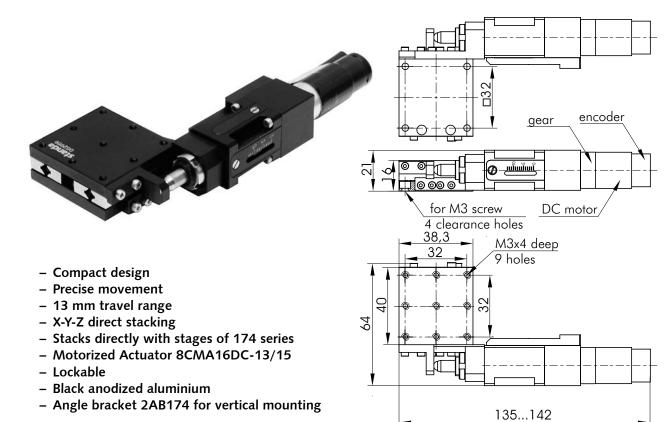
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8-62

Motorized Translation Stage 8MT184-13DC



Available Motorized Translation Stage with VACUUM 10⁻⁶ Torr Compatible DC motor 8MT184V-13DC

Motorized Optical Mount

8MUP21-2

4 mm

<1 arcsec

8CMA20-8/15

2 per actuator

8SMC4-USBh

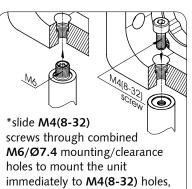
HDB15(M)



SPECIFICATIONS

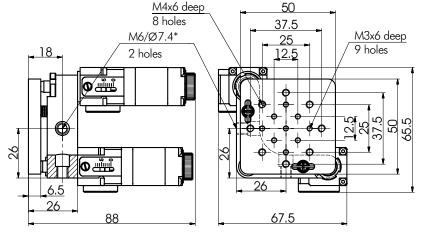
Travel range Resolution Tilt range 9°(about two axes) Speed (Standa SMC1-USBh controller) from 1 arcsec/sec to 1°/sec Type of actuator Optocoupler end limit switches Cable 1.2 m length cable included Motor connector Recommended controllers

M4x6 deep



or mount the unit directly on

any M6 tip



DC motor base Actuators are available on request

8-63

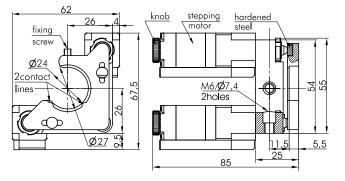
Motorized Kinematic Mirror/Beamsplitter Mounts

8MBM24



8MBM24-1-2

- 1" optics mounts
- Tilt range 9° (about two axes)
- Travel range 4 mm
- Mounting on either of 2 sides
- Two models round and square aperture
- **Kinematic**
- Clear edge design
- A motorized actuator 8CMA20-8/15 pushes via seat of hardened stainless steel
- Black anodized aluminium
- 2", 3" models available 8MBM24-2, 8MBM24-3





Motorized Two Axis Translation Optical Mount

8MTOM2-

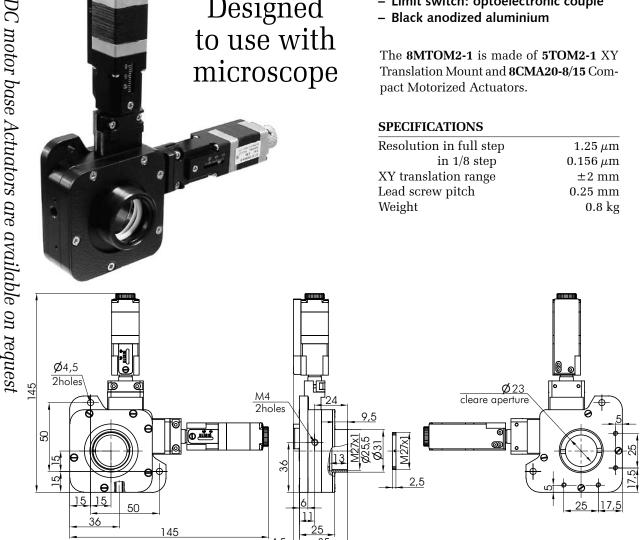


- 1" optics mounts
- Limit switch: optoelectronic couple
- Black anodized aluminium

The 8MTOM2-1 is made of 5TOM2-1 XY Translation Mount and 8CMA20-8/15 Compact Motorized Actuators.

