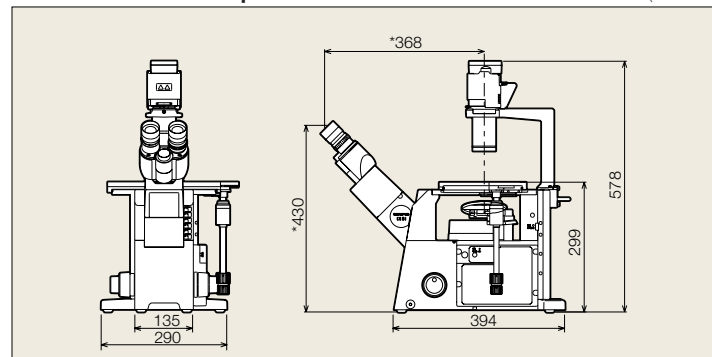


## IX51 specifications

Microscope body	Revolving nosepiece	Sextuple, simple waterproof mechanism incorporated
	Focus	9 mm stroke (from stage surface, 7 mm upward and 2 mm downward), coaxial coarse and fine focusing knobs (minimum fine focus graduation: 1 μm, full rotation of fine focusing knobs: 100 μm), upper limit stopper, torque adjustment for coarse focusing
	Left side port	2-step light path selection
Transmitted light illuminator	30 WHAL illumination	IX2-ILL30 + U-LS30-3-5
	External power supply unit	TL-4
	100 WHAL illumination	IX2-ILL100 + U-LH100L-3
Observation tube	External power supply unit	TH4-100/200
	Tilting binocular tube	U-TBI90
	Binocular tube	U-BI90CT
Stage	Trinocular tube	U-TR30H-2 + IX-ATU
	Cross stage with flexible right handle	IX2-SFR
	Cross stage with short left handle	IX-SVL2
Condenser	Plain stage	IX2-SP
	Narrow plain stage	IX2-KSP
	Gliding stage	IX2-GS
	Ultra long working distance	IX-ULWCD
	Long working distance universal	IX2-LWUCD
Eyepiece	Long working distance Relief Contrast	IX2-MLWCD
	Fluorescence illuminator	IX2-RFAL
Reflected light fluorescence unit	Fluorescence cube turret	IX2-RFAC

### IX51 30 W illumination pillar version dimensions

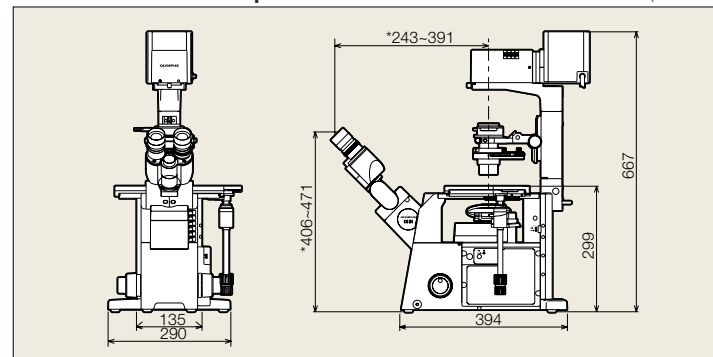
(unit: mm)



Weight: 20.5 kg Length marked with an asterisk (\*) may vary according to interpupillary distance.

### IX51 100 W illumination pillar version dimensions

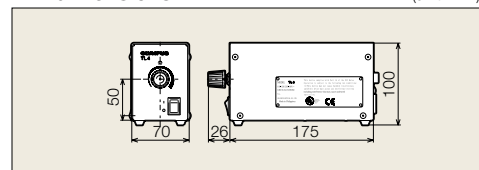
(unit: mm)



Weight: 24.4 kg Length marked with an asterisk (\*) may vary according to interpupillary distance.

### TL4 dimensions

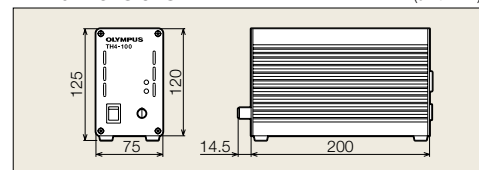
(unit: mm)



Weight: 0.8 kg  
Rated voltage: 55 VA

### TH4 dimensions

(unit: mm)



Weight: 2.2 kg  
Rated voltage: 200 VA



IX51 is the environmental conscious product according to OLYMPUS's own standards.

Main features of OLYMPUS Eco-products are as follows.

- Lead-free and arsenic-free Eco-glass for optics, such as lenses and prisms.
- Adoption of cardboard for packing materials without styrene foam for promoting the recycling.

