

System Diagram of Base System

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How to View the Chart

- The connection is checked in order starting from the standard rod or other attachable rod of our holders, to rod stands.
- The color codes represent 15 patterns of connection from the rod to board and lab bench, if a color is the same in each number of the above, the connection will be possible.

(Example) for color code (3) color (red) ■


Posts ■ →	Post Holders ■ →	Base plates ■ →	Board&Lab bench ■
φ12.7 8-32UNC	φ12.7 1/40-20UNC	1/40-20UNC	1/40-20UNC

Posts




		Posts														
		RO														
		Reference > D048, D049														
		Color Code														
Rod diameter	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
φ12	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
φ20	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
φ12.7	UU	Red	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey

Post Holders




		High Stability Ball Plunger Post Holders															
		BRS															
		Reference > D042															
		Color Code															
Rod diameter	Mounting screws (male)	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
φ12	M16	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
	M6	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
φ20	M16	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
	M6	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
φ12.7	1/4-20UNC	UU	Red	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey




		Rod stand															
		RS															
		Reference > D043															
		Color Code															
Rod diameter	Mounting screws (male)	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
φ12	M16	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey
φ20	M16	-	Yellow	Orange	Green	Blue	Grey	Brown	Black	White	Pink	Light Blue	Light Green	Light Purple	Light Orange	Light Yellow	Light Grey

Carriers




		Carriers for Large Optical Rails														
		CAA-L														
		Reference > D023														
		Color Code														
Mounting screws (female)	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M16	-							Blue								
M6	EE							Orange								
1/4-20UNC	UU							Red								




		Carriers for Small Optical Rails														
		CAA-LS														
		Reference > D025														
		Color Code														
Mounting screws (female)	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M16	-											Grey				
M6	EE											Green				
1/4-20UNC	UU											Pink				

Optical Rails



		Large Low-Profile Optical Rails														
		OBT-LH/LUU														
		Reference > D022														
		Color Code														
Fixing counterbore	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6	EE							Blue	Orange							
1/4-20UNC	UU							Red	Orange							



		Medium Low-Profile Optical Rails														
		OBT-SH-SUU														
		Reference > D024														
		Color Code														
Fixing counterbore	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6	EE										Grey	Green				
1/4-20UNC	UU										Pink	Green				



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Conversion Adapters


		M6 Conversion Adapters														
		AD-M6-M4														
		Reference > D030														
		Color Code														
Conversion Size		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6 ⇒ M4		Yellow	Orange													


Baseplates


		Base plates															
		BSP															
		Reference > D028, D029															
		Color Code															
Mounting screws (female)	Mounting long hole	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M16	M6	-	Yellow	Orange													
M6	M6	EE		Yellow													
1/4-20UNC	1/4-20UNC	UU			Red												


Boards & Lab Bench


		Optical Base plates															
		OBC															
		Reference > D032															
		Color Code															
Fixing screw (female)	Pitch	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M4	25P	-	Yellow	Orange													
M6	25P	EE		Yellow		Green	Blue										
1/4-20UNC	25.4P	UU			Red			Green									

		Stand Base/Stand Clamp															
		RCA / RC															
		Reference > D044															
		Color Code															
Mounting screws (female)	Mounting long hole	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M16	M6	-				Green											
M6	M6	EE					Blue										
1/4-20UNC	1/4-20UNC	UU						Green									

		Aluminum Honeycomb Breadboards															
		HA															
		Reference > D016															
		Color Code															
Fixing screw (female)	Pitch	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6	25P	-	Yellow	Orange		Green	Blue										
1/4-20UNC	25.4P	UU			Red			Green									

		Magnet Base															
		MB															
		Reference > D026															
		Color Code															
Mounting screws (female)	Mounting long hole	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M16		-													Purple		
M6	Magnetized	M6/EE														Teal	
1/4-20UNC		UU															Orange

		Aluminum Honeycomb Optical Tables															
		HA-L															
		Reference > D014															
		Color Code															
Fixing screw (female)	Pitch	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6	25P	-	Yellow	Orange		Green	Blue										
1/4-20UNC	25.4P	UU			Red			Green							Purple		Orange

		High-performance Vibration Isolation Systems with Aluminum Honeycomb Top															
		TDI-LA															
		Reference > D008															
		Color Code															
Fixing screw (female)	Pitch	Part number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M6	25P	-	Yellow	Orange		Green	Blue										
1/4-20UNC	25.4P	UU			Red			Green							Purple		Orange

Option Scale Installation and Custom Lengths



- Custom lengths not listed in the catalog are available.
- To order surface finishing of the cut surfaces, specify "with reprocessing".
- For the OBA-L and OBA-SH series, to use tapped holes on the lateral side after cutting, specify "with tapped holes".
- Since the price varies depending on the specifications such as one-side cut, both-sides cut, with tapped holes etc., contact our International Sales Division for more information.

Large Optical Rails

Large Low-Profile Optical Rails

OBA-LH
OBT-LH/LUU

OBA-LH

RoHS Catalog Code W6019

Large Optical Rails have a tube-shaped cross section with fins extending radially in four directions.

- Carriers for large optical rails can be mounted on all four surfaces, top, lateral sides (two faces) and bottom, using these fins.

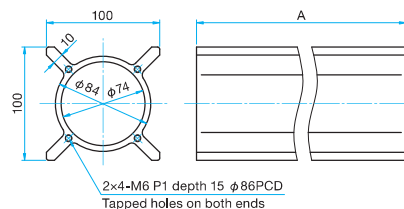
Guide

- Contact our International Sales Division for information on scale installation and length change.



Outline Drawing

OBA-LH



Specifications		Primary material: Aluminum Finish: Black Anodized	
Part Number	A [mm]	B [mm]	Weight [kg]
OBA-500LH	500	—	3.3
OBA-1000LH	1,000	—	6.6
OBA-1500LH	1,500	—	9.9
OBA-2000LH	2,000	—	13.2

OBT-LH/LUU

RoHS Catalog Code W6020

Designed to be directly mounted on top of a vibration isolator or optical laboratory bench using M6 bolts.

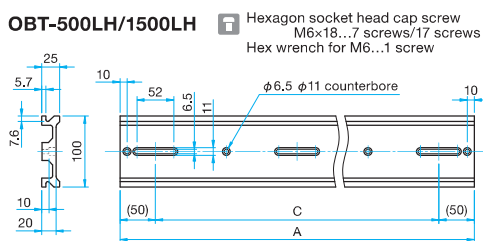
- 100mm-wide, 25mm-high optical rails offer low optical axis and light weight.

Guide

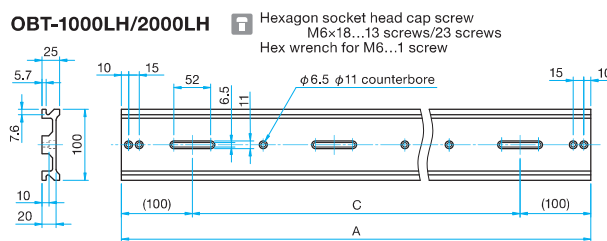
- Contact our International Sales Division for information on scale installation and length change.



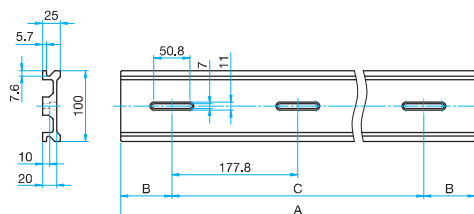
Outline Drawing



C: 100mm pitch between the centers of slotted hole and counterbore



OBT-LUU Hexagon socket head cap screw M6×18...3 screws/6 screws/9 screws/11 screws (EC)
Hexagon socket head cap screw 1/4-20UNC×3/4...3 screws/6 screws/9 screws/11 screws (US)



Specifications		Primary material: Aluminum Finish: Black Anodized				
Part Number		A [mm]	B [mm]	C [mm]		Weight [kg]
METRIC	INCH			METRIC	INCH	
OBT-500LH	OBT-500LUU	500	72.2	100× 4	177.8× 2	1.7
OBT-1000LH	OBT-1000LUU	1,000	55.5	100× 8	177.8× 5	3.5
OBT-1500LH	OBT-1500LUU	1,500	38.8	100×14	177.8× 8	5.2
OBT-2000LH	OBT-2000LUU	2,000	111	100×18	177.8×10	7.0

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Mounted on a large optical rail (OBA-L/LH) or large low-profile optical rails (OBT-LH) freely slide along the rail and can be locked in place.

- The CAA-80LF is designed to be attached to the bottom of a large optical rail for direct clamping to an optical vibration isolator or laboratory bench.
- The CAA-100LC is designed to assemble large optical rails at right angles to each other.

