

Components

An optical unit consists of various components.

You can assemble a different optical unit or change the configuration of the unit according to the purpose of an experiment by purchasing additional components. (For example, replacing the screen component with the imaging lens and camera components enables loading of observed images.) In addition, we offer variety of components required for optical adjustment and safety control.



Laser Component | IFC2-L



Catalog Code **W1006**

He-Ne laser component excellent in coherence and provides linear polarized beam with stable output
Wavelength: 632.8nm, Output: 1mW

Product Name	Part Number	Quantity	Optical Axis Height [mm]
He-Ne Laser	05-LHP-111	1	
Laser Power Source	05-LPL-911-065	1	
Laser Holders	LAH-1	1	71
Post Holder	BRS-20-80	1	80
Magnet Base	MB-L65C-M4	1	20
Total			171

Spatial Filter Component | IFC2-SF



Catalog Code **W1007**

Emits diverging rays of Gaussian distribution without distortion by transmitting a laser beam focused by an objective lens through a pinhole. To provide clean spherical waves, it can remove wavefront distortion caused by dirt on the objective lens or the like from the laser beam.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Spatial Filter Holders	SFB-16RO-OBL20-25	1	65
Post Holder	BRS-20-80	1	80
Magnet Base	MB-L65C-M4	1	20
Total			165

Collimator Lens Component | IFC2-CL



Catalog Code **W1008**

Converts spherical waves emitted from the spatial filter holder to collimated light.
Not fitted with a stage.
Focal length: 300mm

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Achromatic Lens	DLB-30-300PM	1	
Lens Holder	LHCM-30	1	60
Post Holder	BRS-12-80	1	80
Magnet Base	MB-L65C-M4	1	20
Total			160

Mirror Component | IFC2-M



Catalog Code **W1009**

Uses an aluminum total-reflection mirror having high surface accuracy, providing straight interference fringes. The mirror component is fitted with a stage for optical axis adjustment or interference fringe phase shift experiments.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Aluminum Total-reflection Mirror	TFA-50C08-20	1	
Kinematic Mirror Holder	MHG-MP50-NL	1	35
Post	RO-20-80	1	40
Post Holder	BRS-20-60	1	60
Linear Stage	TSD-601S	1	18
Magnet Base	MB-L65C-M4	1	20
Total			173

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Beamsplitter Component | IFC2-BS



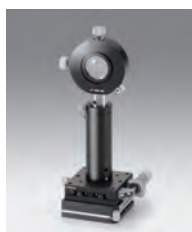
Catalog Code **W1010**

Utilizes a plate-type dielectric multi-layer half mirror that provides lower intensity loss by dividing light into transmitted light and reflected light to 1:1.

The beamsplitter component is fitted with a stage for optical adjustment.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Multi-layer Half Mirror	PSMH-50C08-10W-550	1	
Gimbal Mirror Holders	MHAN-50S	1	90
Post Holder	BRS-20-50	1	50
Linear Stage	TSD-601S	1	18
Magnet Base	MB-L65C-M4	1	20
Total			178

Imaging Lens Component | IFC2-KL



Catalog Code **W1012**

An imaging lens for loading interference fringe images into a camera. Focal length: 50mm

To observe the entire clear aperture $\phi 25\text{mm}$

Sample to imaging lens: 400mm

Imaging lens to camera: 57.13mm

Before purchase, check the observation range.

Fitted with a stage for focus adjustment.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Plano Convex Lens	SLB-30-50PM	1	
Lens Holder	LHCM-30	1	60
Post Holder	BRS-12-80	1	80
Linear Stage	TSD-601S	1	18
Magnet Base	MB-L65C-M4	1	20
Total			178

Filter Component | IFC2-AF



Catalog Code **W1014**

An ND filter installed immediately in front of a camera to attenuate the intensity of laser light to 1% because direct irradiation of laser light into the camera causes saturation.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Absorptive Filter	AND-20C-01	1	
Lens Holder	LHF-20	1	
Cross Clamps	CCHN-12-12	1	14
Post	PO-12-150	1	102
Magnet Base	MB-CB-PB	1	55
Total			171

Screen Component | IFC2-SC



Catalog Code **W1011**

Projects interference fringes on a $\square 200\text{mm}$ white plate.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Flare Plate	BBP-200	1	100
Square Optics Holder	KMH-80	1	42.5
Post Holder	BRS-12-60	1	60
Magnet Base	MB-L65C-M4	1	20
Total			222.5

Camera Component | IFC2-UC2



Catalog Code **W1013**

Loads observation images into a PC by simply connecting the USB camera to a USB port of the PC.

