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P Manual Positioners 2016

P

Manual Positioners

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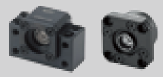
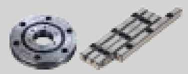
1 Support Units



2 Couplings

3 Guides & Bearings



4 Positioning Stages

5 Standard Motorized Stages

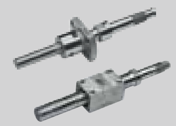
6 Precision Motorized Stages

7 Precision Alignment Stages

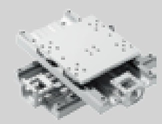
8 Motor / Driver

9 Lock Nuts

10 Ball Screws



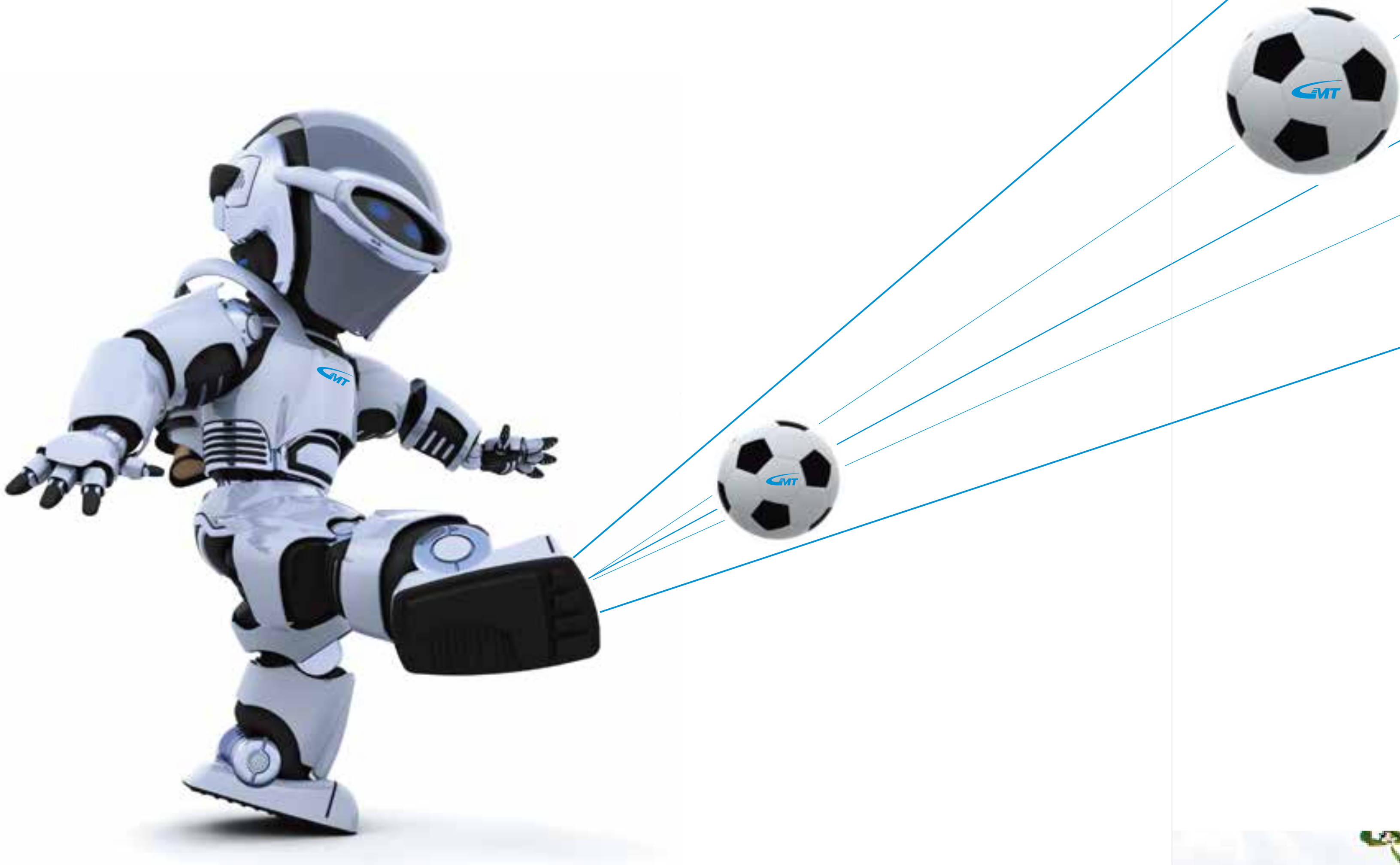
11 XY-TABLE Linear Stages



12 Linear Actuators

Thanks for interesting in GMT Manual Positioners.
In this catalogue, you will find our category 4 as shown in specified colors.
Category 1, 2, 3, 9, and 10 will be found in another catalogue Linear Motion Components.
Category 5, 6, 7, 8, 11, and 12 will be found in another catalogue Motorized Positioners.

Most update product data will be available to be download from our website.



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Motion
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Enthusiasm . United . Innovation . Brilliant

The best parter of Motion Technical, GMT, devote itself to research & development and design, system plan, as to production needs, try to be the best cooperate partner and reliable ally through coordination development with clients, to satisfy Automatic Equipment and Precision Measuring related industries. Choosing Made in Taiwan GMT products integrated to your products, safe and ease are secured.

GMT insists on core value "Service, Quality, R&D", and regard high technical and high precision product development as our mission, to stride toward to be the World-Class Precision Linear Motion Enterprise as our main goal.

4 Positioning Stages

Positioning Stages-Product Introduction

Micometer-Product Introduction

Feeding Screw-Product Introduction

Positioning Stages-Specification Introduction

4 Positioning Stages

Manual Positioners
Positioning Stages
GMT GLOBAL INC.
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4 Positioning Stages

4 Positioning Stages

4 Positioning Stages

4 Positioning Stages

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Micrometer Specification New Specifications Stroke 0~13 Economic type	EMHGS-F(S)N(P)-13	P.0324
Micrometer Specification New Specifications Stroke 0~25 Economic type	EMHGS-F(S)N(P)-25	P.0325
Feeding Screw Stages New Specifications	PS1R□-□	P.0329
Feeding Screw Stages New Specifications	PS2R□-□	P.0329~P.0330
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Feeding Screw Stage New Specifications X-axis	PS2M□-25	P.0331
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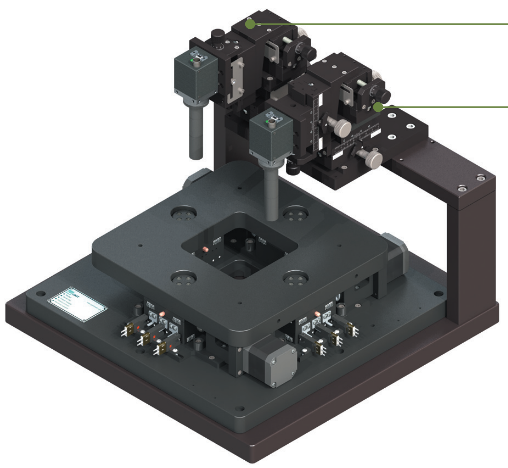
Positioning Stages-Technical Information

◆Application Examples : P.0337~P.0338



P Manual Positioners

Manual Positioners-Product Information

◆Specifications Comparison Form : P.0003~P.0030

Manual Positioners-Technical Information

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◆Material Reference:Aluminum Alloy-Series : P.0347
◆Temper Designation of Aluminum Alloys : P.0348
◆Material Comparison : P.0349
◆Lubricantion Description : P.0350
◆Cryogenic Process Description : P.0351
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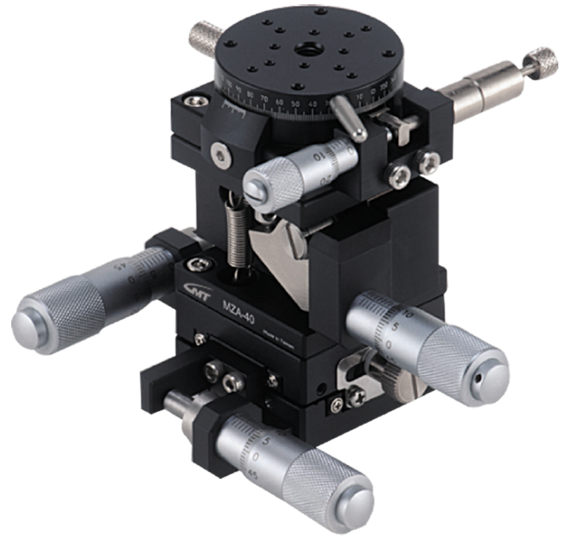
Innovative Thinking · Rigorous Process · Reliable Quality

1 Product planning phase	2 Idealization phase	3 Technical trial phase	4 Manufacturing process preparation phase	5 Pilot production and basic inventory buildup phase
Preliminary ideas for product development and development plan	Substantiation of concepts	First piece inspection	Establishment of tools, molds and fixtures	Production plan
Market positioning for products	Feasibility study of structure	Prototype product testing	Establishment of testing fixtures	Production inventory management
Establish product development specifications	Design review	Product function and misuse testing	Preparing Standard Operation Procedure (SOP) and Standard Inspection Procedure (SIP)	Issuing of production work-order

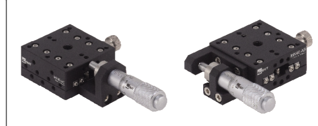
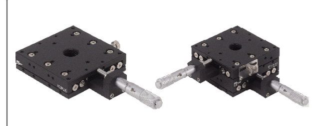
4



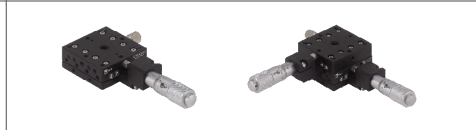
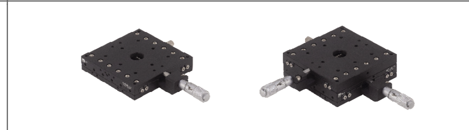
Positioning Stages

Specification Comparison of the Mini-Stages

P.0047 ~ P.0065

MX(Y)□-AC (AS)【Aluminum Alloy】- MICROMETER DESIGN			
Product Trait	Crossed roller guiding		
Pages	P.0047 ～ P.0051	P.0053 ～ P.0059	P.0061 ～ P.0065
Image			
Table Size【mm】	□20, □25, □30	□40, □50, □60, □70	□80, □100, □120
Travel Stroke【mm】	±3.2	±6.5	±12.5
Loading【kgf】	1～1.2	2～6, 1.8～6	10～20, 9.5～18.4
Weight【kg】	0.03～0.045, 0.06～0.09	0.14～0.44, 0.3～0.88	0.5～1.6, 1～3.2

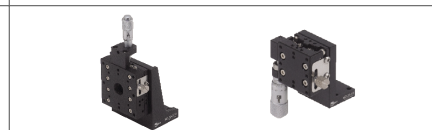
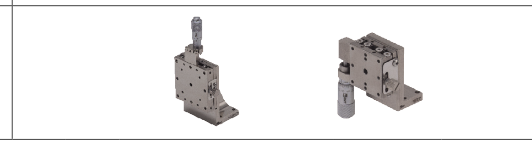
P.0075 ~ P.0083

MX(Y)L□-AC (AS)【Thin Aluminum Alloy】- Micrometer Design		
Product Trait	Crossed roller guiding	
Pages	P.0075 ～ P.0079	P.0081 ～ P.0083
Image		
Table Size【mm】	□30, □40, □60	□90, □125
Travel Stroke【mm】	±3.2【□30】, ±6.5【□40, □60】	±7.5, ±12.5
Loading【kgf】	1～5, 1～5	8, 15
Weight【kg】	0.04～0.3, 0.08～0.5	0.45～1.1, 0.85～2

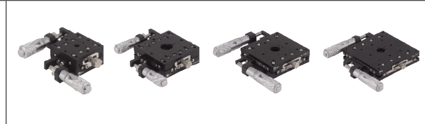
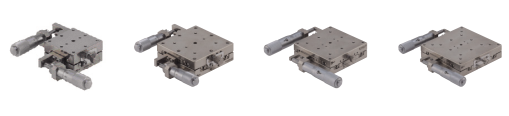
P.0085

MLZ□-ASZ【Aluminum Alloy】- Micrometer Design			
Product Trait	Crossed roller guiding		
Pages	P.0085		
Image			
Table Size【mm】	□30, □40, □60, □90		
Travel Stroke【mm】	±3.2【□30】	±6.5【□40, □60】	±7.5【□90】
Loading【kgf】	1.5	1.5, 2	3
Weight【kg】	0.1	0.21, 0.52	0.91

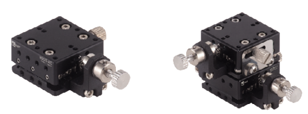
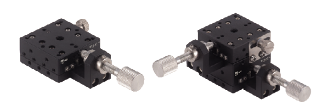
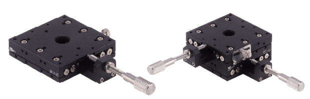
P.0067 ~ P.0069, P.0135 ~ P.0137

MZL □-ACR (As), SCR, (SS)【Aluminum Alloy】,【Stainless Steel】- Micrometer Design		
Product Trait	Crossed roller guiding／Linear ball guiding	
Pages	P.0067 ～ P.0069	P.0135 ～ P.0137
Image		
Table Size【mm】	□25, □40, □60, □80	
Travel Stroke【mm】	±3.2【□25】, ±6.5【□40, □60】, ±12.5【□80】	
Loading【kgf】	0.5, 1, 2, 5, 1【□25】, 5【□40, □60, □80】	
Weight【kg】	0.06, 0.2, 0.45, 0.8,【0.23, 0.09】, 0.32, 0.58, 1.2	

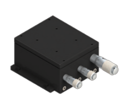
P.0087 ~ P.0089 , P.0139 ~ P.0141

MYW □ - AS (AC), SS (SC) Series【Super Thin Aluminum Alloy】,【Super Thin Stainless Steel】- Micrometer Design		
Product Trait	Crossed roller guiding, Linear ball guiding	
Pages	P.0087 ～ P.0089	P.0139 ～ P.0141
Image		
Table Size【mm】	□40, □60, □80, □100	
Travel Stroke【mm】	±6.5【□40, □60】, ±12.5【□80, □100】	
Loading【kgf】	1【□40】, 3【□60】, 4【□80, □100】, 9, 19, 20, 25	
Weight【kg】	0.2, 0.4, 0.7, 1.1, 0.34, 0.64, 1.32, 2	

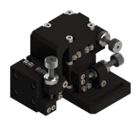
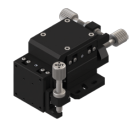
P.0091 ~ P.0107

MX(Y)□-AC (AS)【Aluminum Alloy】- Feeding Screw Design			
Product Trait	Crossed roller guiding		
Pages	P.0091 ～ P.0093	P.0095 ～ P.0101	P.0103 ～ P.0107
Image			
Table Size【mm】	□25, □30	□40, □50, □60, □70	□80, □100, □120
Travel Stroke【mm】	±3.2	±6.5	±12.5
Loading【kgf】	1	2 ～ 6, 1.8 ～ 6	10 ～ 20, 9.5 ～ 18.4
Weight【kg】	0.04 ～ 0.045, 0.08 ～ 0.09	0.14 ～ 0.44, 0.3 ～ 0.88	0.5 ～ 1.6, 1 ～ 3.2

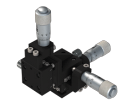
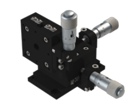
P.0109

MX764 - AC - SHR【Aluminum Alloy】- Micrometer Design			
Product Trait	Crossed roller guiding		
Pages	P.0109【X axis】		
Image			
Table Size【mm】	76×64		
Travel Stroke【mm】	Coarse：≒6.5	Medium：≒0.325	Fine：≒0.0325
Loading【kgf】	1.5		
Weight【kg】	0.6		

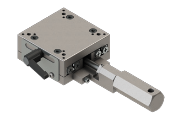
P.0114 ~ P.0116

MPS Series【Prober Stage Series, XYZ-Axis】			
Product Trait	Crossed roller guiding		Linear ball guiding
Pages	P.0114	P.0115	P.0116
Image			
Table Size【mm】	□ 20	20*35	□ 40
Travel Stroke【mm】	±3	±5	±6.5
Loading【kgf】	1	1.5	4.5
Weight【kg】	0.11	0.21	0.99

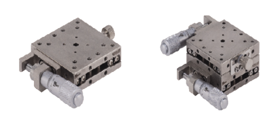
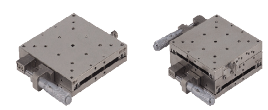
P.0110 ~ P.0111

MBZ【Aluminum Alloy】- Low Profile		
Product Trait	Crossed roller guiding	
Pages	P.0110	P.0111
Image		
Table Size【mm】	□ 20	□ 30
Travel Stroke【mm】	±3	±3.25
Loading【kgf】	1	1.5
Weight【kg】	0.08	0.18

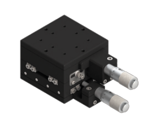
P.0117

MXTH80 - FCS【Carbon Steel】- Feeding Screw Type	
Product Trait	Crossed roller guiding
Pages	P.0117
Image	
Table Size【mm】	□ 80
Travel Stroke【mm】	±20
Loading【kgf】	40.5
Weight【kg】	1.9

P.0119 ~ P.0133

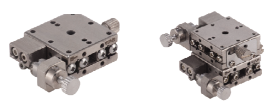
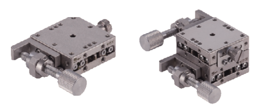
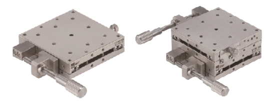
MX(Y)-SC (SS)【Stainless Steel】- Micrometer Design			
Product Trait	Linear ball guiding		
Pages	P.0119 ～ P.0121	P.0123 ～ P.0129	P.0131 ～ P.0133
Image			
Table Size【mm】	□25, □30	□40, □50, □60, □70	□80, □100
Travel Stroke【mm】	±3.2	±6.5	±12.5
Loading【kgf】	4 ～ 6, 3.9 ～ 5.9	10 ～ 23, 9.7 ～ 22.4	27 ～ 35, 26.1 ～ 33.6
Weight【kg】	0.07 ～ 0.08, 0.14 ～ 1.9	0.23 ～ 0.58, 0.46 ～ 1.16	0.9 ～ 1.33, 1.8 ～ 2.66

P.0112 ~ P.0113

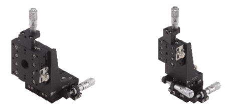
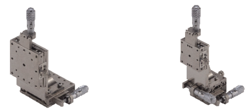
MYCP □ - A【Aluminum Alloy, XY-Axis】- Micrometer Design		
Product trait	Crossed roller guiding	
Pages	P.0112	P.0113
Image		
Table Size【mm】	□ 40	□ 60
Travel Stroke【mm】	±6.5	
Loading【kgf】	1.8	4.5
Weight【kg】	0.28	0.5

Specification Comparison Form

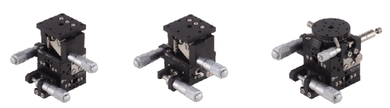
P.0145 ～ P.0159

MX(Y)-SC(SS)【Stainless Steel】- Feeding Screw Type			
Product Trait	Linear ball guiding		
Pages	P.0145 ～ P.0147	P.0149 ～ P.0155	P.0157 ～ P.0159
Image			
Table Size【mm】	□25, □30	□40, □50, □60, □70	□80, □100
Travel Stroke【mm】	±3.2	±6.5	±12.5
Loading【kgf】	4～6， 3.9～5.9	10～23， 9.7～22.4	27～35， 26.1～33.6
Weight【kg】	0.07～0.95， 0.14～1.9	0.23～0.58， 0.46～1.16	0.9～1.33， 1.8～2.66

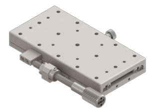
P.0071 ～ P.0072 , P.0143 ～ P.0144

MXZ□， MXYZ□-A, (S)【Aluminum Alloy】,【Stainless Steel】- Micrometer Design		
Product Trait	Crossed roller guiding,Linear ball guiding	
Pages	P.0071 ～ P.0072	P.0143 ～ P.0144
Image		
Table Size【mm】	□25， □30， □40， □50， □60， □70， □80， □100,《□120 Aluminum alloy》	
Loading【kgf】	□25 ～□50 ＝ 1， □60， □70 ＝ 2 □80 ～□120 ＝ 5	□25 ＝ 1， □30 ～□100 ＝ 5
Stroke and weight【kg】please refer to the product page		

P.0073 ～ P.0074

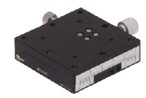
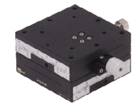
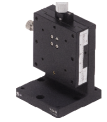
MXYZA, MXYWZA, MXYR, MXYZAR, MXYWR, MXYWZAR【Aluminum Alloy】- Micrometer Design		
Product Trait	Multi-axis stage	
Pages	P.0073	P.0074
Image		
Table Size【mm】	Please refer to the product page	
Loading【kgf】	Please refer to the product page	
Stroke and weight【kg】please refer to the product page		

P.0161

MX□L-SS【Stainless Steel】- Feeding Screw Type	
Product Trait	Linear ball guiding
Pages	P.0161
Image	
Table Size【mm】	60×120
Travel Stroke【mm】	±12.5
Loading【kgf】	16
Weight【kg】	0.76

Specification Comparison Form

P.0200 ～ P.0202

MC1A-□, MC2A-□, MC4A -□Series【Body Material：Brass Alloy】			
Product Trait	Dovetail feeding screw type		
Pages	P.0200	P.0201	P.0202
Image			
Table Size【mm】	□25， □40， □60		
Travel Stroke【mm】	±3， ±7， ±9		
Loading【kgf】	3， 3， 4	2.9， 2.8， 3.4	1， 1， 2
Weight【kg】	0.07， 0.19， 0.47	0.15， 0.38， 1.2	0.09， 0.26， 0.75

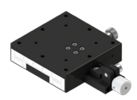
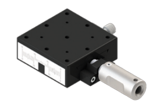
P.0203 , P.0206 , P.0213

MC1A-A□, MC1A -□L, MC1A -□KMR Series【Aluminum Alloy；Lead：4.2mm】			
Product Trait	Dovetail groove feeding screw thin type		Dovetail groove feeding screw type
Pages	P.0203	P.0206	P.0213
Image			
Table Size【mm】	□40， □60	40×60， 40×90	40×80
Travel Stroke【mm】	±11， ±21	±21， ±35	±30
Loading【kgf】	2， 3	3， 3	4
Weight【kg】	0.10， 0.19	0.14， 0.19	0.31

P.0204 , P.0210

MC4A-A□, MC4A-□S Series【Aluminum Alloy；Lead：4.2 mm】		
Product Trait	Dovetail groove feeding screw type	
Pages	P.0204【Z-axis thin type】	P.0210【Z-axis】
Image		
Table Size【mm】	□ 60	40×90
Travel Stroke【mm】	±21	±35
Loading【kgf】	2.1	2
Weight【kg】	0.42	0.46

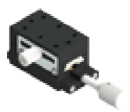
P.0205 , P.0212

MC1 (2) A-□CL, MC1 (4)-□ Series【Aluminum Alloy；Lead：0.5 mm】				
Product Trait	Dovetail groove feeding screw type			
Pages	P.0205【X-axis, XY-axis】		P.0212【X-axis, Z-axis】	
Image				
Table Size【mm】	□ 60		□ 40	
Travel Stroke【mm】	±9		±7	
Loading【kgf】	4	3.4	3	2.1
Weight【kg】	0.47	0.98	0.2	0.28

P.0206 ~ P.0209

MC1A - □L, MC1A - □C, MC1A - □S, MC2A - □S【Aluminum Alloy：Lead：4.2 mm】								
Product Trait	Dovetail groove feeding screw type							
Pages	P.0206【X-axis, T=18】		P.0207【X-axis, T=26】	P.0208【X-axis, T=26】		P.0209【XY-axis】		
Image								
Table Size【mm】	40×60	40×90	40×60	40×60	40×90	40×60	40×90	
Travel Stroke【mm】	±21	±35	±21	±21	±35	±21	±35	
Loading【kgf】	3		4, 2	4, 2		3.8	3.72	
Weight【kg】	0.14	0.19	0.19	0.19	0.29	0.43	0.62	

P.0211

MC1A - 425 Series【Aluminum Alloy；Lead：4.2 mm】	
Product Trait	Dovetail groove feeding screw type
Pages	P.0211
Image	
Table Size【mm】	25×40
Travel Stroke【mm】	±12
Loading【kgf】	3, 1.5
Weight【kg】	0.09

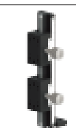
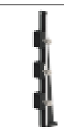
P.0215 ~ P.0217

MC1B - □, MC2B - □, MC4B - □ Series【Aluminum Alloy】			
Product Trait	Dovetail groove Rack and Pinion Type		
Pages	P.0215	P.0216	P.0217
Image	 		
Table Size【mm】	24.8×42, 40×60, 40×90, 40×140		
Travel Stroke【mm】	±12, ±21, ±35, ±60		
Loading【kgf】	3, 4, 4, 4,	2.5, 3.5, 3.5, 3.5	1.5, 2, 2, 2
Weight【kg】	0.17, 0.29, 0.40, 0.56,	0.29, 0.51, 0.73, 1.08	0.17, 0.33, 0.45, 0.68

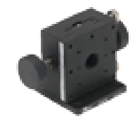
P.0219 ~ P.0220 , P.0223

MC1C - □, MC3C - □ Series【Aluminum Alloy】		
Product Trait	Dovetail groove Rack and Pinion Type	
Pages	P.0219 ～ P.0220	P.0223
Image		
Table Size【mm】	50, 70, 100, 150, 200, 250	50, 70, 100, 150, 200, 250, 300
Travel Stroke【mm】	±15, ±25, ±40, ±65, ±90, ±115	±15, 25, ±40, ±65, ±90, ±115, ±140
Loading【kgf】	3	1.5
Weight【kg】	0.12, 0.12, 0.14, 0.17, 0.21, 0.36	0.12, 0.135, 0.16, 0.215, 0.3, 0.36, 0.41

P.0221 ~ P.0222 , P.0224 ~ P.0225

MC1C - □ - 2, MC3C - □ - 2, MC3C - □ - 3【Aluminum Alloy】							
Product Trait	Dovetail groove Rack and Pinion Type【Double blocks / Triple blocks】						
Pages	P.0221		P.0222	P.0224			P.0225
Image							
Table Size【mm】	25×150	25×200	25×300	150(high)	200(high)	300(high)	300(high)
Travel Stroke【mm】	±20	±37	±70	±20	±37	±70	±43
Loading【kgf】	3			3	1.5		1.5
Weight【kg】	0.24	0.28	0.35	0.27	0.3	0.48	0.55

P.0226 ~ P.0228

MC1D - □, MC2D - □, MC4D - □ Series【Aluminum Alloy】			
Product Trait	Dovetail groove Rack and Pinion Type		
Pages	P.0226	P.0227	P.0228
Image			
Table Size【mm】	□25【Brass alloy】, □40, □60		
Travel Stroke【mm】	±5, ±10, ±20		
Loading【kgf】	3, 3, 4	2.9, 2.8, 3.0	0.7, 1.5, 2
Weight【kg】	0.09, 0.21, 0.64	0.18, 0.37, 1.19	0.11, 0.23, 0.6

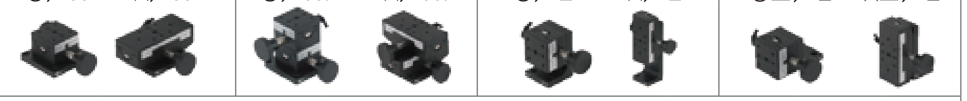
P.0229 ~ P.0233

MC1D - 40L, MC2DA - 48NH, MC1BL - 60【Aluminum Alloy】				
Product Trait	Dovetail groove Rack and Pinion Type			
Pages	P.0229	P.0230		P.0233
Image				
Table Size【mm】	□ 40	Upper：40×80	Lower：40×80	40×60
Travel Stroke【mm】	±10	±35	±30	±21
Loading【kgf】	2	3		3
Weight【kg】	0.25	0.6		0.3

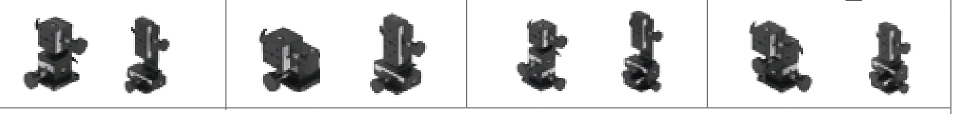
P.0231 ~ P.0032

MC3B - □, MC5B - □【Aluminum Alloy】,【Brass Alloy】		
Product Trait	Dovetail groove Rack and Pinion Type	
Pages	P.0231	P.0232
Image		
Table Size【mm】	□25【Brass alloy】, □40【Brass alloy】, □60	□25【Brass alloy】, □40【Brass alloy】, □60
Travel Stroke【mm】	±2.5, ±5, ±10	X ＝ ±5, ±7, ±10, Z ＝ +10, +10, +25
Loading【kgf】	0.7, 1, 1.5	1
Weight【kg】	0.08, 0.12, 0.47	0.17, 0.51, 0.62

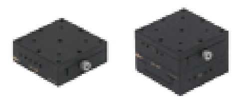
P.0235 ~ P.0242

MCS，MCD，MCV【None：Single Knob, W：Dual Knobs】【None：Z↑↓, L：Z↑Only】【Aluminum Alloy】								
Product Trait	Dovetail Rack and Pinion Type【Body weight = single knob type】							
Pages	P.0235 ～ P.0236		P.0237 ～ P.0238		P.0239 ～ P.0240		P.0241 ～ P.0242	
Image	◎／X	☆／X	◎／XY	☆／XY	◎／Z	☆／Z	◎△／Z	☆△／Z
								
Table Size【mm】	【44 ＝ 40×40, 46 ＝ 40×60】＝◎, 【49 ＝ 40×90, 41 ＝ 40×140】＝☆							
Travel Stroke【mm】	【±10, ±15】＝◎,【±30, ±50】＝☆, Z-axis with upper stroke direction only【＋】＝ △							
Loading【kgf】	4		3.5		2		2	
Weight【kg】	0.24, 0.31	0.4, 0.55	0.41, 0.54	0.72, 1.07	0.26, 0.36	0.47, 0.67	0.23, 0.33	0.45, 0.63

P.0243 ~ P.0250

MCM，MCT - □【None：Single Knob, W：Dual Knobs】【None：Z↑↓, L：Z↑Only】【Aluminum Alloy】								
Product Trait	Dovetail Rack and Pinion Type【Body weight = single knob type】							
Pages	P.0243 ～ P.0244		P.0245 ～ P.0246		P.0247 ～ P.0248		P.0249 ～ P.0250	
Image	◎／X＋Z	☆／X＋Z	◎△／X＋Z	☆△／X＋Z	◎／XY＋Z	☆／XY＋Z	◎△／XY＋Z	☆△／XY＋Z
								
Table Size【mm】	【44 ＝ 40×40, 46 ＝ 40×60】＝◎, 【49 ＝ 40×90, 41 ＝ 40×140】＝☆							
Travel Stroke【mm】	【±10, ±15】＝◎, 【±30, ±50】＝☆, Z-axis with upper stroke direction only【＋】＝ △							
Loading【kgf】	2							
Weight【kg】	0.5, 0.67	0.87, 1.23	0.47, 0.64	0.85, 1.18	0.67, 0.9	1.2, 1.74	0.64, 0.87	1.17, 1.7

P.0251 , P.0253 ~ P.0255

MC□D - 2550, MC□E - □【Brass Alloy】		
Product Trait	Dovetail groove Rack and Pinion Type / Hexagon wrench type	
Pages	P.0251	P.0253	P.0255
Image	 1 ＝ X-axis 2 ＝ XY-axis 4 ＝ Z-axis 5 ＝ X + Y-axis 6 ＝ XY + Z-axis		 《》＝ Z-axis 【】＝ dual axis
Table Size【mm】	25×50	□25, □40, □60	
Travel Stroke【mm】	±10	±3, ±5, ±7	
Loading【kgf】	X, XY ＝ 8；Z, X＋Z, XY＋Z ＝ 1	3【2.9】《1》, 3【2.8】《1》, 4【3.4】《2》	
Weight【kg】	0.22, 0.44, 0.3, 0.52, 0.75	0.07【0.15】《0.08》, 0.19【0.38】《0.27》, 0.6【1.2】《0.65》	

P.0257

MC6E - 25 Series【Brass Alloy】	
Product Trait	Dovetail groove Rack and Pinion Type
Pages	P.0257【XYZ-axis】
Image	
Table Size【mm】	25×25
Travel Stroke【mm】	±3
Loading【kgf】	1.9
Weight【kg】	0.22

P.0258 ~ P.0260

MC1G - 525C (F), MC1G - 535C (F), MC7G - 4050C (F)【Aluminum Alloy】				
Product Trait	Dovetail groove feeding screw type【PITCH = C：0.5, F：0.25】			
Pages	P.0258	P.0259	P.0260	
Image				
Table Size【mm】	□ 50	□ 50	40×50	
Travel Stroke【mm】	±11	±16	Upper(Fine)：±17.5	Lower(Coarse)：±30
Loading【kgf】	5	5	4	
Weight【kg】	0.27	0.29	0.5	

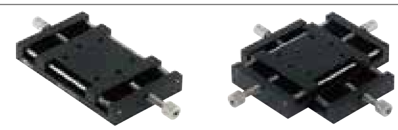
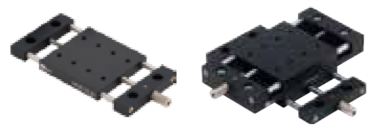
P.0261 ~ P.0262

MC1G - 35LG, MC6G - 35LG【Aluminum Alloy】			
Product Trait	Dovetail groove Rack and Pinion Type (Adjustable for CCD)		
Pages	P.0261	P.0262		
Image				
Table Size【mm】	24.5×35	—		
Travel Stroke【mm】	±10	20【X-axis】	30【Y-axis】	60【Z-axis】
Loading【kgf】	3	2		
Weight【kg】	0.25	0.81		

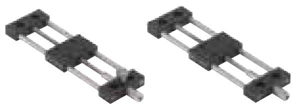
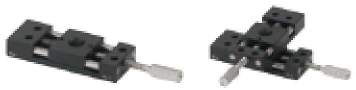
P.0263

MC1F - 40【Aluminum Alloy】	
Product Trait	Dovetail groove Positioning Stage
Pages	P.0263
Image	
Table Size【mm】	□ 40
Travel Stroke【mm】	±10
Loading【kgf】	3
Weight【kg】	0.17

P.0163 ~ P.0169

MNG□E - □CL, MNE□E - □【Aluminum Alloy】		
Product Trait	Simplified guiding (mini type) - Feeding screw / Threading screw	
Pages	P.0163 ～ P.0165	P.0167 ～ P.0169
Image	 《》＝dual axis	
Table Size【mm】	□20, □25, □40, □60	
Travel Stroke【mm】	【□20, □25】＝ ±5, 【□40, □60】＝ ±7.5	【□20, □25】＝ ±7, ±9, ±13
Loading【kgf】	【□20, □25】＝ 0.2, 【□40, □60】＝ 1.5	【□20, □25】＝ 1.9,【□40, □60】＝3.7
Weight【kg】	0.038《as left》, 0.055《as left》, 0.104《0.202》, 0.193《0.358》	0.1, 0.13, 0.27, 0.48

P.0171 ~ P.0173

MNE1E - □, MN□A - □【Aluminum Alloy】		
Product Trait	Simplified guiding (mini type) - Selectable screw / Single spring	
Pages	P.0171	P.0173
Image	 【 】=Shared value	 【 】=dual axis
Table Size【mm】	40×40, 40×25,【60×60, 60×40】	12×13, 15×17,【12×13, 15×17】
Travel Stroke【mm】	10【15】, 25【30】, 40【50】, 60【70】	±1.7, ±5,【±1.7, ±5】
Loading【kgf】	4【8】, 3.5【7】, 4【8】, 3.5【7】	0.5, 1,【0.5, 1】
Weight【kg】	Based on the screw type selected	0.005, 0.02,【0.01, 0.04】

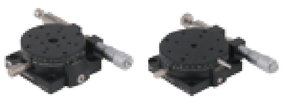
P.0175 ~ P.0178

MZA - □, MZA□ - 5060【Aluminum Alloy】		
Product Trait	Crossed roller guiding	
Pages	P.0175	P.0177 ～ P.0178
Image		 types specifications
Table Size【mm】	□25, □40, □40H, □60L, □60, □80	50×64
Travel Stroke【mm】	±2, ±3, ±3, ±3, ±5, ±5	5
Loading【kgf】	1, 1, 2, 2, 4, 3	MZA1 = 7, MZA2 = 8, MZA3 = 10
Weight【kg】	0.06, 0.2, 0.2, 0.3, 0.6, 1	MZA1 = 0.62, MZA2 = 0.63, MZA3 = 0.72

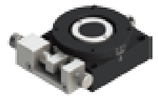
P.0179

MZF - □【Aluminum Alloy】		
Product Trait	Rapidly Z-axis lifting stage	
Pages	P.0179	
Image		
Table Size【mm】	80×120, 120×180	
Travel Stroke【mm】	40, 70	
Loading【kgf】	7, 10	
Weight【kg】	1.25, 3.5	

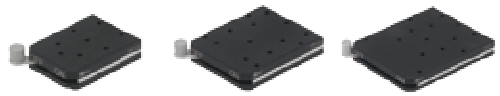
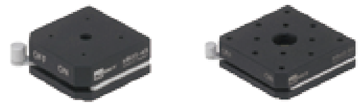
P.0181 ~ P.0183 , P.0186 ~ P.0187

MR □ - AR (Standard), MRL □ - AR (Thin Type), MRE □ - A【Aluminum Alloy】			
Product Trait	Rotary stage -【Precise - Standard type, Thin type】,【Economy type】		
Pages	P.0181	P.0183	P.0186～ P.0187
Image			
Table Size【mm】	Ø38, Ø60, Ø85, Ø110	Ø30, Ø40, Ø60, Ø90, Ø125	Ø40, Ø60, Ø85, Ø100
Travel Stroke【°】	Cursory360°【Fine : inferto the page】	Cursory360°【Fine±5°】	Cursory360°
Loading【kgf】	1, 3, 4, 5	1, 1.5, 3, 3, 3	5, 7, 8, 9
Weight【kg】	0.09, 0.28, 0.48, 0.75	0.1, 0.1, 0.2, 0.5, 0.9	0.14, 0.2, 0.4, 0.66

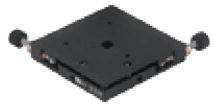
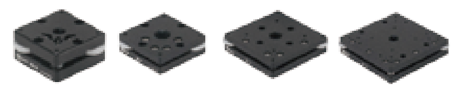
P.0185

MR50 - AR - 48【Aluminum Alloy】, MR85 - S【Stainless Steel】		
Product Trait	Rotary stage - Precise type, Heavy loading type	
Pages	P.0185	
Image		
Table Size【mm】	Ø50	Ø85
Travel Stroke【°】	±5.5°	Cursory360°【Fine±5.5°】
Loading【kgf】	1.8	6
Weight【kg】	0.26	1

P.0188 ~ P.0189

MMT - □, MMS - □【Carbon Steel】		
Product Trait	Magnetic base - Thin type, Standard type	
Pages	P.0188	P.0189
Image		
Table Size【mm】	12×38×51, 12×52×63, 12×66×80	20×□45, 20×□65, 20×□90, 20×□125
Travel Stroke【mm】	0.015, 0.02, 0.02	0.015, 0.02, 0.02, 0.02
Magnetic【kgf】	1, 3.3, 3.8	17, 20, 25, 70
Weight【kg】	0.3, 0.6, 1.2	0.3, 0.6, 1.2, 2.8

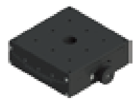
P.0191 ~ P.0193

MTB - □, MTS - □【Aluminum Alloy】		
Product Trait	Tilt stage - Feeding screw type, Thumbscrew type	
Pages	P.0191	P.0193
Image		
Table Size【mm】	□40, □60, □80	□30, □60, □90, □125
Travel Stroke【mm】	±2°	
Loading【kgf】	2, 4, 5	2, 4, 5, 5
Weight【kg】	0.03, 0.15, 0.4	0.03, 0.15, 0.4, 1

P.0265 ~ P.0269

MXG □- □CS , MYG □- □CS【Brass Alloy】		
Product Trait	Dovetail - α-axis, αβ-axis Goniometer stage【Transmission：Worm＋Worm gear】	
Pages	P.0265 ～ P.0267 (□ 40), P.0269 (□ 50), P.0265 ～ P.0267 (□ 60)	
Image		
Table Size【mm】	□40, □50, □60	
Travel Stroke【°】	±8°～±25°	Upper axis：±10°～±25°; Lower axis ±8°～±20°
Loading【kgf】	3～6	2.8～5.4
Weight【kg】	0.18～0.55	0.42～1.1

P.0271

MXG9 - 118CS【Brass Alloy】	
Product Trait	Dovetail - Goniometer stage【Transmission：Worm＋Worm gear】
Pages	P.0271【α axis】
Image	
Table Size【mm】	☐ 90
Travel Stroke【°】	±12°
Loading【kgf】	7.5
Weight【kg】	0.33

P.0273 ~ P.0277

MXG ☐ - ☐CE, MYG ☐ - ☐CE【Brass Alloy】		
Product Trait	Dovetail - α-axis, αβ-axis Goniometer stage【Transmission：Threading screw】	
Pages	P.0273 (☐ 30), P.0275 (☐ 40), P.0277 (☐ 60)	
Image		
Table Size【mm】	☐30, ☐40, ☐60	
Travel Stroke【°】	±5°～ ±8°	Upper axis：±6°～ ±8°；Lower axis：±5°～ ±6°
Loading【kgf】	1.5, 3, 5	
Weight【kg】	0.1, 0.3, 0.7	0.2, 0.6, 1.4

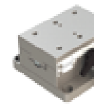
P.0279 ~ P.0281

MXG4 - ☐ VM, MXG5 - ☐ VM,MXG6 - ☐ VM Series【Aluminum Alloy】							
Product Trait	Dovetail - Crossed roller Goniometer stage【Transmission：Micrometer type】						
Pages	P.0279【α-axis】				P.0281【α-axis】		
Image							
Table Size【mm】	☐ 40			☐ 50	☐ 60		
Travel Stroke【°】	±7°⁄40	±4°⁄60	±4°⁄80	±3°⁄50	±4°⁄50	±3°⁄75	±3°⁄100
Loading【kgf】	3				4.5		
Weight【kg】	0.15			0.2	0.33		

P.0283

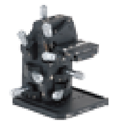
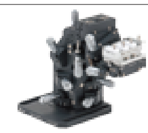
MCV100 - AS【Aluminum Alloy】	
Product Trait	Clamping fixture (Vice)
Pages	P.0283
Image	
Table Size【mm】	100×94
Travel Stroke【mm】	0～49
Loading【kgf】	20
Weight【kg】	0.55

P.0218

MC1B - 60F	
Product Trait	Dovetail Rack and Pinion Type
Pages	P.0218
Image	
Table Size【mm】	40×60
Travel Stroke【°】	±12°
Loading【kgf】	20
Weight【kg】	1.6

Manual Fiber Positioning

P.0285 ~ P.0293

M3E - 2000S - L(R), M5E - 2000B - L(R), M6E - 2200B - L(R)				
Product Trait		XYZ, XYZθxθy, XYZθxθyθz - Axis		
Pages		P.0285	P.0289	P.0293
Image				
Cursory Tuning Travel Stroke	X	±6.5 mm	±6.5 mm	±6.5 mm
	Y	±6.5 mm	±6.5 mm	±6.5 mm
	Z	±6.5 mm	±6.5 mm	±6.5 mm
	θx		±3°	±3°
	θy		±3°	±3°
	θz			±4°
Fine Tuning Travel Stroke	X	±0.3 mm	±0.3 mm	±0.3 mm
	Y	±0.3 mm	±0.3 mm	±0.3 mm
	Z	±0.3 mm	±0.3 mm	±0.3 mm
	θx		±3°	±3°
	θy		±3°	±3°
	θz			±4°
Cursory Tuning Resolution	X	±10 μm	±10 μm	±10 μm
	Y	±10 μm	±10 μm	±10 μm
	Z	±10 μm	±10 μm	±10 μm
	θx		≒29.3"/div.	≒29.3"/div.
	θy		≒27.8"/div.	≒27.8"/div.
	θz			≒33"/div.
Fine Tuning Resolution	X	±0.5 μm	±0.5 μm	±0.5 μm
	Y	±0.5 μm	±0.5 μm	±0.5 μm
	Z	±0.5 μm	±0.5 μm	±0.5 μm
	θx		≒29.3"/div.	≒29.3"/div.
	θy		≒27.8"/div.	≒27.8"/div.
	θz			≒33"/div.

