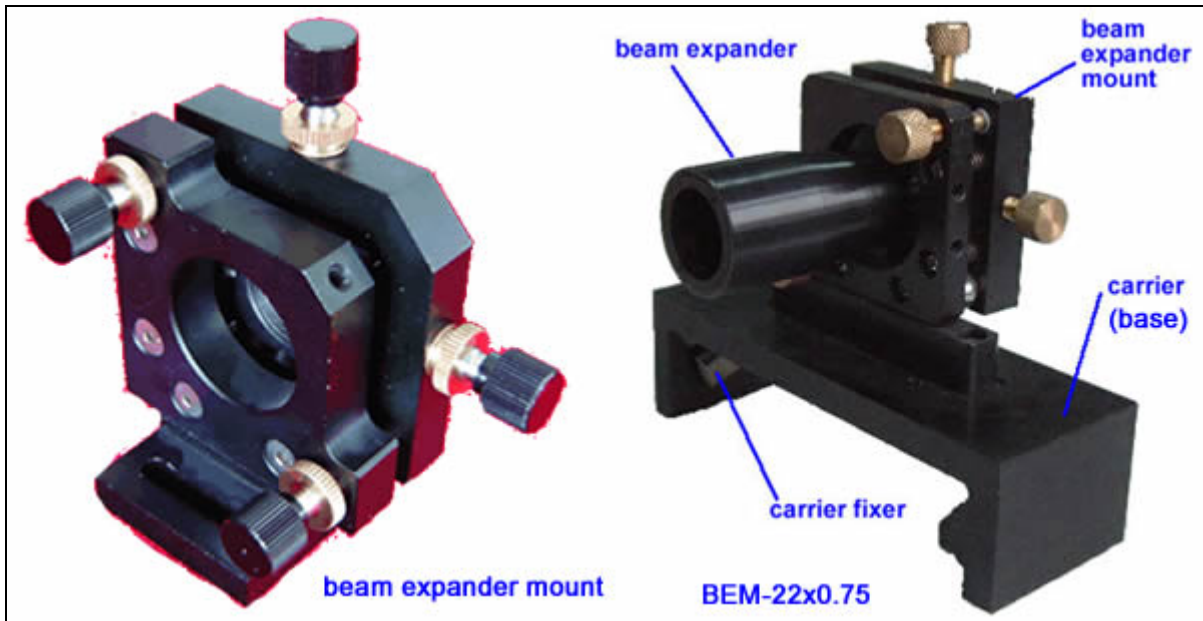


Beam Expander Mount



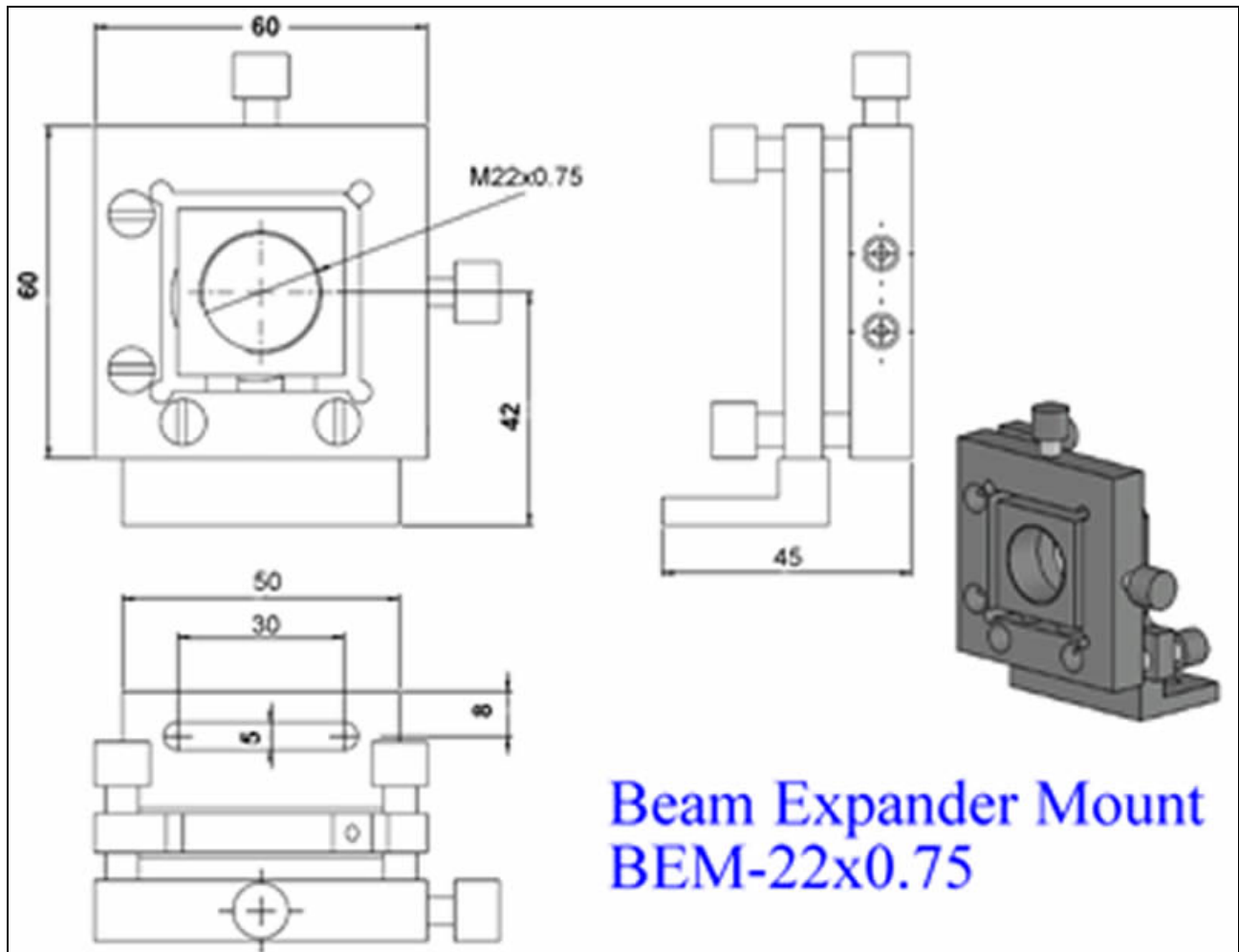
The beam expander mounts are used to hold a beam expander, red pilot diode, mirrors with the screw M22x0.75mm. They are 4D adjustable for optics alignment at angles, positions.

Model: BEM-22x0.75

4D adjustable (4-axis adjustable) (X and Z directions travel $\pm 2\text{mm}$, X and Z directions tilting $\pm 4\text{ deg}$)

Suitable for the beam expander with a screw of M22x0.75mm

Dimension: 60x60x45mm



STAL-4LL Series Four-Axis Optical Mount

STAL-4LL-OM four-axis optical mount is a precise and robust solution for mounting telescopes, beam expanders, beam shapers, or any other heavy optics.

It allows to optics adjustment in 4 degrees of freedom:

- Two axes of angular adjustment can be tilted in a range up to ± 4 degrees which are realized by two screws of thread pitch $250\mu\text{m}$ (100TPI).
- Two axes of lateral adjustment can be moved within $\pm 2\text{mm}$ and are driven by two screws of thread pitch $200\mu\text{m}$. Both – translation and rotation positions can be locked which secures long-term stability for heavy optics which is STAL-4LL-OM core advantage over spring-based positioners.

Features

- Two-axis kinematic mount with two screws (thread pitch $250\mu\text{m}$ (100TPI)) with position lock. Adjustment range up to ± 4 degrees
- Two-axis translation stage with $\pm 2\text{mm}$ travel range driven by two screws (thread pitch $200\mu\text{m}$). Translation stage with position lock
- 5 mounting holes (M4) for convenient mount positioning

We can customize this product to your needs.