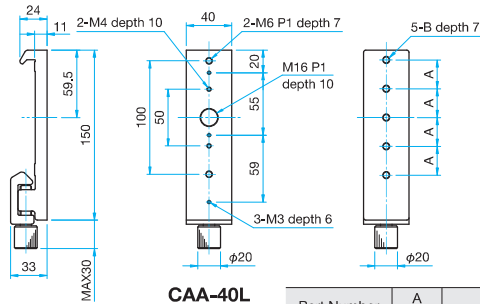
Guide

► Friction-reducing tape is applied to the carrier surfaces that will be in contact with optical rails. Use as-is without removing the tape.



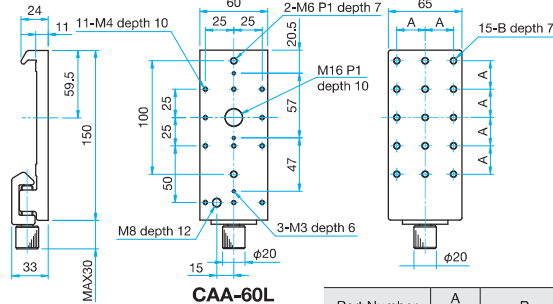
Outline Drawing

CAA-40L/40LEE/40LUU



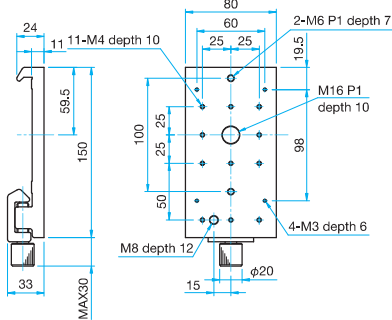
Part Number	A [mm]	B
CAA-40LEE	25	M6 P1
CAA-40LUU	25.4	1/4-20UNC

CAA-60L/65LEE/65LUU

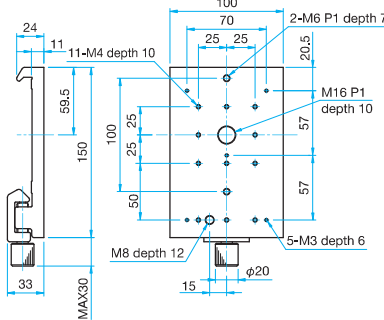


Part Number	A [mm]	B
CAA-65LEE	25	M6 P1
CAA-65LUU	25.4	1/4-20UNC

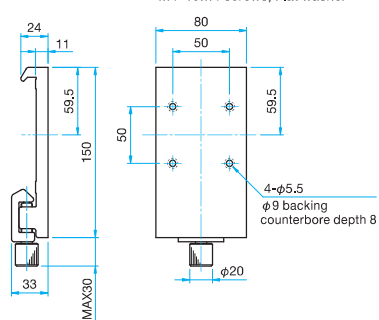
CAA-80L



CAA-100L

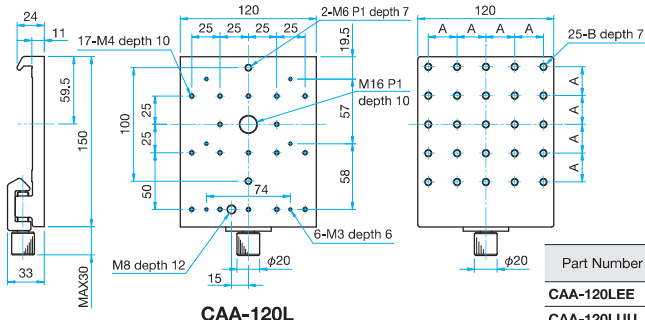


CAA-80LF



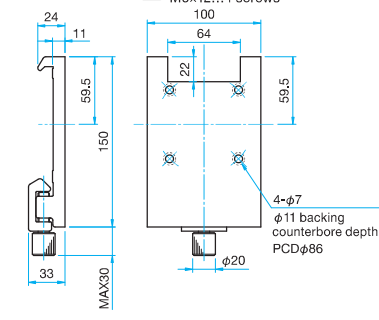
Hexagonal socket head cap screw M4x10...4 screws, Flat washer

CAA-120L/120LEE/120LUU



Part Number	A [mm]	B
CAA-120LEE	25	M6 P1
CAA-120LUU	25.4	1/4-20UNC

CAA-100LC



Hexagonal socket head cap screw M6x12...4 screws

Specifications

Part Number			Primary material: Aluminum Finish: Black Anodized
M4	M6	INCH	Compatible Optical Rails
CAA-40L	CAA-40LEE	CAA-40LUU	Weight [kg]
CAA-60L	—	—	0.29
—	CAA-65LEE	CAA-65LUU	0.39
CAA-80L	—	—	Large optical rails (OBA-L*/LH)
CAA-100L	—	—	0.42
CAA-120L	CAA-120LEE	CAA-120LUU	Large low-profile optical rails (OBT-LH/LUU)
CAA-80LF	—	—	0.5
CAA-100LC	—	—	0.61
—	—	—	Reference D022
—	—	—	0.72
—	—	—	0.51
—	—	—	0.57

WEB Reference Catalog Code W6019

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Medium Optical Rails Medium Low-Profile Optical Rails

OBA-SH
OBT-SH/SUU

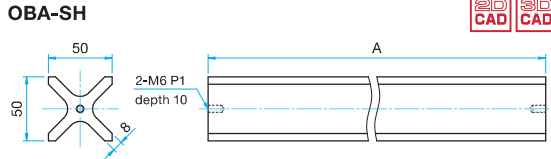
OBA-SH

RoHS Catalog Code W6022

Medium Optical Rails have an X-shaped cross section with fins extending radially in four directions.

- Carriers for medium optical rails can be secured to the four surfaces, top, lateral sides (two faces) and bottom, using these fins.

Outline Drawing



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- Contact our International Sales Division for information on scale installation and length change.

Specifications

Primary material: Aluminum
Finish: Black Anodized

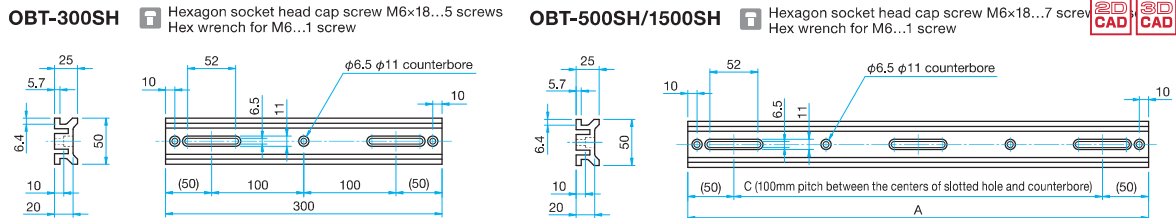
Part Number	A [mm]	Weight [kg]
OBA-300SH	300	0.9
OBA-500SH	500	1.5
OBA-800SH	800	2.3
OBA-1000SH	1,000	2.9
OBA-1500SH	1,500	4.4
OBA-2000SH	2,000	5.8

OBT-SH/SUU

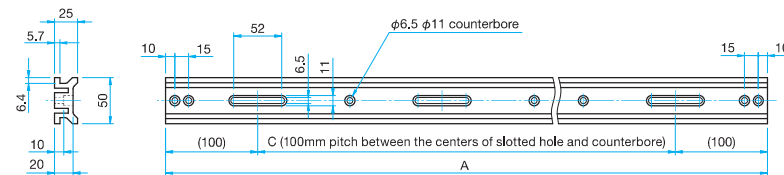
RoHS Catalog Code W6023

50mm-wide 25mm-high rail is designed to be directly secured on top of a laboratory bench while keeping a low optical axis.

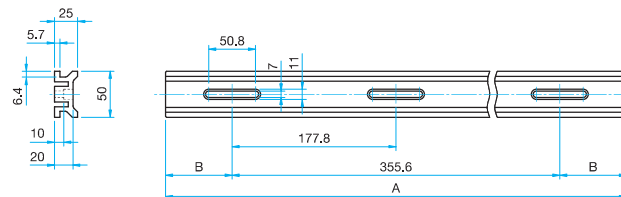
Outline Drawing



OBT-800SH/1000SH/2000SH Hexagon socket head cap screw M6x18...11 screws/13 screws/23 screws
Hex wrench for M6...1 screw



OBT-300SUU/500SUU/1000SUU Hexagon socket head cap screw M6x18...2 screws/3 screws/6 screws (EC)
Hexagon socket head cap screw 1/4-20UNCx3/4...2 screws/3 screws/6 screws (UC)



Guide

- Contact our International Sales Division for information on scale installation and length change.

Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number		A [mm]	B [mm]	C [mm]		Weight [kg]
METRIC	INCH			METRIC	INCH	
OBT-300SH	OBT-300SUU	300	61.1	100x 2	177.8x1	0.6
OBT-500SH	OBT-500SUU	500	72.2	100x 4	177.8x2	1.1
OBT-800SH	-	800	-	100x 6	-	1.7
OBT-1000SH	OBT-1000SUU	1,000	55.5	100x 8	177.8x5	2.2
OBT-1500SH	-	1,500	-	100x14	-	3.3
OBT-2000SH	-	2,000	-	100x18	-	4.4

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Carriers for Medium Optical Rails Feet for Large Optical Rails

CAA-LS/MB
OBT

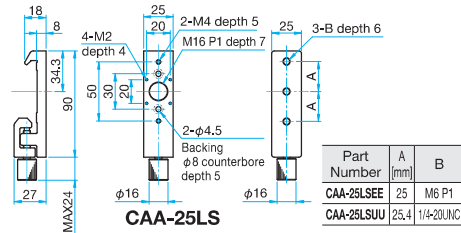
CAA-LS/MB

RoHS Catalog Code W6024

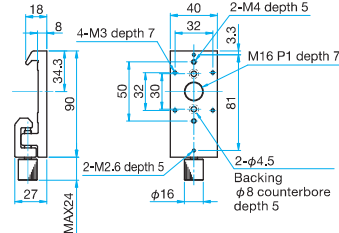
Carriers mount on a medium optical rail, slide freely and can be locked in place at any location.

Outline Drawing

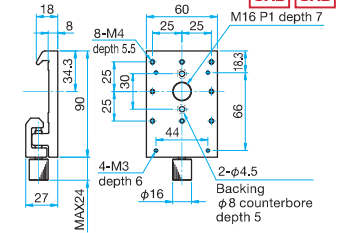
CAA-25LS/25LSEE/25LSUU



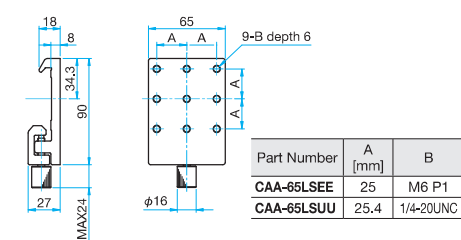
CAA-40LS



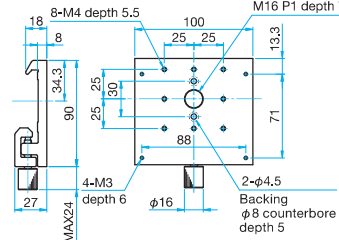
CAA-60LS



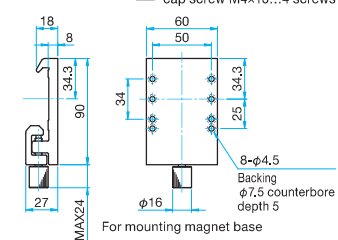
CAA-65LSEE/65LSUU



CAA-100LS



CAA-60MB



Specifications

Part Number			Compatible Optical Rails	Weight [kg]
M4	M6	INCH		
CAA-25LS	CAA-25LSEE	CAA-25LSUU	Medium optical rails (OBA-SH) Medium low-profile optical rails (OBT-SH/SUU) Reference D024	0.1
CAA-40LS	-	-		0.13
CAA-60LS	-	-		0.17
-	CAA-65LSEE	CAA-65LSUU		0.19
CAA-100LS	-	-		0.28
CAA-60MB	-	-		0.18

Primary material: Aluminum
Finish: Black Anodized

OBT

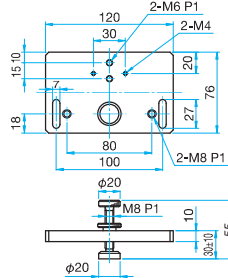
RoHS Catalog Code W6026

● OBT is a thin plate type of Rail Feet; it is made to be matched with OBT-LH/SH optical rail. It allows +/-10mm height adjustment.

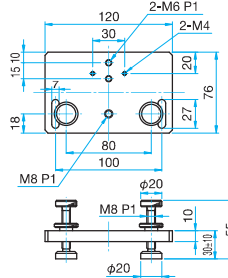


Outline Drawing

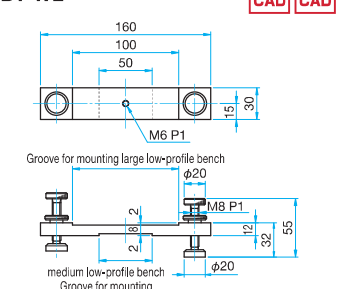
OBT-LS Hexagonal socket headcap screw M6x18...2 screws 2-M6 P1



OBT-LW Hexagonal socket headcap screw M6x18...2 screws 2-M6 P1



OBT-WL



Specifications

Part Number	Compatible Optical Rails	Weight [kg]
OBT-LS	Large low-profile optical rails (OBT-LH) Reference D022	0.28
OBT-LW	Medium low-profile optical rails (OBT-SH) Reference D024	0.33
OBT-WL	Large low-profile optical rails (OBT-LH) Reference D022	0.24
	Medium low-profile optical rails (OBT-SH) Reference D024	

Primary material: Aluminum
Finish: Black Anodized

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Magnet Base Flexible Post Holder

MB
MB-MX/MX-AM

MB

RoHS Catalog Code **W6027**

Designed to arbitrarily lay out and secure optical-system units on top of an optical vibration isolator or laboratory bench (flat surface of magnetic material).



- Easy attachment/detachment by switching the lever ON/OFF.
- Secured on any position regardless of tapped holes.
- Have an M16P1 tapped hole at the center of the top surface to accommodate a post holder, post, or the like. (Note that the MB-S40 and MB-L40 have an M6 tapped hole.)

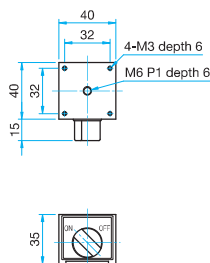
Guide

- ▶ A dedicated adapter (SP-130) is available for attaching a stage or the like to the top surface of the MB-CB-PB. [Reference](#) D060
- ▶ The opposite surface of the ON/OFF switching lever of MB-PG can be also magnetically secured.
- ▶ Aluminum crossed roller slide stages with magnet base (TAG-601, TAG-602) that integrate a magnet base with manual stage are also available. [WEB Reference](#) [Catalog Code](#) W7013, W7034

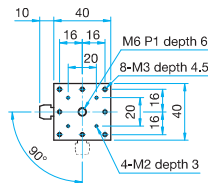


Outline Drawing

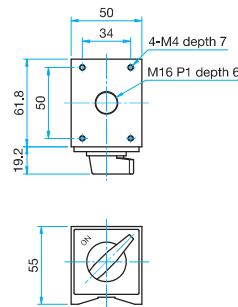
MB-S40



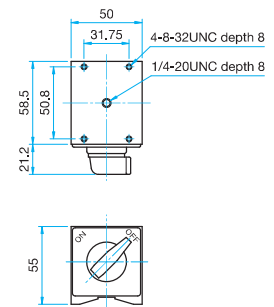
MB-L40



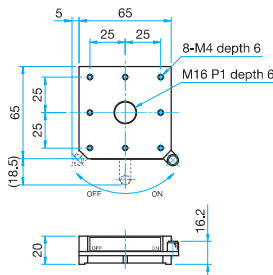
MB-CB-PB



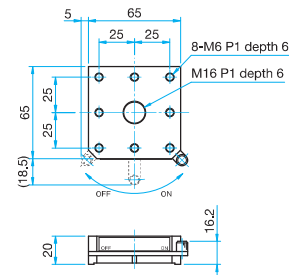
MB-BUU



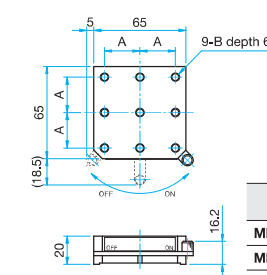
MB-L65C-M4



MB-L65A-M6

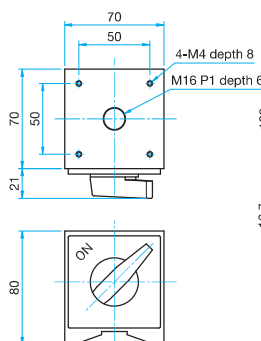


MB-L65C-M6EE / MB-L65C-1/4UU

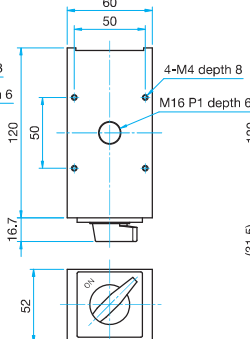


Part Number	A (mm)	B
MB-L65C-M6EE	25	M6 P1
MB-L65C-1/4UU	25.4	1/4-20UNC

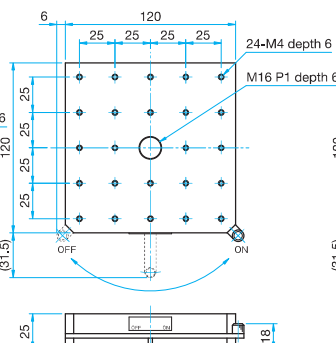
MB-PH



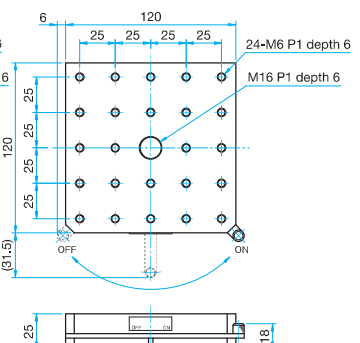
MB-PG



MB-L120-M4



MB-L120-M6





Specifications

	Part Number		Holding Force [N]	Weight [kg]
	M4	M6		
MB-S40	—	—	198 (about 20kgf)	0.4
MB-L40	—	—	49 (about 5kgf)	0.2
MB-CB-PB	—	—	294 (about 30kgf)	1
MB-L65C-M4	—	—	147 (about 15kgf)	0.5
—	MB-L65C-M6EE	MB-L65C-1/4UU	147 (about 15kgf)	0.6
—	MB-L65A-M6	—	490 (about 50kgf)	0.6
MB-PH	—	—	490 (about 50kgf)	2.5
MB-PG	—	—	294 (about 30kgf)	2.4
MB-L120-M4	MB-L120-M6	—	294 (about 30kgf)	2.4