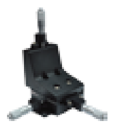
P.0297

M5F - 460A561 - L(R)		
Product Trait		XYZ, θxθy - Axis
Pages		P.0297
Image		
Travel Stroke	X	0.5 inch(12.7 mm)
	Y	0.5 inch(12.7 mm)
	Z	0.5 inch(12.7 mm)
	θx	±5°
	θy	±5°
Material	X	Aluminum alloy
	Y	Aluminum alloy
	Z	Aluminum alloy
	θx	Stainless Steel
	θy	Stainless Steel
Allowable Loading		67 N

P.0301

MTS - 561 - L(R)		
Product Trait		θx, θy - Axis Tilt Stage
Pages		P.0301
Image		
Travel Stroke	θx	±5°
	θy	±5°
Sensitivity		Each circular motion equals 5arc-seconds
Material		Stainless Steel
Allowable Loading		22 N

P.0305 ~ P.0309

MXY - 460AL(R), MXYZ - 460AL(R)			
Product Trait		XY-Axis crossed roller guiding type, XYZ-Axis crossed roller guiding type	
Pages		P.0305	P.0309
Image			
Travel Stroke	X	0.5 inch(12.7 mm)	
	Y	0.5 inch(12.7 mm)	
	Z		0.5 inch(12.7 mm)
Resolution		10 µm	
Material		Aluminum alloy	
Allowable Loading		67 N	

Optical Adjuster

P.0313

MOVM - S☐			
Product Trait		Vertical mounting	
Pages		P.0313	
Image			
Optics Diameter		1”	2”
Tilt Range	X	±2.5°	
	Y	±2.5°	
Sensitivity		2 arcsec	
Material		Stainless Steel	
Allowable Loading		0.25 Kg	0.6 Kg

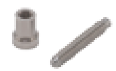
Micrometer

P.0317 ~ P.0325

MHGS - ☐☐ - ☐					
Product Trait	Fronttip -Flate, Round & Installation-Lock screw, Set screw				
Pages	P.0317 ～ P.0325				
Image					
Measurement range	0~6.5 mm	0~13 mm	0~15 mm	0~25 mm	0~50 mm
Accuracy	0.005 mm				
Minimum resolution	0.01 mm				
Micrometer tolerance	±2 µm				
Vernier	Positive scale				

Feeding Screw Stages

P.0329 ~ P.0331

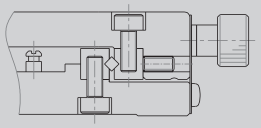
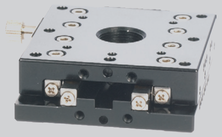
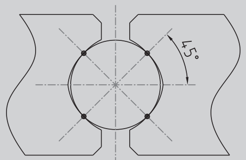
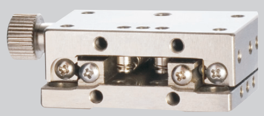
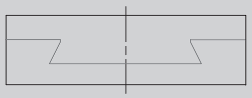
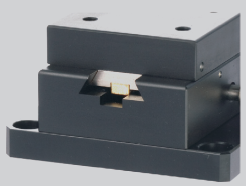
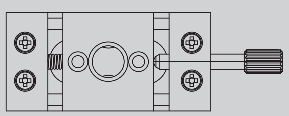
PS☐☐ - ☐			
Product Trait	Precision Screw		
Pages	P.0329 ～ P.0331		
Image			
Travel stroke range	0~7mm	0~13 mm	0~25 mm
Accuracy	0.03 mm		
Minimum reading	0.01 mm, Vernier		
Knob type	Pattern, Hexagon socket		

Specification Comparison Form

Miniature Actuators

P.0333 ~ P.0335

GACT - □□ - □				
Product Trait		Miniature actuators		
Pages		P.0333 ～ P.0335		
Image				
Measuring Range【mm】		0~6.5 mm	0~13 mm	0~25 mm
Transmission		Precision thread M6x0.5P		
Body Weight【kg】		0.129 Kg		
Pilot Shape		F : Flat measuring surface / S : Spherical measuring surface		
Installation		N : Locknuts / P : set screws		
Scale Shape		N scale		
Material / Color		Actuator : aluminum ally / black anodized		
Dpi(Pulse) Full / Half【mm】		0.0025		
		0.00125		
Veneered Positioning Accuracy【mm】		0.01		
Repeat Positioning Accuracy【mm】		0.003		
Allowable Load【N】		29.4 N		
Maximum Speed【mm/sec】		2		
Motor	Motor Model / Shaft Numbers	2-phase stepping / 20□ dual extension shafts		
	Manufacturers	Orientalmotor / GMT		
	Model No.	CVK213BK / 2MS-N20D33A		
Connector	Actuator cable connector	15Pin Public-side connector D-SUB		

Slide Way	Structure	Characteristic	Application	Moving Accuracy	Load Capacity	Rigidity
Crossed roller	 	The slide rail consists of two hardened V-grooves with fine ground surface and crossed roller bearings.	This is suitable for precise movement device in high accuracy and high capacity, optical instruments in precise gauging and fine tuning, various machine tools, gauging instruments, precise positioning and quantitative movment…etc.	Excellent	Excellent	Excellent
Linear ball	 	Slide way and body is in one unit, and Gothic arc-groove ground precisely to meet requirement of high parallism and high flatness. Gothic arc-groove formed by dual arc-grooves individually on upper and lower rails of body. Ball moving in single groove is structured by 2 points – contact, and total 4 contact points in dual arc-groove to form strong rail construction. In case of rails of SUS-STAGE is to set ball assembly in arc-groove to save traditional adjustment and revision time. In addition, without adjustment screw would save accuracy problem and maintenance time caused by loosen screw, and cheaper as well.	Applied to precise positioning device in high accuracy and mid-capacity, product and design integrated system, optical experiment, precise transportation and fine tuning mechanism application.	Excellent	Good	Good
Dovetail type	 	**Dovetail plane-pinion and rack** (Main material: Brass or aluminum alloy) GMT supplies proper models suitable to be equipped to various modules such as small, coarge or fine turn, larger size for installation etc. Driven-adjustment mode is rack and pinion. Apply to higher working frequency, requirement of faster movement and larger stroke. **Screw-driven plane** (main material: brass)Prepared by easy-carry standard and slide type fit for inner set mode. Driven adjustment mode is screw shaft mode. Apply to lower frequency, fine tuning environment.	It is applied to optical instruments and equipments, sampler, detecting device, semi-conductor manufacturing equipment, test machine, microscope, transiting machine, machinig center, medical instrument, printer and others.	Fair	Good	Excellent
XY Simplified stage	 	Round sticks on two sides are applied to support middle transmission construction: **Feeding screw type** To move stage table by push-and-press from screws, and to restrain gap produced by using springs tensile force. It's the type suitable for light loading and accuracy feeding application. **Threading type** The stage table is moved by thread which has been crossed through to the table. The stage table will be feed-movement in Z-axis application. The stage is suitable for heavier loading compared to feeding screw with spring transmission type.	The product is applied to fixture, camera, sensor, nozzle, and guiding groove of the conveyor, those equipments don't require high accuracy adjustment.	Fair	Fair	Fair

Outline

- Mini-Stage is applied for high precision or mid and heavy loading of various production machinery, testing device, precise positioning and quantitative movement.
- There're many types of mini-stages with single axis (X-axis); dual axes (XY-axis); Z-axis; θ-axis, α-axis… can be collocated as needed.

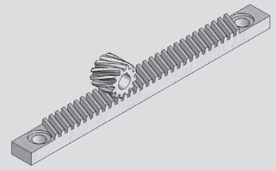
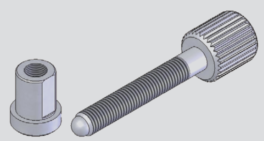
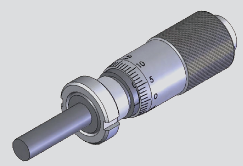
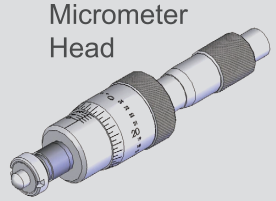
Characteristics

- Can be customized according to the requirements of precise fine tuning; positioning; quantitative movement and able to proceed mass feed of fine tuning.
- Coordinated customer's precise machinery of instrument and fixed in suitable position.
- Feeding mode diversification such as coarse moving handle/ micrometer head; feed screw, rack and pinion with scale and able to manage movement rate.
- The sets of mini stages, XY-axis, XYZ-axis, XZ-axis, and multi-axis modules are able to effectively reduce assembling process because of adjusting their vertical angle before shipping.

Standard Selection

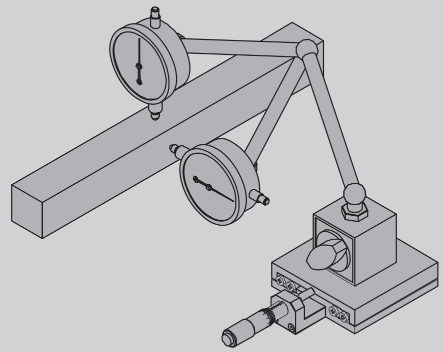
- GMT presents clearly with each kind of mini stages in accordance with different types of moving axis, minimum reading and loading capacity.
- Please coordinate with adjusting methods and refer below information to select the most suitable stages.
- Please refer to the feeding method provided to select the most suitable stages.

The Main Feeding Mode of Mini Stages

Main feeding mode	Characteristics	A circle movement of handle rotation	Applied for guiding device
Rack and Pinion 	● Suitable for high speed mass feed. ● Not suitable for precise positioning.	17～20 mm	● Dovetail
Feeding Screw 	● Use precise threadscrew pitch to proceed simple precise moving.	0.25～1 mm	● Dovetail ● Crossed roller ● Linear ball bearing
Micrometer Head 	● Precise reading Unit: 0.01mm is suitable For precise tuning.	0.5 mm	● Dovetail ● Crossed roller ● Linear ball bearing
Rough Slightly Moving Micrometer Head 	● Divided into rough moving (general feeding) and slight moving (micro feeding) use. ● It's a special feeding device and a bit costly. ● Differential motion Structure for slightly transmission.	Coarse tuning : 0.5 mm Fine tuning : 0.025 mm	● Linear ball bearing ● Crossed roller

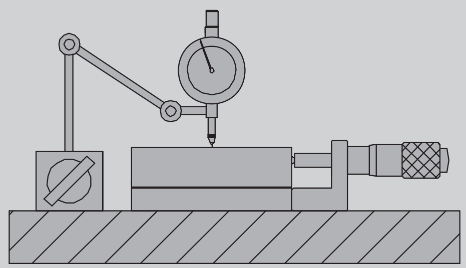
Straightness (refer to JIS B 6191-1993)

In linear motion units, geometric straight line decides positions in order from datum point to same direction, differences between length variation in those positions and datum is as measured value. To connect datum and final testing post, the max. difference of geometric line is called " Straightness".



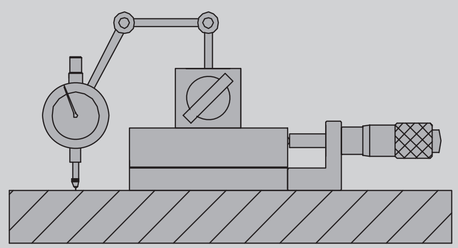
Yawing and Pitching (refer to JIS B 6191-1993)

Linear motion parts would occur slanting in Transmitting, and slanting proportion would cause deflection in linear transmission. Position is decided by same direction from datum point in order, and maximum angular gap measured from horizontal direction of each position corresponding to the datum is called yawing (deviation).
Same situation to have the maximum angular gap from vertical direction of each position corresponding to ht datum called pitching.



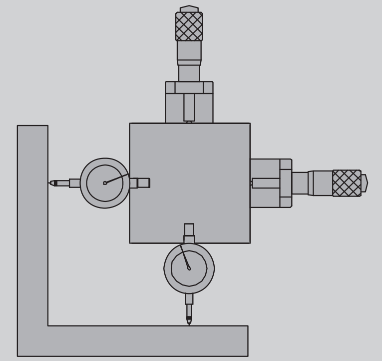
Parallelism (refer to JIS B6191-1993)

Parallelism of plane, and slanting proportion between parallel interval to mechanism parts, and degrees between center place of manual stage movement and base plate is called parallelism. Parallelism measurement is to fix micrometer on the plate, and operate manual stage with clamping device to measure the maximum of 4 corner errors.



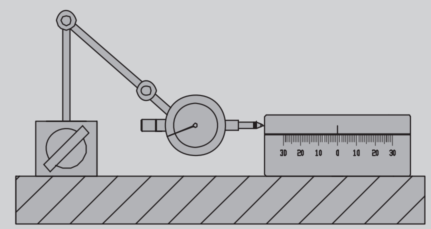
XY Vertical Value (refer to JIS B7440-1987)

Vertical value between 2 axes also for one line of geometric line in transmission datum and one in its corresponding right angle. In the other direction (Opposite), to take slanting proportion in linear transmission, reference point of X-axis stage, and geometric line of final tested position as datum axes. X-axis stage as for datum axis, maximum of parallel errors from its vertical geometric line in opposition to datum position of Y-axis stage to final texted position is called XY vertical value.



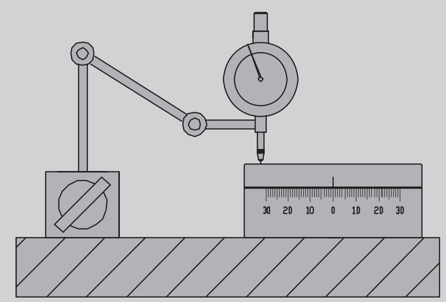
Concentricity (refer to JIS B 6191-1993, B6194-1997)

Difference of datum circle and geometric circle.
All points in line in same plane of 2 concentric circles, radius difference of 2 concentric circles is in case of smallest radial interval difference.
Opposite to geometric circle, measured difference is called concentricity. Fix rotating stage on the plate, and put micrometer around stage. Have it to rotate one circle (360°) to proceed measuring.
Concentricity is half of top value shown in micrometer.



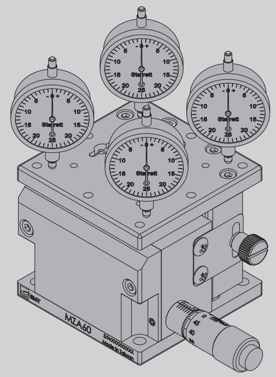
Plant travel Amplitude (refer to JIS B6191-1993)

Rotate as center of single axis, in the period of plane turning, max. slanting value of deviation of vertical plane to datum axis back to stage vertically is called plane travel amplitude. Take micrometer fixed on the plate to contact upper edge of rotating stage (rotating one circle 360), and proceed measuring.
Top value shown in micrometer is called Plane-pulsating.



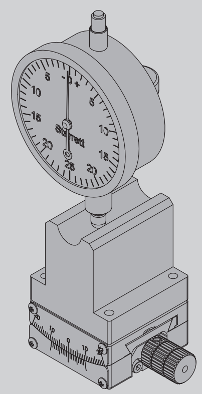
Inspection of Level Z axis (GMT specification)

The stage surface will be slanted caused by transmission components while the stage moves vertically. In order to check if the stage surface is remained in a level, GMT offers one inspection method which is to place 4 inspection meters on the ends of two diagonal lines according to the stage platform, then, check sum of plus and minus figures measured from 4 meters during movement, regard as the level variation of the stage vertical movement.



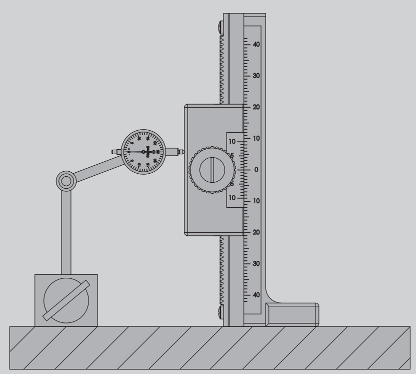
Precision of Rotation Center Height (GMT specification)

To use a specified inspection tool (meter) (The tool (meter) has been calibrated its circle center matched to the rotation circle center of goniometer stage) to check the tool (meter) indicator changes during repeated movement to examine the circle center accuracy.

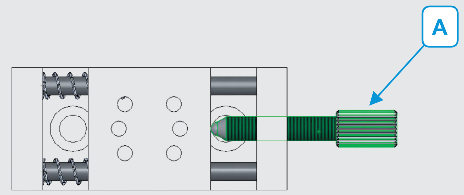


Vertical Z axis (GMT specification)

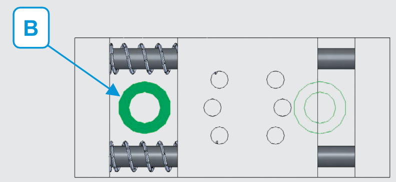
To check measured figures from the meter applied to the area between limited strokes during vertical movement.
The sum of plus and minus figures measured from the meter means the variation between the movement verticality with base surface.



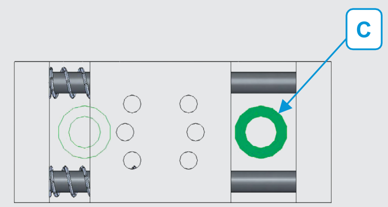
XY Simplified Stage (Feeding Screws)



- Remove feeding screws (A)

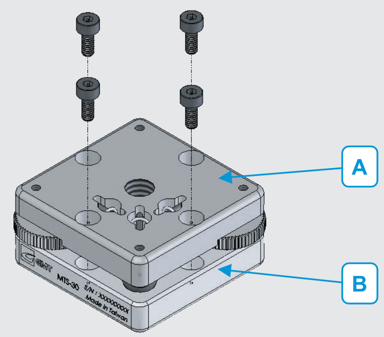


- To have B side fixed with a bolt.



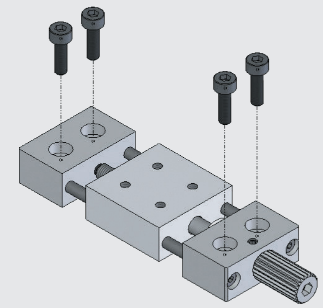
- To have stage table slid to B side.
- To have C side bolt fixed.
- To lock up the feeding screws.

Tilt Stage (Thumbscrew Type)



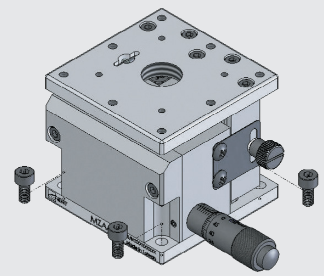
- The mounting holes on the upper plates (A) have been drilled through and counter bores on the lower plate, (B) such design offers an easier assembly to have bolts assembled from upper plate directly.

XY Simplified Stage (Threading Type)



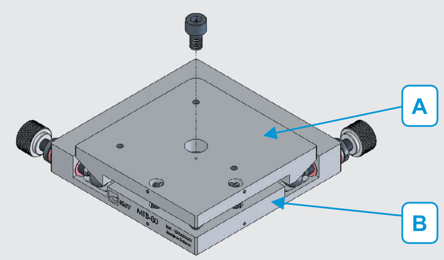
- The stage has been integrated counter bores on left and right sides for mounting.

Leavel Z Axis Stage



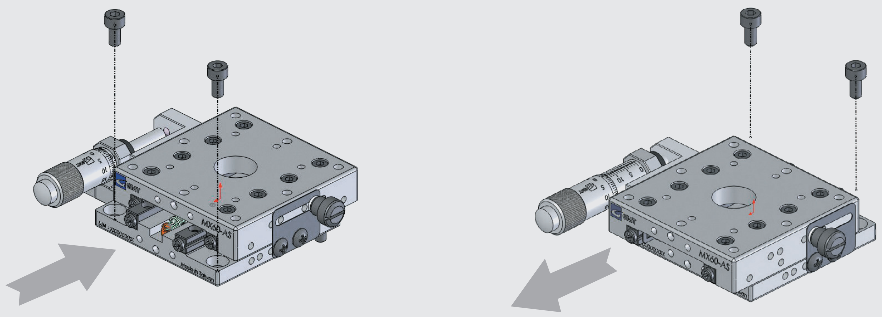
- There are 4 holes reserved for bolts Screw-in on 4 corners of the stage upper surface. It can be screwed-in by the hex-wrench without conflict.

Tilt Stage (Feeding Screw Type)



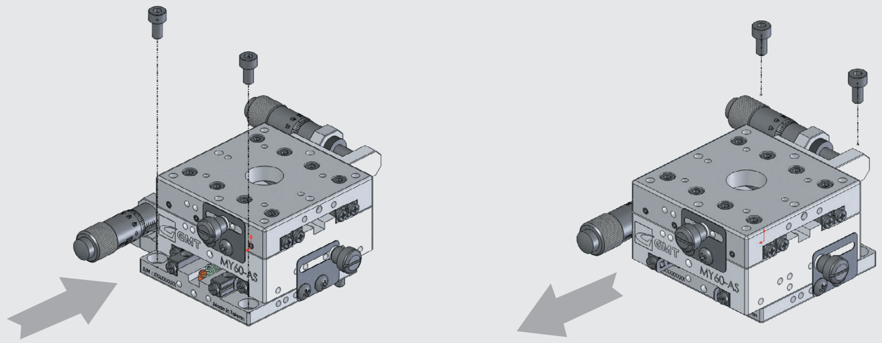
- The mounting holes on the upper plates (A) have been drilled through and counter bores on the low plate, (B) such design offers an easier assembly to have bolts assembled from upper plate directly.

Single Axis



Move upper plate back and forth, and secure the screw on the base plate
And work piece with tight confirmation.

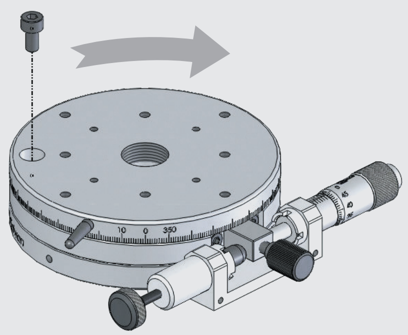
Dual Axis



Screw security same as single axis.

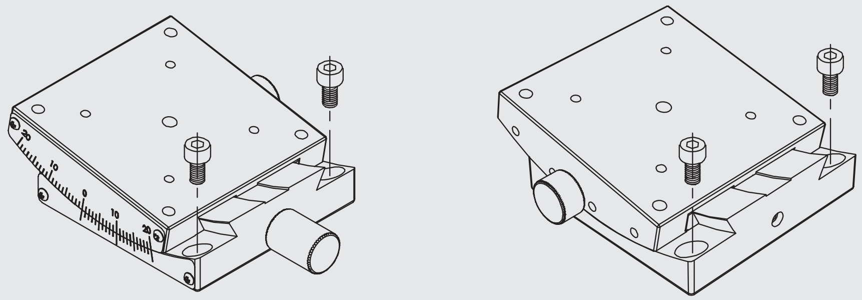
θ Axis

- ◆Move upper plate by rotating, and take the screw through it.
- ◆Proceed taking screws through base plate with matched bores nespectively.
- ◆Lock the stage on the work piece with tight confirmation.



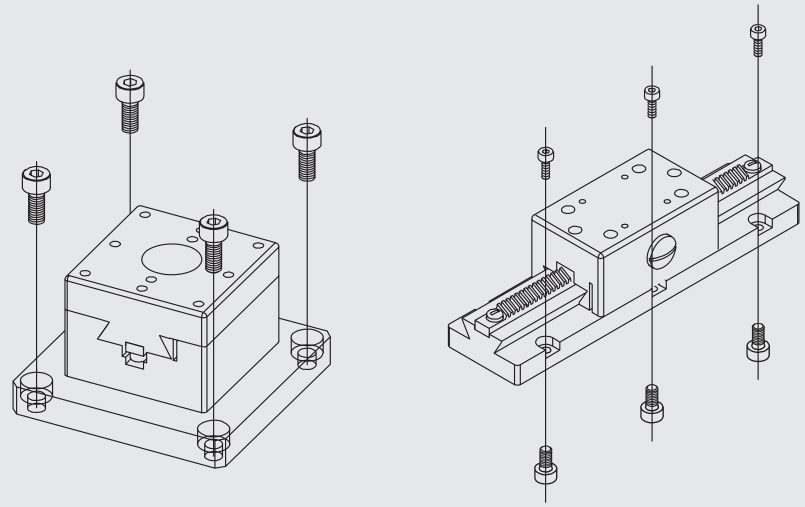
Goniometer Stage

Rotate knob clockwise to move plate to the other side. (Please operate after loosing safety knob), to adjust locked screw into half-secured status.
Next, rotate knob counterclockwise to move plate to the other side, and secure the screw on base plate and work piece with tight confirmation.



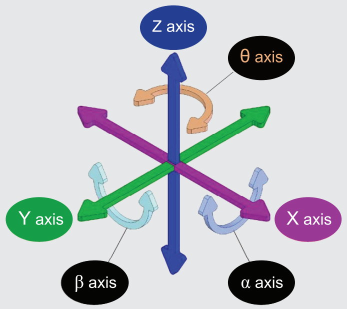
Other Stages

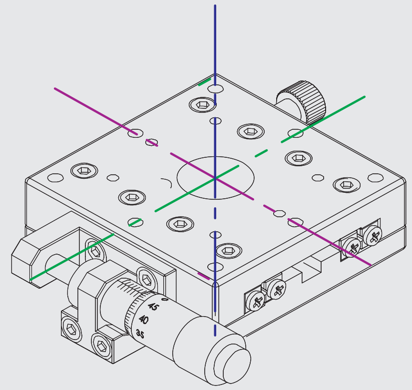
Consider easy installation fit for other devices, threaded holes pattern is made to meet requirement of securing from upper or lower direction, and this provides more options for installation.



Axes Definition

Regarding definitions of moving and rotating axis, GMT defines as the diagram below.
X-axis, Y-axis are in parallel direction: Z-axis in vertical direction;
Rotating around X, Y, Z-axes are called α-axis, β-axis, θ-axis individually.



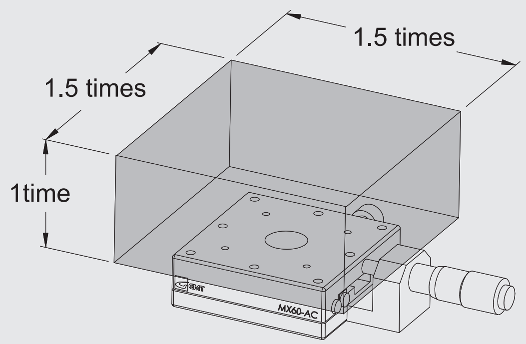


Temperature of Environment

Operating stages in reqular range of temperatures as listed.
Please contact GMT if products in wider temperature ranges required.

Stages classification	Working temperature
Stainless steel stage	-20°C ～120°C
Stainless steel slide	-20°C ～120°C
Others	-20°C ～70°C

Volume-Loaded Limit Recommendation



Basic Declaration

1.Diagrams of representative explanation in catalogs are sampled in GMT products series. Products compared to diagrammatic examples in same series may have some difference in shape due to different mechanism design and spec, but basic operation remark are all the same.

2.Photo images are for reference only.For application design,please down load 2D drawing.

Notice

Please read operation principles before your use, this would have GMT product series performed for the best motion accuracy and usage life.

Operation Principles

1.GMT product series are all composed of parts in high accuracy, please avoid extreme environment such as high temperature, extreme low temperature, huge temperature variation, exposed to sun light, high humidity, high dust, high vibration, high shock and easy-dewed...etc.

2.To maintain motion accuracy and usage life of products in all series, please check allowable capacity of the product before operation. Do not overload out of rated capacity.

3.Besides allowable capacity limit, please avoid taking baryceter of loaded object out of the edge of the stage.

4.All kinds of rolling mechanisms set in the product need proper clean and lubricated maintenance in the period of operating, depending on operating conditions, and use appropriate lubricant.

5.All kinds of rolling mechanisms set in the product are adjusted and leveled by engineers before shipment, please do not try any adjustment if not have been trained or authorized.

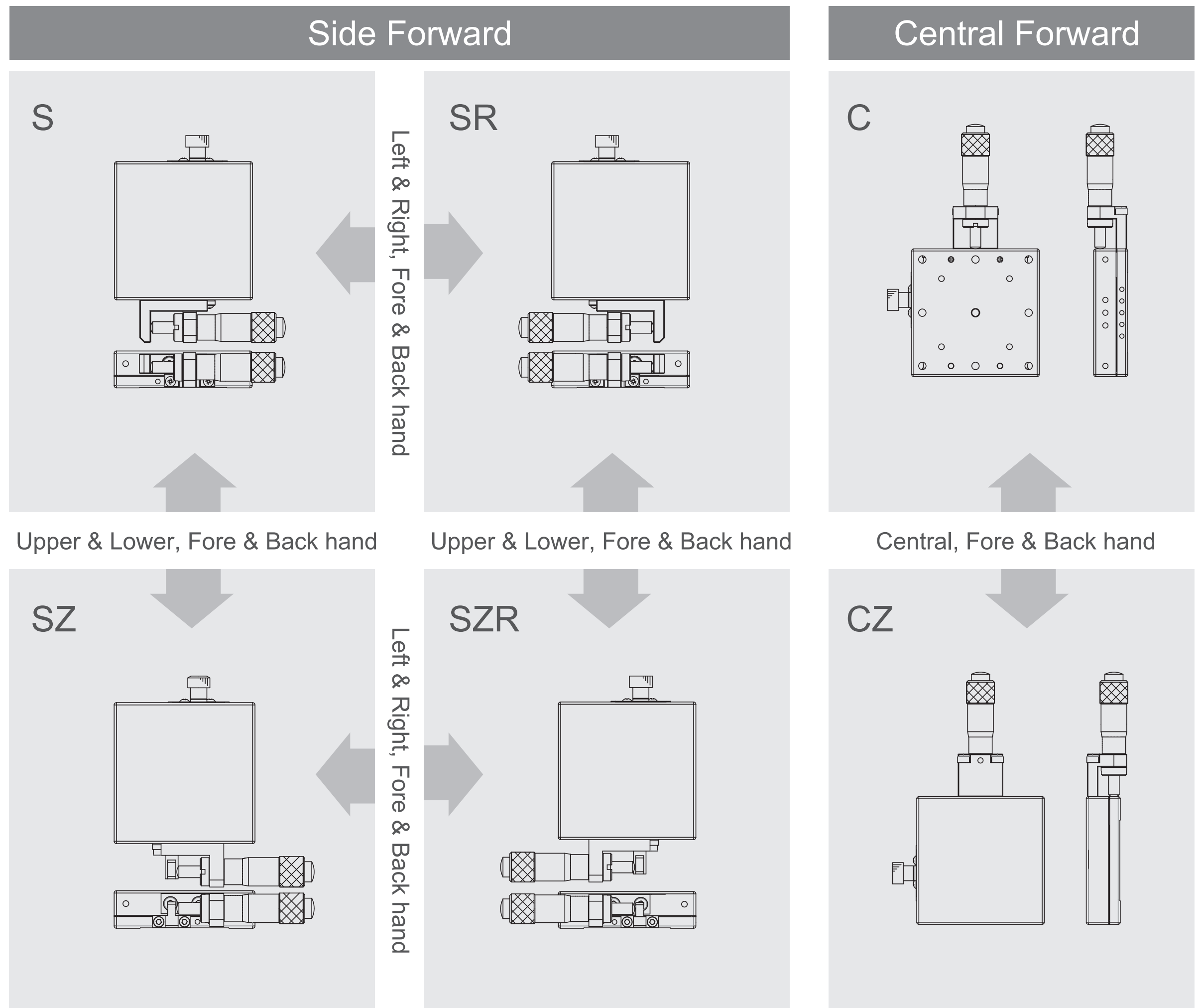
6.Use right lock unit, tools and torque wrench while processing products in positioning security and connecting security.

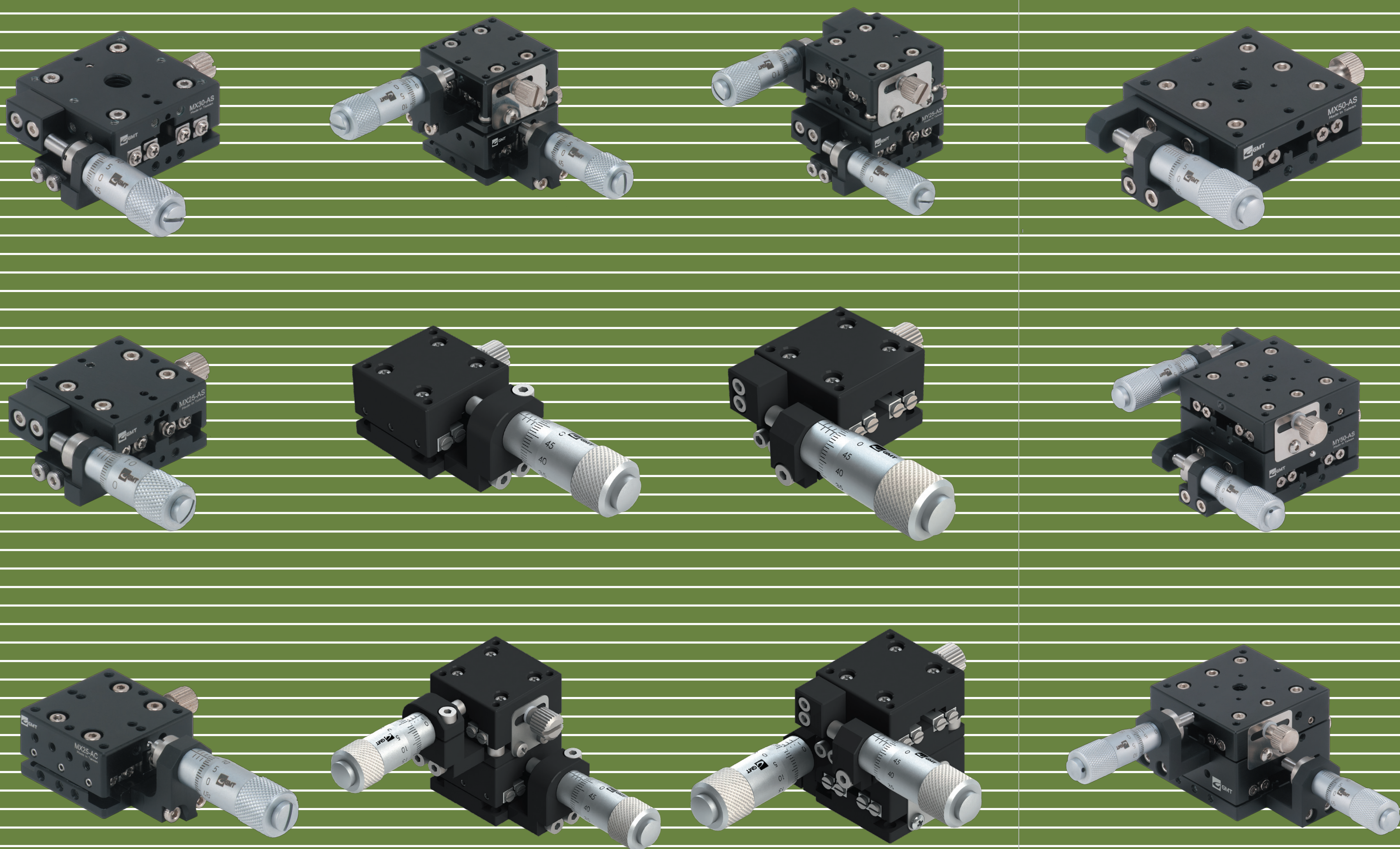
7.For accessories of GMT product series or related information, GMT sales could offer best consultation. www.gmtlinear.com

8.GMT also provide custom-made service for special purpose application or other unique spec.

M Y 60 - A C - 1 5

Transmission Mathod	Axis Code	Table Size	Material	Selectable Spec		
				Transmission Positions	Guiding Rail	Transmission
M：Manual	X：Single axis Y：Dual axis Z：Integration of plate and bracket R：θ axis XL：Thin type, single axis YL：Thin type, dual axis RL：Thin type, θ axis LZ：Thin type, +L plate YW：Ultra thin type, dual axis ZL：Standard type, +L plate YP：Thin type, through hole, dual axis	Various spec, based on the chosen axis code.	A：Aluminum Alloy S：Stainless Steel	S：Side, Forehand SR：Side, backhand SZ：Side, Forehand + micrometer upward SZR：Side, backhand + micrometer upward C：Centre, Forehand CZ：Centre, backhand CSR：Central: cursory adjustment Lateral: fine adjustment L：Left R：Right V：Vertically placed H：Horizontal placed	1：Cross Roller 2：Linear Ball 3：Rotary copper elements 4：Cross Roller Bearing 5：Groove Ball Bearing 6：Simplified guide	3：Cursory and fine micrometer (stage type of dual micrometer) 4：Worm+Wormgeal 5：Standard micrometer 6：Cursory and fine micrometer (stage type of two-stage single micrometer) 7：Electronical Micrometer 8：Feeding screw 9：Ball screw





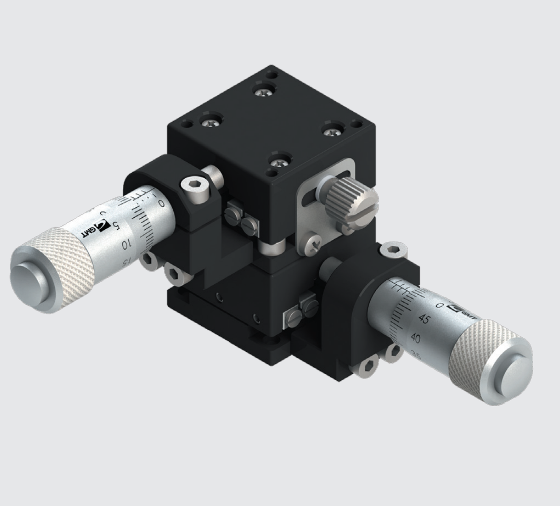
Product Specification

Positioning Stages

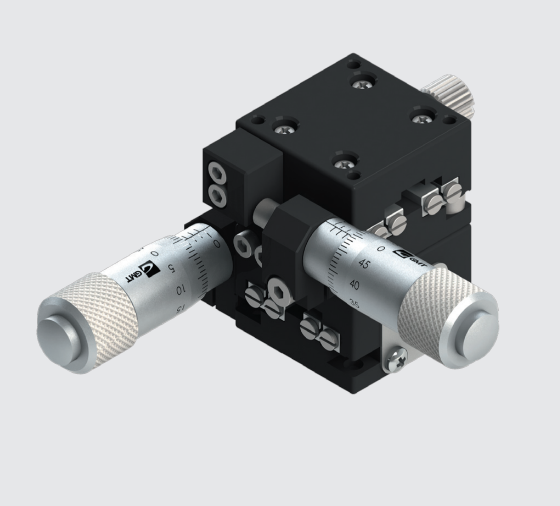
MX20-AC

MX20-AS

MY20-AC



MY20-AS

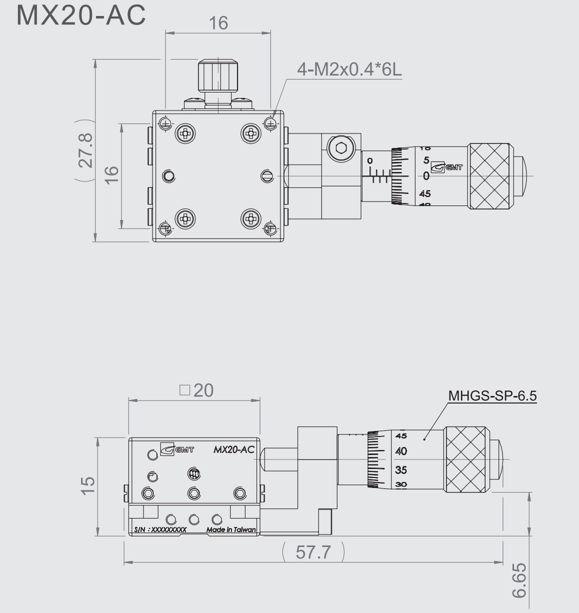


Specification

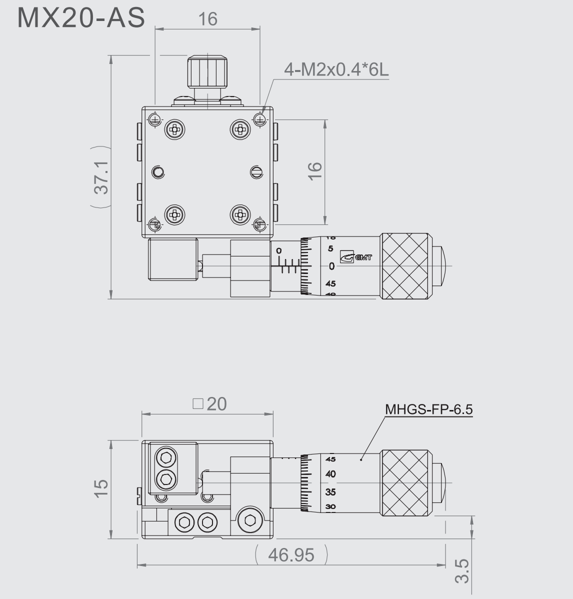
Unit : mm

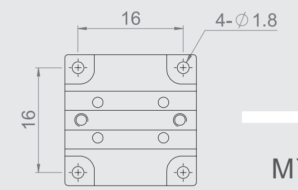
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX20-AC	20*20	X-axis	Central	±3.2	10	3	1	0.03	Aluminum alloy	Black anodized
MX20-AS			Side							
MY20-AC		XY-axis	Central					0.06		
MY20-AS			Side							