SPECIFICATIONS

Resolution in full step	$1.25~\mu\mathrm{m}$
in 1/8 step	$0.156\mu\mathrm{m}$
XY translation range	±2 mm
Lead screw pitch	0.25 mm
Weight	0.8 kg





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Motorized Gimbal Mount

8MGM25T-1

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www.standa.lt

e-mail: sales@standa.lt

Fax: +370-5-2651483

Phone: +370-5-2651474



Fine Adjustment

Opto-Mechanics &

Light Test & Measurement

Lasers & Laser 1 Accessorie

s & ssories 12

8-64

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Motorized Girribal Mount

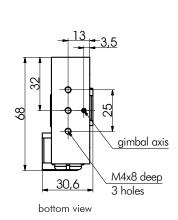


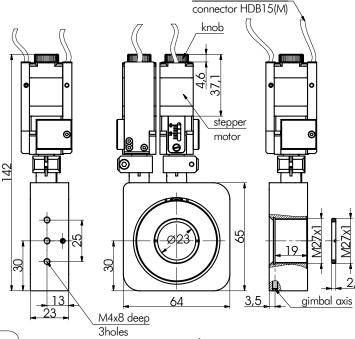
SPECIFICATIONS

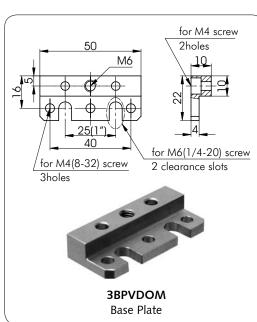
Optics diameter	25,4 mm
Clear aperture	23 mm
Angular range	±2,5°
Type of actuator	8CMA20-8/15
Resolution*	
in full step	$1,25~\mu\mathrm{m}$
in 1/8 step	$0,156~\mu\mathrm{m}$
Lead screw pitch	0.25 mm
Repeatability	$1~\mu\mathrm{m}$
Maximum speed	4 mm/s
Cable	1.2 m length cable included
Motor connector	HDB15(M)
Weight	0.7 kg

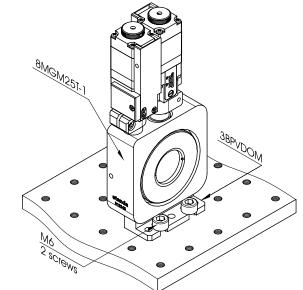
 $^{{}^*\}mbox{Actuator}\mbox{`s}$ movement dependance of horizontal position is not lineral.

cable with









DC motor base Actuators are available on request

Optics diameter

Clear aperture

Tilt/tip range

Sensitivity

Motorized Vertical Drive Optical Mounts

8MKVDOM

Motorized Vertical Drive Optical Mounts 8MKVDOM are designed to minimize mount-induced wavefront distortions. In conventional mounts, the mirror is tightened by a side screw. Radial forces acting on the mirror induces parasitic wavefront distortion, such as astigmatism. 8MKVDOM mirror mounts use secure 3-points mirror suspension in between frontal flat spring and the back plate. Uniformly distributed axial forces eliminate wavefront distortion.

- 1", 2" optics diameter

- Stainless steel

Compact/robust design

Annealed front panel

Due thermal processes on optic holding part, all metal inner tensions were removed and part makes none micro movements.

These mounts are ideal for industrial applications in different optical devices (laser cavities, optical subassemblies, limited space applications) because of their long-term stability.