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MB-MX/MX-AM

RoHS Catalog Code W6038



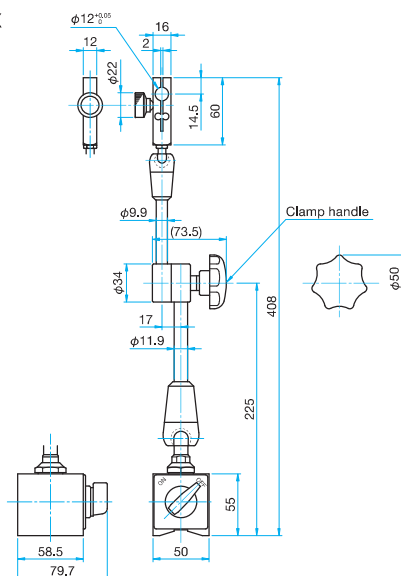
Post Clamp can be moved freely by loosening the clamp handle to reposition post mounted holders quickly and easily.

- The cam style clamping mechanism enables easy locking and release of the whole joint with a simple turn of the knob.
- The post clamp is designed to securely hold $\phi 12$ posts.
- The MB-MX has a magnetic base and can be freely secured on optical vibration isolators or laboratory benches (which are flat and made of magnetic material).
- The MX-AM is an external thread type, which has an M16P1 external thread on its bottom that enables direct installation on base plates.

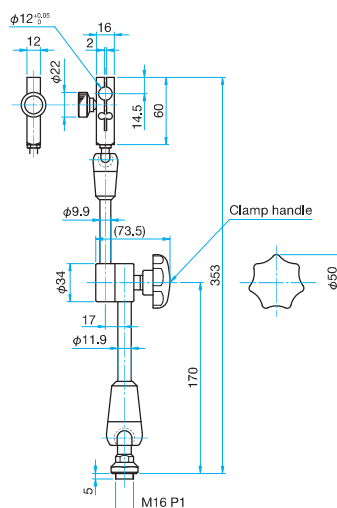


Outline Drawing

MB-MX



MX-AM



Specifications

Part Number	Holding Force*	Weight [kg]
MB-MX	1.96N (about 0.2kgf)	1.9
MX-AM	1.96N (about 0.2kgf)	0.9

* Holding force is a reference value.

M6/INCH

Designed to mount optical units on vibration isolators or laboratory benches with M6 tapped holes.



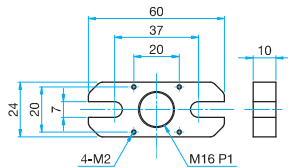
- Have an M16P1 tapped hole at the center of the top surface to accommodate a post or post holder. Other tapped holes on the top surface allow a stage or other equipment to be secured.
- Slots allow position adjustment when mounting to a breadboard. Slots allow use on both metric and inch hole patterns.
- The base clamp (BSC-60) allows a base plate to be secured at an arbitrary position where there is no tapped hole. [Reference](#) D028



Outline Drawing

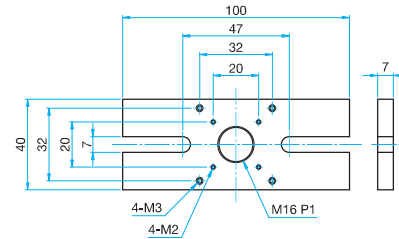
BSP-2460

- Hexagonal socket headcap screw M6x18...2 screws
- Flat washer



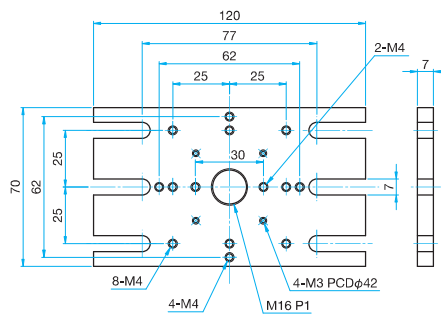
BSP-40100

- Hexagonal socket headcap screw M6x14...2 screws
- Flat washer



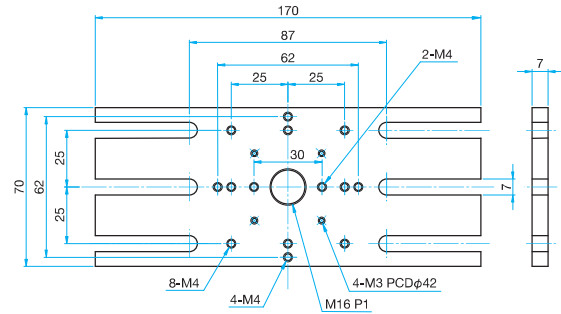
BSP-70120

- Hexagonal socket headcap screw M6x14...6 screws
- Flat washer



BSP-70170

- Hexagonal socket headcap screw M6x14...6 screws
- Flat washer



M6	Primary material: Aluminum Finish: Black Anodized
Part Number	Weight [kg]
BSP-2460	0.027
BSP-40100	0.06
BSP-70120	0.13
BSP-70170	0.18

M6/INCH	Primary material: Aluminum Finish: Black Anodized
Part Number	Weight [kg]
FBP-50UU	0.03
FBP-65UU	0.03
BSP-65EE	0.03
FBP-75WUU	0.05
BSP-85EE	0.06
BSP-85UU	0.06
BSP-120EE	0.13
BSP-120UU	0.13

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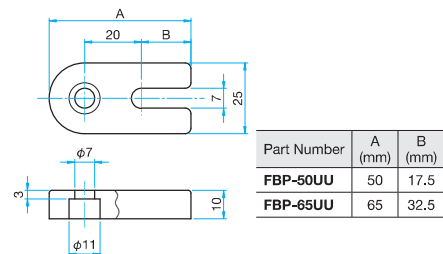
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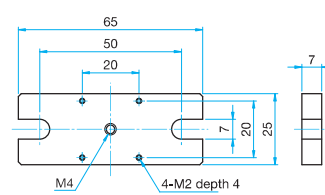
FBP-50UU/65UU

- Hexagonal socket headcap screw M6x8, M6x18...1 pieces each (EC)
- Hexagonal socket headcap screw 1/4-20UNCx5/16, 1/4-20UNCx3/4...1 pieces each (US)



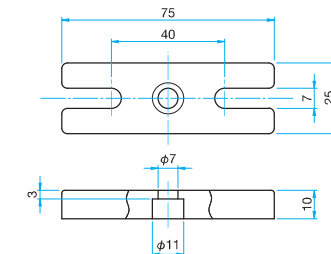
BSP-65EE

- Hexagonal socket headcap screw M6x15...2 screws (EC)
- Hexagonal socket headcap screw 1/4-20UNCx5/8...2 screws (US)



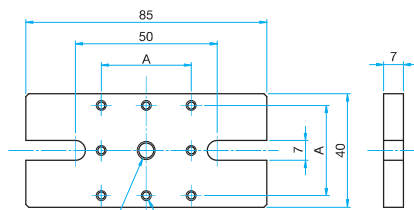
FBP-75UU

- Hexagonal socket headcap screw M6x8, M6x18...1 pieces each (EC)
- Hexagonal socket headcap screw 1/4-20UNCx5/16, 1/4-20UNCx3/4...1 pieces each (US)



BSP-85EE/85UU

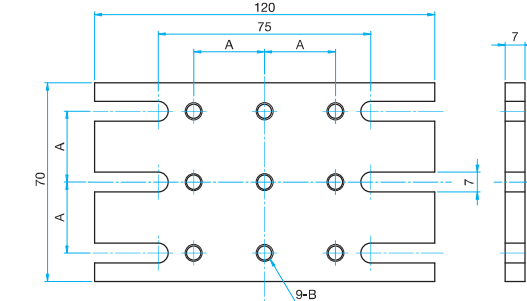
- Hexagonal socket headcap screw M6x15...2 screws (85EE)
- Hexagonal socket headcap screw 1/4-20UNCx5/8...2 screws (85UU)



Part Number	A (mm)	B	C
BSP-85EE	32	M6 P1	M3
BSP-85UU	31.75	1/4-20UNC	6-32UNC

BSP-120EE/120UU

- Hexagonal socket headcap screw M6x15...2 screws (120EE)
- Hexagonal socket headcap screw 1/4-20UNCx5/8...2 screws (120UU)



Part Number	A (mm)	B
BSP-120EE	25	M6 P1
BSP-120UU	25.4	1/4-20UNC

M2

Designed to mount optical units on optical baseplates (OBB) with M2 tapped holes.