MX20-AC



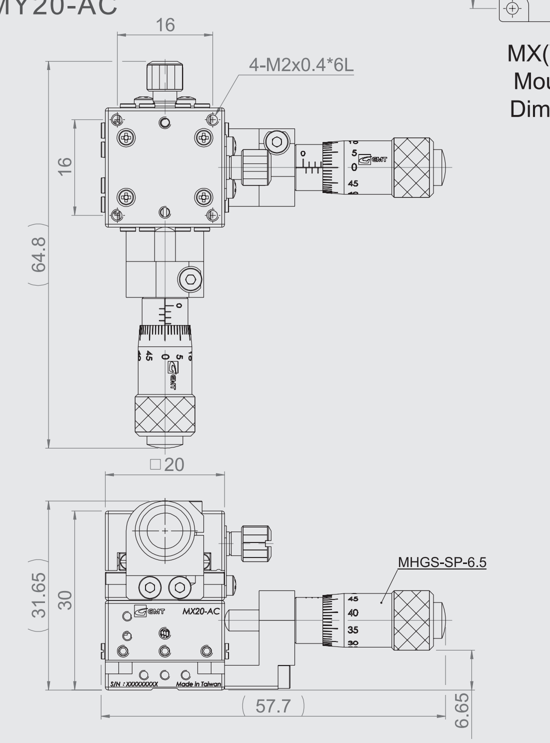
MX20-AS



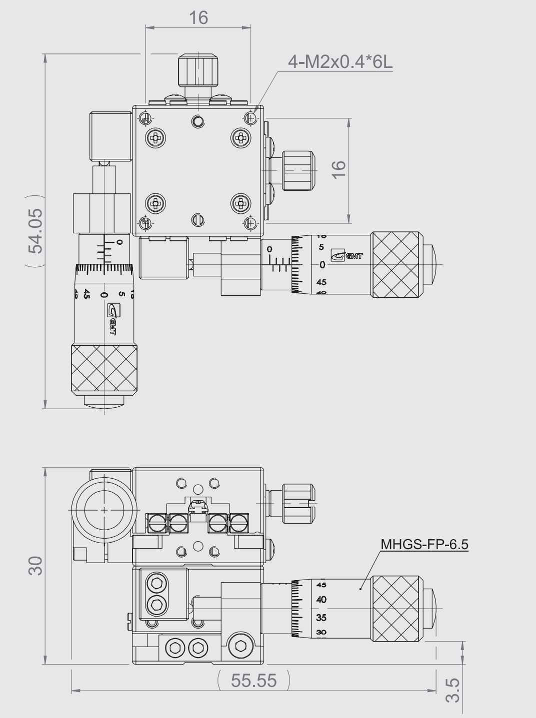


MX(Y)20-A Mounting Dimension

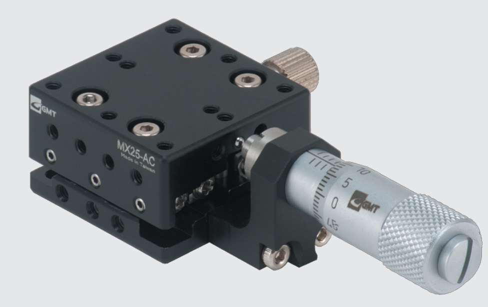
MY20-AC



MY20-AS

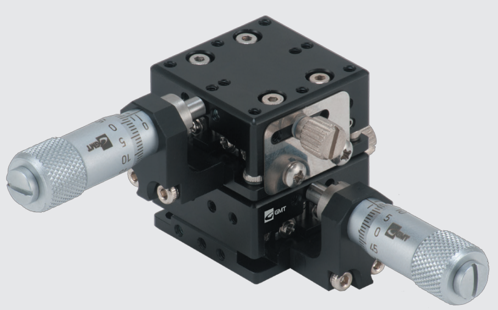


MX25-AC

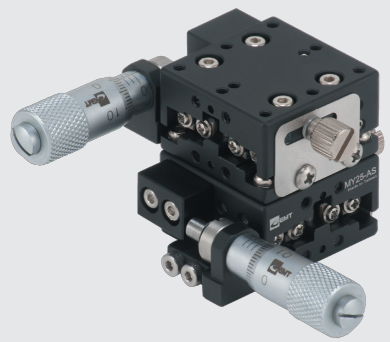


MX25-AS

MY25-AC



MY25-AS

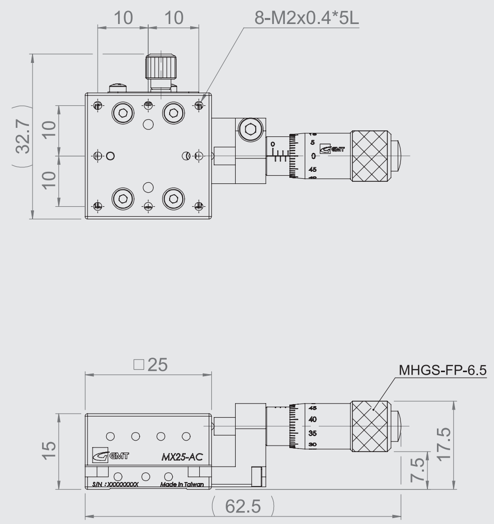


Specification

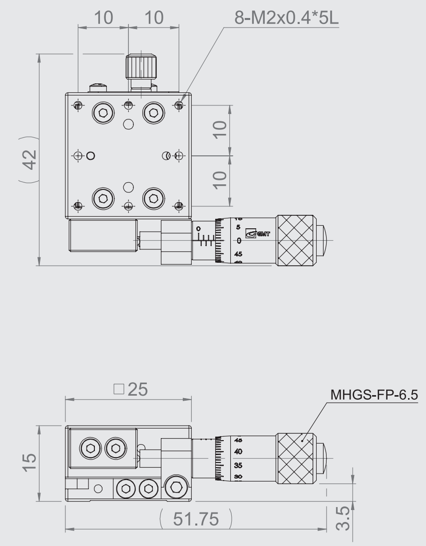
Unit : mm

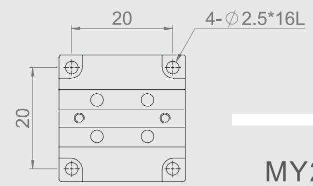
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX25-AC	25*25	X-axis	Central	±3.2	10	3	1	0.04	Aluminum alloy	Black anodized
MX25-AS			Side							
MY25-AC		XY-axis	Central					0.08		
MY25-AS			Side							

MX25-AC



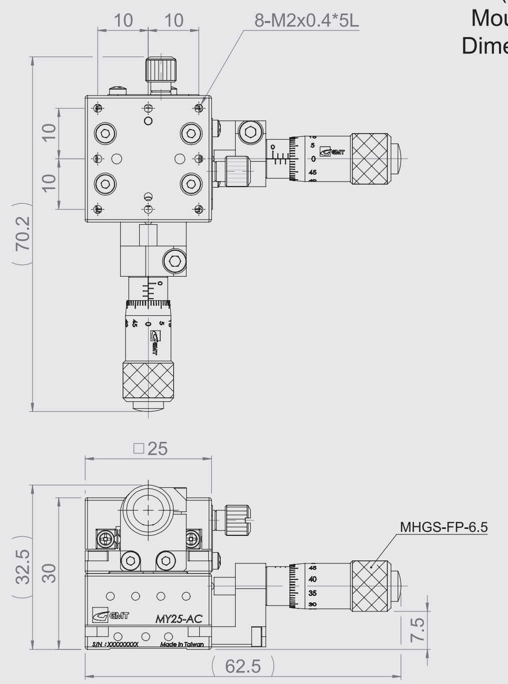
MX25-AS



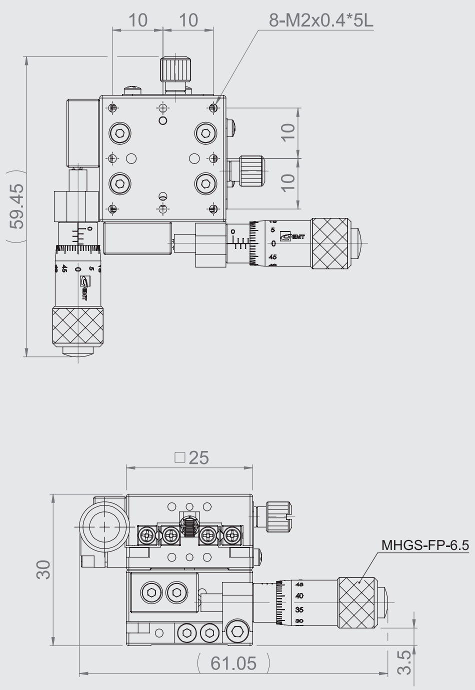


MX(Y)25-A Mounting Dimensions

MY25-AC



MY25-AS

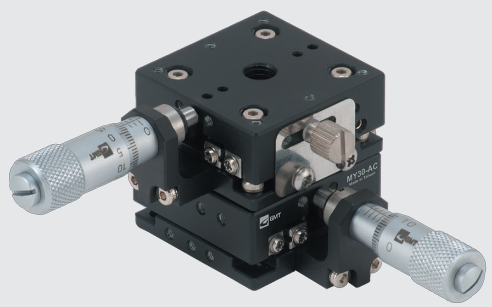


Product Specification

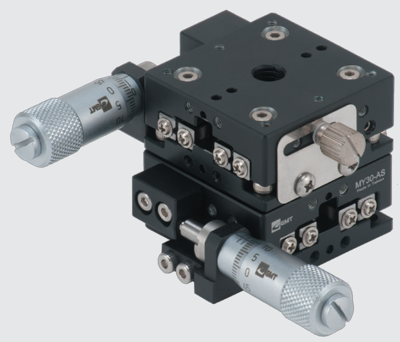
MX30-AC

MX30-AS

MY30-AC



MY30-AS



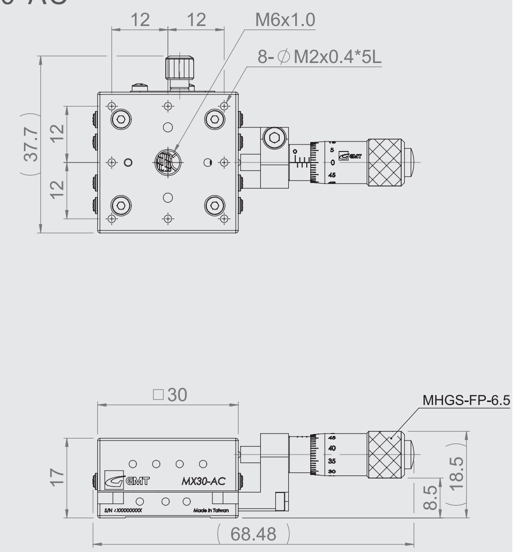
Specification

Unit : mm

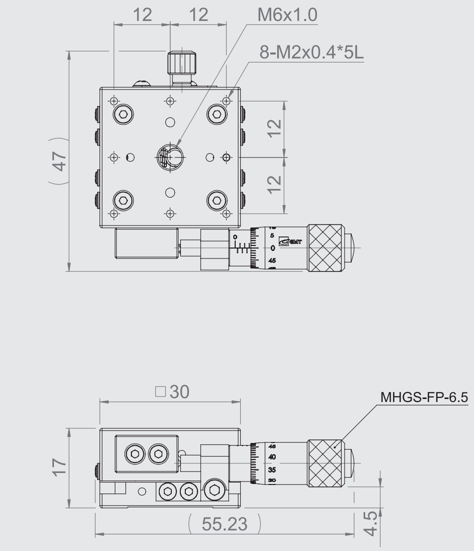
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX30-AC	30*30	X-axis	Central	±3.2	10	3	1.2	0.045	Aluminum alloy	Black anodized
MX30-AS			Side							
MY30-AC		XY-axis	Central					0.09		
MY30-AS			Side							

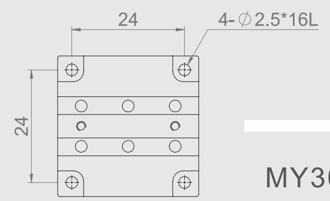
Product Specification

MX30-AC



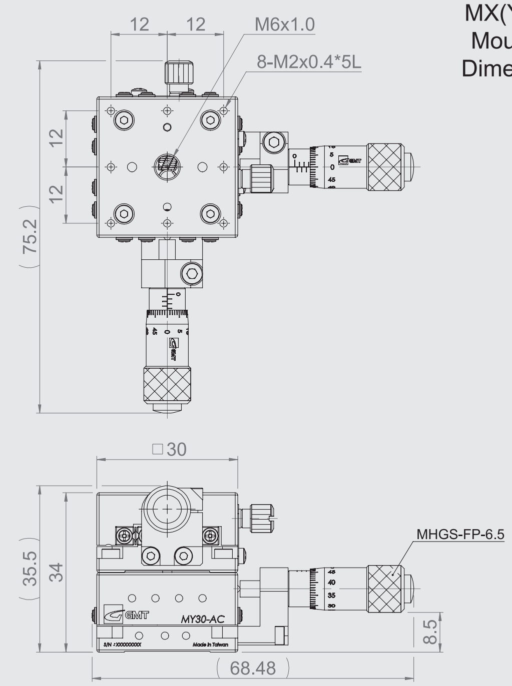
MX30-AS



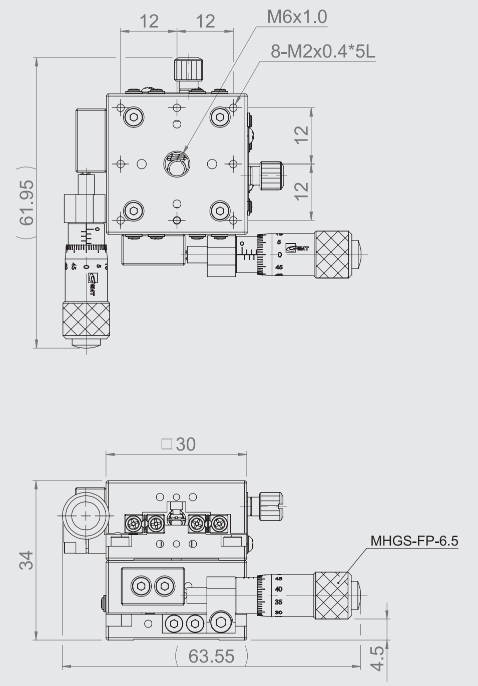


MX(Y)30-A Mounting Dimensions

MY30-AC

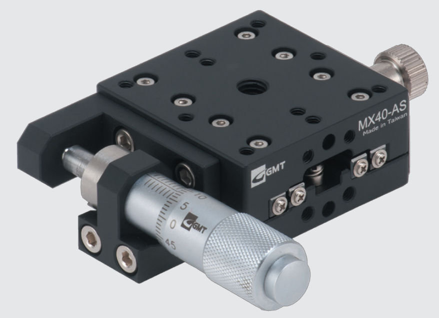


MY30-AS

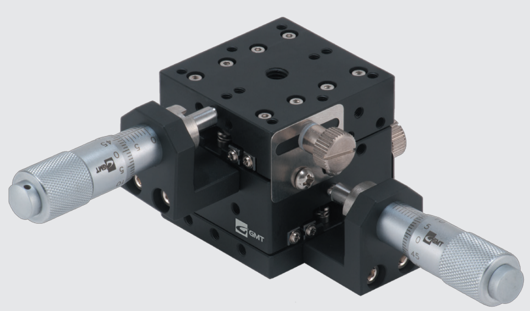


MX40-AC

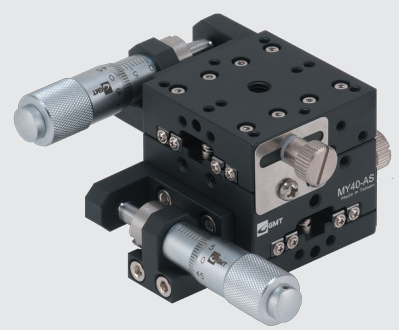
MX40-AS



MY40-AC



MY40-AS



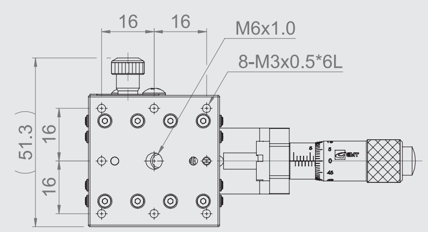
Specification

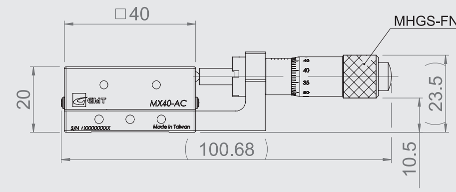
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX40-AC	40*40	X-axis	Central	±6.5	10	3	2	0.14	Aluminum alloy	Black anodized
MX40-AS			Side							
MY40-AC		XY-axis	Central				1.8	0.3		
MY40-AS			Side							

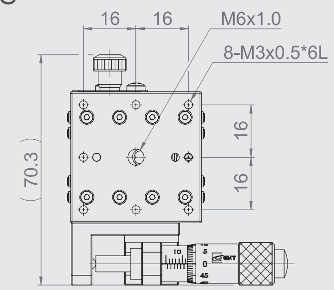
GMT GLOBAL INC.
Crossed Roller Stages ▶ X-Axis and XY-Axis ▶ Aluminum Alloy
Crossed Roller Stages | 40*40
Product Specification

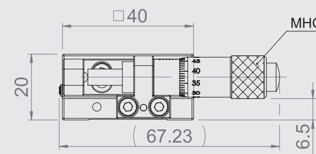
MX40-AC

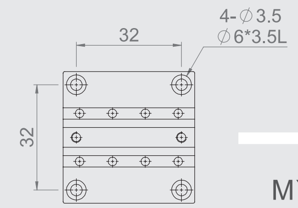




MX40-AS

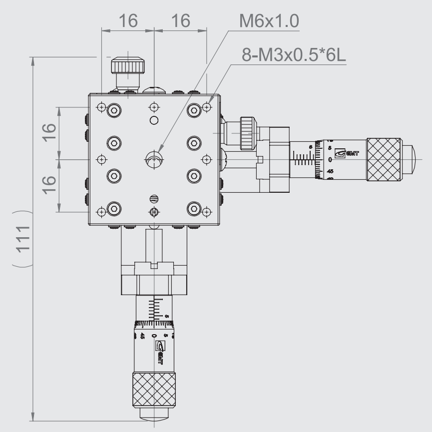


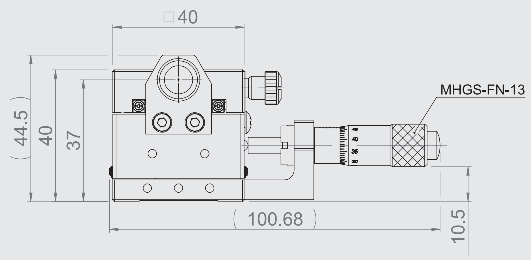




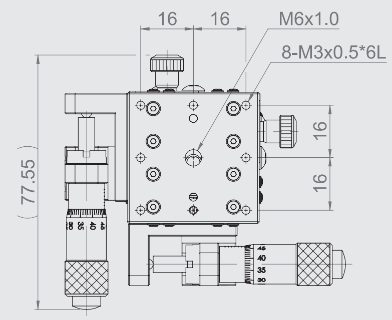
MX(Y)40-A Mounting Dimensions

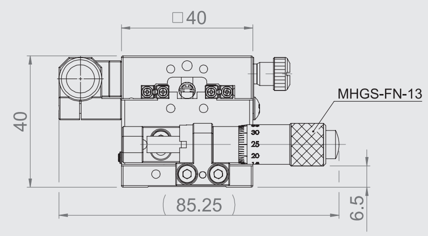
MY40-AC





MY40-AS



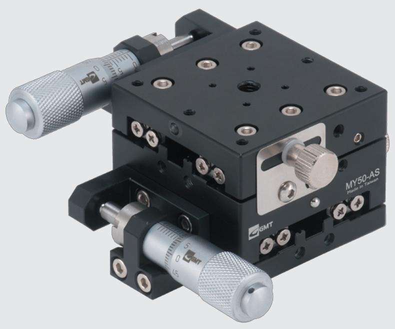


MX50-AC

MX50-AS

MY50-AC

MY50-AS



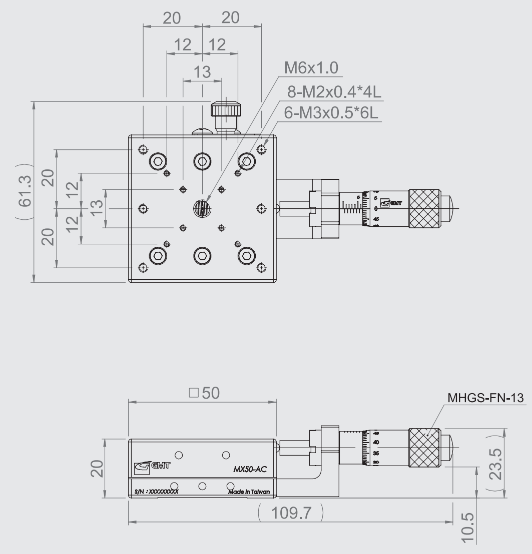
Specification

Unit : mm

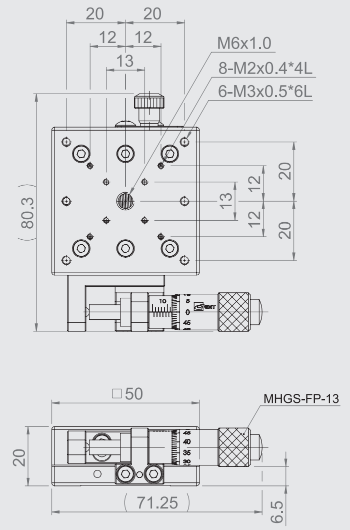
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX50-AC	50*50	X-axis	Central	±6.5	10	3	4	0.22	Aluminum alloy	Black anodized
MX50-AS			Side							
MY50-AC		XY-axis	Central					0.44		
MY50-AS			Side							

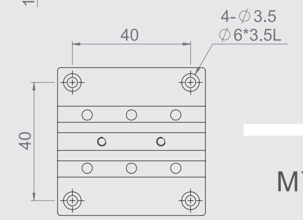
GMT GLOBAL INC.
Crossed Roller Stages ▶ X-Axis and XY-Axis ▶ Aluminum Alloy
Crossed Roller Stages | 50*50
Product Specification

MX50-AC



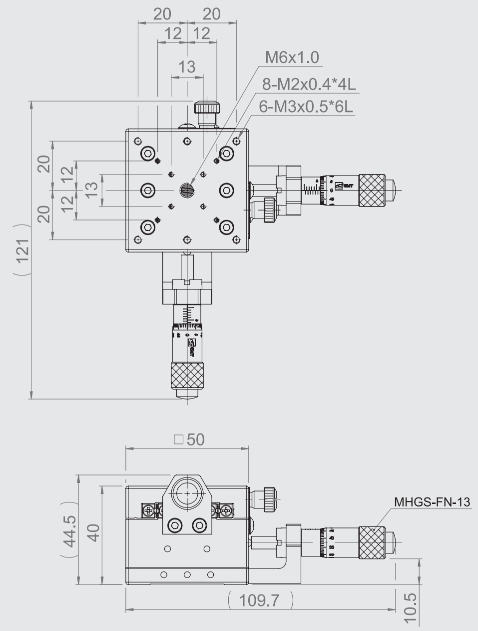
MX50-AS



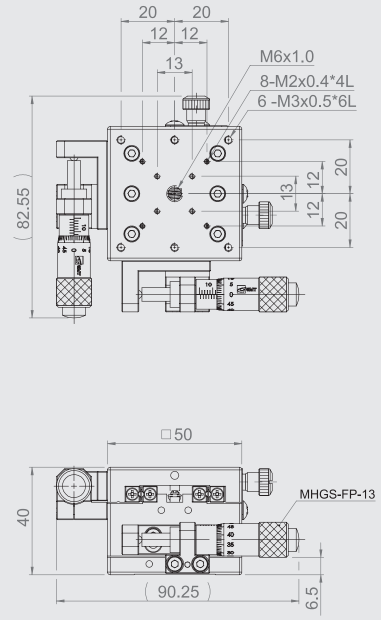


MX(Y)50-A Mounting Dimensions

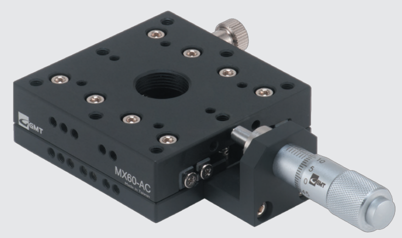
MY50-AC



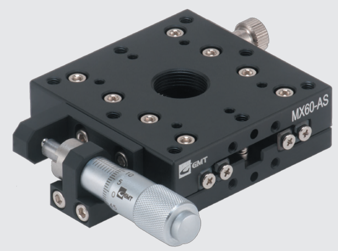
MY50-AS



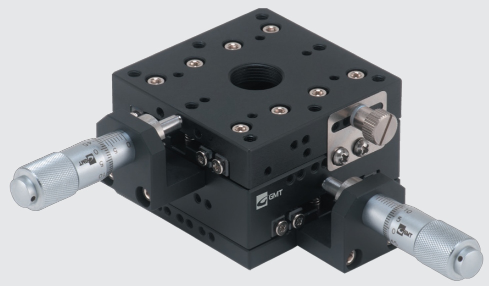
MX60-AC



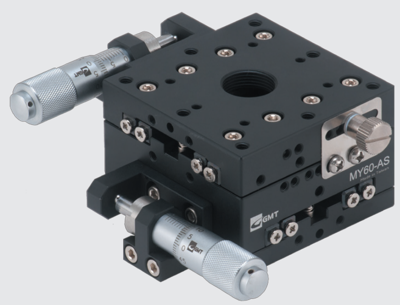
MX60-AS



MY60-AC



MY60-AS

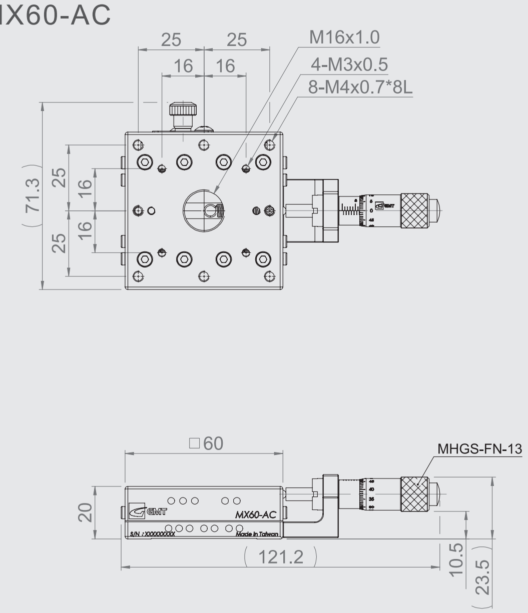


Specification

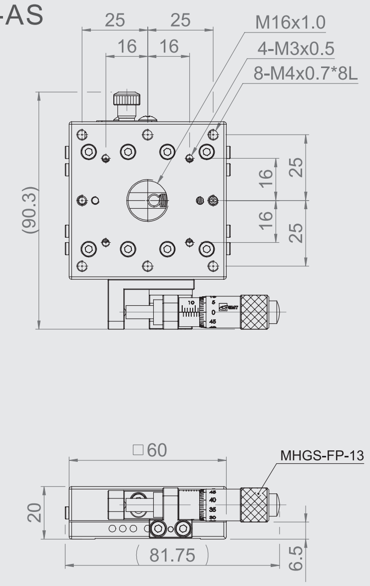
Unit : mm

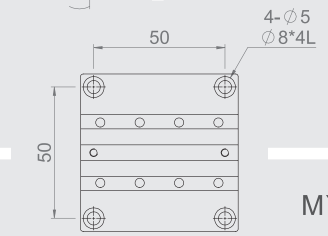
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX60-AC	60*60	X-axis	Central	±6.5	10	3	5	0.25	Aluminum alloy	Black anodized
MX60-AS			Side							
MY60-AC		XY-axis	Central				4.5	0.52		
MY60-AS			Side							

MX60-AC



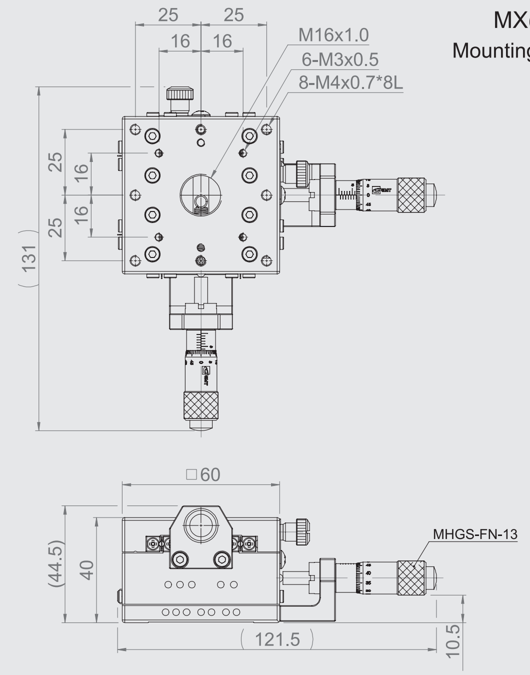
MX60-AS



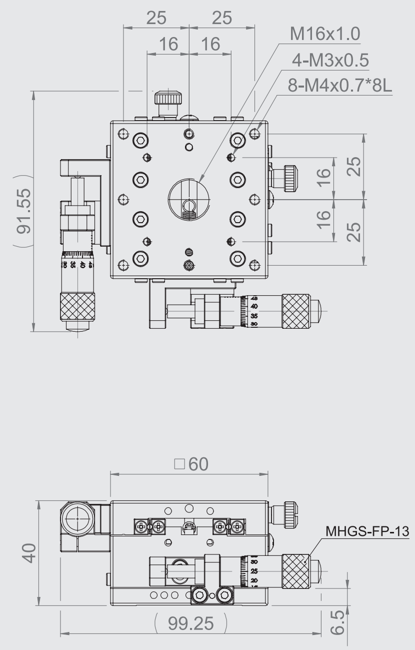


MX(Y)60-A
Mounting Dimensions

MY60-AC

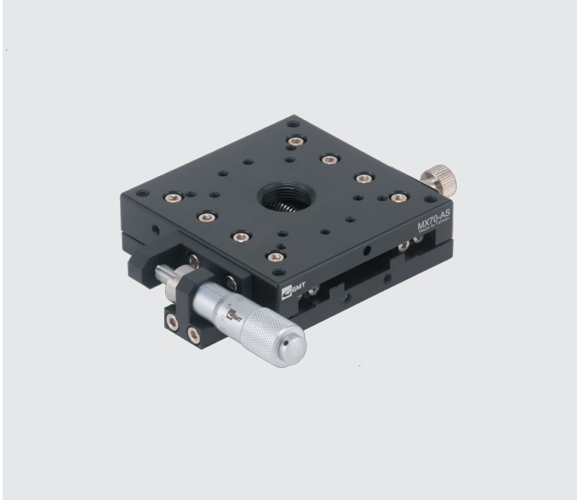


MY60-AS

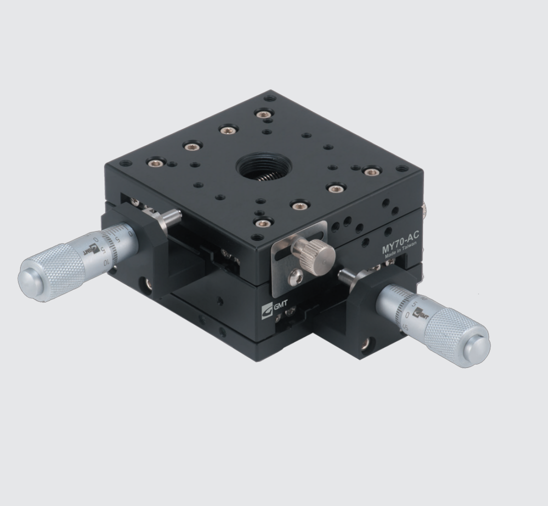


MX70-AC

MX70-AS



MY70-AC



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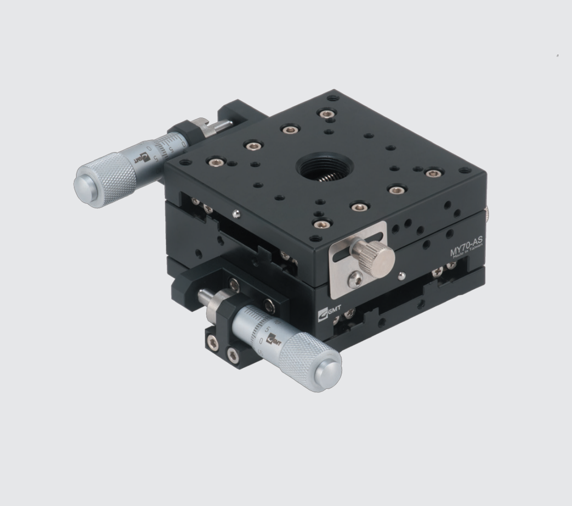
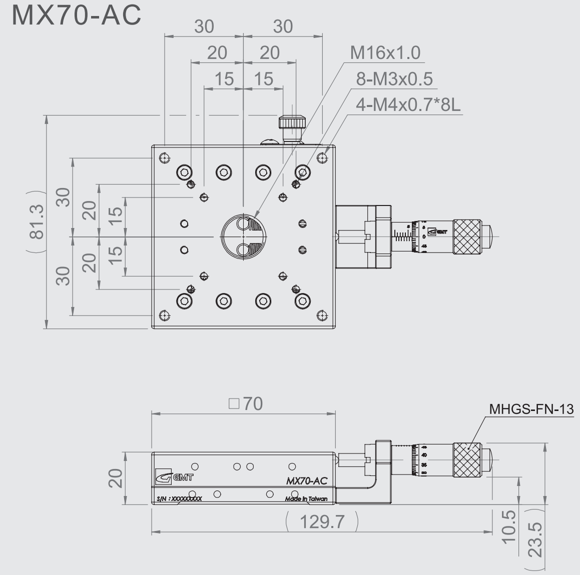


Specification

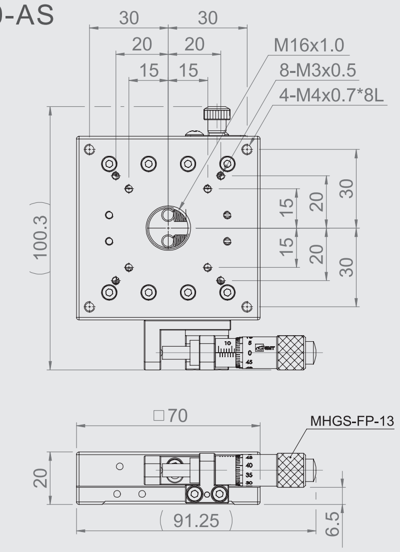
Unit : mm

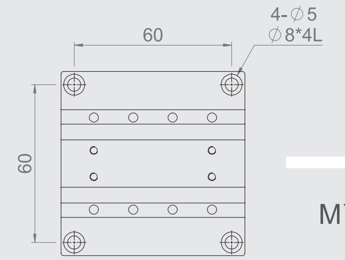
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX70-AC	70*70	X-axis	Central	±6.5	10	3	6	0.44	Aluminum alloy	Black anodized
MX70-AS			Side							
MY70-AC		XY-axis	Central					0.88		
MY70-AS			Side							

MX70-AC



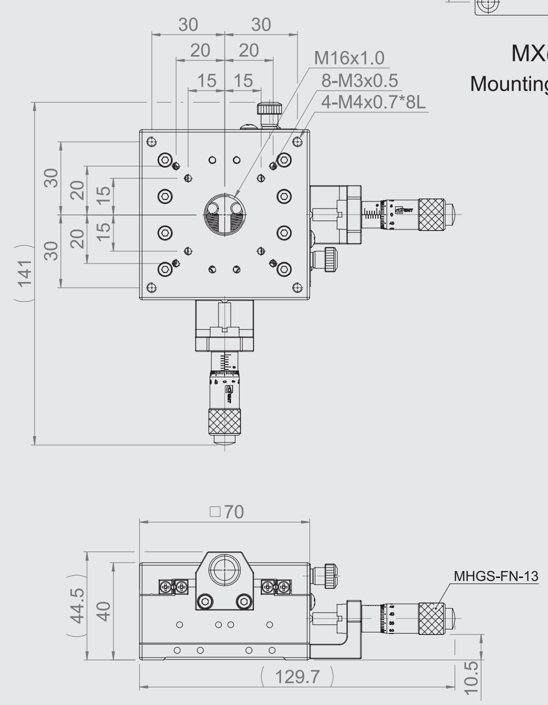
MX70-AS



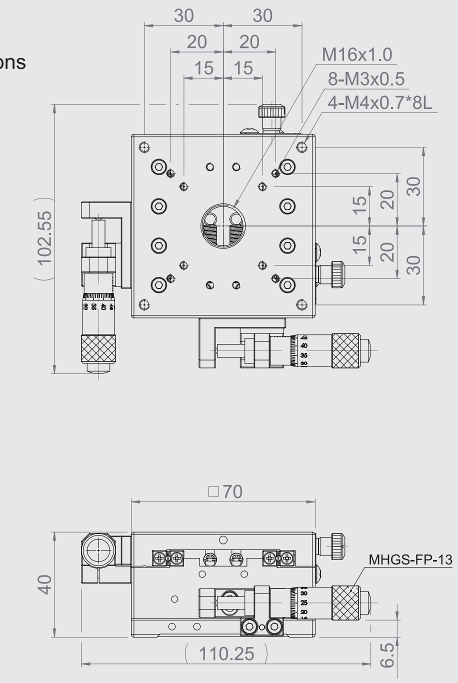


MX(Y)70-A
Mounting Dimensions

MY70-AC

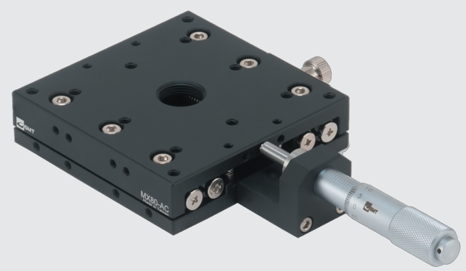


MY70-AS

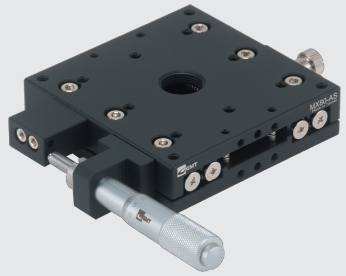


Product Specification

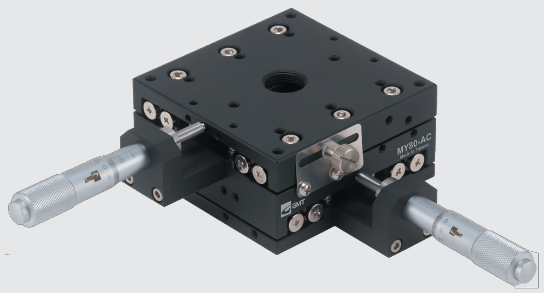
MX80-AC



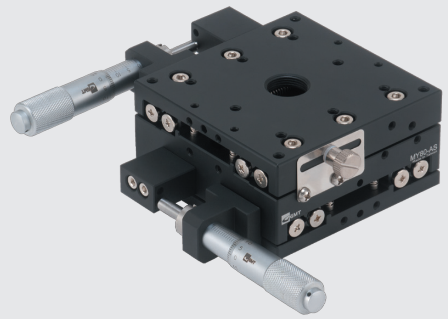
MX80-AS



MY80-AC



MY80-AS



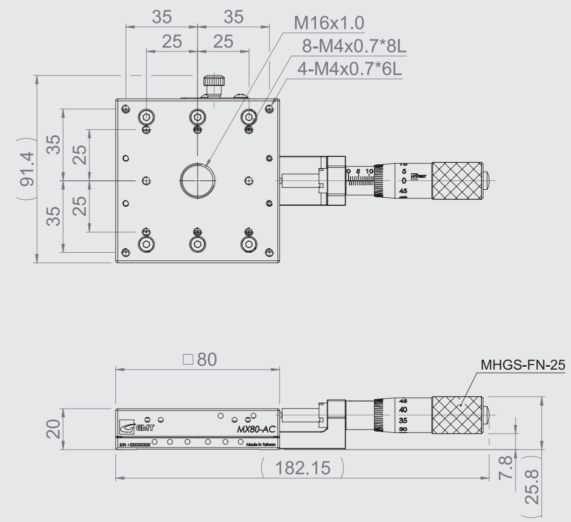
Specification

Unit : mm

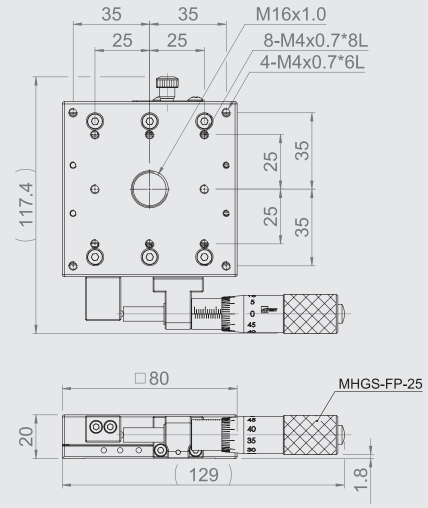
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX80-AC	80*80	X-axis	Central	±12.5	10	3	10	0.5	Aluminum alloy	Black anodized
MX80-AS			Side							
MY80-AC		XY-axis	Central				9.5	1		
MY80-AS			Side							

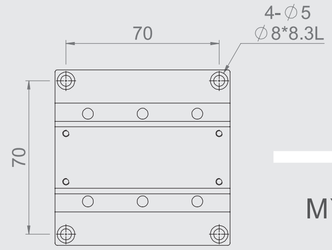
Product Specification

MX80-AC



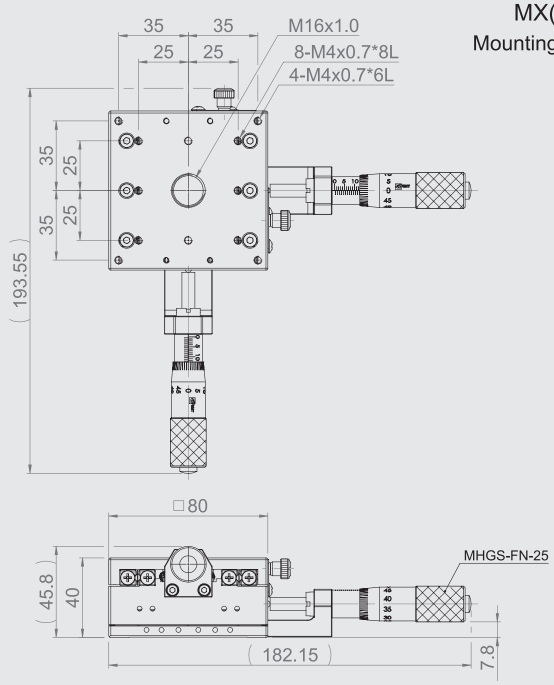
MX80-AS



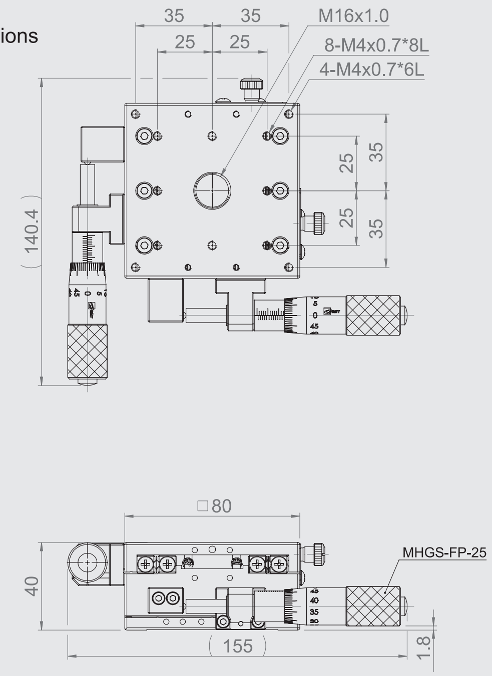


MX(Y)80-A
Mounting Dimensions

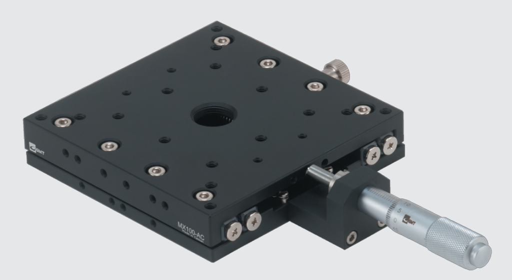
MY80-AC



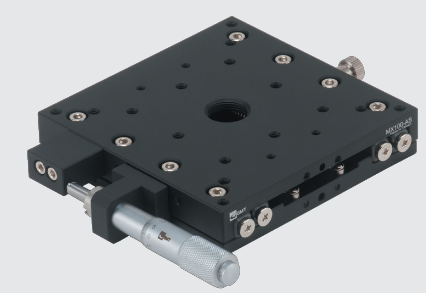
MY80-AS



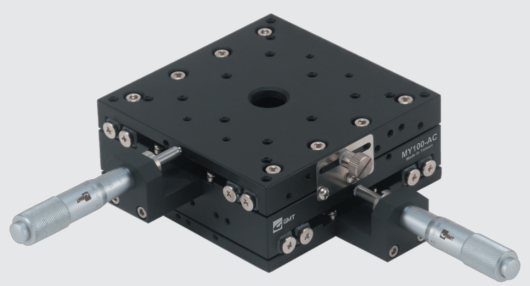
MX100-AC



MX100-AS



MY100-AC



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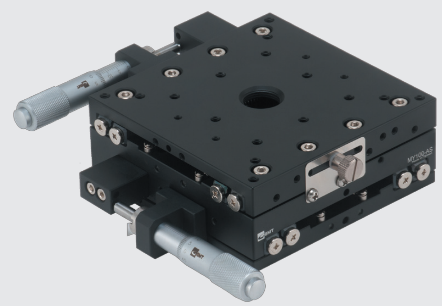
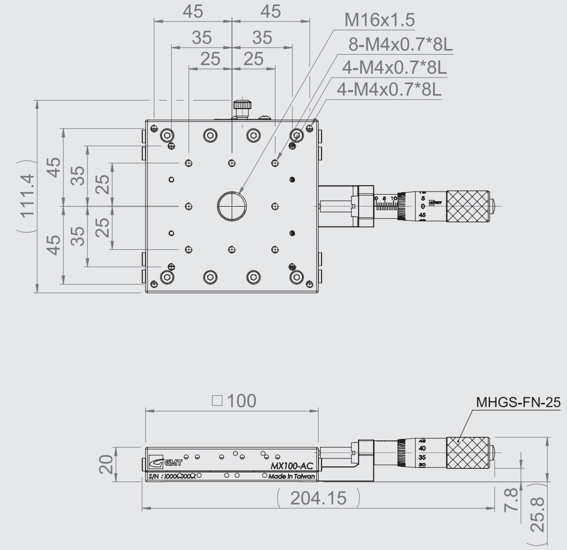


Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX100-AC	100*100	X-axis	Central	±12.5	10	3	15	0.7	Aluminum alloy	Black anodized
MX100-AS			Side							
MY100-AC		XY-axis	Central				14.3	1.4		
MY100-AS			Side							

MX100-AC



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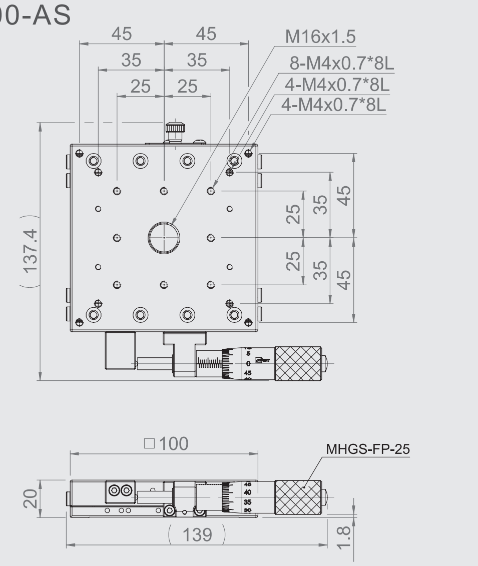
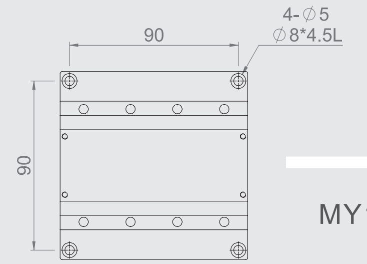
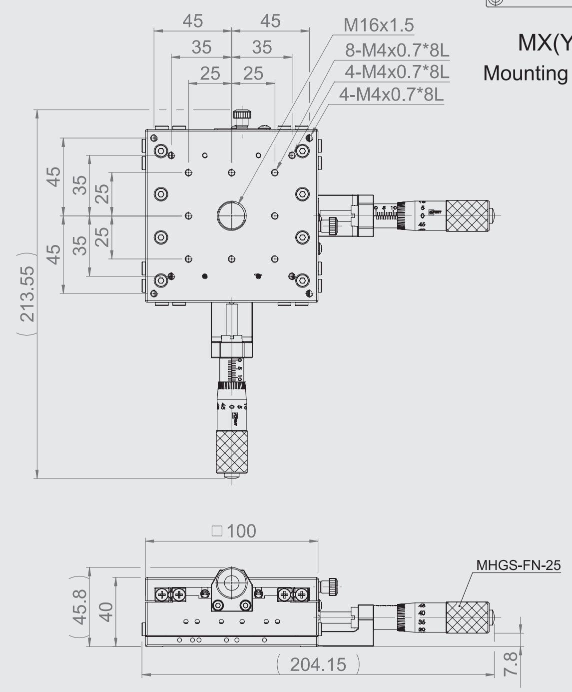


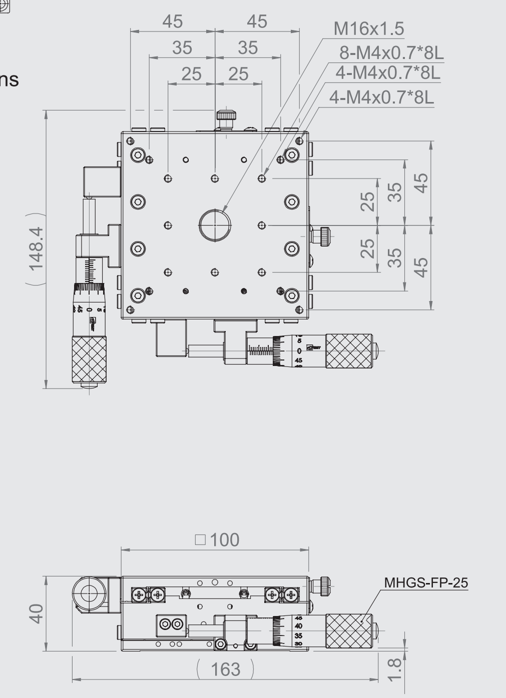


MX(Y)100-A
Mounting Dimensions

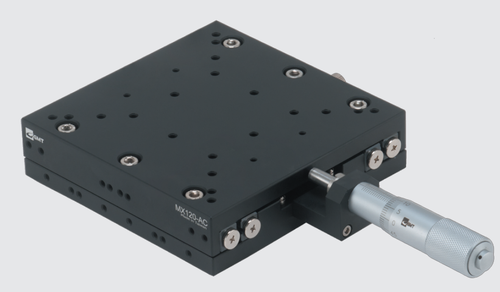
MY100-AC



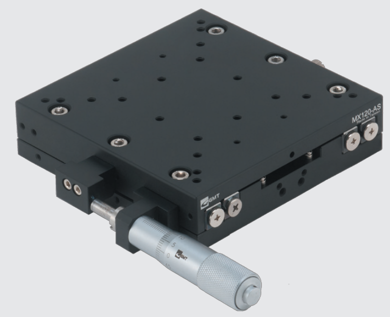
MY100-AS



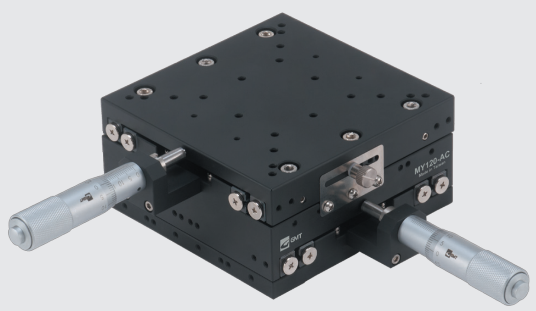
MX120-AC



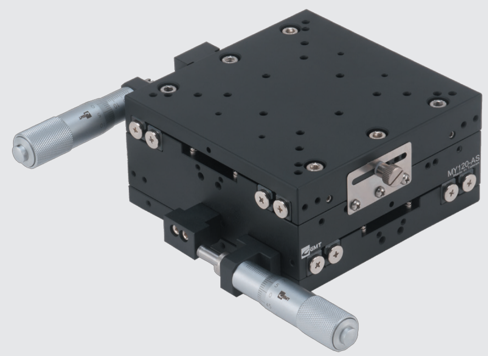
MX120-AS



MY120-AC



MY120-AS



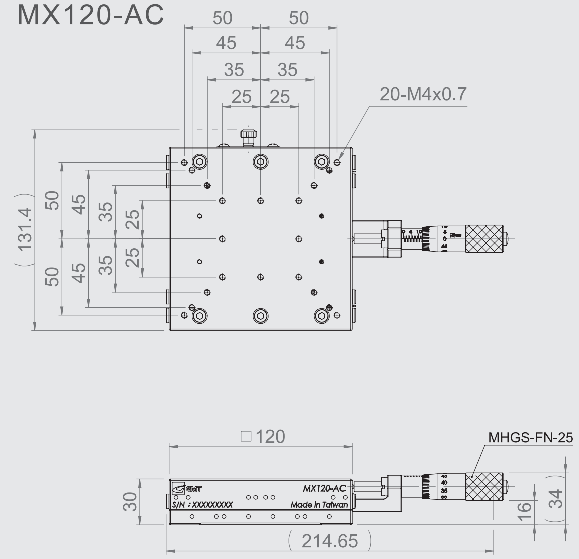
Specification

Unit : mm

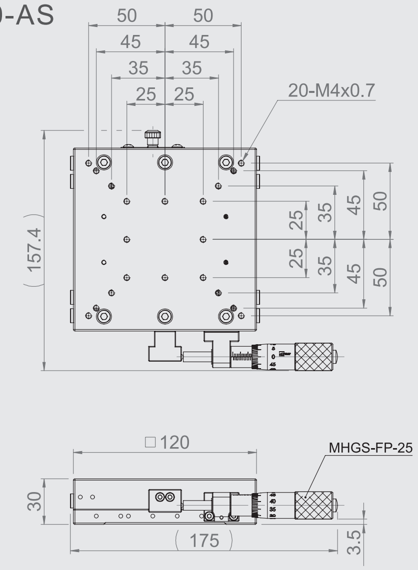
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX120-AC	120*120	X-axis	Central	±12.5	10	3	20	1.6	Aluminum alloy	Black anodized
MX120-AS			Side							
MY120-AC		XY-axis	Central				18.4	3.2		
MY120-AS			Side							

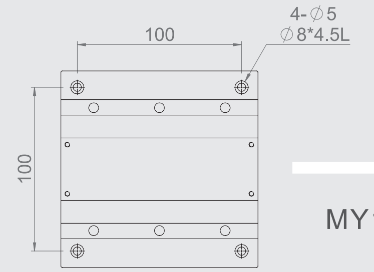
Crossed Roller Guiding ▶ X-Axis and XY-Axis ▶ Aluminum Alloy
GMT GLOBAL INC.
Crossed Roller Stages | 120*120
Product Specification

MX120-AC



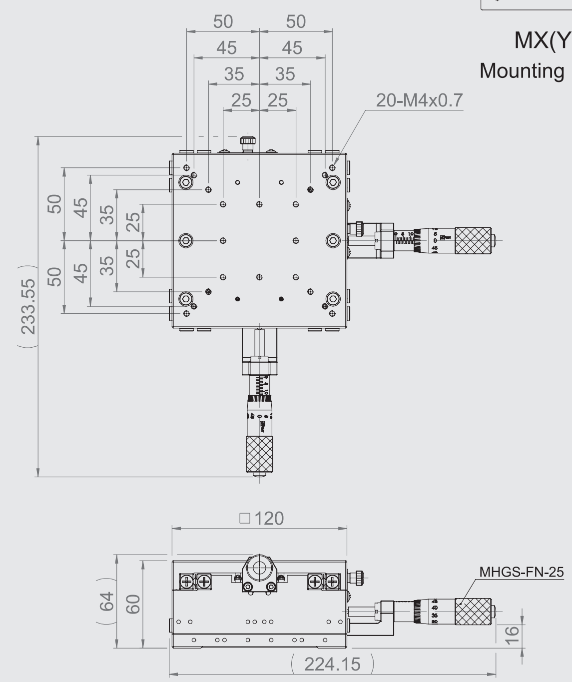
MX120-AS



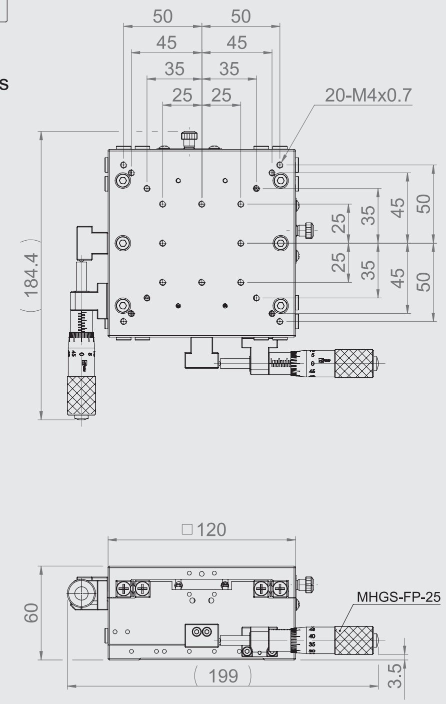


MX(Y)120-A
Mounting Dimensions

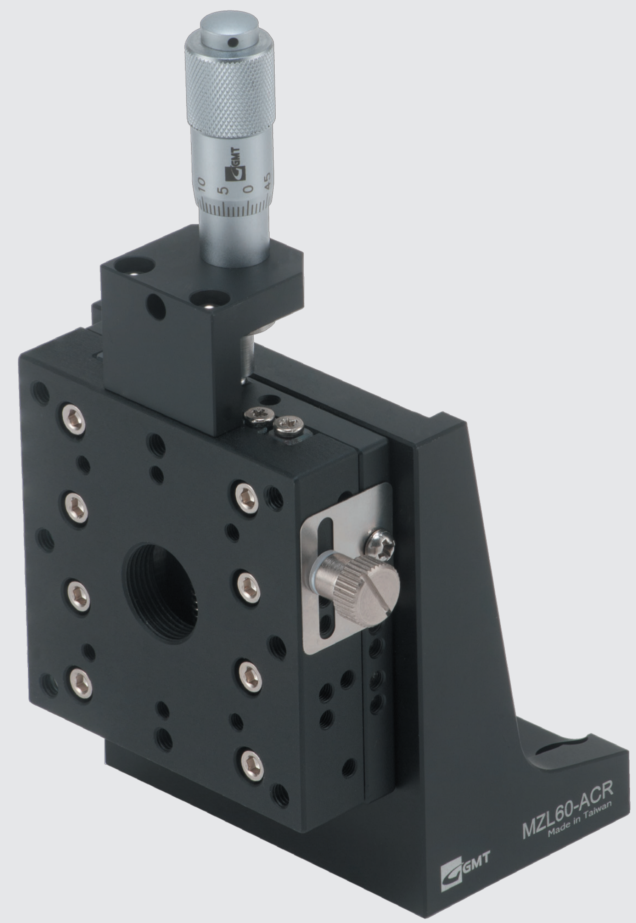
MY120-AC



MY120-AS



MZL60-ACR



Specification

Unit : mm

<table>
<tr><th rowspan="2">Model No.</th><th rowspan="2">Table Size</th><th rowspan="2">Travel Distance</th><th rowspan="2">Micrometer Minimum Reading (μm)</th><th colspan="3">Movement Accuracy</th><th rowspan="2">Allowable Loading (kgf)</th><th rowspan="2">Weight (kg)</th><th rowspan="2">Material</th><th rowspan="2">Surface Finish</th></tr>
<tr><th>Straightness (μm)</th><th>Pitching</th><th>Yawing</th></tr>
<tr><td>MZL25-ACR</td><td>25*25</td><td>±3.2</td><td rowspan="4">10</td><td rowspan="4">3</td><td rowspan="4">25"</td><td rowspan="4">15"</td><td>0.5</td><td>0.06</td><td rowspan="4">Aluminum alloy</td><td rowspan="4">Black anodized</td></tr>
<tr><td>MZL40-ACR</td><td>40*40</td><td rowspan="2">±6.5</td><td>1.0</td><td>0.2</td></tr>
<tr><td>MZL60-ACR</td><td>60*60</td><td>2.0</td><td>0.45</td></tr>
<tr><td>MZL80-ACR</td><td>80*80</td><td>±12.5</td><td>5.0</td><td>0.8</td></tr>
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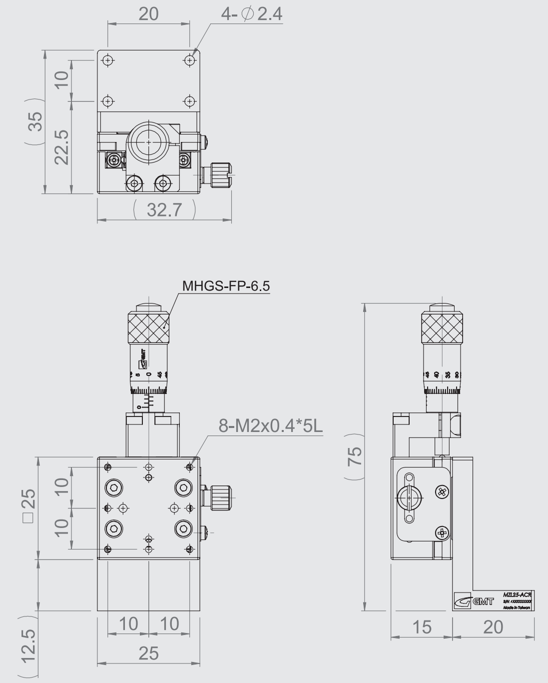
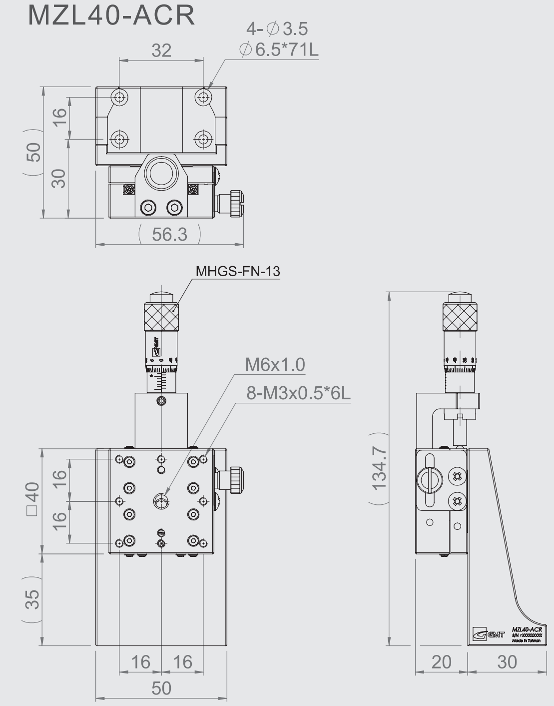
★ Brackets spec for Z-axis, refer to P.0195 ~ P.0196

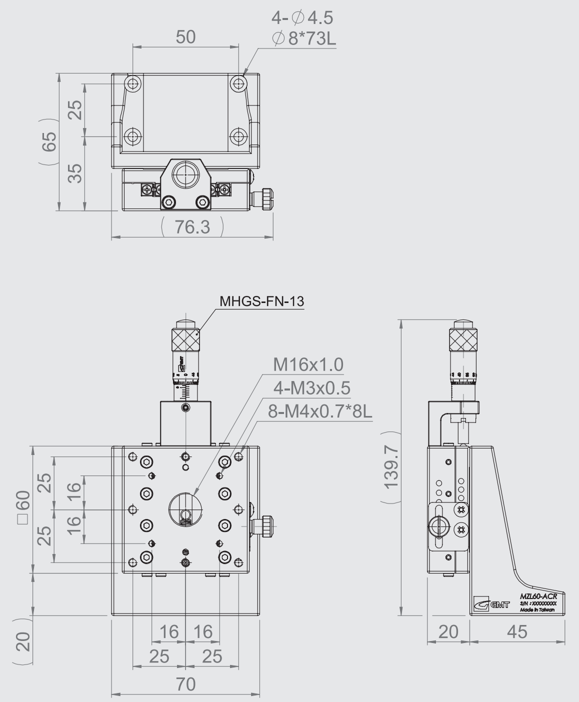
MZL25-ACR



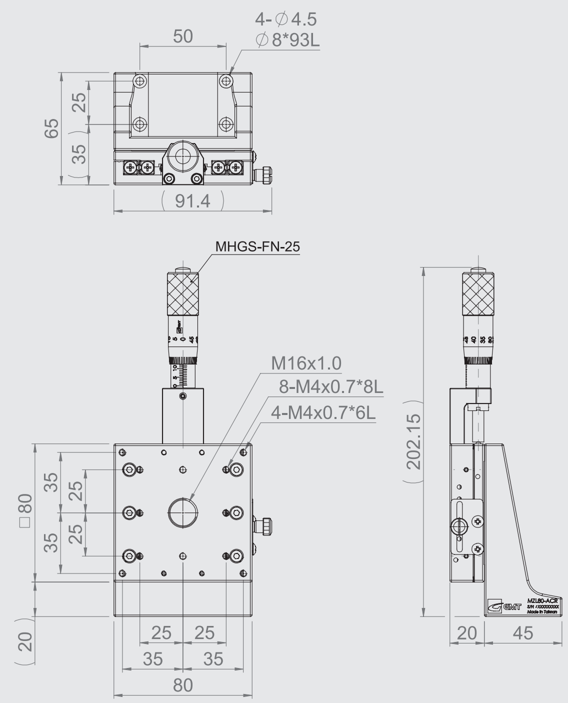
MZL40-ACR



MZL60-ACR



MZL80-ACR



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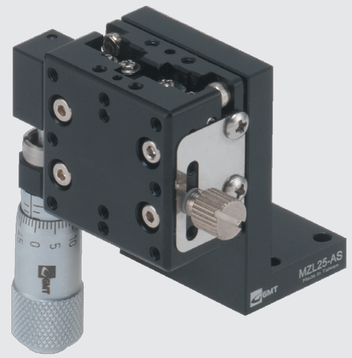

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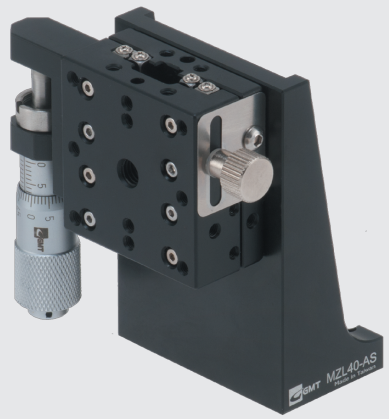
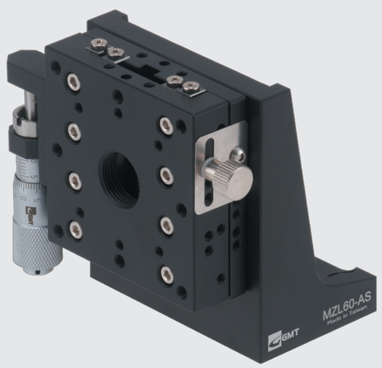
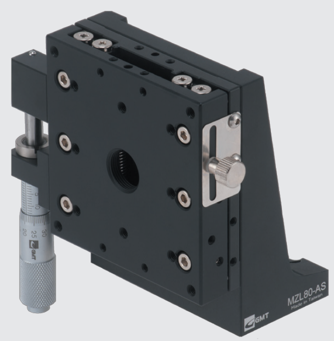


MZL60-AS



MZL80-AS



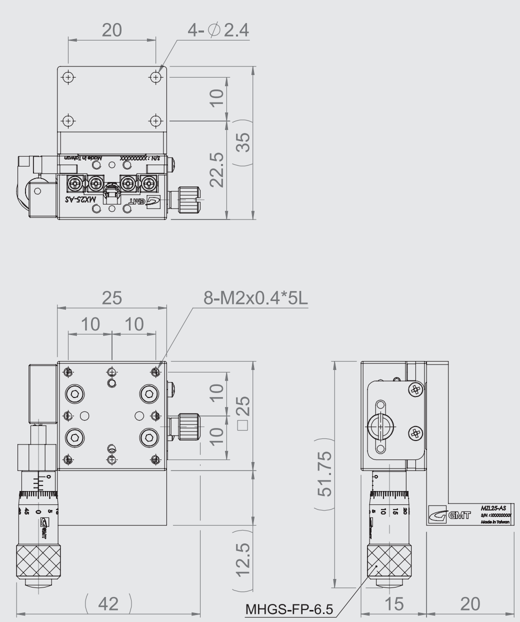
Specification

Unit : mm

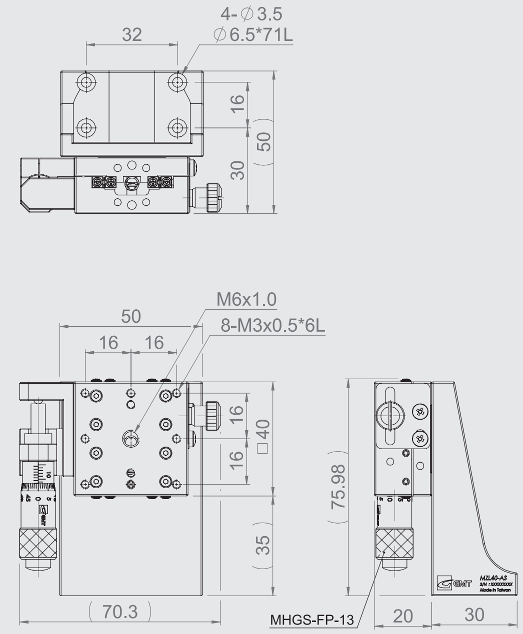
Model No.	Table Size	Travel Distance	Micrometer Minimum (μm)	Movement Accuracy			Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
				Straightness (μm)	Pitching	Yawing				
MZL25-AS	25*25	±3.2	10	3	30"	20"	0.5	0.06	Aluminum alloy	Black anodized
MZL40-AS	40*40	±6.5			25"	15"	1.0	0.2		
MZL60-AS	60*60						2.0	0.45		
MZL80-AS	80*80	±12.5					5.0	0.8		

★ Brackets spec for Z-axis, refer to P.0195 ~ P.0196

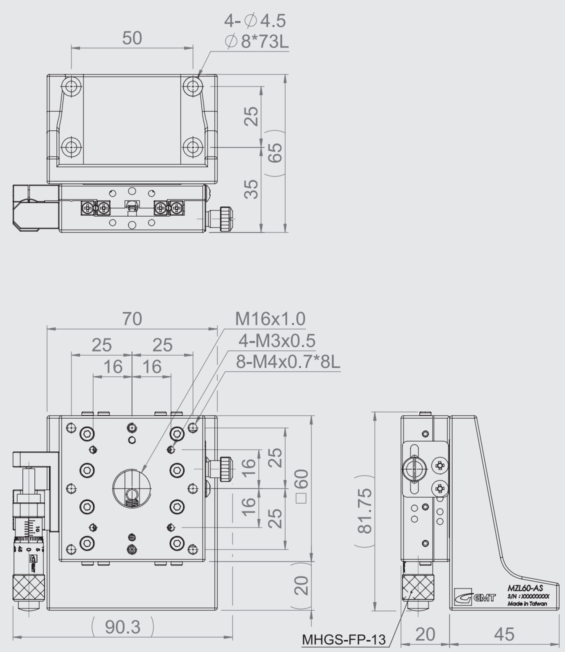
MZL25-AS



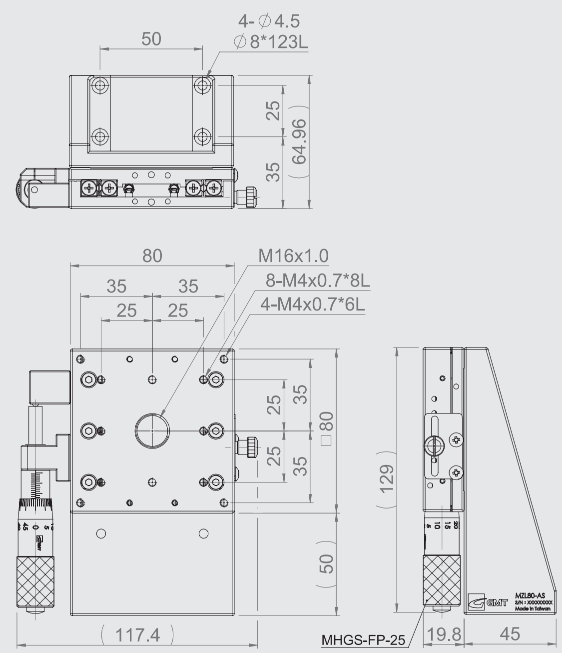
MZL40-AS

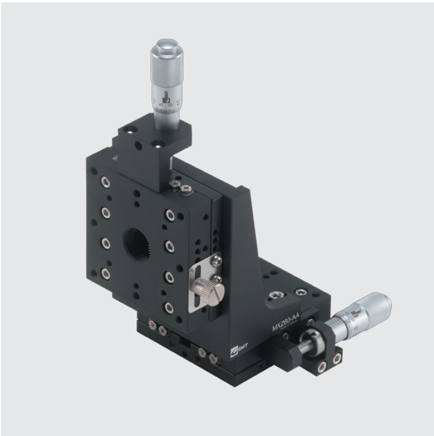


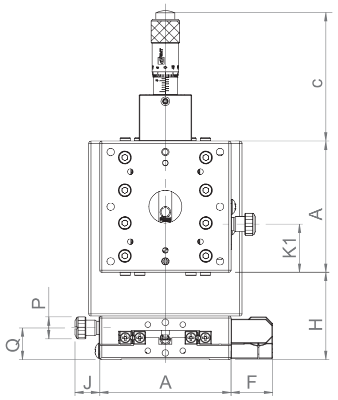
MZL60-AS



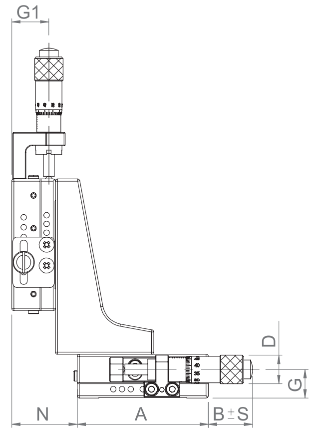
MZL80-AS





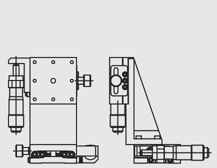
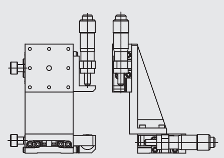
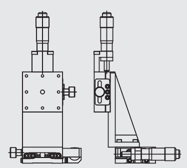
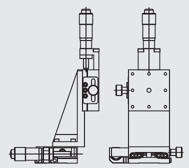


Front side viewing



Right side viewing

Unit : mm

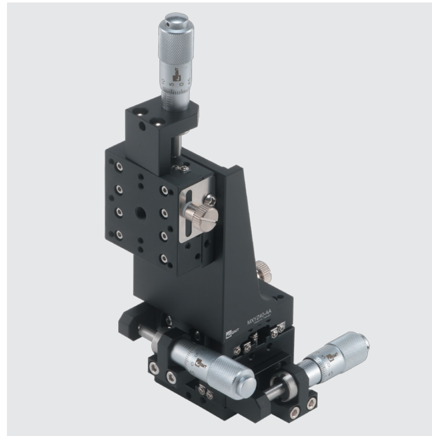
Position of Micrometer				
Specification	Side up 	Side down 	Central 	Reversed 
Code	C	CU	A	R

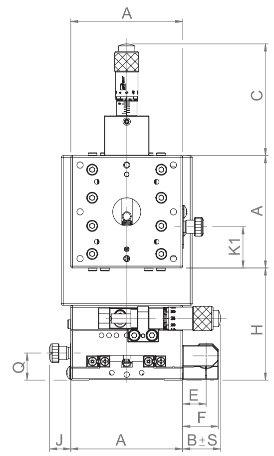
Specification

Unit : mm

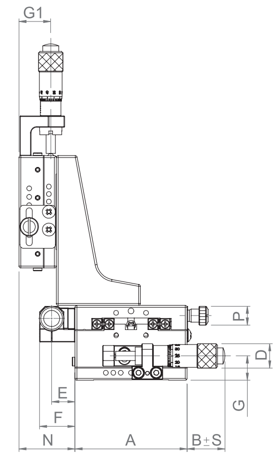
Model No.	Detail Dimension from Front Side Viewing								Detail Dimensions from Right Side Viewing				
Type	A	H	C	K1	P	Q	J	F	B ± S (Movement)	N	D	G	G1
MXZ	25	27.6	37.5	15.1	6	10.6	7.7	9	26.7±3.2	10.1	10	8.5	12.5
	30	35	37.5	12.5	6	10.5	7.7	9	24.3±3.2	7	10	8.5	12.5
	40	55	62	28	10	14.5	11.2	19	26.3±6.5	10	13	13	17
	50	40	59.7	33	10	14.5	11.2	19	21.3±6.5	5	13	13	17
	60	39.9	59.7	17.4	10	14.4	11.2	19	20.2±6.5	5	13	13	17
	70	39.9	59.7	53.5	10	14.4	11.2	19	21.3±6.5	25	13	13	17
	80	40	100.7	25	10	14.5	11.2	24	54.5±12.5	20	18	10.8	16.5
	100	60	100.7	56	10	14.5	11.2	24	35.5±12.5	36	18	10.8	16.7
	120	65	100.7	52	10	18	11.2	24	51.5±12.5	7	18	12.5	17.5

Model No.	Table Size	Allowable Loading (kgf)	Straightness Accuracy (μm)	Pitching	Yawing	Axis	Weight (kg)	Material	Surface Finish
MXZ25-A	25*25	1	5	30"	25"	XZ	0.11	Aluminum alloy	Black anodized
MXZ30-A	30*30			25"	15"		0.14		
MXZ40-A	40*40						0.38		
MXZ50-A	50*50						0.52		
MXZ60-A	60*60	2					0.74		
MXZ70-A	70*70						0.81		
MXZ80-A	80*80	5					1.37		
MXZ100-A	100*100						2.39		
MXZ120-A	120*120						3.02		



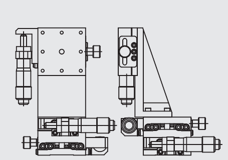
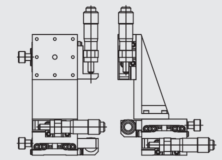
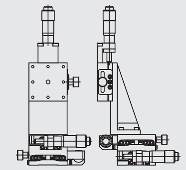
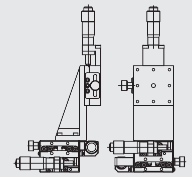


Front side viewing



Right dide viewing

Unit : mm

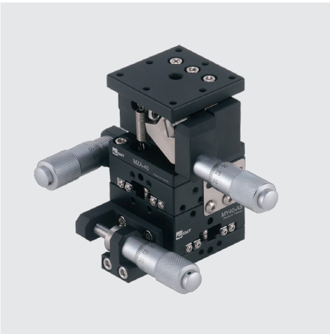
Position of Micrometer				
Specification	Side up 	Side down 	Central 	Reversed 
Code	C	CU	A	R

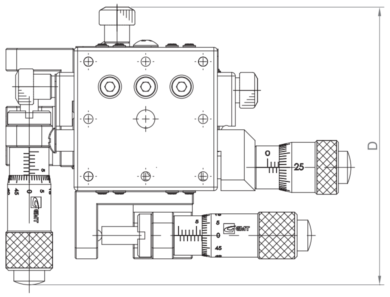
Specification

Unit : mm

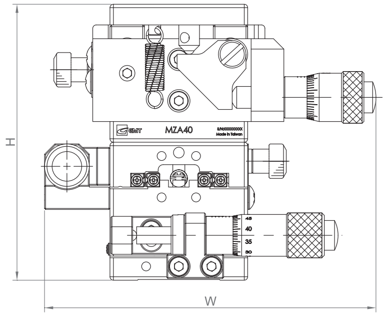
Model No.	Detail Dimension from Front Side Viewing								Detail Dimensions from Right Side Viewing					
Type	A	H	C	K1	Q	J	F	E	B ± S (Movement)	N	D	G	G1	P
MXYZ	25	42.6	37.5	15	10.6	7.7	9	4.5	26.8±3.2	20.1	10	8.5	12.5	6
	30	50	37.5	12.5	10.5	7.7	9	4.5	24.3±3.2	19	10	8.5	12.5	6
	40	75	59.7	28	14.5	11.2	19	12.5	26.3±6.5	26	13	13	17	10
	50	60	59.7	33	14.5	11.2	19	12.5	21.3±6.5	25	13	13	17	10
	60	60	59.7	17.5	14.4	11.2	19	12.5	20.3±6.5	30	13	13	17	10
	70	60	59.7	53.5	14.4	11.2	19	12.5	21.3±6.5	25	13	13	17	10
	80	60	100.7	25	14.5	11.2	24	17	54.5±12.5	20	13	10.8	16.5	10
	100	80	100.7	56	14.5	11.2	24	17	35.5±12.5	36	18	10.8	16.7	10
	120	95	100.7	52	18	11.2	24	17	51.5±12.5	27	18	12.5	17.5	10

Model No.	Table Size	Allowable Loading (kgf)	Straightness Accuracy (μm)	Pitching	Yawing	Axis	Weight (kg)	Material	Surface Finish
MXYZ25-A	25*25	1	5	30"	25"	XYZ	0.16	Aluminum alloy	Black anodized
MXYZ30-A	30*30			25"	15"		0.2		
MXYZ40-A	40*40						0.53		
MXYZ50-A	50*50						0.72		
MXYZ60-A	60*60	2					1.01		
MXYZ70-A	70*70						1.14		
MXYZ80-A	80*80	5					1.92		
MXYZ100-A	100*100						3.12		
MXYZ120-A	120*120						4.48		



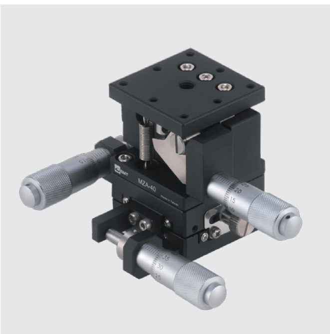


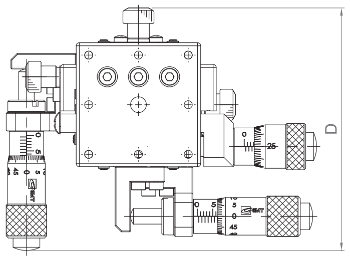
Top viewing



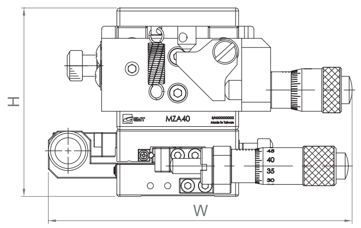
Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYZA40–A	MY40–AS	—	MZA–40	40×40	96.25	77.45	80	±6.5	±6.5	±3.0	—	1	0.51
MXYZA60–A	MY60–AS	—	MZA–60	60×60	117.5	91.45	95			±5.0	—	4	1.07
MXYZA80–A	MY80–AS	—	MZA–80	80×80	160.5	145.7	95	±12.5	±12.5		—	3	2.09



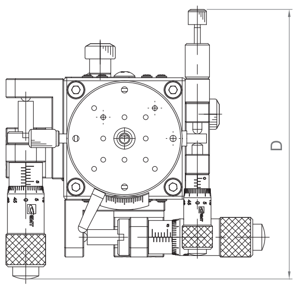


Top viewing

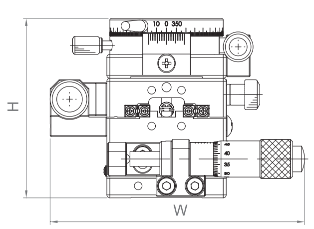


Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYWZA40–A	MYW40–AS	—	MZA–40	40×40	99.75	78.2	62	±6.5	±6.5	±3.0	—	0.8	0.44
MXYWZA60–A	MYW60–AS	—	MZA–60	60×60	121	96.2	77			±5.0	—	2.4	0.9
MXYWZA80–A	MYW80–AS	—	MZA–80	80×80	154.5	126.7	77	±12.5	±12.5		—	3	1.82

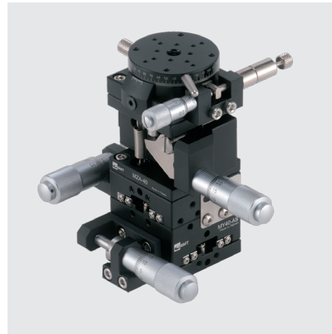


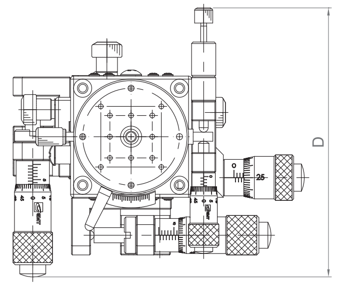
Top viewing



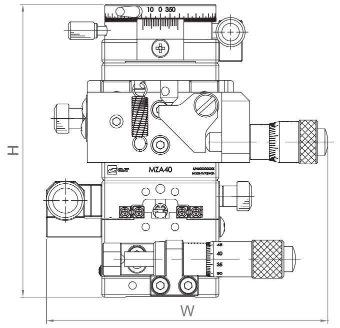
Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYR38–A	MY40–AS	—	MR38–A	Ø38	85.25	88.75	60	±6.5	±6.5	—	Coarse360° Fine±0.5°	1	0.42
MXYR60–A	MY60–AS	—	MR60–A	Ø60	99.25	109	65			—		3	0.87
MXYR85–A	MY80–AS	—	MR85–A	Ø85	160.5	150	65	±12.5	±12.5	—		4	1.62



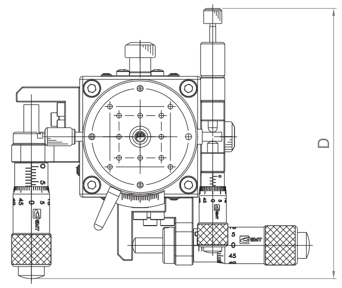


Top viewing

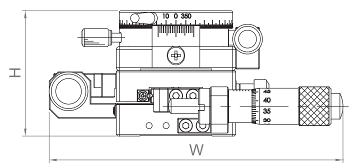


Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYZAR38–A	MY40–AS	MZA–40	MR38–A	Ø38	96.25	88.75	100	±6.5	±6.5	±3.0	Coarse360° Fine±0.5°	0.9	0.63
MXYZAR60–A	MY60–AS	MZA–60	MR60–A	Ø60	117.5	109	119.5			±5.0		3	1.4
MXYZAR85–A	MY80–AS	MZA–80	MR85–A	Ø85	160.5	150	120	±12.5	±12.5			2.5	2.64

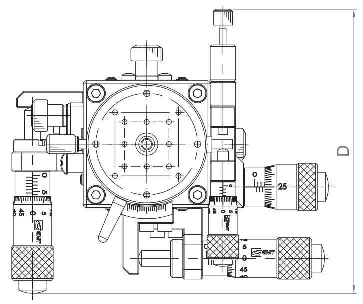


Top viewing

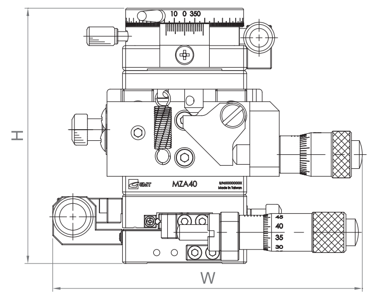


Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYWR38–A	MYW40–AS	—	MR38–A	Ø38	98.5	89.5	42	±6.5	±6.5	—	Coarse360° Fine±0.5°	0.9	0.35
MXYWR60–A	MYW60–AS	—	MR60–A	Ø60	103	109	47			—		2.7	0.7
MXYWR85–A	MYW80–AS	—	MR85–A	Ø85	153.5	130	47	±12.5	±12.6	—		3.5	1.34



