



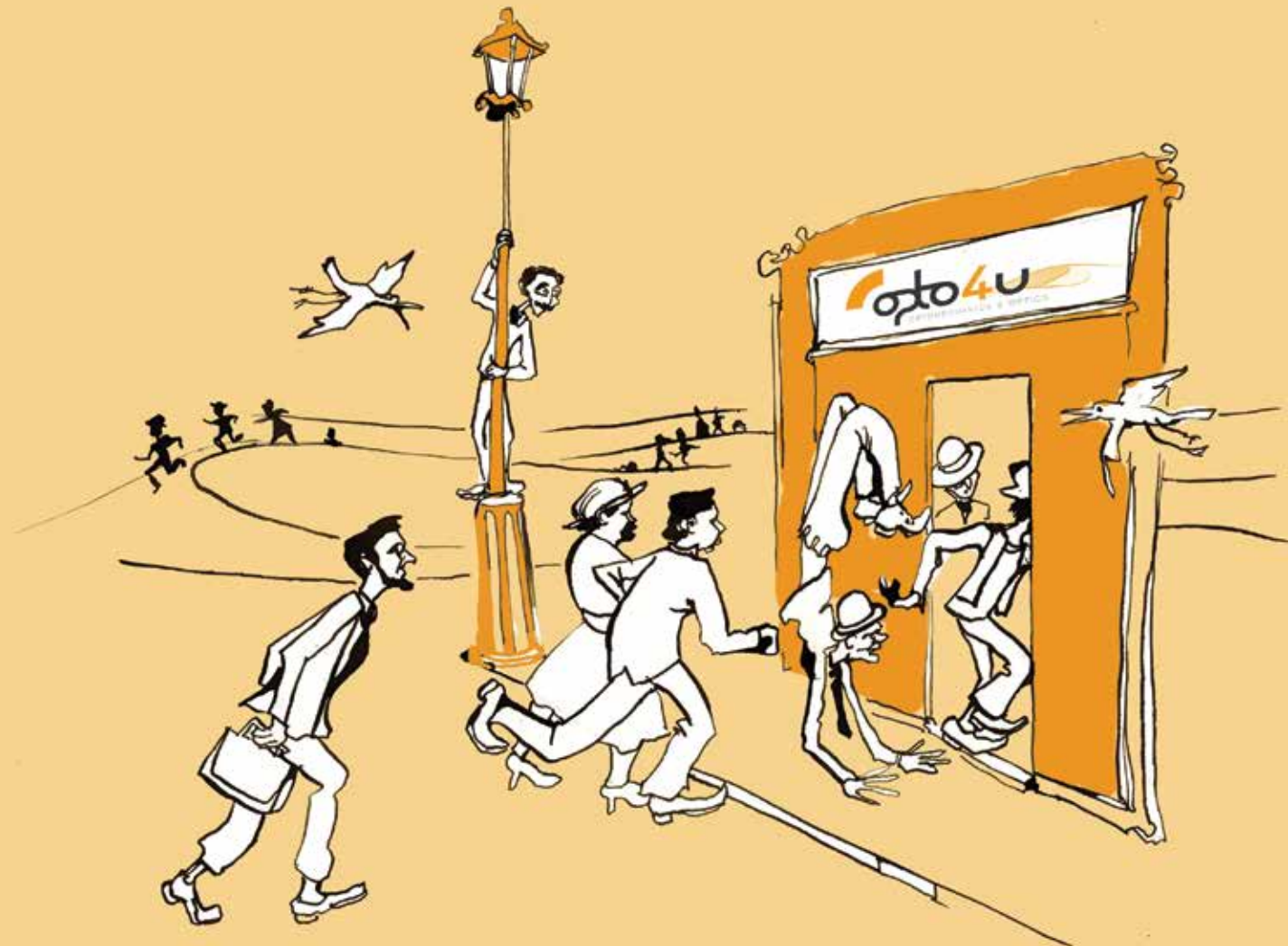
opto4u

OPTOMECHANICS & OPTICS for Science & Industry

EDITION # 2



www.opto4u.com



**We have
30 years of
experience in
optics and lasers.**

For further information,
please contact us :

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Tel. : [+33 \(0\)1 41 90 61 80](tel:+332141906180)

We service and supply the most demanding applications required by complex industrial and scientific projects. Opto4u is composed of many talented individuals specializing in optics design, engineering and manufacturing, laser prototyping, mechanical conception, system positioning, quality measuring instruments and more.

A competitive edge is acquired through the choice of components that are appropriate and of the right quality. In order to give our customers that advantage and answer their immediate needs, we have carefully selected a range of quality optical and mechanical products. We also offer broad manufacturing capabilities.

PRODUCTS **P. 4 to 38**

optoMECHANICS

P. 4 to 22

At Opto4u, we specialize in producing photonics tools. We believe we can earn your business through our superior pricing and service. Optomechanics is a category that includes optical tables and breadboards, optical mounts and mechanical devices fully compatible with our range of optics. We offer a large variety of in stock optical lab equipment.

Adjustable optical mounts p. 4 to 9
Fixed optical mounts p. 10
Posts and bases p. 11 to 18
Translation stages p. 18 to 19
Optical Tables & Breadboards p. 19 to 22

ACCESSORIES

P. 24 to 27

Safety is essential when working with lasers due to the risk of laser damage. We offer a range laser glasses. Cleaning optics, both in laboratories and industrial environments, would ensure the best use of optics, especially when laser light is involved.

optICS

P. 28 to 38

Welcome to optical components, a subset of our entire line of photonics products. We introduce a new range of Ultrafast mirrors, the leading edge of technology for extreme light applications.

Mirrors p. 28 to 33
Lenses p. 34 to 38

SHIPMENTS & RETURNS **P. 23**

GENERAL TERMS AND CONDITIONS **P. 39**

Mounts :

An **Optical Mirror Mount** is a device used in optics research that securely holds a mirror in place while allowing for precision tip and tilt adjustment. Due to the sensitive nature of optics research, optical mirror mounts are typically mounted to an optical table to provide a high level of vibration isolation. Mirror mounts can be adjusted by hand with an adjustment screw.



Kinematic Open Mirror Mounts with 2 adjusters



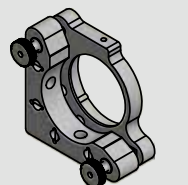
MO205



MO210



MO220

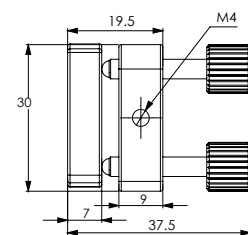


1 | Adjustable Optical Mounts

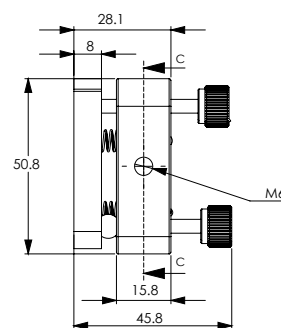
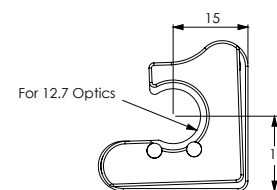
Adjustable or Kinematic Mounts are used to provide alignment or positioning capability to optical systems. Adjustable or Kinematic Mounts are optical mounts that have been designed to feature a range of translation options.

Overview

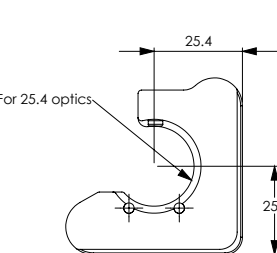
- Adjustable axis : (θ_x , θ_y)
- Travel range : $\pm 4^\circ$
- 3 strong springs preload for higher stability
- Teflon tipped setscrew to fix mirror
- Can be mounted directly on post or platform with M4 or M6
- Opening frame design which allows broader angle for beam to go through
- Material : Aluminium, black anodized
- 100 pitch screws



Dimensions of MO205



Dimensions of MO210



PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	DRIVE	WEIGHT	
MO205	12.5-12.7 mm	3-8 mm	100p Thumbscrews	31 g	34 €
MO210	25-25.4 mm	3-10 mm	100p Thumbscrews	70 g	34 €
MO220	50-50.8 mm	4-13 mm	100p Thumbscrews	150 g	70 €

Kinematic Mirror Mount with 2 adjusters



MM210 + FM1



MM220 + MA10



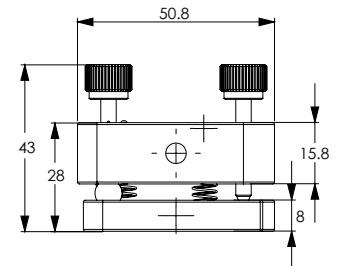
MM215

Overview

- Adjustable Axis : (θ_x , θ_y)
- Travel Range : $\pm 4^\circ$
- 3 - 4 strong springs preload for higher stability
- Teflon Tipped Setscrew to fix mirror
- Can be mounted directly on post or platform with M4 or M6
- Best selling design
- Material : Aluminium, black anodized
- 100 pitch screws



Dimensions of MM220



Dimensions of MM210

PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	DRIVE	WEIGHT	
MM210	25-25.4 mm	3-10 mm	100p Thumbscrews	104 g	34 €
MM215	38.1 mm	4-13 mm	100p Thumbscrews	105 g	66 €
MM220	50-50.8 mm	4-13 mm	100p Thumbscrews	155 g	66 €



MA05

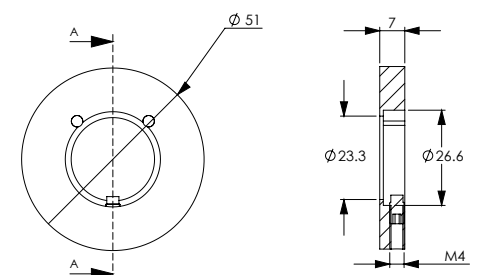


MA10

Mirror Adapter for Kinematic mirror mounts

Overview

- Aluminium, black anodized
- Exist in other diameters



Dimensions of MA10

Coupe A-A

PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	
MA05	12.5-12.7 mm	1-6 mm	17 €
MA10	25-25.4 mm	1-10 mm	17 €

Kinematic Mirror Mount with 3 adjusters

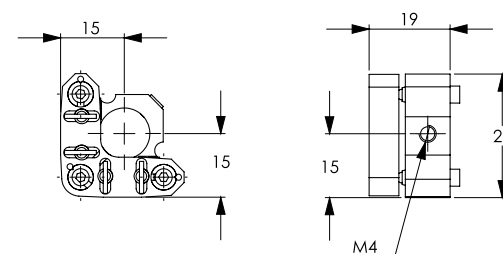


MM320

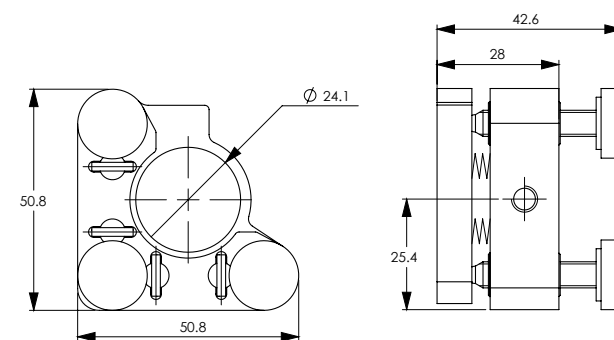
MM305

Overview

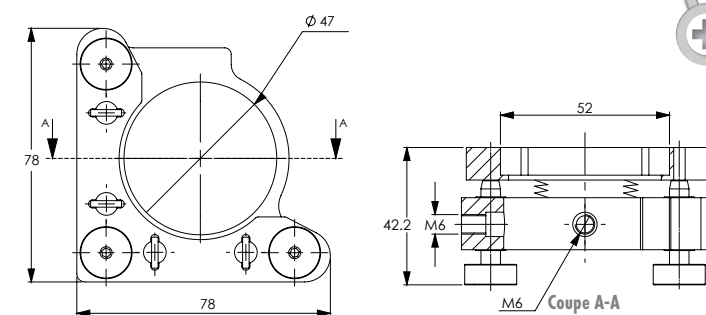
- 3 Adjustable Axis
- Travel Range : $\pm 4^\circ$
- 4 strong springs preload for ultra stability
- Teflon Tipped Setscrew to fix mirror
- Material : Aluminium, black anodized
- 100 pitch screws