Specifications

- Fine screw thread: M6x0.25mm
- Tilt range: $\pm 4\text{deg}$
- Sensitivity: 3arcsec
- XY translation range: $\pm 2\text{mm}$
- XY translation sensitivity: $1\mu\text{m}$
- Weight: 200g
- Material: Aluminum
- Suitable to optical diameter: 25.4mm
- Physical dimensions: 79x79x33.5mm



STAL-SD Series Industrial Optical Mounts



The STAL-SD industrial precisely adjustable mirror mount provides excellent performance for demanding applications. The design ensures stress-free low distortion mounting for optics, excellent holding force and pointing stability. Type SD mount allows precise mirror adjustment in both X and Y directions. 100TPI micro screws provide accurate adjustment and easily accessible fully integrated

locking mechanism ensuring excellent angle stability. Depending on the application, optics can be held either by specially designed ZeroDef flexure ring or by semi-permanent optical adhesives. The mount is precisely machined from special alloys to provide optimum beam pointing stability over changing environmental conditions such as temperature and transportation shock as well as vibrations and humidity.

Features

- Vacuum compatible
- Ultra-compact design
- Two adjusters hex driven design
- Reliable and easy to use the lock mechanism
- Fast & easy replacement of optics using ZeroDef flexure ring (RS)
- Stable and distortion-free mounting of optics
- Special metallic alloys used for smooth operation and optimal performance

General Specifications

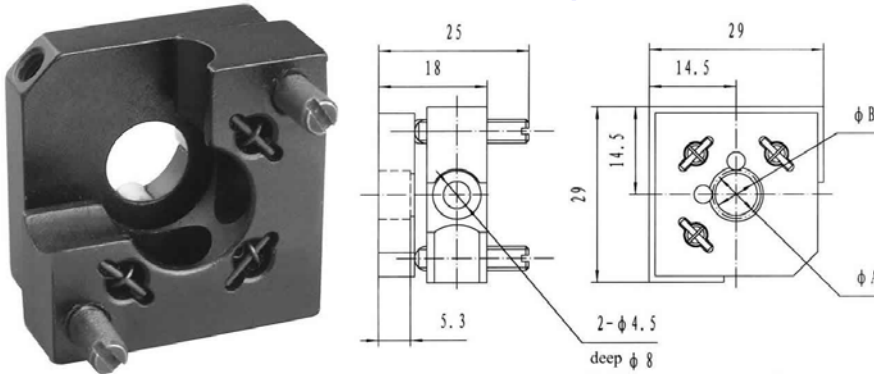
- Mechanical angular range*: $\pm 3.5^\circ$
- Resolution*: 10mrad/rev
- Pointing stability: $<2 \mu\text{rad}$ deviation after extensive temperature cycling on Type SD mount size

*depends on Type SD mount size

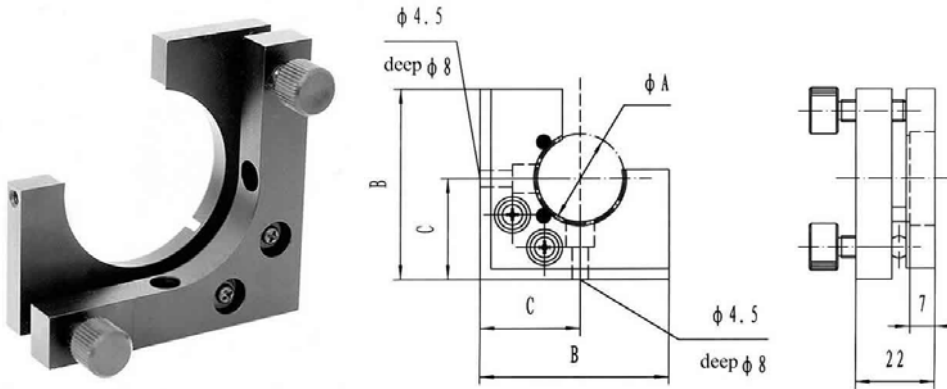
Product number	Optics diameter**, mm	Physical dimensions (H x W x L), mm	ZeroDef flexure ring (RS) included***
STAL-SD-127-01-VC-M	12.7	25.4x25.4x20	No
STAL-SD-127-01-VC-RS-M	12.7	25.4x25.4x20	Yes
STAL-SD-254-01-VC-M	25.4	40 x 40 x 25	No
STAL-SD-254-01-VC-RS-M	25.4	40 x 40 x 25	Yes
STAL-SD-300-01-VC-M	30	45 x 45 x 25	No
STAL-SD-300-01-VC-RS-M	30	45 x 45 x 25	Yes
STAL-SD-381-01-VC-M	38.1	55 x 55 x 28	No
STAL-SD-381-01-VC-RS-M	38.1	55 x 55 x 28	Yes
STAL-SD-508-01-VC-M	50.8	65 x 65 x 30	No
STAL-SD-508-01-VC-RS-M	50.8	65 x 65 x 30	Yes

