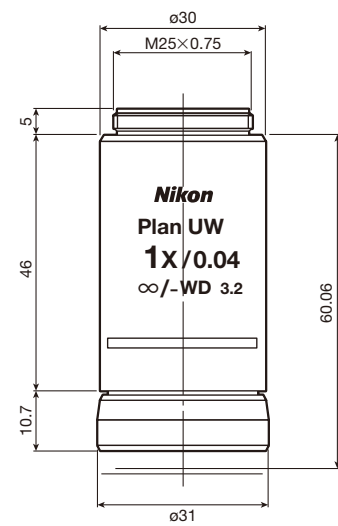
CFI Achromat LWD ADL 40XF

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	95		
MRP20102	CFI Achromat DL 10X	0.25	7.00	4.40	2.20	95		Ph1
MRP00202	CFI Achromat LWD 20X	0.40	3.90	1.72	1.10	115		
MRP20202	CFI Achromat LWD DL 20X	0.40	3.90	1.72	1.10	115		Ph1
MRP00402	CFI Achromat 40X	0.65	0.65	0.65	0.55	140	Spring-loaded	
MRP20402	CFI Achromat DL 40X	0.65	0.65	0.65	0.55	140	Spring-loaded	Ph2
MRP00602	CFI Achromat 60X	0.80	0.30	0.43	0.37	140	Spring-loaded	
MRP01902	CFI Achromat 100X Oil	1.25	0.23	0.27	0.22	145	Spring-loaded	
MRP21902	CFI Achromat DL 100X Oil	1.25	0.23	0.27	0.22	145	Spring-loaded	Ph3
MRP02902	CFI Achromat 100XS Oil	0.50-1.25	0.23	0.27	0.22	185	Spring-loaded, with iris diaphragm	
MRP26202	CFI Achromat LWD DL 20XF	0.40	3.10	1.72	1.10	115	Cover glass thickness 1.2mm	Ph1
MRP46202	CFI Achromat LWD ADL 20XF	0.40	3.10	1.72	1.10	112	Cover glass thickness 1.2mm	Ph1
MRP05422	CFI Achromat LWD 40XC	0.55	2.70-1.70	0.91	0.55	210	Cover glass correction 0-2mm	
MRP25422	CFI Achromat LWD DL 40XC	0.55	2.70-1.70	0.91	0.55	210	Cover glass correction 0-2mm	Ph2
MRP45422	CFI Achromat LWD ADL 40XC	0.55	2.70-1.70	0.91	0.55	210	Cover glass correction 0-2mm	Ph2
MRP40102	CFI Achromat ADL 10XF	0.25	6.20	4.40	2.20	95	Cover glass thickness 1.2mm	Ph1
MRP46402	CFI Achromat LWD ADL 40XF	0.55	2.10	0.91	0.55	120	Cover glass thickness 1.2mm	Ph1

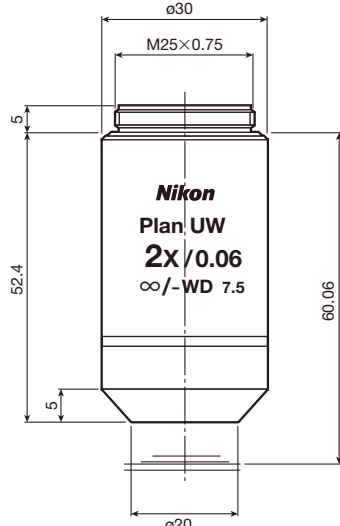
CFI60 Objectives

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

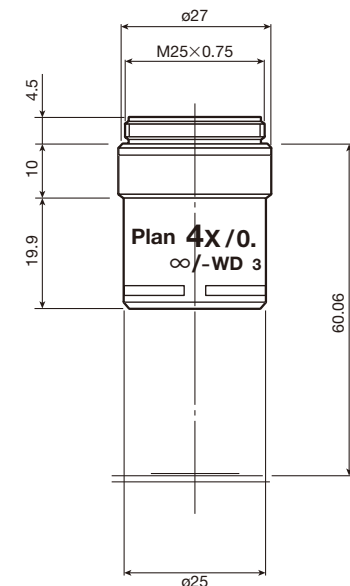
Nikon's CFI Plan Achromat series provides incredible image flatness, with chromatic aberration corrected throughout the entire visible spectrum. These objectives are suitable not only for observation but also for capturing images.



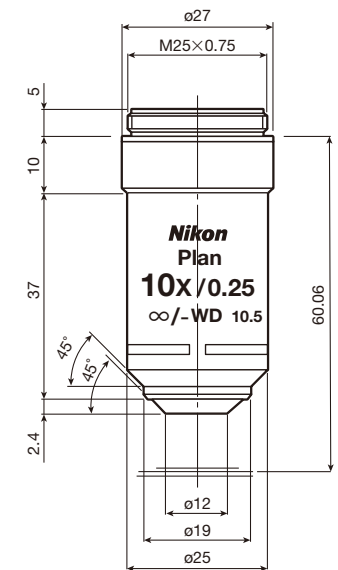
CFI Plan Achromat 1X



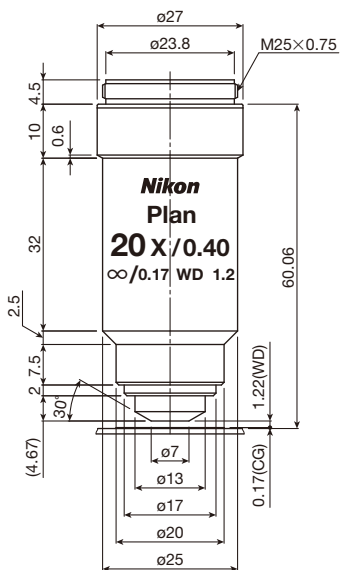
CFI Plan Achromat 2X



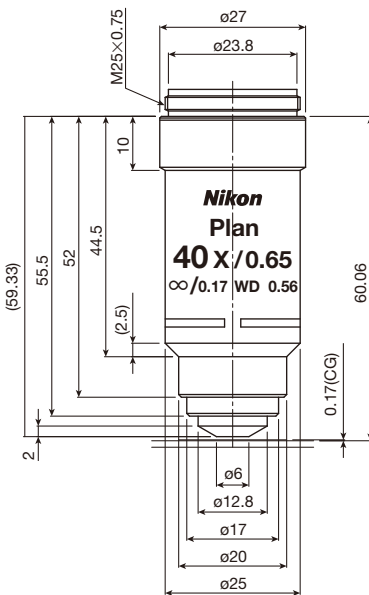
CFI Plan Achromat 4X



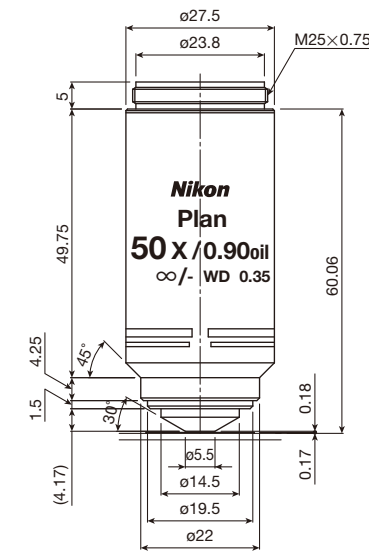
CFI Plan Achromat 10X
CFI Plan Achromat DL 10X



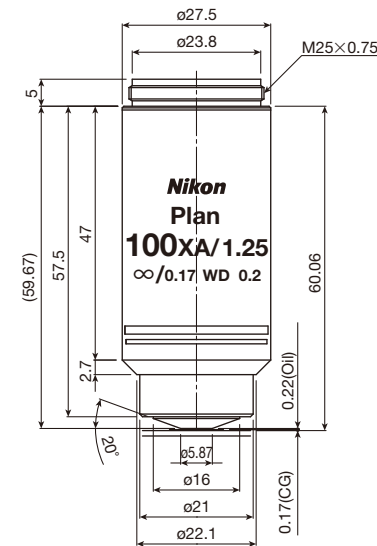
CFI Plan Achromat 20X
CFI Plan Achromat DL 20X



CFI Plan Achromat 40X
CFI Plan Achromat DL 40X



CFI Plan Achromat 50X Oil



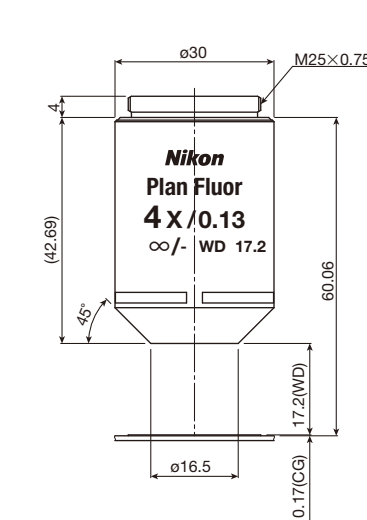
CFI Plan Achromat 100X Oil
CFI Plan Achromat DL 100X Oil

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRL00012	CFI Plan Achromat 1X	0.04	3.20	171.88	25.00	190		
MRL00022	CFI Plan Achromat 2X	0.06	7.50	76.39	12.50	120		
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	90		
MRL20102	CFI Plan Achromat DL 10X	0.25	10.50	4.40	2.50	95		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	120	Spring-loaded	
MRL20402	CFI Plan Achromat DL 40X	0.65	0.56	0.65	0.63	130	Spring-loaded	Ph2
MRL01502	CFI Plan Achromat 50X Oil	0.90	0.35/0.18	0.51	0.44	165	Spring-loaded No cover glass	
MRL01903	CFI Plan Achromat 100X Oil	1.25	0.20	0.27	0.22	170	Spring-loaded	
MRL21903	CFI Plan Achromat DL 100X Oil	1.25	0.20	0.27	0.22	170	Spring-loaded	Ph3

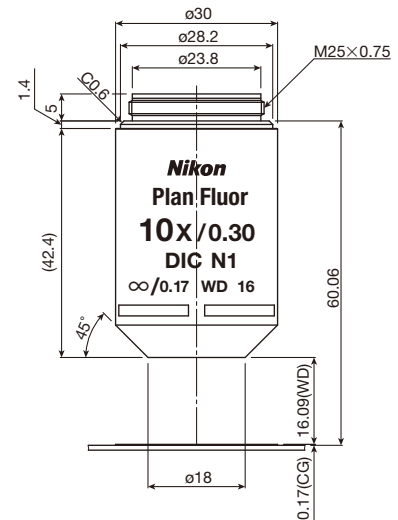
CFI60 Objectives

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

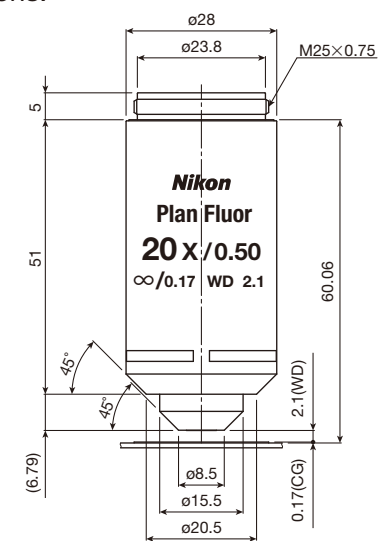
Featuring an extra-high transmission rate, especially in the ultraviolet wavelength, and flatness of field, this series is designed for fluorescence observation and imaging. These objectives can function as multi-purpose objectives for brightfield, fluorescence, simple polarizing, and DIC observations.



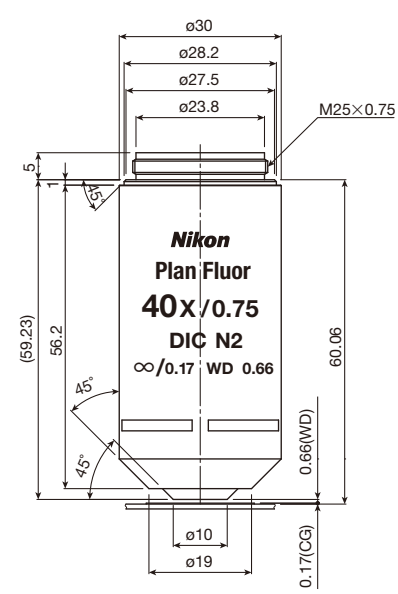
CFI Plan Fluor 4X



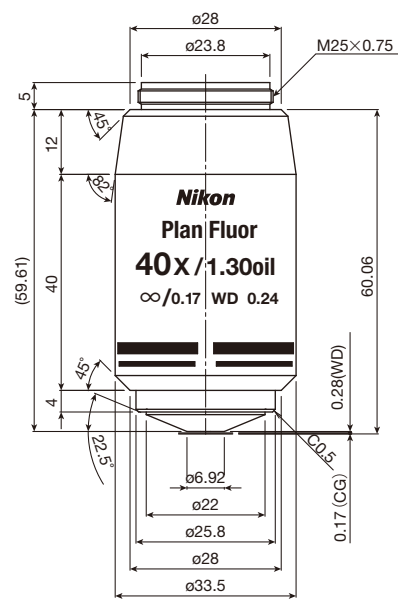
CFI Plan Fluor 10X
CFI Plan Fluor DLL 10X



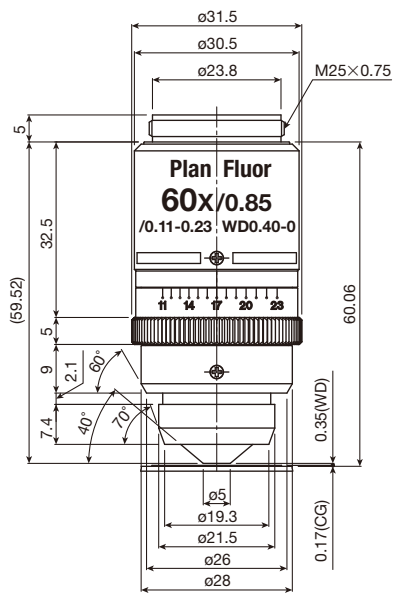
CFI Plan Fluor 20X
CFI Plan Fluor DLL 20X



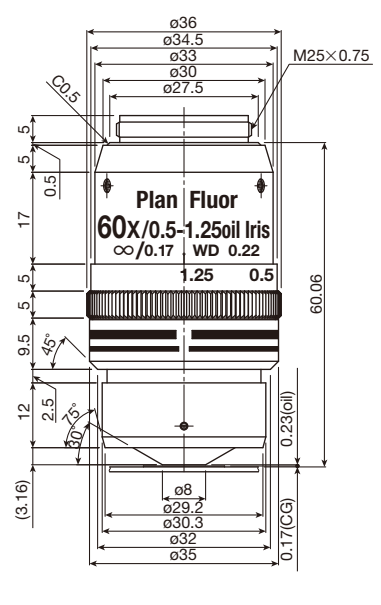
CFI Plan Fluor 40X
CFI Plan Fluor DLL 40X



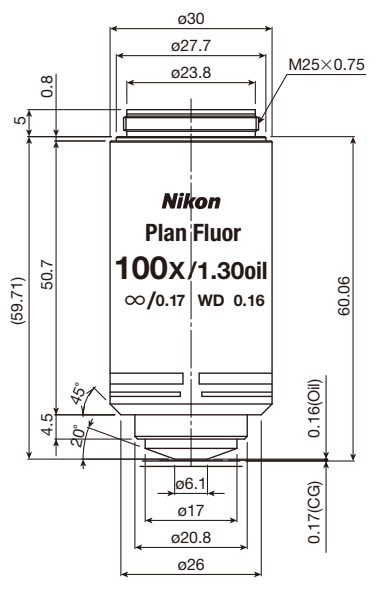
CFI Plan Fluor 40X Oil



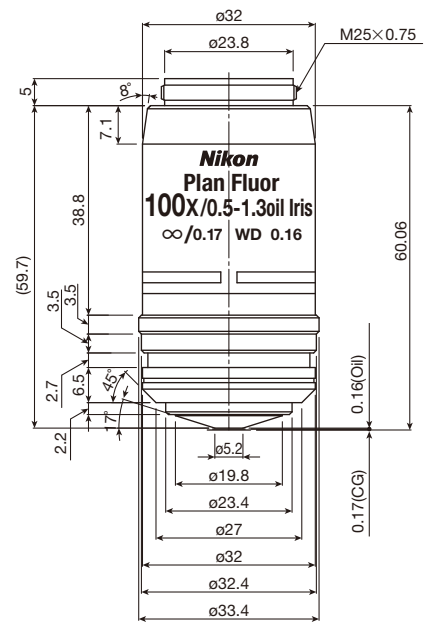
CFI Plan Fluor 60XC



CFI Plan Fluor 60XS Oil



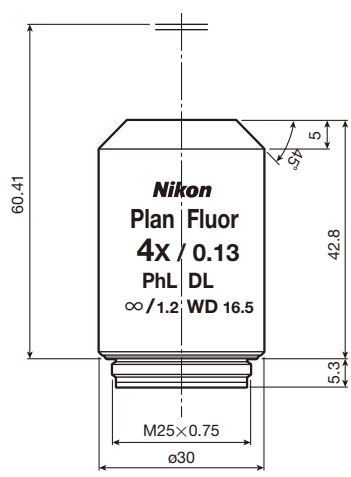
CFI Plan Fluor 100X Oil
CFI Plan Fluor DLL 100X Oil
CFI Plan Fluor ADH 100X Oil



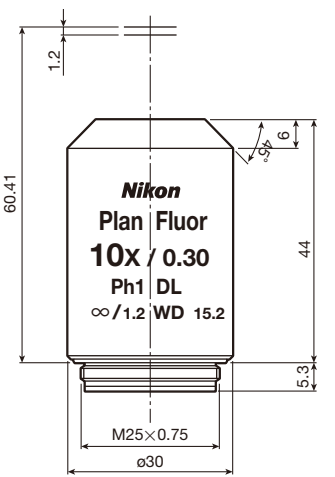
CFI Plan Fluor 100XS Oil

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

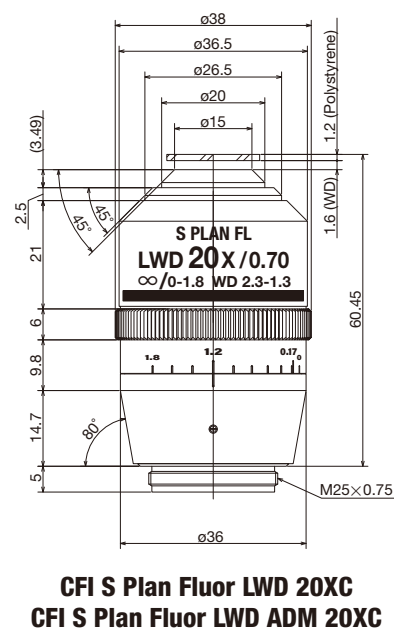
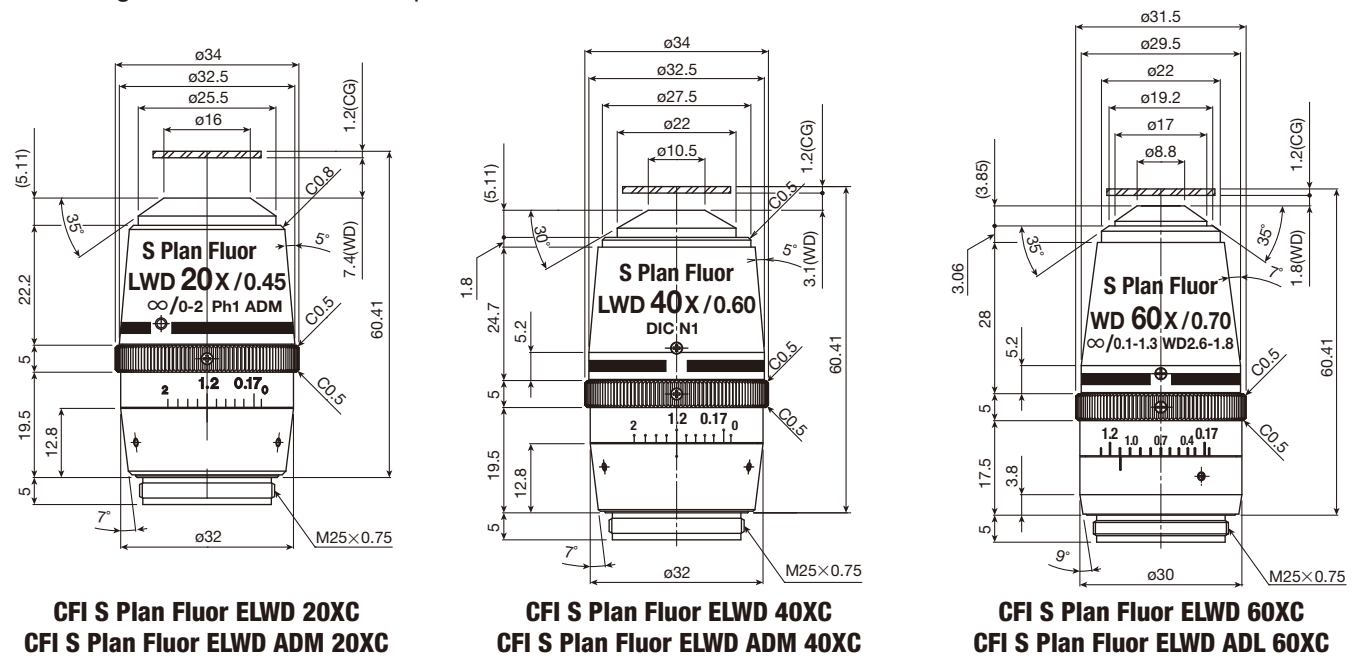
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (mm)	Weight (g)	Remarks	Phase ring
MRH00045	CFI Plan Fluor 4X	0.13	17.20	16.27	6.25	85		
MRH00105	CFI Plan Fluor 10X	0.30	16.00	3.06	6.25	190		
MRH10105	CFI Plan Fluor DLL 10X	0.30	16.00	3.06	2.50	190		Ph1
MRH00205	CFI Plan Fluor 20X	0.50	2.10	1.10	1.25	100		
MRH10205	CFI Plan Fluor DLL 20X	0.50	2.10	1.10	1.25	100		Ph1
MRH00405	CFI Plan Fluor 40X	0.75	0.66	0.49	0.63	170	Spring-loaded	
MRH10405	CFI Plan Fluor DLL 40X	0.75	0.66	0.49	0.63	170	Spring-loaded	Ph2
MRH01401	CFI Plan Fluor 40X Oil	1.30	0.24	0.25	0.63	220	Spring-loaded, with stopper	
MRH00602	CFI Plan Fluor 60XC	0.85	0.40-0.31	0.38	0.42	155	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	185	Spring-loaded, with stopper	
MRH11902	CFI Plan Fluor DLL 100X Oil	1.30	0.16	0.25	0.25	185	Spring-loaded, with stopper	Ph3
MRH41902	CFI Plan Fluor ADH 100X Oil	1.30	0.16	0.25	0.25	185	Spring-loaded, with stopper	Ph3
MRH02902	CFI Plan Fluor 100XS Oil	0.50-1.30	0.16	0.25	0.25	270	Spring-loaded, with iris diaphragm	

Code.No	Objectives	N.A.	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (mm)	Weight (g)	Remarks	Phase ring
MRH20045	CFI Plan Fluor DL 4XF	0.13	16.50	16.27	6.25	85	Cover glass thickness 1.2mm	PhL
MRH20105	CFI Plan Fluor DL 10XF	0.30	15.20	3.06	2.50	190	Cover glass thickness 1.2mm	Ph1

CFI60 Objectives

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

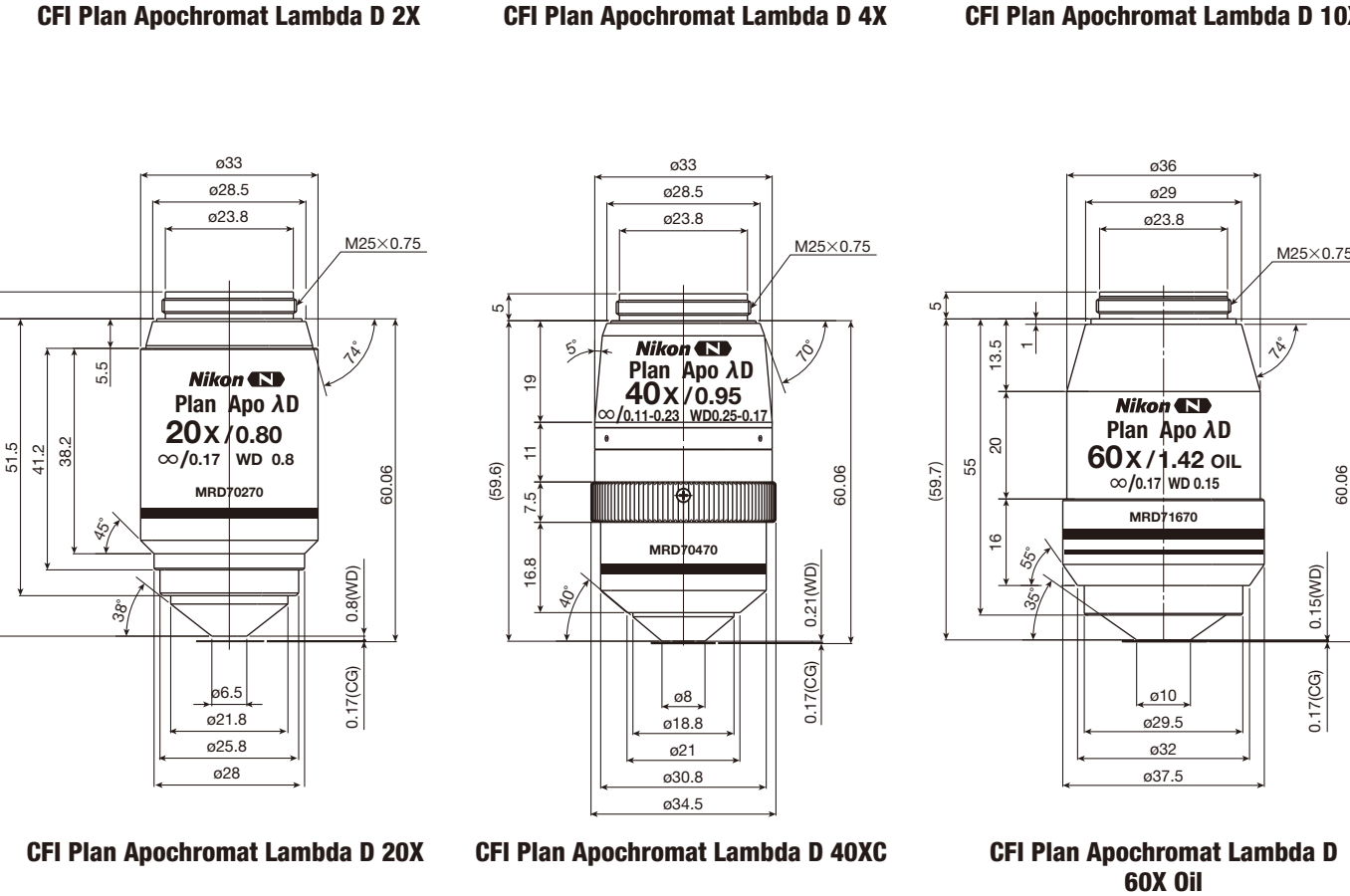
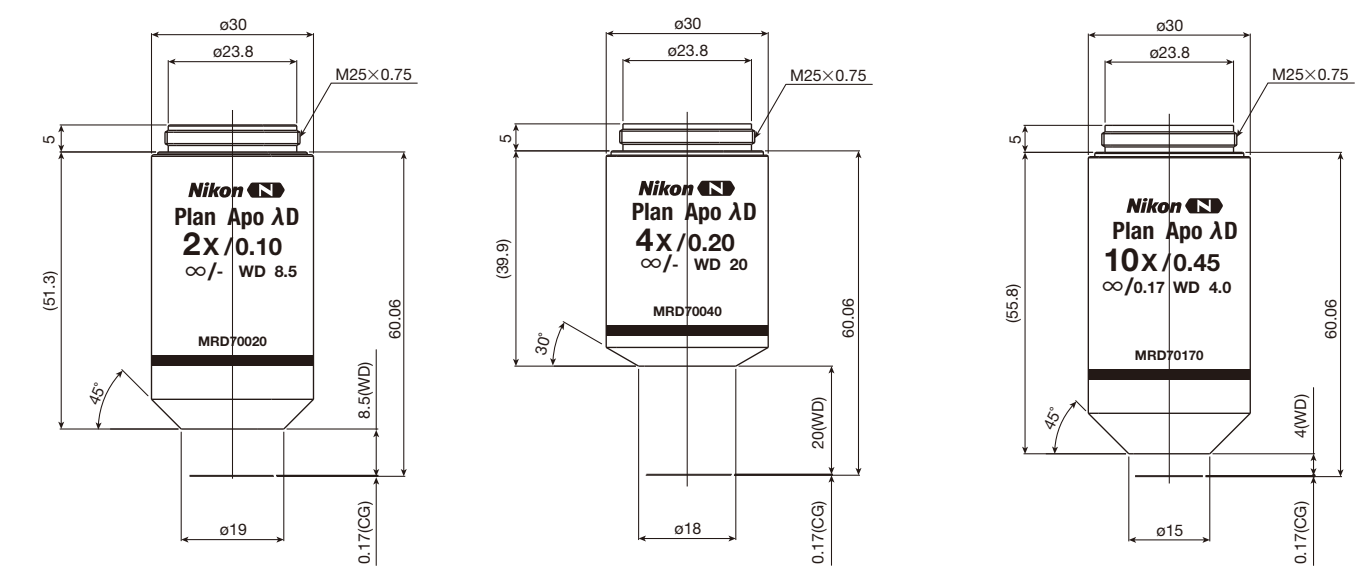
The broadband multilayer coating realizes high transmittance from ultraviolet to near-infrared wavelengths, with superior chromatic correction. The correction collar allows these objectives to be used with a diverse range of culture vessels and specimen thicknesses. High-quality images with no aberrations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



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	200	Cover glass correction 0–2mm	
MRH48430	CFI S Plan Fluor ELWD ADM 40XC	0.60	3.60–2.80	0.76	0.55	200	Cover glass correction 0–2mm	Ph2
MRH08630	CFI S Plan Fluor ELWD 60XC	0.70	2.60–1.80	0.56	0.37	165	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	160	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

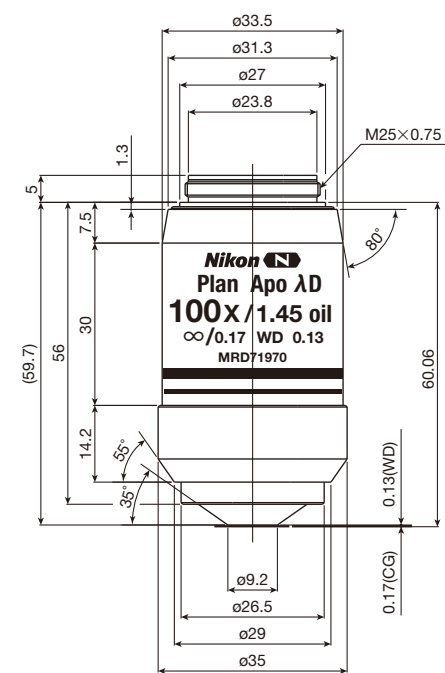
CFI Plan Apochromat Lambda D Series

The improved image flatness ensures a bright, sharp, uniform image up to the edge of the large field of view (FN 25). This allows these objectives to efficiently obtain high-quality stitched images. Chromatic aberration is corrected over a wide wavelength range from 405 nm to 850 nm for the 4X, 10X, 20X, 60X, and 100X objectives, enabling high-precision multicolor imaging. The high resolution, achieved by unique lens edge thinning technology, and high transmittance over a wide wavelength range, achieved by applying Nano Crystal Coat, result in consistently reliable images.