Dimensions of MM305 (Kinematic Mirror Mount - 3 adjusters - 12.7 mm)



Dimensions of MM310 (Kinematic Mirror Mount - 3 adjusters - 25.4 mm)



Dimensions of MM320 (Kinematic Mirror Mount - 3 adjusters - 50.8 mm)

Contact us :

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PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	DRIVE	THREAD	
MM305	12.5-12.7 mm	3-8 mm	100p Adjustment Screws	M4	60 €
MM310	25-25.4 mm	3-10 mm	100p Thumbscrews	M6/ Clear M4	70 €
MM320	50-50.8 mm	4-13 mm	100p Thumbscrews	M6/ Clear M4	110 €

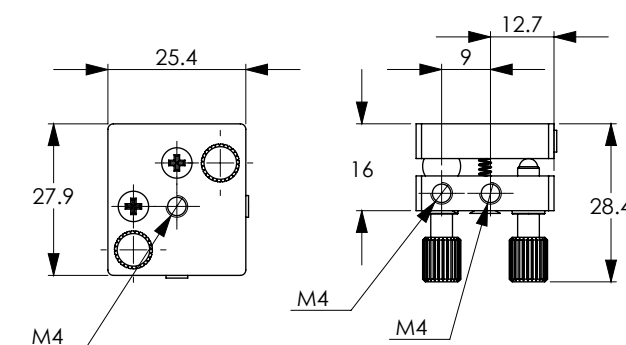
Kinematic Compact Mirror Mount with 2 adjusters



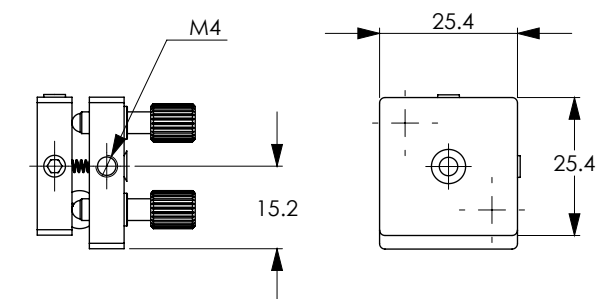
MMC10

Overview

- Adjustable Axis : (θ_x , θ_y)
- Travel Range : $\pm 4^\circ$
- Can be mounted directly on post or platform with M4
- Can be used as prism mount
- Can hold mirror or prism glued on front
- Material : Aluminium, black anodized
- 100 pitch screws



Dimensions of MMC10 (Compact Mirror Mount - 2 adjusters - 25.4 mm)



PART NUMBER	OPTICS MAX SIZE	OPTICS THICKNESS	DRIVE	WEIGHT	
MMC10	25.4x25.4 mm	1-10 mm	100p Thumbscrews	29 g	30 €



MCA05



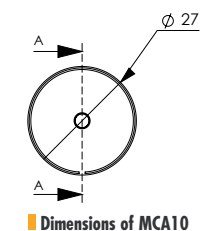
MCA10a

Mirror Adapter for Compact mirror mounts

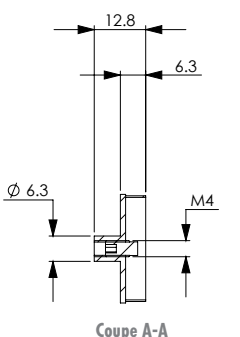
Overview

- Hold mirror with spring metal hollow cylinder
- To screw on compact mirror mount
- Easy mirror remove
- Aluminium, black anodized
- Exist in other diameters

PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	
MCA05	12.5-12.7 mm	1-6 mm	10 €
MCA10a	25-25.4 mm	1-5 mm	10 €
MCA10	25-25.4 mm	3-10 mm	10 €



Dimensions of MCA10



Kinematic Lens & mirror Mount with 4 adjusters



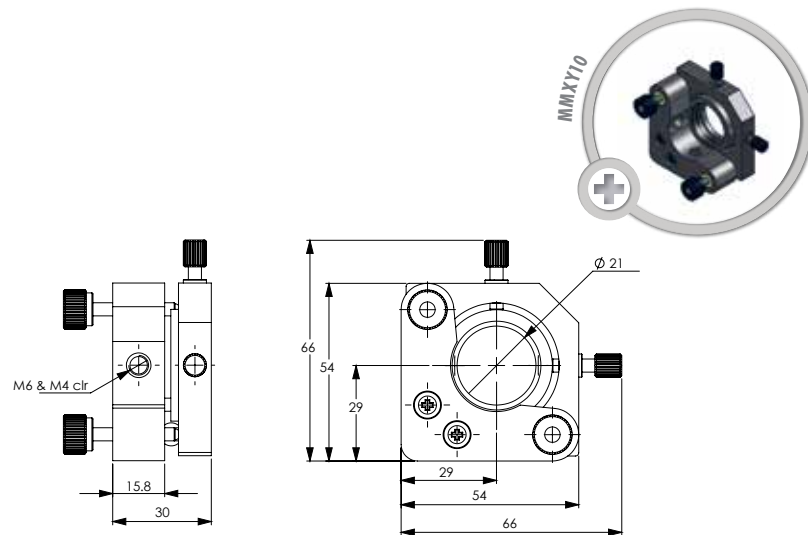
MMXY10

MMXY20

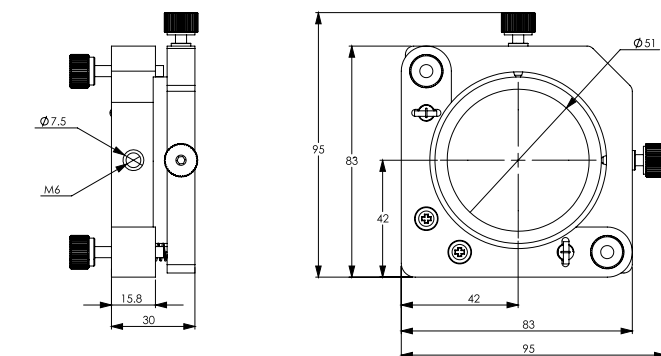
More info :
www.opto4u.com

Overview

- Adjustable Axis : (Y, Z, Θ_x , Θ_y)
- Travel Range (Θ_x , Θ_y) : $\pm 4^\circ$
- Travel Range (Y, Z) : ± 2 mm
- Threaded ring optics mounting
- Can be mounted directly on post or platform with M4 or M6
- Material : Aluminium, black anodized
- 100 pitch screws
- Exist in other diameters (0.5", 1.5")



Dimensions of MMXY10



Dimensions of MMXY20

PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	DRIVE TYPE	WEIGHT	
MMXY10	25-25.4 mm	1-6 mm	100p Thumbscrews	148g	120 €
MMXY20	50 - 50.8 mm	1-10 mm	100p Thumbscrews	253g	190 €

Flip Mount



Mirror Mount on top of FM1 Flip Mount

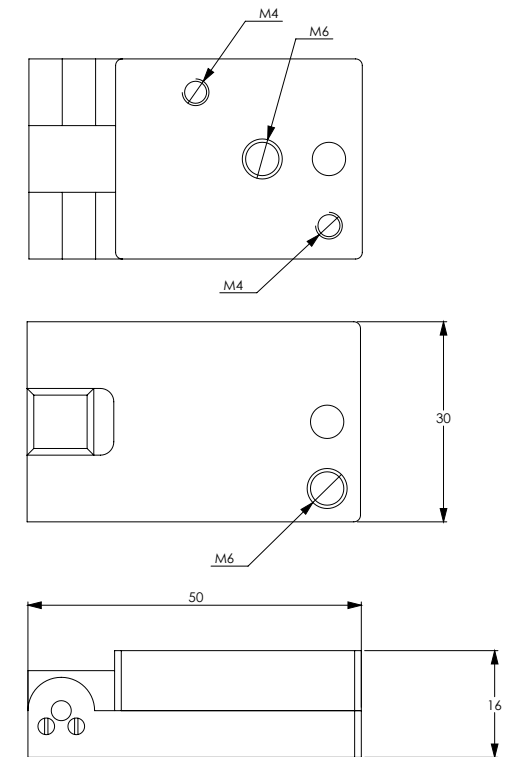
PART NUMBER	SIZE	
FM1	30x50x16	60 €

Overview

- Highly Repeatable IN/OUT function
- Kinematic design ensures repeatability
- Allows beam path to be diverted
- Allows different flips application
- Gimbal adjusting for great stability
- Material : Aluminium, black anodized
- Can be mounted directly on post or platform with M6



FM1



Dimensions of FM1 (Aluminium - 57gr)

Rotary Mount

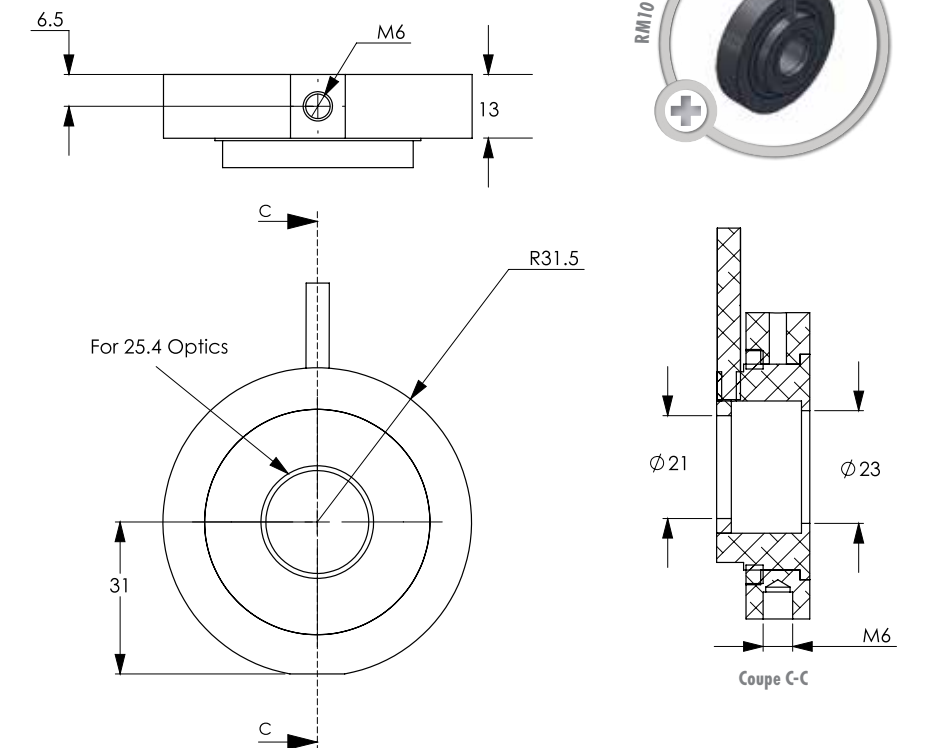


RM10

Overview

- Travel range : 360°
- Graduated to double degrees
- Readings by vernier direct to 2 minutes
- Retaining ring
- Can be mounted directly on post or platform with M6
- Material : Aluminium, black anodized
- Exist in other diameters
- Exist as kinematic rotary mount with 3 axis adjusters

Dimensions of RM10



PART NUMBER	OPTICS DIAMETER	OPTICS THICKNESS	WEIGHT	
RM10	25-25.4 mm	1-14 mm	110g	70 €



3
ITEMS

Lens Mounts



LH 10 with Posts and Post Clamp



LH 05



LH 10



LH 20

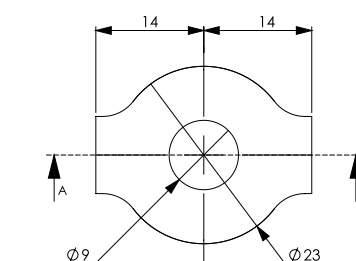
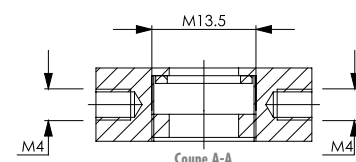


2 | Fixed optical mounts

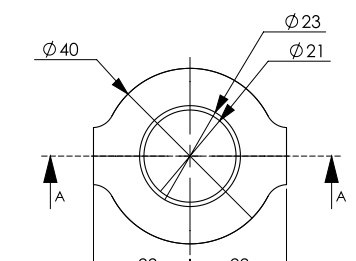
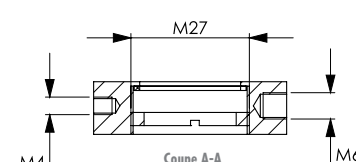
Fixed Mounts ideal for providing stationary mounting for any optics.