\* Some accessories are inapplicable.

ECO-PRODUCTS

Please visit our web site for further information: <http://www.olympus.co.jp/en/eco-products/>

• OLYMPUS CORPORATION is ISO14001 certified.

• OLYMPUS CORPORATION is FM553994/ISO9001 certified.

• OLYMPUS CORPORATION is MD540624/ISO13485 certified.

• Illumination devices for microscope have suggested lifetimes. Periodic inspections are required. Please visit our web site for details.

\* Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

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**OLYMPUS**

Your Vision, Our Future

Inverted System Microscope

**IX51**

IX2 SERIES

**UIS2**  
World-leading optics

*Practical Convenience and Quality Performance  
now enhanced with UIS2 optics*



# Excellent optical performance and versatility with uncompromised quality

The IX51 continues the Olympus inverted microscope tradition by providing a very stable, compact platform ready to accept a wide range of accessories and applications. Practical convenience and quality performance are matched by excellent cost efficiency. The slim frame design enables easy attachment of multiple accessories for tissue culture and live cell imaging.

**Ergonomic design**  
Easy operation

**Slim and compact design**  
saves bench space

**Side camera port** accepts a wide range of CCD cameras

**Suitable for use with a wide variety of sample vessels**

**Excellent optical performance and mechanical quality** for outstanding value

**Improved throughput for fluorescence observations**

**Long working distance condenser** accommodates roller bottles

**Pre-centered phase contrast slider** for 10X-40X requires no adjustment (IX2-SLP)

**New optics deliver better-than-ever image contrast**



## Superb optics

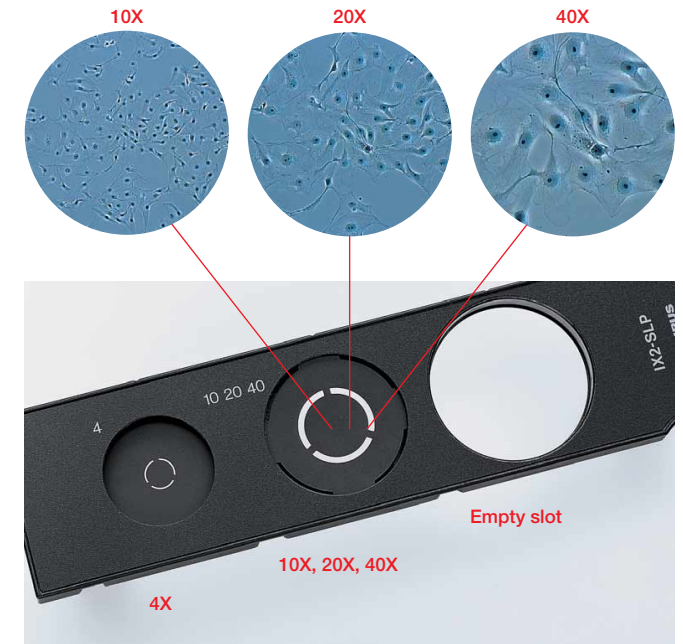
### Easy to use phase contrast system

- The 30 W illumination pillar includes a condenser (N.A. 0.3, W.D. 72 mm) with detachable front lens for an ultra long 182 mm working distance, accommodating standing laboratory flasks or roller bottles.

### Pre-centered phase contrast slider for quick, adjustment-free observation

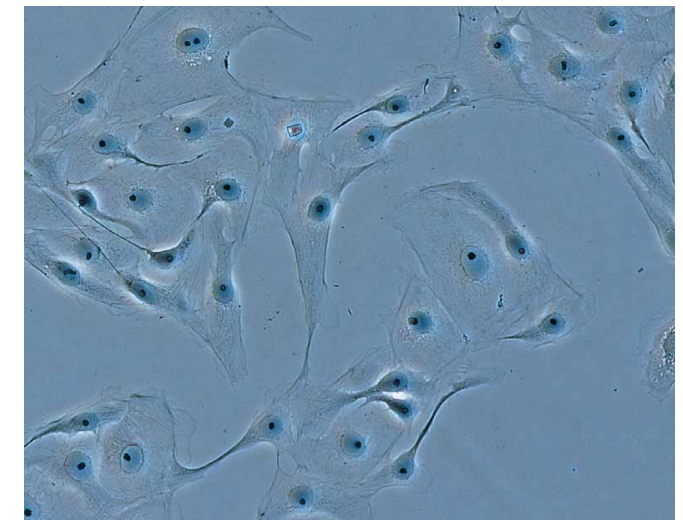
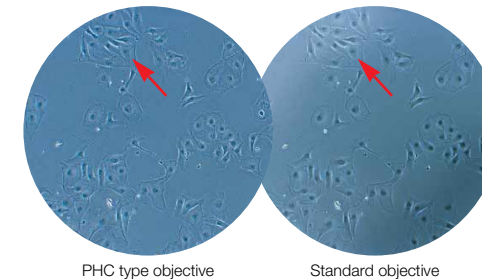
- With the IX2-SLP pre-centered phase contrast slider, there is no need to center the objective each time the magnification is changed. Additionally, a common condenser annulus for 10X, 20X and 40X objectives eliminates the need to change the slider position. The result is quick and easy phase contrast observations without the need for optical adjustments and efficient throughput of routine tasks. Since the phase plate transmission rates are dictated by the objective in use, image brightness remains constant even when the magnification is changed.