CFI60 Objectives

CFI Plan Apochromat Lambda D Series

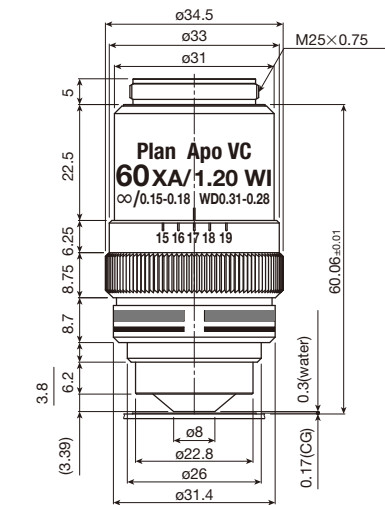


CFI Plan Apochromat Lambda D 100X Oil

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks	Phase ring
MRD70020	CFI Plan Apochromat Lambda D 2X	0.10	8.50	27.5	12.5	150		
MRD70040	CFI Plan Apochromat Lambda D 4X	0.20	20.00	6.88	6.25	135		
MRD70170	CFI Plan Apochromat Lambda D 10X	0.45	4.00	1.36	2.50	200		
MRD70270	CFI Plan Apochromat Lambda D 20X	0.80	0.80	0.43	1.25	220	Spring-loaded	
MRD70470	CFI Plan Apochromat Lambda D 40XC	0.95	0.21	0.30	0.63	260	Spring-loaded Covert correction 0.11-0.23mm	
MRD71670	CFI Plan Apochromat Lambda D 60X Oil	1.42	0.15	0.21	0.42	320	Spring-loaded	
MRD71970	CFI Plan Apochromat Lambda D 100X Oil	1.45	0.13	0.20	0.25	300	Spring-loaded	

CFI Plan Apochromat VC Series

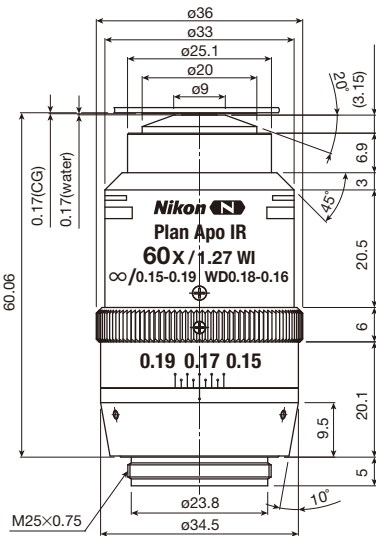
This objective provides perfect correction of chromatic aberrations in the visible light range and high resolution throughout the view field, and are the perfect choice for multi-stained, fluorescence specimens, and for brightfield and DIC observation. In addition to the correction range of the conventional Plan Apochromat series (435–660nm), axial chromatic aberration has been corrected up to the violet range (405nm), making this objective highly effective for confocal applications. It also features high spectral transmittance, even in the 360nm wavelength ultra-violet range, making it perfect for the fluorescence observation of living organisms.



Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD07602	CFI Plan Apochromat VC 60XC WI	1.20	0.31–0.28	0.25	0.37	225	Spring-loaded Cover glass correction 0.15–0.18mm

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.



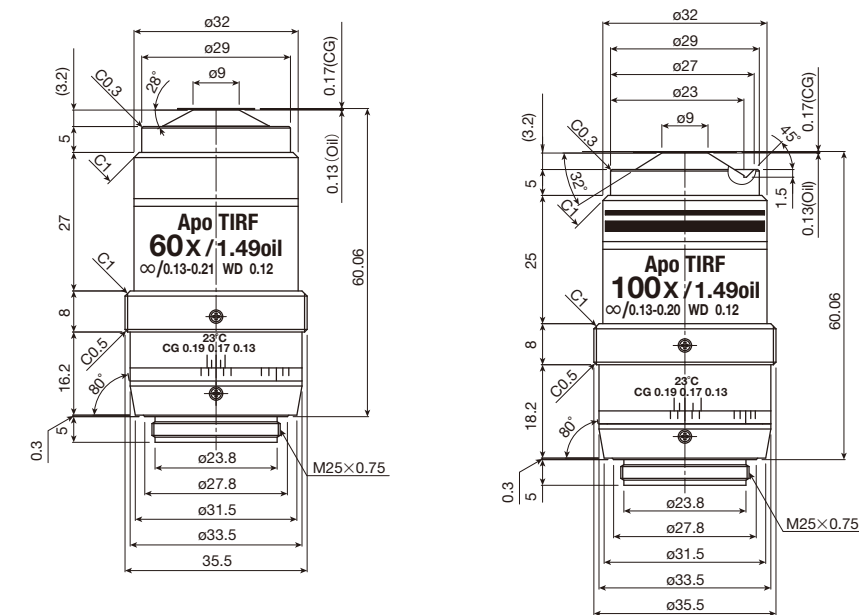
CFI Plan Apochromat IR 60XC WI

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	460	Spring-loaded Cover glass correction 0.15–0.19mm

CFI60 Objectives

CFI Apochromat 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 Apochromat TIRF 60XC Oil

CFI Apochromat TIRF 100XC Oil

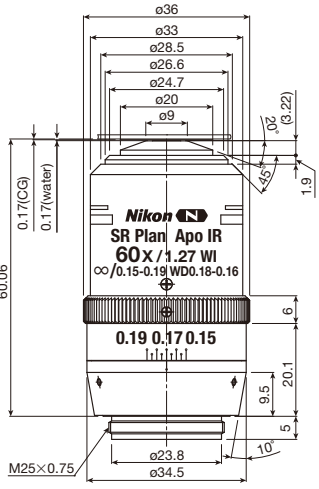
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD01691	CFI Apochromat TIRF 60XC Oil	1.49	0.16–0.10 (23°C) 0.13–0.07 (37°C)	0.19	0.37	250	Cover glass correction 0.13–0.19mm (23°C) 0.15–0.21mm (37°C)
MRD01991	CFI Apochromat TIRF 100XC Oil	1.49	0.16–0.10 (23°C) 0.15–0.09 (37°C)	0.19	0.18	245	Cover glass correction 0.13–0.19mm (23°C) 0.14–0.20mm (37°C)

CFI SR/SR HP Series

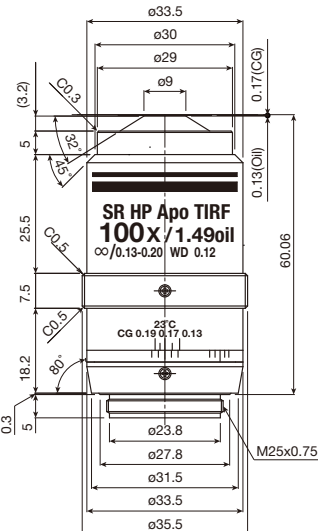
Adjustment and inspection that include wavefront aberration measurement minimize the SR objective’s asymmetric aberration, optimizing its optical performance for the N-SIM super-resolution microscope. The SR HP objective offers both high optical performance for super-resolution imaging and high durability against high power laser excitation with minimum axial chromatic aberration, eliminating the need to switch objectives between N-SIM and N-STORM systems.

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	265	Cover glass correction 0.15–0.19mm
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 (23°) 0.14–0.20mm (37°)
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	265	Cover glass correction 0.15–0.19mm

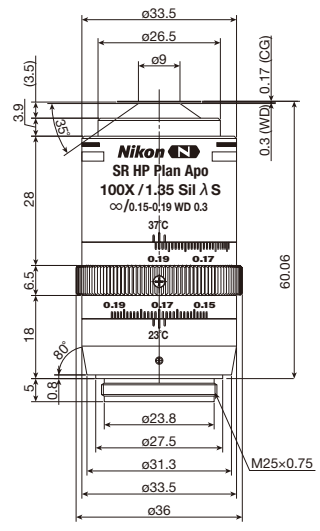
CFI SR/SR HP Series



CFI SR Plan Apochromat IR 60XC WI



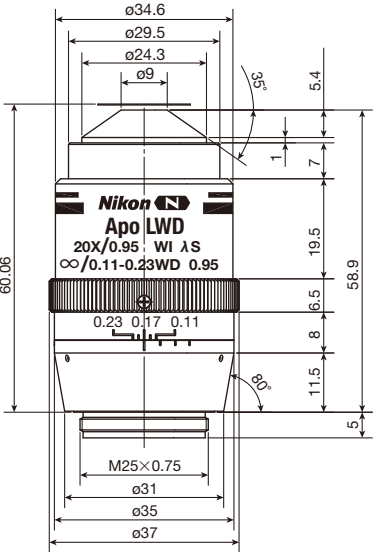
CFI SR HP Apochromat TIRF 100XC Oil



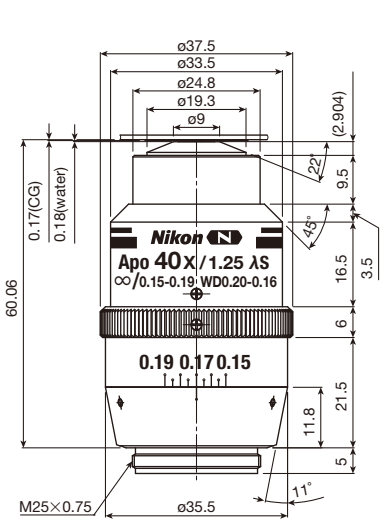
CFI SR HP Plan Apochromat Lambda S 100XC Sil

CFI Apochromat Lambda S Series

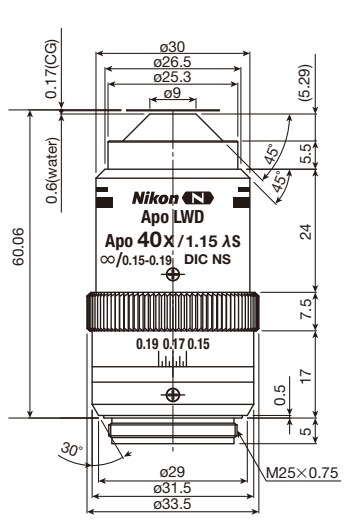
The Lambda S series objectives provide chromatic aberration correction over a wide wavelength range from 405nm, and are powerful enough for spectral imaging and simultaneous multi-wavelength acquisition. The LWD Lambda S 40XC has an wide chromatic aberration correction range of 405nm to 950nm, while 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.



CFI Apochromat LWD Lambda S 20XC WI



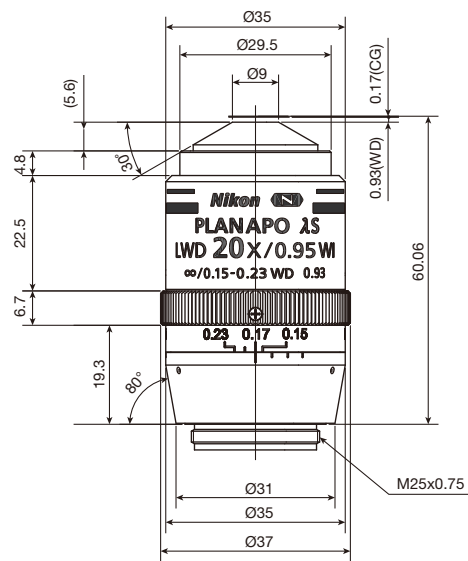
CFI Apochromat Lambda S 40XC WI



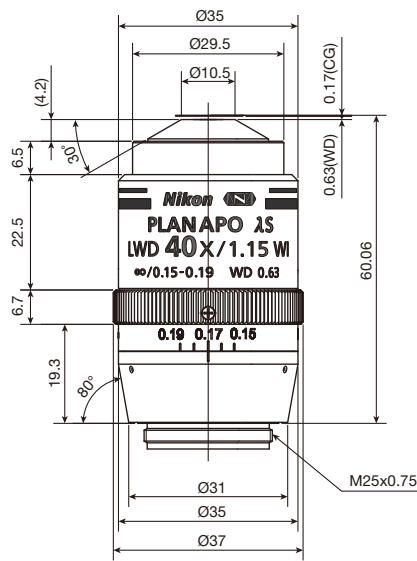
CFI Apochromat LWD Lambda S 40XC WI

CFI60 Objectives

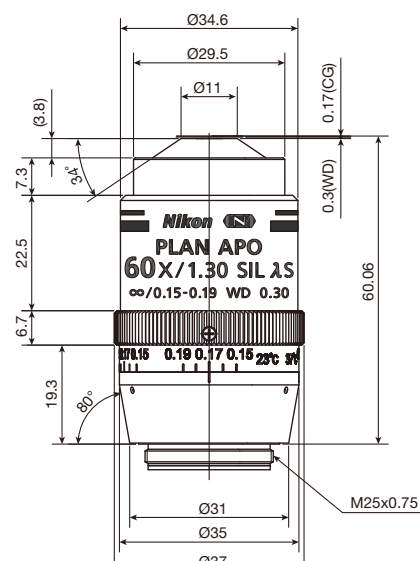
CFI Apochromat Lambda S Series



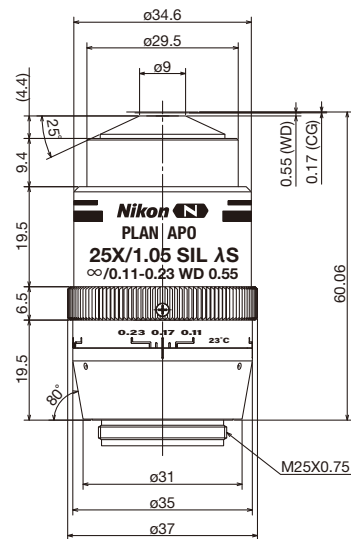
CFI Plan Apochromat LWD
Lambda S 20XC WI



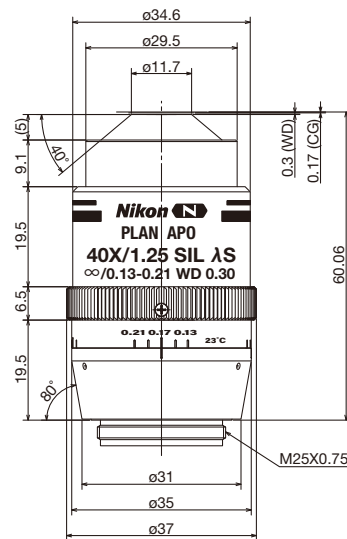
CFI Plan Apochromat
LWD Lambda S 40XC WI



CFI Plan Apochromat
Lambda S 60XC Sil



CFI Plan Apochromat
Lambda S 25XC Sil

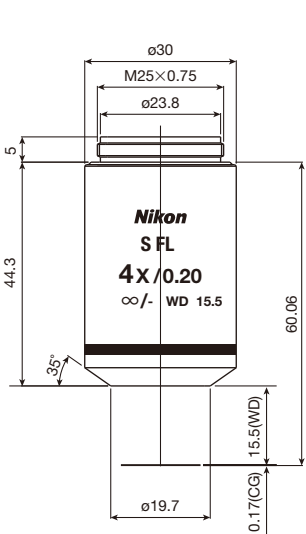


CFI Plan Apochromat
Lambda S 40XC Sil

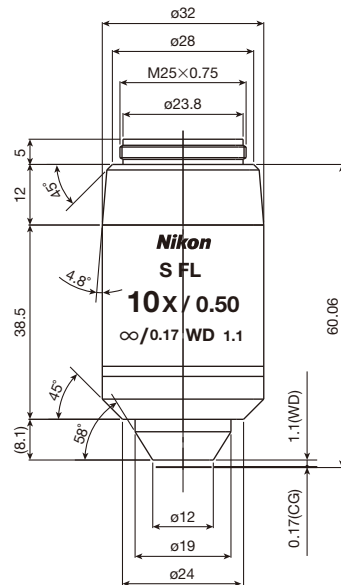
Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRD77200	CFI Apochromat LWD Lambda S 20XC WI	0.95	0.99-0.90	0.41	1.10	245	Cover glass correction 0.11–0.23mm
MRD77400	CFI Apochromat Lambda S 40XC WI	1.25	0.20-0.16	0.23	0.55	260	Spring-loaded Cover 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
MRD77205	CFI Plan Apochromat LWD Lambda S 20XC WI	0.95	0.93	0.41	1.25	250	Cover glass correction 0.15–0.23mm
MRD77415	CFI Plan Apochromat LWD Lambda S 40XC WI	1.15	0.63	0.28	0.63	260	Cover glass correction 0.15–0.19mm
MRD73600	CFI Plan Apochromat Lambda S 60XC Sil	1.30	0.30	0.23	0.42	275	Cover glass correction 0.15–0.19mm
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 Super Fluor Series

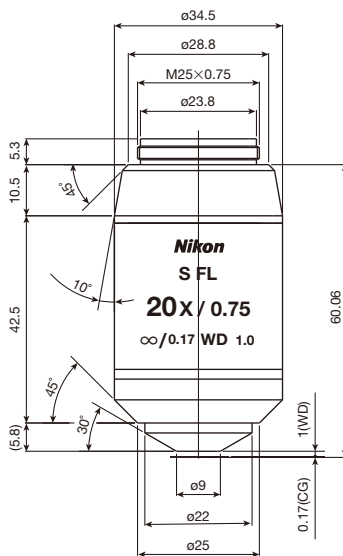
This CFI Super Fluor series ensures a high transmission rate of ultraviolet wavelengths down to 340nm for fluorochromes like indo-1 and fura-2. Also, these objectives have improved S/N ratios for short wavelengths and have high NA, making the fluorescence images they produce significantly sharper and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



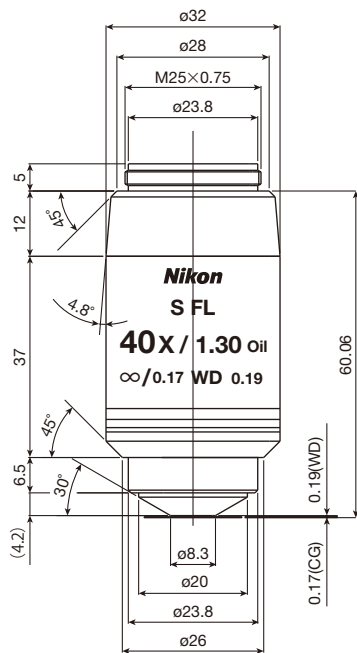
CFI Super Fluor 4X



CFI Super Fluor 10X



CFI Super Fluor 20X



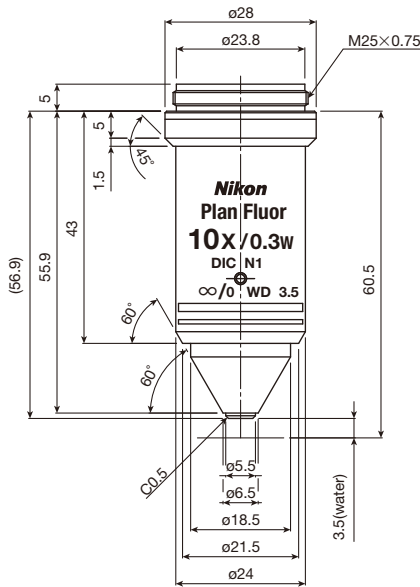
CFI Super Fluor 40X Oil

Code.No	Objectives	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRF00041	CFI Super Fluor 4X	0.20	15.50	6.88	5.50	110	
MRF00101	CFI Super Fluor 10X	0.50	1.10	1.10	2.20	168	Spring-loaded
MRF00201	CFI Super Fluor 20X	0.75	1.00	0.49	1.10	200	Spring-loaded
MRF01401	CFI Super Fluor 40X Oil	1.30	0.19	0.25	0.55	195	Spring-loaded, with stopper

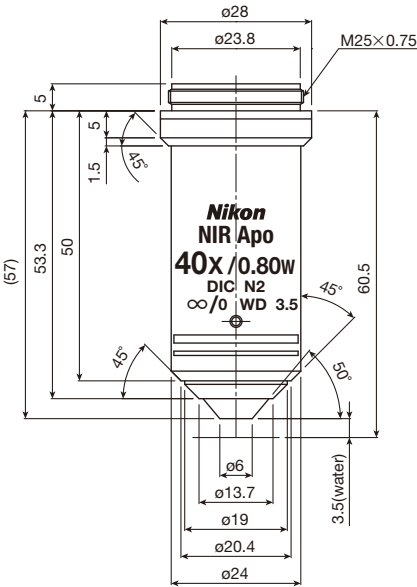
CFI60/CFI75 Objectives

Water Dipping Series

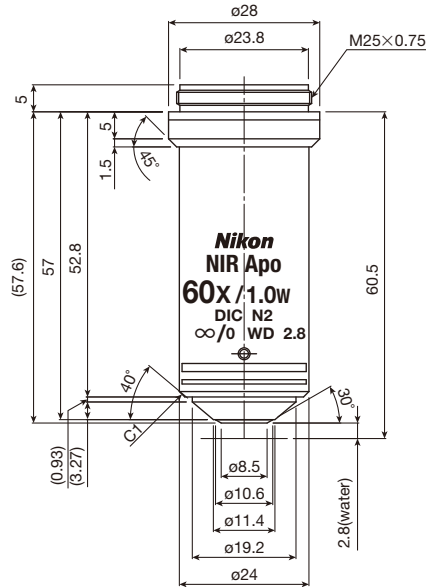
- Long WD and high NA at any magnification.
- Sharper tips and broad approach angles provide improved accessibility for manipulator control.
- Aberrations are corrected even in the infra-red range with the high-magnification objectives, making them suitable for multi-photon imaging using infra-red light.
- 100XW objective with a correction ring that corrects spherical aberration induced by imaging depth or temperature fluctuations. With high 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 high 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 and LWD 20XC W objectives 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.



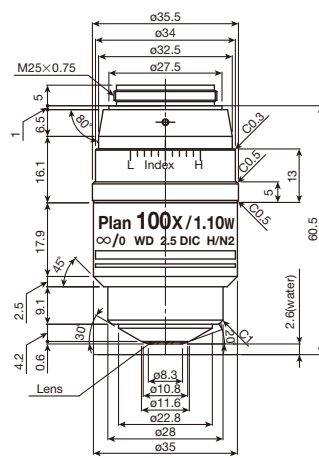
CFI Plan Fluor 10X W



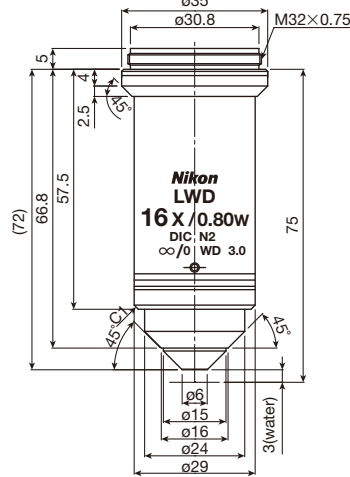
CFI Apochromat NIR 40X W



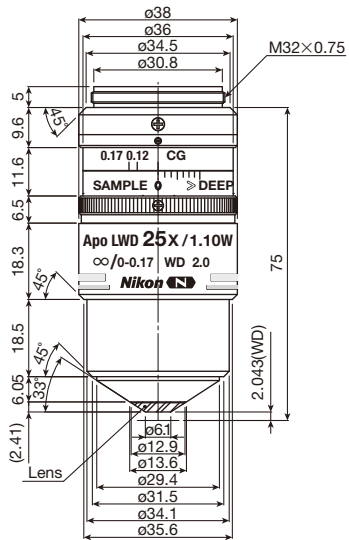
CFI Apochromat NIR 60X W



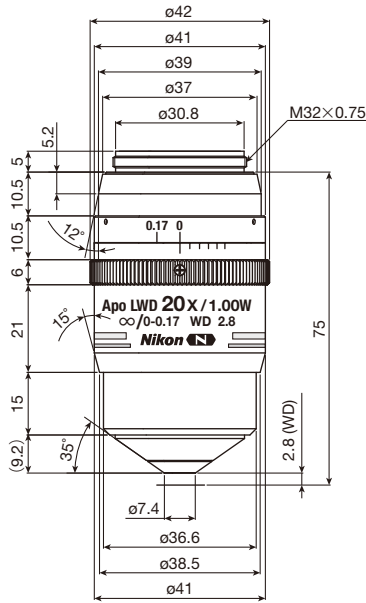
CFI Plan 100XC W



CFI75 LWD 16X W



CFI75 Apochromat 25XC W
CFI75 Apochromat 25XC W 1300



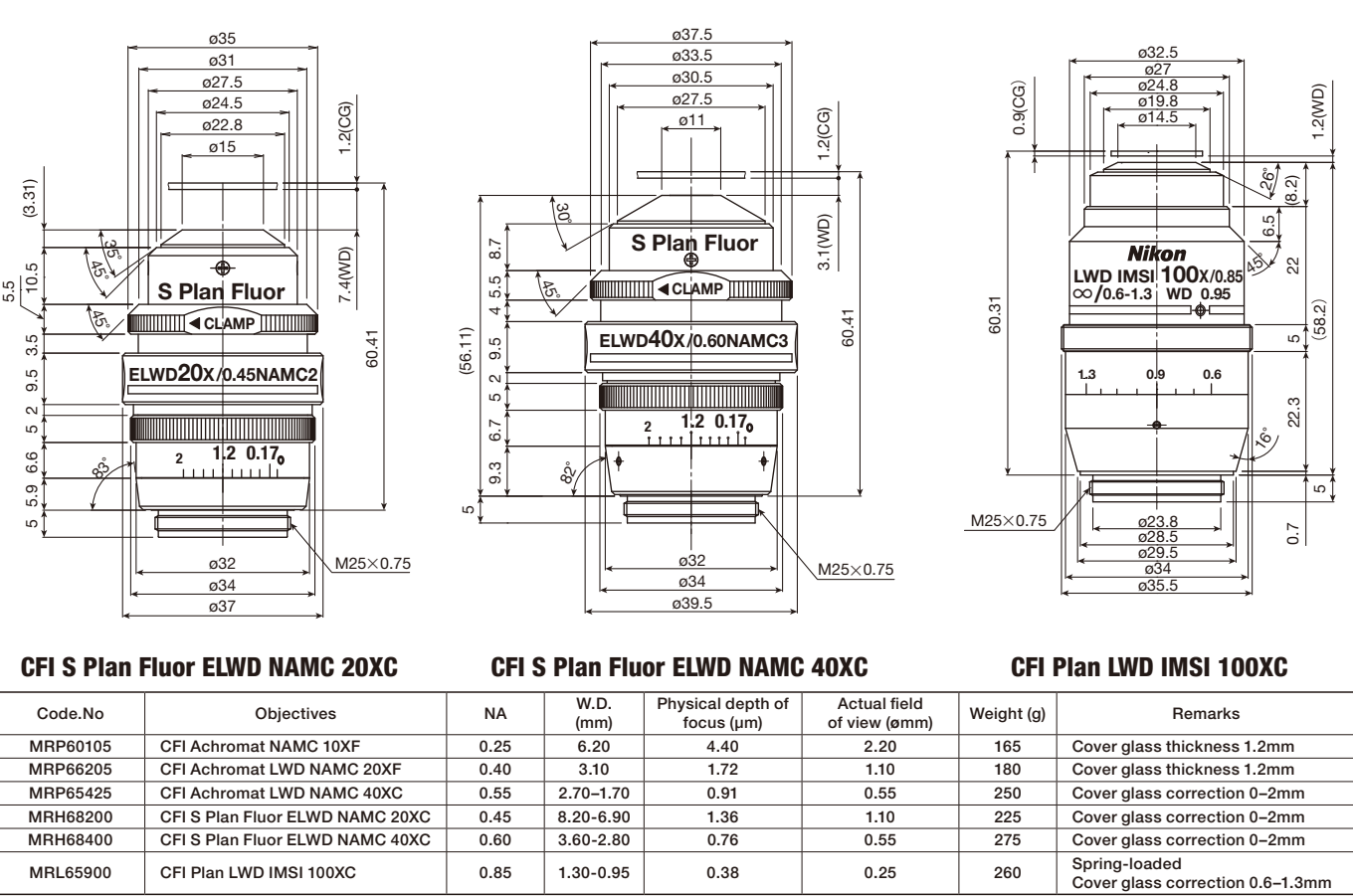
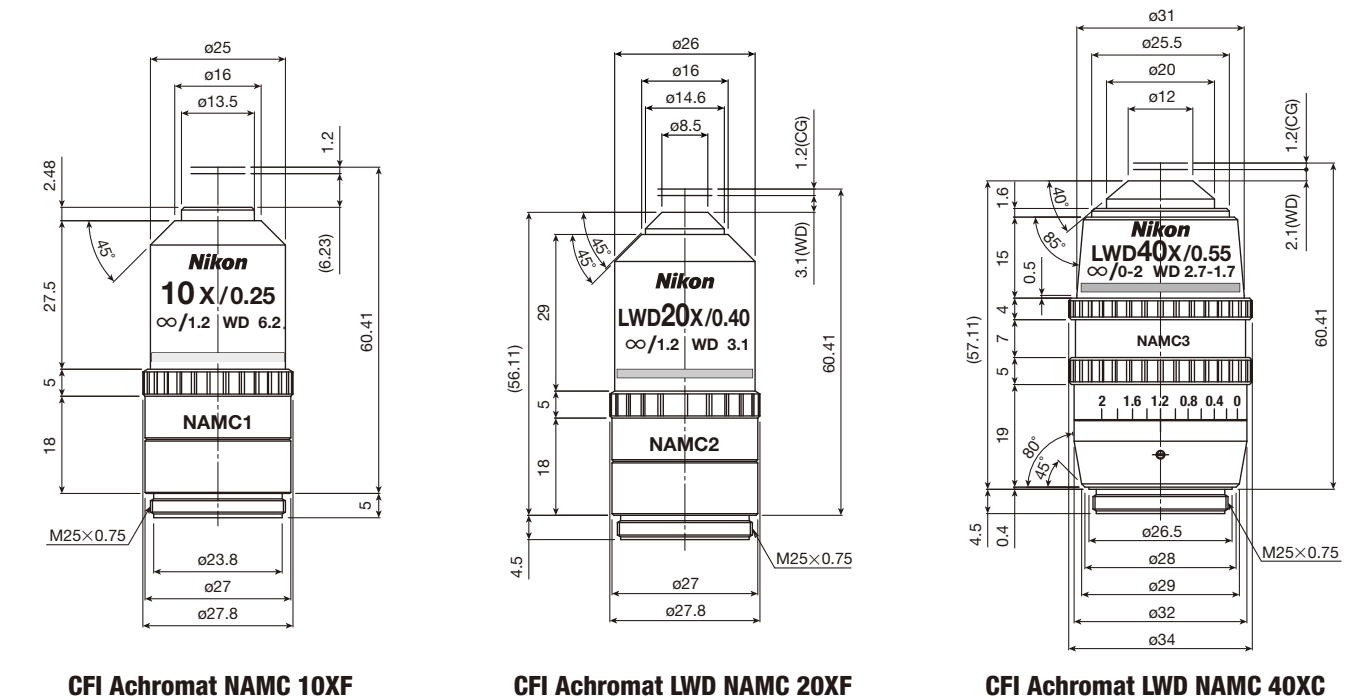
CFI75 Apochromat LWD 20XC W