** Custom mount configurations are available on request.

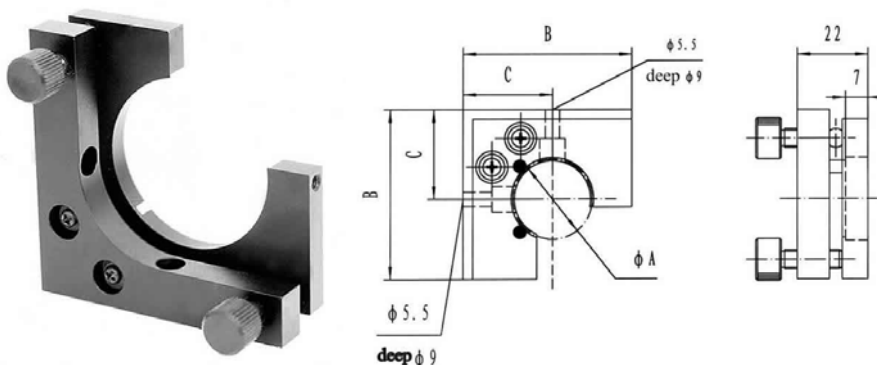
*** Mounts containing ZeroDef retaining ring (RS) can accept elements with 6 – 6.35 mm thickness.

OM Series Reflection/Splitter Mounts
1. OMMB8(10, 12.5)-1 Reflective Mirror /Splitter Mounts


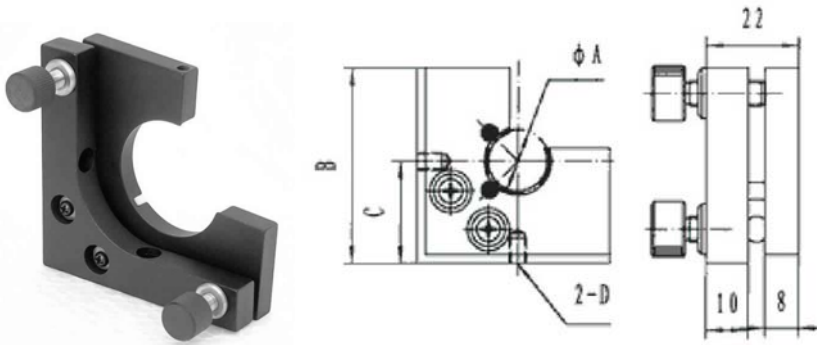
	OMMB8-1	OMMB10-1	OMMB12.5-1
A	8	10	12.5
B	7	9	11.5

2. OMMB20(25, 30, 40, 50, 50.8)-1 Reflective Mirror/Splitter Mounts


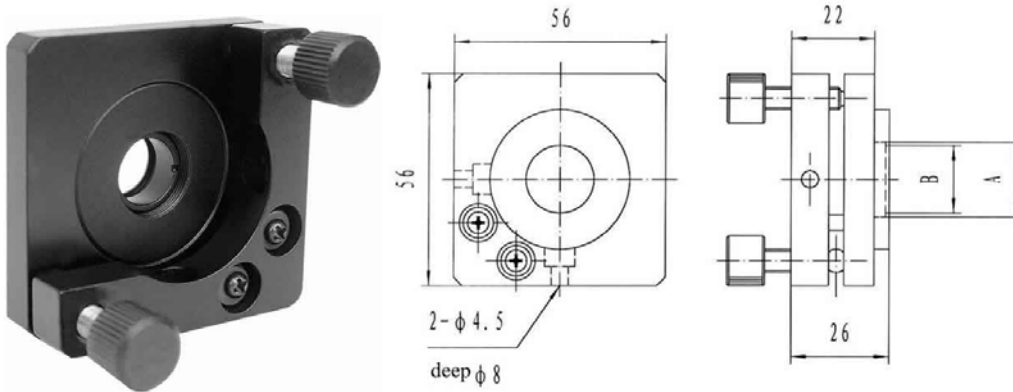
	OMMB20-1	OMMB25-1	OMMB30-1	OMMB40-1	OMMB50-1	OMMB50.8-1
A	20	25	30	40	50	50.8
B	48	53	58	78	78	78
C	25.5	28	30.5	40.5	40.5	40.5
Weight	0.09kg	0.1kg	0.11kg	0.15kg	0.15kg	0.15kg