Top viewing



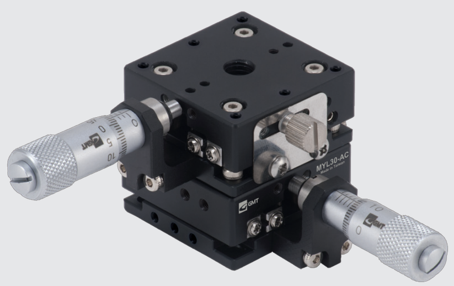
Front side viewing

Model No.	Multiple Axes			Table Size (mm)	Outline Dimensions (mm)			Travel Stroke (mm)				Allowable Loading(kgf)	Weight (kg)
Spec Code	Base	Middle	Top		W	D	H	X	Y	Z	θ		
MXYWZAR38–A	MYW40–AS	MZA–40	MR38–A	Ø38	99.75	89.5	82	±6.5	±6.5	±3.0	Coarse360° Fine±0.5°	0.7	0.57
MXYWZAR60–A	MYW60–AS	MZA–60	MR60–A	Ø60	121	109	102			±5.0		2.1	1.23
MXYWZAR85–A	MYW80–AS	MZA–80	MR85–A	Ø85	154.5	131	102	±12.5	±12.5			2.5	2.36

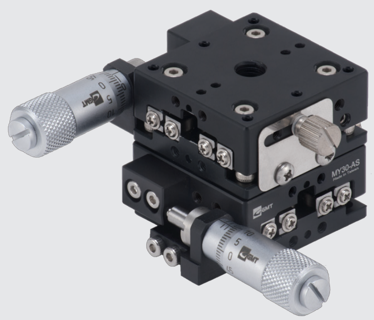
MXL30-AC

MXL30-AS

MYL30-AC



MYL30-AS



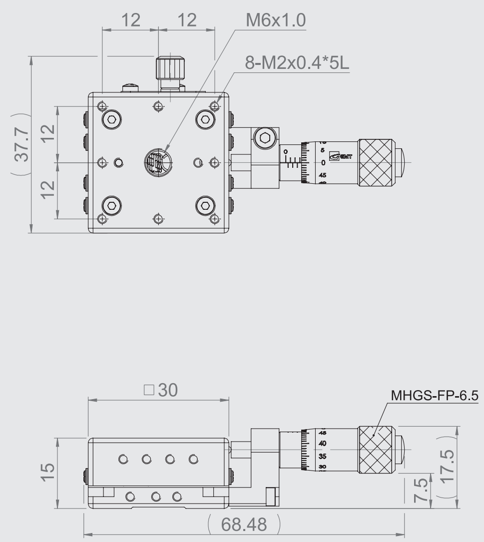
Specification

Unit : mm

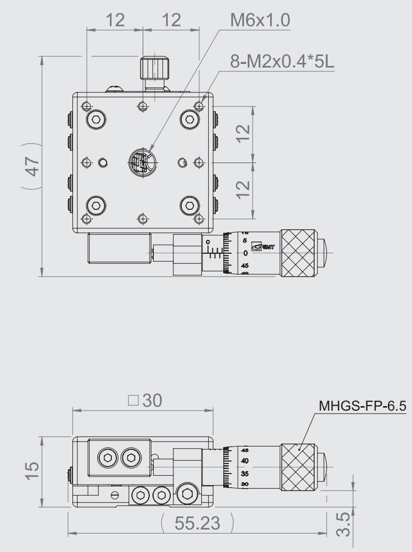
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXL30-AC	30*30	X-axis	Central	±3.2	10	3	3	0.04	Aluminum alloy	Black anodized
MXL30-AS			Side							
MYL30-AC		XY-axis	Central					0.08		
MYL30-AS			Side							

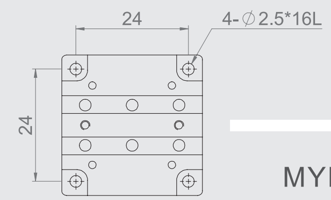
GMT GLOBAL INC.
Crossed Roller Stages ▶ X-Axis and XY-Axis ▶ Aluminum Alloy - Thin Type
Crossed Roller Thin Type Stages | 30*30
Product Specification

MXL30-AC



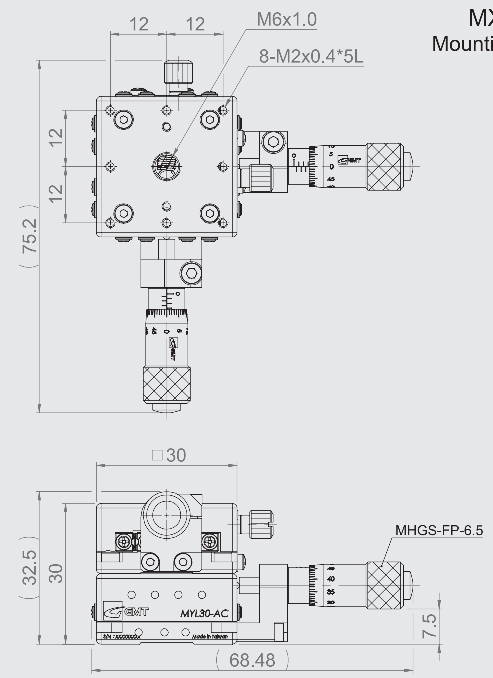
MXL30-AS





MX(Y)L30-A
Mounting Dimensions

MYL30-AC



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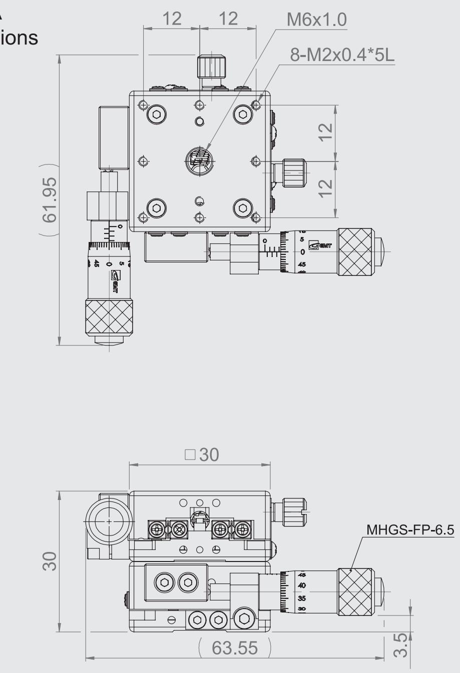
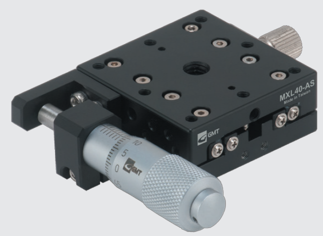


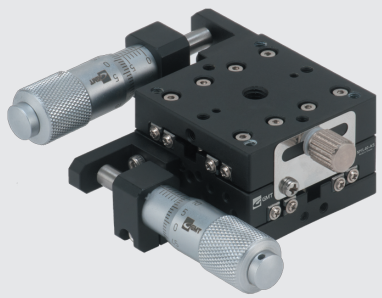
MXL40-AC

MXL40-AS



MYL40-AC

MYL40-AS

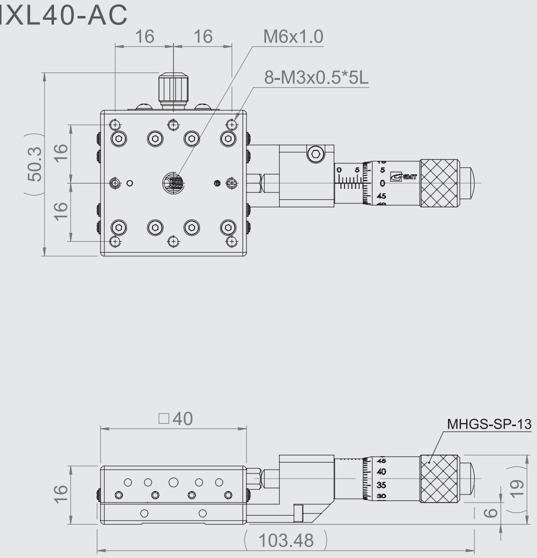


Specification

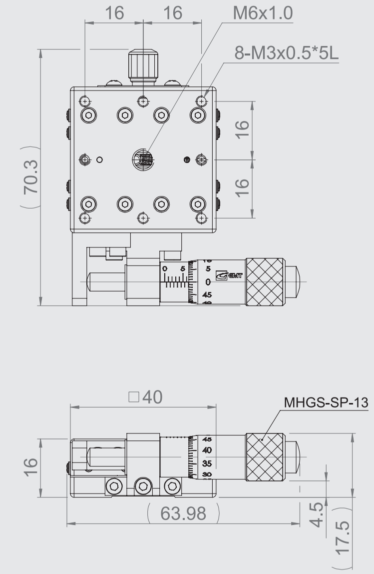
Unit : mm

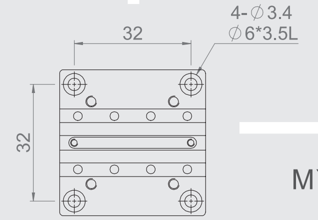
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXL40-AC	40*40	X-axis	Central	±6.5	10	3	3	0.13	Aluminum alloy	Black anodized
MXL40-AS			Side							
MYL40-AC		XY-axis	Central					0.23		
MYL40-AS			Side							

MXL40-AC



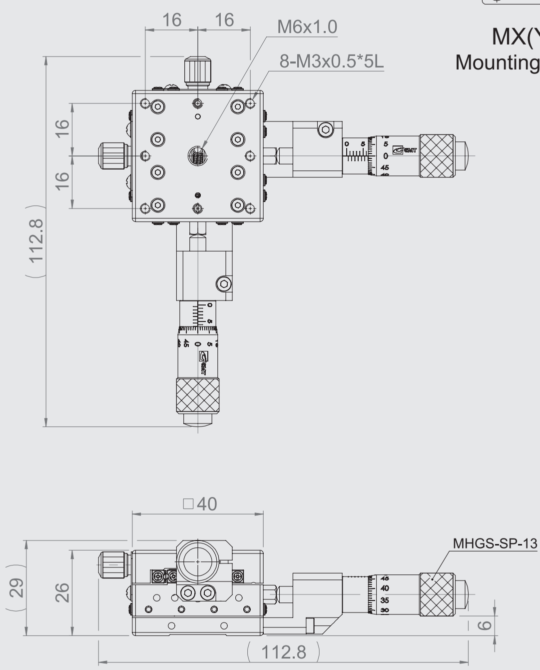
MXL40-AS



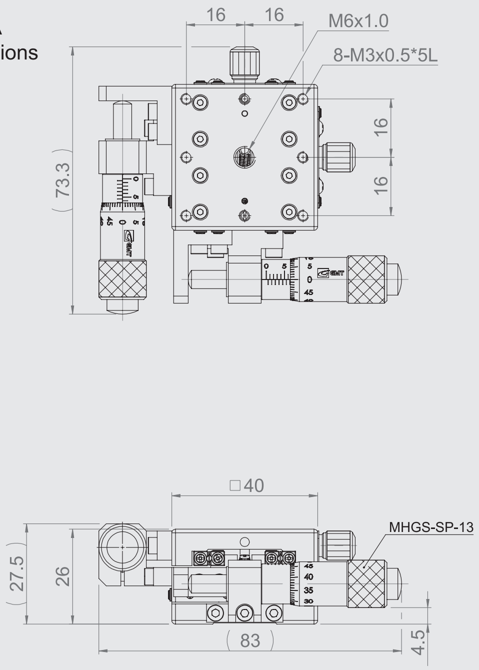


MX(Y)L40-A
Mounting Dimensions

MYL40-AC

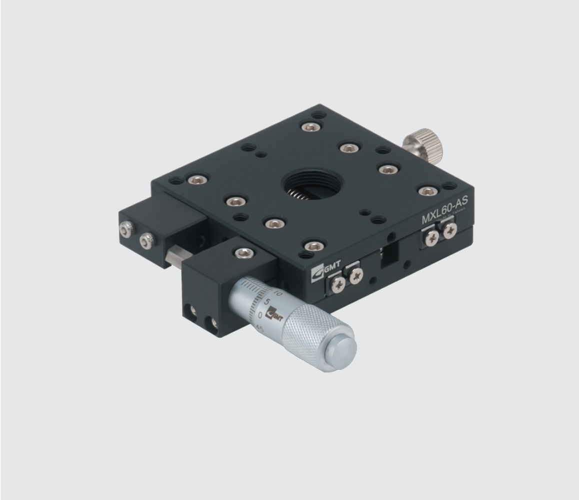


MYL40-AS

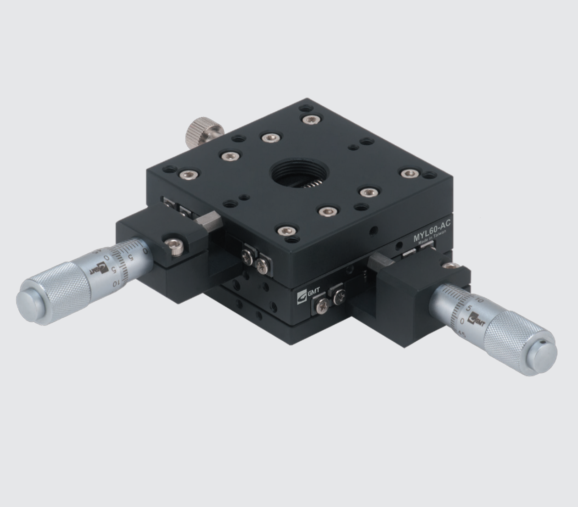


MXL60-AC

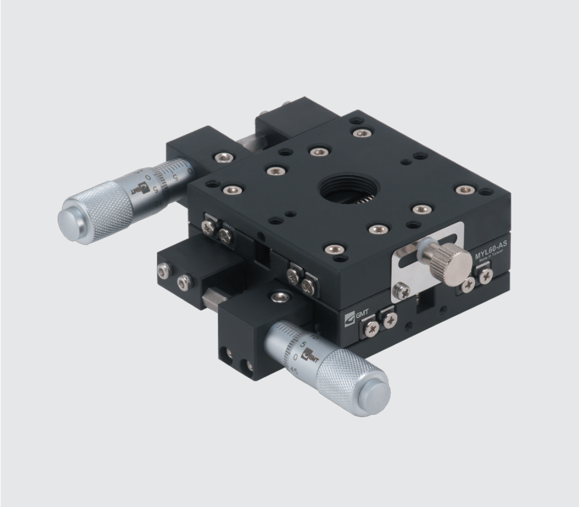
MXL60-AS



MYL60-AC



MYL60-AS

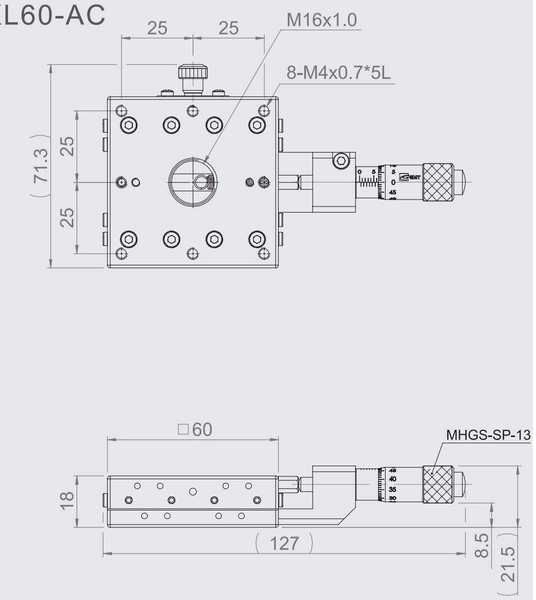


Specification

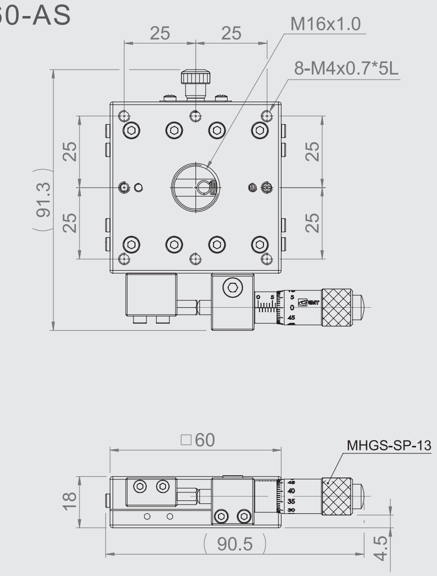
Unit : mm

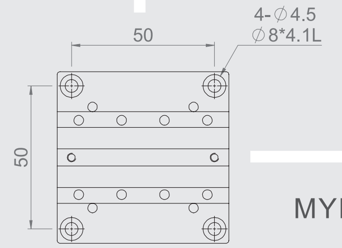
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXL60-AC	60*60	X-axis	Central	±6.5	10	3	5	0.3	Aluminum alloy	Black anodized
MXL60-AS			Side							
MYL60-AC		XY-axis	Central					0.5		
MYL60-AS			Side							

MXL60-AC



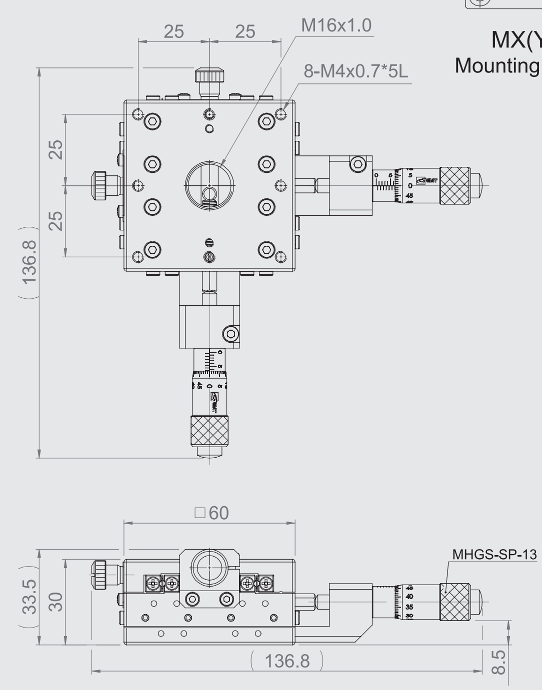
MXL60-AS



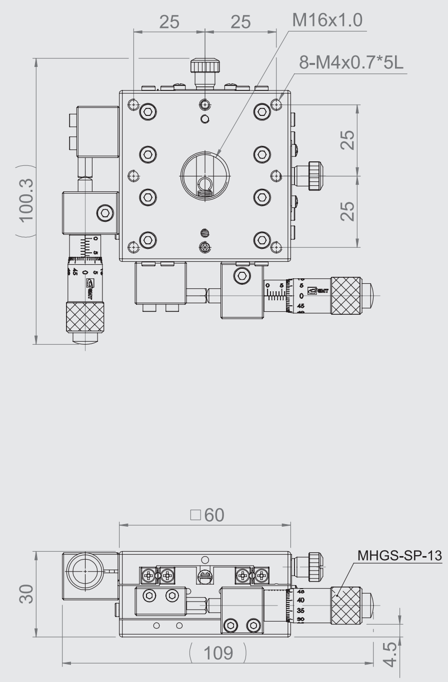


MX(Y)L60-A
Mounting Dimensions

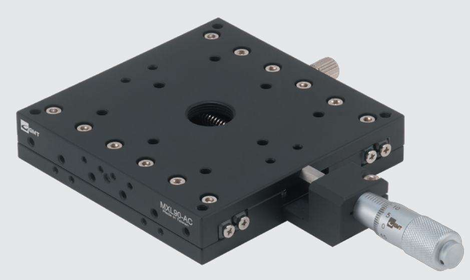
MYL60-AC



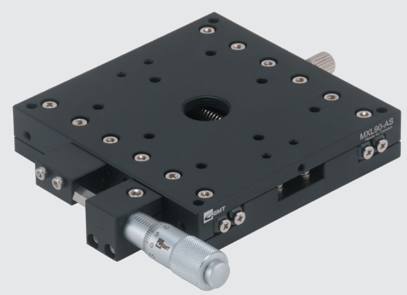
MYL60-AS



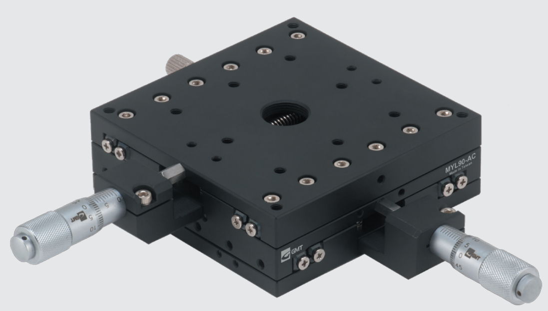
MXL90-AC



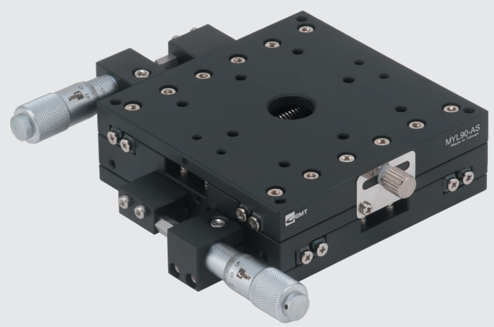
MXL90-AS



MYL90-AC



MYL90-AS

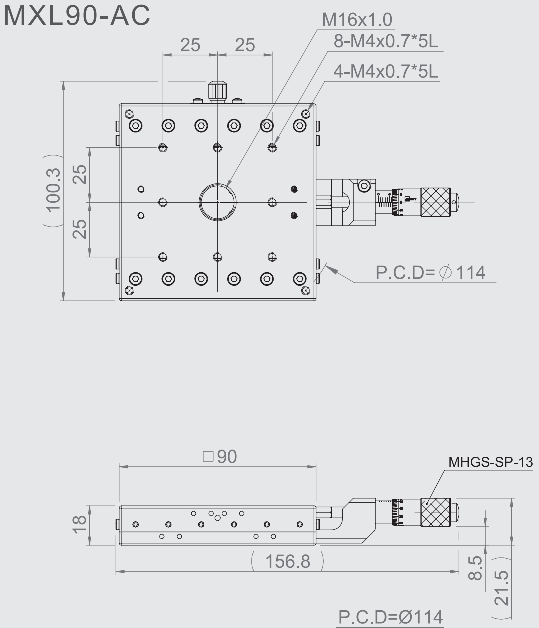


Specification

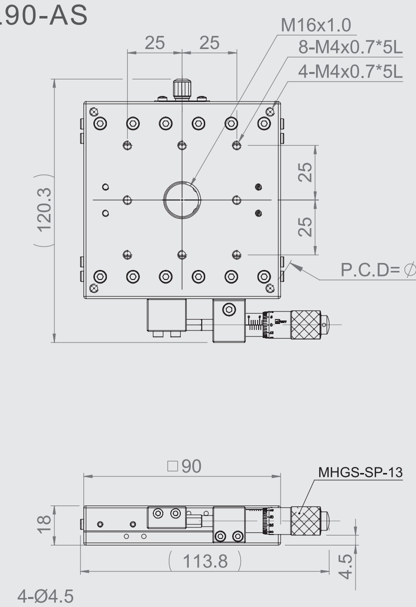
Unit : mm

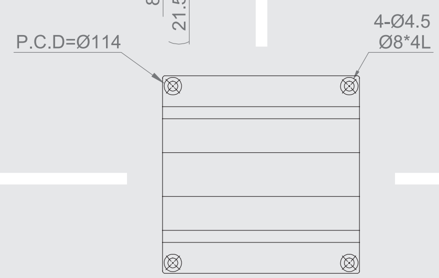
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXL90-AC	90*90	X-axis	Central	±7.5	10	3	8	0.45	Aluminum alloy	Black anodized
MXL90-AS			Side							
MYL90-AC		XY-axis	Central					0.85		
MYL90-AS			Side							

MXL90-AC



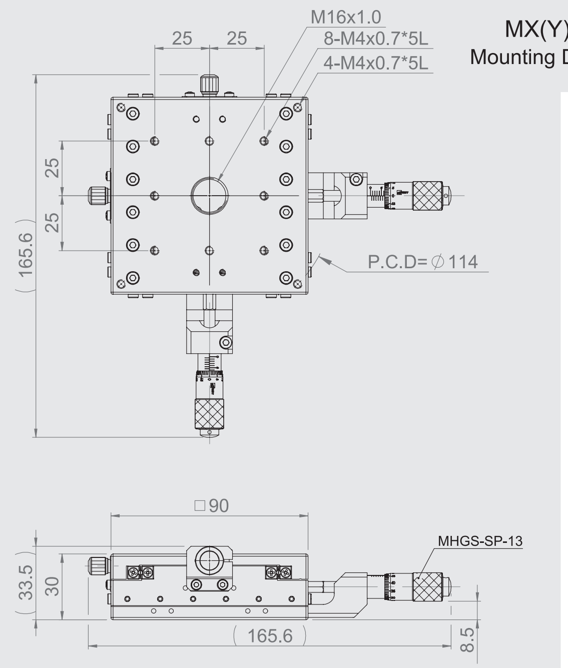
MXL90-AS



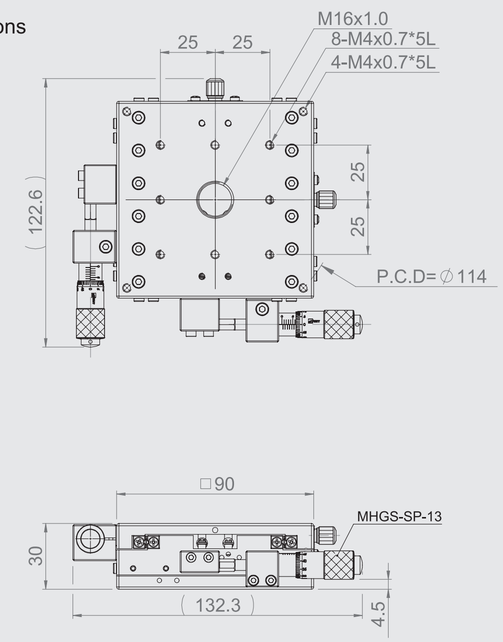


MX(Y)L90-A
Mounting Dimensions

MYL90-AC

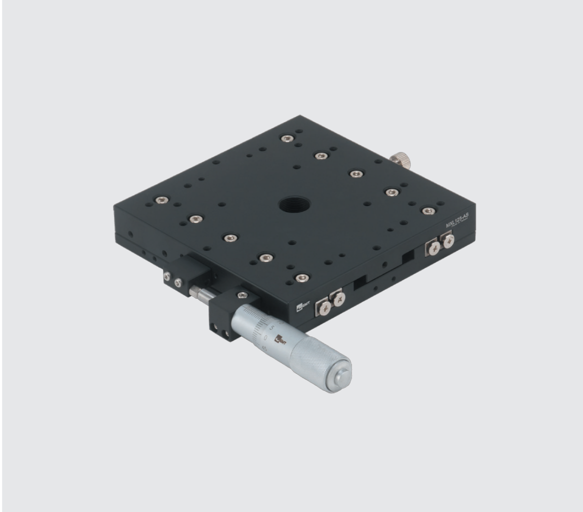


MYL90-AS

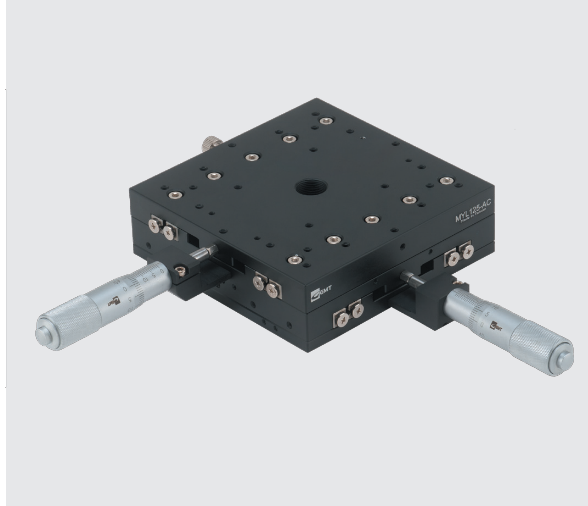


MXL125-AC

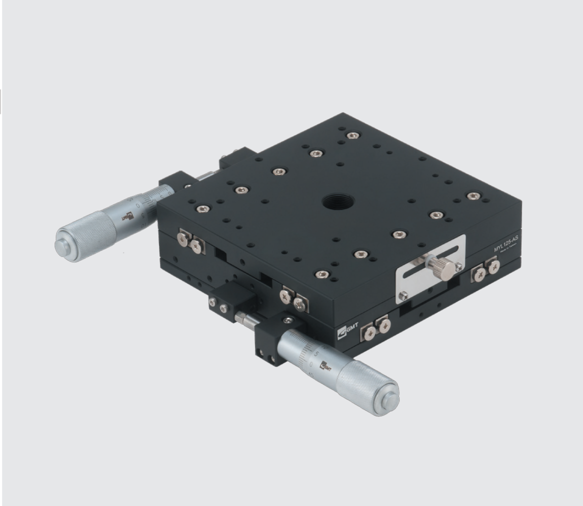
MXL125-AS



MYL125-AC



MYL125-AS

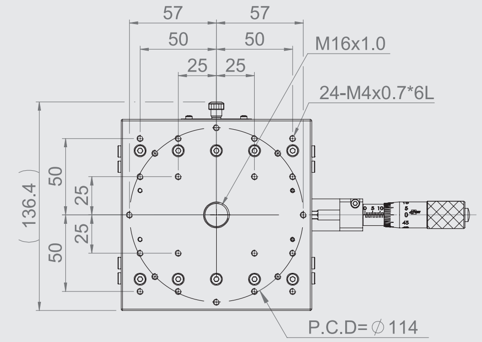


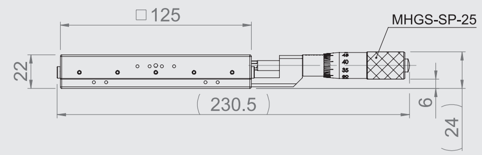
Specification

Unit : mm

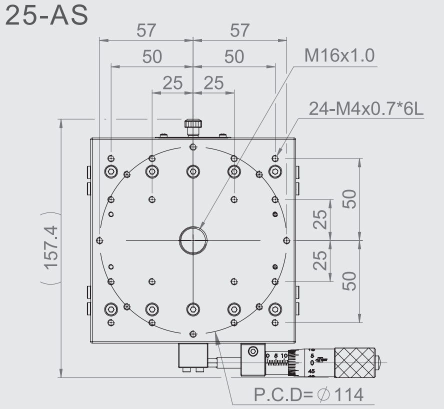
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXL125-AC	125*125	X-axis	Central	±12.5	10	3	15	1.1	Aluminum alloy	Black anodized
MXL125-AS			Side							
MYL125-AC		XY-axis	Central					2		
MYL125-AS			Side							

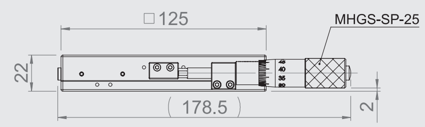
MXL125-AC

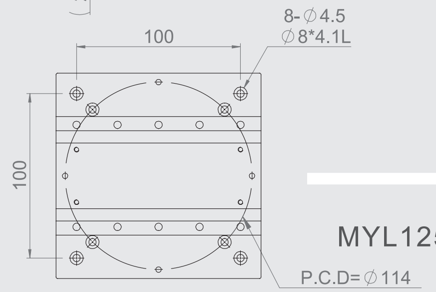




MXL125-AS

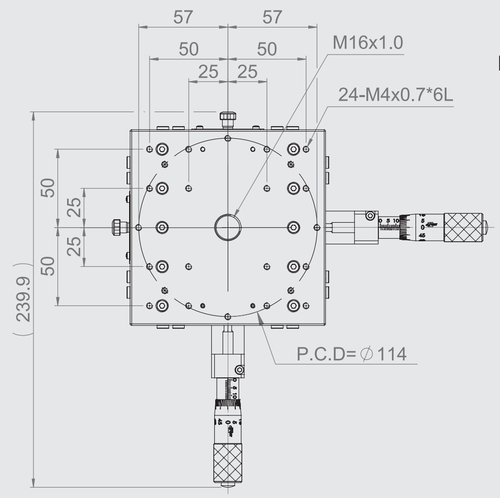


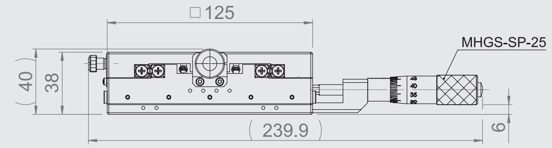




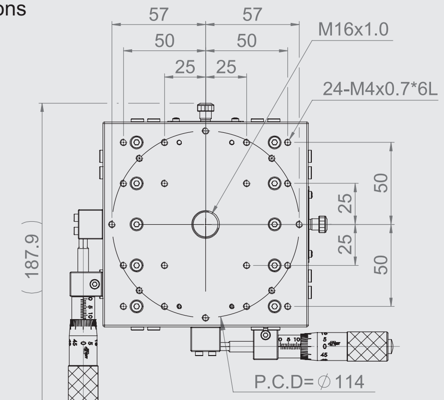
MX(Y)L125-A
Mounting Dimensions

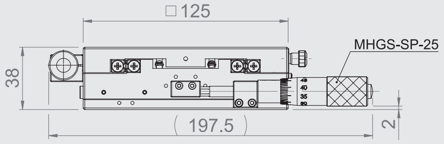
MYL125-AC





MYL125-AS





MLZ30-ASZ

MLZ40-ASZ

MLZ60-ASZ

MLZ90-ASZ

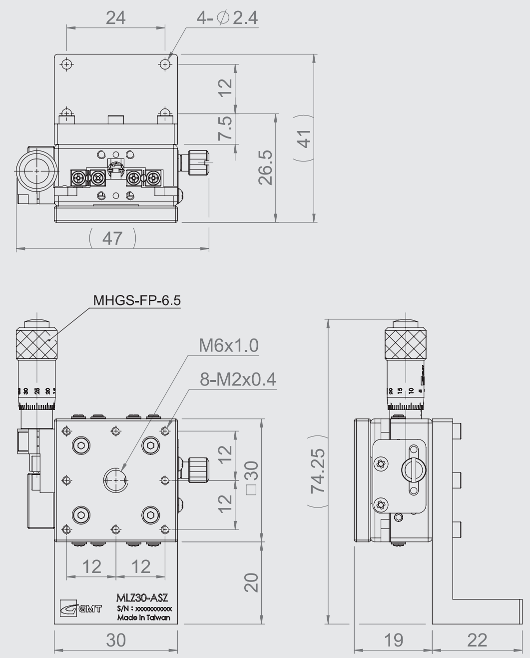
Specification

Unit : mm

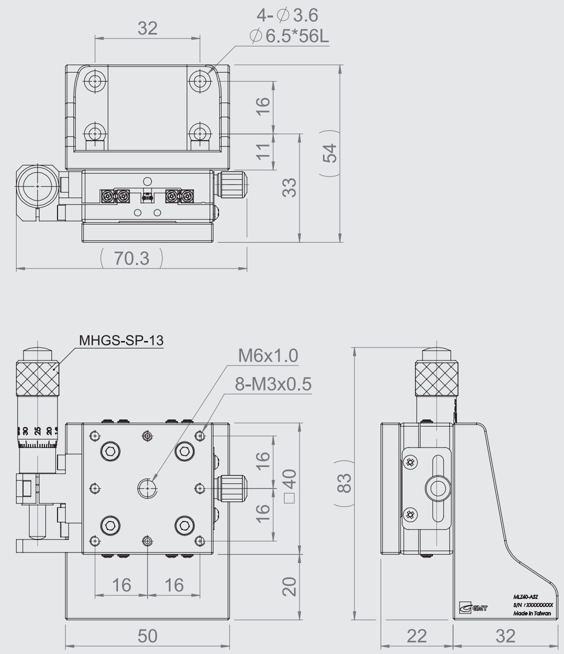
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MLZ30-ASZ	30*30	X+L bracket	Side	±3.2	10	3	1.5	0.1	Aluminum alloy	Black anodized
MLZ40-ASZ	40*40			±6.5			1.5	0.21		
MLZ60-ASZ	60*60						2	0.52		
MLZ90-ASZ	90*90			±7.5			3	0.91		

GMT GLOBAL INC.
Crossed Roller Stages ▶ Z-Axis ▶ Aluminum Alloy - Thin Type
Crossed Roller Thin Type Stages | Z-Axis
Product Specification

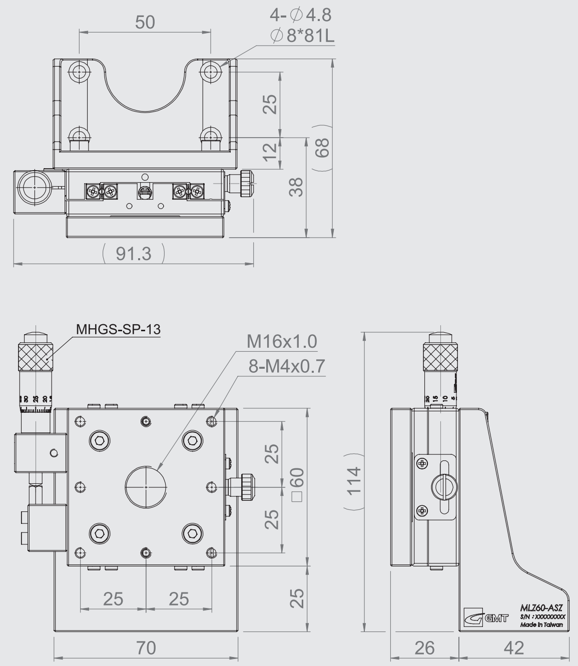
MLZ30-ASZ



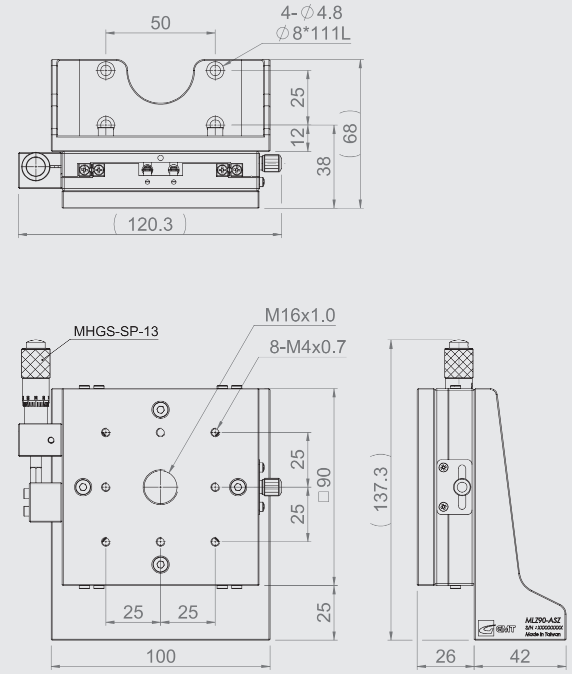
MLZ40-ASZ



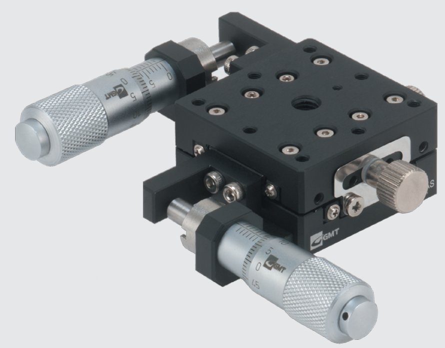
MLZ60-ASZ



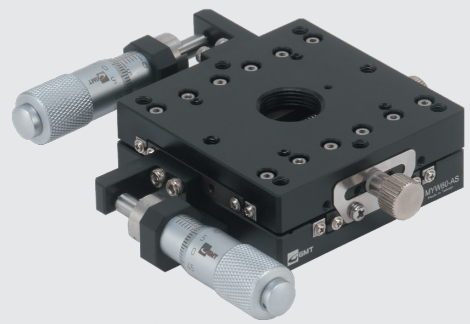
MLZ90-ASZ



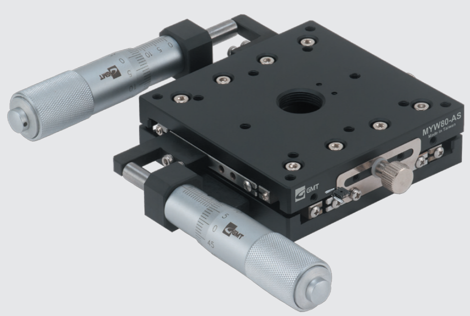
MYW40-AS



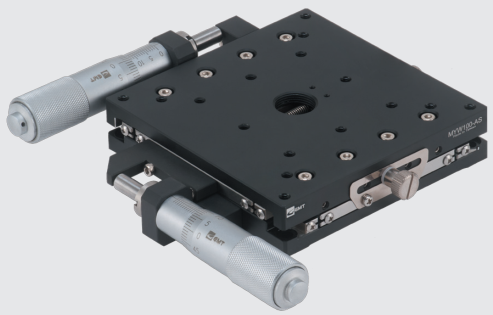
MYW60-AS



MYW80-AS



MYW100-AS

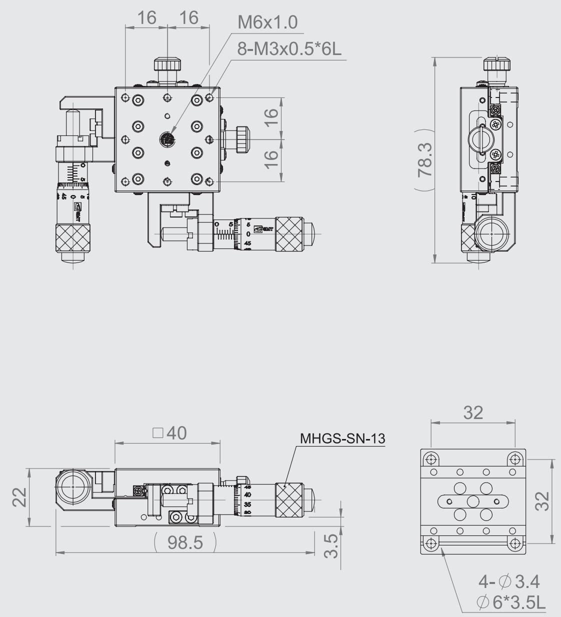


Specification

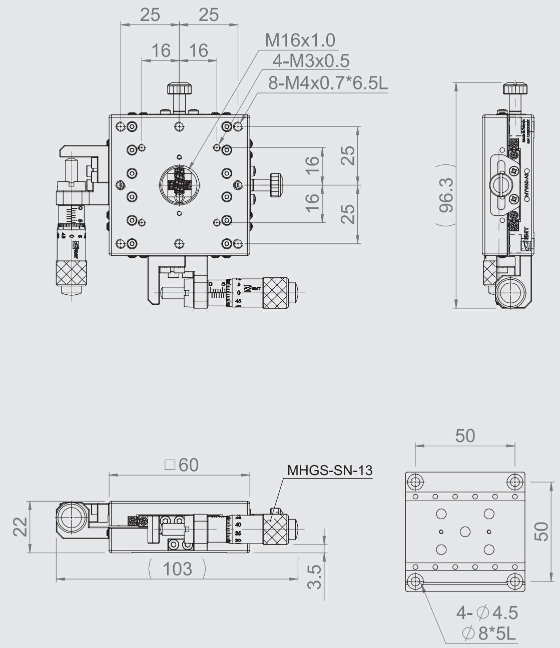
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYW40-AS	40*40	XY-axis	Side	±6.5	10	3	1	0.2	Aluminum alloy	Black anodized
MYW60-AS	60*60						3	0.4		
MYW80-AS	80*80			±12.5			4	0.7		
MYW100-AS	100*100							1.1		