Overview

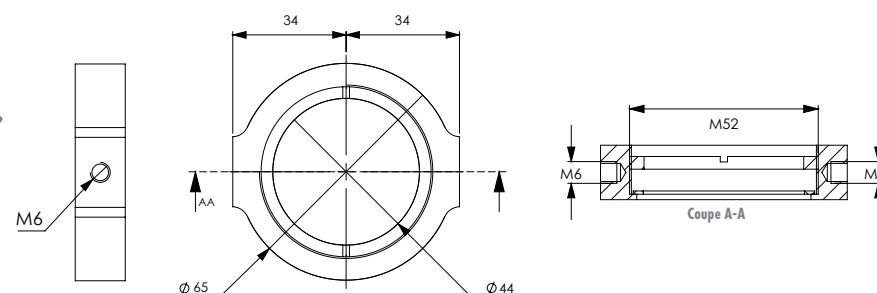
- Teflon ring with threaded cap ring to fit various thickness
- Can be mounted directly on post or platform with M4 or M6
- Material : Aluminium, black anodized
- Exist in other diameters



Dimensions of LH05 (Lens Holder - 12.7 mm)



Dimensions of LH10 (Lens Holder - 25.4 mm)



Dimensions of LH20 (Lens Holder - 50.8 mm)

PART NUMBER	OPTICS DIAMETER	OPTICS EDGE THICKNESS	WEIGHT	
LH05	12.5-12.7 mm	1-6 mm	11 g	14 €
LH10	25-25.4 mm	1-8 mm	26 g	14 €
LH20	50-50.8 mm	1-10 mm	60 g	20 €

POSTS AND BASES :



16
ITEMS

Stainless Steel Post



8
ITEMS

Stainless Steel Post, Ø 12.7mm

Overview

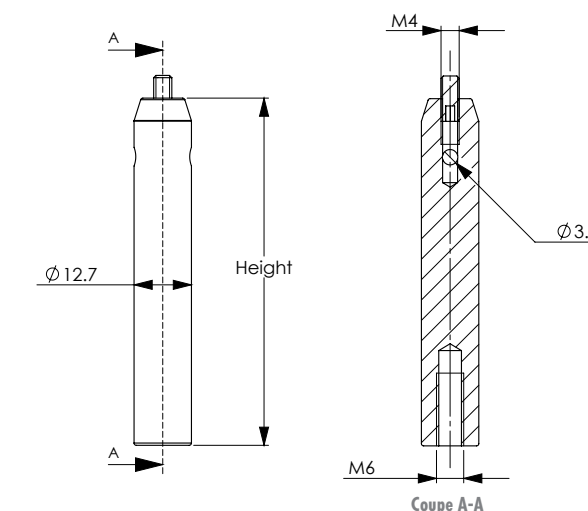
- Tapped M4 at post top
- Tapped M6 at bottom
- Supplied M4 top setscrew
- Material : Stainless Steel



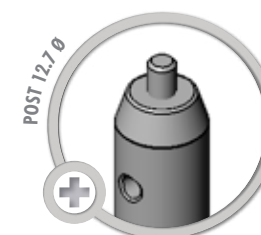
P020



P200



Dimensions of Post 12.7 Ø



Stainless Steel Post, Ø 12.7mm				
PART NUMBER	DIAMETER	LENGTH	WEIGHT	
P020	12.7 mm	20 mm	18g	4 €
P030	12.7 mm	30 mm	27g	4 €
P040	12.7 mm	40 mm	38g	4 €
P050	12.7 mm	50 mm	47g	5 €
P075	12.7 mm	75 mm	66g	5 €
P100	12.7 mm	100 mm	99g	5 €
P150	12.7 mm	150 mm	150g	6 €
P200	12.7 mm	200 mm	204g	7 €



PL050

PL300

Stainless Steel Post, Ø 20mm

6 ITEMS

Overview

- Tapped M4 at post top
- Tapped M6 at bottom
- Supplied M4 top setscrew
- Material : Stainless Steel

Stainless Steel Post, Ø 20mm

PART NUMBER	DIAMETER	LENGTH	WEIGHT	
PL050	20 mm	50 mm	119g	16 €
PL075	20 mm	75 mm	182g	17 €
PL100	20 mm	100 mm	242g	19 €
PL150	20 mm	150 mm	372g	23 €
PL200	20 mm	200 mm	500g	30 €
PL300	20 mm	300 mm	740g	40 €

More info :

www.opto4u.com



P4550

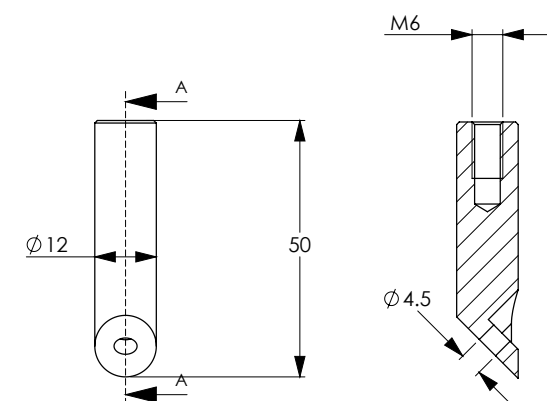
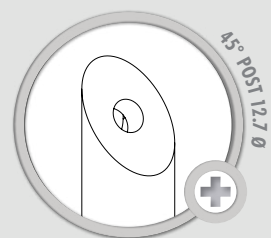
PL4510

Stainless Steel Post, 45° cut design

2 ITEMS

Overview

- 45° cut design
- Cleared M4 at post top
- Tapped M6 at bottom
- Material : Stainless Steel



Dimensions of Post 45° cut design, 12.7 Ø

Stainless Steel 45° Post

PART NUMBER	DIAMETER	LENGTH	WEIGHT	
P4550	12.7 mm	50 mm	37g	17 €
PL4510	20 mm	100 mm	211g	25 €

12.7 Post Holder

6 ITEMS



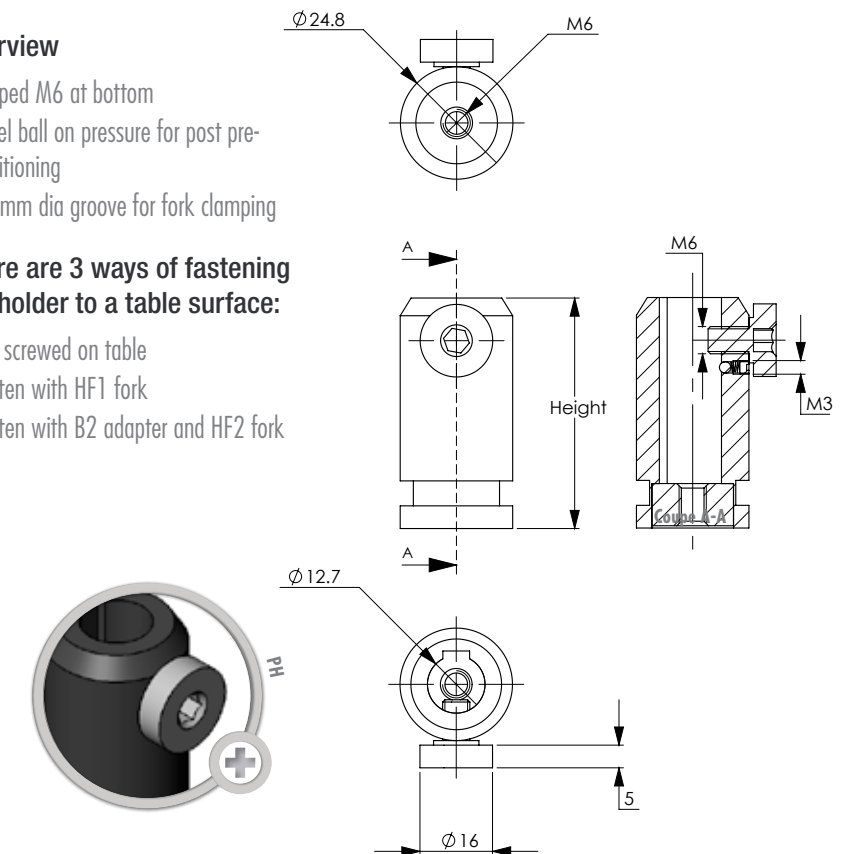
PH Post clamped with HF1 Fork

Overview

- Tapped M6 at bottom
- Steel ball on pressure for post pre-positioning
- 20 mm dia groove for fork clamping

There are 3 ways of fastening the holder to a table surface:

- M6 screwed on table
- Fasten with HF1 fork
- Fasten with B2 adapter and HF2 fork



PART NUMBER	POST DIAMETER	HEIGHT	WEIGHT	
PH1	12.7 mm	25.4 mm	40 g	15 €
PH1.5	12.7 mm	38 mm	54 g	15 €
PH2	12.7 mm	50.8 mm	66 g	15 €
PH3	12.7 mm	76.2 mm	90 g	16 €
PH4	12.7 mm	101.6 mm	113 g	16 €
PH6	12.7 mm	152.4 mm	150 g	18 €

Holding Fork & Post Adapter



HF1 with B1 and Post

The forks and the adaptaters give you extra degree of freedom positioning any existing post or holder on a table surface

- HF1 to hold PH post holders
- HF1 to hold 12.7 or 20mm post with B1 adapter
- HF2 to hold 25.4mm post with B2 adapter
- HF2 to hold PH post with B2 adapter

Post Clamp

3 ITEMS



PC55



PCA55



PC52

Screws

3 ITEMS



SK1



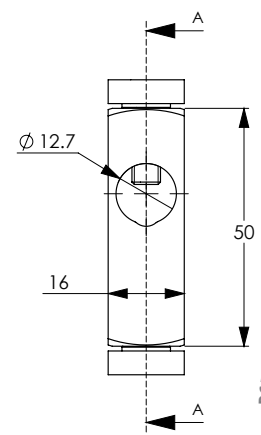
A4M6M



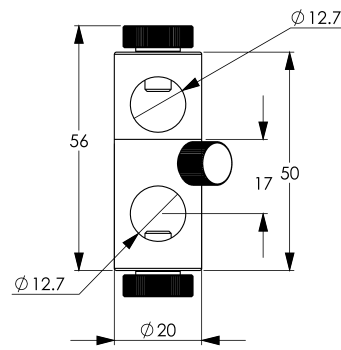
A4F6M

Overview

- Aluminium, black anodized



Dimensions of PC55



Dimensions of PCA55

PART NUMBER	POST DIAMETERS	POST ANGLE	
PC55	12.7/12.7	90°	9 €
PCA55	12.7/12.7	Adjustable 0-360°	20 €
PC52	12.7/20	90°	14 €

Overview

- Material : Stainless steel
- Full compatibility with all Optomechanics range



PART NUMBER	DESCRIPTION	POST ANGLE	
SK1	Screw kit	240 x M4&M6 Set screws/Cap screws Hex wrenches Stainless steel	70 €
A4M6M	Screw adapter	Male M4/Male M6	2 €
A4F6M	Screw adapter	Female M4/Male M6	3 €

XYZ Assembly



TS25 mounted on BR1 bracket



TS25

More info :

- We supply other sizes 25x25 up to 180X80 mm
- We supply other stages from 3 mm to 100 mm travel
- We supply same design stainless steel stages



TS25P

PART NUMBER	
TS25P	30 €

TRANSLATION STAGES :

A **linear stage** or **translation stage** is a component of a motion system used to restrict an object to a single axis of motion.