\*The IX2-SL with centering mechanism enables maximized phase contrast performance with precise optical adjustments.



### PHC type objective minimally affected by surface tension around the container edge (CPLN10XPH, CPLFLN10XPH, LCACHN20XPH)

- The PHC type 10X and 20X objectives are designed for sharp phase contrast even at the edge of the culture dish, where the meniscus of the culture fluid can compromise other objectives. Easier multi-well observation is one of several benefits. Combined with the improved field flatness resulting from the use of UIS2 optics, this feature facilitates clear observation of cells even at the edges of a dish or well.

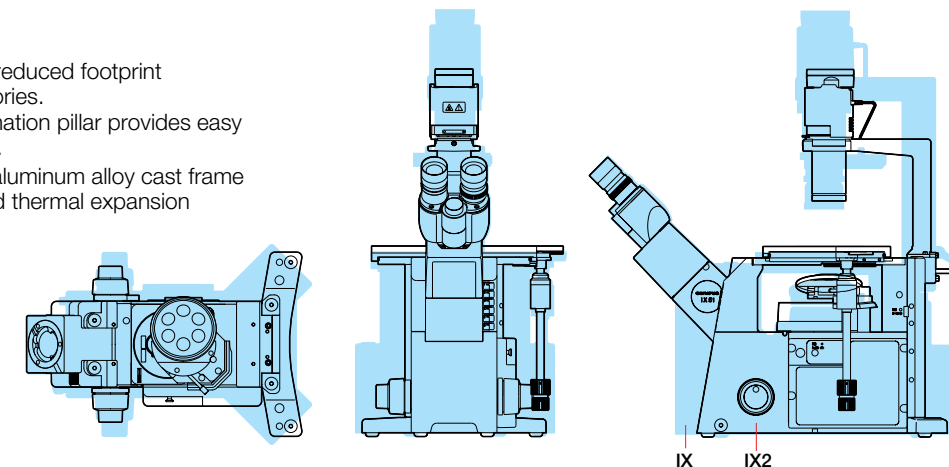


## Slim, compact & stable

### Plenty of workspace

- The slim, stable, compact design with reduced footprint provides ample bench space for accessories. Shortened height of 30 W halogen illumination pillar provides easy installation in a clean bench environment.

- Computer aided design with a unique aluminum alloy cast frame material combine for excellent rigidity and thermal expansion performance.



# Ergonomics

## Easy, convenient operation

- Features to promote fatigue-free operation include a low stage, optional glass stage insert plate and objective color-band labels.
- Various observation tubes are provided to suit a wide range of users including a tilting binocular tube for use while sitting or standing.



# Side camera port

- Narrow frame allows a side mounted detector to access the primary image, without relay lenses, providing cameras with the highest quality image, free of aberrations.
- U-DPCAD dual camera port allows the attachment of two cameras, both with access to the primary image, with the possibility of spectral separation.



DP72 mounted on the left side port

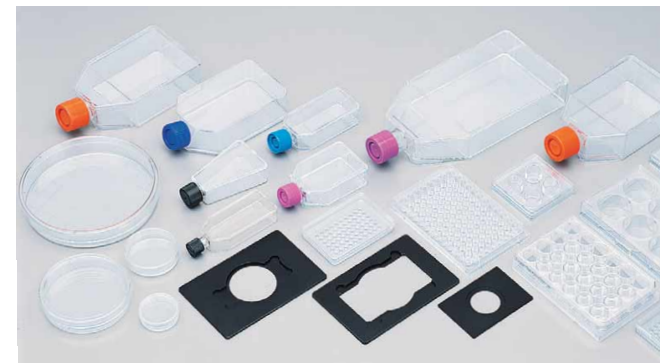
# Live cell observation

## Suitable for use with a wide range of containers

- Optical system includes objectives and condensers to accommodate different vessel types and thicknesses. Stage adapters accommodate a variety of vessels from microscope slides to well plates.