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
MRD77226	CFI75 Apochromat LWD 20XC W	1.00	2.80	0.37	1.25	420	With Correction ring Cover glass correction 0-0.17mm

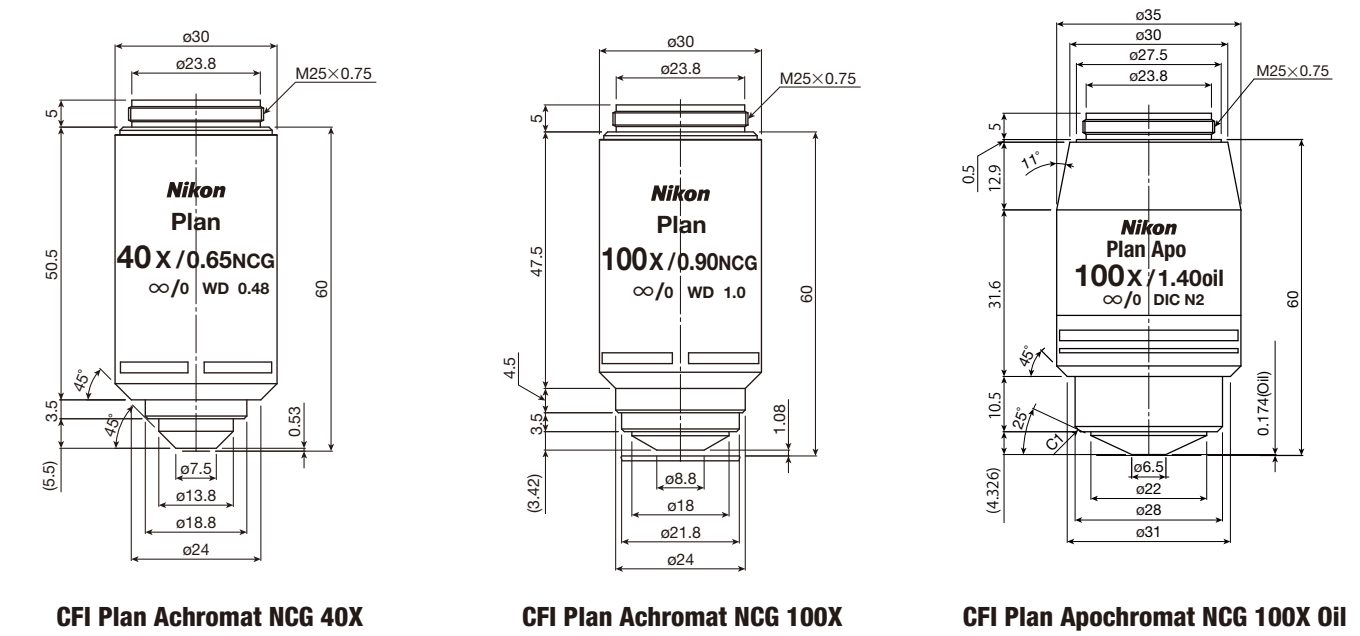
CFI60 Objectives

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.



No Cover Glass Objective Lenses

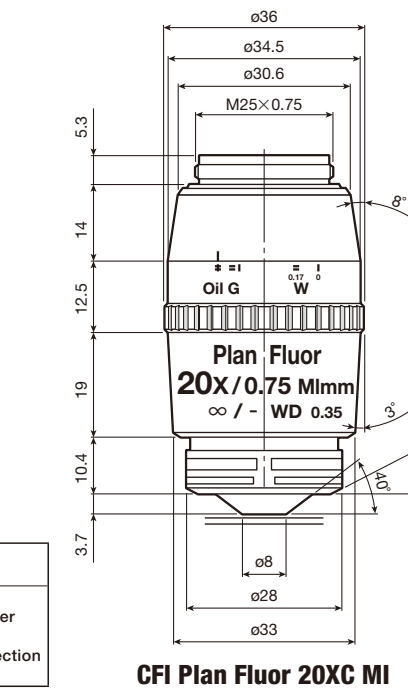


Code.No	Objectives (magnification)	NA	W.D. (mm)	Physical depth of focus (μm)	Actual field of view (ømm)	Weight (g)	Remarks
MRL03401	CFI Plan Achromat NCG 40X	0.65	0.48	0.65	0.63	160	Spring-loaded No cover glass
MRL03901	CFI Plan Achromat NCG 100X	0.90	1.00	0.34	0.25	160	Spring-loaded No cover glass
MRD04901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

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

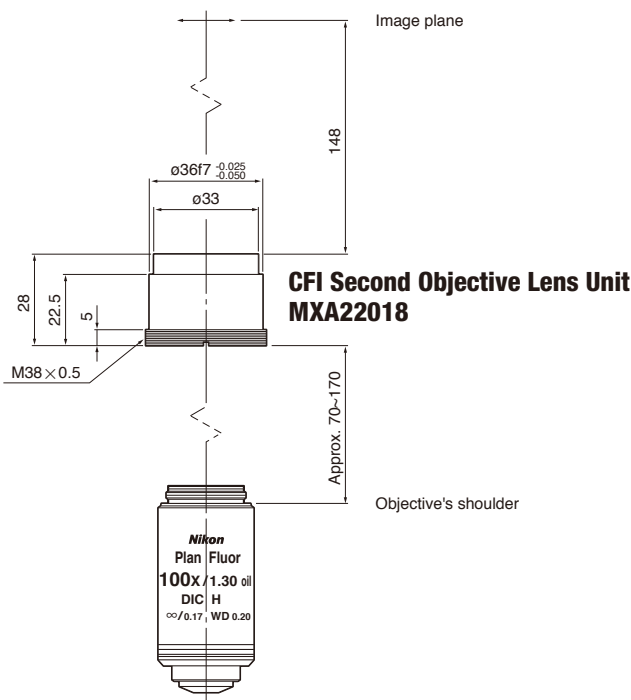


CFl60 Objectives

CFI Tube Lens Unit

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

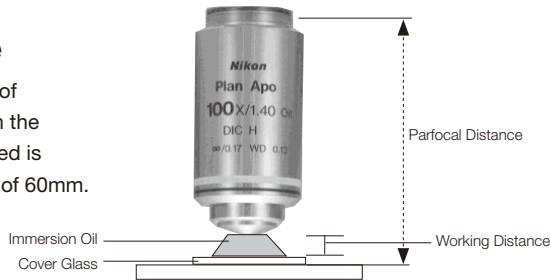
- Infinity Tube Lens Unit for CFI objectives (chromatic aberration-free infinity corrected objectives).
- Focal length: 200mm (7.87 in.)
- To obtain the optimal objective performance, keep the distance between the tube lens and the objective's shoulder within 70–170 mm (2.76–6.69 in.).



Glossary

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

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.

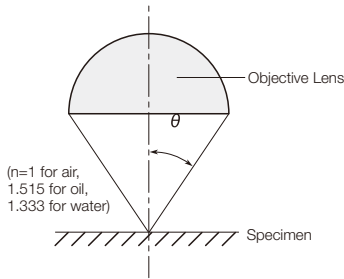
Numerical aperture is the most important factor in judging the objective's resolving power, brightness, and depth of focus.

■ 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 equation below, where the larger the NA the greater the resolving power.

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

Where,
 λ = Light source's wavelength (generally 0.55μm)
 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.

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

λ = Light source's wavelength (generally 0.55μm)
 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)

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

■ Focal length

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

■ Pupil Diameter

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

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

f = Focal length of objective lens
 NA = Numerical aperture of objective

■ Total Magnification

When viewed through eyepieces

Eyepiece observation magnification (M) = objective's magnification × eyepieces magnification

When viewed on monitors

Monitor observation magnification = objective's magnification × TV adapter magnification × 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.

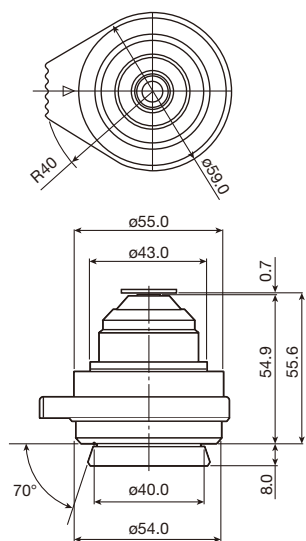
■ Imaging device size

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

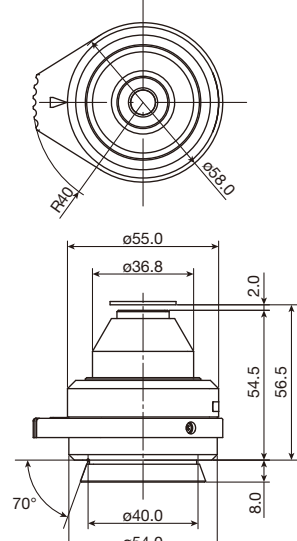
■ Monitor magnification

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

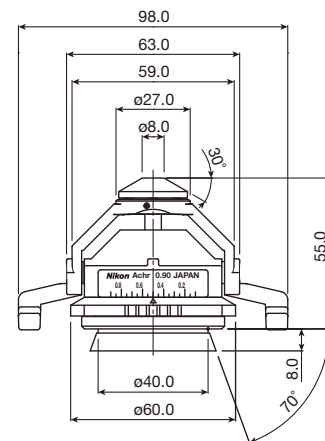
Condenser



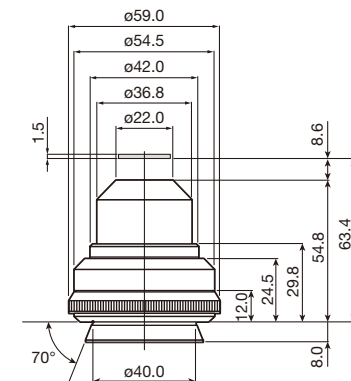
C-AB Abbe Condenser
MBL71105



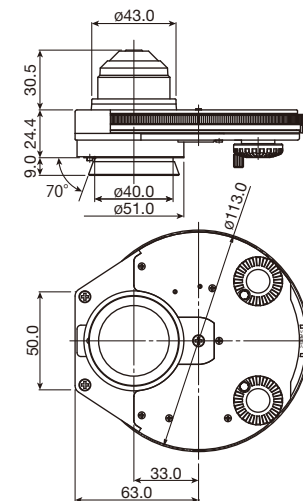
C-AR Achromat Condenser
MBL71205



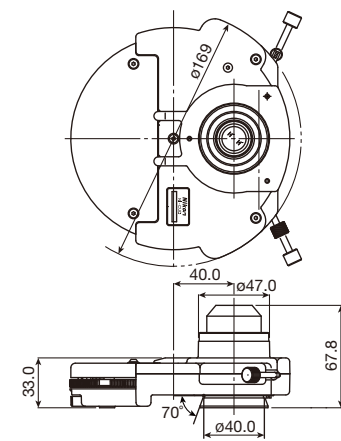
C-SWA Swing-out Achromat
Condenser 2X-100X
MBL11300



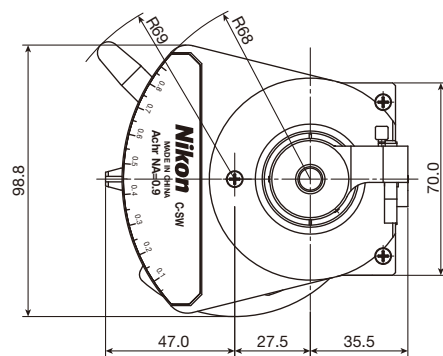
C-LAR LWD Achromat Condenser
MBL16105



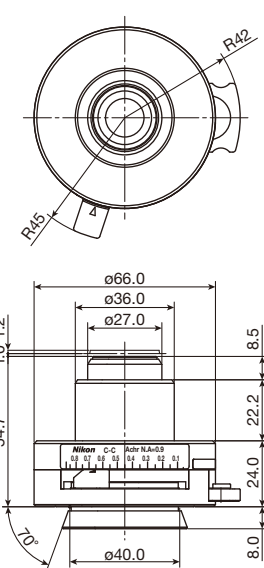
C-PH Phase Contrast Turret Condenser
MBL73105



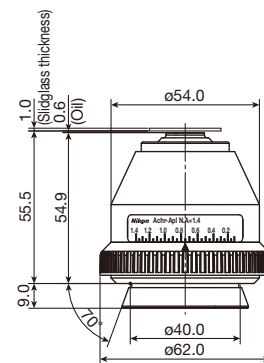
NI-CUD Universal Condenser Dry
MBL99005



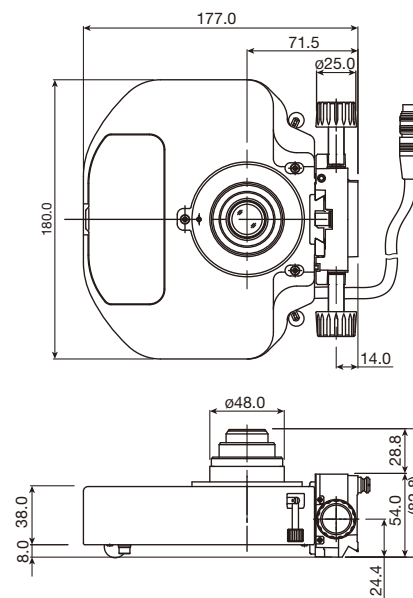
C-SW Swing-out Achromat
Condenser 1X-100X
MBL71305



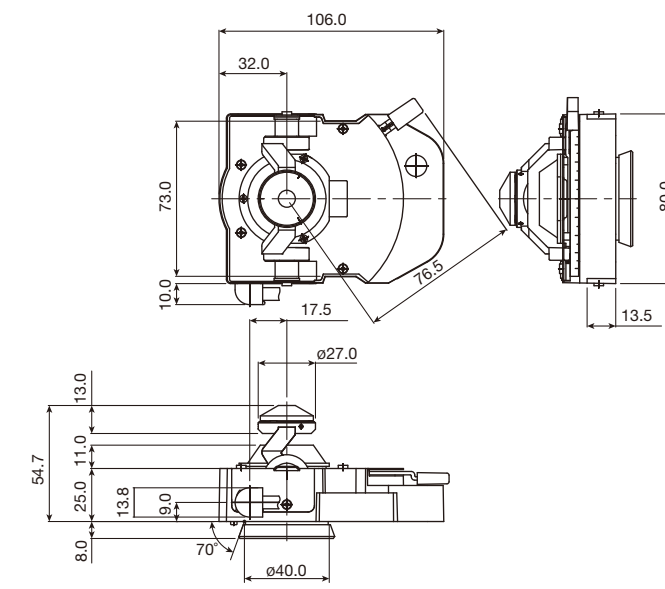
C-SA Slide Achromat
Condenser 2X-100X
MBL71505



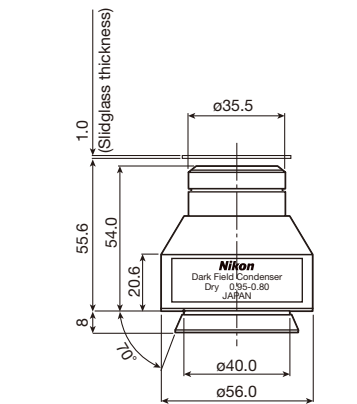
C-AA Achromat /Aplanat Condenser
MBL71405



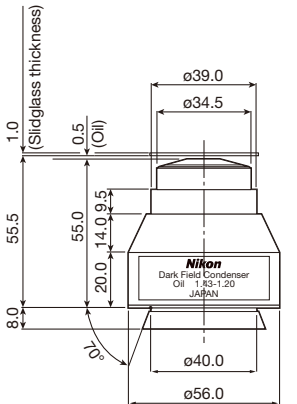
NI-CUD-E Motorized
Universal Condenser Dry
MBL99800



CI-C-E Motorized
Swing-out Condenser
MBL99300



C-DD Dark Field Condenser Dry
MBL12010



C-DO Dark Field Condenser Oil
MBL12000

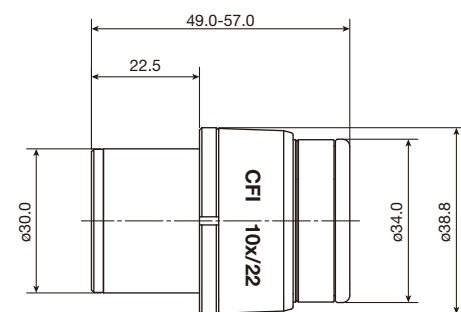


C-CEL Expander Lens
for C-DO Dark Field Condenser Oil
MXA20740

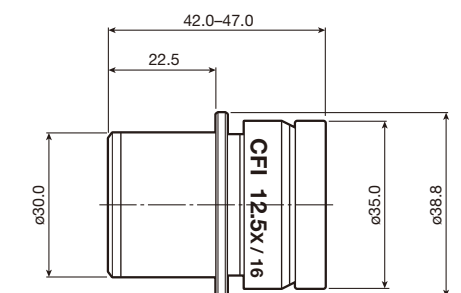
Code.No	Condensers	NA	O.D (mm)*	Magnification	Weight (g)**
MBL71105	C-AB Abbe Condenser	0.90	1.90	4-100X	90
MBL71205	C-AR Achromat Condenser	0.80	4.20	4-100X	150
MBL11300	C-SWA Swing-out Achromat Condenser 2X-100X	0.90/0.22	1.80	2-100X	105
MBL71305	C-SW Swing-out Achromat Condenser 1X-100X	0.90/0.11	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

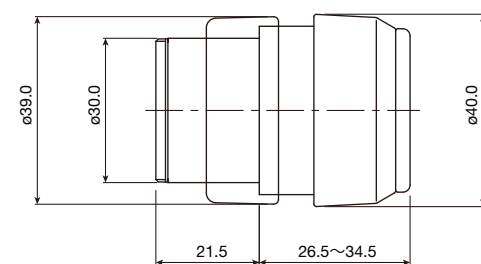
Eyepiece



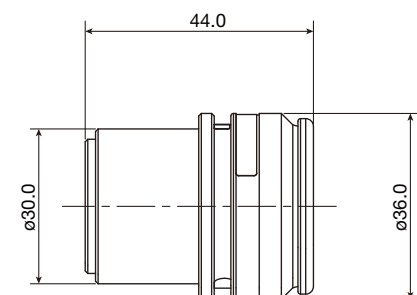
**CFI 10X
MAK10110**



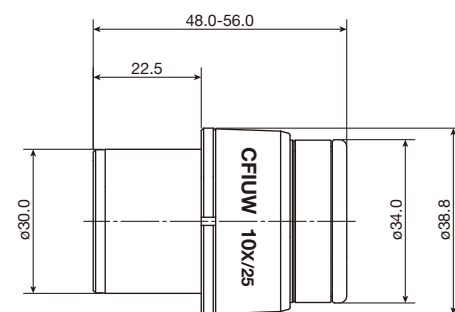
**CFI 12.5X
MAK10120**



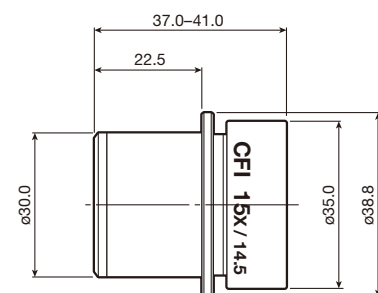
**C-W 10XB
MAK30102**



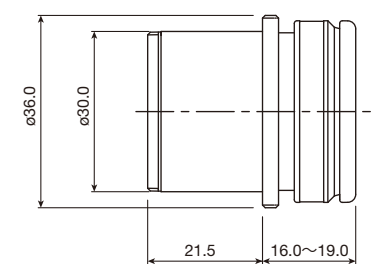
**C-W 20X
MMK30205**



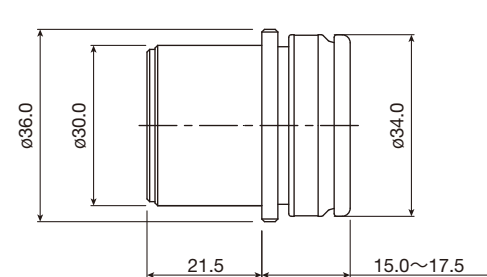
**CFI UW 10X
MAK30105**



**CFI 15X
MAK10150**



**C-W 15X
MAK30155**

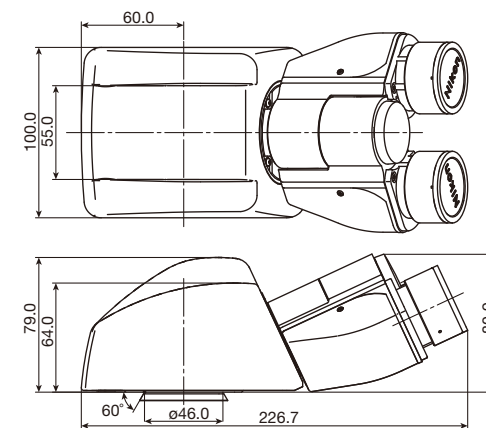


**C-W 30X
MMK30300**

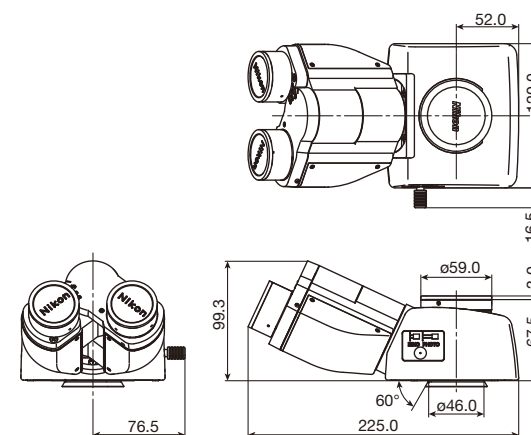
Code.No	Eyepieces	Field number	Weight (g)*
MAK10110	CFI 10X	22	75
MAK30105	CFI UW 10X	25	100
MAK10120	CFI 12.5X	16	63
MAK10150	CFI 15X	14.5	48
MMK30102	C-W 10XB	22	75
MMK30155	C-W 15X	16	50
MMK30205	C-W 20X	12.5	60
MMK30300	C-W 30X	7	70

*Approximately

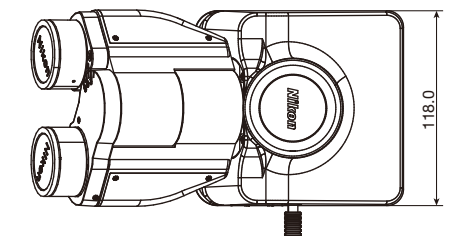
Eyepiece Tube



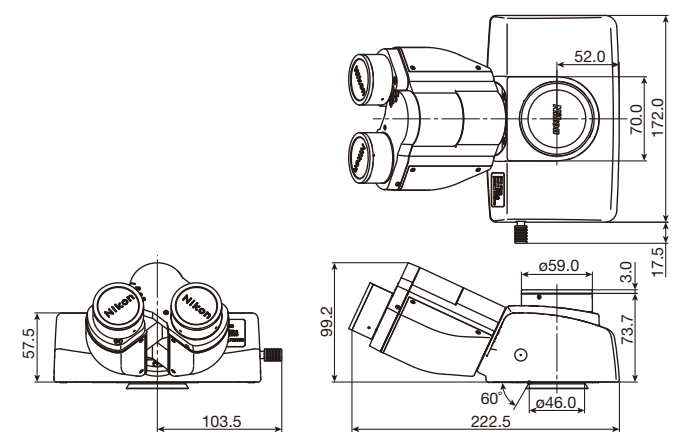
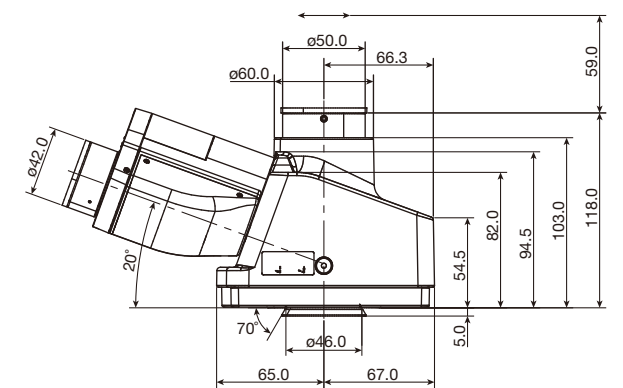
**C-TB Binocular Tube
MBB92106**



**C-TF Trinocular Tube F
MBB93106**



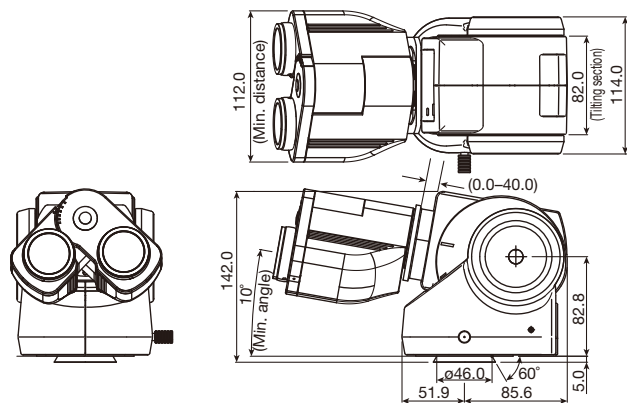
**LV-TI3 Trinocular Tube
MBB63425**



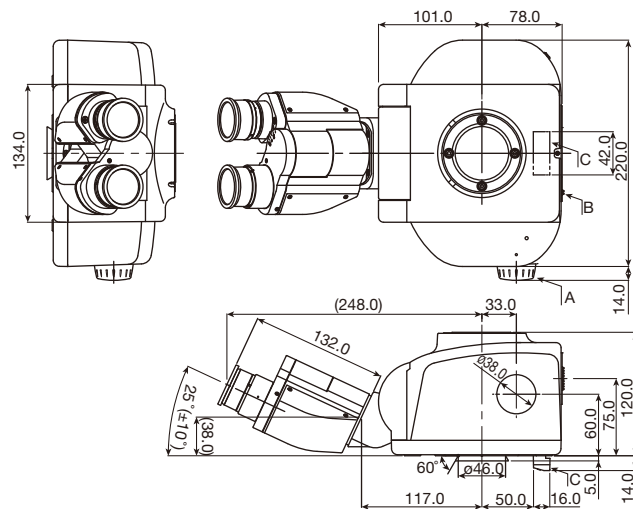
**C-TT Trinocular Tube T
MBB93115**

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

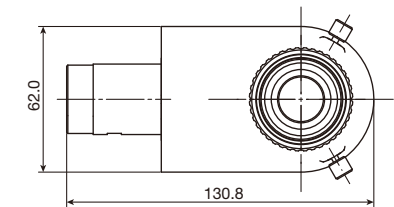


C-TE2 Ergonomic Binocular Tube
MBB93800



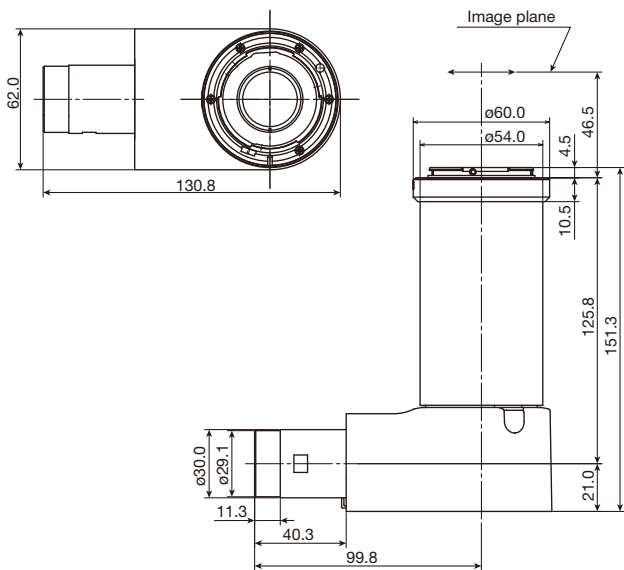
NI-TT Quadrocular Tilting Tube
MBB94521
NI-TT-E Motorized Quadrocular Tilting Tube
MBB94510

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.