25 mm travel range Linear Stage

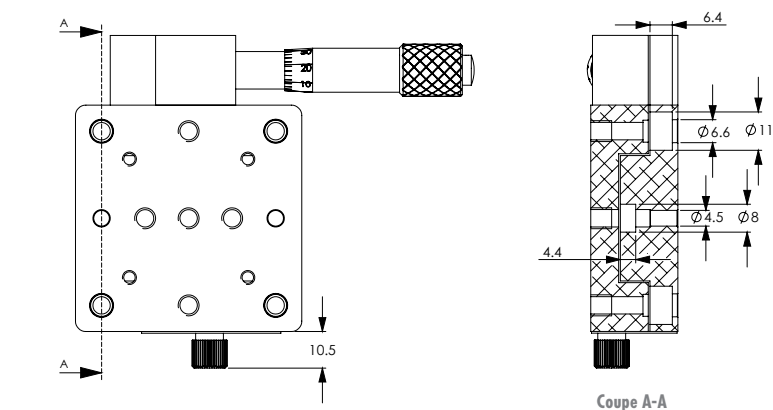
2 ITEMS

TS25

- Aluminium, black anodized
- 65X65 mm stage
- Load capacity 15kg
- Crossed-roller bearing
- 25 mm travel
- Side position micrometer drive
- Readable 0.01 mm
- 5 microns repeatability
- Full M6 compatibility
- Stack XY
- Stack XYZ with extra bracket

TS25XYZ

- Aluminium, black anodized
- Made with 3 x TS25 stages
- Crossed-roller bearing
- 25 mm travel in 3 directions
- Side position micrometer drive
- Readable 0.01 mm
- 5 microns repeatability
- Full M6 compatibility



Coupe A-A

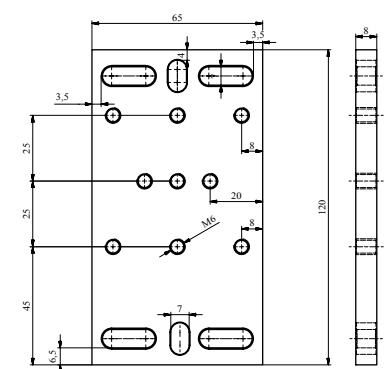
PART NUMBER	TRAVEL	RESOLUTION	STRAIGHTNESS TRAVEL	WEIGHT	
TS25	25 mm	0.01 mm	0.025 mm	323 g	180 €
TS25XYZ	25 mm	0.01 mm	0.025 mm	1.370 g	630 €

Base Plate for stage

1 ITEM

Overview

- Adapter plate designed for the TS25
- Base plate that enable obstruction-free mounting
- Ideal for XY or XYZ multi-axis configurations
- Aluminium, black anodized
- This TS25P plate is for convenience only



Dimensions of TS25P

Products in stock and delivered within 24 hours



BR1	
PART NUMBER	
BR1	60 €

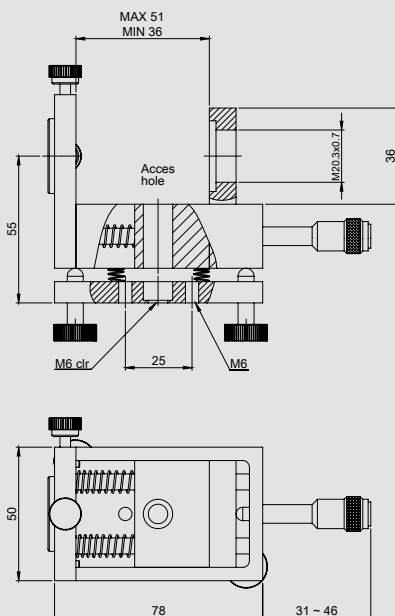
Contact us :

@ sales@opto4u.com
+33 (0)1 41 90 61 80



SF1K	
PART NUMBER	
SF1K	475 €

Unit price

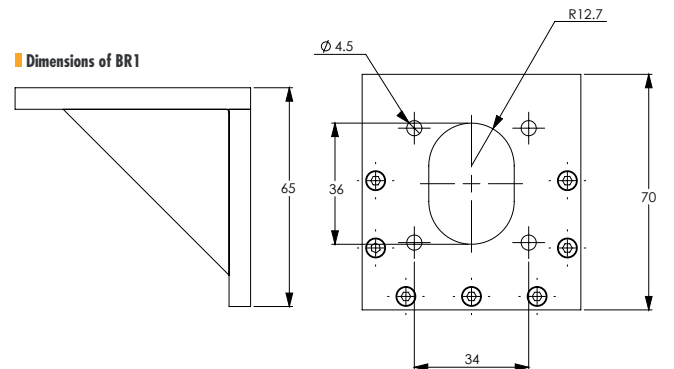


90° Bracket

Overview

- For assembling 3 axis XYZ stages
- Aluminium, black anodized

Dimensions of BR1



Spatial filtering

Spatial filtering is used to «clean up» the output of lasers, removing aberrations in the beam.

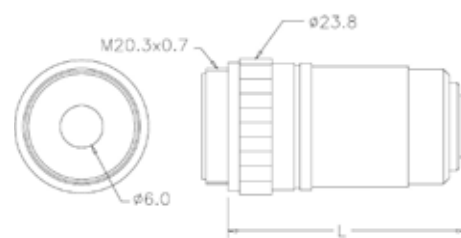
This modular assembly holds an interchangeable focusing optic and mounted pinhole.

The spatial filter assembly, made of black anodized aluminium provides easy and precise positioning of the pinhole at the center of the focused beam, with 5 mm adjustment in the X&Y axes, precise focusing of a laser beam onto the pinhole plane for maximum transmission.

Spatial filtering would cut the higher frequencies in the Fourier spot to clean the beam. As an easy rule, the pinhole diameter should be twice the diffraction at focus.

- Compatible with X4 to X60 microscope objectives
- Base unit provides 2-axis tiling adjustment, 0.3 mrad resolution
- Pinhole: ± 3 mm in X & Y Axis
- Objective carrier 19mm in Z-Axis, resolution 3 microns

Microscope objective x10 - P/N; **MO10X**



Visible microscope objective

		WORKING DISTANCE	FOCAL LENGHT	L	PART
Power	NA	(mm)	(mm)	(mm)	Number
10 x	0.25	6.3	16.3	38	MO10X

Pinhole 30 microns (9.5 mm dia) P/N ; 1-30

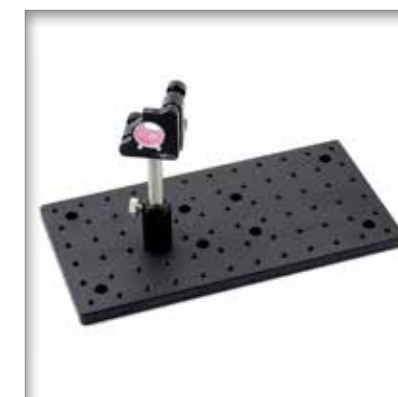
We offer x 10 microscope objective with 30 microns pinhole and the spatial filter as a kit - P/N; **SF1K**.

This will provide spatial filtering for any 1mrad divergence visible laser.

OPTICAL TABLES & BREADBOARDS :



An **optical table** is a platform that is used to support optics experiments and engineering. Optical tables are typically often use to act as a low-pass filter to vibrations. When securing optical components in research, manufacturing and field environments, optical tables and optical breadboards are the critical components. Typically tables and breadboards provide a rigid platform tapped with M6 tapped holes on 25 mm spacing. The first decision that must be made when purchasing an optical breadboard or table is what kind of rigidity/isolation from vibration is needed. In many cases, the incredibly versatile solid aluminium optical breadboard will do the job. In other cases a larger, more rigid structure of a honeycomb optical table or breadboard is needed. Opto4u offers both.



SAB46

SAB22

Overview

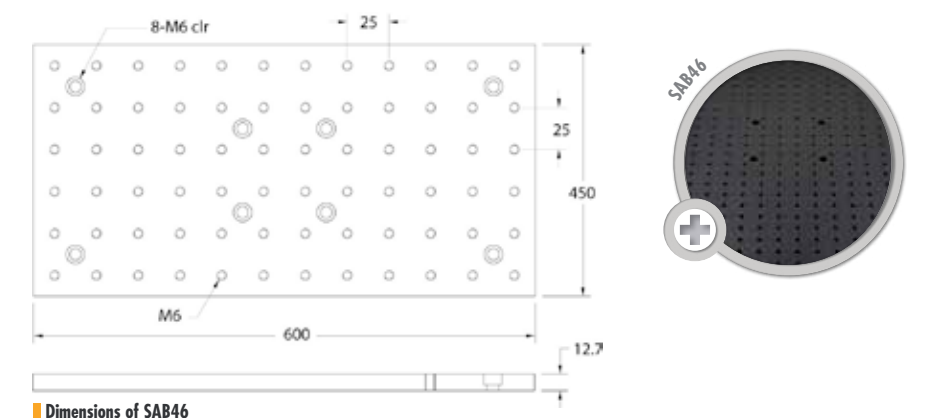
- M6 treaded on 25 mm centers
- Flatness < 0.1 mm
- Material : Aluminium, black anodized

1 | Solid Aluminium Breadboards

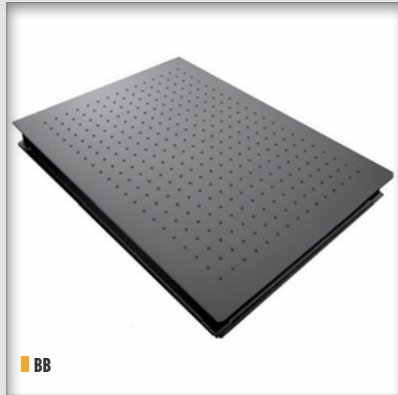
Convenient & light, the best choice for small set up

Opto4u offers a range of Black-Anodized, Solid Aluminium Optical Breadboards shipped from stock. Optical Breadboards provide the foundation upon which to mount optical components in the lab or OEM systems. Our Solid Aluminium Optical Breadboards are 1/2 inch thick and form the stable support structure upon which bases, posts, post holders, rails and numerous other optical components can be mounted. Our anodized Solid Aluminium Optical Breadboards have a matte black finish to minimize reflections from the optical work surface.

PART NUMBER	SIZE	THICKNESS	WEIGHT	
SAB22	200 x 200 mm	12.7 mm	1.5 kg	80 €
SAB34	300 x 450 mm	12.7 mm	4.5 kg	160 €
SAB46	450 x 600 mm	12.7 mm	9 kg	320 €



Dimensions of SAB46



BB

2 | Honeycomb Breadboards

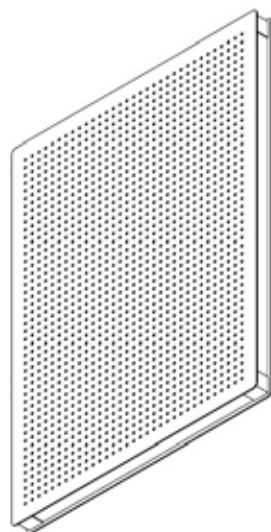
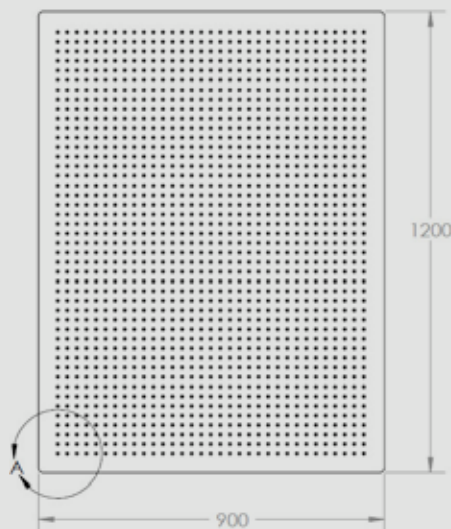


The honeycomb breadboard provides high rigidity and vibration dampening

Standard honeycomb breadboards have ferromagnetic steel skins which are 3mm thick and are sold with core thickness of 50 or 100 mm. The ferromagnetic steel skins are coated with a black anti-reflective polyurethane impervious to most chemicals. The coating absorbs more than 90% of light incident upon it and more than 95% of the energy in near perpendicular incidence and scatters grazing reflections to less than 5%.