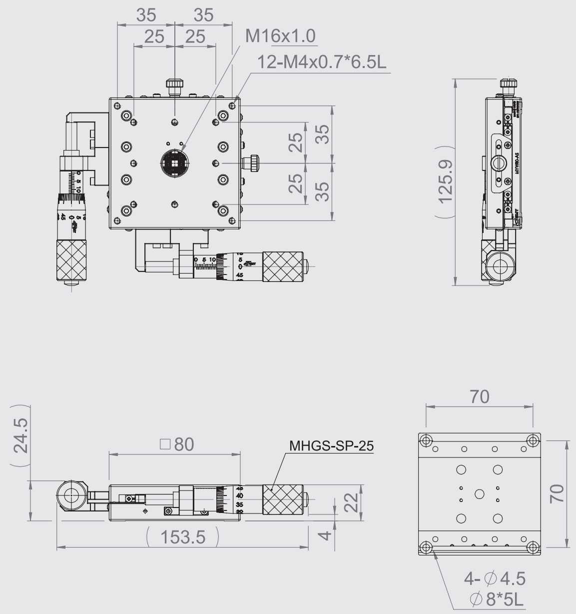
MYW40-AS



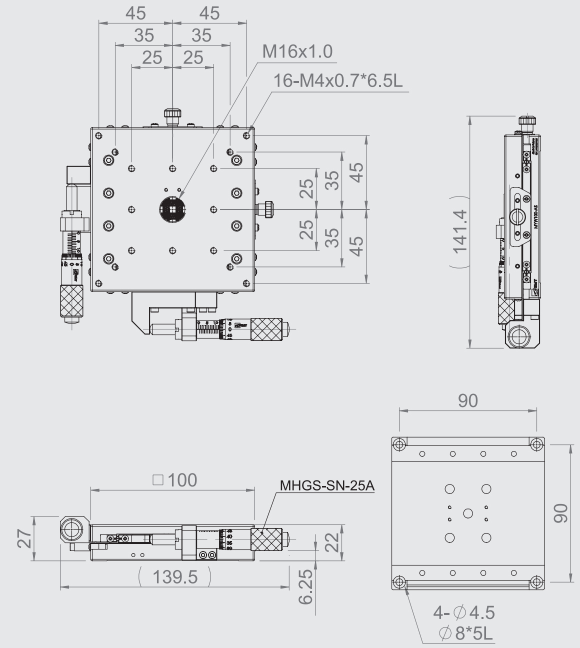
MYW60-AS



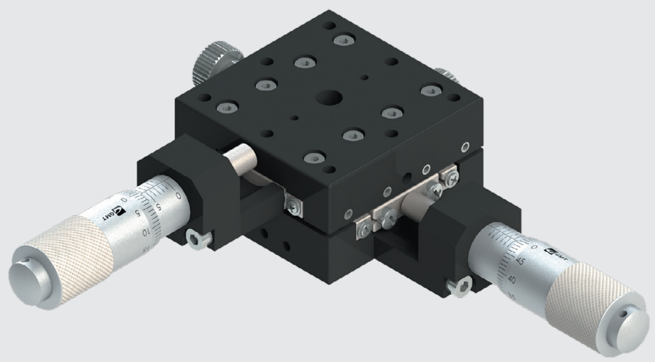
MYW80-AS



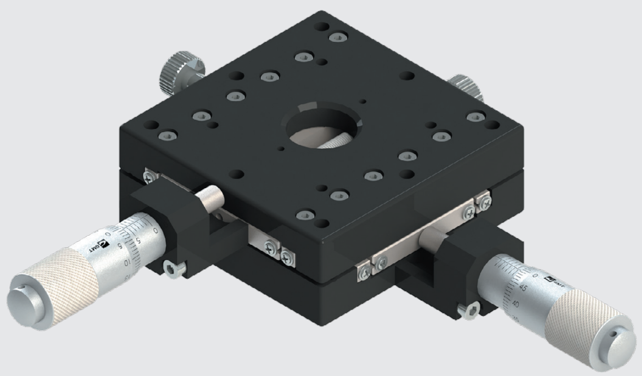
MYW100-AS



MYW40-AC



MYW60-AC

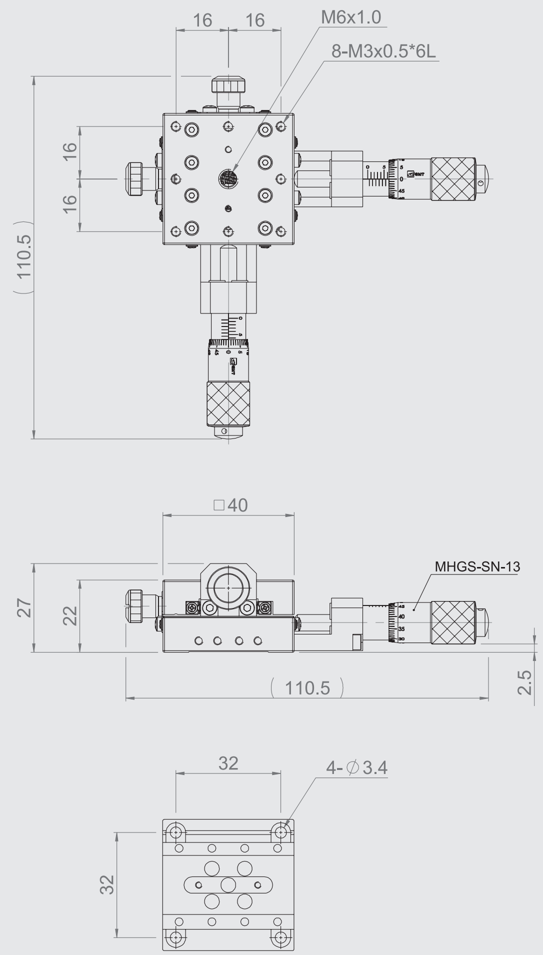


Specification

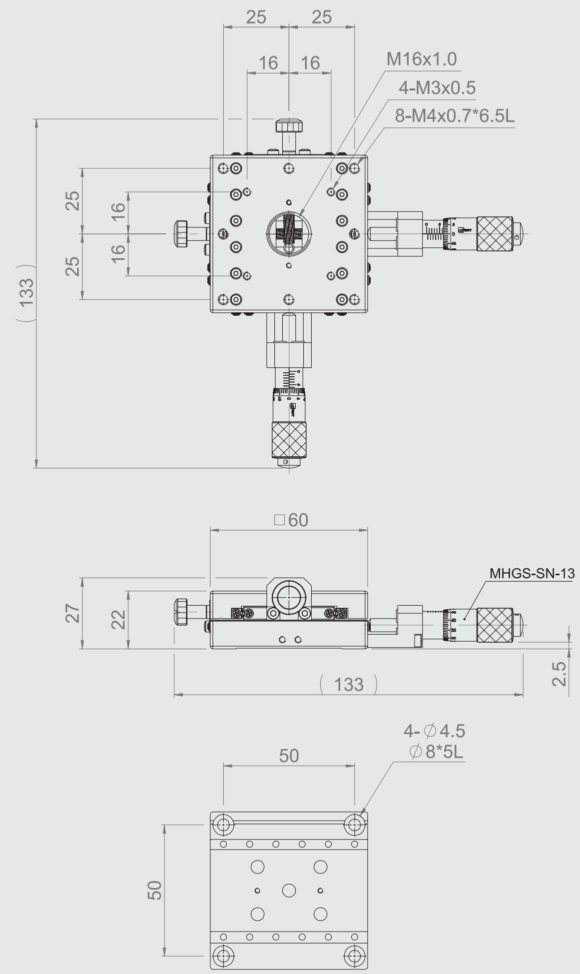
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYW40-AC	40*40	XY-axis	Central	±6.5	10	3	1	1	Aluminum alloy	Black anodized
MYW60-AC	60*60							3		

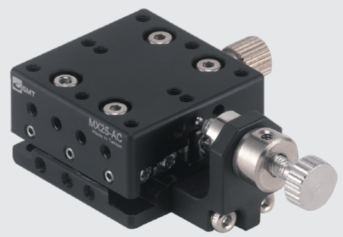
MYW40-AC



MYW60-AC

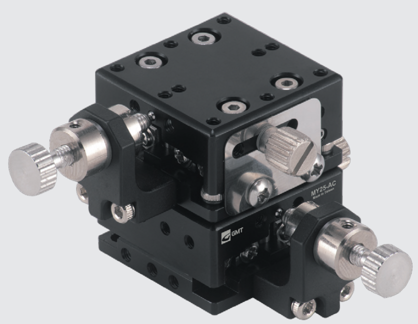


MX25-AC-18

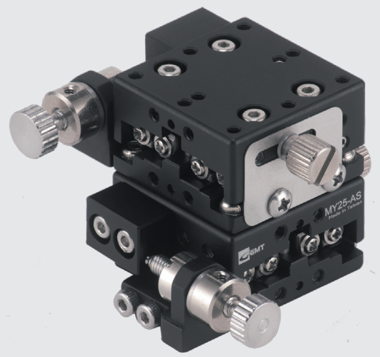


MX25-AS-18

MY25-AC-18



MY25-AS-18

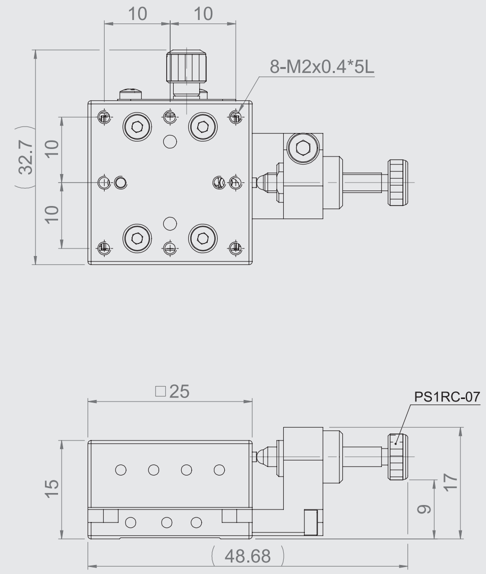


Specification

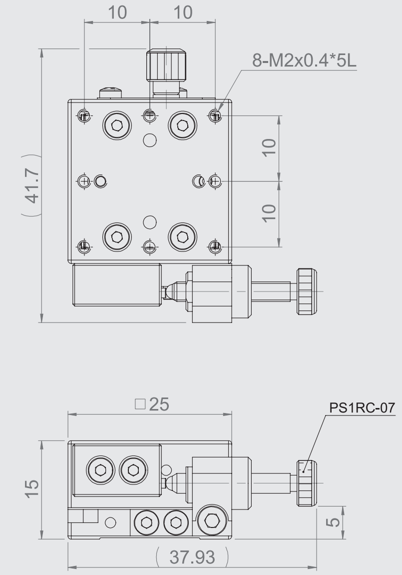
Unit : mm

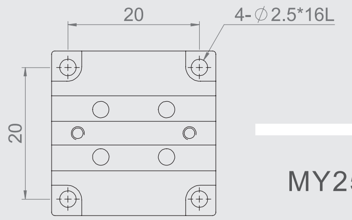
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX25-AC-18	25*25	X-axis	Central	±3.2	50	3	1	0.04	Aluminum alloy	Black anodized
MX25-AS-18			Side							
MY25-AC-18		XY-axis	Central					0.08		
MY25-AS-18			Side							

MX25-AC-18



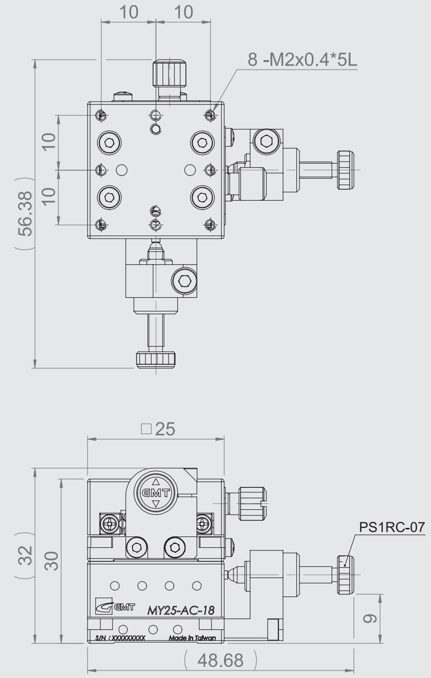
MX25-AS-18



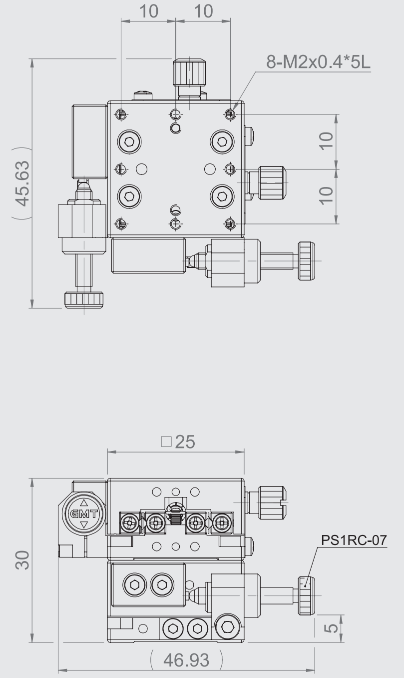


MX(Y)25-A-18
Mounting Dimensions

MY25-AC-18



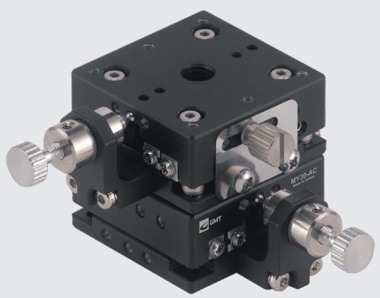
MY25-AS-18



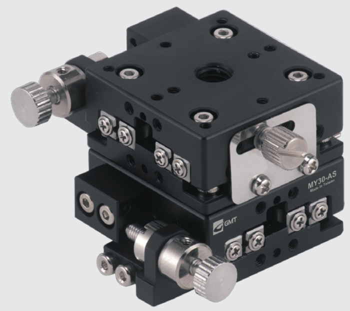
MX30-AC-18

MX30-AS-18

MY30-AC-18



MY30-AS-18

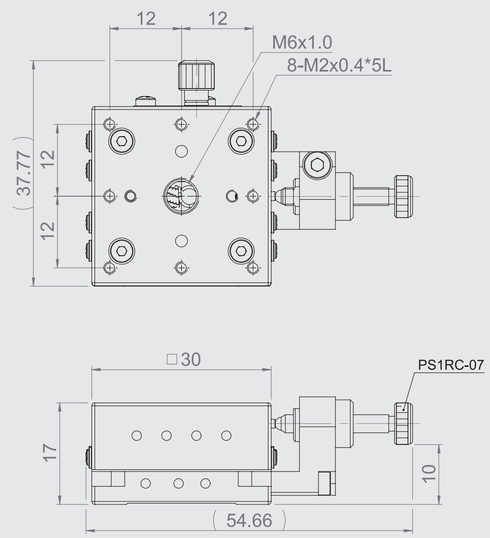


Specification

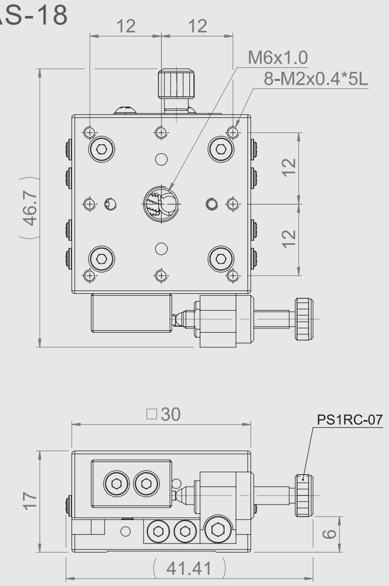
Unit : mm

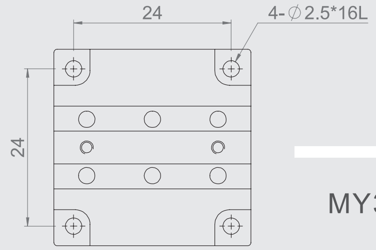
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX30-AC-18	30*30	X-axis	Central	±3.2	50	3	1	0.045	Aluminum alloy	Black anodized
MX30-AS-18			Side							
MY30-AC-18		XY-axis	Central					0.09		
MY30-AS-18			Side							

MX30-AC-18



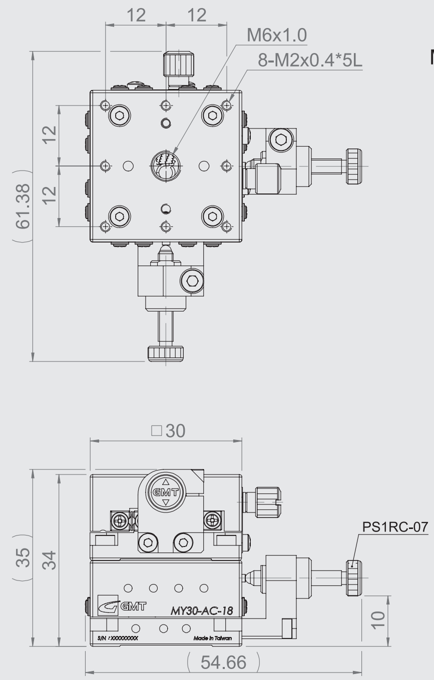
MX30-AS-18



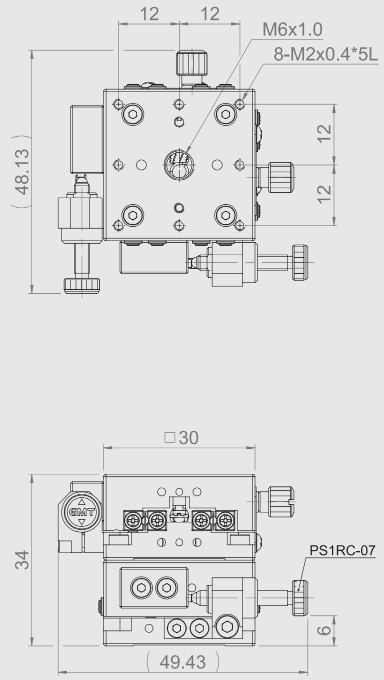


MX(Y)30-A-18
Mounting Dimensions

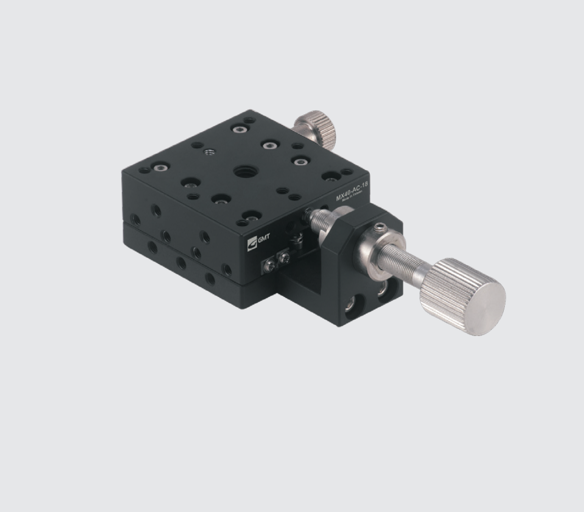
MY30-AC-18



MY30-AS-18

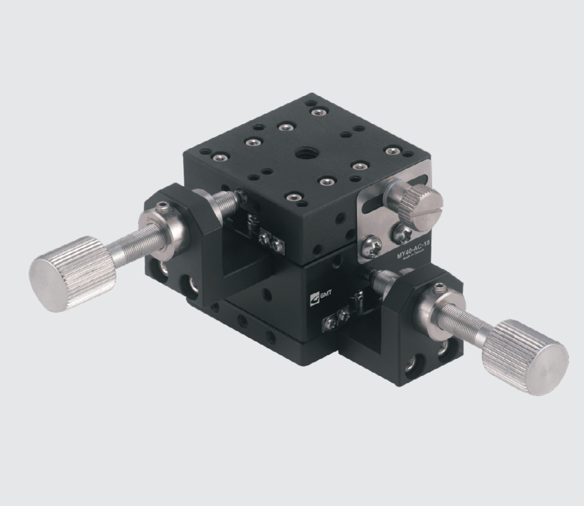


MX40-AC-18

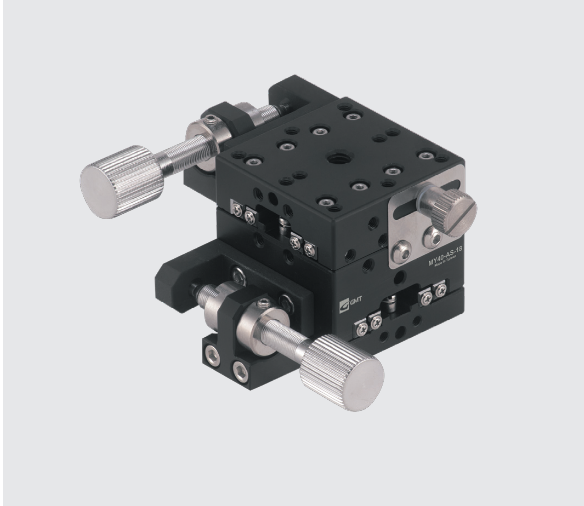


MX40-AS-18

MY40-AC-18



MY40-AS-18

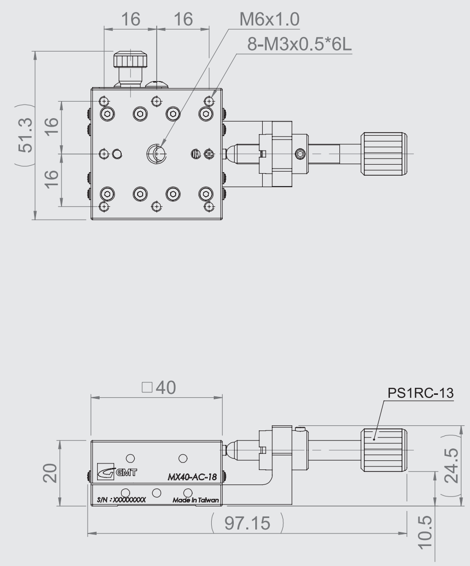


Specification

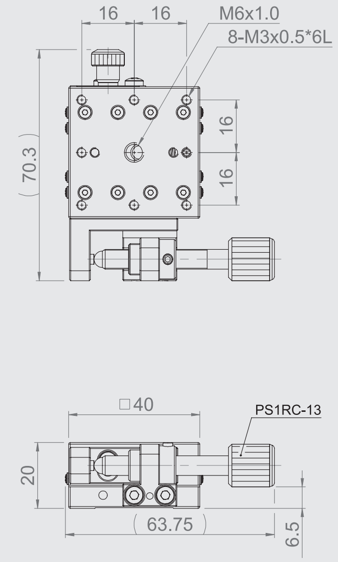
Unit : mm

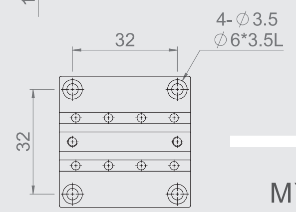
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX40-AC-18	40*40	X-axis	Central	±6.5	50	3	2	0.14	Aluminum alloy	Black anodized
MX40-AS-18			Side							
MY40-AC-18		XY-axis	Central				1.8	0.30		
MY40-AS-18			Side							

MX40-AC-18



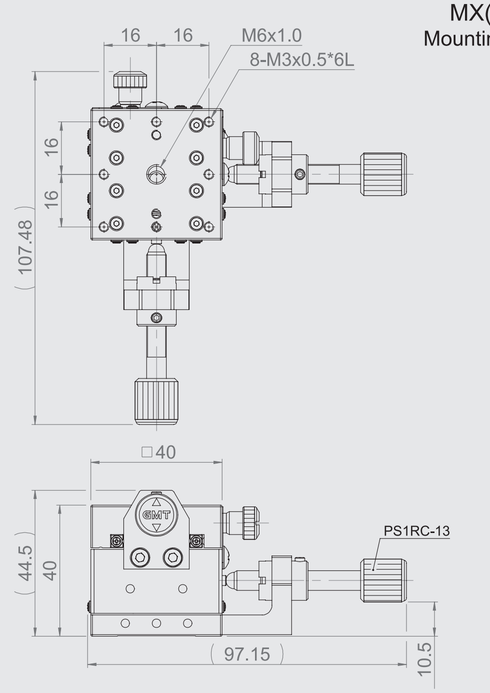
MX40-AS-18



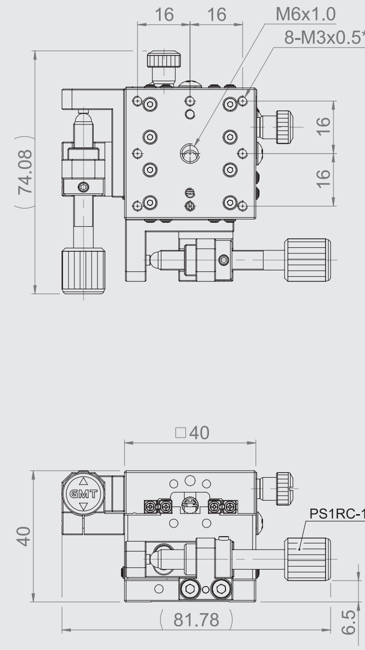


MX(Y)40-A-18
Mounting Dimensions

MY40-AC-18



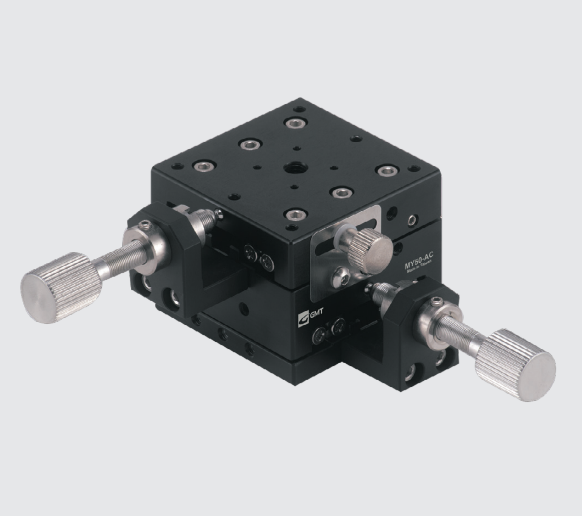
MY40-AS-18



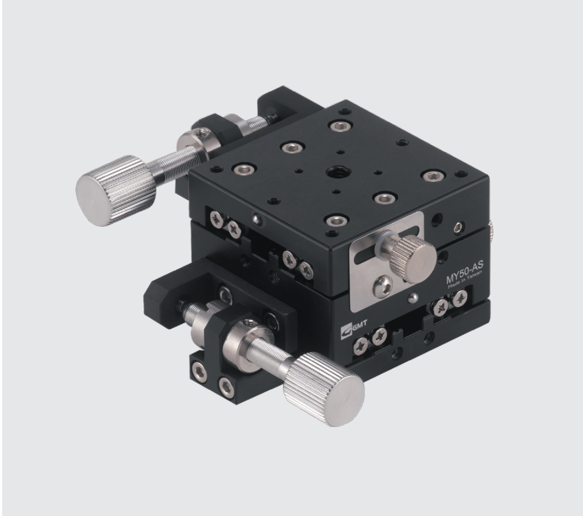
MX50-AC-18

MX50-AS-18

MY50-AC-18



MY50-AS-18

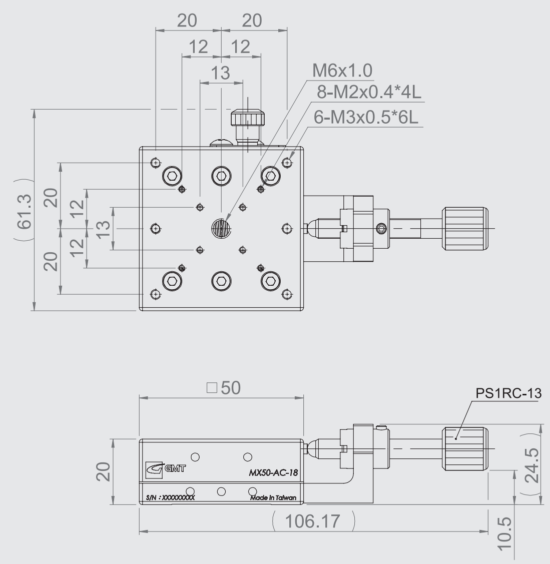


Specification

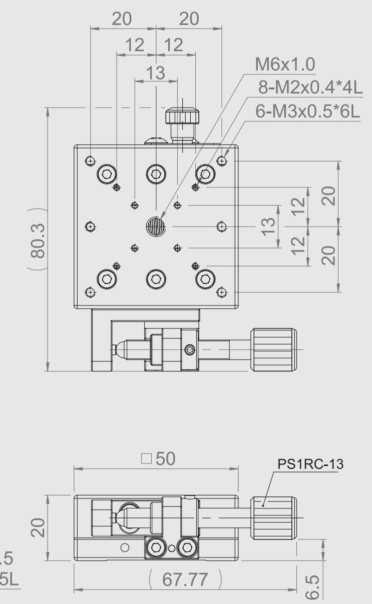
Unit : mm

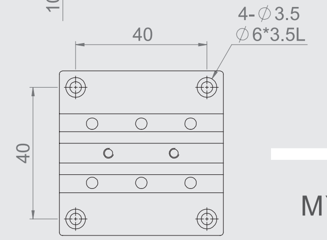
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX50-AC-18	50*50	X-axis	Central	±6.5	50	3	4	0.22	Aluminum alloy	Black anodized
MX50-AS-18			Side							
MY50-AC-18		XY-axis	Central					0.44		
MY50-AS-18			Side							

MX50-AC-18



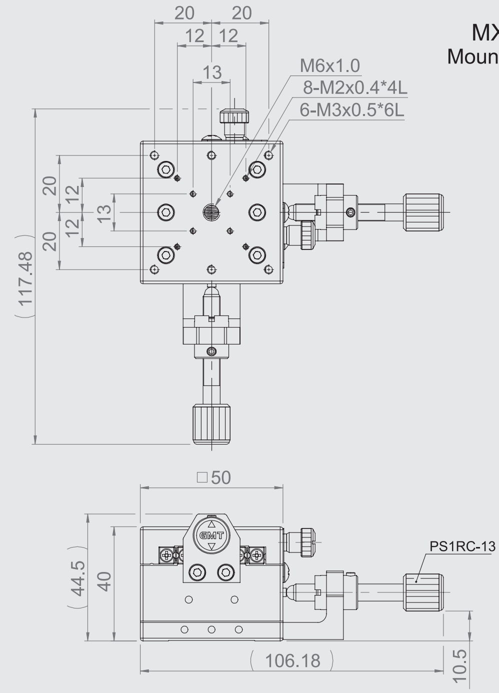
MX50-AS-18



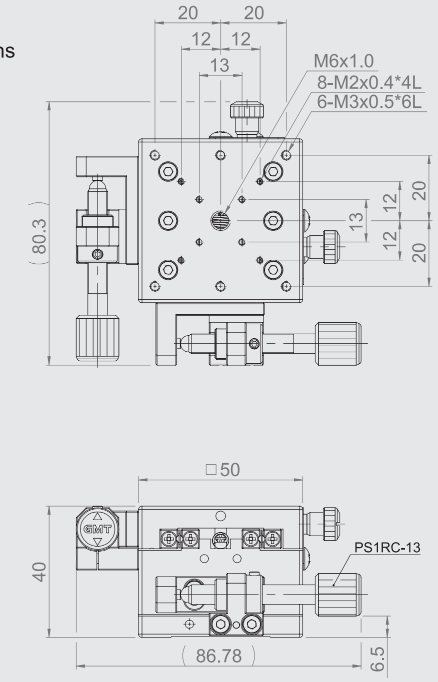


MX(Y)50-A-18
Mounting Dimensions

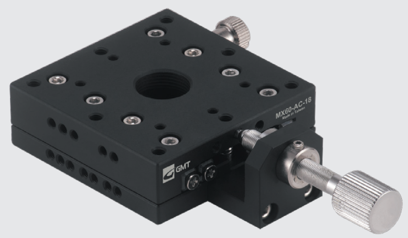
MY50-AC-18



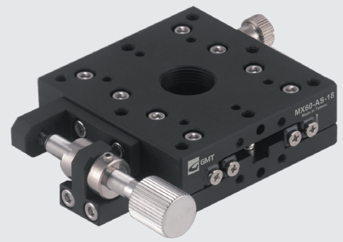
MY50-AS-18



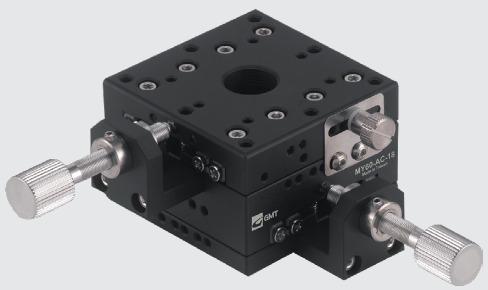
MX60-AC-18



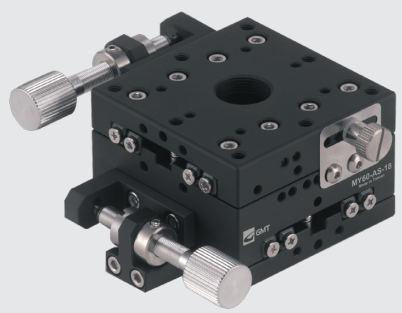
MX60-AS-18



MY60-AC-18



MY60-AS-18

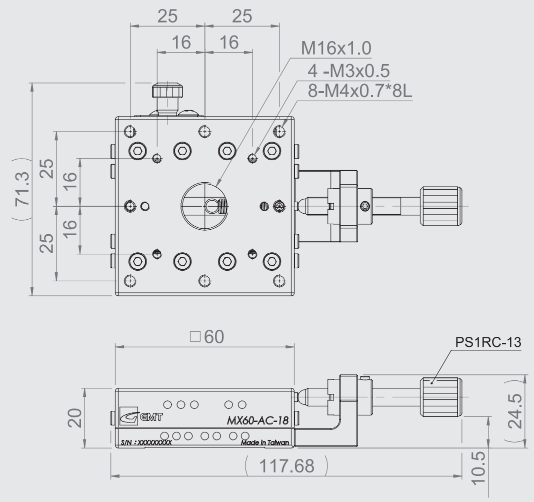


Specification

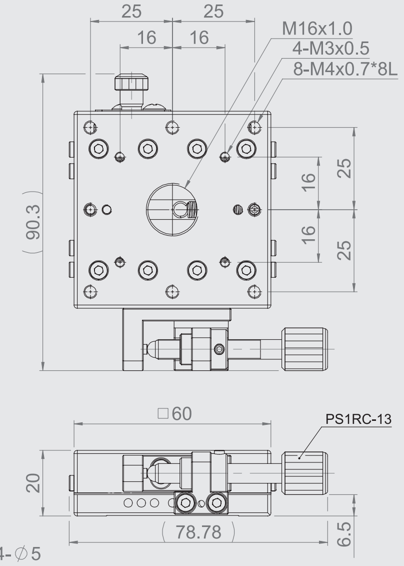
Unit : mm

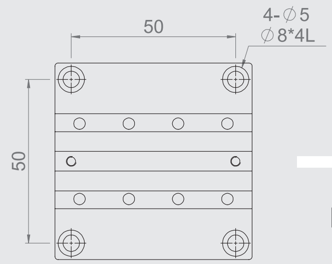
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX60-AC-18	60*60	X-axis	Central	±6.5	50	3	5	0.25	Aluminum alloy	Black anodized
MX60-AS-18			Side							
MY60-AC-18		XY-axis	Central				4.5	0.52		
MY60-AS-18			Side							

MX60-AC-18



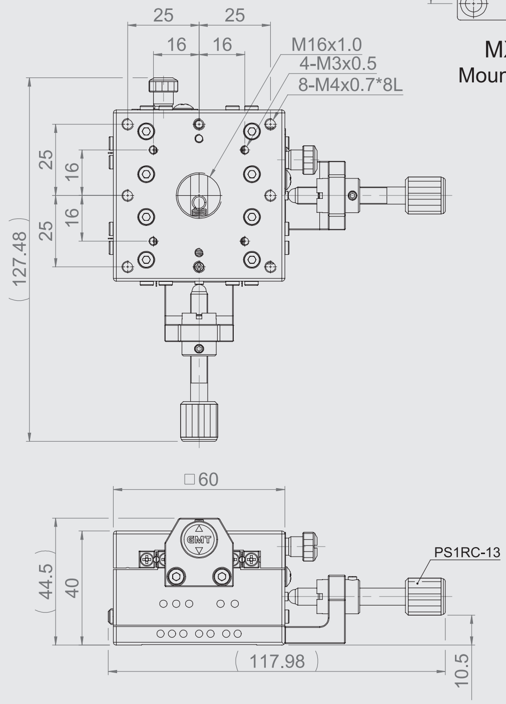
MX60-AS-18



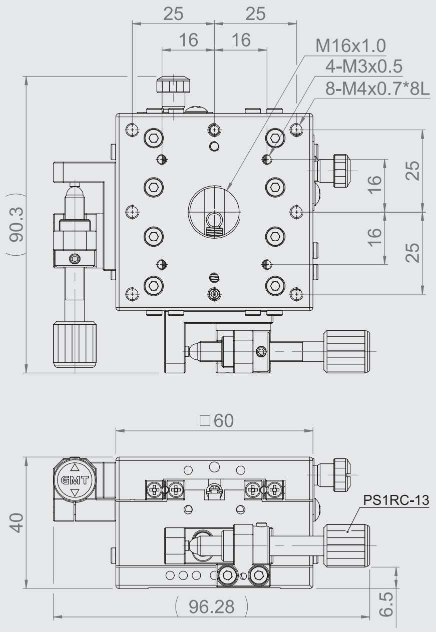


MX(Y)60-A-18
Mounting Dimensions

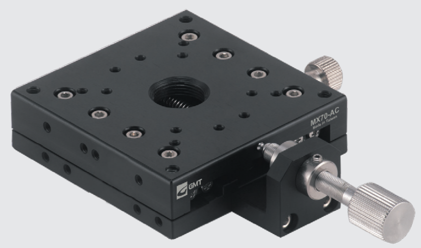
MY60-AC-18



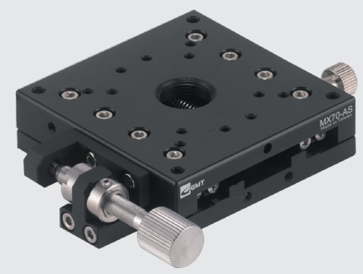
MY60-AS-18



MX70-AC-18

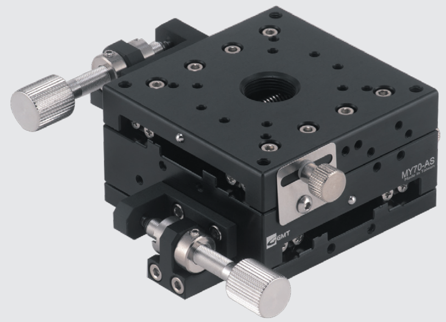


MX70-AS-18



MY70-AC-18

MY70-AS-18

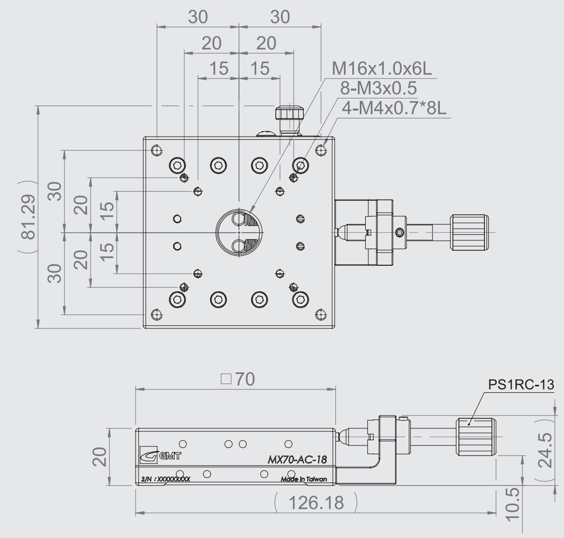


Specification

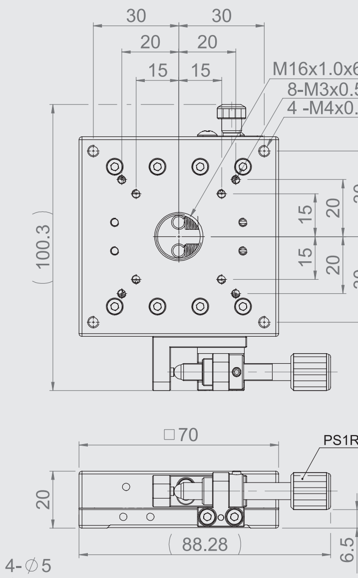
Unit : mm

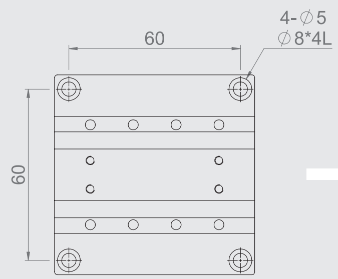
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX70-AC-18	70*70	X-axis	Central	±6.5	50	3	6	0.44	Aluminum alloy	Black anodized
MX70-AS-18			Side							
MY70-AC-18		XY-axis	Central					0.88		
MY70-AS-18			Side							