C-TEP2 DSC Port for Ergonomic Binocular Tube
MBB96800

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

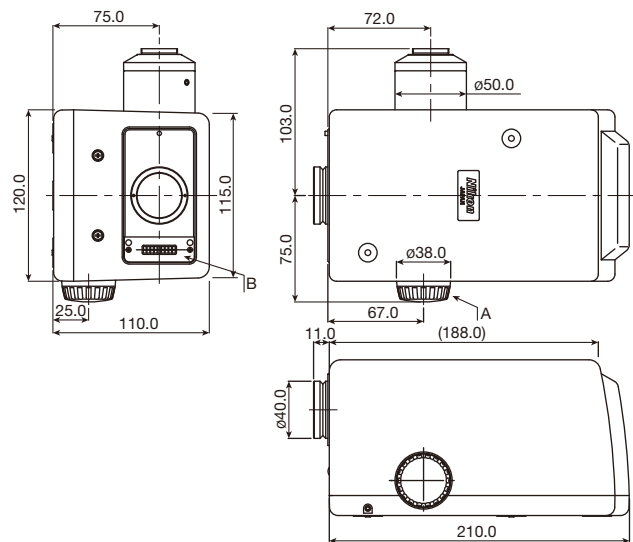


C-TEPF2.5 DSC Port F2.5X for Ergonomic Binocular Tube
MBB96810

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

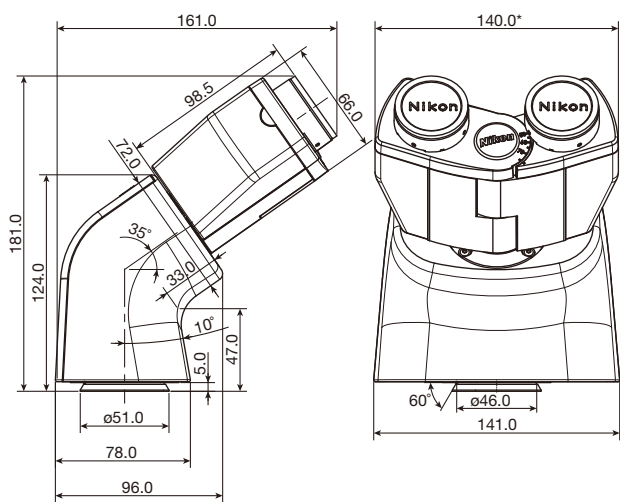


NI-RPZ DSC Zooming Port for Quadrocular Tube
MBB96721
NI-RPZ-E Motorized DSC Zooming Port for Quadrocular Tube
MBB96710

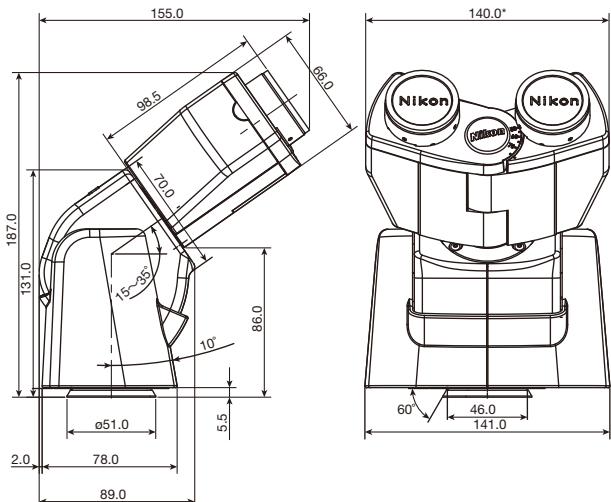
Note 1. Zoom dial (shown as A) is equipped on MBB96721 only.
Note 2. Connector (shown as B) is equipped on MBB96710 only.

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

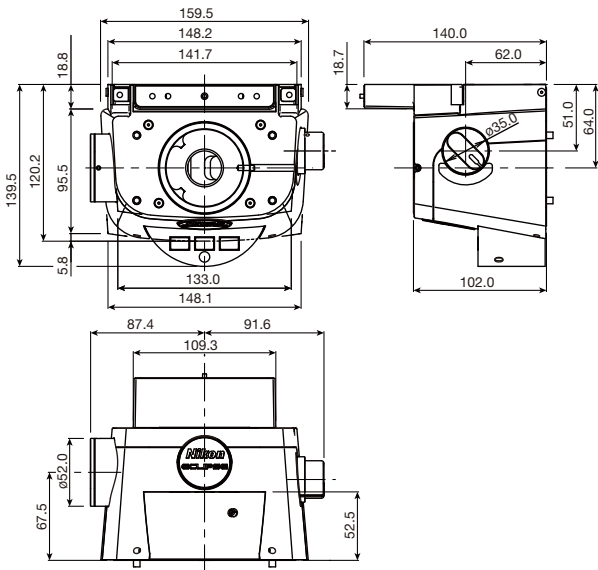


TC-T-ER ER Tube
MEB52520

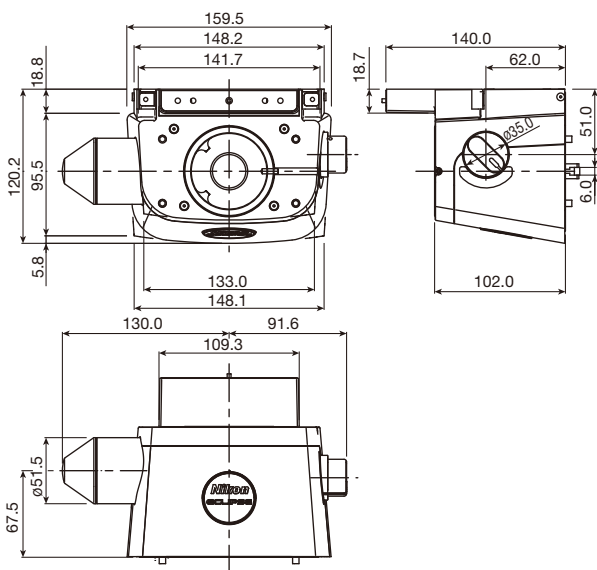
* When the interpupillary distance is set to maximum.

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

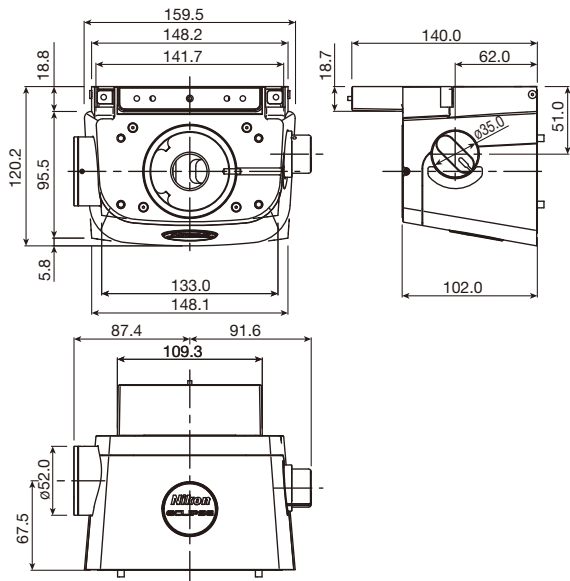
*Approximately



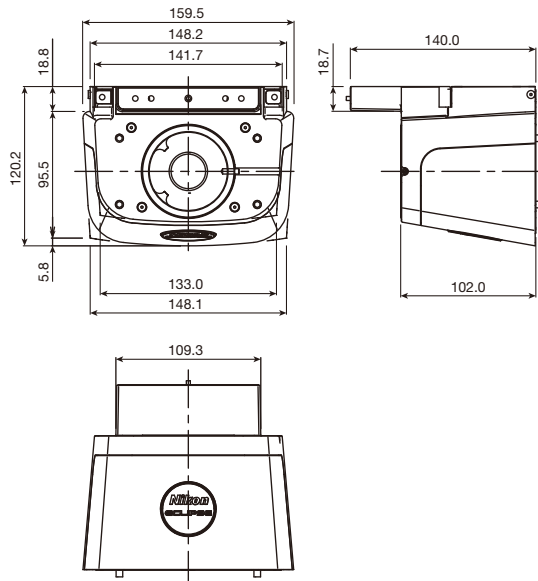
TI2-T-BP-E Motorized Eyepiece Tube Base Unit
for External PH
MEB55840



TI2-T-BA Assist Eyepiece Tube Base Unit
MEB55860



TI2-T-BC Eyepiece Tube Base Unit with Port
MEB55850

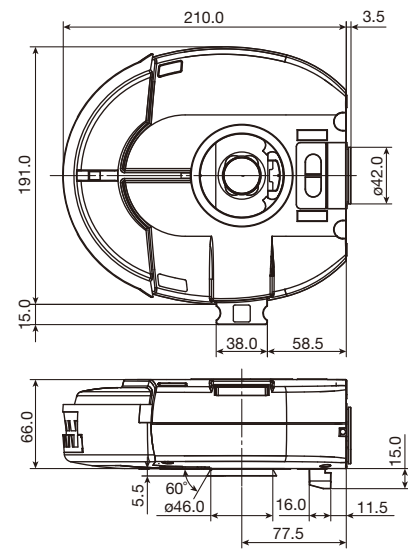


TI2-T-BS S Eyepiece Tube Base Unit
MEB55830

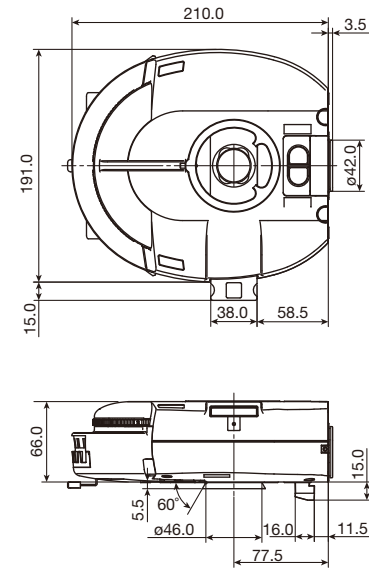
Code.No	Eyepiece Tube Base Unit	External Phase Contast observation	Camera port	Weight (g)*
MEB55840	TI2-T-BP-E Motorized Eyepiece Tube Base Unit for External PH	Available with Motorized control	C-mount	2300
MEB55860	TI2-T-BA Assist Eyepiece Tube Base Unit	Not available	Not available	2100
MEB55850	TI2-T-BC Eyepiece Tube Base Unit with Port	Not available	C-mount	1900
MEB55830	TI2-T-BS S Eyepiece Tube Base Unit	Not available	Not available	1600

*Approximately

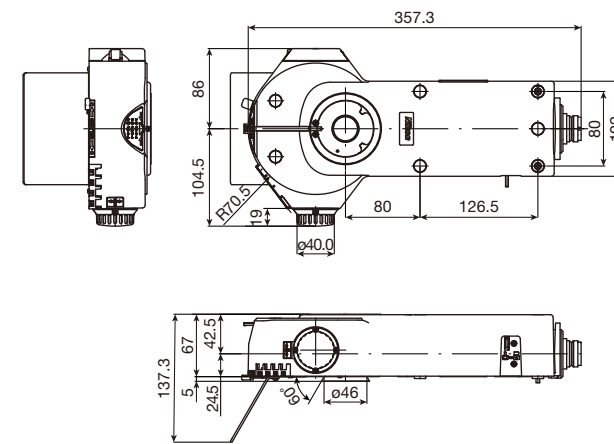
Fluorescence Cube Turret and Fluorescence Module



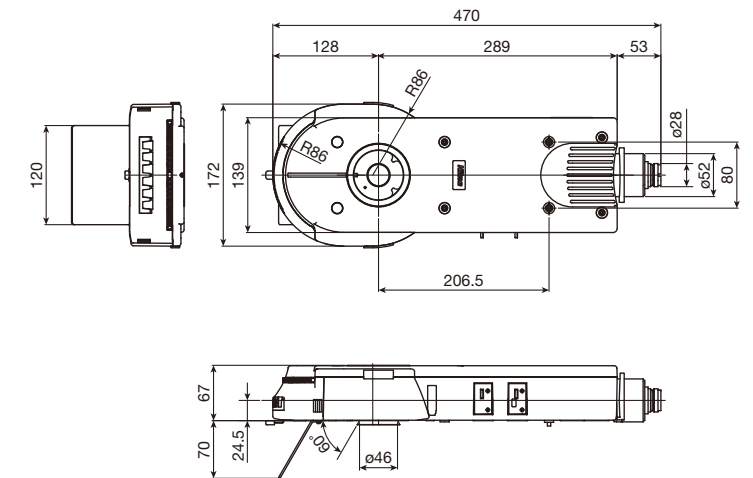
NI-FLT6-E Motorized Epi-fluorescence Cube Turret MBE94300



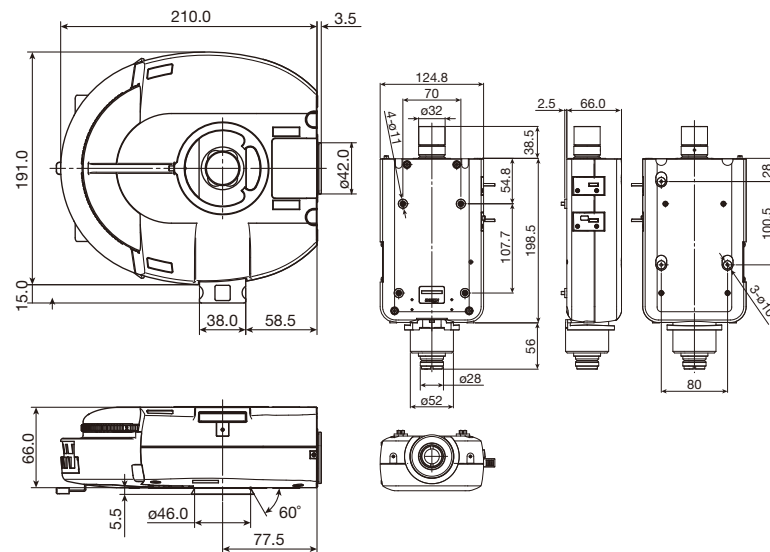
NI-FLT6-I Intelligent Epi-fluorescence Cube Turret MBE94400



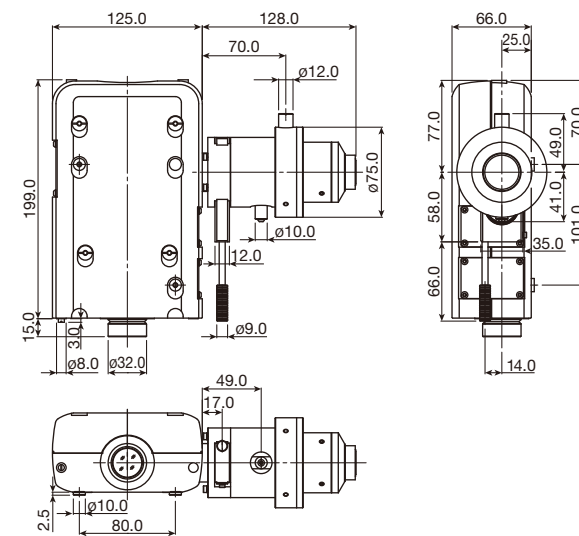
CI-FL-2 Epi-fluorescence Attachment
MBE94350



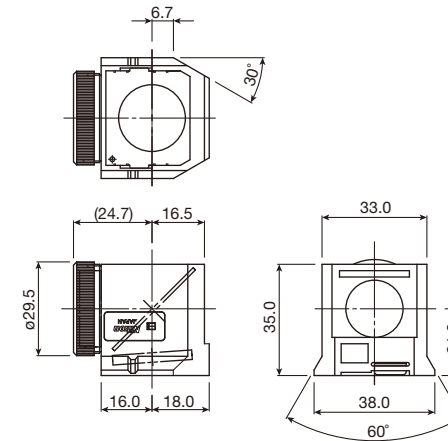
D-FI-2 U-EPI Fluorescence Attachment
MBE74150



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



**NI-FLEI-2 Epi-fluorescence
Attachment
MBE94150**

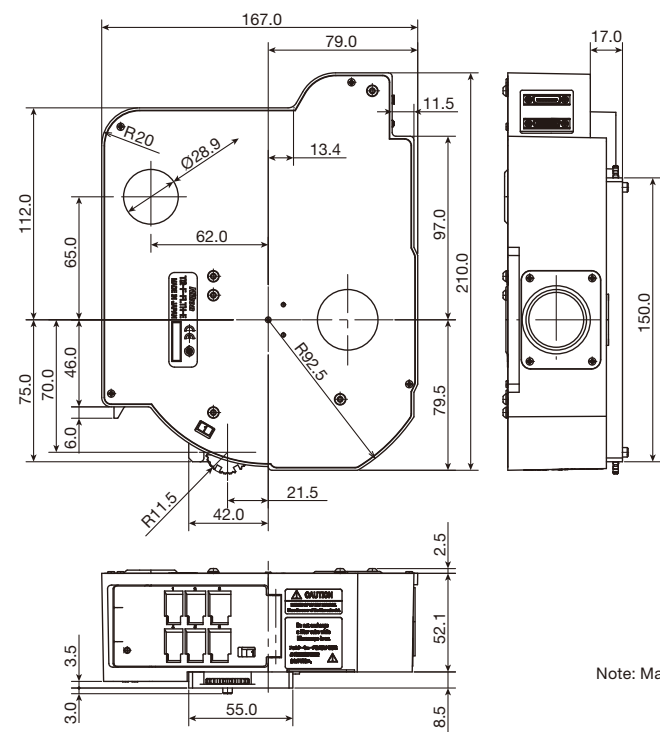
NI-BPU Back Port Unit
MBE94200

C-FL BLK Blank Filter Cube
MXA22030

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

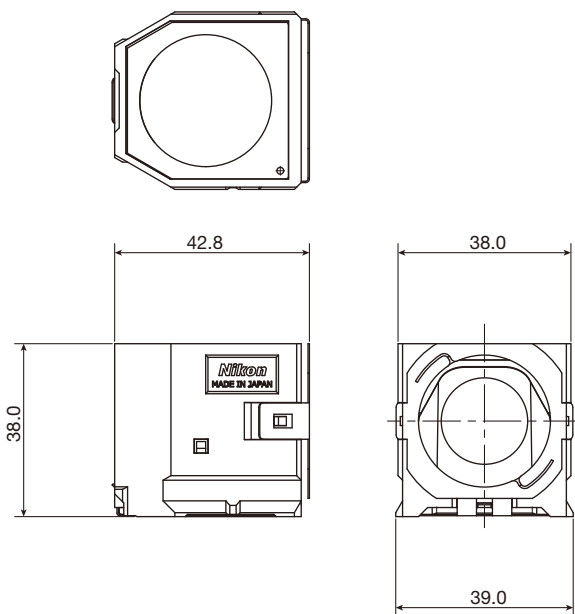
Code.No	Intermediate Tubes	Weight (g)*	Remarks
MBE94300	NI-FLT6-E Motorized Epi-fluorescence Cube Turret	2500	Motorized rotation, Intelligent, 6 filter cubes mountable
MBE94400	NI-FLT6-I Intelligent Epi-fluorescence Cube Turret	2500	Manual rotation, Intelligent, 6 filter cubes mountable
MBE94500	NI-FLT6 Epi-fluorescence Cube Turret	2500	Manual rotation, 6 filter cubes mountable
MBE94150	NI-FLEI-2 Epi-fluorescence Attachment	1700	
MBE94350	CI-FL-2 Epi-fluorescence Attachment	2000	Manual rotation, 4 filter cubes mountable
MBE94200	NI-BPU Back Port Unit	2500	C-mount
MBE74150	D-FI-2 U-EPI Fluorescence Attachment	3000	Manual rotation, 6filter cubes mountable

*Approximately



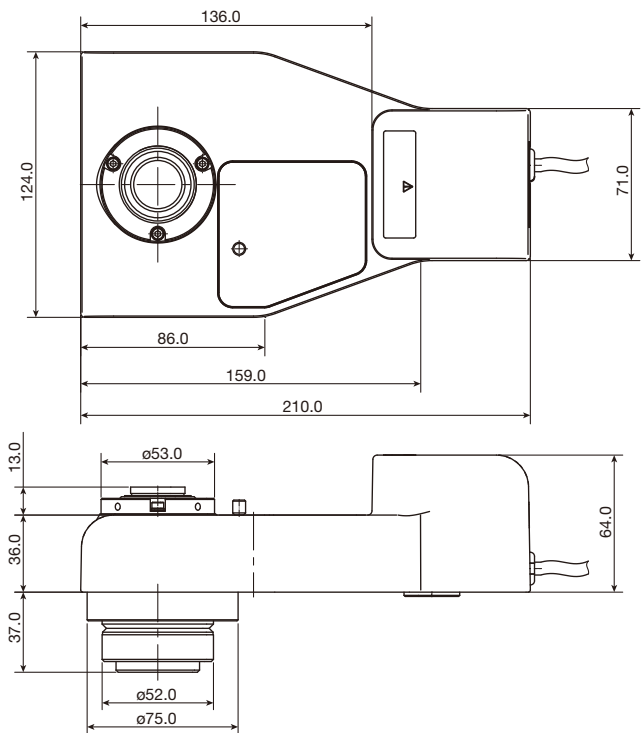
TI2-F-FLTH-E Motorized HQ Epi Filter Turret
MEV51040
TI2-F-FLT-E Motorized Epi Filter Turret
MEV51030
TI2-F-FLT-I Intelligent Epi Filter Turret
MEV51020

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



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

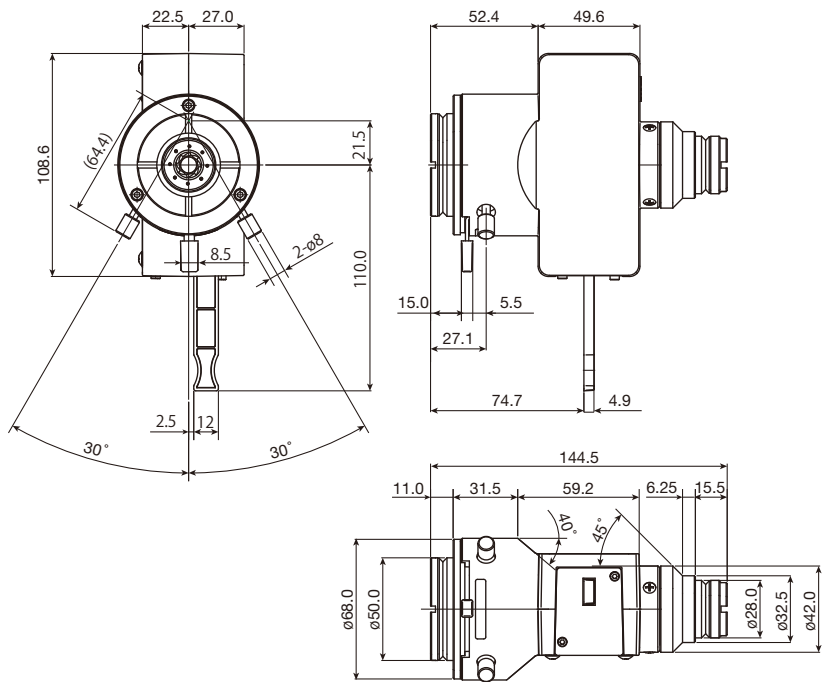
Same as outline images of C-FLL-C Epi-FI Filter Cubes.