The core of these breadboards is a high density honeycomb made of composite materials that eliminates resonances. The core is vertically bonded, waterproof and acid resistant. Further, the honeycomb weight is significantly less than steel core used by other manufactures making our honeycomb breadboards lighter while still maintaining high rigidity and vibration dampening.

Dimensions of BB534



Our breadboards are designed by optical researchers with experience in both academic and industrial laboratories. The design stresses functionality and performance at the best cost to the customer. Advanced materials and designs are used to provide increased vibration damping and decreased weights when compared to conventional breadboards and tables.

The skins, core and final coating are manufactured separately and then assembled into the final unit. Computer aided design stations are directly linked with computer controlled manufacturing centers to provide high dimensional accuracy.

Custom products and special designs can be quickly created saving you, our customer both money and lead-time.

PART NUMBER	WIDTH	LENGTH	THICKNESS	WEIGHT	COMPATIBLE FRAME	
BB523	600 mm	900 mm	57 mm	29 kg	FR23/FP23	900 €
BB524	600 mm	1200 mm	57 mm	39 kg	FR23/FP23	1 050 €
BB574	750 mm	1200 mm	57 mm	48 kg	FR23/FP23	1 250 €
BB533	900 mm	900 mm	57 mm	44 kg	FR23/FP23	1 150 €
BB534	900 mm	1200 mm	57 mm	58 kg	FR34/FP34	1 400 €
BB535	900 mm	1500 mm	57 mm	73 kg	FR34/FP34	1 600 €

Care, check cost of freight



FR34



3 | Breadboard & Table Frame

- Manually Levelling Feet to adjust Height 750 +/- 50 mm
- Accommodate Breadboard Sizes as Large as 1200 x 1800 mm
- Fully Welded All Steel Design

Stand designed to support optical breadboards & tables. It is constructed of 80mm square metal tubes, coated in dark grey anthracite polyurethane. It has a levelling foot under each leg.

Rigid Frames



Load Capacity ;1000 kg

You can adjust the height from 700 to 800 mm with both the levelling feet and pads

- Height Adjustment Range:
- Levelling Pads: ± 30 mm
- Levelling Feet: ± 30 mm
- Both pads and feet are made of metal & specific rubber that stop any vibration above 20Hz. Such isolation is sufficient in many applications
- Casters can be provided

PART NUMBER	WIDTH	LENGTH	HEIGHT	MATERIAL	
FR23	600 mm	900 mm	750 mm	Steel	900 €
FR34	900 mm	1200 mm	750 mm	Steel	950 €

Care, check cost of freight

More info :
www.opto4u.com



FP23



FP34

Passive Frames

Max Load Capacity ;300 kg

- The passive system is based on four independent, air-mounted, passive vibration isolators. The isolators can be inflated with any pump. With a vertical resonance frequency of 3 to 5 Hz, depending on the load, these isolators are an ideal solution for general photonic applications.
- Each isolator consists of a «BILZ» rubber air mount on top of a steel leg. The pressure of each can be adjusted through a standard valve. Max pressure is 3 bars.

The FP23 passive stand is designed for use with **breadboards** and **small optical tables**. It is recommended with our breadboards 600x900 / 600x1200 / 750x1200 / 900x900 mm. The FP34 would fit with larger breadboards and tables up to 1200x1800 mm.

PART NUMBER	WIDTH	LENGTH	HEIGHT	MATERIAL	
FP23	600 mm	900 mm	750 mm	Steel	1 300 €
FP34	900 mm	1200 mm	750 mm	Steel	1 350 €

Care, check cost of freight



- ▶ You can adjust the height from 720 to 780 mm with the rubber levelling feet
- Height Adjustment Range: v
- Levelling Feet: ±30 mm
- Casters can be provided

Contact us :

@ sales@opto4u.com
+33 (0)1 41 90 61 80



WH1

PART NUMBER	
WH1	100 €

Casters kit, set of 4

Casters for Frames

4 x 80 mm dia Polyurethane Wheels for moving the complete workstation with experiment on top.

The casters are installed on the frame if ordered together.

Shipments & returns



More info :

Cf page 39 General Terms and Conditions / Price & Delivery

Products in stock and delivered within 24 hours

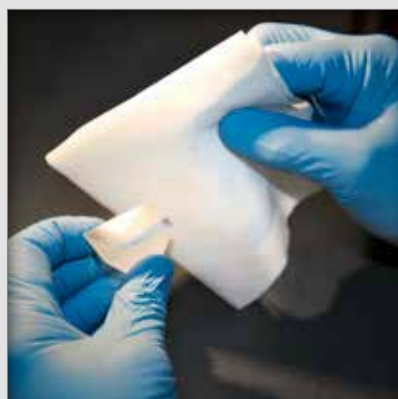


YOUR PACK SHIPMENT

Packages are dispatched within 1 day after receipt of the order and are shipped via TNT.

Boxes are amply sized and your items are well-protected. All shipments will be covered by OPTO4U's transport insurance. The Buyer shall report any transport damage immediately.

If Buyer believes that a stock product is defective or did not meet stated specifications, Buyer may return the product within 30 days of invoice date. Prior to return of the product, Buyer must obtain a Return Authorization Number. Buyer should then pack the product carefully and return it to OPTO4U, freight prepaid, together with an explanatory note and the Return Number. The returned product must be in the original package and free of any defect or damage caused by shipping.



Contact us :

@ sales@opto4u.com
+33 (0)1 41 90 61 80

ACCESSORIES :

Safety is essential when working with lasers due to the risk of laser damage. We offer a [range laser glasses](#).

[Cleaning optics](#), both in laboratories and industrial environments, would ensure the best use of optics, especially when laser light is involved.

Laser Optics Cleaning Kit



This cleaning kit was developed specifically for Laser Optics. Laser Optics typically may have thin-film coatings applied to their surfaces that can be scratched and damaged. Therefore, cleaning must be done properly with solvents containing Laboratory Grade Alcohol or Acetone with >99.9% purity and no water content.

This cleaning kit is suitable for any optics cleaning, both in laboratories and industrial environments. Now commonplace in industry, lasers routinely cut and burn plastics, wood, metals and other materials. These expensive optics need protection from the airborne industrial destructive splatter that they are often subjected to.

This kit contains the basic supplies which will enable you to maintain and clean your optics, from finger prints to fumes and back-splattered debris to minimize the absorption and excessive heat load, thus prolonging their lifetime.

We supply a 23x23 cm Cleanroom Polyester Knit Wiper Tissue excellent for optics wiping.



Laser Optics Cleaning Kit includes:

- Isopropyl Alcohol, reagent grade: 15ml glass bottle
- Acetone, reagent grade: 15ml glass bottle
- Lens Paper Booklet: 50 sheets
- Cotton-Tipped Swab Pack, lint-free: 24
- Finger Cot Pack, large, powder-free: 24
- Cleanroom Polyester Knit Wiper Tissue
- Optics Cleaning Instruction Booklet

PART NUMBER	
CK1	40 €

Unit price



VIEW



SPECTACLE



Laser Safety Eyewear

CE Models, EN207 approved

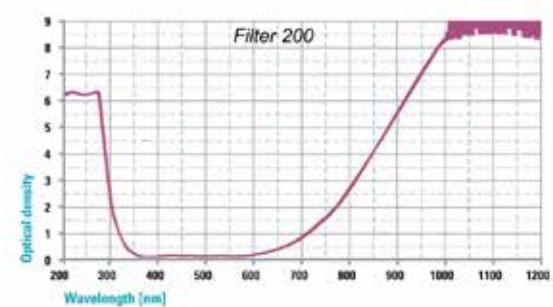
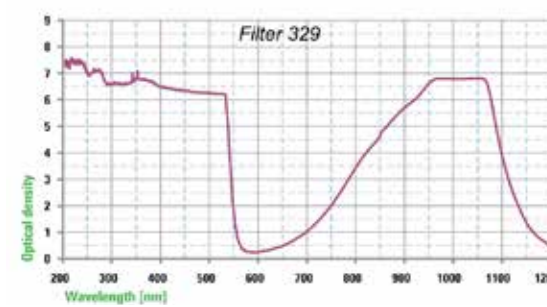
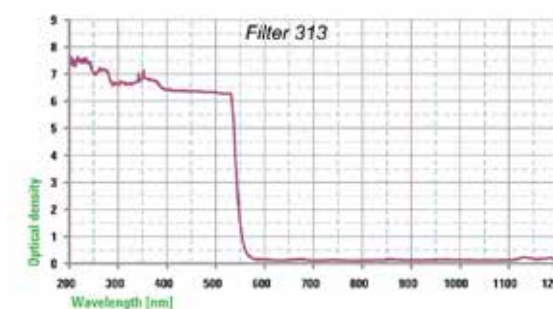
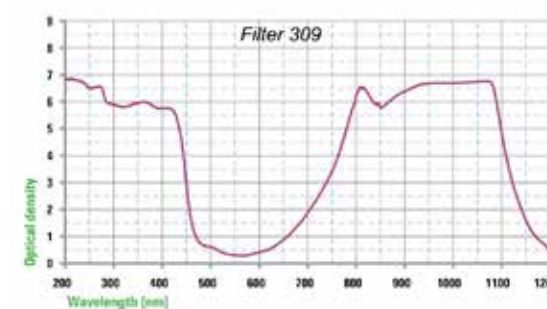
Working with Univet, a technology leader, we have selected a few absorbing filters in polycarbonate and glass. Those are the most popular customer choices at the common wavelengths.

Duration of test for filters and eye protectors against laser radiation ■ EN 207			
TESTING CONDITIONS FOR LASER TYPE	TYPICAL LASER TYPE	PULSE LENGTH (S)	NUMBER OF PULSES
D	continuous wave laser	5	1
I	pulsed laser	10^6 to 0,25	50
R	Q-Switched pulsed laser	10^{-4} to 10^{-6}	50
M	mode-locked pulsed laser	$<10^{-9}$	50

Power and energy density (E, H) for testing the protective effort and stability to laser radiation in the wavelength range ■ EN 207							
SCALE NUMBER	MAXIMUM SPECTRAL TRANSMITTANCE FOR LASER WAVELENGTH	180 NM TO 315 NM			>315 NM TO 1400 NM		
		D ($>3 \cdot 10^4$) E_D (W/m ²)	I, R (10^9 to $3 \cdot 10^4$) $H_{I/R}$ (J/m ²)	M ($<10^{-9}$) E_M (W/m ²)	D ($>5 \cdot 10^{-9}$) E_D (W/m ²)	I, R (10^{-9} to $5 \cdot 10^{-4}$) $H_{I/R}$ (J/m ²)	M ($<10^{-9}$) E_M (W/m ²)
LB3	10^{-3}	1	$3 \cdot 10^4$	$3 \cdot 10^{14}$	10^4	5	0,15
LB4	10^{-4}	10	$3 \cdot 10^5$	$3 \cdot 10^{15}$	10^5	50	1,5
LB5	10^{-5}	10^2	$3 \cdot 10^6$	$3 \cdot 10^{16}$	10^6	$50 \cdot 10^2$	15
LB6	10^{-6}	10^3	$3 \cdot 10^7$	$3 \cdot 10^{17}$	10^7	$50 \cdot 10^3$	$1,5 \cdot 10^2$
LB7	10^{-7}	10^4	$3 \cdot 10^8$	$3 \cdot 10^{18}$	10^8	$50 \cdot 10^4$	$1,5 \cdot 10^3$
LB8	10^{-8}	10^5	$3 \cdot 10^9$	$3 \cdot 10^{19}$	10^9	$50 \cdot 10^5$	$1,5 \cdot 10^4$

The thorough ergonomic study of frames is combined with extreme care about design for a fresh conception of comfort and style.

We offered 2 different mounts, both with ergonomic adjustable wraparound temples that fit perfectly on the user face.