Reference **A026**

The camera component is fitted with an YX axis stage, allowing adjustment of focus and image position.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
USB Camera	STC-MCA5MUSB3	1	14
Mount for Camera	STC-TP-HCA	1	6.5
USB3.0 Cable	STC-NU3MBASU3B-3.5	1	
Inch Screw Thread Post	ROU-12-80	1	40
Post Holder	BRS-12-60	1	60
Spacer	SP-127-1	1	7
Linear Stage	TSD-602S	1	32
Magnet Base	MB-L65C-M4	1	20
Total			179.5

Stray Light Block Component | IFC2-BD



Catalog Code **W1015**

Reflected light from the reverse side of a half mirror or multiple-reflected light inside an interferometer sometimes spread out of a laboratory bench as stray light. This component safely blocks such optical paths. It can also be used as a filter since an absorptive ND filter is used.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Absorptive Filter	AND-50S-01	1	
Filter Holders	FHS-50	1	70
Post Holder	BRS-12-80	1	80
Magnet Base	MB-L65C-M4	1	20
Total			170

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Polarization Filter Component | IFC2-PF



Catalog Code **W1016**

Used for adjusting the intensity of He-Ne laser. Use this component when changing laser intensity continuously for optical axis adjustment or camera brightness adjustment. When two units are used in a line, it can turn down the intensity close to zero.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Visible Sheet Polarizer	SPF-30C-32	1	
Polarizer Holder	PH-30-ARS	1	60
Post Holder	BRS-12-60	1	60
Magnet Base	MB-CB-PB	1	55
Total			175

Iris Diaphragm Component | IFC2-IR



Catalog Code **W1017**

Used for clipping a beam into a circle, or cutting out unnecessary light to obtain only necessary light. It is convenient to use the iris diaphragm component as the reference for alignment.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Iris Diaphragm	IH-30	1	54.5
Post Holder	BRS-12-60	1	60
Magnet Base	MB-CB-PB	1	55
Total			169.5

Slit Component | SRS-SL



Catalog Code **W1018**

A slit positioned at the focus spot of light transmitted through a sample in Schlieren. Contrast of projected images changes by fine adjustment of slit position or width.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Adjustable Slit	PSL-0	1	55
Post Holder	BRS-12-60	1	60
Magnet Base	MB-CB-PB	1	55
Total			170

Adjustment Lens Component | IFC2-AL



Catalog Code **W1019**

Used when correctly overlapping two beams in parallel during interference fringe adjustment. After superimposing the spots, remove it from the optical path. Focal length: 300mm

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Plano Convex Lens	SLB-30-300PM	1	
Lens Holder	LHF-30	1	55
Post Holder	BRS-12-60	1	60
Magnet Base	MB-CB-PB	1	55
Total			170

White Light Source Component | SRS-WL



Catalog Code **W1020**

White light source used as the light source of Schlieren. It will not heat the optical system because light is transmitted by the light guide.

Product Name	Part Number	Quantity	Optical Axis Height [mm]
Halogen Light Source	SHLA-150	1	
Light Guide	MSL-1000S-10	1	
Adjustable Round Lens Holder	LHA-25	1	
Cross Clamps	CCHN-12-12	1	14
Post	PO-12-150	1	102
Magnet Base	MB-CB-PB	1	55
Total			171



Steel Honeycomb Optical Table | OSDVIO-R-1209M100t(800H)

Catalog Code **W6502**



Interferometers are highly sensitive and always require vibration isolator benches to eliminate floor vibrations. Table face: 1,200×900mm, Height: 800mm
Magnetic stainless steel plate
M6 tapped holes 25×25mm matrix

▶ [WEB Reference](#) [Catalog Code](#) W6008

Darkroom Kits | DRU-2017

Catalog Code **W6016**



When observing interference fringes projected on a screen or Schlieren projection images, the room needs to be dark. In such cases, having a darkroom is convenient. Covering an experiment area is also very effective as a laser safety control.

Size: (W)2,000 × (D)1,700 × (H)2,000mm

▶ [WEB Reference](#) [Catalog Code](#) W6016

Special Order

Catalog Code **W1021**

In addition to the optical units introduced so far, we will produce custom-made optical units according to your request. We will flexibly support your request from a holder to fit your sample to a packaged optical instrument. We will also review the configurations of products in our catalog to suit your experiment.

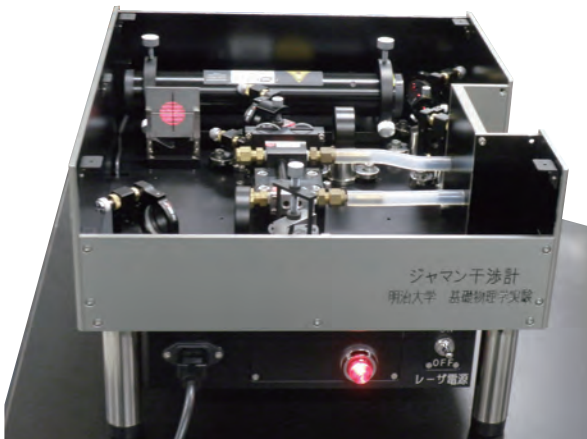


Photo credit: Meiji University, Theoretical Physics Experiment

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