Motorized Vertical Drive Optical Mount

8MKVDOM-1

e-mail: sales@standa.lt

www.standa.lt

Phone: +370-5-2651474 Fax: +370-5-2651483



25.4 mm 23 mm $\pm 2.5^{\circ}$

by horizontal 3.8 arcsec. in full step of actuator

3.9 arcsec. in full step of actuator by vertical in the middle tilt of platform

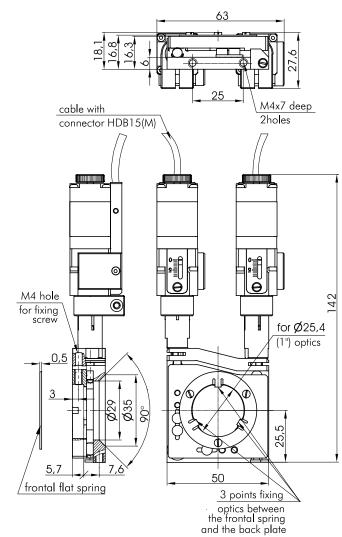
Type of actuator 8CMA20-8/15 6 mm

Travel range of actuator Resolution

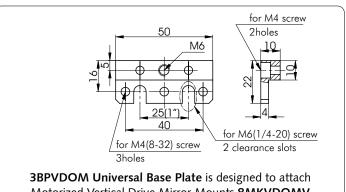
in full step $1.25~\mu\mathrm{m}$ in 1/8 step $0.156 \mu m$ Lead screw pitch 0.25 mm Repeatability $1 \mu m$

Cable 1.2 m length cable included Motor connector HDB15(M)

Weight 0.5 kg







Motorized Vertical Drive Mirror Mounts 8MKVDOMV to STANDA optical tables or to another stages.

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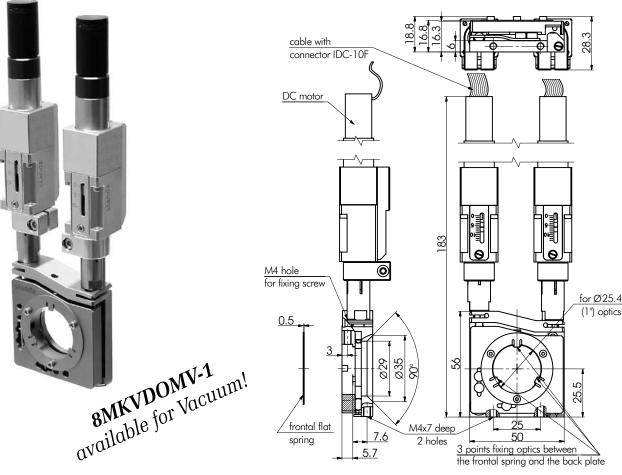
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ū Base Positioners

Light Test & Measurement Instruments



Motorized Vertical Drive Optical Mount with DC motor

SPECIFICATIONS	8MKVDOM-1-DC	8MKVDOMV-1
Optics diameter, mm	25.4	1
Clear aperture, mm	23	
Tilt/tip range, °	±2.5	5
Angular Resolution:		
by horizontal, arcsec.	1.5	
by vertical, arcsec.	1.75 arcsec. in the middle tilt of platform	
Type of actuator	8CMA16DC-13/15	8CMA16DCV-13/15
Lead screw pitch, mm	0.25	
Cable	integrated, 1.2 m length	
Motor connector	HDB15(M)	
Type of motor	DC motor DCE1524	Vacuum compatible
		DC motor DCE1841

frontal flat

spring

M4x7 deep

2 holes

3 points fixing optics between

the frontal spring and the back plate

7.6

8SMC4-USB

5.7

ORDERING INFORMATION

Recommended controller

8MKVDOM-1 Mount with stepper motor for Ø25.4 mm (1 inch) 8MKVDOM-1-DC Mount with **DC motor** for **Ø25.4 mm** (1 inch) 8MKVDOMV-1 Vacuum Compatible Mount with DC motor for Ø25.4 mm (1 inch)

8MKVDOM-2 Mount with stepper motor for Ø50.8 mm (2 inch) and 8 mm thickness optics 8MKVDOM-2-DC Mount with DC motor for Ø50.8 mm (2 inch) and 8 mm thickness optics 8MKVDOMV-2 Vacuum Compatible Moun with DC motor for Ø50.8 mm (2 inch) and 8 mm thickness optics 8MKVDOM-2-05 Mount with stepper motor for Ø50.8 mm (2 inch) and 12.7 mm thickness optics 8MKVDOM-2-05-DC Mount with DC motor for Ø50.8 mm (2 inch) and 12.7 mm thickness optics

8MKVDOMV-2-05

Vacuum Compatible Moun with DC motor for Ø50.8 mm (2 inch) and 12.7 mm thickness optics

2 8-66 Motorized Vertical Drive Optical Mount with DC motor

8MKVDOM-2-DC 8MKVDOMV-2

8MKVDOMV-2 available for Vacuum!