MATERIAL	VISIBLE T & COLOR	OPTICAL DENSITY (OD) EN207 PROTECTION LEVEL	ND-YAG (4X) 266NM	ND-YAG (3X) 355NM	ND-YAG (2X) 515-532NM	ND-YAG 1030-1080NM	FRAME MODEL	PART NUMBER	
Polycarbonate	42%	OD	5	7		7	View	GOV309	90 €
		D (CW)	LB5	LB5		LB6	Spectacle	GOS309	
		IR (pulsed)	LB3	LB5		LB6			
Polycarbonate	40%	OD	5	5	5		View	GOV313	90 €
		D (CW)	LB5	LB6	LB6		Spectacle	GOS313	
		IR (pulsed)	LB3	LB6	LB6				
Polycarbonate	25%	OD	6	7	7	7	View	GOV329	110 €
		D (CW)	LB6	LB6	LB6	LB6			
		IR (pulsed)	LB3	LB6	LB6	LB6	Spectacle	GOS329	
		M (femto)	-	LB7	LB7	LB7			
Glass	70%	OD	8			8	View	GOV200	215 €
		D (CW)	LB8			LB6	Spectacle	GOS200	
		IR (pulsed)	LB4			LB7			

Unit Price

Products in stock and delivered within 24 hours

MIRRORS :

Mirrors are a critical and commonly used component in many optical systems. We are manufacturing our mirrors with excellent surface figure, accurate surface quality and best coating specification.



We introduce a new range of Ultrafast mirrors, the leading edge of technology for extreme light applications.

We carry on stock 5 ranges of flat quality mirrors, including **Metal mirrors**, **Nd Yag mirrors**, **Ultrafast mirrors**, **Broadband dielectric** and **sputtered mirrors**.

This is the most popular mirror offering for experiment and industry applications. We answer to all other requests on demand.

Our high-Quality laser mirrors and broadband mirrors provide high level of reflectivity dedicated to most applications.



Overview

- Single stack dielectric coating
- E beam, ultra hard oxides
- Insoluble in solvents
- Lambda/10 flatness substrates
- S&D 20-10
- Inspection polish back surface
- 2 arc minutes parallel
- Very high damage threshold

1 | Nd-Yag Laser flat Mirrors

We have 30 years of experience on laser optics, we manufacture in Europe.

Our mirrors are the industry standard, performing to withstand laser damage threshold measured over 10GW/cm² at 1064 nm, tested at the Megajoule facility.

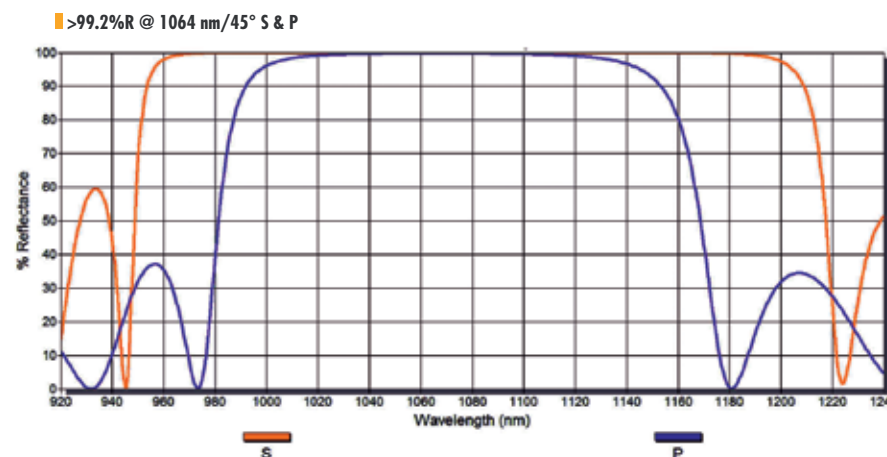
We manufacture high energy laser cavity mirrors, beam steering mirrors, output couplers, beamsplitters, dichroics, harmonic separators...

We give one year warranty on laser damage.

We achieve the highest specifications on the P polarisation at 45°, which is the most demanding polarisation.

Both S polarisation and S+P/2 polarisation are easier specifying due to larger coating bandwidth, therefore their reflectivities always exceed the P Reflectivity.

Nd-Yag Mirrors



More info :

Ask for Package of 10 Nd-Yag Mirrors; reference Y110/10 & Y210/10

PART NUMBER	WAVELENGTH RANGE	DIAMETER	THICKNESS	MATERIAL	INCIDENCE	MORE	
Y110	1053-1064 nm	25.4 mm	6.3	BK7	45°		90 €
Y110/10	1053-1064 nm	25.4 mm	6.3	BK7	45°	10p Pack	720 €
Y120	1053-1064 nm	50.8 mm	9.5	BK7	45°		130 €
Y210	527-532 nm	25.4 mm	6.3	BK7	45°		90 €
Y210/10	527-532 nm	25.4 mm	6.3	BK7	45°	10p Pack	720 €
Y220	527-532 nm	50.8 mm	9.5	BK7	45°		130 €
Y310	351-355 nm	25.4 mm	6.3	Fused Silica	45°		95 €
Y320	351-355 nm	50.8 mm	9.5	Fused Silica	45°		140 €
Y410	263-266 nm	25.4 mm	6.3	Fused Silica	45°		95 €
Y420	263-266 nm	50.8 mm	9.5	Fused Silica	45°		140 €

2 | Optics for Ultrafast Applications



Overview

- R >99% @750-850nm/45° S & P
- Material – Fused Silica
- Lambda/10 flatness substrates
- S&D 10-5
- Inspection polish back surface
- >0.45J/cm² LDT in 30fs and
- >4.5J/cm² LDT in 500ps

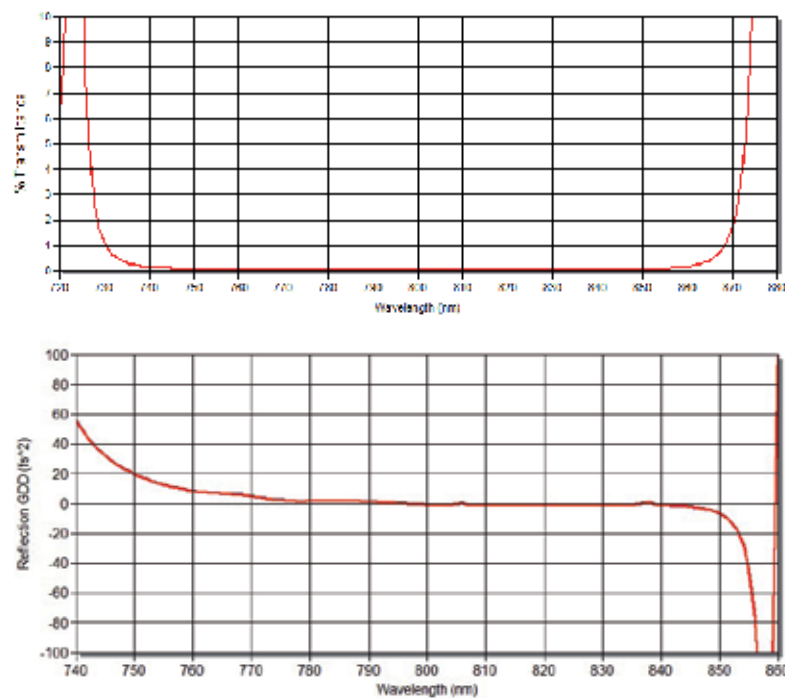
High Energy Ti:Sa Femtosecond Mirrors

OPTO4U is pleased to announce that a range of optics for ultrafast applications is now available from stock.

Manufactured on the Isle of Man by our partner MPO, the new mirrors cover 750-850nm under 45° incidence P-pol and 740-860nm under 0° as standard. The coating design takes into account the need to minimize the GVD (<25fs²) and is suitable to be applied to larger substrates without compromising vacuum compatibility.

The mirrors offer a superior Laser-induced damage threshold and are suitable to be used with both Gauss and Supergauss-shaped pulses. All our optics come with a measured spectral and GVD curve.

Performance shown under AOI of 45deg, p-POL



PART NUMBER	WAVELENGTH RANGE	DIAMETER	THICKNESS	MATERIAL	INCIDENCE	
UFM10-800-0	740-860 nm	25.4 mm	6.3	Fused Silica	0°	200 €
UFM10-800-45	750-850 nm	25.4 mm	6.3	Fused Silica	45°	200 €
UFM20-800-45	750-850 nm	50.8 mm	9.5	Fused Silica	45°	350 €



Overview

- Single stack dielectric coating
- R >99.5% @515nm/45°
- Insoluble in solvents
- Material – Fused Silica
- Lambda/10 flatness substrates
- S&D 10-5
- Inspection polish back surface
- 2 arc minutes parallel
- LDT > 100W average power



Overview

- Lambda/10 flatness substrate
- Fused Silica
- S&D 10-5
- Inspection polish back surface
- Multiple stack dielectric coating
- Ravg > 99% for S- and P- Polarization for Angles of Incidence from 0 to 45°

515 nm Femtosecond Fiber Laser flat Mirror

The 1030 nm Ytterbium-doped fiber laser oscillator converted at 515 nm is delivering femto pulses.

Opto4u Femtosecond Mirrors offer high reflectivity and have a controlled group delay dispersion (GDD) profile optimized for femto lasers (pulse > 50 fs).

The mirrors, based on single stack design, give best performance with last generations of ultrafast lasers for scientific and industrial applications.

PART NUMBER	WAVELENGTH RANGE	DIAMETER	THICKNESS	MATERIAL	INCIDENCE	
F510	510-525 nm	25.4 mm	6.3	Fused Silica	45°	90 €

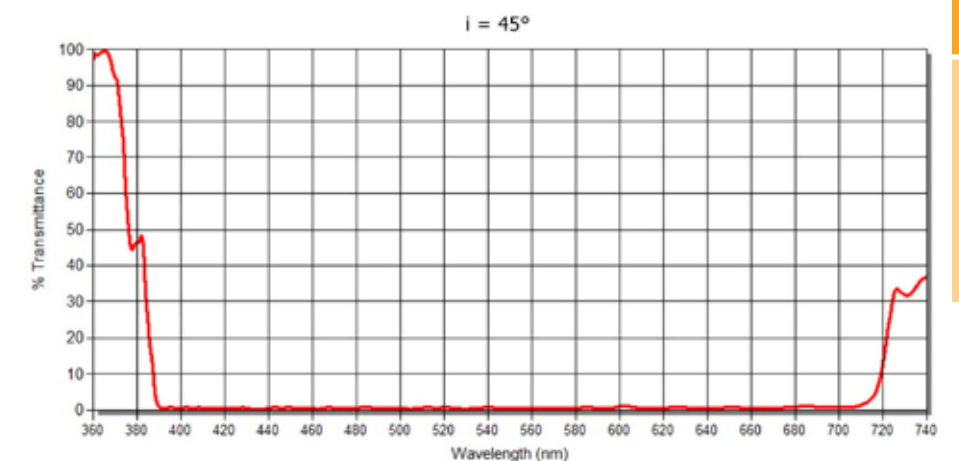
3 | Broadband Dielectric Mirrors

Dielectric are more durable, withstand higher power and have an higher reflectance than metal coated mirrors over a wavelength range.

In stock, we offer dielectric Mirrors that covers visible wavelengths at 0 to 45° incidence.

Broadband Mirrors

PART NUMBER	DIAMETER	THICKNESS	WAVELENGTH RANGE	
VIS10	25.4 mm	3.2 mm	400-700 nm	49 €





More info :
www.opto4u.com

4 | Ultra Wideband Sputtered Mirrors

The Semrock 350-1100 nm MaxMirror® Ultrabroadband Mirror covers an exceptionally broad range of wavelengths, designed to replace three or more conventional broadband & laser mirrors. Highly reflecting over near-UV, all visible, and near-IR wavelengths. MaxMirrors simultaneously reflect all states of polarization and all angles of incidence from 0-50° inclusive.