MX70-AC-18



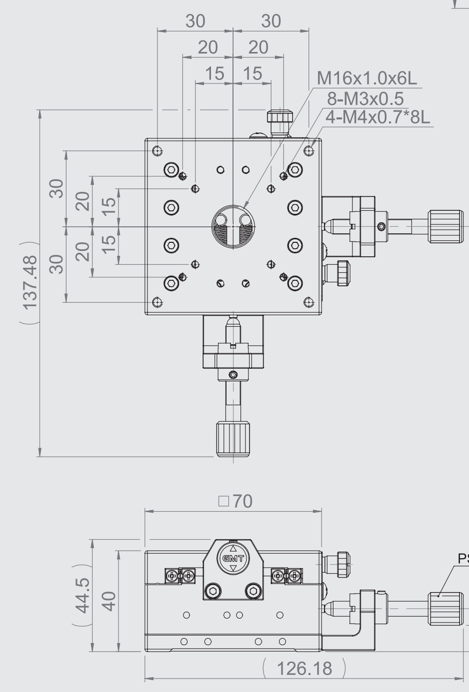
MX70-AS-18



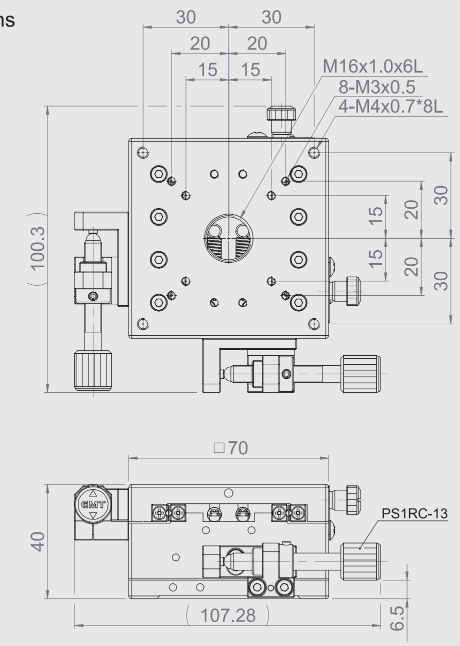


MX(Y)70-A-18
Mounting Dimensions

MY70-AC-18

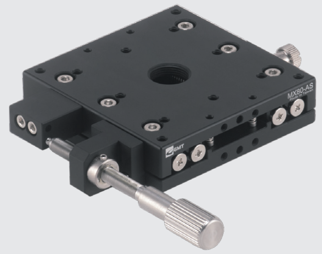


MY70-AS-18

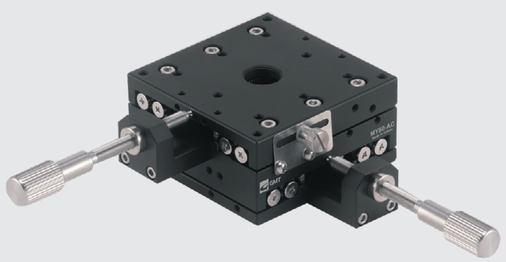


MX80-AC-18

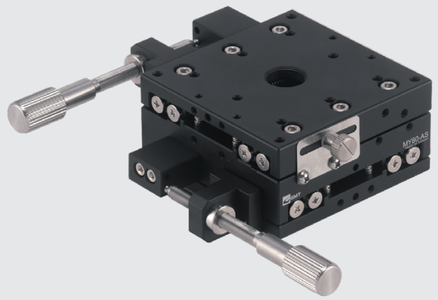
MX80-AS-18



MY80-AC-18



MY80-AS-18

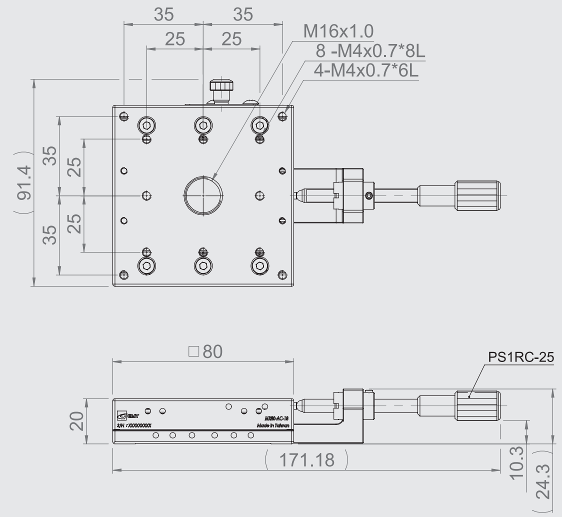


Specification

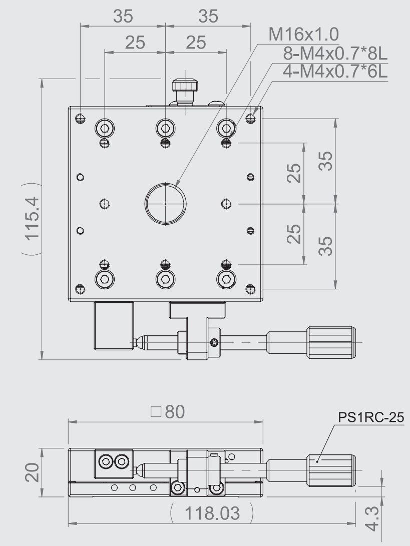
Unit : mm

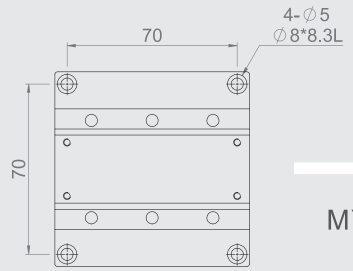
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX80-AC-18	80*80	X-axis	Central	±12.5	50	3	10	0.5	Aluminum alloy	Black anodized
MX80-AS-18			Side							
MY80-AC-18		XY-axis	Central				9.5	1		
MY80-AS-18			Side							

MX80-AC-18



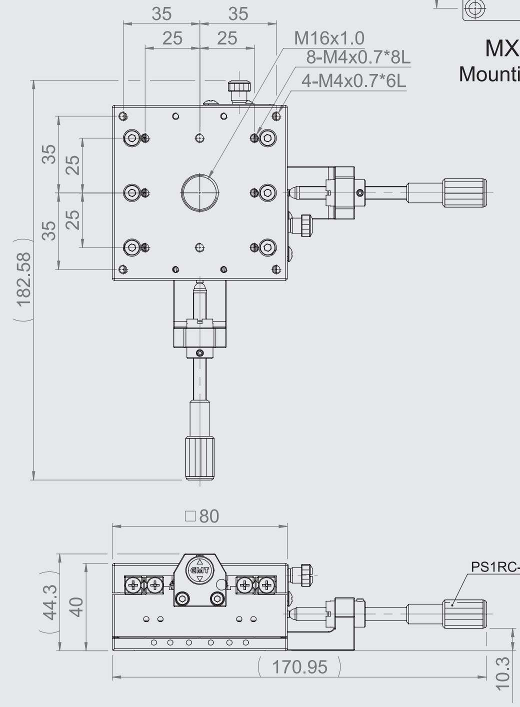
MX80-AS-18



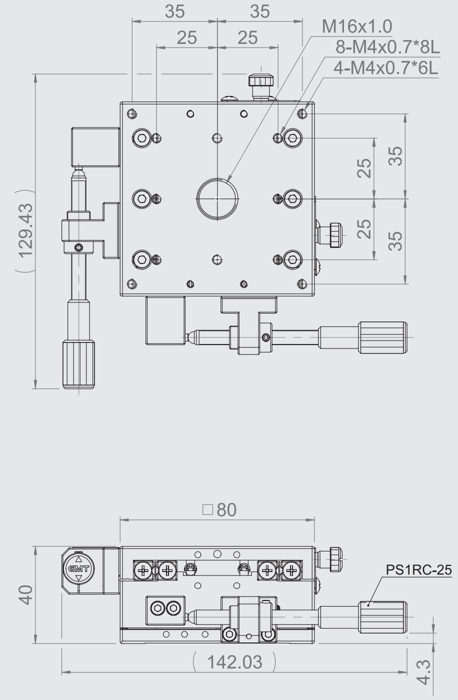


MX(Y)80-A-18
Mounting Dimensions

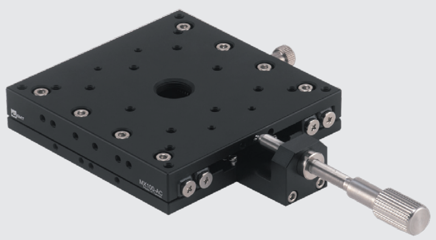
MY80-AC-18



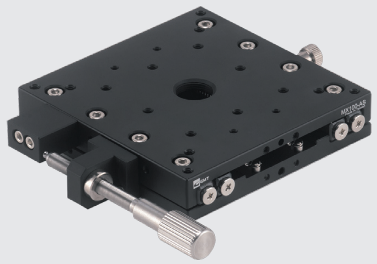
MY80-AS-18



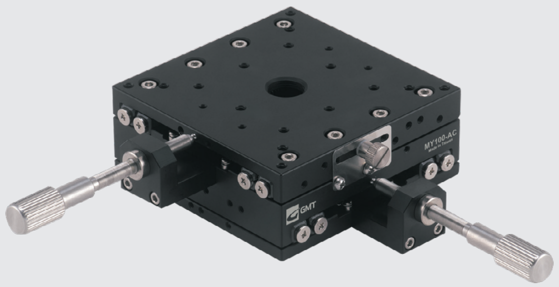
MX100-AC-18



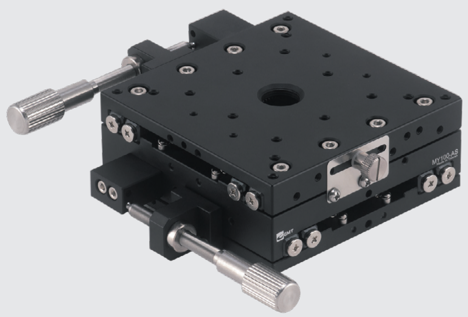
MX100-AS-18



MY100-AC-18



MY100-AS-18

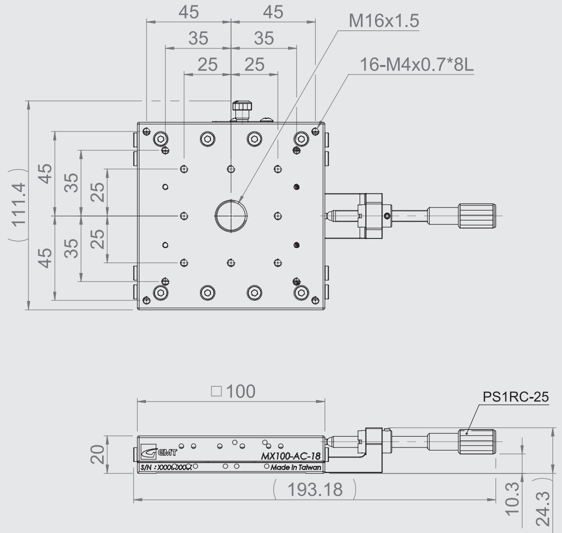


Specification

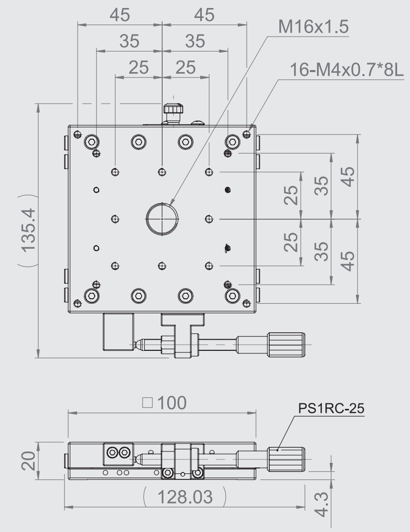
Unit : mm

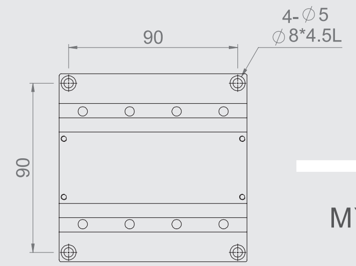
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX100-AC-18	100*100	X-axis	Central	±12.5	50	3	15	0.7	Aluminum alloy	Black anodized
MX100-AS-18			Side							
MY100-AC-18		XY-axis	Central				14.3	1.4		
MY100-AS-18			Side							

MX100-AC-18



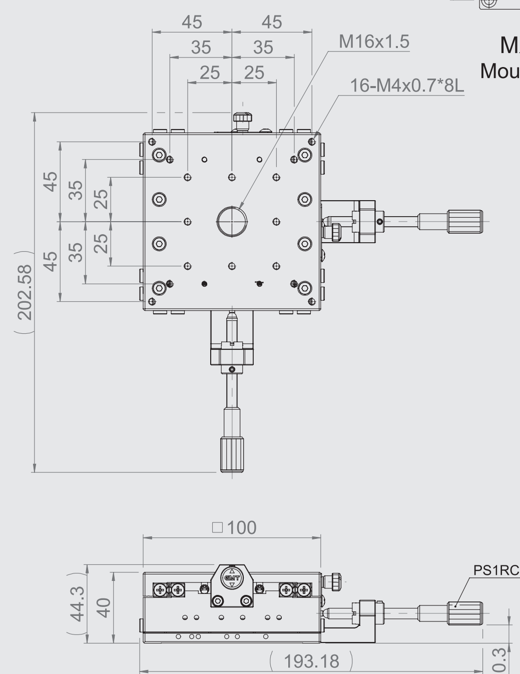
MX100-AS-18



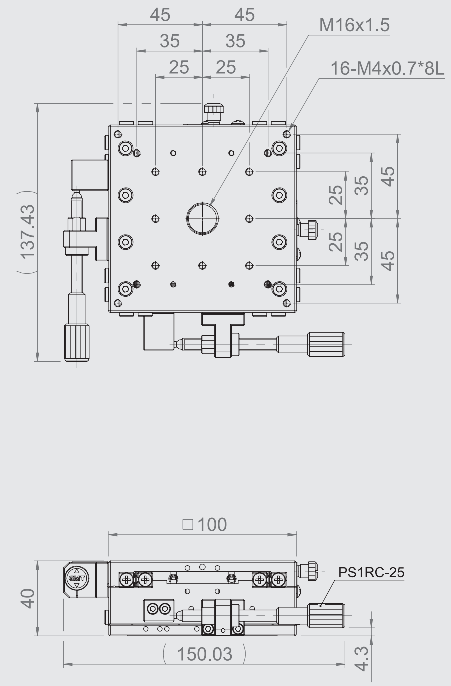


MX(Y)100-A-18
Mounting Dimensions

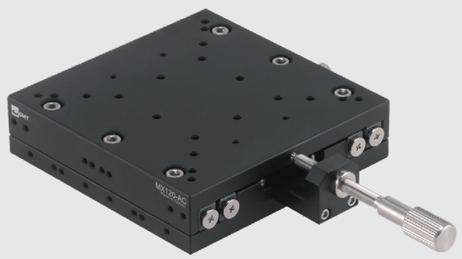
MY100-AC-18



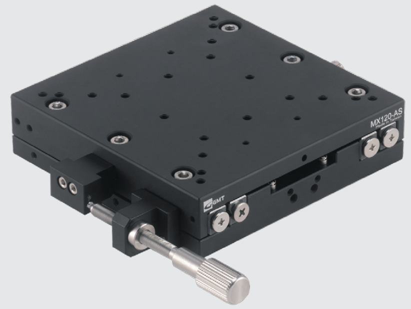
MY100-AS-18



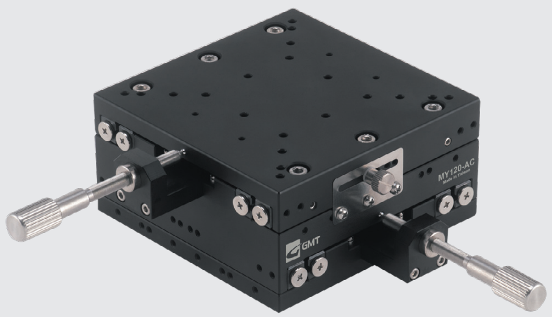
MX120-AC-18



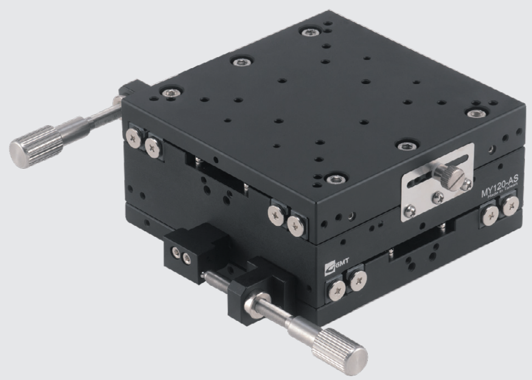
MX120-AS-18



MY120-AC-18



MY120-AS-18

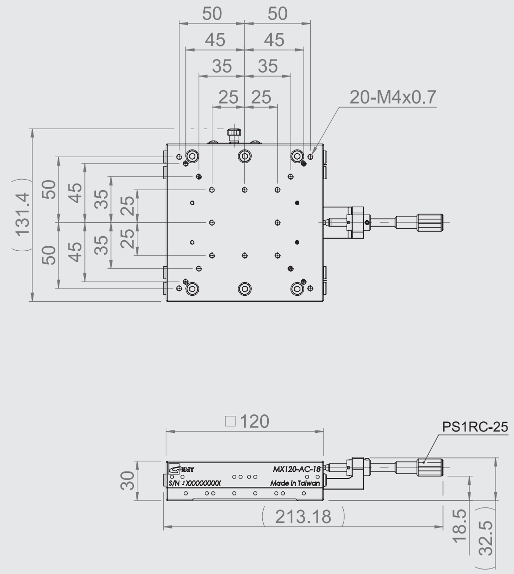


Specification

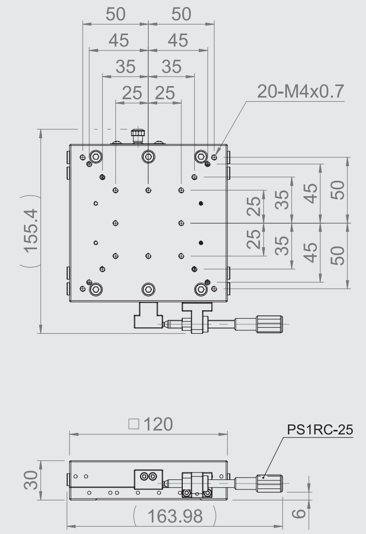
Unit : mm

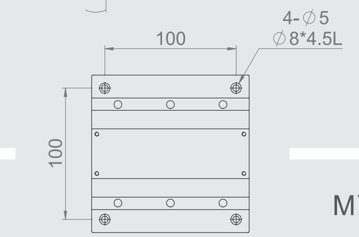
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX120-AC-18	120*120	X-axis	Central	±12.5	50	3	20	1.6	Aluminum alloy	Black anodized
MX120-AS-18			Side							
MY120-AC-18		XY-axis	Central				18.4	3.2		
MY120-AS-18			Side							

MX120-AC-18



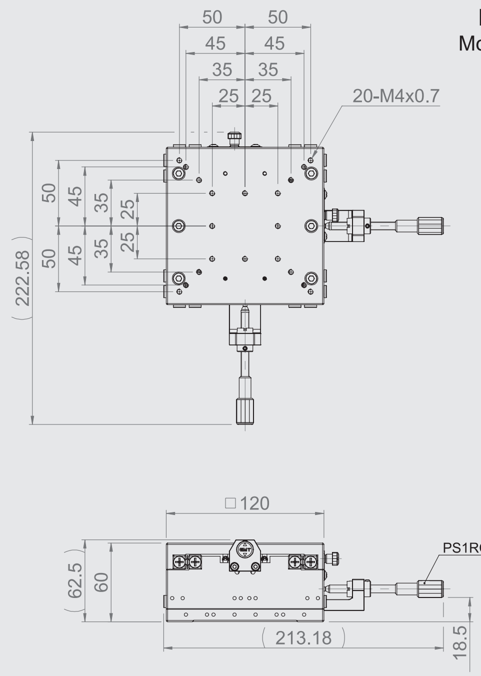
MX120-AS-18



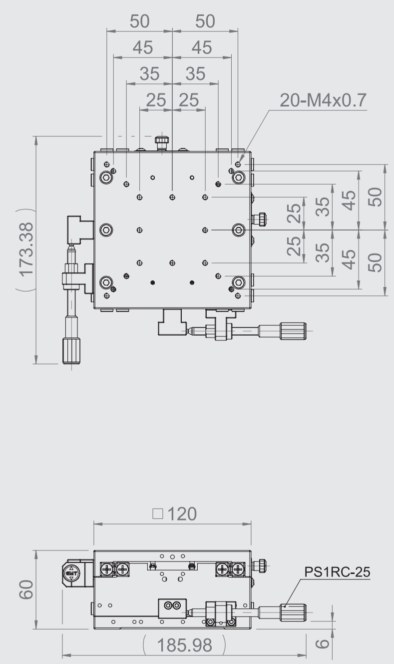


MX(Y)120-A-18
Mounting Dimensions

MY120-AC-18

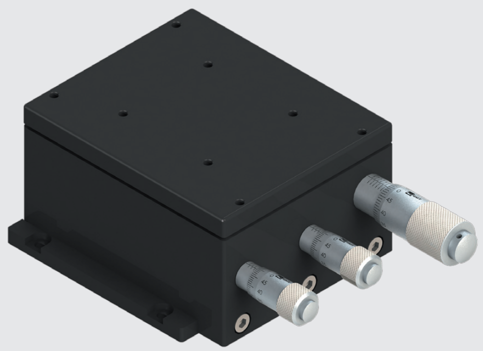


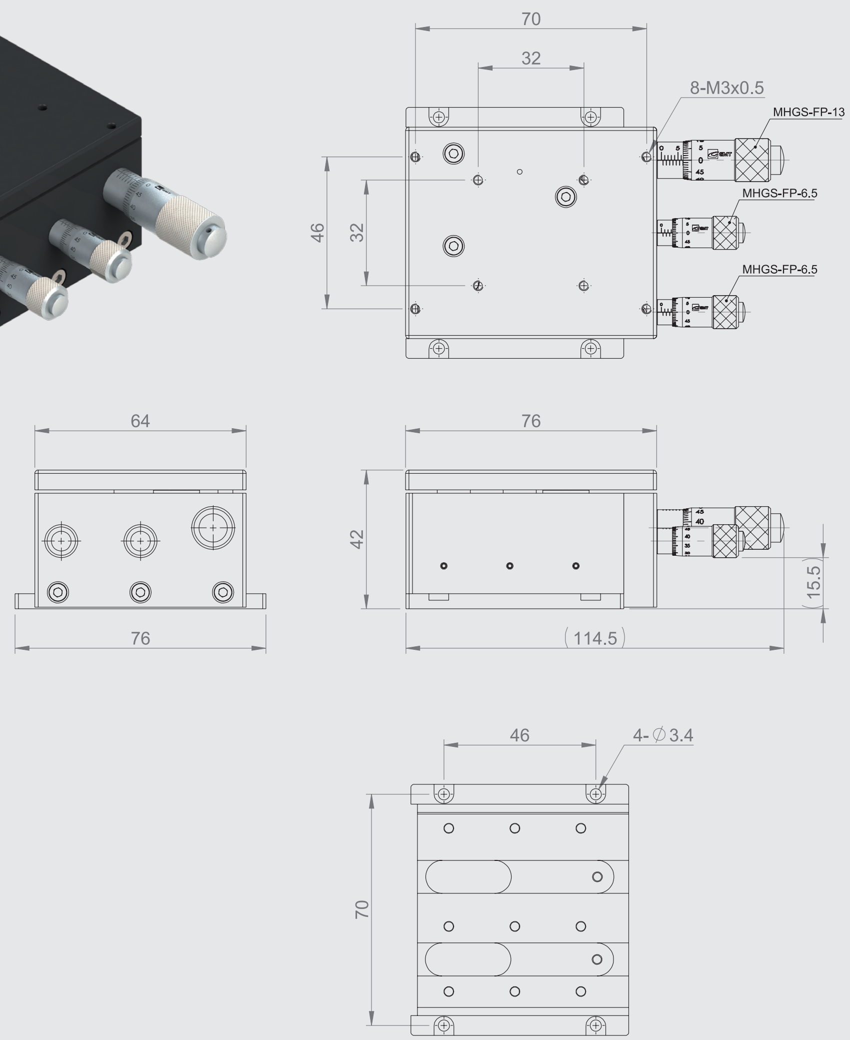
MY120-AS-18



Product Specification

MX764-AC-SHR





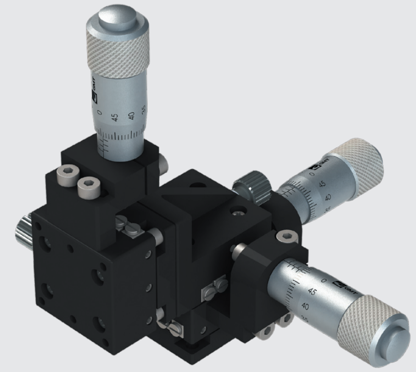
Specification

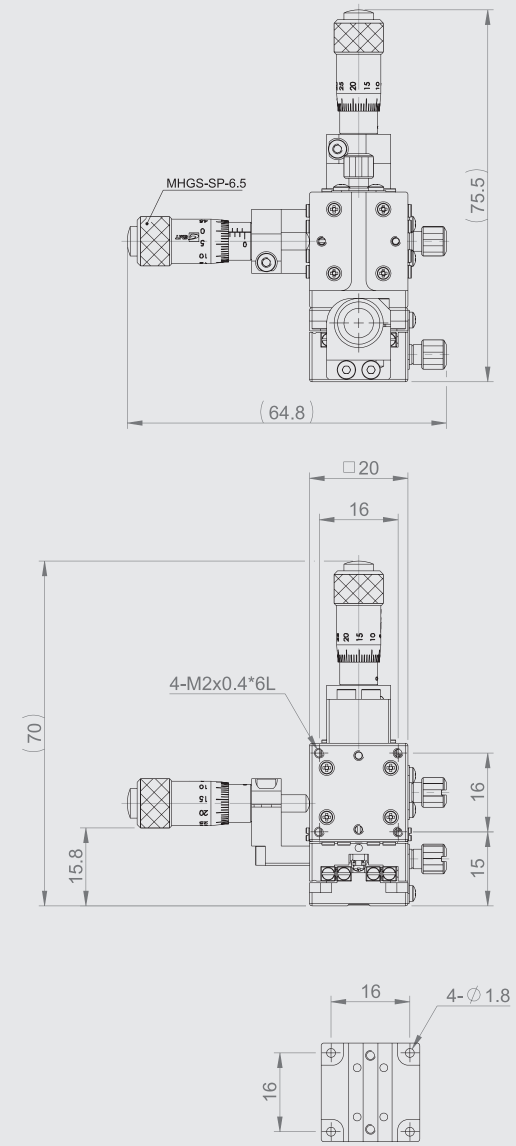
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX764-AC-SHR	76*64	X-axis	Cursory : ≒±6.5	Cursory : 10	3	1.5	0.6	Aluminum alloy	Black anodized
			Medium : ≒±0.325	Medium : 1					
			Fine : ≒±0.0325	Fine : 0.1					

Product Specification

MBZ20-AML





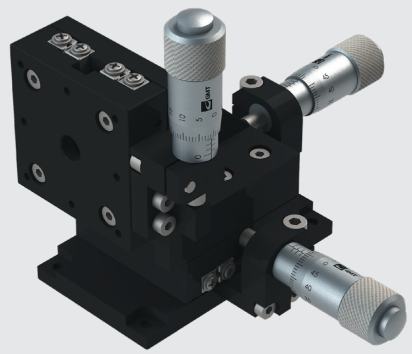
Specification

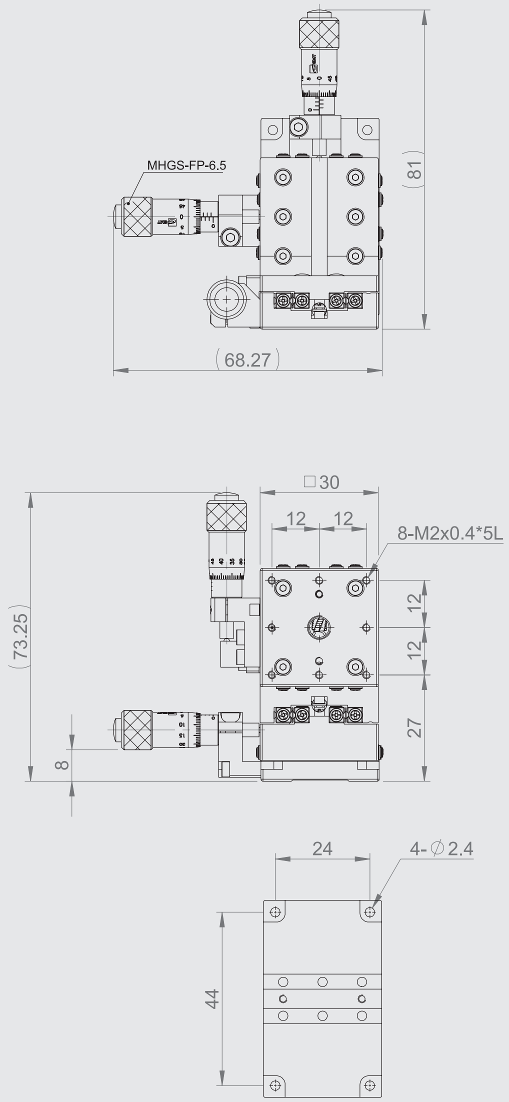
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MBZ20-AML(R)	20*20	XYZ-axis	±3	10	3	1	0.08	Aluminum alloy	Black anodized

※The 2D drawing shown was copied from MBZ20-AMR.

MBZ30-AML





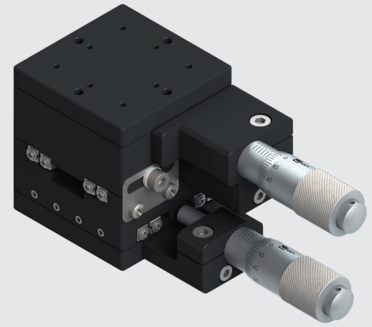
Specification

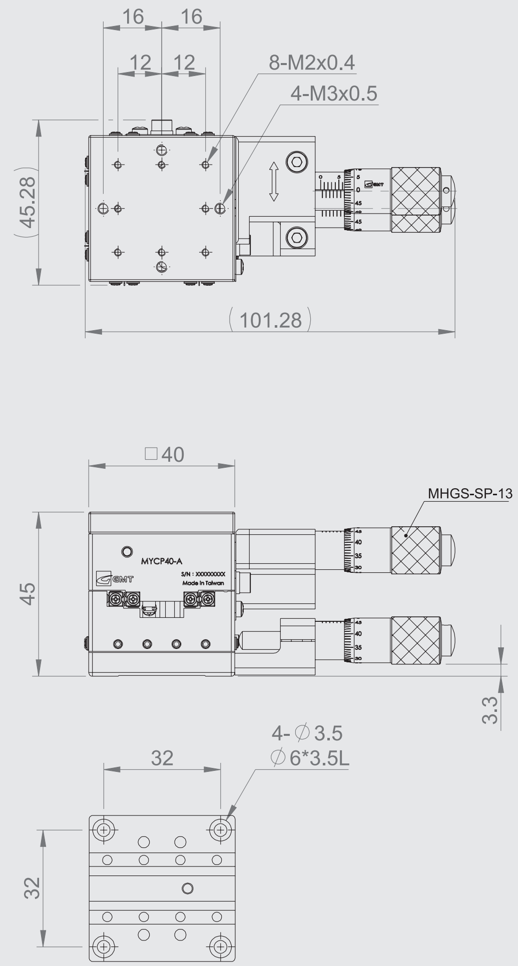
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MBZ30-AML(R)	30*30	XYZ-axis	±3.25	10	3	1.5	0.18	Aluminum alloy	Black anodized

※The 2D drawing shown was copied from MBZ30-AMR.

MYCP40-A



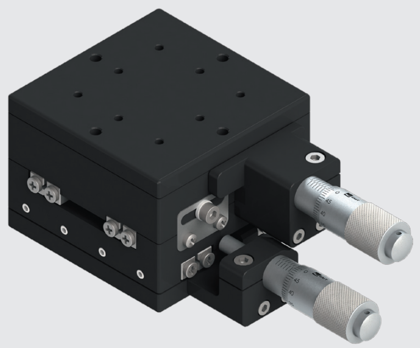


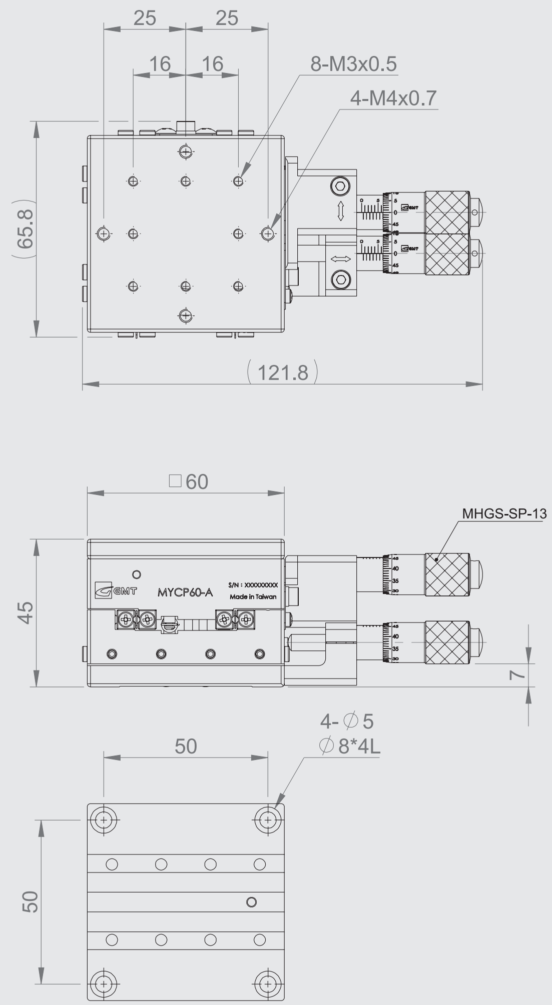
Specification

Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYCP40-A	40*40	XY-axis	±6.5	10	3	1.8	0.28	Aluminum alloy	Black anodized

MYCP60-A



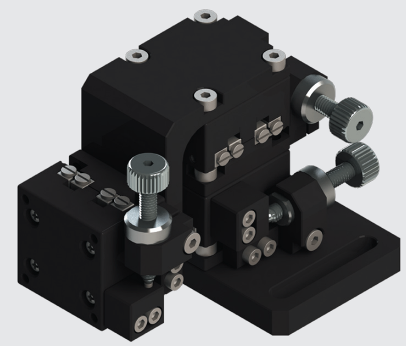


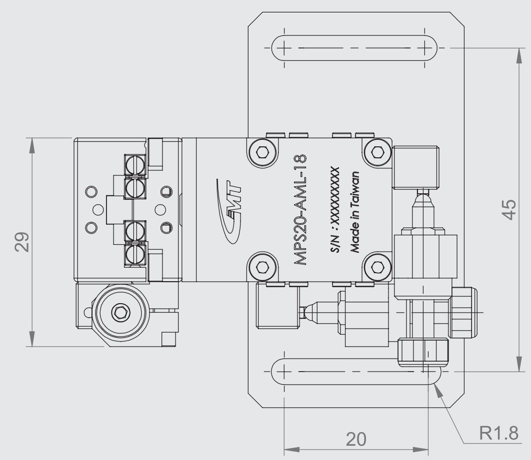
Specification

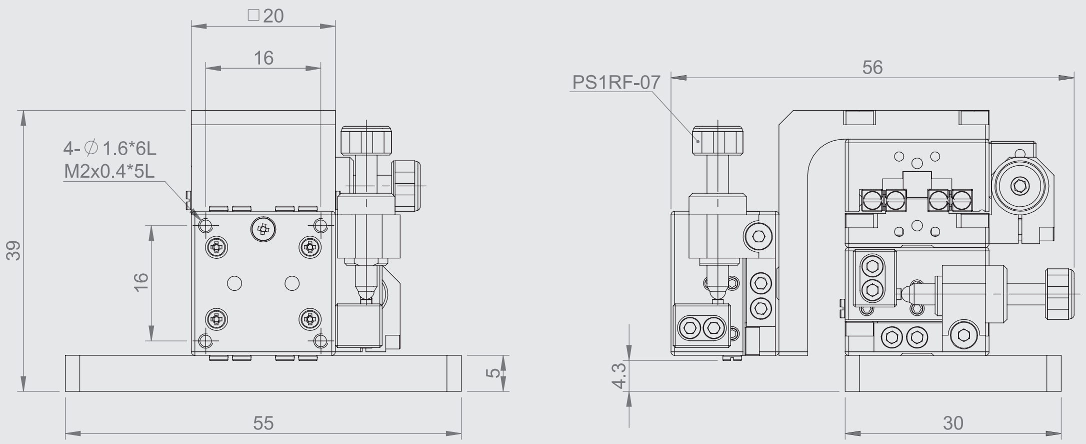
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYCP60-A	60*60	XY-axis	±6.5	10	3	4.5	0.5	Aluminum alloy	Black anodized

MPS20-AML-18





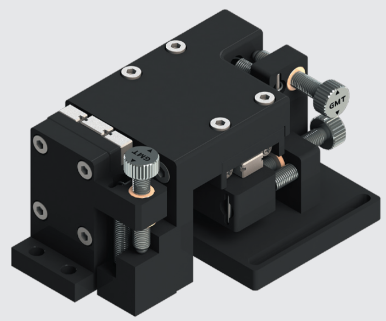


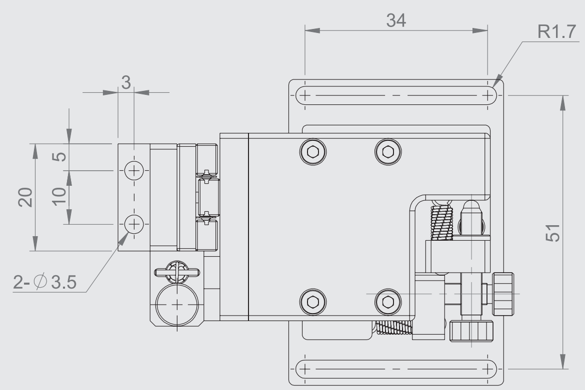
Specification

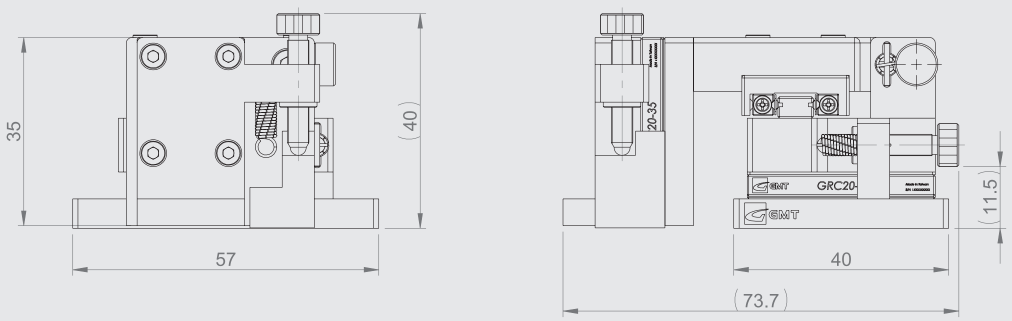
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MPS20-AMR(L)-18	20*20	XYZ-axis	±3	0.5	3	1	0.11	Aluminum alloy	Black anodized

MPS2035-AML





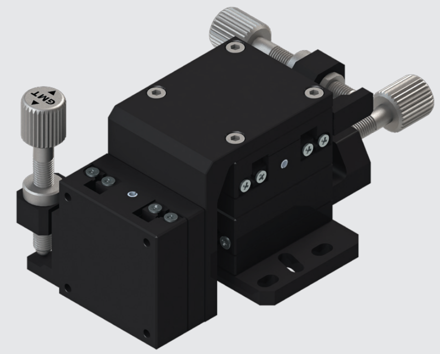


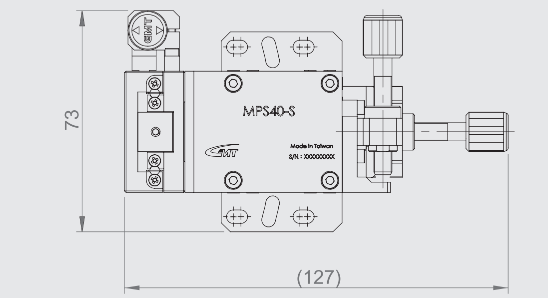
Specification

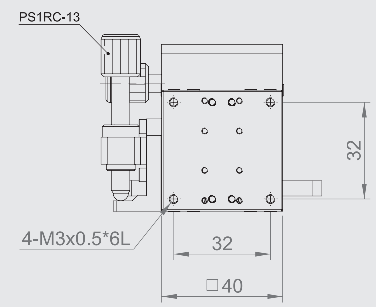
Unit : mm

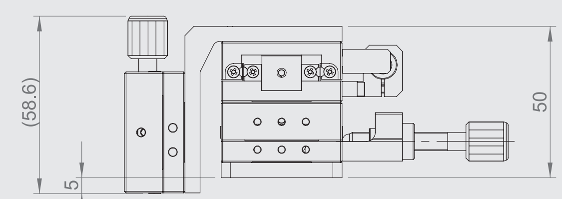
Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MPS2035-AMR(L)	20*35	XYZ-axis	±5	0.25	10	3	1.5	0.21	Aluminum alloy	Black anodized

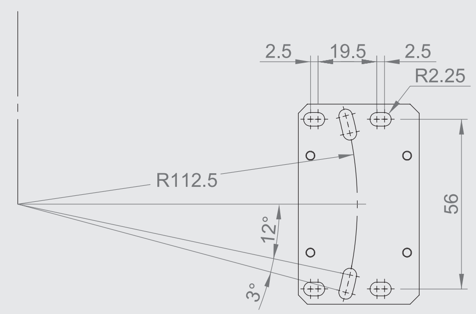
MPS40-SML









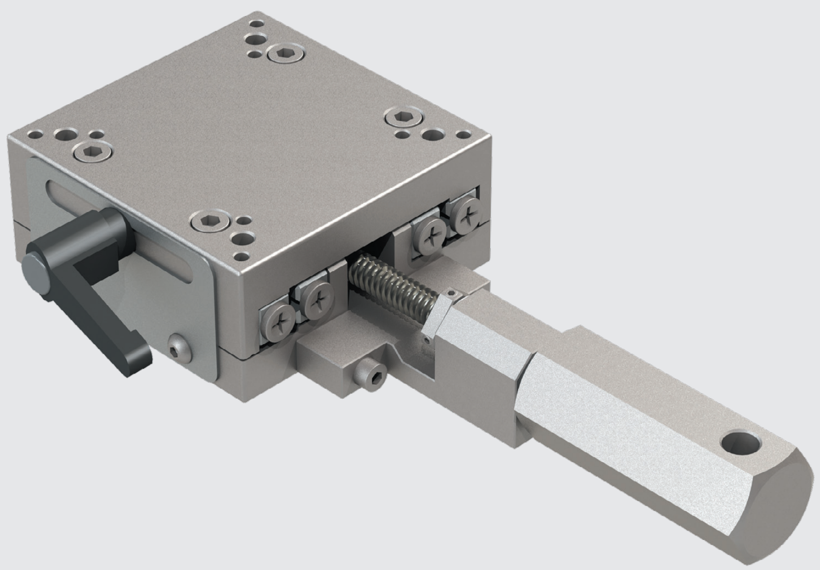


Specification

Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MPS40-SMR(L)	40*40	XYZ-axis	±6.5	0.5	10	3	4.5	0.99	SUS440C	Black Chromium

MXTH80-FCS

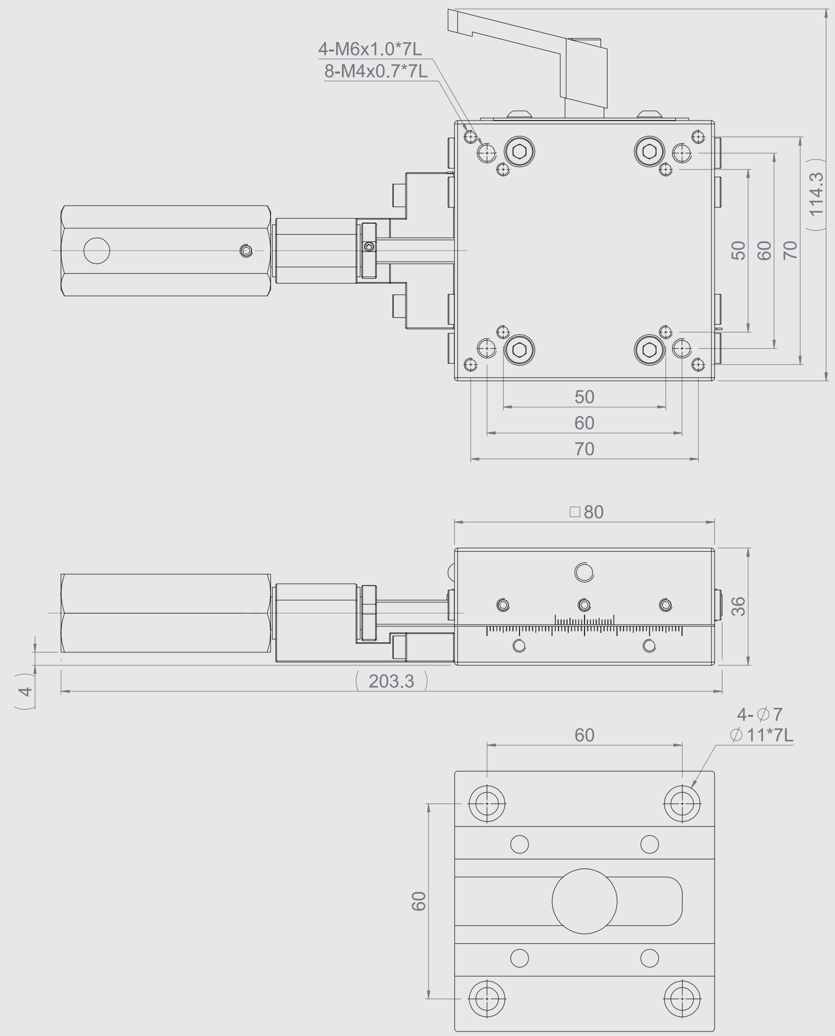


Specification

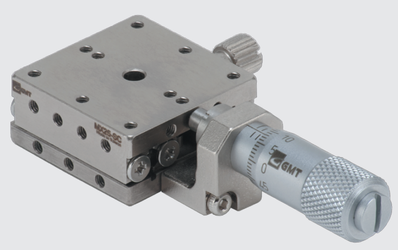
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXTH80-FCS	80*80	X-axis	Central	±20	1.25	0.1 mm / Vernier	15	40.5	1.9	Carbon steel	Electroless nickel plating