Guide

- Optical baseplates (OBB) with M2 tapped holes are also available. [Reference](#) D033

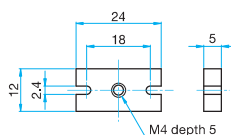
Specifications

Primary material: Aluminum
Finish: Black Anodized

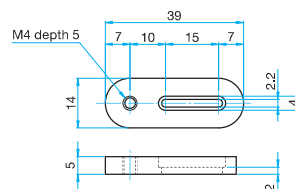
Part Number	Weight [kg]
BSP-24	0.004
BSP-39	0.006
BSP-50	0.016

Outline Drawing

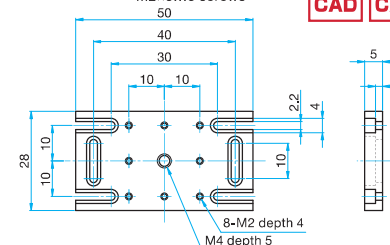
- BSP-24** Pan head screw M2x8...2 screws
Flat washer



- BSP-39** Pan head screw M2x6...1 screw



- BSP-50** Pan head screw M2x6...6 screws



Base Clamps M6 Conversion Adapters

BSC
AD-M6

BSC

RoHS Catalog Code W6029

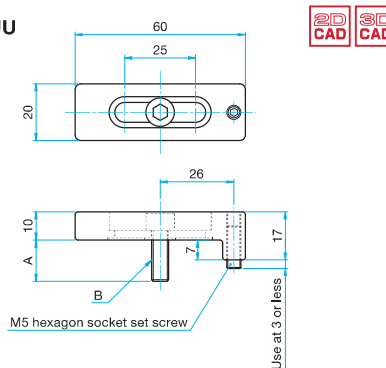
Clamp for use with BSP series M6 base plates.



- Can be used to secure base plates or other equipment with a plate-shaped protrusion on its bottom surface.
- Clamps plate thicknesses of 7 – 10mm.

Outline Drawing

BSC-60/60UU



Guide

► An M6 base plate is normally secured on top of a vibration isolator or laboratory bench using an M6 bolt with a long-notched section. This base clamp allows fixing of the base plate at an arbitrary position even when there is no tapped hole.

Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	A [mm]	B	Weight [kg]
BSC-60	14.5	M6 P1	0.04
BSC-60UU	15.5	1/4-20UNC	0.04

AD-M6

RoHS Catalog Code W6030

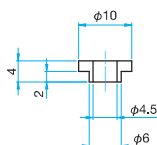
M6-M4 Conversion Adapters

- Adapter for converting a mounting hole from M6 to M4.

Outline Drawing



AD-M6-M4



Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	Weight [kg]	Quantity [Pieces]
AD-M6-M4	0.004	10

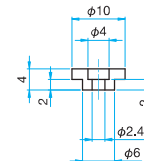
M6-M2 Conversion Adapters

- Adapter for converting a mounting hole from M6 to M2.

Outline Drawing



AD-M6-M2

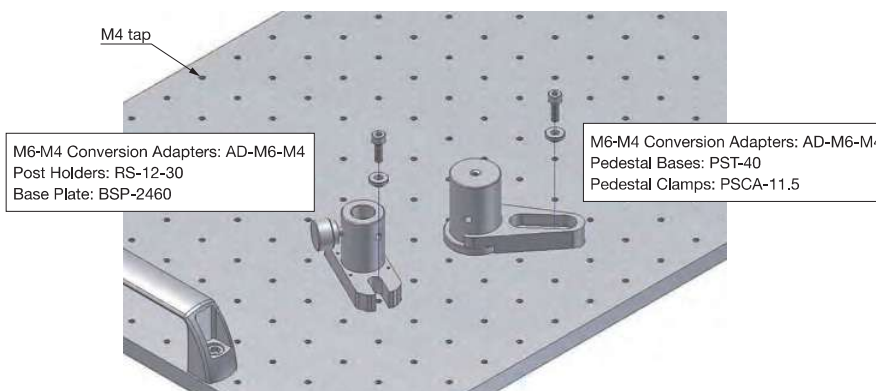


Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	Weight [kg]	Quantity [Pieces]
AD-M6-M2	0.005	10

Example of Use of Conversion Adapters



Using adapter AD-M6-M4, (example: OBC-3045) breadboard fastener to.

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Kinematic base consisting of upper and lower plates, where the top plate secures a holder or equipment while the bottom plate is fixed on an optical breadboard.

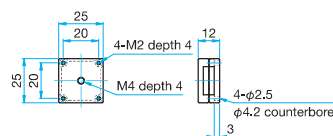
- Accurate positional repeatability is achieved by matching the holes on the upper plate to the three steel balls embedded in the lower plate.
- There is a type to be fixed with a strong magnet, and with fixation clamp screw or knurling.
- The magnet type of REP series (□ 25,40,60 mm) can be quickly exchanged by a powerfully forced connection. It is realized the reproducibility of less than 100µrad.
- Always secure the lower plate with screws.



Outline Drawing

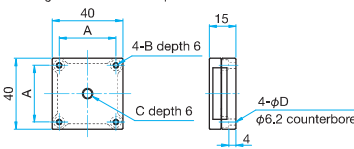
REP-25

Hexagonal socket head cap screw M2x6...4 screws



REP-40/40UU

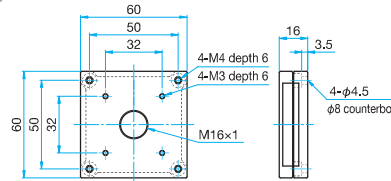
Hexagonal socket head cap screw M3x8...4 screws (40)
Hexagonal socket head cap screw 6-20UNCx5/16...4 screws (40UU)



Part Number	A (mm)	B	C	φD (mm)
REP-40	32	M3	M6 P1	3.5
REP-40UU	31.75	6-32UNC	1/4-20UNC	4

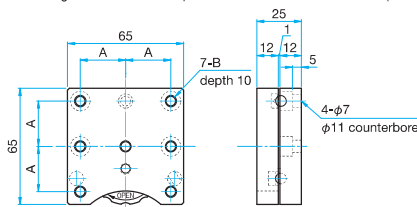
REP-60

Hexagonal socket head cap screw M4x8...4 screws



REP-65EE/65UU

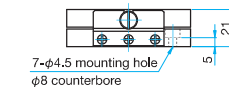
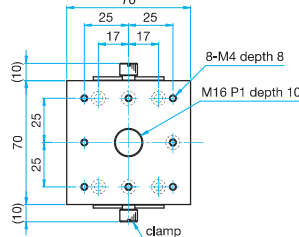
Hexagonal socket head cap screw M6x12...4 screws (65EE)
Hexagonal socket head cap screw 6-20UNCx5/16...4 screws (65UU)



Part Number	A (mm)	B
REP-65EE	25	M6 P1
REP-65UU	25.4	1/4-20UNC

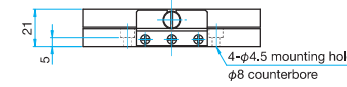
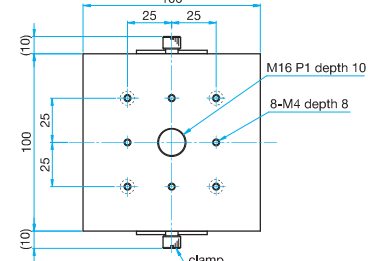
REP-70

Hexagonal socket head cap screw M4x10...4 screws

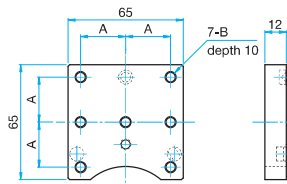


REP-100

Hexagonal socket head cap screw M4x10...4 screws



REP-65PEE/65PUU



Part Number	A (mm)	B
REP-65PEE	25	M6 P1
REP-65PUU	25.4	1/4-20UNC

Magnet Type		Primary material: Aluminum Finish: Black Anodized
Part Number	Weight [kg]	
REP-25	0.03	
REP-40	0.07	
REP-40UU	0.07	
REP-60	0.09	

Fixed type		Primary material: Iron Finish: Black matte
Part Number	Weight [kg]	
REP-65EE	0.29	
REP-65UU	0.29	
REP-70	0.77	
REP-100	1.5	

Top Plate only		Primary material: Aluminum Finish: Black Anodized
Part Number	Weight [kg]	
REP-65PEE	0.12	
REP-65PUU	0.12	

Guide

- ▶ Mount (FMB-40) for direct installation of mirror holders that enables switching of optical path is also available. [Reference](#) C018
- ▶ We offer top plates for replacement other than catalog products. WEB reference [WEB Reference](#) Catalog Code W6031

Attention

- ▶ The magnet type of REP series (□25, 40, 60 mm) has a weak structure to offset load for magnetic force retention. It is recommended to use that the center of gravity is matched to the center of the top plate.