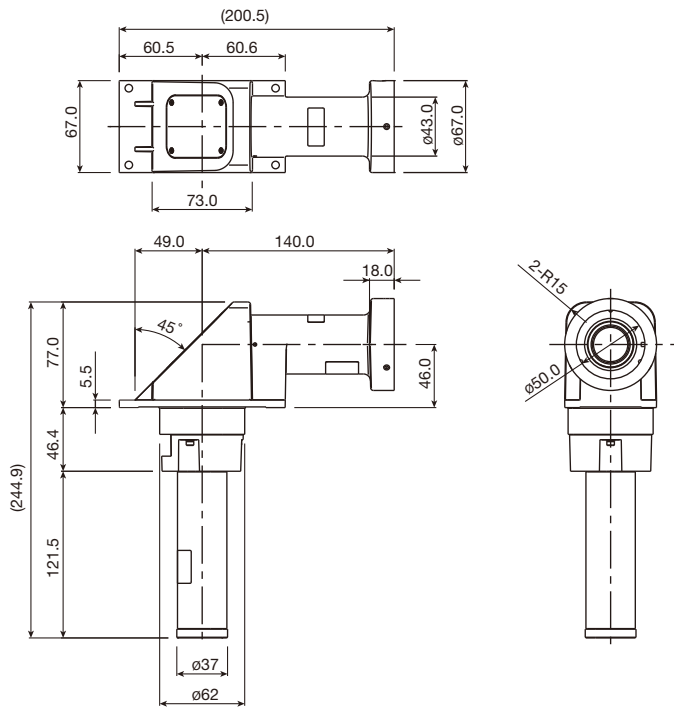
TI2-P-FWB-E Motorized BA Filter Wheel
MEE54405

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

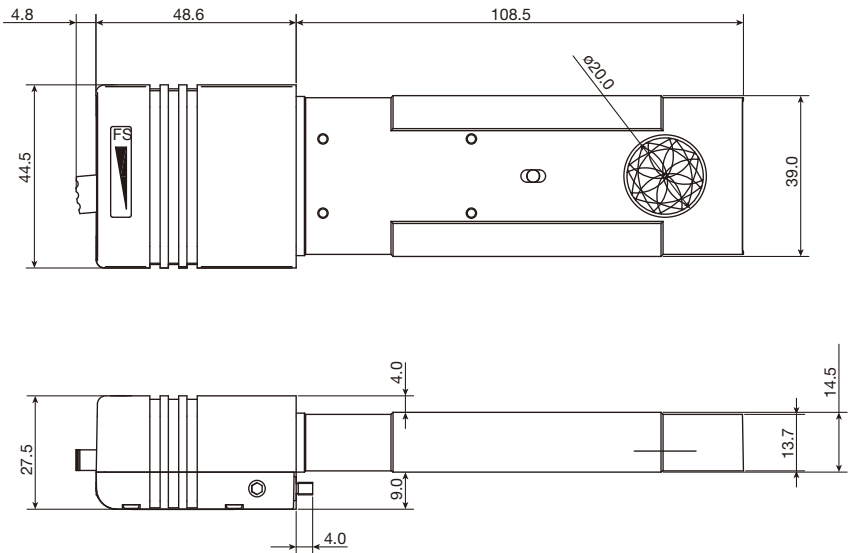
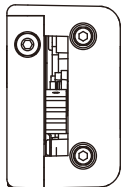
*Approximately



TI2-LA-FL-2 EPI-FL Module
MEE54740



TI2-LA-BF Fixed Main Branch
MEE54860



TI2-F-FSC Circular Field Stop Slider
MEV50020

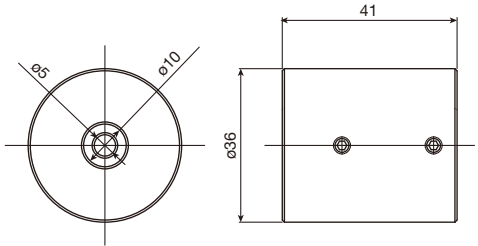
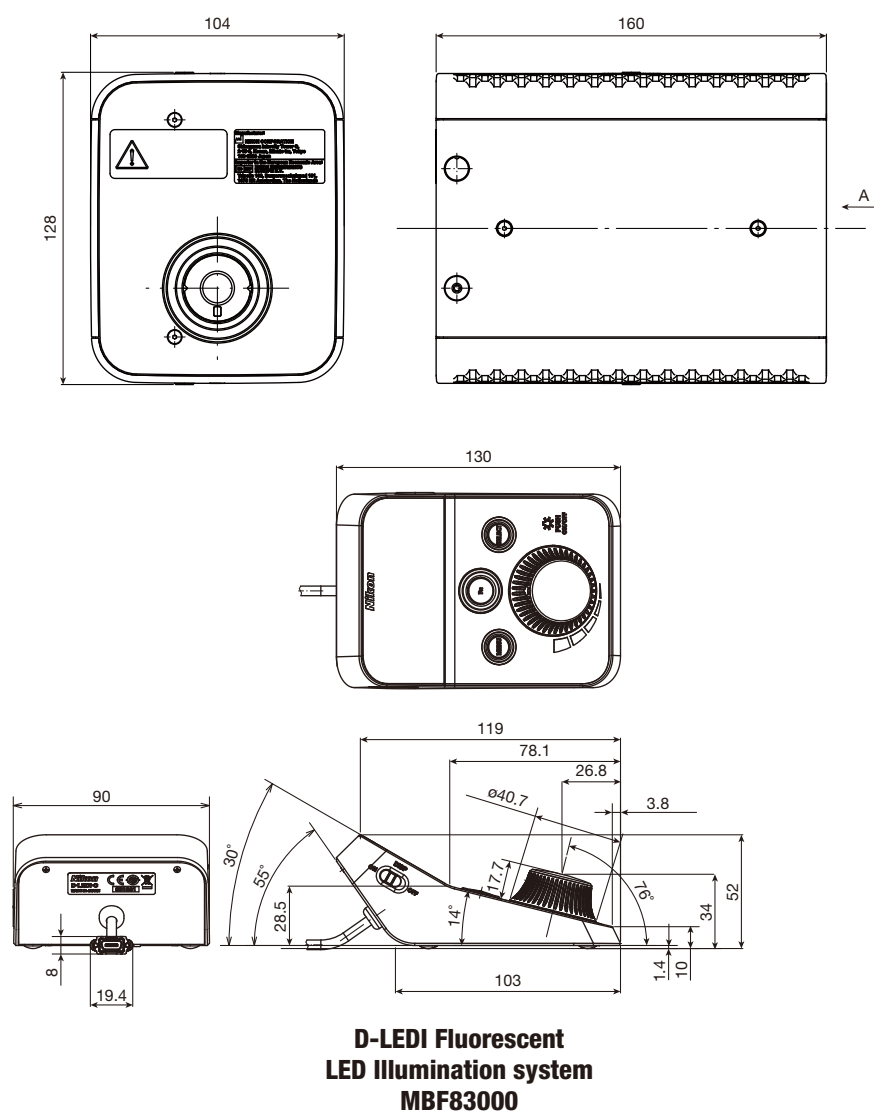
TI2-F-FSS Square Field Stop Slider
MEV50030

TI2-F-FSR Rectangle Field Stop Slider
MEV50040

Code.No	Illumination Systems	Weight (g)*
MEE54740	TI2-LA-FL-2 EPI-FL Module	900
MEE54860	TI2-LA-BF Fixed Main Branch	1400
MEV50020	TI2-F-FSC Circular Field Stop Slider	200
MEV50030	TI2-F-FSS Square Field Stop Slider	200
MEV50040	TI2-F-FSR Rectangle Field Stop Slider	200

*Approximately

Fluorescence Illumination

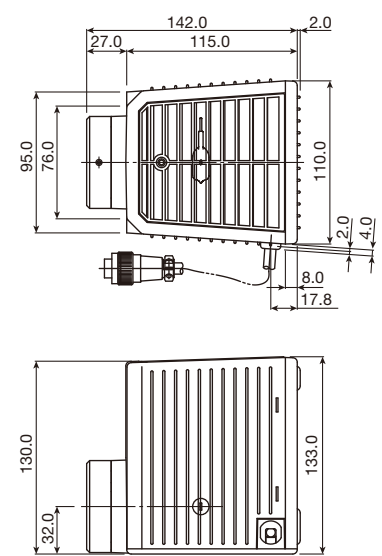


**C-FIBA Adapter for Fiber Light
MXA22205**

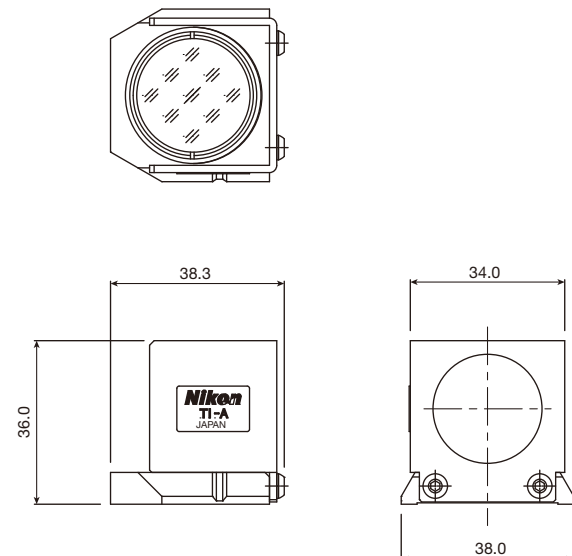
Code.No	Illumination Systems	Weight (g)*
MBF83000	D-LEDI Fluorescent LED Illumination system	Main body: 1500 Remote controller: 200
MXA22205	C-FIBA Adapter for Fiber Light	100

*Approximately

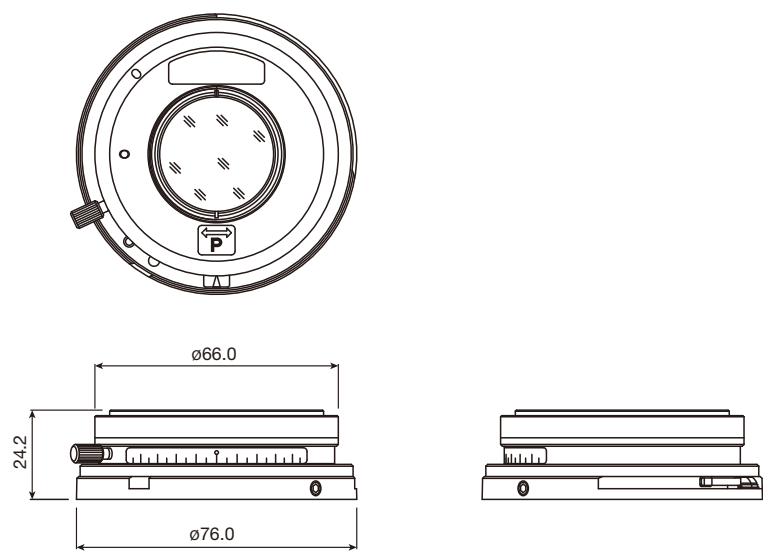
Diascopic Illumination



NI-LH Precentered Lamphouse
MBE95205



TI-A DIC Analyzer Cube
MEN51980

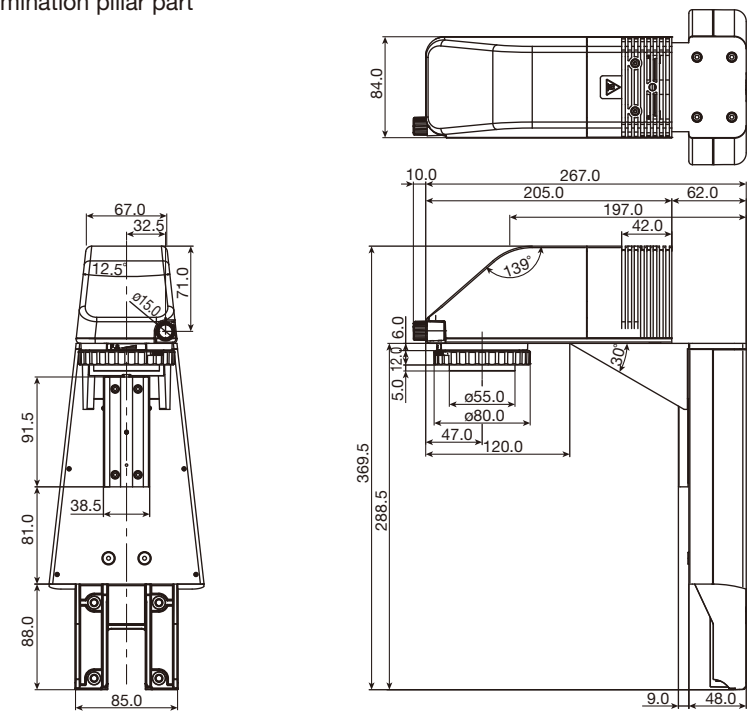


D-DP DIC Rotatable Polarizer
MBN74940

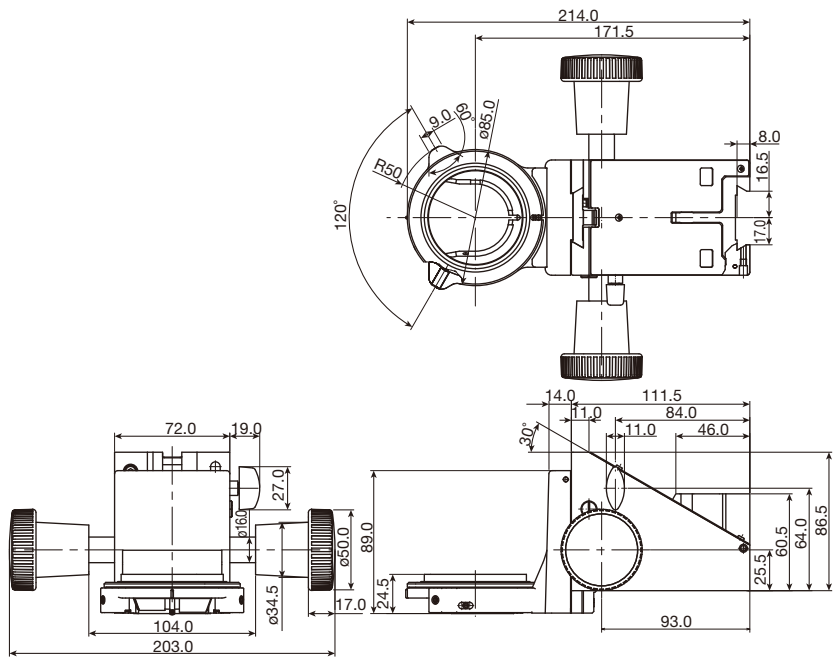
Code.No	Diascopic Illumination for Upright Microscope ECLIPSE Ni	Weight (g)*
MBE95205	NI-LH Precentered Lamphouse	1000
MEN51980	TI-A DIC Analyzer Cube	100
MBN74940	D-DP DIC Rotatable Polarizer	300

*Approximately

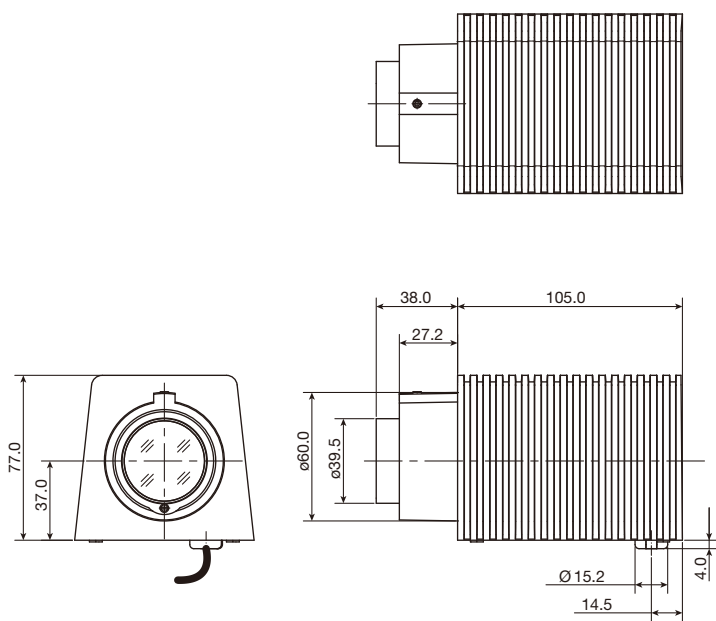
Illumination pillar part



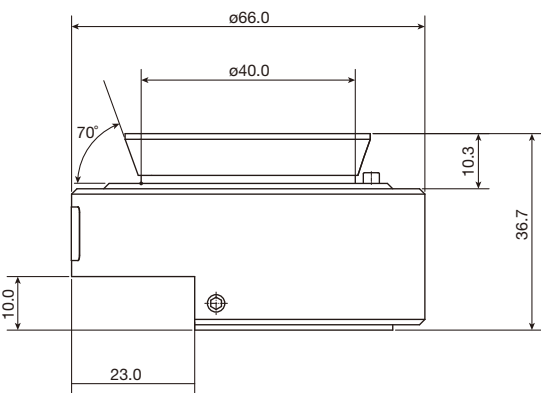
Condenser holder part



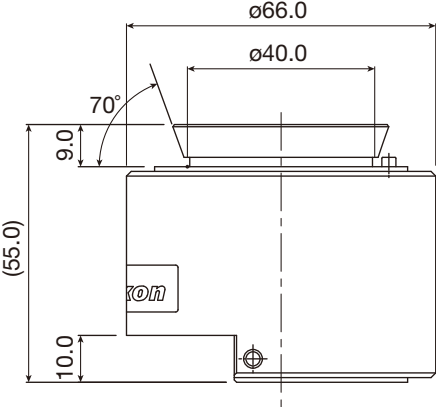
T12-D-PD Pillar for Dia Illumination
MEE59920



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



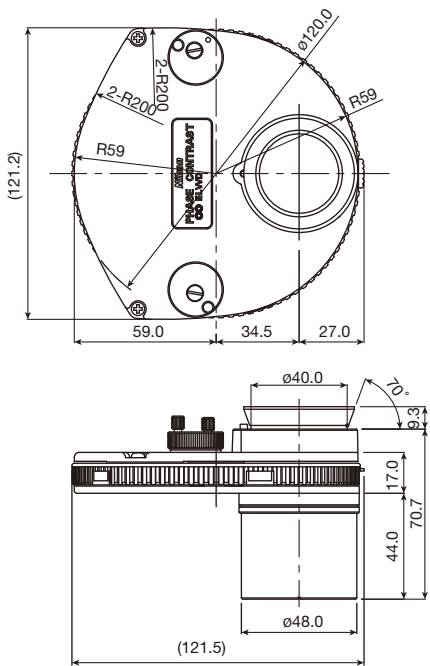
TI2-C-CLWDA
CLWDA Condenser Adapter
MXA22176



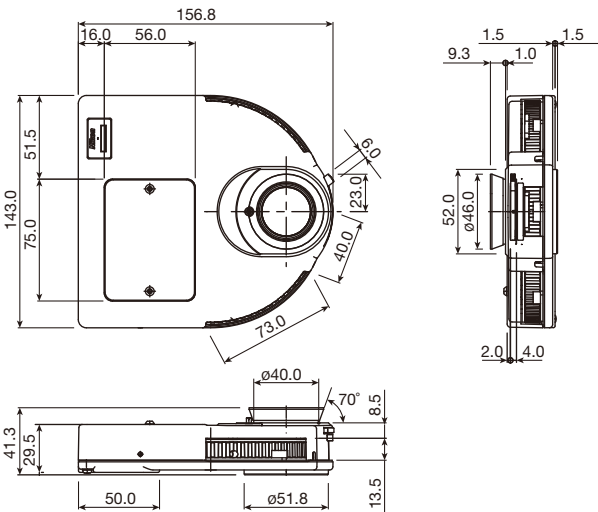
TI-DF
Dark-Field Condenser Adapter
MXA22091

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

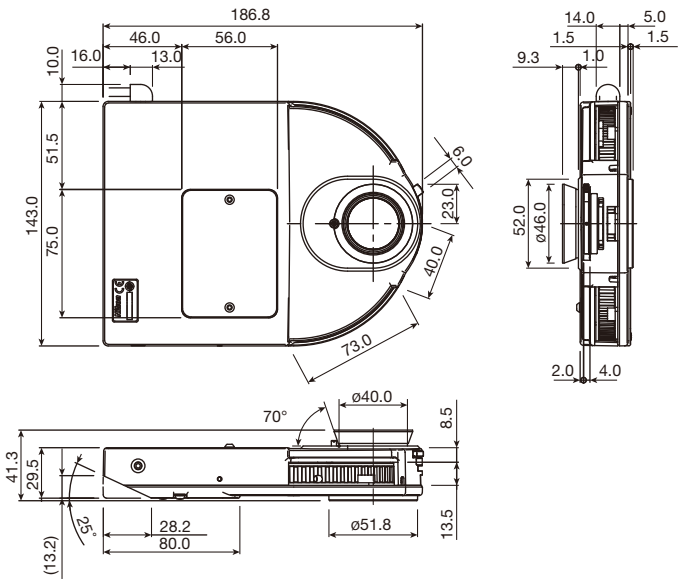
*Approximately



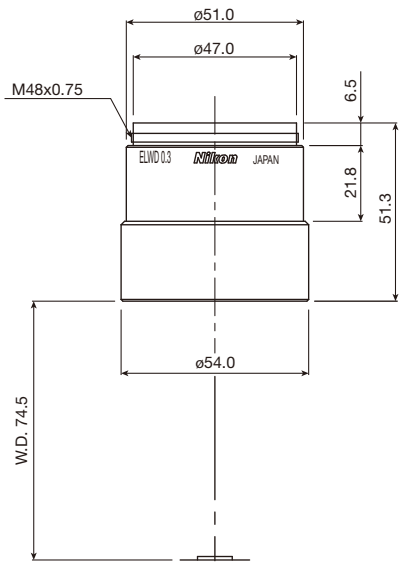
TE-C ELWD-S Condenser
MEL47500



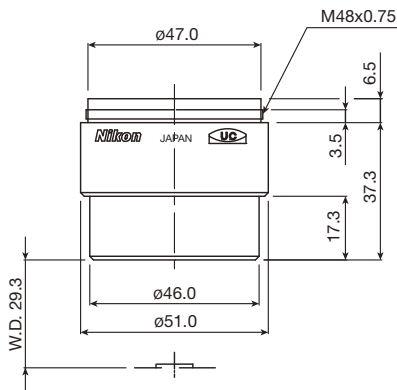
TC-C-TC Condenser Turret
MEL51005



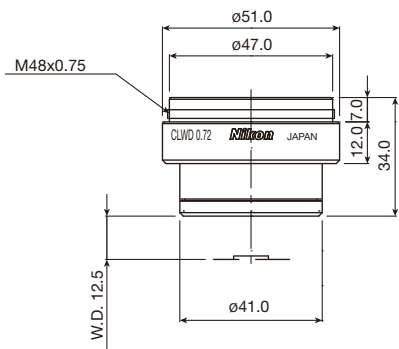
TI2-C-TC-I Intelligent Condenser Turret
MEL51010
TI2-C-TC-E Motorized Condenser Turret
MEL51920



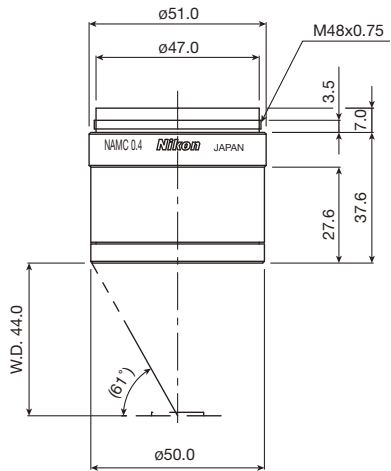
MC-TMD2 ELWD Condenser Lens
MEL37400



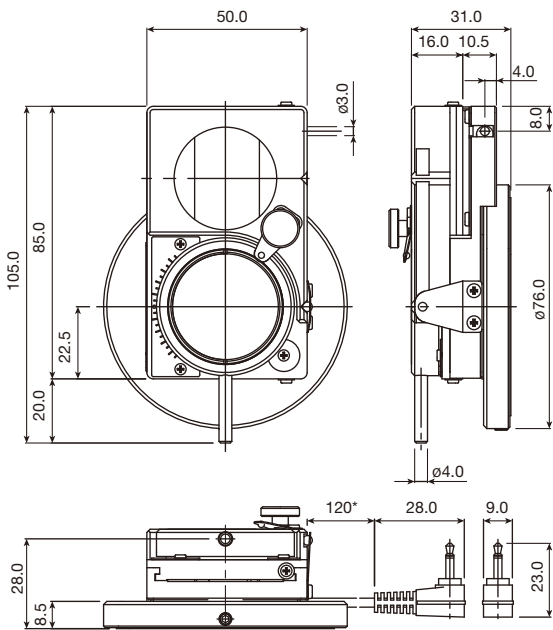
TI-C-LWD LWD Condenser Lens
MEL56200



TI-C-CLWD CLWD Condenser Lens
MEL56100



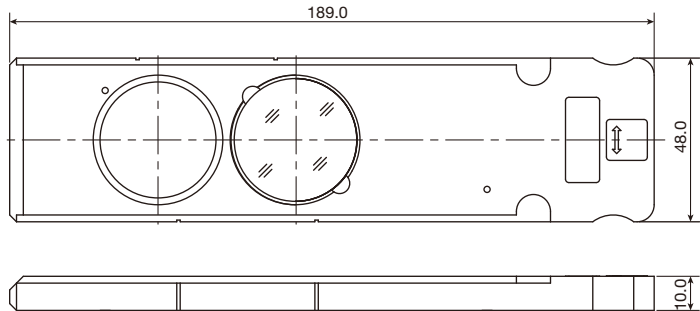
TI-C NAMC Condenser Lens
MEL59910



TC-C-DICPNI NAMC/IMSI Polarizer
MEN51943

TI2-C-DICP-I Intelligent Polarizer
MEN51944
TC-C-DICP DIC Polarizer
MEN51942

*Approximately



TI2-C-DICA Analyzer
MEN51928

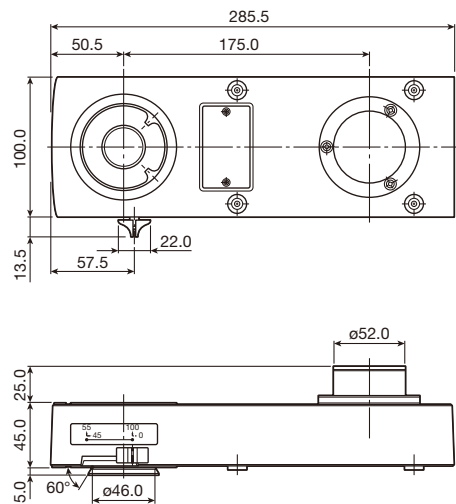
Code.No	Diascopic Illumination for Inverted Microscope ECLIPSE Ti2	Weight (g)*
MEL47500	TE-C ELWD-S Condenser	450
MEL51005	TC-C-TC Condenser Turret	700
MEL51010	TI2-C-TC-I Intelligent Condenser Turret	700
MEL51920	TI2-C-TC-E Motorized Condenser Turret	700
MEL37400	MC-TMD2 ELWD Condenser Lens	200
MEL56200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

*Approximately

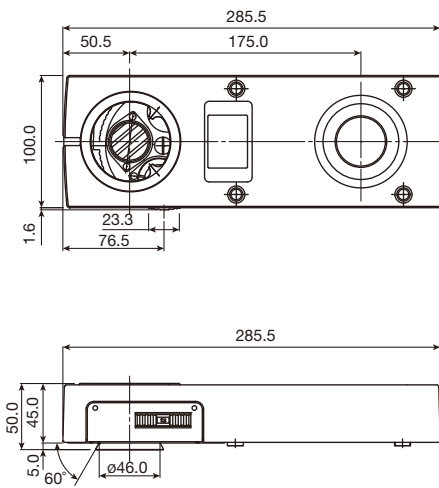
Code.No	Diascopic Illumination for Inverted Microscope ECLIPSE Ti2	Weight (g)*
MEN51944	TI2-C-DICP-I Intelligent Polarizer	200
MEN51942	TC-C-DICP DIC Polarizer	200
MEN51943	TC-C-DICPNI NAMC/IMSI Polarizer	100
MEN51928	TI2-C-DICA Analyzer	200

*Approximately

Intermediate Module



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



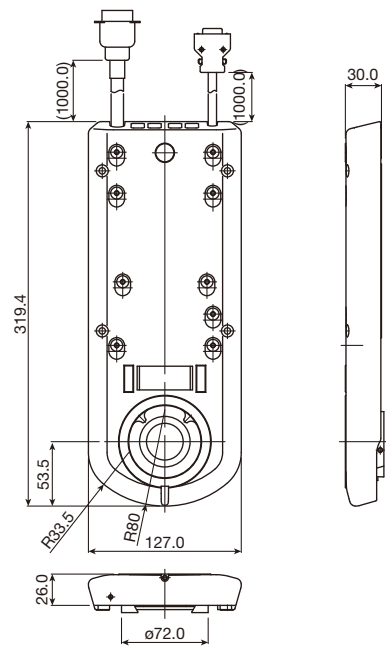
Y-IM Magnification Module
MBB75500

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

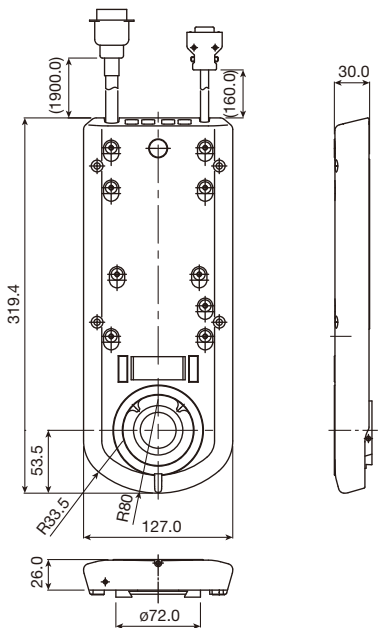
*Approximately

Contact Arm

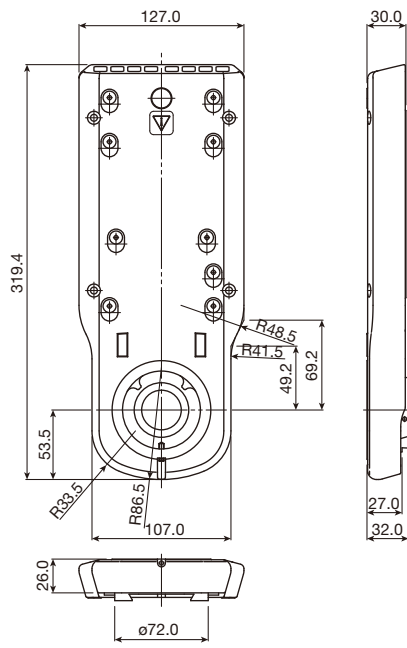
The NIU-CAM and NIE-CAM Contact Arms for use with Motorized Nosepieces and Intelligent Nosepieces on page 55, and the NI-SAM Standard Arm for use with Manual Nosepieces on page 54.