Model	A	B	C	Weight
OMMB20-1Y	20	48	25.5	0.09kg
OMMB25-1Y	25	53	28	0.1kg

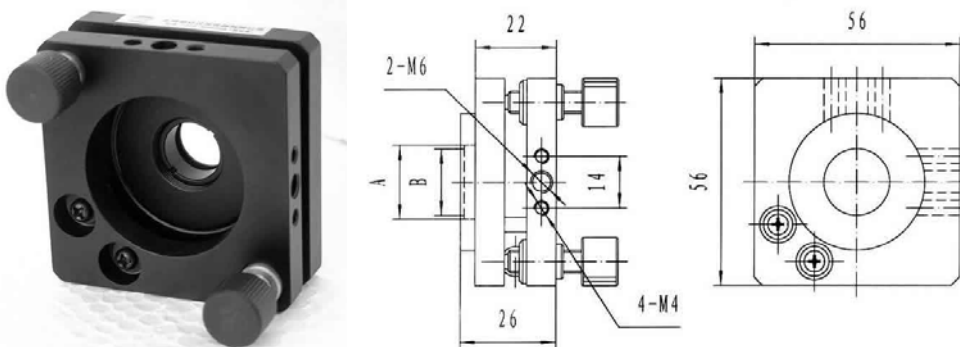


	OMMB15-1T	OMMB40-1T	OMMB50-1T	OMMB50.8-1T
A	15	40	50	50.8
B	46	78	78	78
C	24	40.5	40.5	40.5
D	M4	$\phi 4.5$ & bore $\phi 8$	$\phi 4.5$ & bore $\phi 8$	$\phi 4.5$ & bore $\phi 8$
Weight	0.1kg	0.16kg	0.16kg	0.16kg



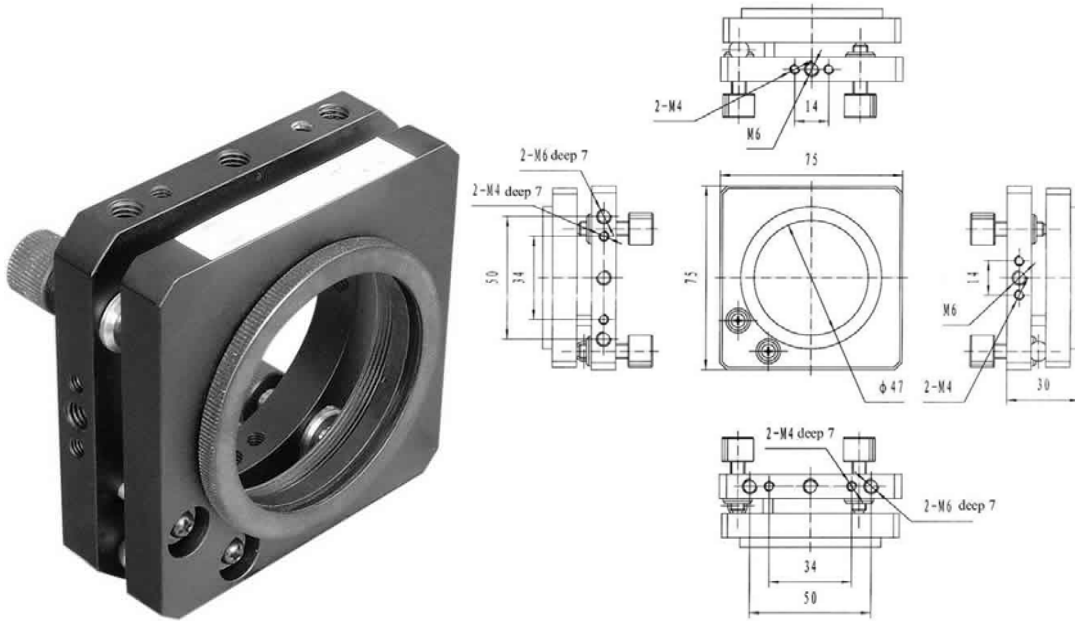
	OMMB15-1A	OMMB20-1A	OMMB25-1A	OMMB30-1A
A	15	20	25	30
B	13	18	23	28
Weight	0.09kg	0.15kg	0.15kg	0.15kg