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Black Anodized Aluminum Base Plates.

Space-saver on vibration isolators or laboratory benches when configuring optical units.



- Attached grips allow easy moving and storage.
- M4 or M6 tapped holes (through holes) are arranged in a matrix form spaced 25×25mm.
- Flatness is 0.2mm.

Guide

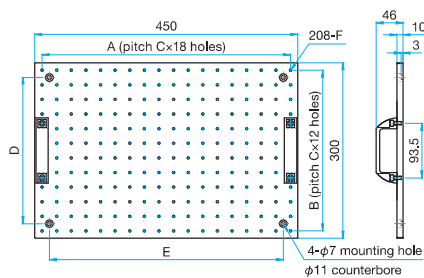
- ▶ One set of the optical baseplate includes two grips and an aluminum plate.
- ▶ Custom sizes not listed in the catalog can be purchased. Contact our International Sales Division for more information.



Outline Drawing

OBC-3045 Series

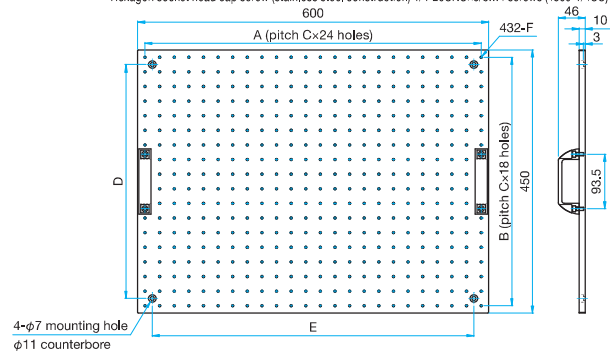
- Hexagon socket head cap screw (stainless steel construction) M6×10...4 screws (3045, 3045-M6)
- Hexagon socket head cap screw (stainless steel construction) 1/4-20UNC×3/8...4 screws (3045-1/4UU)



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F
OBC-3045	425	275	25	250	400	M4
OBC-3045-M6	425	275	25	250	400	M6
OBC-3045-1/4UU	431.8	279.4	25.4	254	406.4	1/4-20UNC

OBC-4560 Series

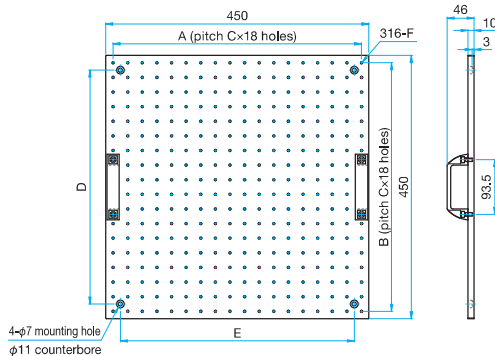
- Hexagon socket head cap screw (stainless steel construction) M6×10...4 screws (4560-M6)
- Hexagon socket head cap screw (stainless steel construction) 1/4-20UNC×3/8...4 screws (4560-1/4UU)



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F
OBC-4560	575	425	25	400	550	M4
OBC-4560-M6	575	425	25	400	550	M6
OBC-4560-1/4UU	584.2	431.8	25.4	406.4	558.8	1/4-20UNC

OBC-4545 Series

- Hexagon socket head cap screw (stainless steel construction) M6×10...4 screws (4545, 4545-M6)
- Hexagon socket head cap screw (stainless steel construction) 1/4-20UNC×3/8...4 screws (4545-1/4UU)



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F
OBC-4545	425	425	25	400	400	M4
OBC-4545-M6	425	425	25	400	400	M6
OBC-4545-1/4UU	431.8	431.8	25.4	406.4	406.4	1/4-20UNC

Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number			Size [mm]	Weight [kg]
Tapped Holes on Top Surface				
M4	M6	1/4-20UNC		
OBC-3045	OBC-3045-M6	OBC-3045-1/4UU	300×450	3.6
OBC-4545	OBC-4545-M6	OBC-4545-1/4UU	450×450	5.4
OBC-4560	OBC-4560-M6	OBC-4560-1/4UU	450×600	7.3

- The OBC model has M4 tapped holes on 25×25mm matrix, and the OBB model has M2 tapped holes on 10×10mm matrix.



Guide

- ▶ Medium low-profile optical rails or compact aluminum rails can be secured on the top surface. In that case, adapters for converting M6 to M4 (AD-M6-M4) and M6 to M2 (AD-M6-M2) are available. [Reference](#) ▶ D030
- ▶ We will accept production of sizes not listed in the catalog. Contact our International Sales Division for more information.

Attention

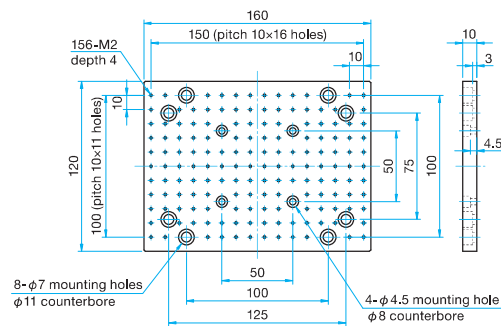
- ▶ Note that this product does not come with grips.



Outline Drawing

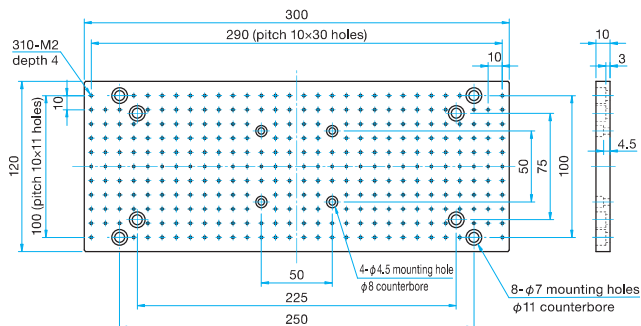
OBB-1216

Hexagonal socket headcap screw M6×10...8 screws, M4×12...4 screws



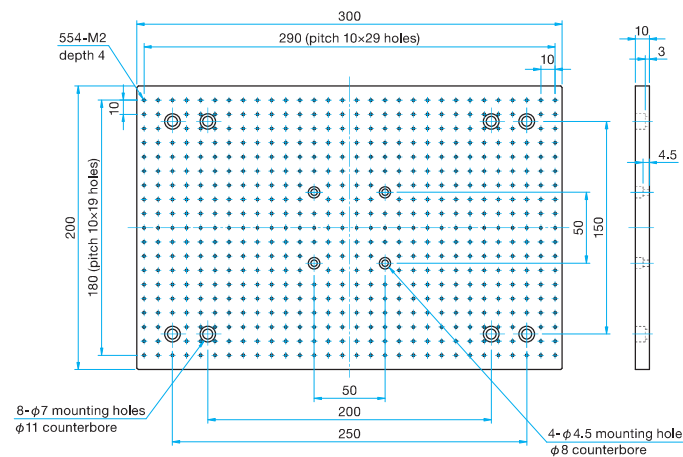
OBB-1230

Hexagonal socket headcap screw M6×10...8 Screws, M4×12...4 screws



OBB-2030

Hexagonal socket headcap screw M6×10...8 screws, M4×12...4 screws



Specifications

Part Number	Size [mm]	Tapped Holes on Top Surface	Weight [kg]	Primary material: Aluminum Finish: Black Anodized
OBB-1216	120×160	M2	0.48	
OBB-1230	120×300	M2	0.93	
OBB-2030	200×300	M2	1.58	

Optical Baseplates Aluminum Spacers (□25mm)

OBB/OBC
MSP-25



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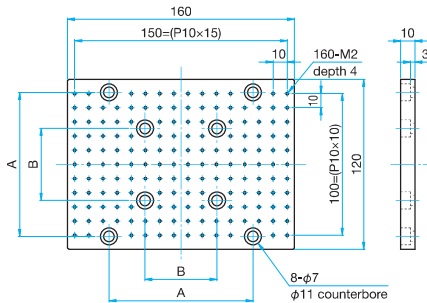
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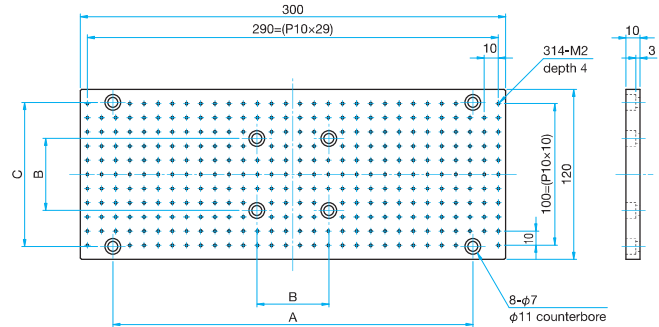
OBB-121EE/121UU

Hexagonal socket headcap screw M6×10...4 screws (121EE)
Hexagonal socket headcap screw 1/4-20UNC×3/8...4 screws (121UU)