NIU-CAM Contact Arm
MBD92110



NIE-CAM Contact Arm
MBD92100

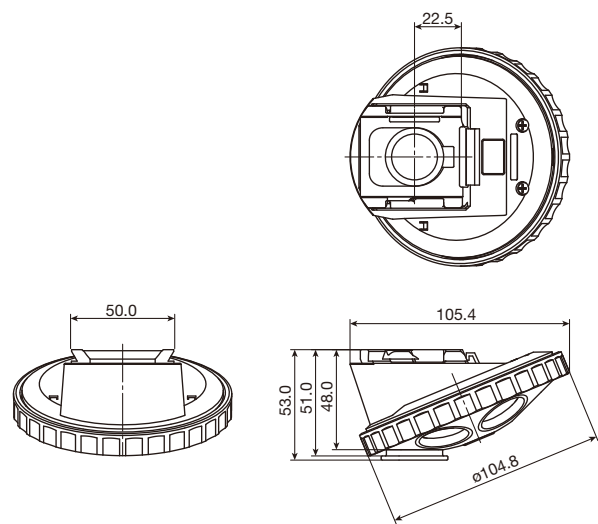


NI-SAM Standard Arm
MBD92000

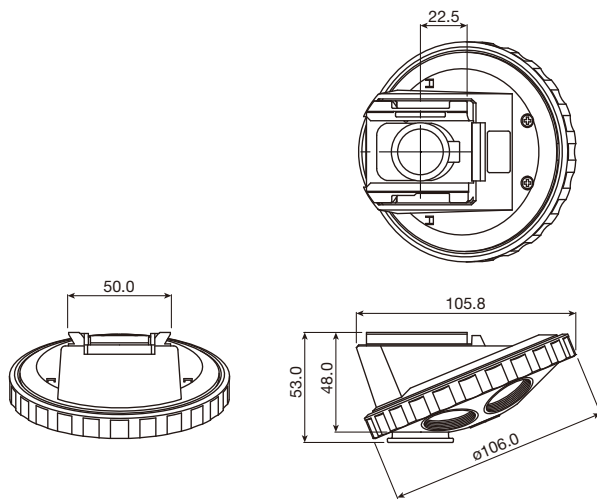
Code.No	Contact Arm	Weight (g)*
MBD92110	NIU-CAM Contact Arm	1500
MBD92100	NIE-CAM Contact Arm	1500
MBD92000	NI-SAM Standard Arm	1400

*Approximately

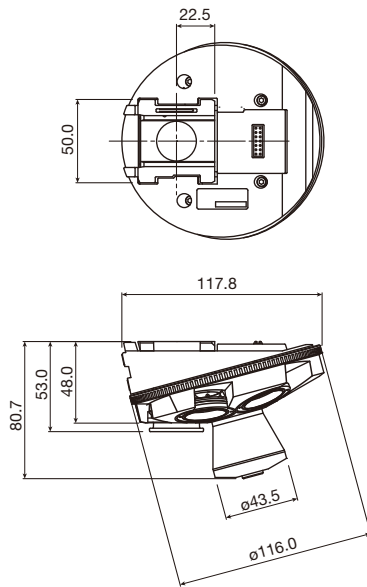
Nosepiece



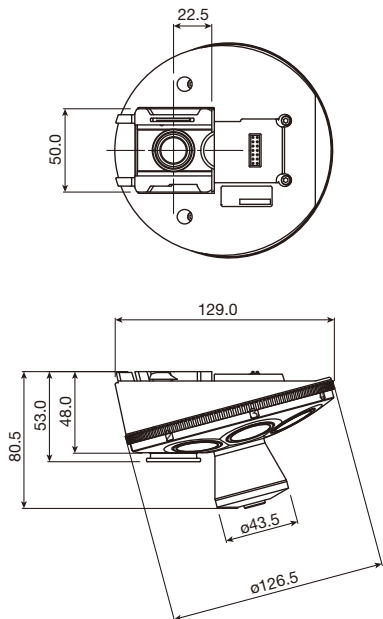
C-N6 Sextuple Nosepiece ESD
MBP71316



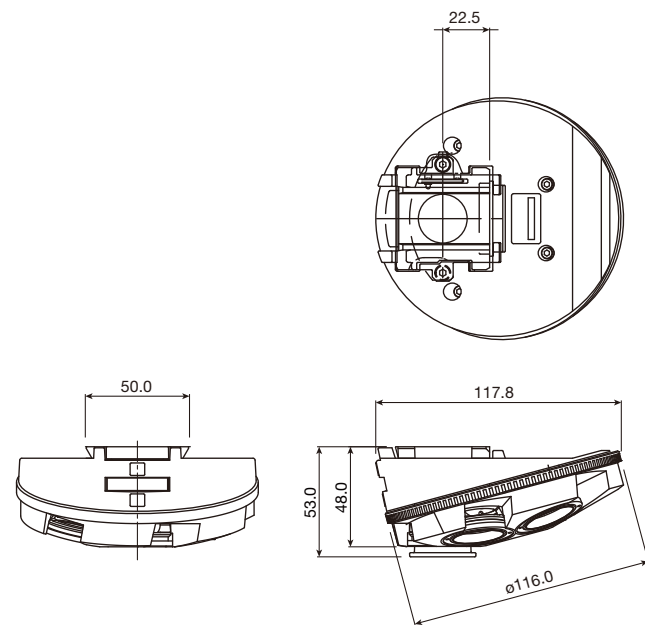
C-N6A Sextuple Nosepiece with Analyzer Slot
MBP71325



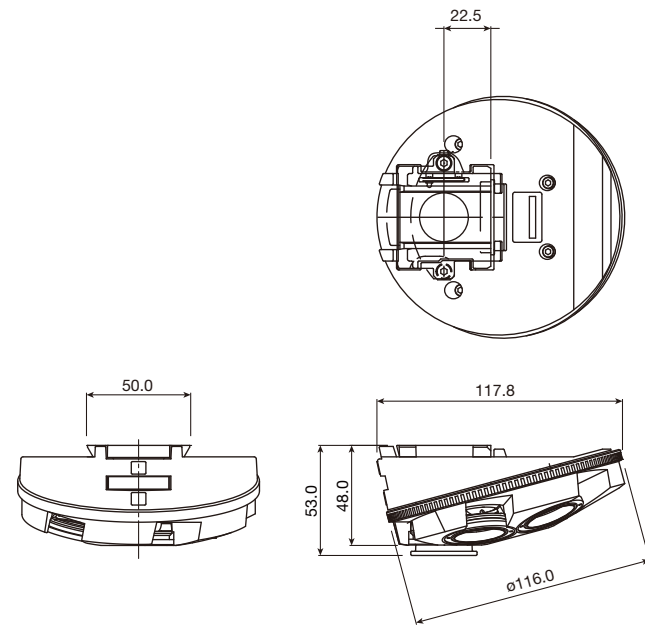
NI-ND6-E Motorized DIC Sextuple Nosepiece
MBP98325



NI-N7-E Motorized Septuple Nosepiece
MBP98405



D-ND6 DIC Sextuple Nosepiece
MBP73325

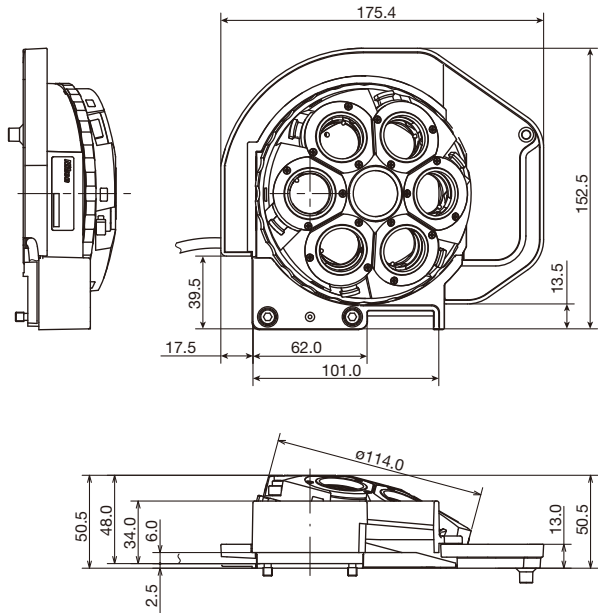


NI-N7-I Intelligent Septuple Nosepiece
MBP99405

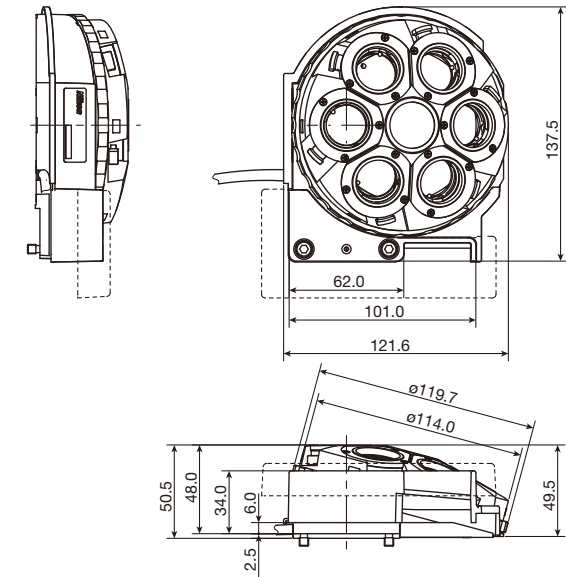
Code.No	Nosepiece	Weight (g)*	Remarks
MBP71316	C-N6 Sextuple Nosepiece ESD	450	Manual rotation
MBP71325	C-N6A Sextuple Nosepiece with Analyzer Slot	450	Manual rotation
MBP73325	D-ND6 DIC Sextuple Nosepiece	1000	Manual rotation, for DIC observation
MBP98325	NI-ND6-E Motorized DIC Sextuple Nosepiece	1300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

*Approximately

Nosepiece



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

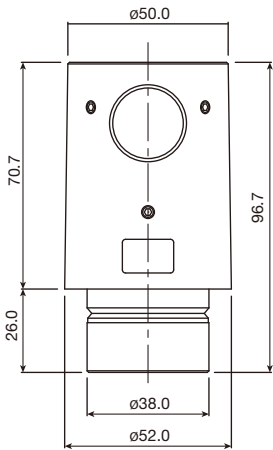


TI2-N-ND-I Intelligent DIC Sextuple Nosepiece
MEP53325
TI2-N-ND DIC Sextuple Nosepiece
MEP53320
TI2-N-N Sextuple Nosepiece
MEP51316

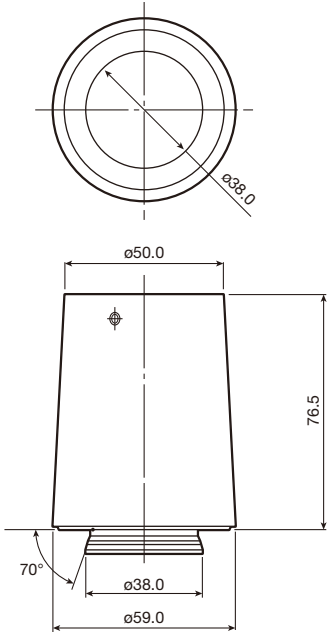
Code.No	Nosepiece for Inverteed Microscope ECLIPSE Ti2	Weight (g)*	Remarks
MEP59320	TI2-N-ND-E Motorized DIC Sextuple Nosepiece	1100	Motorized rotation, Intelligent, for DIC observation
MEP53325	TI2-N-ND-I Intelligent DIC Sextuple Nosepiece	900	Manual rotation, Intelligent, for DIC observation
MEP53320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

*Approximately

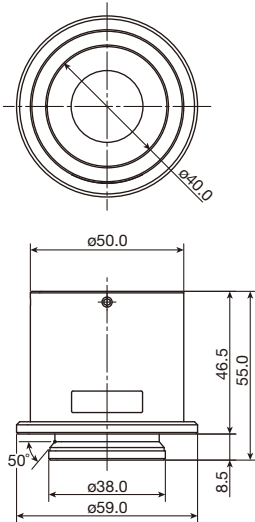
Camera Adapter



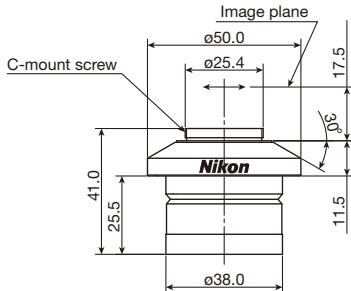
T-BPA Photo Adapter
MED53130



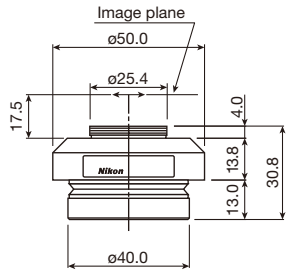
Y-T TV Tube
MBB73525



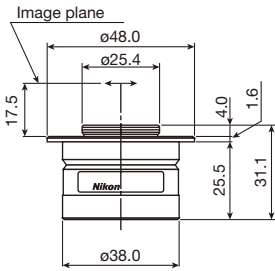
Y-TV55X TV Tube 0.55X
MBB73550



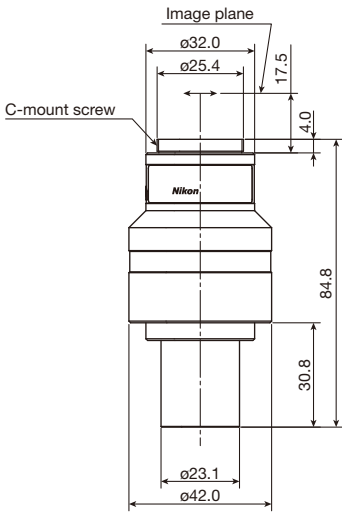
C-DA C-mount Adapter
MQD42005



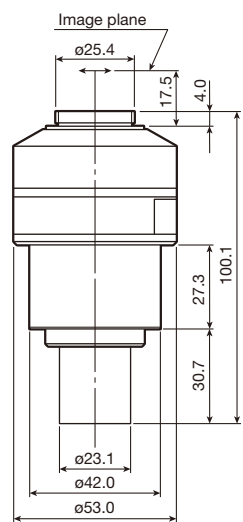
C-0.55X DS Relay Lens
MQD42056



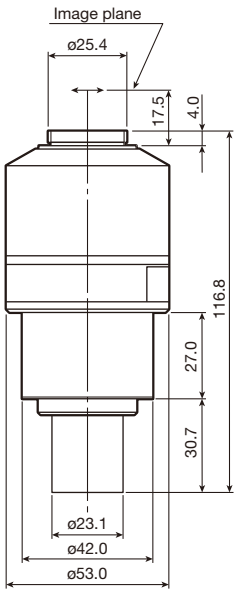
C-0.7X DXM Relay Lens
MQD42075



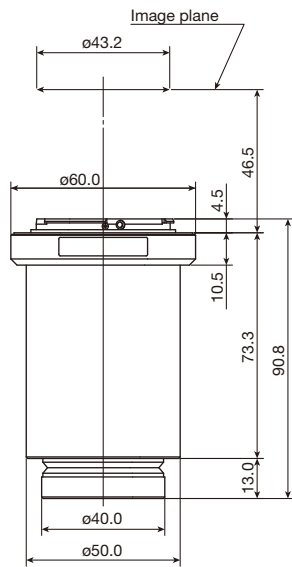
C-mount Adapter 0.35X
MQD51045



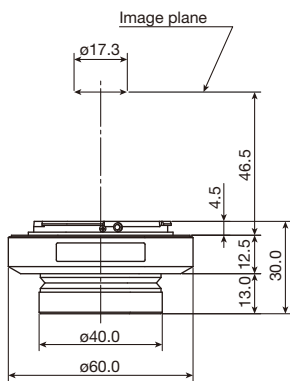
C-mount Adapter 0.45X
MQD42045



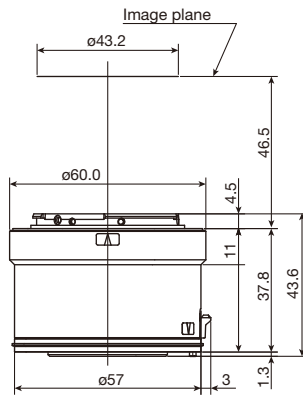
C-mount Adapter 0.6X
MQD42066



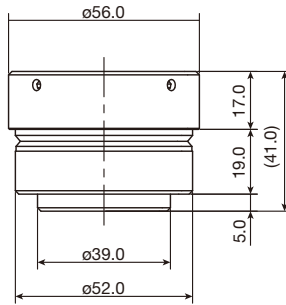
**DS-F2.5 F-mount Adapter 2.5X
MQD43020**



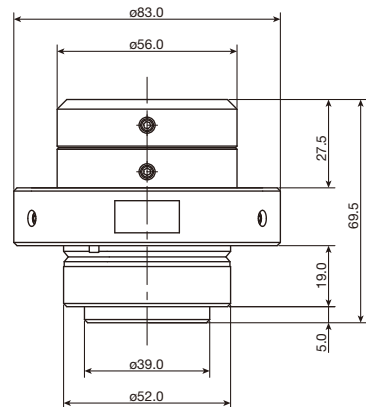
**DS-F F-mount Adapter
MQD43000**



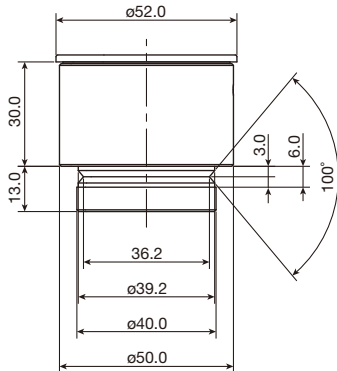
**DS-F1.8 F-Mount Adapter 1.8X
MQD43050**



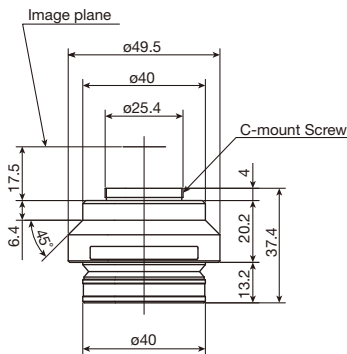
**TI-BDTV2 F-TV Tube
for F-mount Adapter
MED53140**



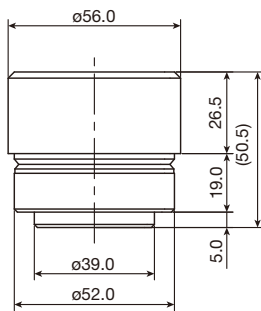
**TI2-P-CCA C-mount Adapter
with Centering Tool
MQD52010**



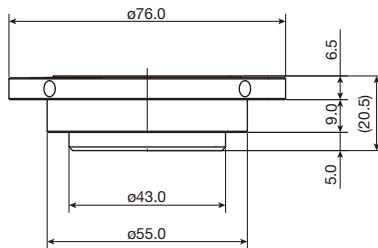
**LV-TV Tube Adapter
MBB63435**



**C-0.6X DS Relay Lens
MQD43060**



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



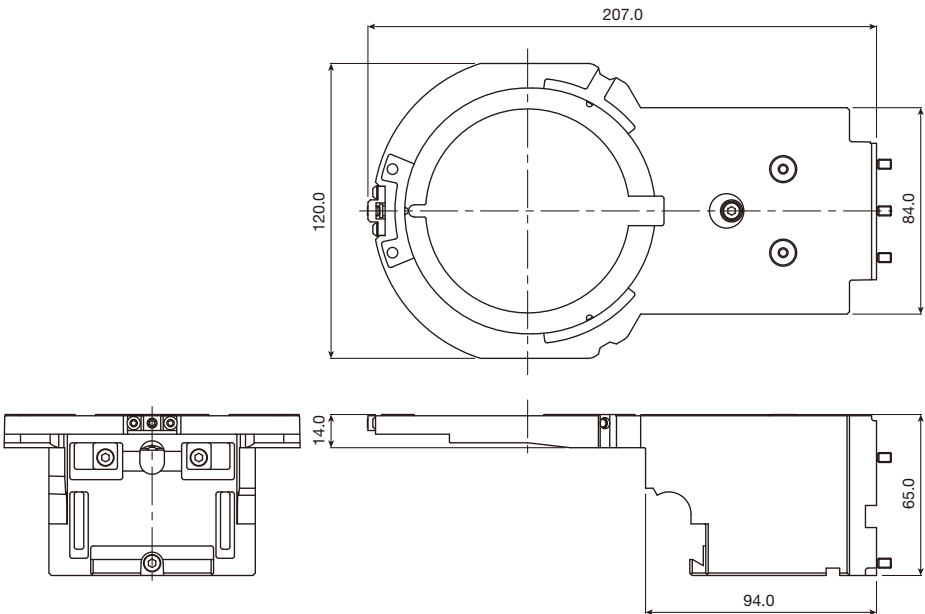
**C-TAQ2 Tube Adapter
for Quadrocular Tube
MBB94800**

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
MQD43020	DS-F2.5 F-mount Adapter 2.5X	200
MQD43000	DS-F F-mount Adapter	80
MQD43050	DS-F1.8 F-Mount Adapter 1.8X	175
MQD43060	C-0.6X DS Relay Lens	195
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

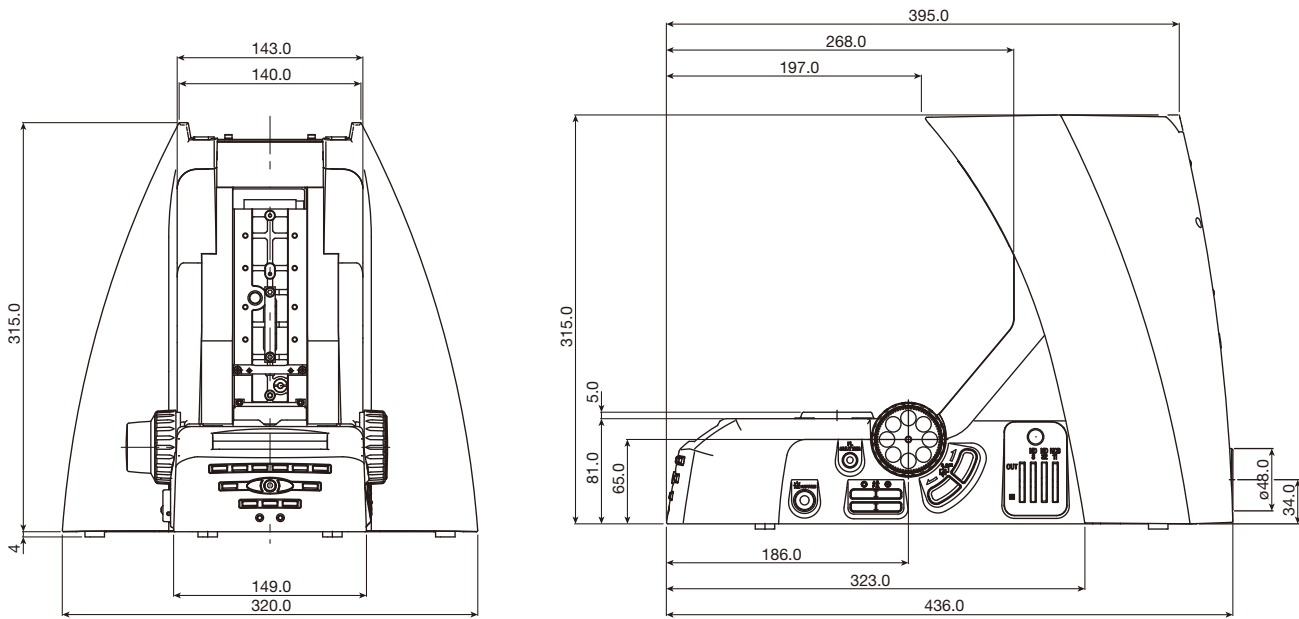
*Approximately

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.

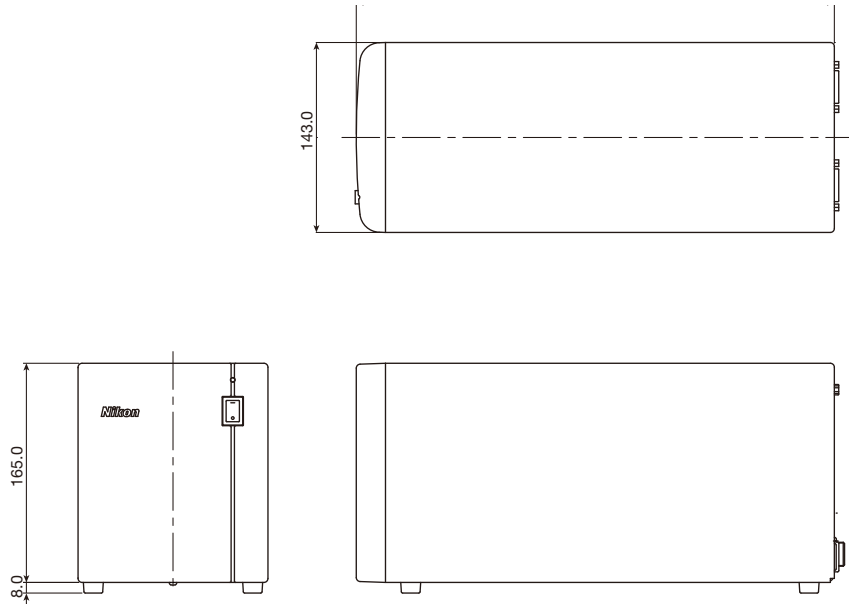


**NI-SSR Substage
for Rotatable/Motorized Stage
MBD93010**

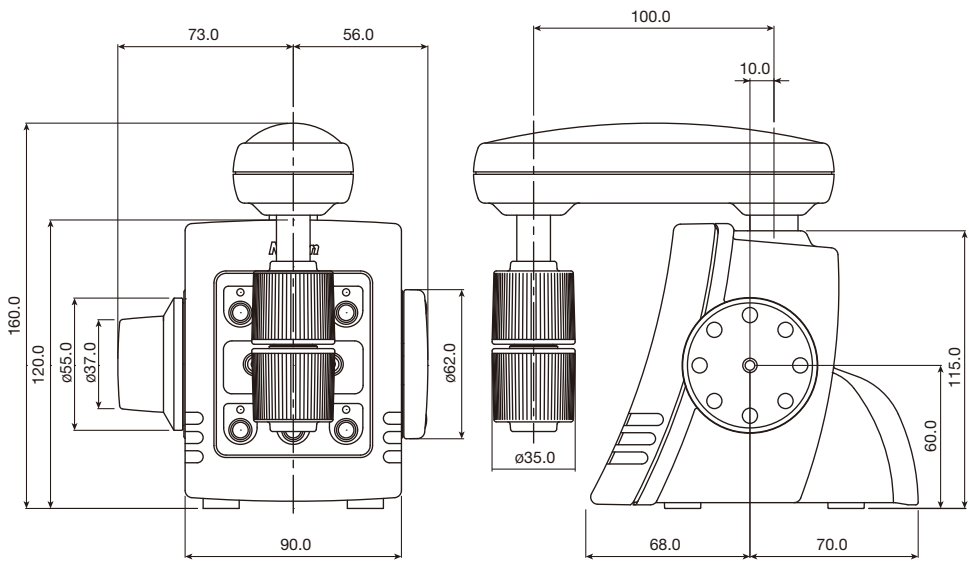


**ECLIPSE Ni-E Main Body
MBA91000**

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



**NI-CTLA Control Box A
MBF95400**

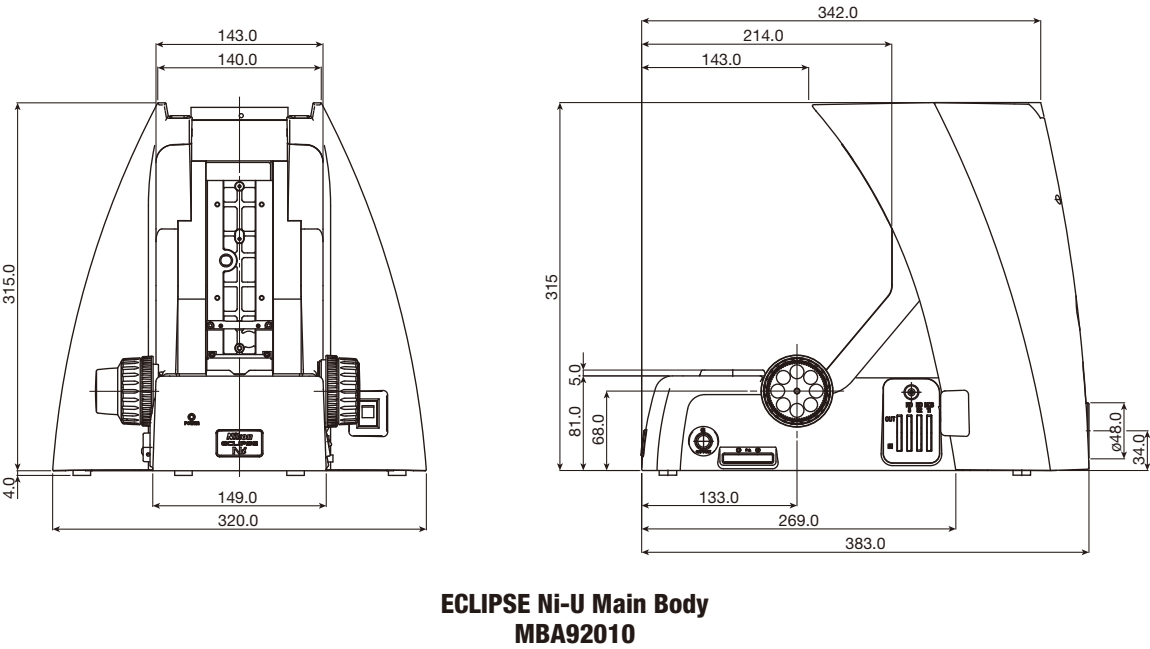
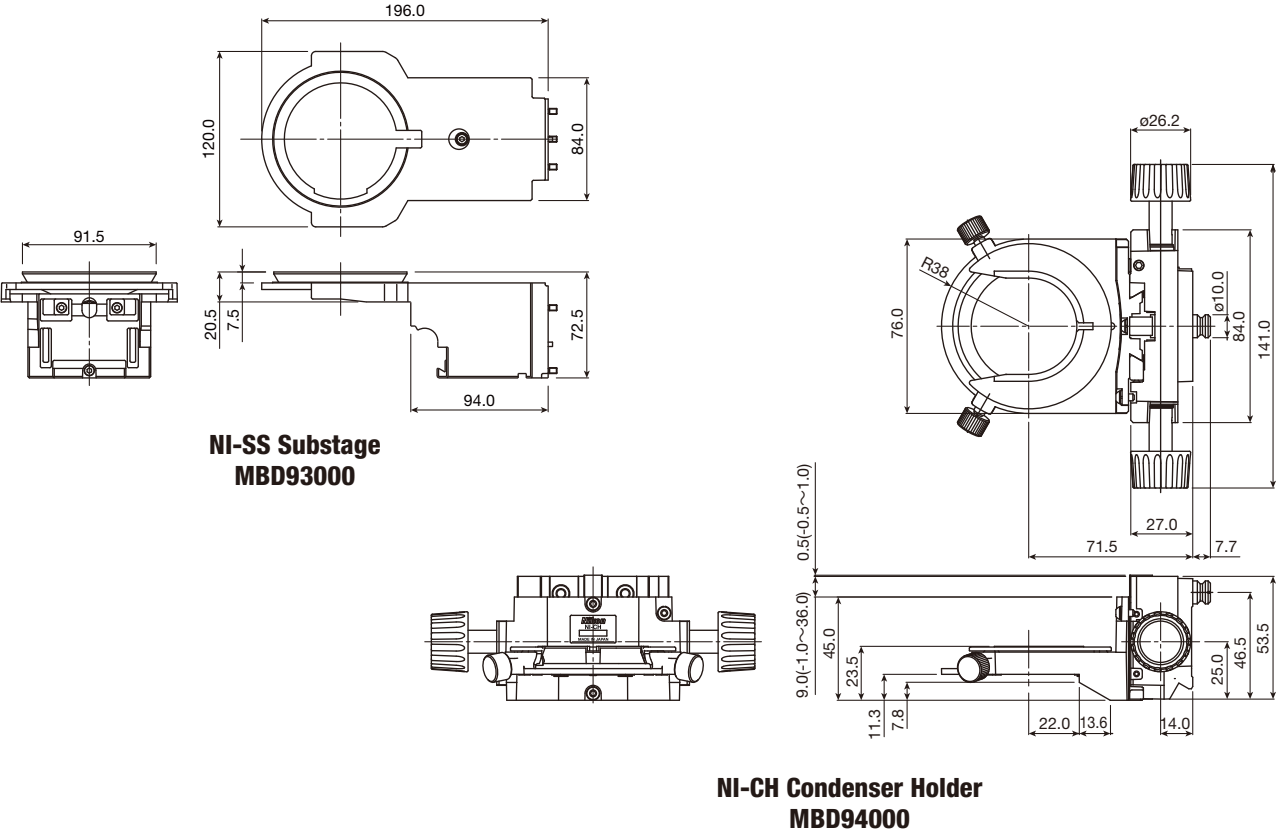