IX2-KSP+CK40-MVR



## Gliding stage/IX2-GS

- Designed for applications such as *C. elegans* observation, this stage moves with the touch of a finger, rotating a full 360° with 20 mm X-Y travel. The flat design allows for horizontally mounted micromanipulators.



IX2-GS



IX2-SP+IX-MVR

## Plain stage (IX2-SP) + Mechanical stage (IX-MVR)

- A mechanical stage provides X-Y movement for a variety of sample vessels. Coaxial control knobs are positioned low for user comfort.

# Cell viability

## Stable, constant environment for long-term observations

- External power supply reduces thermal expansion and electrical noise.
- All detents and click stops are designed to minimize vibration.
- For cell viability observations, CO<sub>2</sub> incubators, chambers and a thermoplate are available.

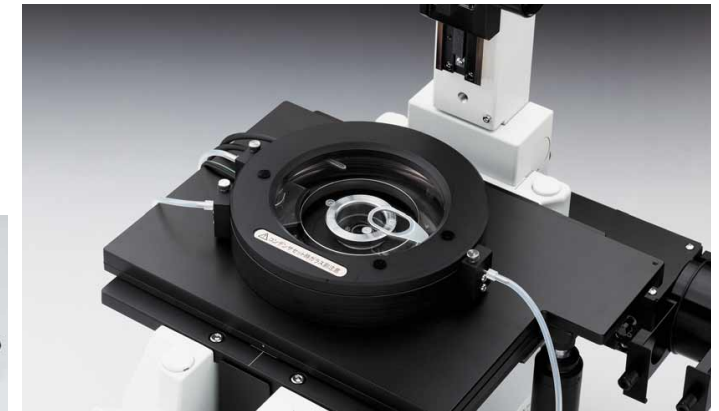


MIU-HBC-I-2 CO<sub>2</sub> incubator with chamber

\*Not available in some areas



Thermoplate



# Fluorescence

## Excellent fluorescence performance

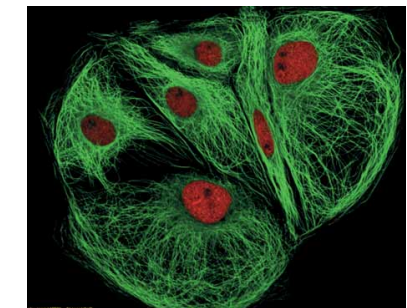
- High throughput illuminator is 20% brighter than previous models.
- Optional L-Shaped Illuminator includes aperture and field stops and convenient access to burner centration.
- Fluorescence mirror units are designed to reduce stray light and image flare.
- Six position filter turret for maximum system flexibility.
- Improved filter performance with high efficiency coatings designed for low background and minimal crossover.