OMMB15-1AT

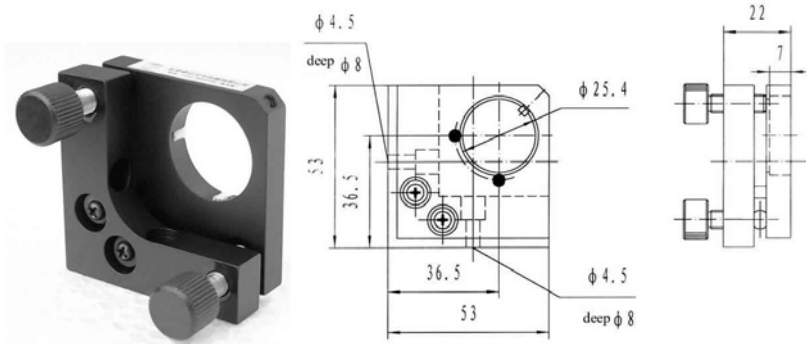


	OMMB15-1AT	OMMB20-1AT	OMMB25-1AT	OMMB30-1AT
A	15	20	25	30
B	13	18	23	28
Weight	0.1kg	0.16kg	0.16kg	0.16kg

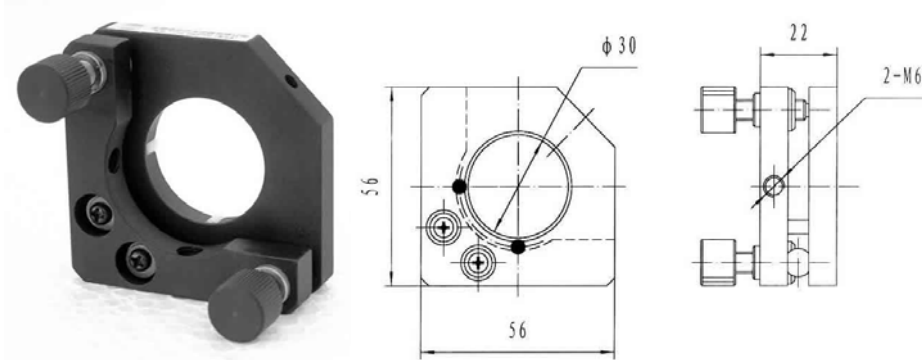
OMMB50-1AT



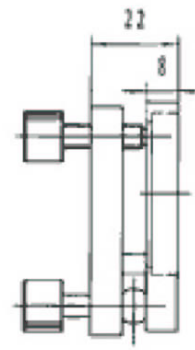
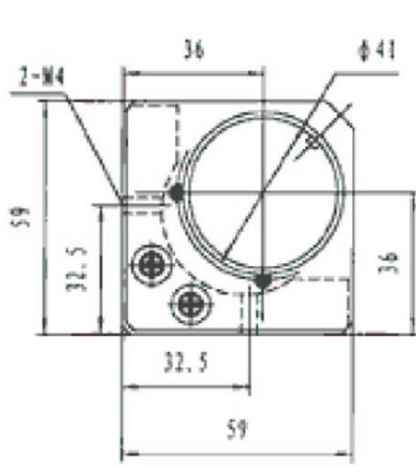
OM M B25.4-1B