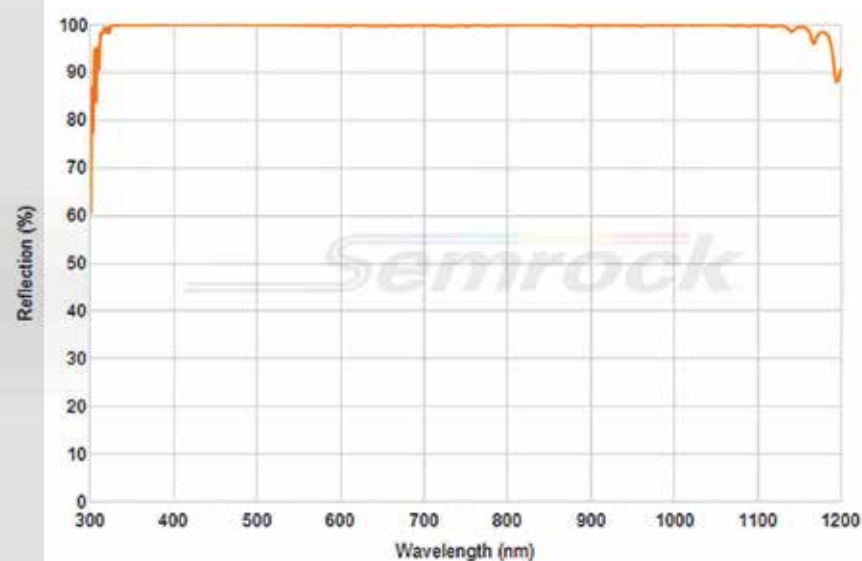
■ Ultra Wideband Mirrors

This is the best broadband mirror on the market

Overview

- Ion Beam Sputtering coating
- Ultra-broadband performance from 350 - 1100 nm
- Ravg > 99% for both S-pol and P-pol incident light
- Maintains performance from 0-50° AOI
- Lambda/10 flatness after coating
- S&D 10-5
- Inspection polish back surface
- LDT; 1 J/cm² @ 355 nm (10 ns pulse width),
2 J/cm² @ 532 nm (10 ns pulse width),
6 J/cm² @ 1064 nm (10 ns pulse width)
- Pulse Dispersion The MaxMirror will not introduce appreciable pulse broadening for most laser pulses that are > 1 picosecond. It is not recommended for femtosecond pulses.

■ Diagram of 350 - 1100 nm MaxMirror ultrabroadband mirror



PART NUMBER	WAVELENGTH	DIAMETER	THICKNESS	MATERIAL	INCIDENCE	
MAX05	350-1100 nm	12.7 mm	6	Fused Silica	0-50°	75 €
MAX10	350-1100 nm	25.4 mm	6	Fused Silica	0-50°	100 €

5 | Metal coated flat Mirrors

High-quality optical mirrors are available for use with light throughout the UV, VIS, and IR spectral regions.



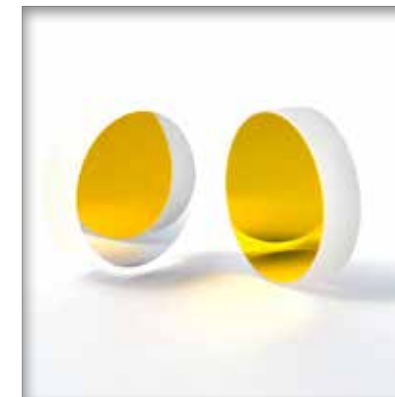
■ Metal coated flat Mirrors

► We offer 3 different metal coatings as stock items:

- Aluminium coating with silicon dioxide protected layer, silver protected coating and gold protected coating.
- Silver has higher reflectance than Aluminium but its range is limited down to 400 nm.

λ (nm)	250	300	350	400	500	600	700	800	1000	2000
Al R%	92	92.3	92.5	92.4	91.8	91	89.7	86.7	94	98
Ag R%	29	17.5	80	95.6	98	98.6	98.9	99.2	99.4	99.4
Au R%	33	38	36	39	47.7	92	97	98	98.6	99.1

■ Bare metals (Aluminium, silver, Gold) reflectance at 0°



Overview

- Material BK7
- 2 arc minutes parallel
- λ/10 Flatness specified over 90% aperture
- S&D 10-5
- Inspection polish back surface

PART NUMBER	METAL	WAVELENGTH	DIAMETER	THICKNESS	FLATNESS	S&D	MORE	
AL10	Aluminium	350-2000 nm	25.4 mm	6.3	λ/10	10-5		35 €
AL10/10	Aluminium	350-2000 nm	25.4 mm	6.3	λ/10	10-5	10p Pack	300 €
AL20	Aluminium	350-2000 nm	50.8 mm	9.5	λ/10	10-5		70 €
AG10	Silver	400-2000 nm	25.4 mm	6.3	λ/10	10-5		40 €
AG10/10	Silver	400-2000 nm	25.4 mm	6.3	λ/10	10-5	10p Pack	350 €
AG20	Silver	400-2000 nm	50.8 mm	9.5	λ/10	10-5		80 €
AU10	Gold	600-2000 nm	25.4 mm	6.3	λ/10	10-5		44 €
AU10/10	Gold	600-2000 nm	25.4 mm	6.3	λ/10	10-5	10p Pack	390 €

Products in stock and delivered within 24 hours

MOUNTS

POSTS AND
BASES

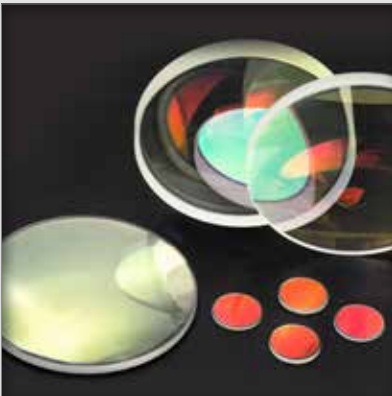
TRANSLATION
STAGES

OPTICAL TABLES
& BREADBOARDS

ACCESSORIES

MIRRORS

LENSES



More info :

We offer uncoated lenses, as well as visible 400-700 nm AR coated BK7 lenses and near infrared 700-1100 nm AR coated BK7 lenses

LENSES :

Opto4U has selected a range of singlet spherical lenses made of BK7 or Fused silica, that fit most applications in UV, visible and near IR ranges.

We are manufacturing all other kind of singlets in various shapes & materials. Just ask us.

Plano Convex Lenses

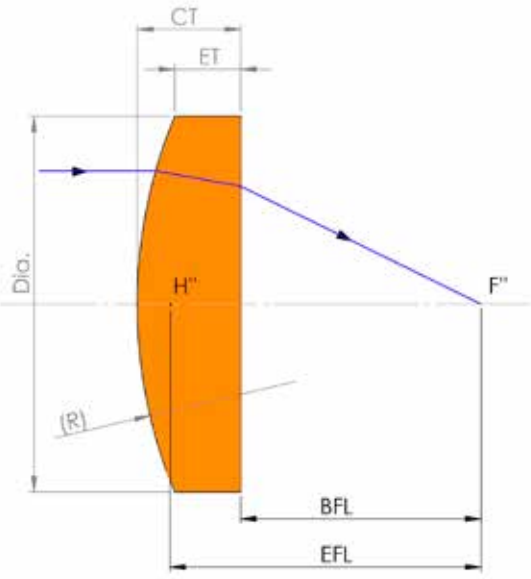
69 ITEMS

The plano convex lenses are the most common lenses for focusing lasers. The plano convex shape is minimizing the spherical aberration for imaging a distant object or focusing a laser beam.

These lenses are working close to diffraction limit when the focal length is exceeding 10 times the beam diameter.

Overview

- Diameter tolerance : $\pm 0/-0,1\text{mm}$
- Thickness tolerance : $\pm 0.1\text{mm}$
- Focal length tolerance : $\pm 1\%$
- Focal length is calculated at 546.1nm
- Surfaces accuracy : $\lambda/4 @ 632,8\text{nm}$
- $S/D < 60/40$
- Centration : < 3 arc minutes
- Coating (Multi layers) : AR<1 %(abs) / 0-15°
- Damage threshold of broadband AR coating : $> 5\text{J/cm}^2$, 20ns, 20Hz, 1064nm



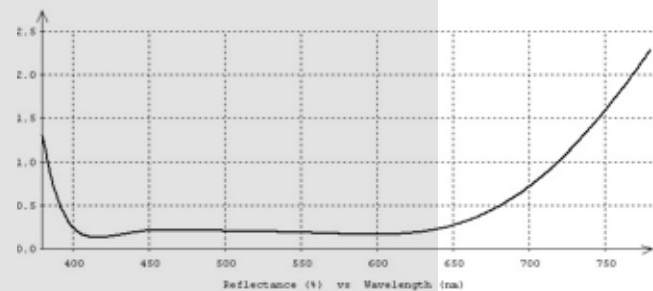
P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Plano Convex Lens, 12.7dia								
PLX05-25	12,7	25	12,94	3,6	2	22,6	—	15 €
PLX05-25-A	12,7	25	12,94	3,6	2	22,6	400-700nm AR	22 €
PLX05-25-B	12,7	25	12,94	3,6	2	22,6	700-1100nm AR	22 €
PLX05-50	12,7	50	25,95	2,8	2	48,2	—	15 €
PLX05-50-A	12,7	50	25,95	2,8	2	48,2	400-700nm AR	22 €
PLX05-50-B	12,7	50	25,95	2,8	2	48,2	700-1100nm AR	22 €
PLX05-100	12,7	100	51,88	2,4	2	98,5	—	15 €
PLX05-100-A	12,7	100	51,88	2,4	2	98,5	400-700nm AR	22 €
PLX05-100-B	12,7	100	51,88	2,4	2	98,5	700-1100nm AR	22 €

P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Plano Convex Lens, 25.4dia								
PLX10-30	25,4	30	15,56	8,6	2	24,3	—	17 €
PLX10-30-A	25,4	30	15,56	8,6	2	24,3	400-700nm AR	24 €
PLX10-30-B	25,4	30	15,56	8,6	2	24,3	700-1100nm AR	24 €
PLX10-40	25,4	40	20,74	6,3	2	35,8	—	17 €
PLX10-40-A	25,4	40	20,74	6,3	2	35,8	400-700nm AR	24 €
PLX10-40-B	25,4	40	20,74	6,3	2	35,8	700-1100nm AR	24 €
PLX10-50	25,4	50	25,95	5,3	2	46,5	—	17 €
PLX10-50-A	25,4	50	25,95	5,3	2	46,5	400-700nm AR	24 €
PLX10-50-B	25,4	50	25,95	5,3	2	46,5	700-1100nm AR	24 €
PLX10-60	25,4	60	31,19	4,7	2	56,9	—	17 €
PLX10-60-A	25,4	60	31,19	4,7	2	56,9	400-700nm AR	24 €
PLX10-60-B	25,4	60	31,19	4,7	2	56,9	700-1100nm AR	24 €
PLX10-75	25,4	75	38,82	4,1	2	72,3	—	17 €
PLX10-75-A	25,4	75	38,82	4,1	2	72,3	400-700nm AR	24 €
PLX10-75-B	25,4	75	38,82	4,1	2	72,3	700-1100nm AR	24 €
PLX10-100	25,4	100	51,88	3,6	2	97,6	—	17 €
PLX10-100-A	25,4	100	51,88	3,6	2	97,6	400-700nm AR	24 €
PLX10-100-B	25,4	100	51,88	3,6	2	97,6	700-1100nm AR	24 €
PLX10-150	25,4	150	77,75	3	2	148	—	17 €
PLX10-150-A	25,4	150	77,75	3	2	148	400-700nm AR	24 €
PLX10-150-B	25,4	150	77,75	3	2	148	700-1100nm AR	24 €
PLX10-200	25,4	200	104,01	3	2,2	198	—	17 €
PLX10-200-A	25,4	200	104,01	3	2,2	198	400-700nm AR	24 €
PLX10-200-B	25,4	200	104,01	3	2,2	198	700-1100nm AR	24 €
PLX10-250	25,4	250	129,58	3	2,4	248	—	17 €
PLX10-250-A	25,4	250	129,58	3	2,4	248	400-700nm AR	24 €
PLX10-250-B	25,4	250	129,58	3	2,4	248	700-1100nm AR	24 €
PLX10-300	25,4	300	155,91	3	2,5	298	—	17 €
PLX10-300-A	25,4	300	155,91	3	2,5	298	400-700nm AR	24 €
PLX10-300-B	25,4	300	155,91	3	2,5	298	700-1100nm AR	24 €
PLX10-500	25,4	500	258,47	3	2,7	498	—	17 €
PLX10-500-A	25,4	500	258,47	3	2,7	498	400-700nm AR	24 €
PLX10-500-B	25,4	500	258,47	3	2,7	498	700-1100nm AR	24 €