IX2-RFA



IX2-RFAL



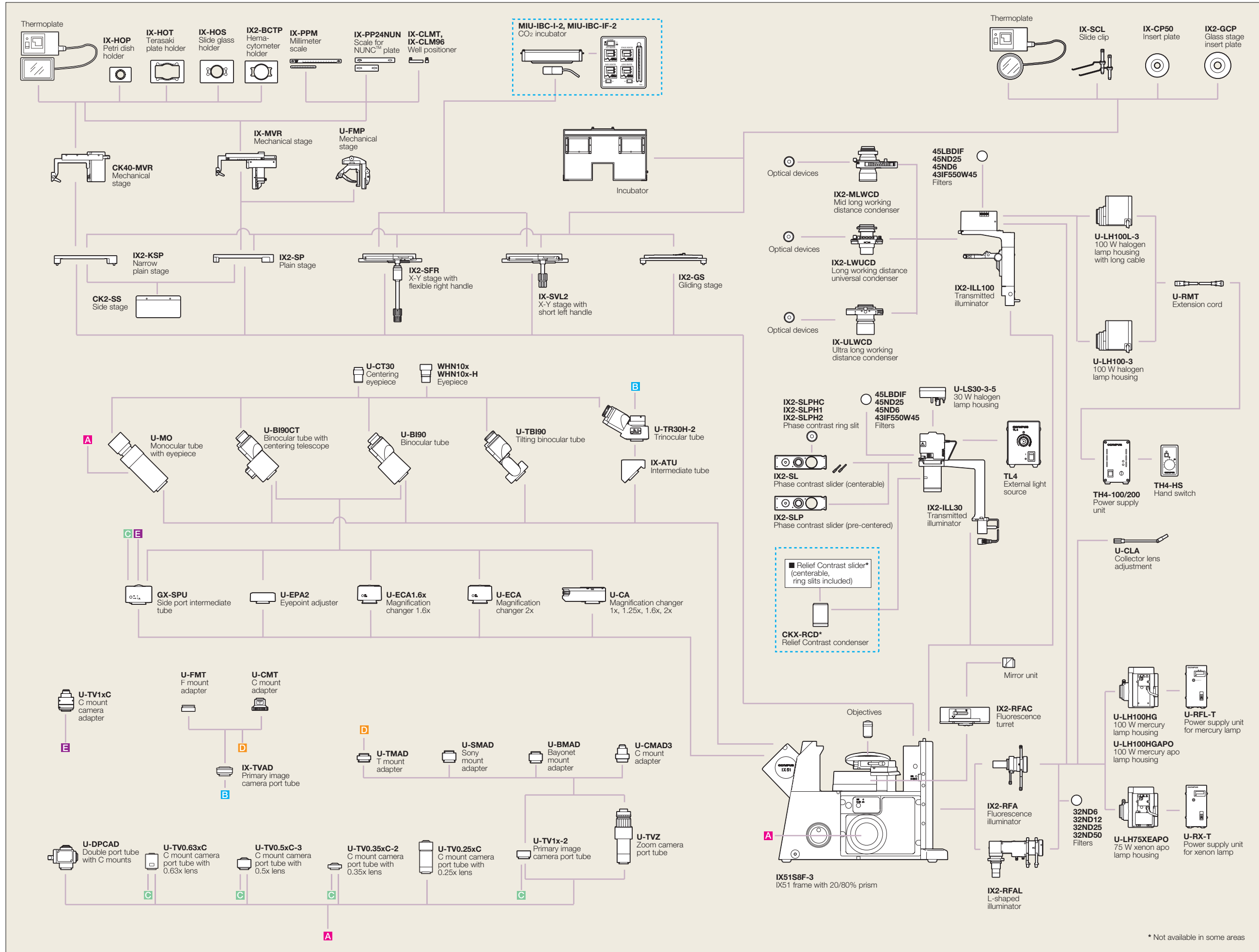
# Accessories

- An illumination pillar for a 100 W halogen lamphouse allows bright, high N.A. relief contrast and DIC observations through the use of optional condensers.
- The ultra-long working distance condenser (N.A. 0.3, W.D. 73 mm) with four position turret can be combined with the 100 W illumination pillar for brighter 4X to 40X phase contrast and brightfield observations.



IX-ULWCD

**IX51 SYSTEM DIAGRAM**



**UIS2 objectives**

Objective	N.A.	W.D.(mm)	Remarks
<b>For brightfield</b>			
PLCN4X	0.10	18.5	
PLCN10X	0.25	10.6	
PLCN20X	0.40	1.2	
LUCPLFN40X	0.60	2.7-4	
<b>For phase contrast</b>			
UPLFN4XPH	0.13	17	PHL (for use with IX2-SL)
CPLN10XPH	0.25	10	PHC (for use with IX2-SL)
PLN10XPH	0.25	10.6	PH1 (for use with IX2-SL)
LCACHN20XPH	0.40	3.2	PHC (for use with IX2-SL)
LUCPLFN20XPH	0.45	6.6-7.8	PH1 (for use with IX2-SL)
LCACHN40XPH	0.55	2.2	PH2 (for use with IX2-SL)
LUCPLFN40XPH	0.6	3.0-4.2	PH2 (for use with IX2-SL)
UPLFN4XPHP**	0.13	16.4	For use with IX2-SLP
CACHN10XPHP**	0.25	8.8	For use with IX2-SLP
LCACHN20XPHP**	0.40	3.2	For use with IX2-SLP
LCACHN40XPHP**	0.55	2.2	For use with IX2-SLP
<b>For RC</b>			
CPLN10XRC**	0.25	9.7	For use with IX2-MLWCD
LCACHN20XRC**	0.40	2.8	For use with IX2-MLWCD
LCACHN40XRC**	0.55	1.9	For use with IX2-MLWCD
<b>For FL</b>			
UPLFN4X	0.13	17	U,B,G
UPLFN10X2	0.30	10	U,B,G, w/ND filter
UPLFN20X	0.50	2.1	U,B,G
LUCPLFN20X	0.45	6.6-7.8	U,B,G
LUCPLFN40X	0.6	2.7-4	U,B,G

\*\* Pre-centering objective  
 \*\* Objective with compensation for 1 mm plastic dish plus 0.5 mm thick thermoplate.  
 • All UIS2 objectives and WHN eyepieces: lead-free eco-glass

\* Not available in some areas