OM M B30-1BT

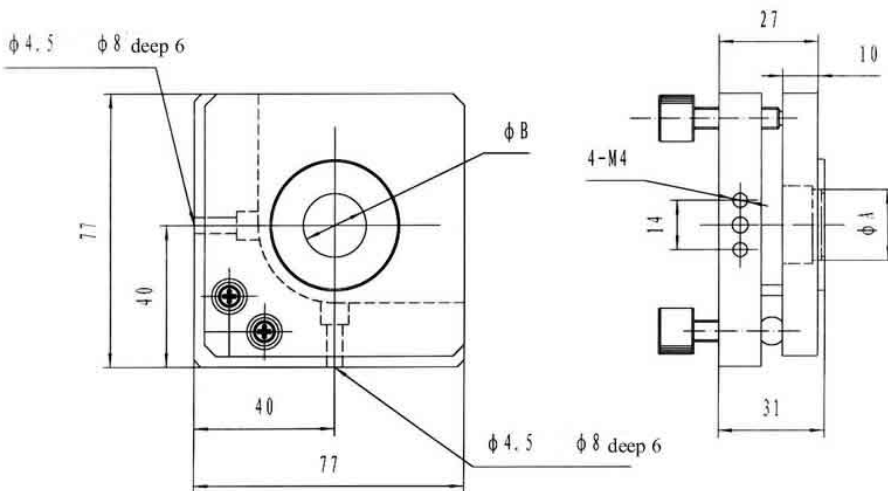


OM M B40-1BT



OMMB20(25)-1CT:

Model	A	B	Weight
OMMB20-1CT	20	18	0.12kg
OMMB25-1CT	25	23	0.18kg



Mirror Mount & Holder



MH1 holder



MM1 mount



MH2 holder



MM2 mount

The kinematic optical mount is designed as a general purpose high precision mount. The mount has a threaded centre bore that directly accepts the mirrors holders. The mirrors are placed and fixed into the mirror holders.

MH1 and MM1 are matched and MH2 and MM2 are matched. MM2 mount has a higher resolution. The holders are for optical mirrors with a diameter from 10mm to 30mm. Please show the specific diameter of the mirror when placing an order.

These mounts and holders are suitable for use in crystal alignment, lens and mirror alignment, and fiber optic coupling.

Part name	Model	Size (mm)	Mirror diameter (mm)
Mirror mount	MM1	56x56x24	
Mirror mount	MM2	50x50x20	
Mirror holder	MH1		10 - 30
Mirror holder	MH2		10 - 30

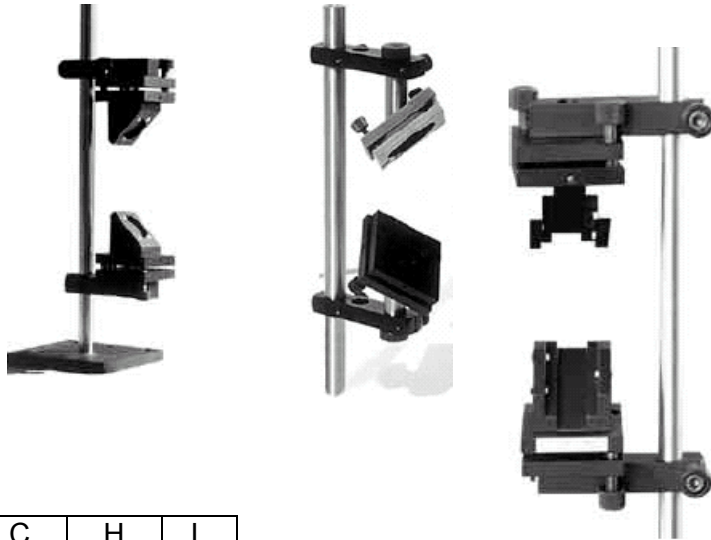
Precision Beam Steerers

Beam steerers provide a very stable means to adjust the height and direction of a laser beam. The beam steerer consists of a pair of precision flat mirrors mounted at 45 degrees facing each other on a post or a carrier. By adjusting the spacing between the mirrors and their rotation and tilt, the beam may be directed as desired.