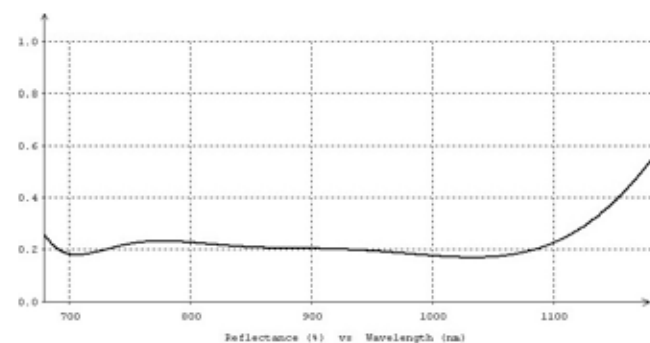
P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Plano Convex Lens, 50.8dia								
PLX20-60	50,8	60	31,19	16	3	49,5	—	30 €
PLX20-60-A	50,8	60	31,19	16	3	49,5	400-700nm AR	39 €
PLX20-60-B	50,8	60	31,19	16	3	49,5	700-1100nm AR	39 €
PLX20-100	50,8	100	51,88	9,6	3	93,7	—	25 €
PLX20-100-A	50,8	100	51,88	9,6	3	93,7	400-700nm AR	34 €
PLX20-100-B	50,8	100	51,88	9,6	3	93,7	700-1100nm AR	34 €
PLX20-150	50,8	150	77,75	7,3	3	145,2	—	25 €
PLX20-150-A	50,8	150	77,75	7,3	3	145,2	400-700nm AR	34 €
PLX20-150-B	50,8	150	77,75	7,3	3	145,2	700-1100nm AR	34 €
PLX20-200	50,8	200	104,01	6,2	3	195,9	—	25 €
PLX20-200-A	50,8	200	104,01	6,2	3	195,9	400-700nm AR	34 €
PLX20-200-B	50,8	200	104,01	6,2	3	195,9	700-1100nm AR	34 €
PLX20-250	50,8	250	129,58	5,5	3	246,4	—	25 €
PLX20-250-A	50,8	250	129,58	5,5	3	246,4	400-700nm AR	34 €
PLX20-250-B	50,8	250	129,58	5,5	3	246,4	700-1100nm AR	34 €
PLX20-500	50,8	500	258,47	5,2	4	496,6	—	25 €
PLX20-500-A	50,8	500	258,47	5,2	4	496,6	400-700nm AR	34 €
PLX20-500-B	50,8	500	258,47	5,2	4	496,6	700-1100nm AR	34 €
PLX20-1000	50,8	1000	518,3	4,6	4	997	—	25 €
PLX20-1000-A	50,8	1000	518,3	4,6	4	997	400-700nm AR	34 €
PLX20-1000-B	50,8	1000	518,3	4,6	4	997	700-1100nm AR	34 €

P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
Fused Silica Plano Convex Lens, 25,4dia								
PLX10-50-UV	25,4	50	23	5,8	2	46	—	70 €
PLX10-100-UV	25,4	100	46,03	3,8	2	97,4	—	70 €
PLX10-150-UV	25,4	150	69,02	3,2	2	147,8	—	70 €
PLX10-200-UV	25,4	200	91,62	3	2,1	198	—	70 €
PLX10-250-UV	25,4	250	114,82	3	2,3	248	—	70 €
PLX10-500-UV	25,4	500	230,21	3	2,6	498	—	70 €

► Anti-Reflection Coatings



■ 400-700nm AR coating / One side at 0°



■ 700-1100nm AR coating / One side at 0°



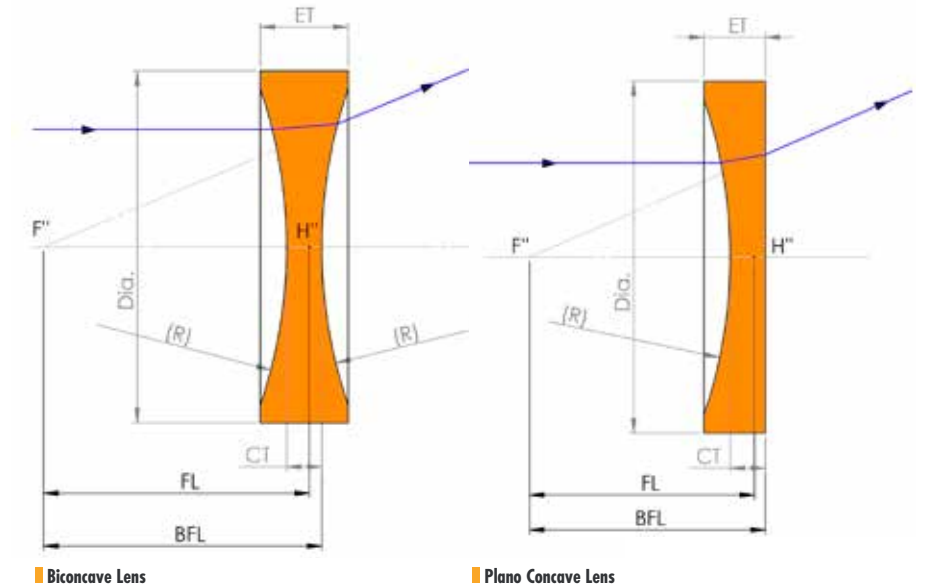
Overview

- Diameter tolerance : +0/-0,1mm
- Thickness tolerance : +/-0.1mm
- Focal length tolerance : +/-1%
- Focal length is calculated at 546.1nm
- Surfaces accuracy : $\lambda/4$ @632,8nm
- S/D < 60/40
- Centration : <3 arc minutes
- Coating (Multi layers) : AR<1 %(abs) / 0-15°
- Damage threshold of broadband AR coating : >5J/cm², 20ns, 20Hz, 1064nm

■ Negative lenses

A collimated beam of light passing through a negative lens - plano concave or biconcave - is diverged.

The negative single lenses are often used in combination with plano convex lenses to expand a beam diameter or make a different combination focal length while decreasing the residual spherical aberration.



P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Bi Concave Lens, 12.7dia								
BIC05-10	12,7	-10	10,63	2	6,2	-10,6	—	20 €
BIC05-10-A	12,7	-10	10,63	2	6,2	-10,6	400-700nm AR	28 €
BIC05-10-B	12,7	-10	10,63	2	6,2	-10,6	700-1100nm AR	28 €

P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Plano Concave Lens, 12.7dia								
PLC05-25	12,7	-25	12,942	2	3,6	-26,3	—	15 €
PLC05-25-A	12,7	-25	12,942	2	3,6	-26,3	400-700nm AR	22 €
PLC05-25-B	12,7	-25	12,942	2	3,6	-26,3	700-1100nm AR	22 €
PLC05-50	12,7	-50	25,954	2	2,8	-51,3	—	15 €
PLC05-50-A	12,7	-50	25,954	2	2,8	-51,3	400-700nm AR	22 €
PLC05-50-B	12,7	-50	25,954	2	2,8	-51,3	700-1100nm AR	22 €
PLC05-100	12,7	-100	51,88	2	2,4	-101,3	—	15 €
PLC05-100-A	12,7	-100	51,88	2	2,4	-101,3	400-700nm AR	22 €
PLC05-100-B	12,7	-100	51,88	2	2,4	-101,3	700-1100nm AR	22 €

P/N	DIA	FOCAL LENGTH	RADIUS	CENTER THICKNESS	EDGE THICKNESS	BACK FL	COATING	
BK7 Plano Concave Lens, 25.4dia								
PLC10-50	25,4	-50	25,954	2	5,3	-51,3	—	17 €
PLC10-50-A	25,4	-50	25,954	2	5,3	-51,3	400-700nm AR	24 €
PLC10-50-B	25,4	-50	25,954	2	5,3	-51,3	700-1100nm AR	24 €
PLC10-100	25,4	-100	51,88	2	3,6	-101,3	—	17 €
PLC10-100-A	25,4	-100	51,88	2	3,6	-101,3	400-700nm AR	24 €
PLC10-100-B	25,4	-100	51,88	2	3,6	-101,3	700-1100nm AR	24 €

Products in stock and delivered within 24 hours



PART NUMBER	
CUB203	340 €
Unit price	

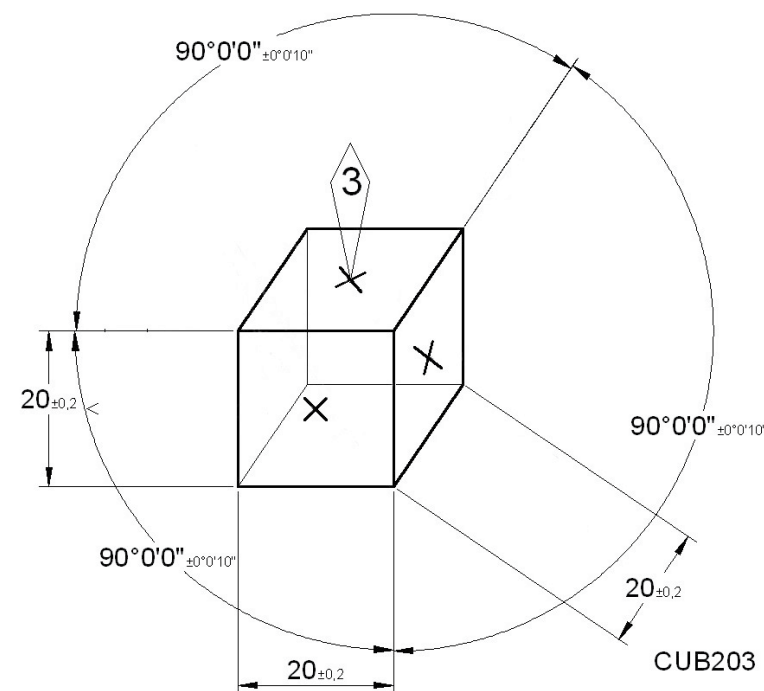
More info :
www.opto4u.com

1 Cubes

Solid cubes are ideal for 90° indexing or alignment.
The 3 reflecting faces, as a xyz Cartesian coordinate system, are used as alignment devices for auto-collimation and cross-collimation.

Overview

- Material Borosilicate Glass
- 3 polished & coated faces
- Lambda/4 flatness
- 10 arc sec precision on the three 90° angles
- Aluminium coated
- Dim 20x20x20



General Terms & Conditions

For further information, please contact us :

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PRICE & DELIVERY

Items in stock will be shipped within 1 business day from receipt of order.

Delivery at customer' office within 2 days from receipt of order.

All prices are ex works Paris – France, plus the applicable VAT at the time of purchase. All transportation costs shall be paid by the Buyer. There is no minimum order.

Minimum shipping charges are 15 € within Europe, up to 1.5 kg weight.

TNT grid pricing will be used for heavier parcels or shipments outside Europe. TNT shop will automatically calculate the carriage charge based on the weight of the goods ordered.

All shipments will be covered by OPTO4U's transport insurance. The Buyer shall report any transport damage immediately.

PRODUCT SPECIFICATIONS

The specifications provided in our website, catalog, or in any written quotations are intended to be accurate. However, OPTO4U reserves the right to change specifications and makes no claim about the suitability of its products for any particular intended purpose.

Catalog items conform to the OPTO4U published specs.

Certificate of Conformance if needed must be requested through the formal quote process.

WARRANTY

The Buyer shall inspect the goods immediately upon delivery and give written notice of any defects to OPTO4U. If goods turn out to have been defective prior to the transfer of risk, OPTO4U will either repair the defective part or replace it free of charge at his sole option. Opto4u stock optical products are warranted to meet or exceed the stated specifications, and to be free from defects in material or workmanship. This warranty shall be valid for thirty days from invoice date and is subject to the Return Policy set forth in these Terms and Conditions.

Any form of warranty expires if a defect is due to or resulting from injudicious or improper use.

Buyer neither can have a claim for warranty if the defect is due to circumstances OPTO4U cannot have any influence on.

DISTRIBUTION

Websales are handled direct.

Written orders for France, Germany, Italy will be invoiced through the French, German, and Italian OPTOPRIM entities -

<http://www.optoprim.com/>



www.opto4u.com



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