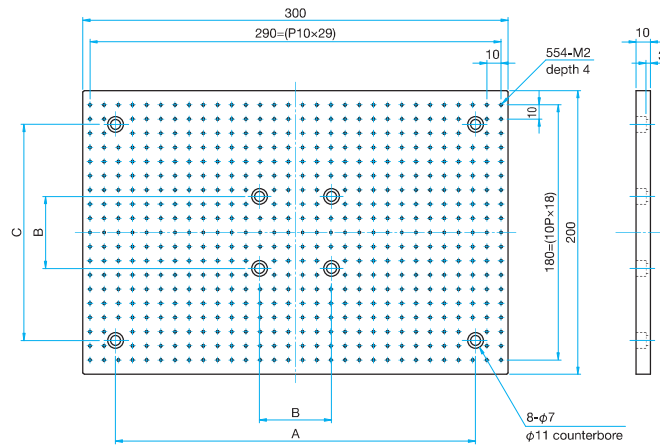
OBB-123EE/123UU

Hexagonal socket headcap screw M6×10...4 screws (123EE)
Hexagonal socket headcap screw 1/4-20UNC×3/8...4 screws (123UU)



OBB-203EE/203UU

Hexagonal socket headcap screw M6×10...4 screws (203EE)
Hexagonal socket headcap screw 1/4-20UNC×3/8...4 screws (203UU)



Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	Size [mm]	Tapped Holes on Top Surface	A [mm]	B [mm]	C [mm]	Weight [kg]
OBB-121EE	120×160	M2	100	50	—	0.48
OBB-121UU	120×160	M2	101.6	50.8	—	0.48
OBB-123EE	120×300	M2	250	50	100	0.93
OBB-123UU	120×300	M2	254	50.8	101.6	0.93
OBB-203EE	200×300	M2	250	50	150	1.58
OBB-203UU	200×300	M2	254	50.8	152.4	1.58



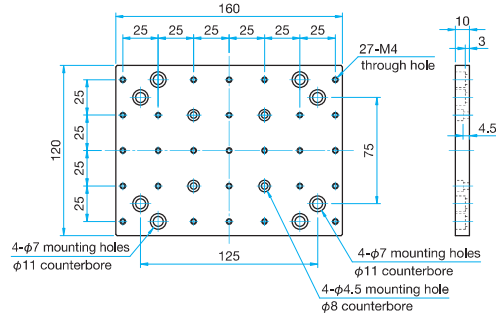
Example of baseplate usage



Outline Drawing

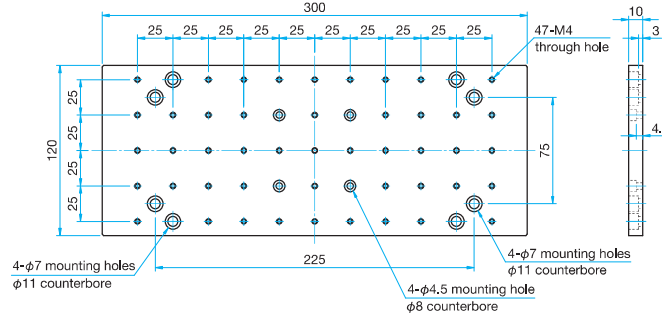
OBC-1216

Hexagonal socket headcap screw M6×10...8 screws, M4×12...4 screws



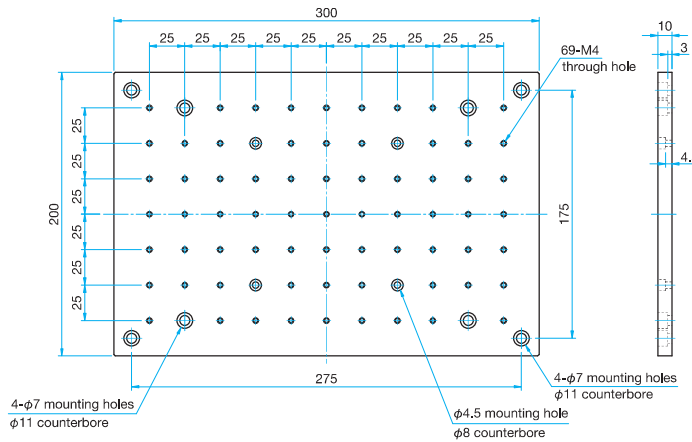
OBC-1230

Hexagonal socket headcap screw M6×10...8 screws, M4×12...4 screws



OBC-2030

Hexagonal socket headcap screw M6×10...8 screws, M4×12...4 screws



Specifications

Part Number	Size [mm]	Tapped Holes on Top Surface	Weight [kg]	Primary material: Aluminum Finish: Black Anodized
OBC-1216	120×160	M4	0.48	
OBC-1230	120×300	M4	0.93	
OBC-2030	200×300	M4	1.58	

MSP-25

Spacers for □25mm positioning stages.



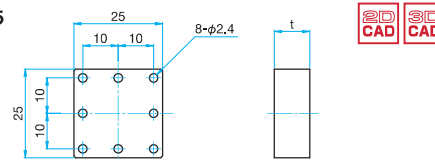
- Used when the height (thickness) of combined stages is insufficient for the preset optical axis.
- Different thickness is available with 5mm increments.

Guide

► Custom sizes not listed in the catalog can be purchased. Contact our International Sales Division for more information.

Outline Drawing

MSP-25



Specifications

Part Number	Thickness t [mm]	Weight [kg]	Primary material: Aluminum Finish: Black Anodized
MSP-2505	5	0.008	
MSP-2510	10	0.016	
MSP-2515	15	0.024	

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Aluminum Spacers (□40mm)

MSP-40



Catalog Code W6035

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□40mm spacers for adjusting the height of optical axis.



- Used when the stage height (thickness) is lower than the preset optical axis.
- Thickness is available starting with 1mm, enabling adjustment to arbitrary height.

Guide

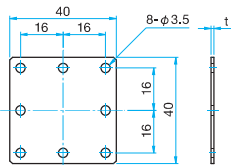
- ▶ Custom sizes not listed in the catalog can be purchased. Contact our International Sales Division for more information.



Outline Drawing

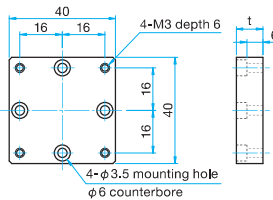
MSP-40**

- Hexagon socket head cap screw M3x8...4 screws (4002, 4003)
- Hexagon socket head cap screw M3x10...4 screws (4005)



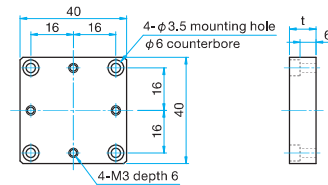
MSP-40A**

- Hexagon socket head cap screw M3x10...4 screws

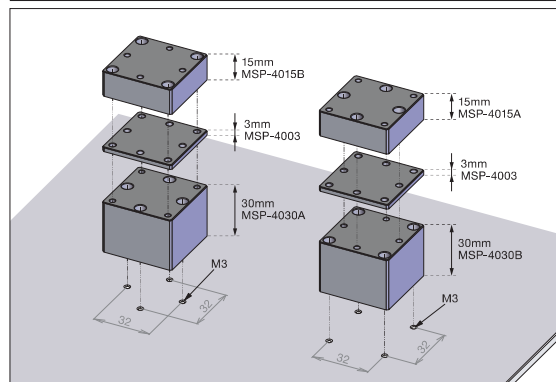


MSP-40B**

- Hexagon socket head cap screw M3x10...4 screws



Combination Example (Height: 48mm)



		Mounting Surface Pattern		
		P.C.D.32M3	□32M3	
Height (mm)	5	MSP-4005	MSP-4005	
	10	MSP-4010A	MSP-4010B	
	15	Upper	MSP-4005	MSP-4005
		Lower	MSP-4010A	MSP-4010B
	20	Upper	MSP-4010	MSP-4010A
		Lower	MSP-4010A	MSP-4010B
	25	Upper	MSP-4010	MSP-4010A
		Lower	MSP-4015A	MSP-4015B
	30	Upper	MSP-4010	MSP-4010A
		Lower	MSP-4020A	MSP-4020B
	35	Upper	MSP-4010	MSP-4010A
		Lower	MSP-4025A	MSP-4025B
	40	Upper	MSP-4010	MSP-4010A
		Lower	MSP-4030A	MSP-4030B
	45	Upper	MSP-4015	MSP-4015A
		Lower	MSP-4030A	MSP-4030B
	50	Upper	MSP-4020	MSP-4020A
		Lower	MSP-4030A	MSP-4030B
55	Upper	MSP-4025	MSP-4025A	
	Lower	MSP-4030A	MSP-4030B	
60	Upper	MSP-4030	MSP-4030A	
	Lower	MSP-4030A	MSP-4030B	
65	Upper	MSP-4030	MSP-4030A	
	Middle	MSP-4005	MSP-4005	
Lower	MSP-4030A	MSP-4030B		

Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	Thickness t [mm]	Weight [kg]
MSP-4001	1	0.004
MSP-4002	2	0.009
MSP-4003	3	0.01
MSP-4005	5	0.02
MSP-4010A	10	0.04
MSP-4010B	10	0.04
MSP-4015A	15	0.06
MSP-4015B	15	0.06
MSP-4020A	20	0.09
MSP-4020B	20	0.09
MSP-4025A	25	0.11
MSP-4025B	25	0.11
MSP-4030A	30	0.13
MSP-4030B	30	0.13

□60mm spacers for adjusting the height of optical axis.