OMBS180-1 to OMBS180-4

Height adjustment range: 180mm
Weight: 0.8kg

Model	A	B
OMBS180-1	25	32
OMBS180-2	20	32
OMBS180-3	30	36



OMBS180-5 to OMBS180-6

Height adjustment range: 180mm
Weight: 1.0kg

Model	A	B	C	H	L
OMBS180-5	50-180	132	50	324	70
OMBS180-6	57-180	137	60	334	80

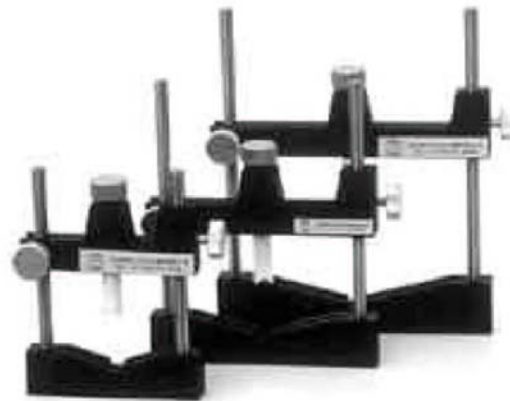
OMLH-1 Adjustable Lens Holders

Allowed lens diameter: 50mm - 100mm
Weight: 0.4kg



OMLH-2 (-3, -4) Adjustable Lens Holders

Adjustable lens holders provide quick and easy placement and removal of lenses without changing holder position. The lens is retained between two crossed V-groves for vertical and horizontal centering.



Model	A	B	C	D	E	F	Lens diameter	Weight
OMLH-2	90	105	126	151	127	63.5	10 - 100	0.25kg
OMLH-3	65	80	106	128	102	51	5 - 75	0.20kg
OMLH-4	42	54	80	100	76	38	5 - 50	0.15kg

OMLH Cylindrical Lens Holder

OMLH-5

Lens dimension: 6.4x25mm or 12.7x25mm
Weight: 0.05kg

OMLH-6

Lens dimension: 19x51mm or 25x51mm
Weight: 0.15kg



OMLH-7 and OMLH-8 Polarizer Holders

These holders are used to mount and rotate polarizers or cylindrical lenses. They can be rotated from 0 to 360 degrees.

Model	A	B	C	Weight
OMLH-7	38	57	66	0.05kg
OMLH-8	56	75	86	0.07kg

OMLH-9 Gimbal Cylindrical Lens Holders

Used to hold cylindrical lenses.

2-dimension tilt range: θ_y and θ_z : $\pm 4^\circ$
Rotation range: θ_x : $\pm 5^\circ$
Lens length: 50 - 50.8mm
Lens width: 60.5mm



OMMBWJ-1AT Objective Lens Mounts

There is a central screw WJ4/5" - 1/36" for fixing objective lens. There are two precision screws M6x0.25mm for adjustment.



OMOM50-1 5-axis Gimbal Mirror Mount

The mount provides 3 travels along X, Y and Z directions and 2 rotations along θ_y and θ_z directions.

Installation screw: M52x1

Tx: 6mm

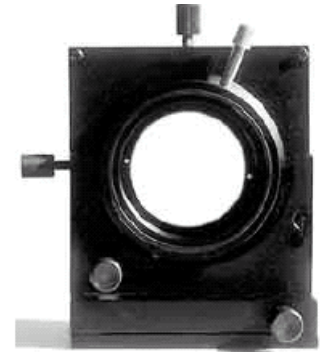
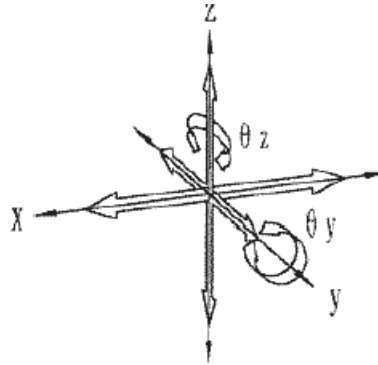
Ty: ± 2.5 mm

Tz: ± 2.5 mm

θ_y : $\pm 2^\circ$

θ_z : $\pm 4^\circ$

Weight: 0.6kg



Prism/Beamsplitter Tables

OMPH-1

Sample height: 60mm (max)

Table size: 50x50mm

Adjustment along θ_x and θ_y : $\pm 5^\circ$

Adjusting rod: M6x0.25

Weight: 0.2kg



OMPH-2

Sample height: 30mm (max)

Table size: 30x30mm

Adjustment: $\pm 5^\circ$

Adjusting rod: M4x0.3

Weight: 0.18kg