**NI-ERG NI Ergo Controller
MBF95110**

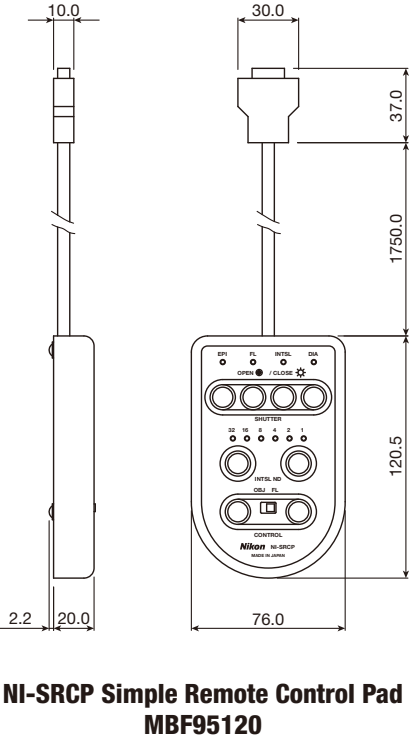
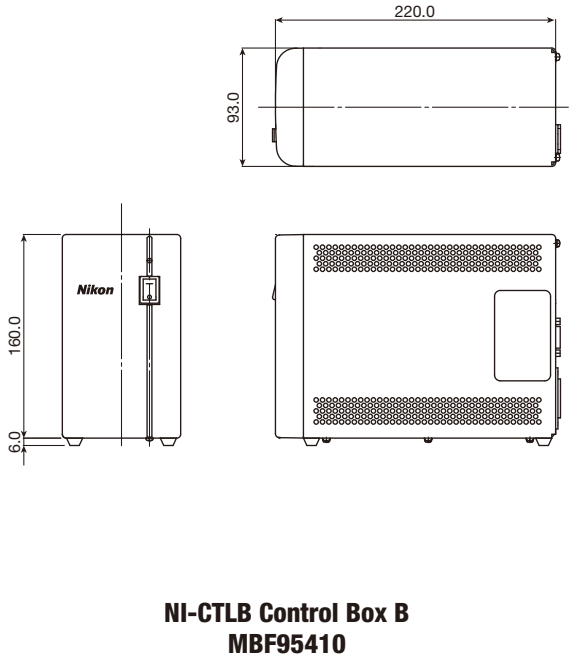
Code.No	ECLIPSE Ni-E Main Body and Controller	Weight (g)*
MBD93010	NI-SSR Substage for Rotatable/Motorized Stage	800
MBA91000	ECLIPSE Ni-E Main Body	11000
MBF95400	NI-CTLA Control Box A	5000
MBF95110	NI-ERG NI Ergo Controller	2300

*Approximately

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

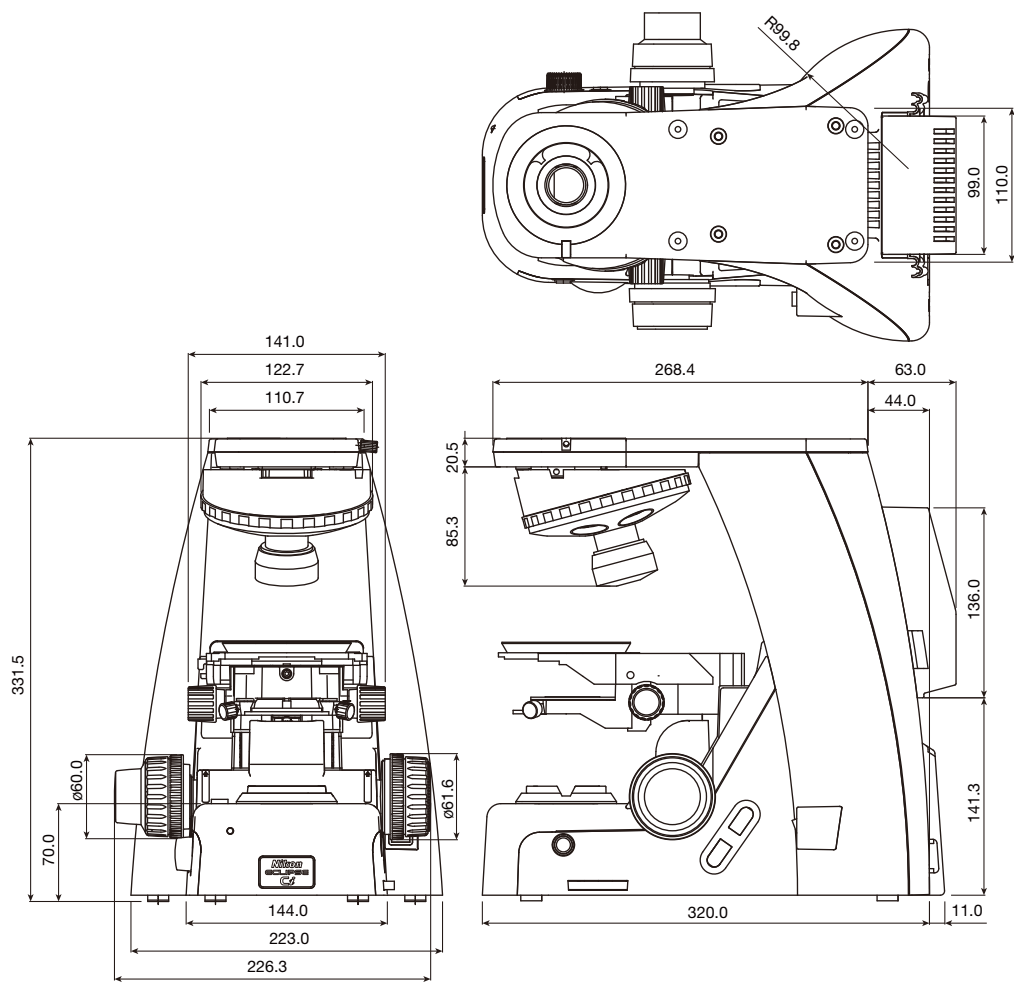


The control box and control pad below are required to use the Ni motorized unit and intelligent unit via the NIU-CAM Contact Arm (page 53).



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

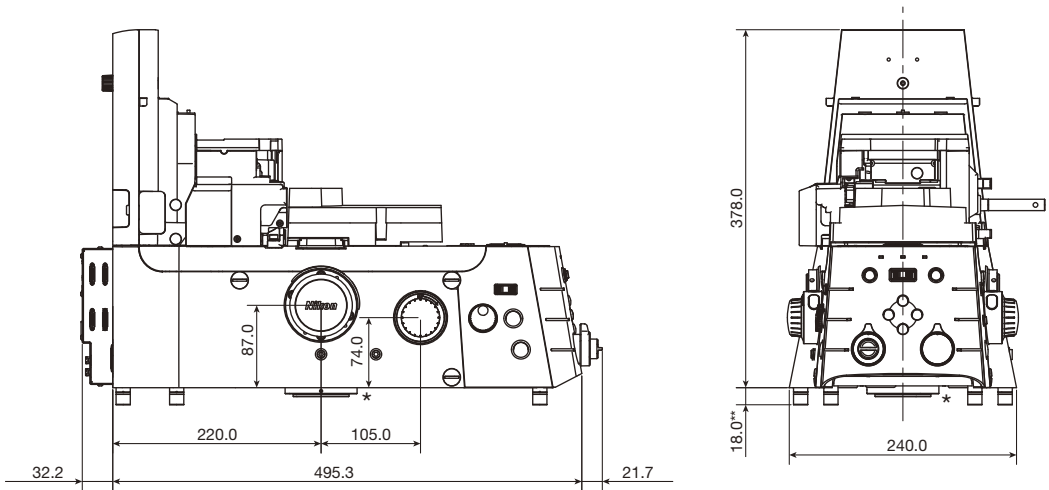
*Approximately



ECLIPSE Ci-E Main Body
MBA93000

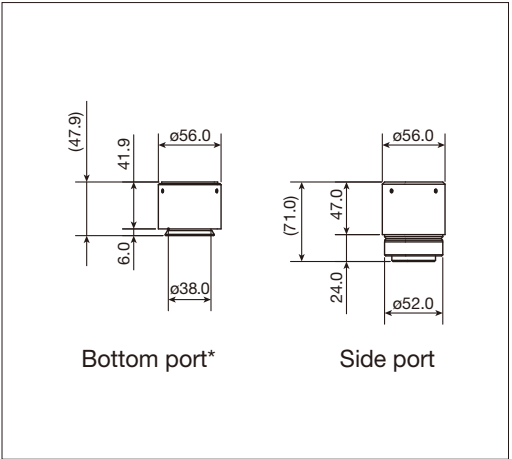
Code.No	Main Body	Weight (g)*
MBA93000	ECLIPSE Ci-E Main Body	1200

*Approximately

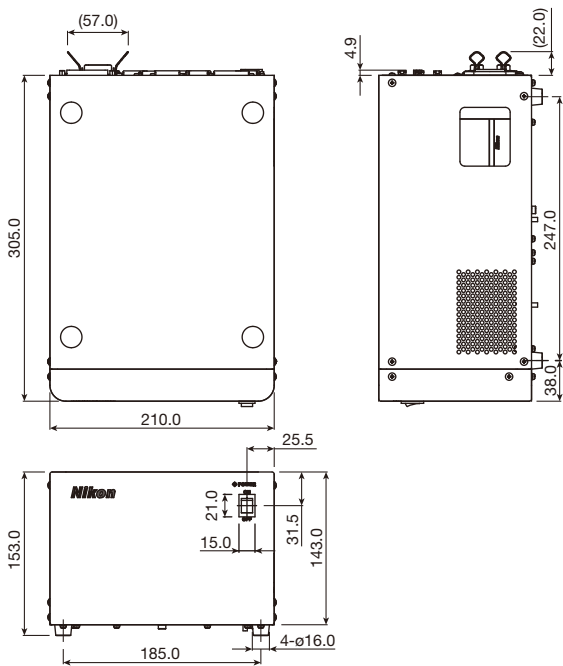


ECLIPSE Ti2-E/B Main Body
MEA54010
ECLIPSE Ti2-E Main Body
MEA54000

* Bottom port is equipped on MEA54010 only.
** 8.0 with Ti2-E



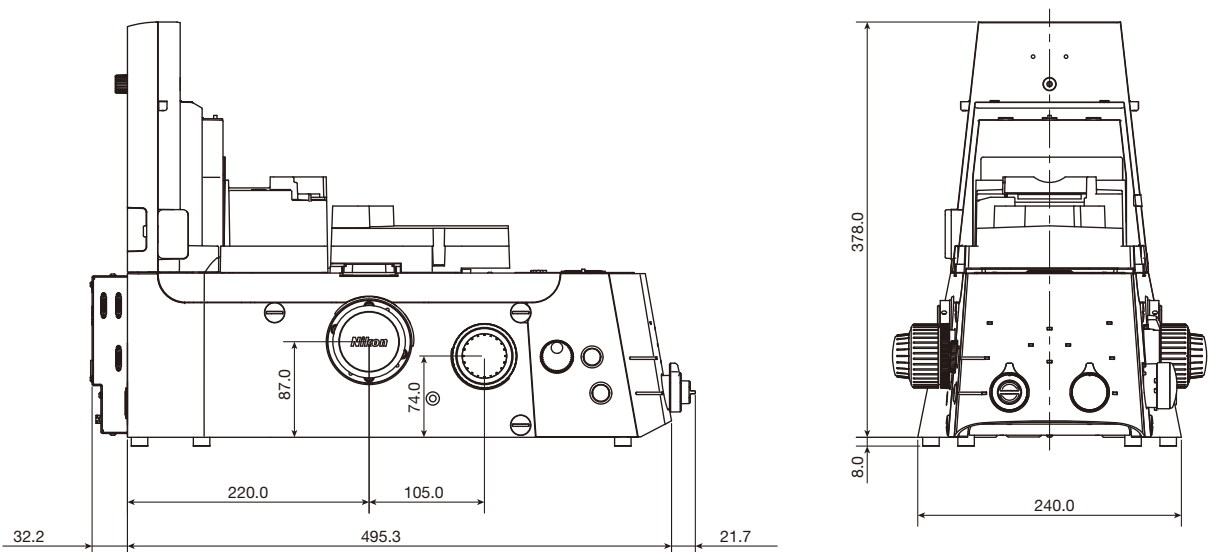
* Bottom port is equipped on MEA54010 only.



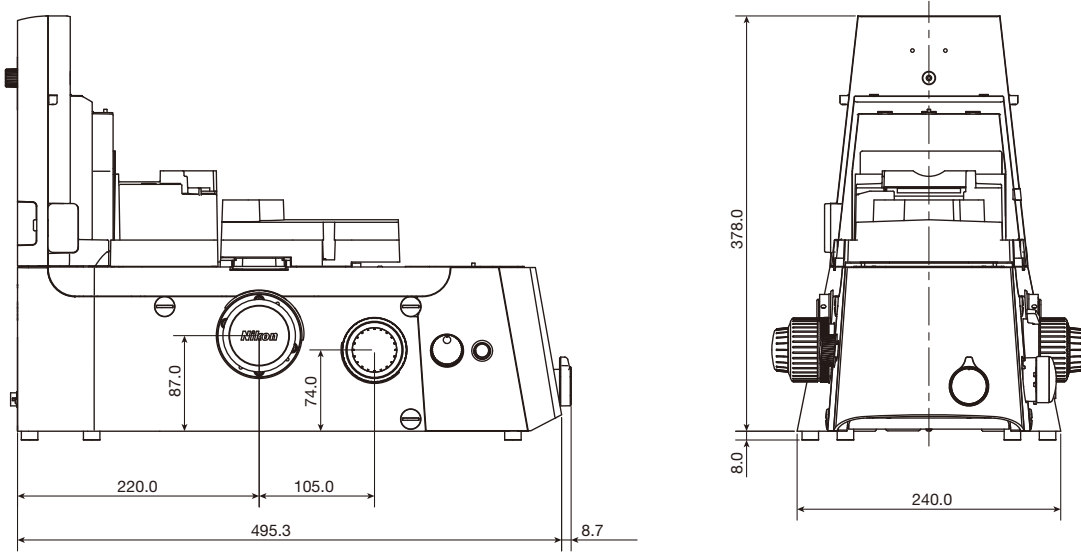
T12-CTRE Controller for Ti2-E
MEF55037

The T12-CTRE Controller is required to use the Ti2-E/B and Ti2-E.

Main Body and Control Box



ECLIPSE Ti2-A Main Body
MEA54100

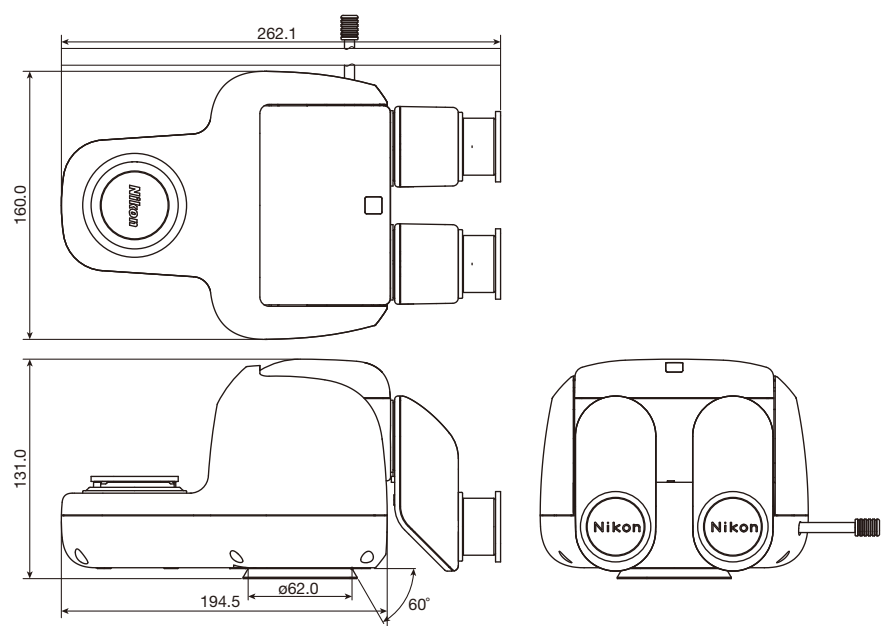


ECLIPSE Ti2-U Main Body
MEA54200

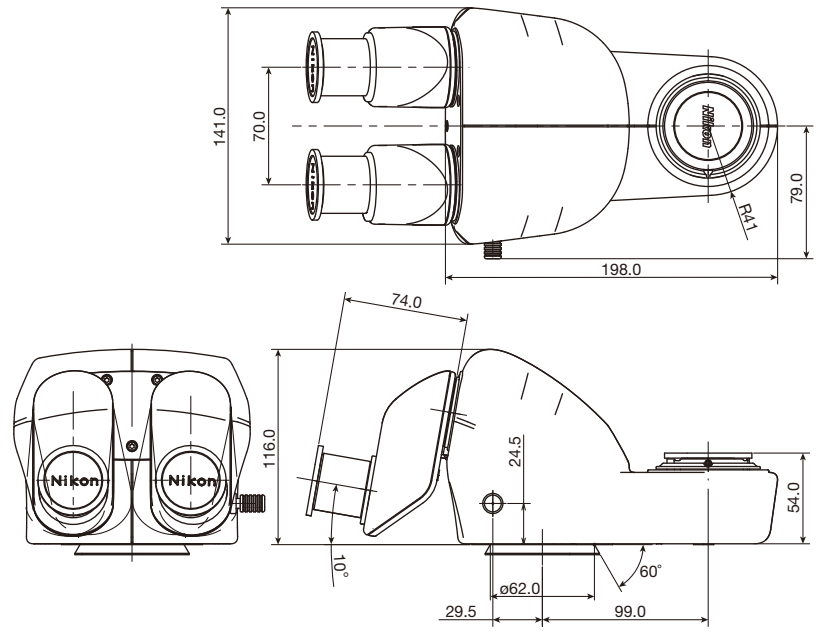
Code.No	ECLIPSE Ti2 Main Body and Controller	Weight (g)*	Remarks
MEA54010	ECLIPSE Ti2-E/B Main Body	20000	Motorized model with a bottom port
MEA54000	ECLIPSE Ti2-E Main Body	20000	Motorized model
MEF55037	Ti2-CTRE Controller for Ti2-E	2400	Contorller for Ti2-E/B and Ti2-E
MEA54100	ECLIPSE Ti2-A Main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

*Approximately

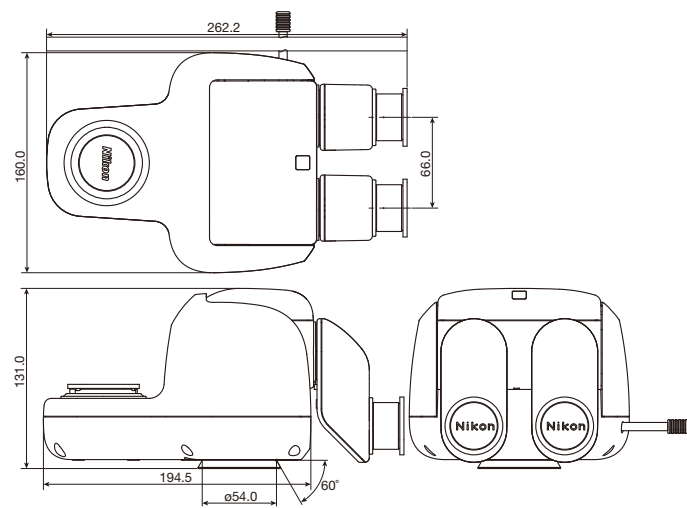
Main Body and Accessory for Stereo Microscope



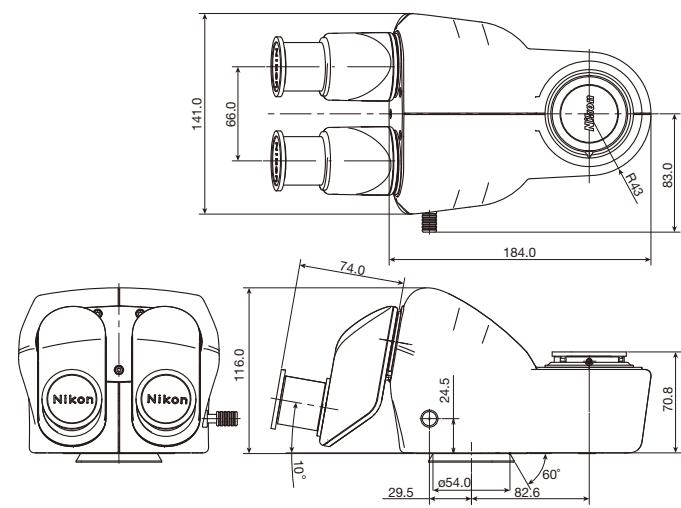
P2-TERG 100 Trinocular Tilting Tube
MNB53510
P2-TERG 50 Trinocular Tilting Tube
MNB53520



P2-TL100 Trinocular Tube 100
MNB53560



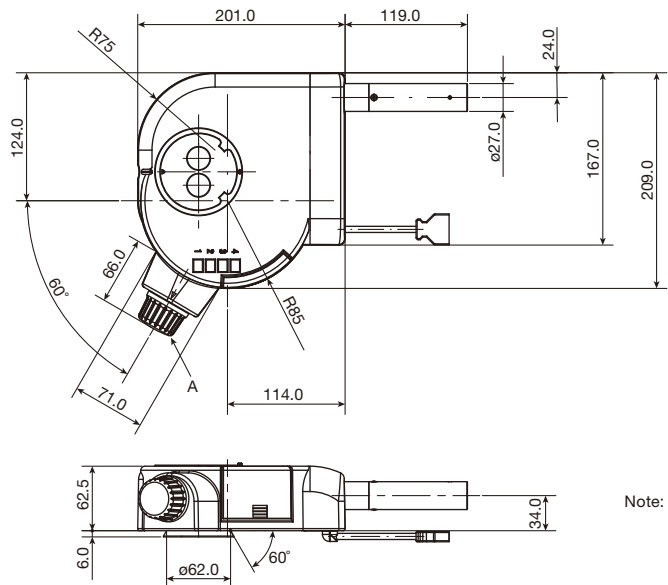
P-TERG100 Trinocular Tilting Tube
MNB53530
P-TERG50 Trinocular Tilting Tube
MNB53540



P-T100 Trinocular tube
MNB53551

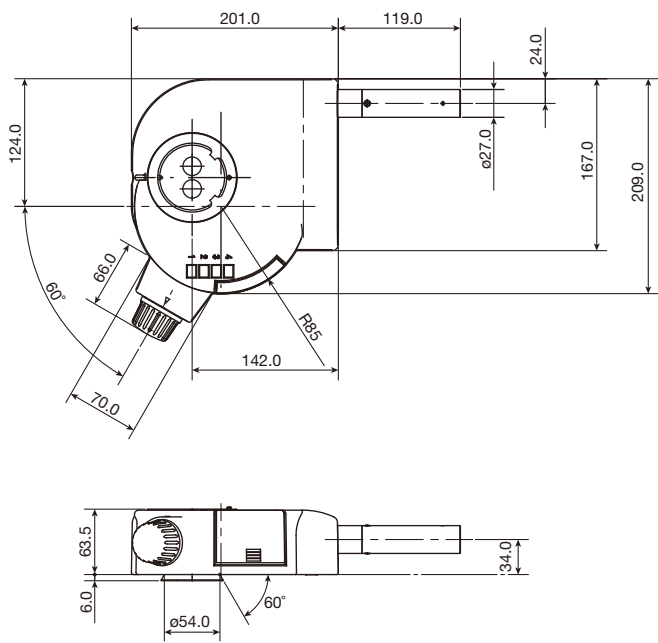
Code.No	Eyepiece Tube	Field number	Observation inclination	Observation Image	Interpupillary adjustment	Intensity split ratio (Eyepiece:Port)	Weight (g)*
MNB53510	P2-TERG 100 Trinocular Tilting Tube	22	0°- 30°	Upright image	50 mm or larger	100:0 or 0:100 two-way switching	2300
MNB53520	P2-TERG 50 Trinocular 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



Note: Filter cube switching knob (shown as A) is equipped on MNE54320 only.