DC motor cable with connector IDC-10F M4 hole for Ø50.8 for fixing screw (2") optics 85 frontal flat

8MKVDOMV-2-05 – for 12.7 mm thickness optics we recommend Optical Mount with Supporting Adapter.

SPECIFICATIONS 8MKVDOM-2-DC 8MKVDOMV-2 50.8 Optics diameter, mm

Clear aperture, mm 48 Tilt/tip range, ° ± 2.5

Angular Resolution:

by horizontal, arcsec. 1

1.25 arcsec. in the middle by vertical, arcsec. tilt of platform

8CMA16DC-13/15 8CMA16DCV-13/15 Type of actuator Lead screw pitch, mm 0.25

Cable integrated, 1.2 m length Motor connector HDB15(M)

Vacuum compatible Type of motor DC motor DCE1524

DC motor DCE1841

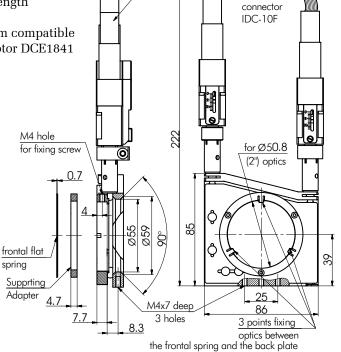
Recommended controller 8SMC4-USB

Stepper/DC Motor Controller with USB Interface 2 axis Controller in box 8SMC4-USB-B9-2



Assembly kit 5AK-B9-B9





3 holes

DC motor

8MKVDOM-2-05-DC / 8MKVDOMV-2-05

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the frontal spring and the back plate 8MKVDOM-2-DC / 8MKVDOMV-2

3 points fixing optics between

cable with

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- Rotation range in azimuth and elevation: 360°/360°

- Fine adjustment range: ±4°/±4°

- High positioning resolution: 3 arcsec

Maximum acceptable thickness of optical element: 100 mm.

- Maximum acceptable weight of optical element: 150 kg.

- High thermal and vibration stability

- Near zero backlash

Various range of apertures can be customized on request.

Manual version of optical mount is available

- Vacuum Compatible Version is available

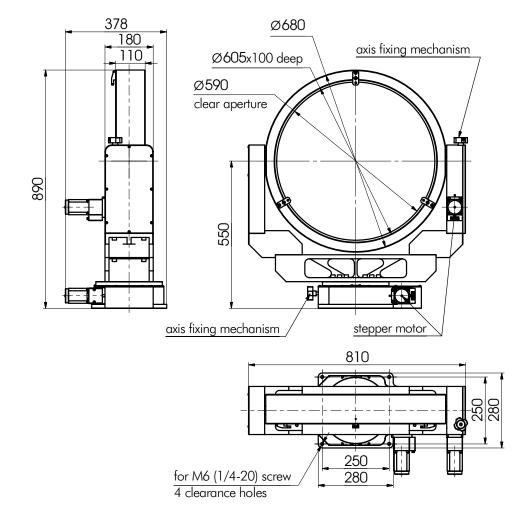
8MLAOM Motorized Gimbal Optical Mount has been designed for positioning of large optical elements up to 600 mm. Commonly LAOM optical mounts is extremely efficient solution in such applications as: high power laser systems and astronomy.

LAOM series optical mounts have complete 360 degree rotation in azimuth and elevation axes if transmission of both coordinates is decoupled. Special spring preloaded internal mechanisms result near zero backlash motion, what allows user to avoid

additional feedback system in order to reduce the uncertainty of the system. Fine adjustment in $\pm 4^{\circ}$ range provides high quality motion with resolution down to 3 arcsec (or better by request).

Age hardened aluminum alloy guarantees: softness of the assembly, high thermal stability and high vibration stability.

Control of LAOM series motorized optical mounts is available with Standa controller 8SMC4-USB-B9-2.