- Used when the stage height (thickness) is lower than the preset optical axis.
- Thickness is available starting with 1mm, enabling adjustment to arbitrary height.

Guide

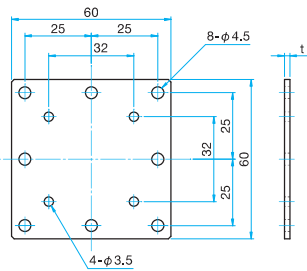
- ▶ Custom sizes not listed in the catalog can be purchased. Contact our International Sales Division for more information.



Outline Drawing

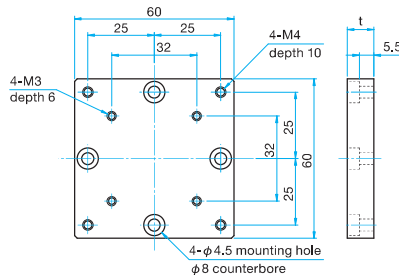
MSP-60**

- Hexagonal socket head cap screw M4x8...4 screws (6002, 6003)
- Hexagonal socket head cap screw M4x10...4 screws (6005)



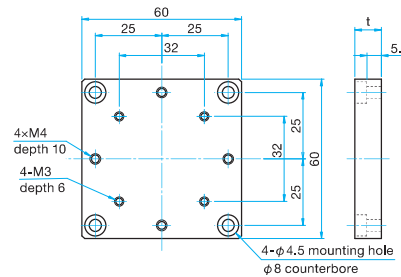
MSP-60**A

- Hexagonal socket head cap screw M4x10...4 screws



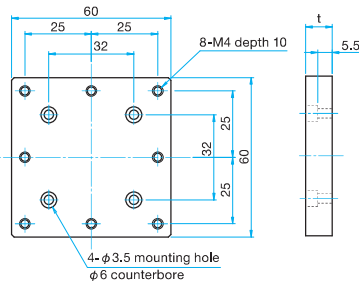
MSP-60**B

- Hexagonal socket head cap screw M4x10...4 screws

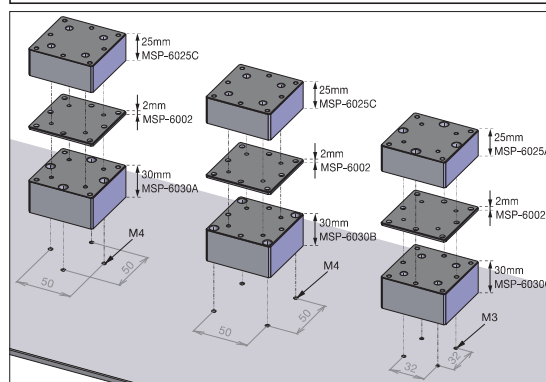


MSP-60**C

- Hexagon socket head cap screw M3x10...4 screws



Combination Example (Height: 57mm)



Mounting Surface Pattern

Height (mm)	Mounting Surface Pattern		
	P.C.D.50M4	□50M4	□32M3
5	MSP-6005	MSP-6005	MSP-6005
10	MSP-6010A	MSP-6010B	MSP-6010C
15	Upper	MSP-6005	MSP-6005
	Lower	MSP-6010A	MSP-6010B
20	Upper	MSP-6010C	MSP-6010C
	Lower	MSP-6010A	MSP-6010B
25	Upper	MSP-6010C	MSP-6010C
	Lower	MSP-6015A	MSP-6015B
30	Upper	MSP-6010C	MSP-6010C
	Lower	MSP-6020A	MSP-6020B
35	Upper	MSP-6010C	MSP-6010C
	Lower	MSP-6025A	MSP-6025B
40	Upper	MSP-6010C	MSP-6010C
	Lower	MSP-6030A	MSP-6030B
45	Upper	MSP-6015C	MSP-6015C
	Lower	MSP-6030A	MSP-6030B
50	Upper	MSP-6020C	MSP-6020C
	Lower	MSP-6030A	MSP-6030B
55	Upper	MSP-6025C	MSP-6025C
	Lower	MSP-6030A	MSP-6030B
60	Upper	MSP-6030C	MSP-6030C
	Lower	MSP-6030A	MSP-6030B
65	Upper	MSP-6030C	MSP-6030C
	Middle	MSP-6005	MSP-6005
	Lower	MSP-6030A	MSP-6030B

Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number	Thickness t [mm]	Weight [kg]
MSP-6001	1	0.01
MSP-6002	2	0.02
MSP-6003	3	0.03
MSP-6005	5	0.05
MSP-6010A	10	0.10
MSP-6010B	10	0.10
MSP-6010C	10	0.10
MSP-6015A	15	0.15
MSP-6015B	15	0.15
MSP-6015C	15	0.15
MSP-6020A	20	0.19
MSP-6020B	20	0.19
MSP-6020C	20	0.19
MSP-6025A	25	0.24
MSP-6025B	25	0.24
MSP-6025C	25	0.24
MSP-6030A	30	0.29
MSP-6030B	30	0.29
MSP-6030C	30	0.29

Platform for adjusting the height of optical axis.



- Made up of two aluminum plates and four stainless steel posts (finish: none).
- Posts are made to desired length in 1mm increments between 11mm and 100mm.
- The SP-124 is compatible with post holders and □60mm positioning stages.
- The UP can be directly secured on an optical breadboard.

Guide

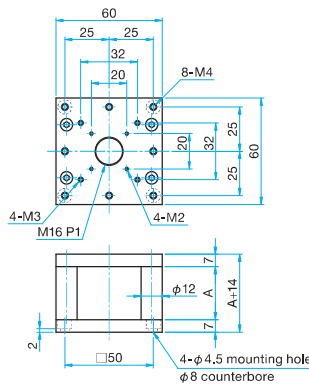
- ▶ Make sure to specify the post length A (A=11mm or longer) at the time of ordering.
- ▶ Custom Posts longer than the lengths listed in the catalog (but within 300mm) as well as additional processing are available. Contact our International Sales Division for more information. Use [▶ WEB Reference](#) [Catalog Code](#) W6037 the Question Sheet for Height Alignment Platform.

Attention

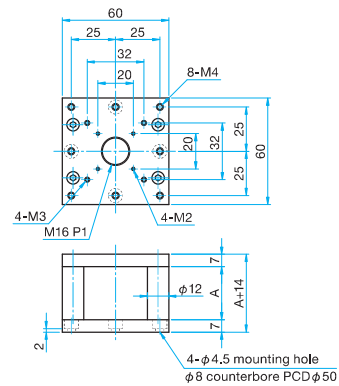
- ▶ Weight does not include the weight of struts.

Outline Drawing

SP-124-1 Hexagonal socket head cap screw M4x6...4 screws

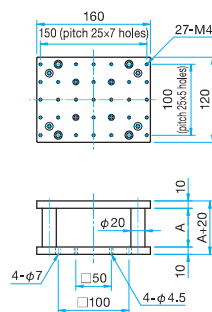


SP-124-2 Hexagonal socket head cap screw M4x6...4 screws



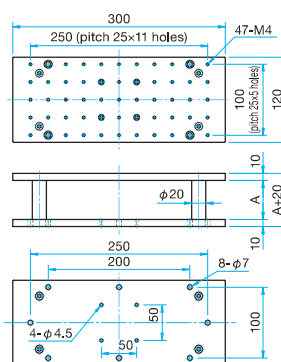
UP-1216

Hexagon socket head cap screw M6x18...4 screws, M4x16...4 screws



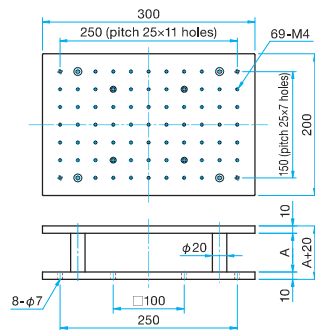
UP-1230

Hexagon socket head cap screw M6x18...4 screws, M4x16...4 screws



UP-2030

Hexagon socket head cap screw M6x18...4 screws, M4x16...4 screws



Specifications

Plate material: Aluminum
Plate Finish: Black Anodized

Part Number	Strut Length [mm]	Weight [kg]
SP-124-1	$12 \leq A \leq 100$	0.12
SP-124-2	* 101mm or longer will be quoted separately.	0.12
UP-1216	$11 \leq A \leq 100$	0.99
UP-1230	* 101mm or longer will be quoted separately.	1.89
UP-2030		3.18

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