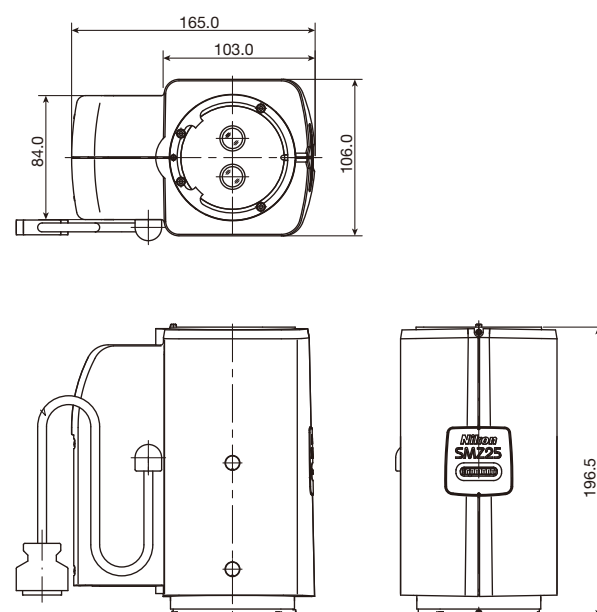
P2-EFLI Epi Fluorescence Attachment
MNE54320
P2-EFLM Motorized Epi Fluorescence Attachment
MNE54310



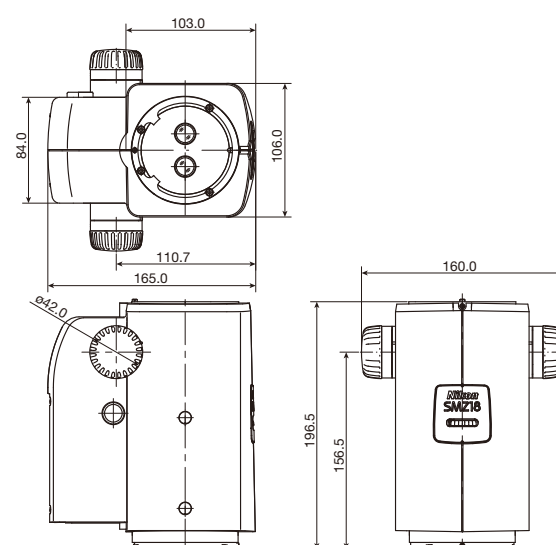
P-EFL Epi Fluorescence Attachment
MNE54330

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

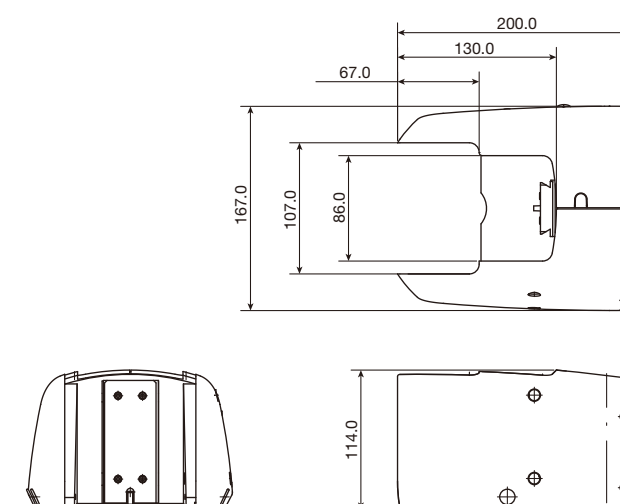
*Approximately



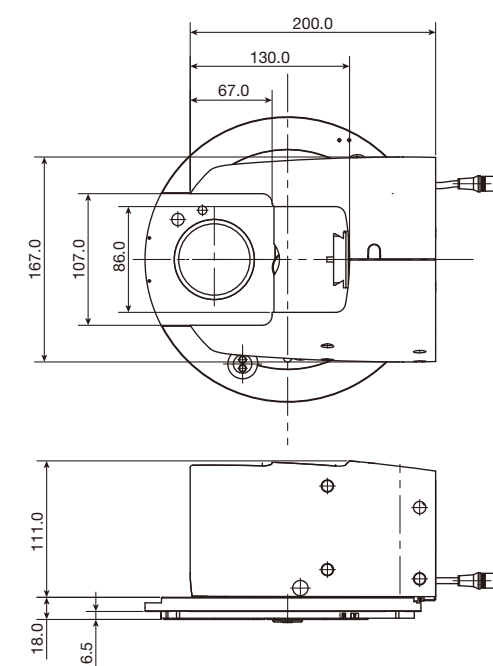
SMZ25 Zooming Body
MNA54000



SMZ18 Zooming Body
MNA53000



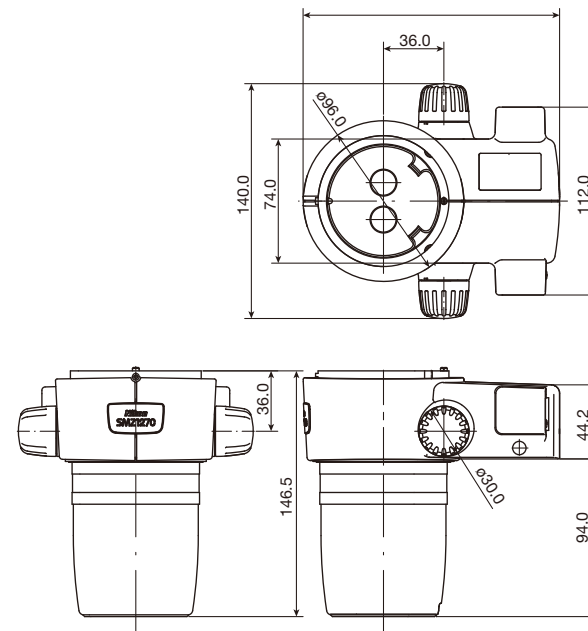
P2-FM Focus Mount Adapter
MND54020



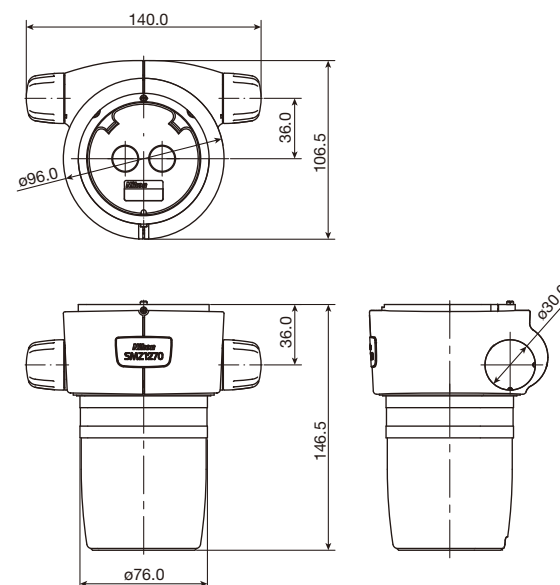
P2-RN12 Intelligent Nosepiece
MNP51500

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-RN12 Intelligent Nosepiece	3000	

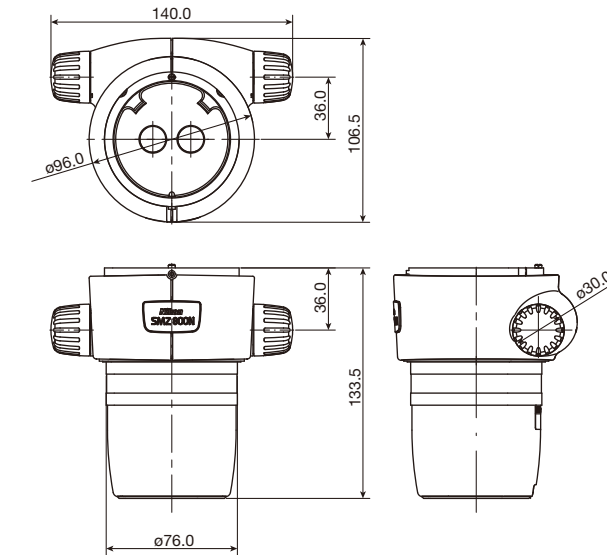
*Approximately



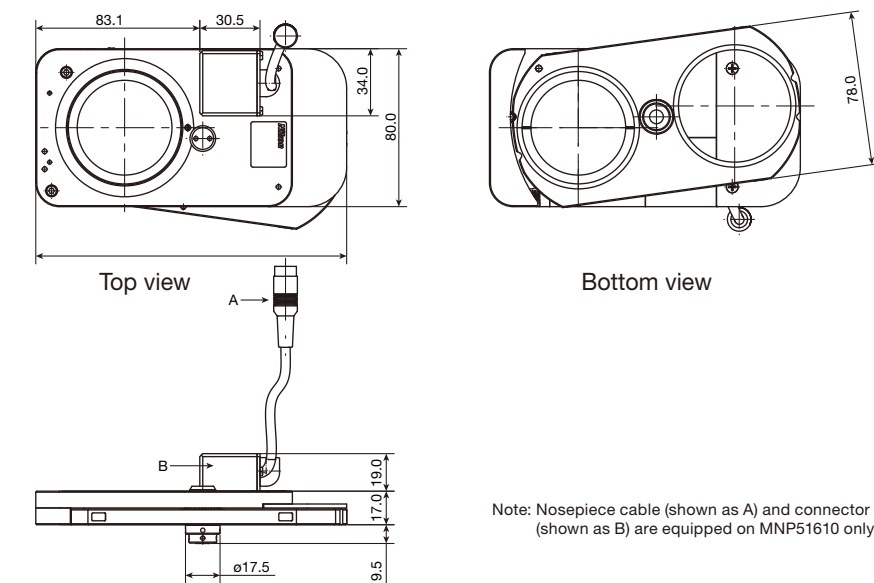
SMZ1270i Zooming Body
MNA52110



SMZ1270 Zooming Body
MNA52100



SMZ800N Zooming Body
MNA51000

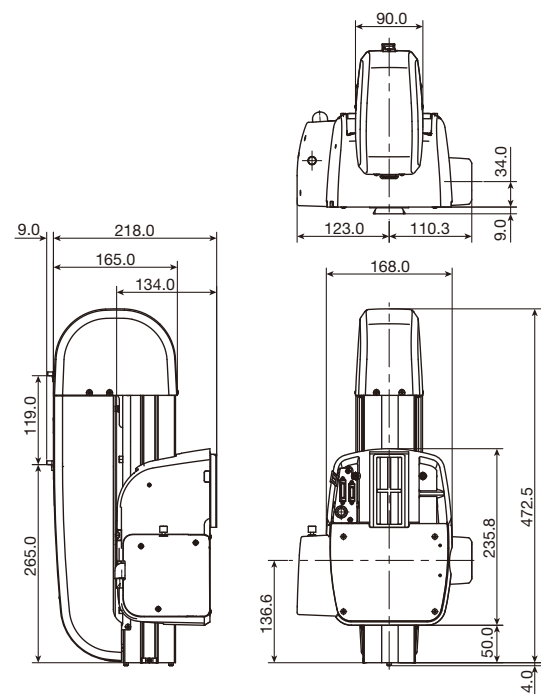


Note: Nosepiece cable (shown as A) and connector box (shown as B) are equipped on MNP51610 only.

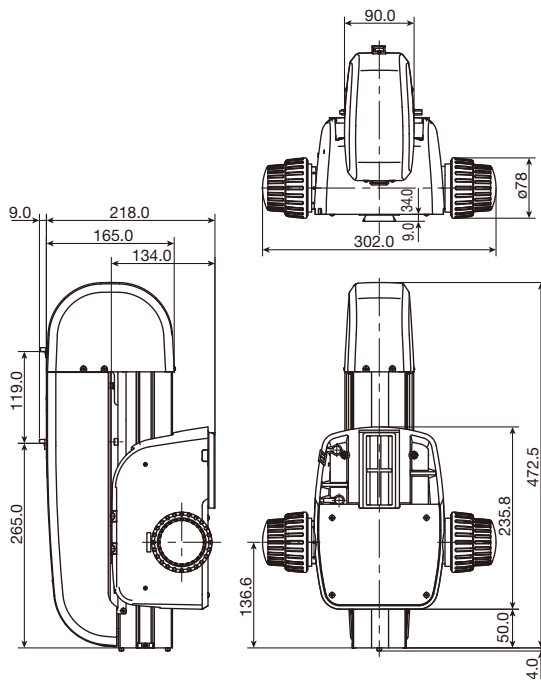
**P-RN2 Intelligent Nosepiece
MNP51610
P-RN2 Nosepiece
MNP51620**

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-RN12 Intelligent Nosepiece	350	Intelligent function
MNP51620	P-RN2 Nosepiece	350	

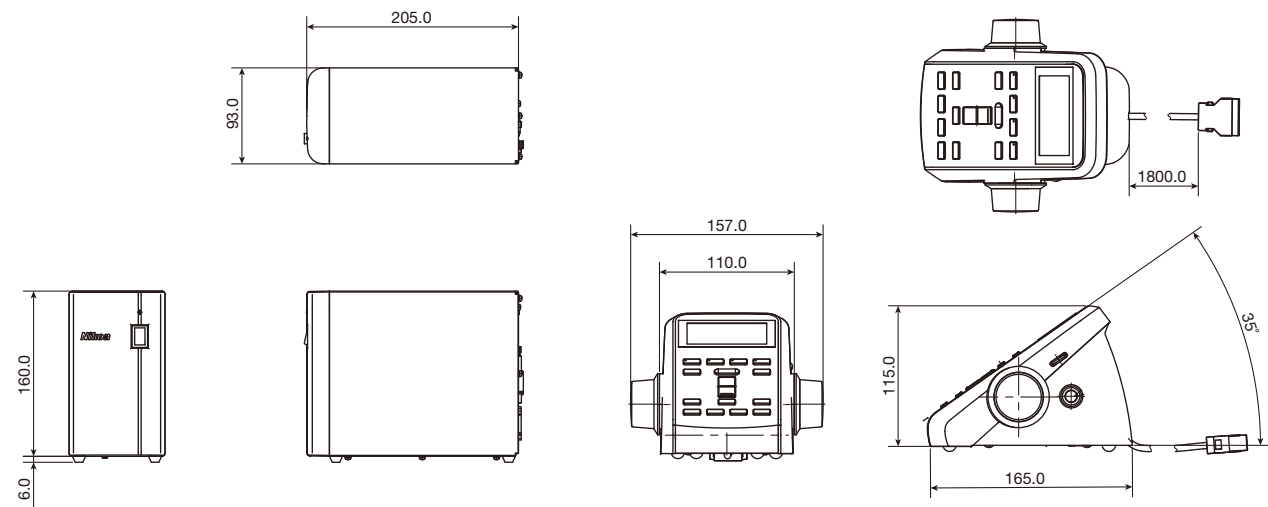
*Approximately



P2-MFU Motorized Focus Unit
MND52010



P2-FU Focus Unit
MND52020

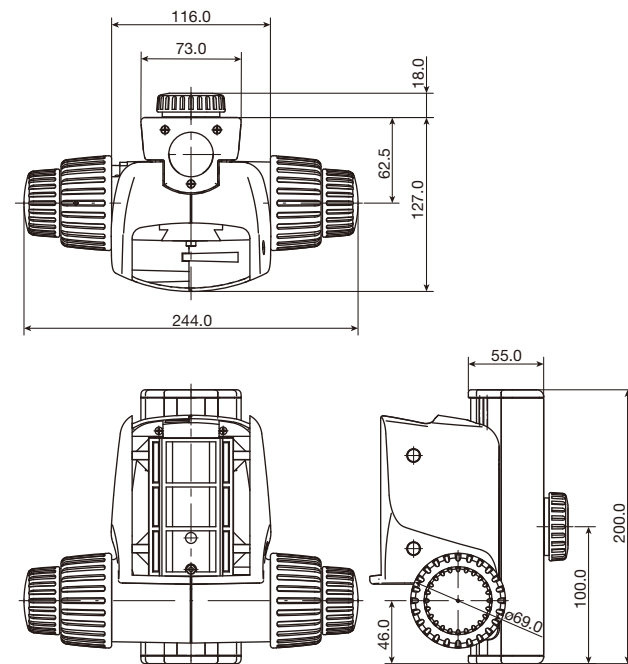


P2-CTLA Control Box
MNF55030
P2-CTLB Control Box
MNF55040

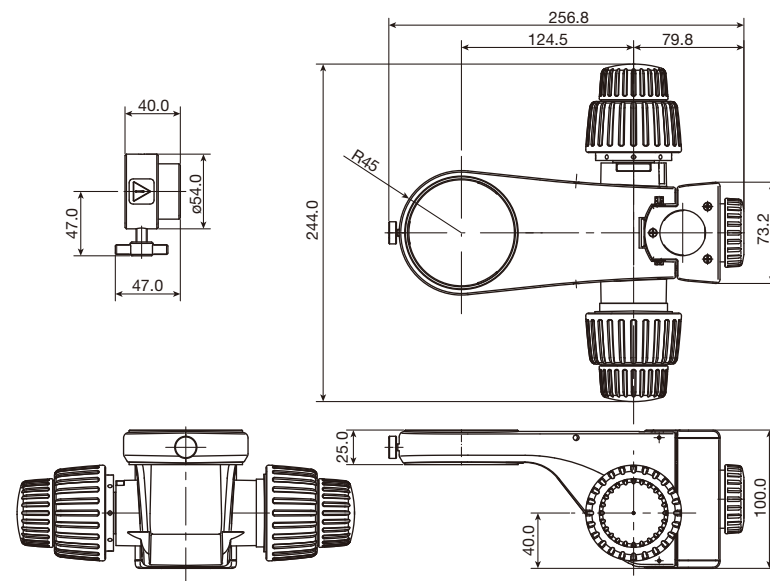
P2-RC Remote Controller
MNF55010

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 is available
MNF55040	P2-CTLB Control Box	1500	
MNF55010	P2-RC Remote Controller	500	

*Approximately



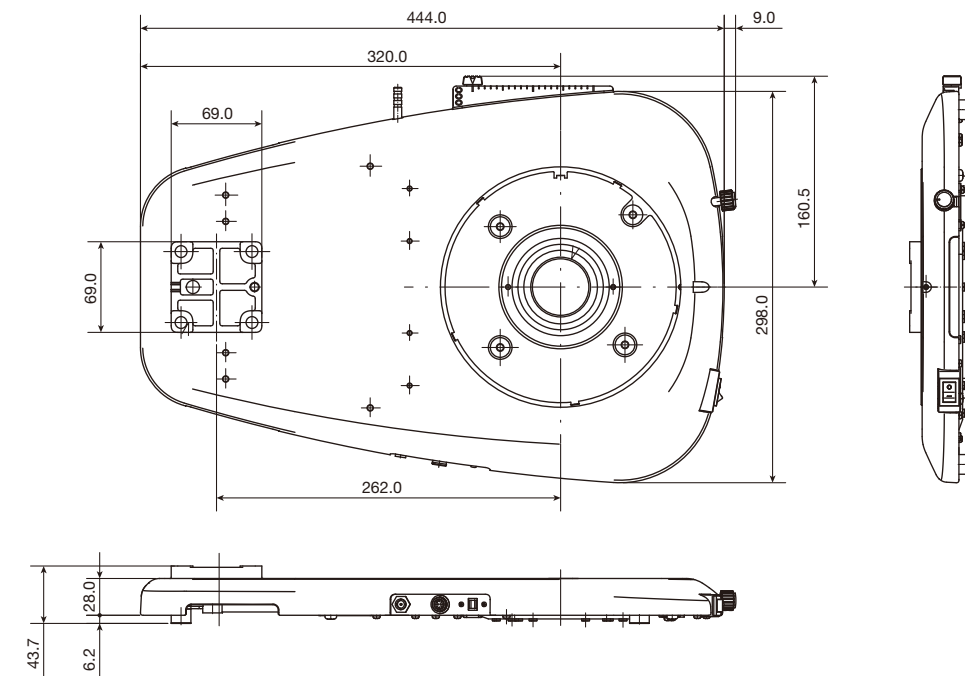
**P2-FMDN Focus Mount
MND54010**



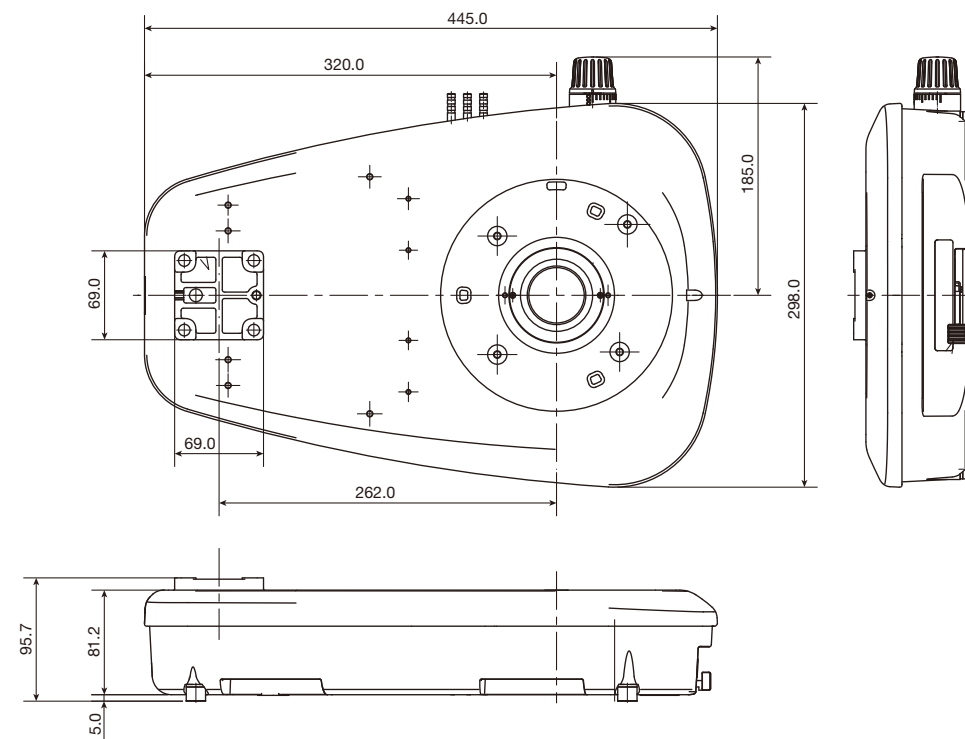
**C-FMCN Focus Mount
MND54000**

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

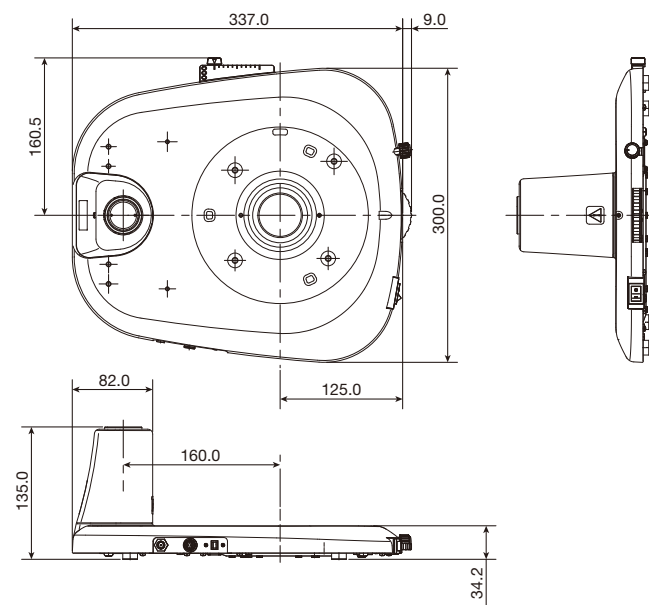
*Approximately



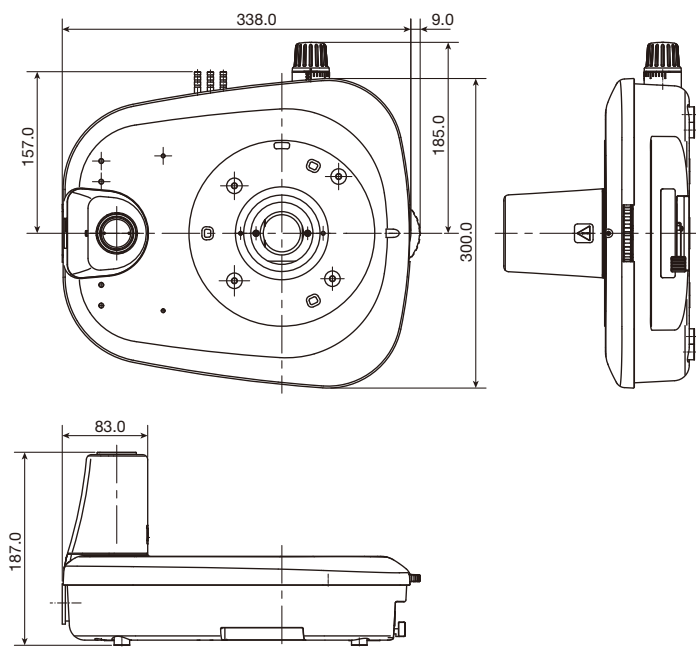
**P2-DBL LED Diascopic Illumination Base
MND51510**



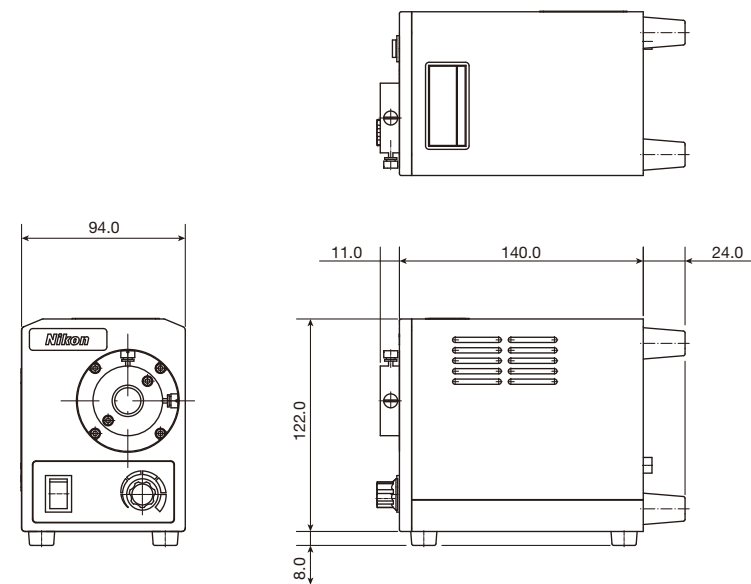
**P2-DBF Fiber Diascopic Illumination Base
MND51610**



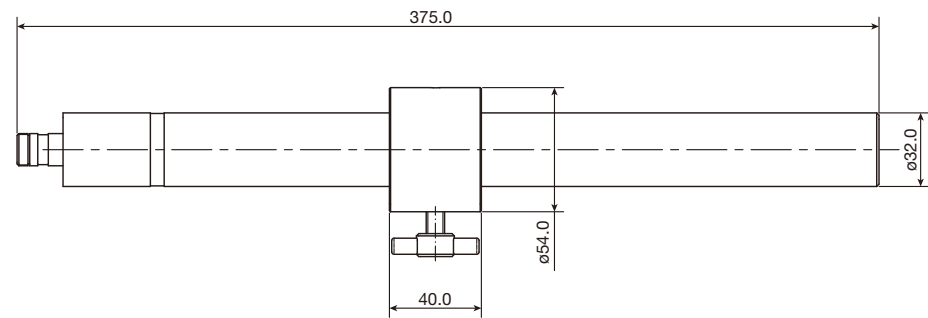
P-DSL32 LED Diascopic Illumination Stand
MND51520



P-DSF32 Fiber Diascopic Illumination Stand
MND51620



C-FLED2 Light Source for Fiber Illumination
MNF52760



C-EP Extension Pillar
MND43025

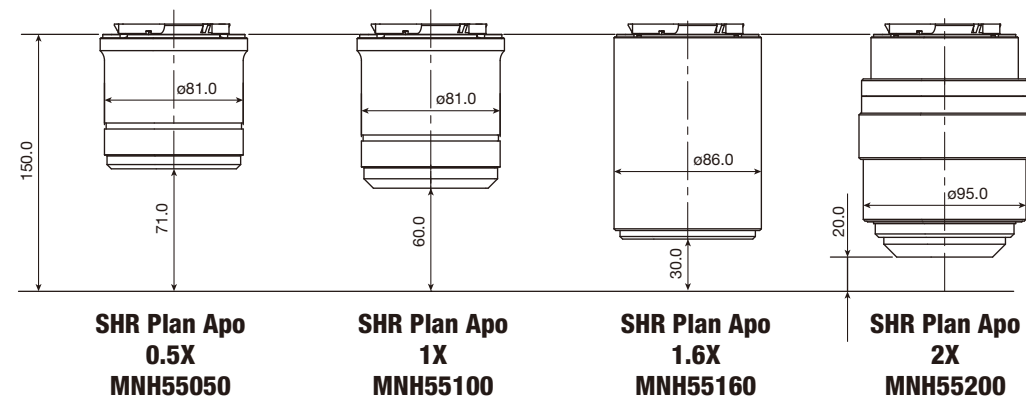
Code.No	Epi Fluorescence Attachment	Weight (g)*	Remarks
MND51510	P2-DBL LED Diascopic Illumination Base	4000	
MND51610	P2-DBF Fiber Diascopic Illumination Base	7800	With C-FLED2 Light Source for Fiber Illumination
MND51520	P-DSL32 LED Diascopic Illumination Stand	4300	
MND51620	P-DSF32 Fiber Diascopic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

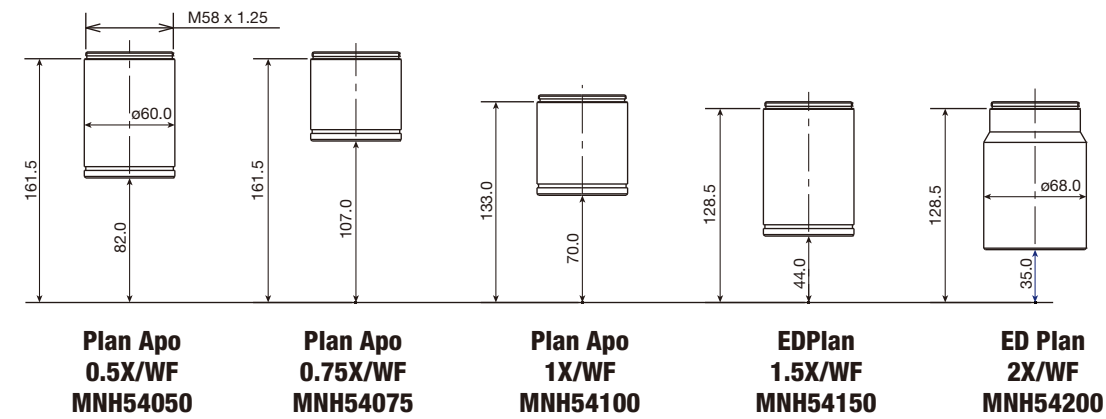
The SHR Plan Apo series features higher NA, wider field of view and superior flatness and color aberration correction. These objective lenses can be seamlessly switched because all magnifications have the same parfocal distance. The new bayonet mount design allows lenses to be safely and easily removed.



		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

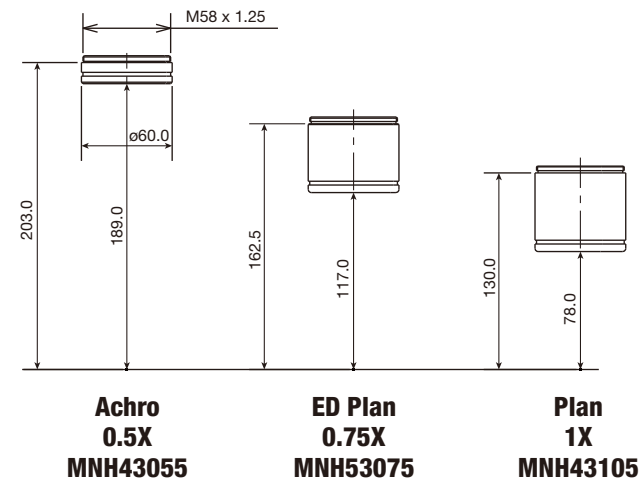
A wide selection with various magnifications and working distances is available, including high-NA, high-resolution and wide-viewfield Plan Apo WF series objectives with superior image flatness and chromatic aberration correction.



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

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

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TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.



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