Fax: +370-5-2651483

Base Positioners

2 8-70

SPECIFICATIONS

Kinematics and	Feedback information
A · (1/17)	

Azimuth/Elevation (coarse) 360°/360° Azimuth/Elevation (fine) $\pm 4^{\circ}/\pm 4^{\circ}$

Resolution

4000 steps/rev 0.3 arcsec 1000 steps/rev 1.2 arcsec 400 steps/rev 3 arcsec Encoder type On request **Encoder resolution** On request Bidirectional repeatability 3 arcsec Unidirectional repeatability 3 arcsec Accuracy On request Backlash 0 Maximum speed 1°/sec Limit Switches Hall sensors (2pcs on each axis) Switch polarity Pushed is closed

Load and Transmission information

150 kg Load capacity Lead Screw Pitch 1 mm Stepper Motor 5909 DC motor On request Gearbox On request

Material and environment conditions

Base material Aluminum Finish Powder coating Environment pressure Atmosphere (10⁻³ torr / 10⁻⁶ on request) Ambient temperature On request

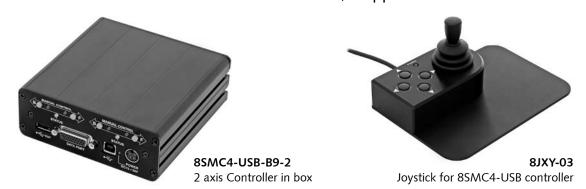
Control and Communication

8SMC4-USB-B9-2 Recommended controllers PS36-3.4-4 / PS24-2.5-4 Recommended power supply Connector HDB15(M) Cable length 1.6 m

Additional Details

Measurement system Metric Weight 79 kg Ø590 mm Aperture Max optic diameter Ø600 mm Min optic diameter Ø500 mm Max optic thickness 100 mm

Recomended Controller for DC/Stepper Motors





e-mail: sales@standa.lt

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Phone: +370-5-2651474 Fax: +370-5-2651483



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Phone: +370-5-2651474

Motorized Mirror Mounts 8MMA60 are designed for precise angular alignment of optical elements. Platform is tilted about two axes. A retaining ring keeps optics

The ring is fixed by 3 screws. It has 3 dents with which it clamps optics against

similar 3 rests in the platform.

The dents are exactly opposite to the rests - this minimizes deformation.

in a non-through mounting opening of the platform.

SPECIFICATIONS

Resolution

5° both axes Tilt range Visual reading dial knobs graduated in

200 steps per revolution 0.0016° (0°00'06") per step

(see the drawing) Optics accepted **diameter** (D), and **clear aperture** (A):

8MMA60-1 \emptyset 25.4 mm (1"), A=21.4 mm 8MMA60-40 Ø40 mm. A=36 mm

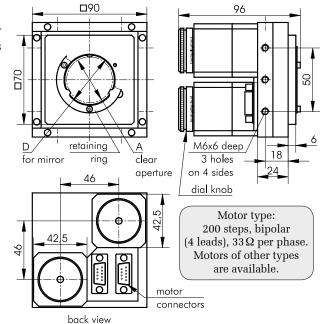
8MMA60-2 Ø50.8 (2"), A=46.8 mm custom sizes available

Optics thickness 10 mm (retaining rings for

custom thickness available)

black anodized aluminium Material

Weight 1.08 kg



Motorized Vertical Translation Stage

Motorized Vertical Translation Stage 8MVT188-20 boasts our unique design. Being very compact, it provides smooth and stable adjustment of height. It has a large travel range, and it supports large loads. While moving the platform stays parallel to the base.

Examples of use: making up for height differences during the set up; automation of technological processes, like laser

welding.

A stepper motor type - **5918**, 200 steps. Customer can specify any other types of motors to install. Load capacity and speed all greatly depend on the motor. We can test and select an appropriate motor for your requirements.

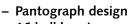
The lead screw acts at a varying angle, so the resolution of the stage varies with position.

The platform has an array of M6 holes spaced by 25 mm. The base has \mathbf{six} M6 and \mathbf{two} \emptyset 6.5 holes.

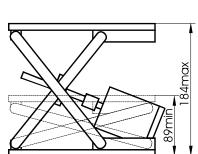
Material: black anodized aluminum.

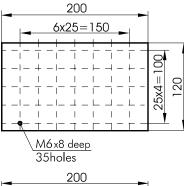
8MVT188-20

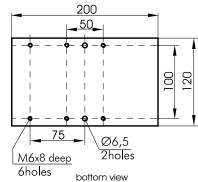




- 16 ball bearings
- Stepping motor drive Precision lead screw
- 95 mm vertical travel
- Height: min 89 mm max 184 mm
- Top and bottom plates parallel to 1 mm
- Load capacity 8 kg (depending on motor and controller)
- Supply voltage 36 V
- Weight: 4.3 kg







2 8-72