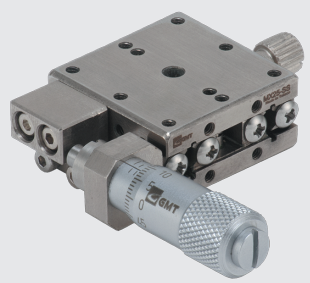
MXTH80-FCS



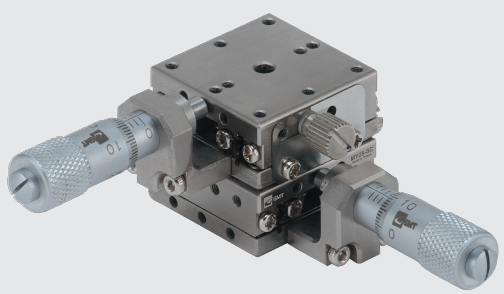
MX25-SC



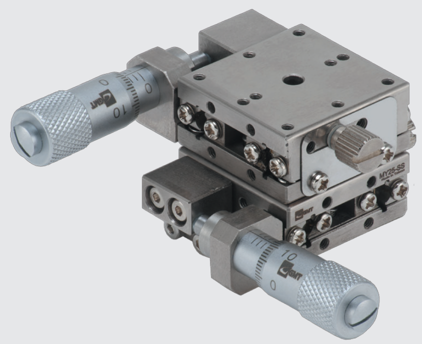
MX25-SS



MY25-SC



MY25-SS

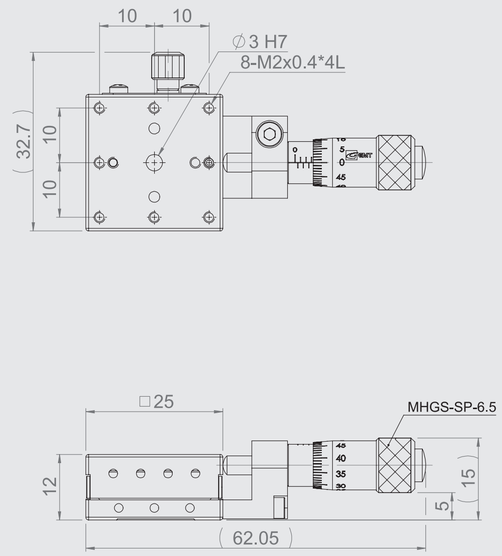


Specification

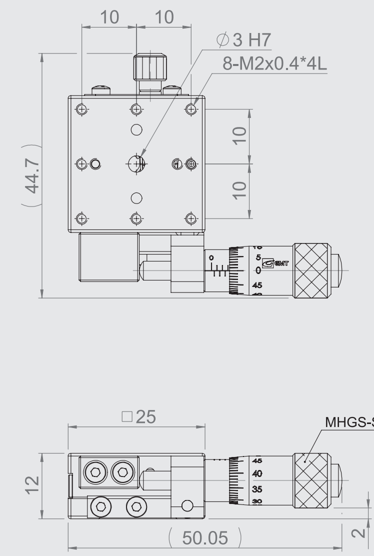
Unit : mm

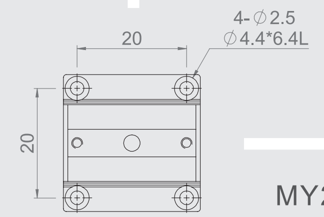
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX25-SC	25*25	X-axis	Central	±3.2	10	3	4	0.07	SUS 440C	Electroless nickel plating
MX25-SS			Side							
MY25-SC		XY-axis	Central				3.9	0.14		
MY25-SS			Side							

MX25-SC



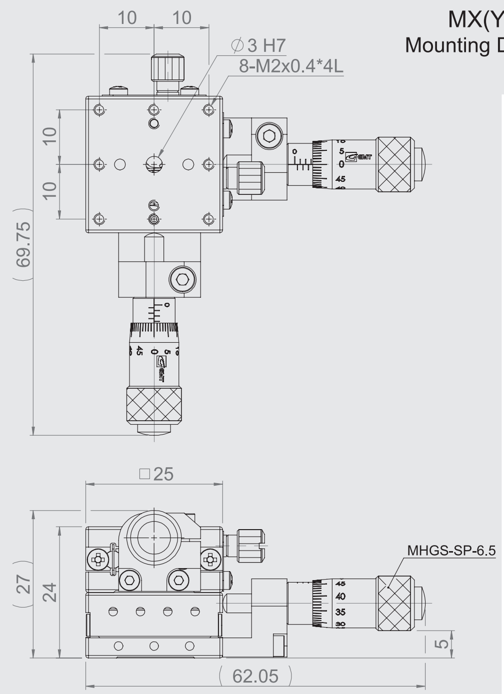
MX25-SS



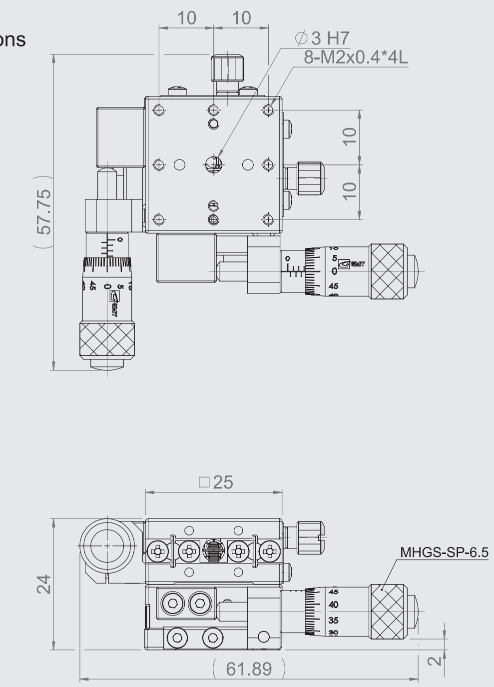


MX(Y)25-S
Mounting Dimensions

MY25-SC



MY25-SS

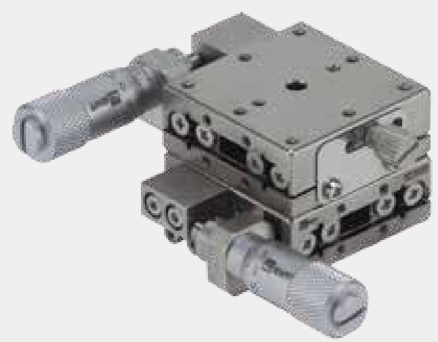


MX30-SC

MX30-SS

MY30-SC

MY30-SS

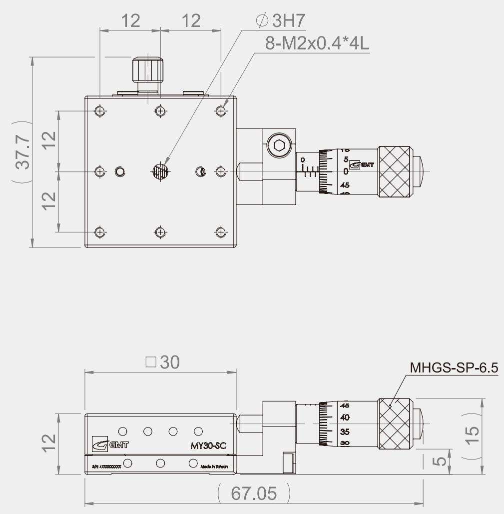


Specification

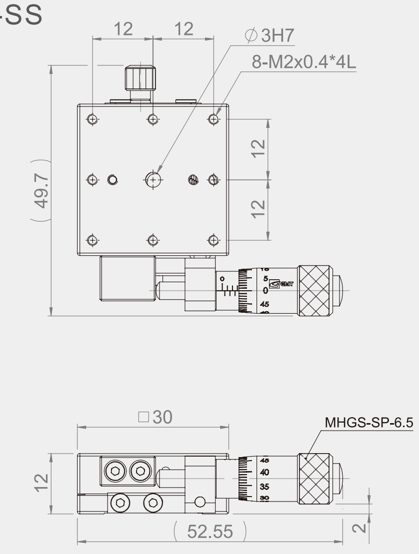
Unit : mm

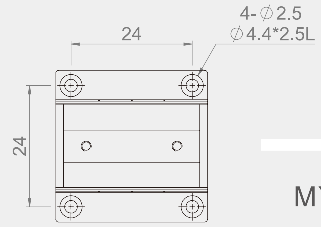
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (µm)	Straightness Accuracy (µm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX30-SC	30*30	X-axis	Central	±3.2	10	3	6	0.08	SUS 440C	Electroless nickel plating
MX30-SS			Side							
MY30-SC		XY-axis	Central				5.9	1.9		
MY30-SS			Side							

MX30-SC



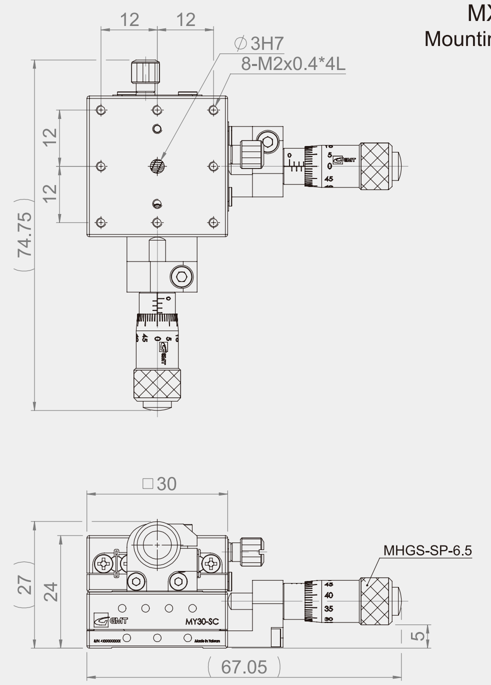
MX30-SS



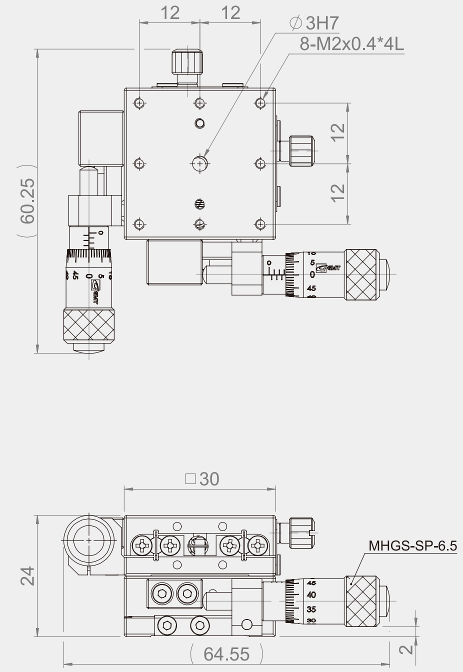


MX(Y)30-S
Mounting Dimensions

MY30-SC



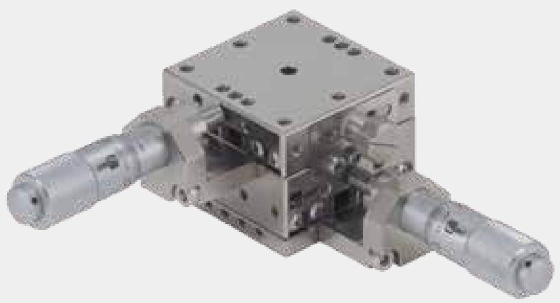
MY30-SS



MX40-SC

MX40-SS

MY40-SC



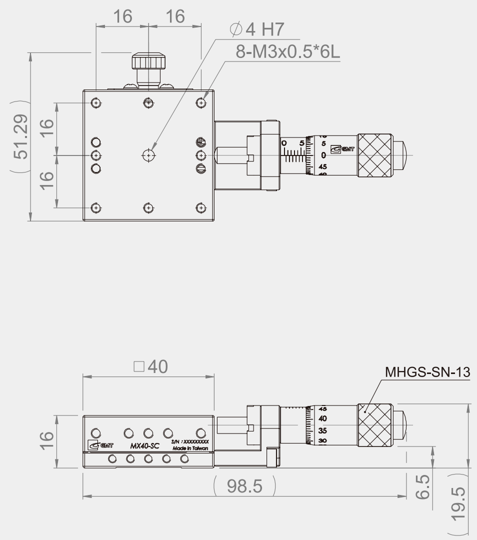
MY40-SS

Specification

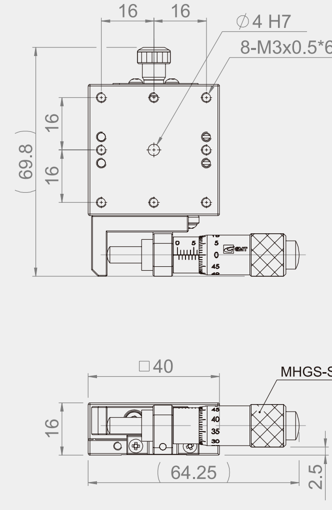
Unit : mm

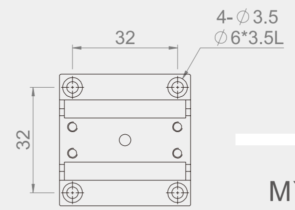
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX40-SC	40*40	X-axis	Central	±6.5	10	3	10	0.23	SUS 440C	Electroless nickel plating
MX40-SS			Side							
MY40-SC		XY-axis	Central				9.7	0.46		
MY40-SS			Side							

MX40-SC



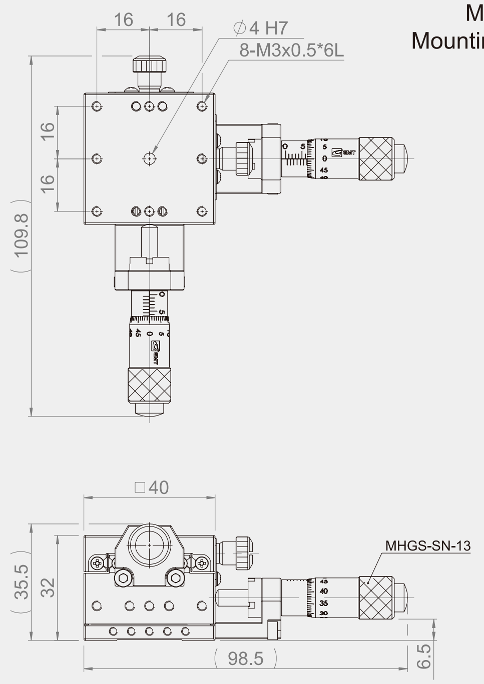
MX40-SS



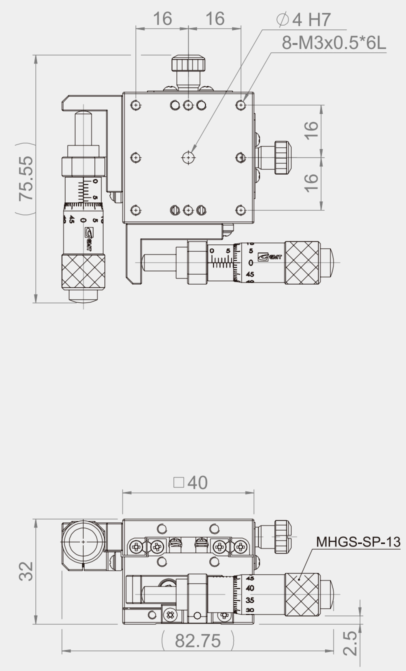


MX(Y)40-S
Mounting Dimensions

MY40-SC



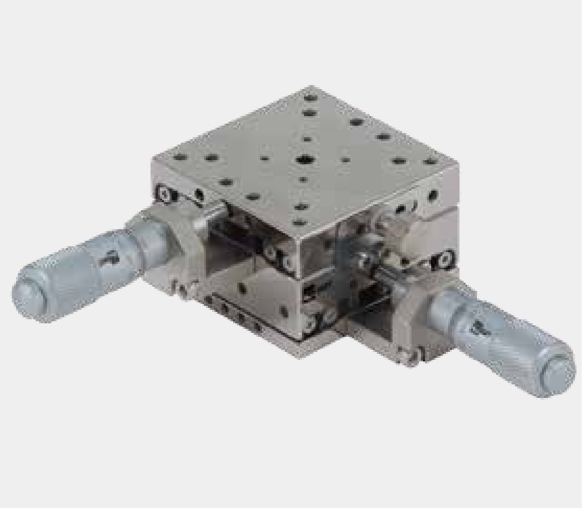
MY40-SS



MX50-SC

MX50-SS

MY50-SC



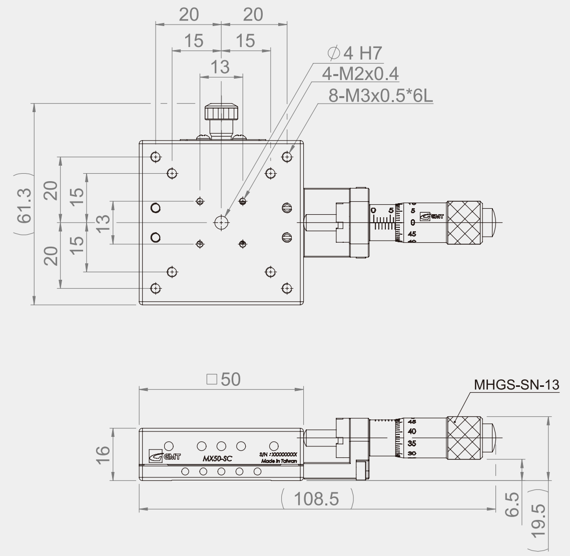
MY50-SS

Specification

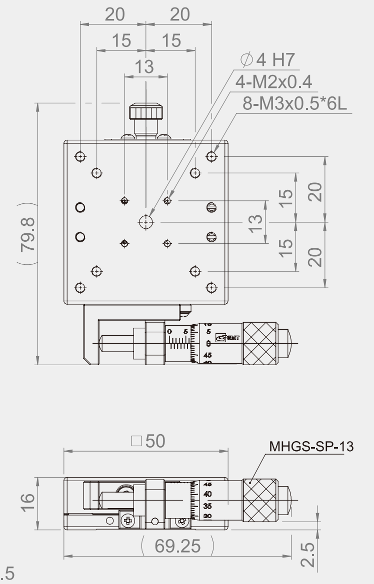
Unit : mm

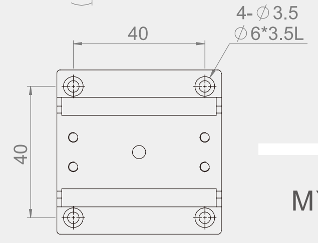
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX50-SC	50*50	X-axis	Central	±6.5	10	3	15	0.28	SUS 440C	Electroless nickel plating
MX50-SS			Side							
MY50-SC		XY-axis	Central				14.7	0.56		
MY50-SS			Side							

MX50-SC



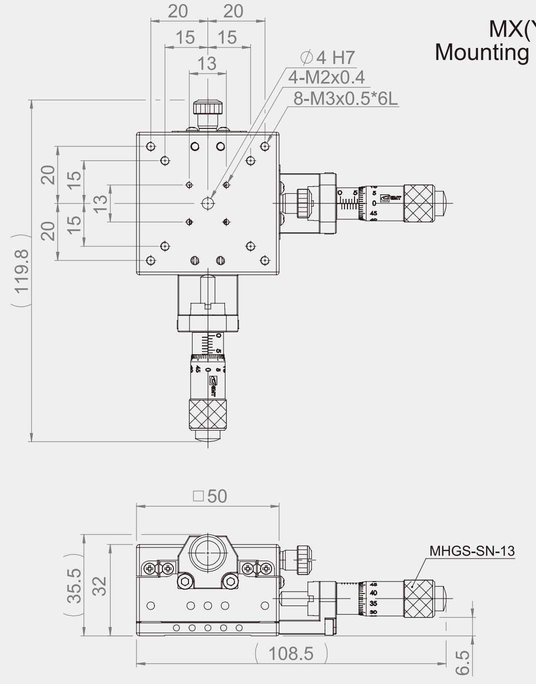
MX50-SS



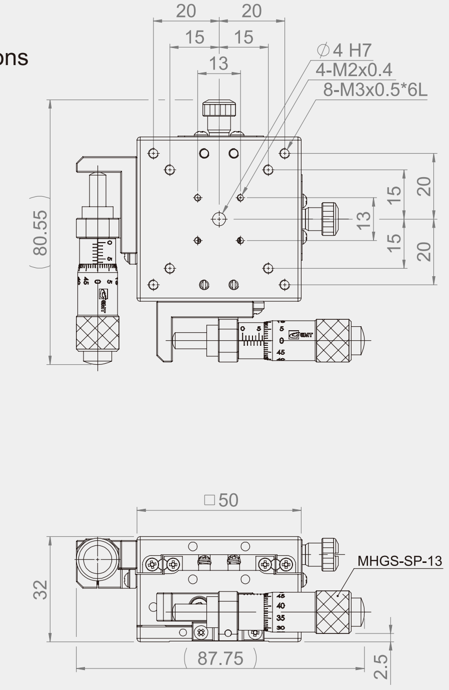


MX(Y)50-S
Mounting Dimensions

MY50-SC



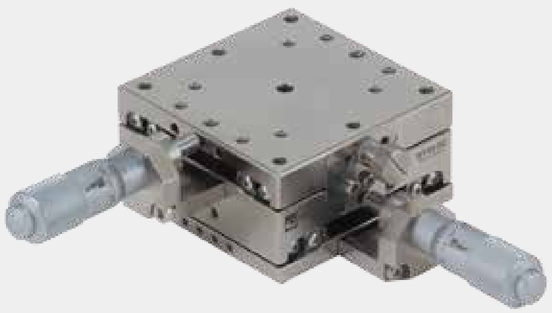
MY50-SS



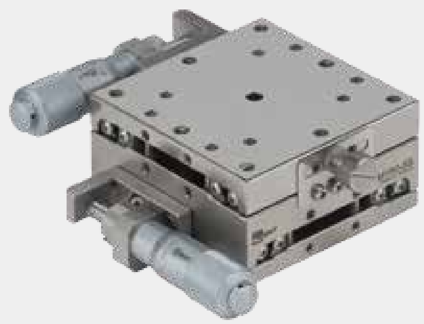
MX60-SC

MX60-SS

MY60-SC



MY60-SS

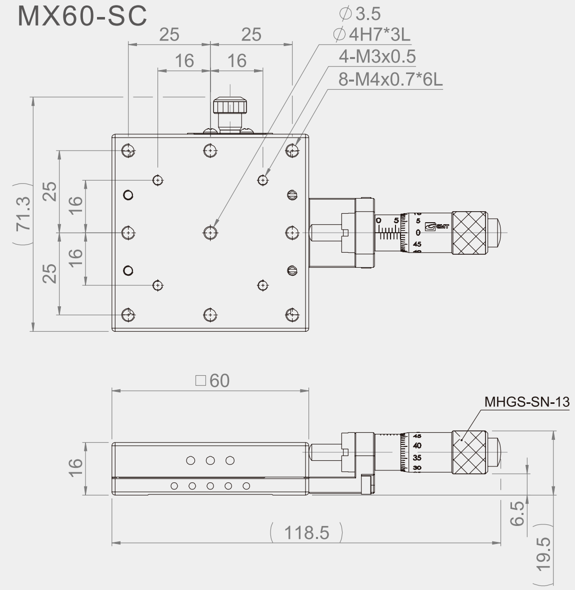


Specification

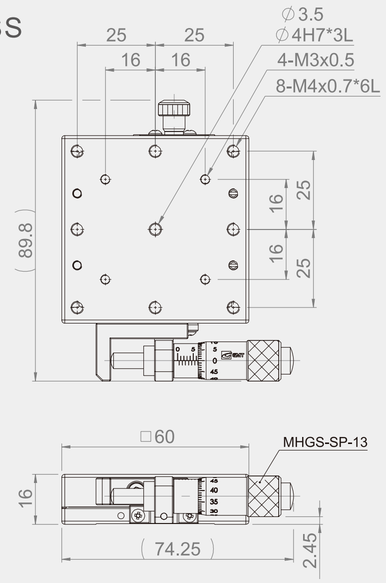
Unit : mm

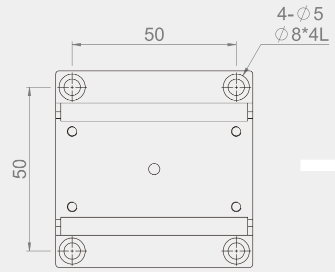
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX60-SC	60*60	X-axis	Central	±6.5	10	3	20	0.4	SUS 440C	Electroless nickel plating
MX60-SS			Side							
MY60-SC		XY-axis	Central				19.6	0.8		
MY60-SS			Side							

MX60-SC



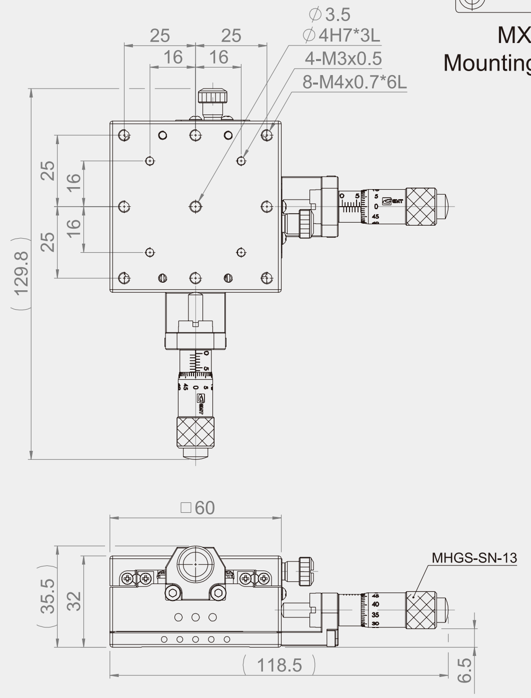
MX60-SS



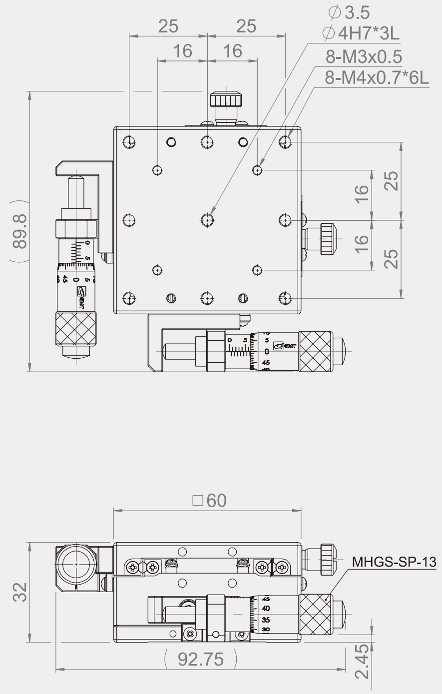


MX(Y)60-S
Mounting Dimensions

MY60-SC



MY60-SS



MX70-SC

MX70-SS

MY70-SC

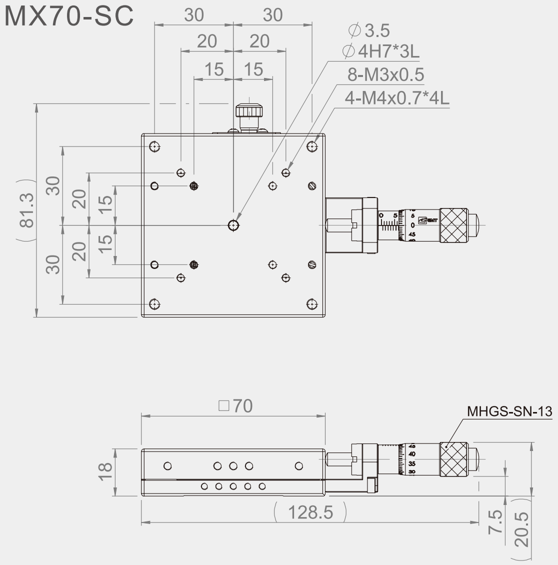
MY70-SS

Specification

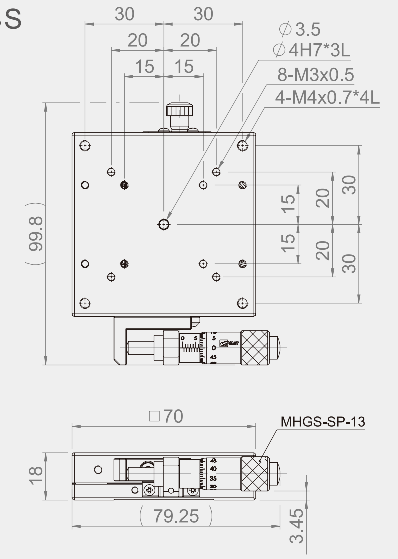
Unit : mm

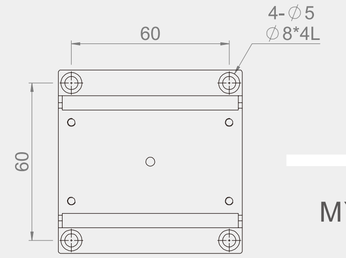
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX70-SC	70*70	X-axis	Central	±6.5	10	3	23	0.58	SUS 440C	Electroless nickel plating
MX70-SS			Side							
MY70-SC		XY-axis	Central				22.4	1.16		
MY70-SS			Side							

MX70-SC



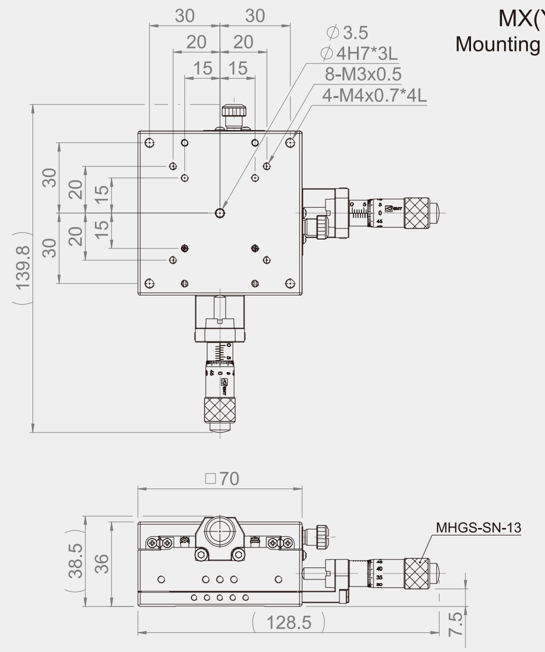
MX70-SS



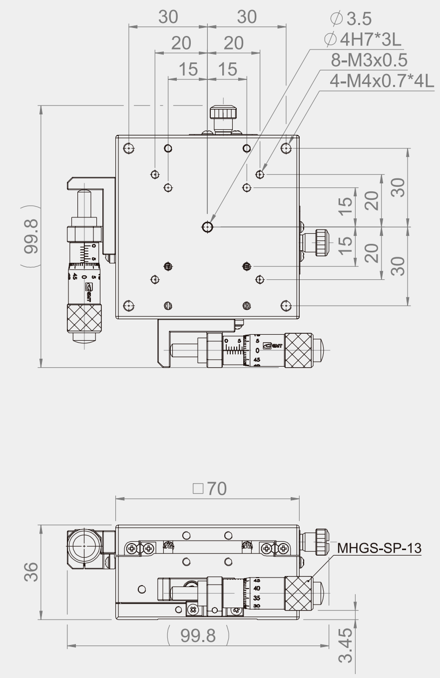


MX(Y)70-S
Mounting Dimensions

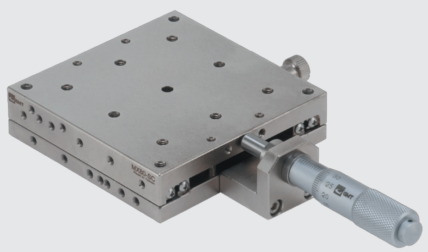
MY70-SC



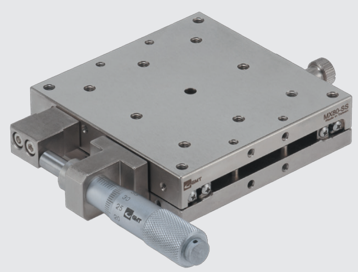
MY70-SS



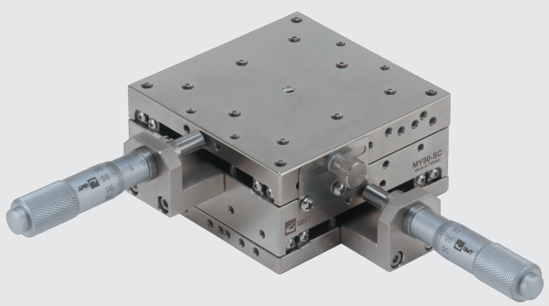
MX80-SC



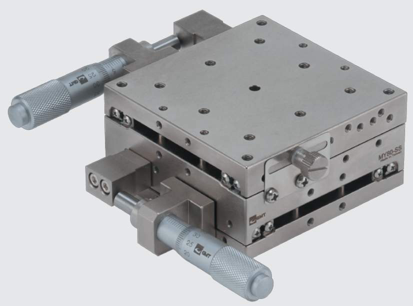
MX80-SS



MY80-SC



MY80-SS

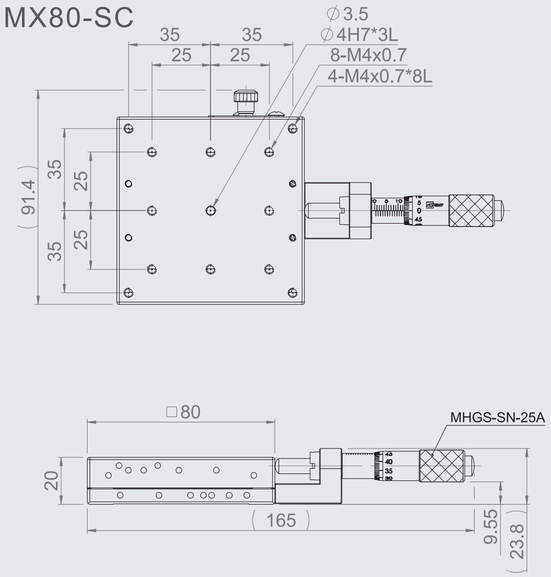


Specification

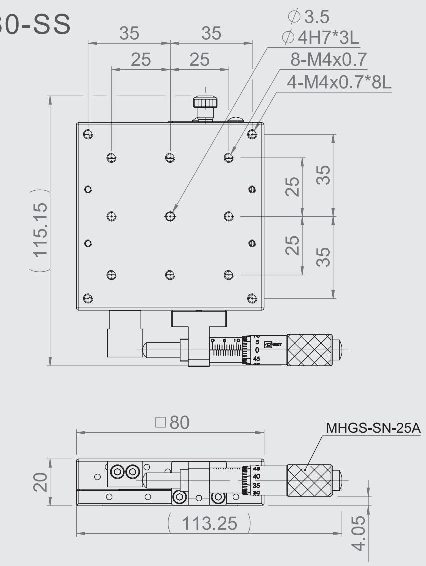
Unit : mm

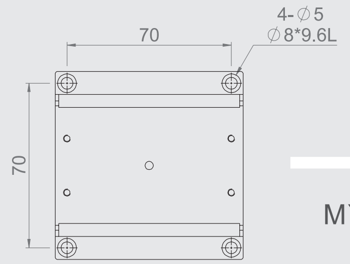
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX80-SC	80*80	X-axis	Central	±12.5	10	3	27	0.9	SUS 440C	Electroless nickel plating
MX80-SS			Side							
MY80-SC		XY-axis	Central				26.1	1.8		
MY80-SS			Side							

MX80-SC



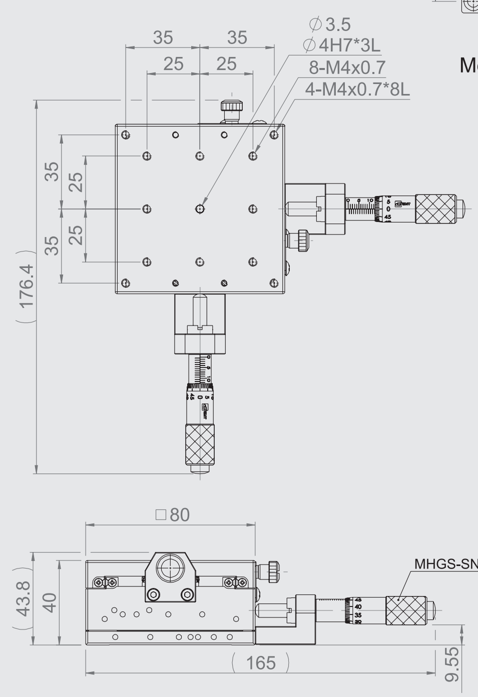
MX80-SS



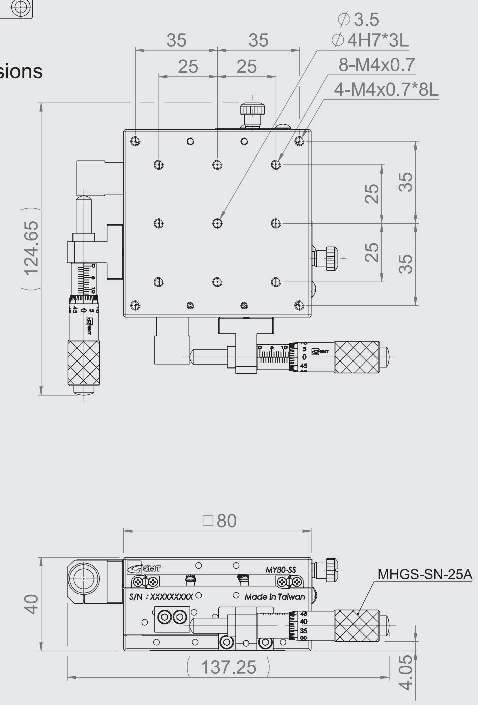


MX(Y)80-S
Mounting Dimensions

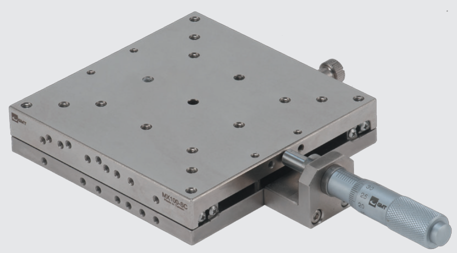
MY80-SC



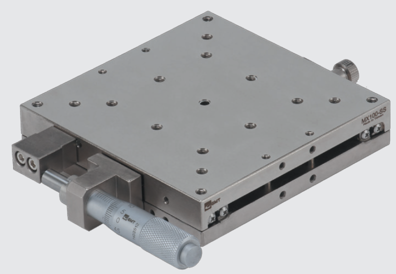
MY80-SS



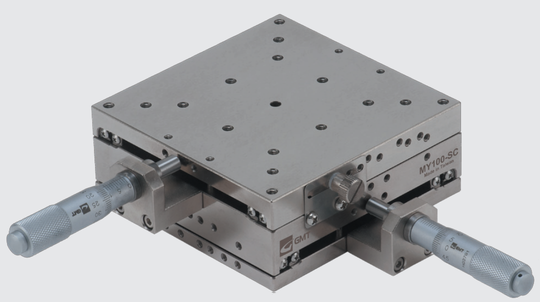
MX100-SC



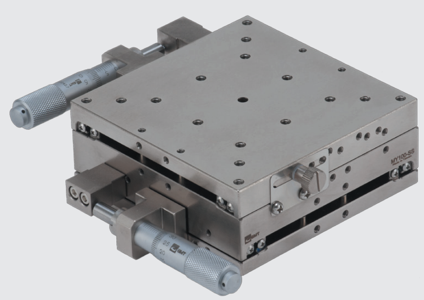
MX100-SS



MY100-SC



MY100-SS

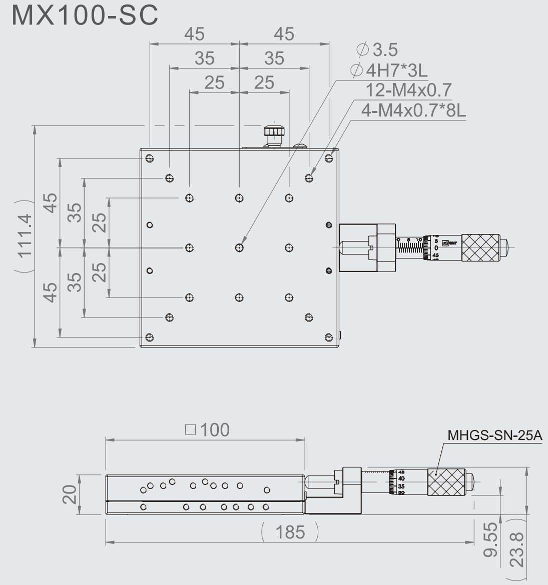


Specification

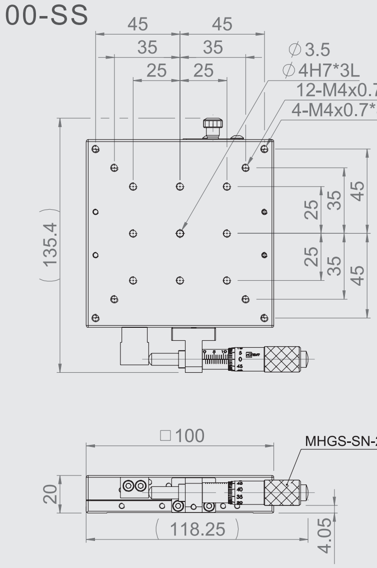
Unit : mm

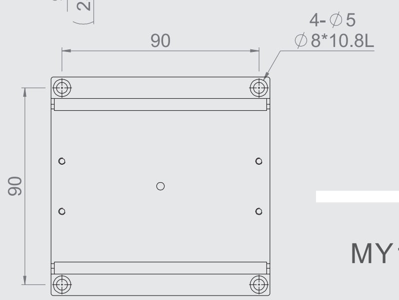
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (µm)	Straightness Accuracy (µm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX100-SC	100*100	X-axis	Central	±12.5	10	3	35	1.33	SUS 440C	Electroless nickel plating
MX100-SS			Side							
MY100-SC		XY-axis	Central				33.6	2.66		
MY100-SS			Side							

MX100-SC



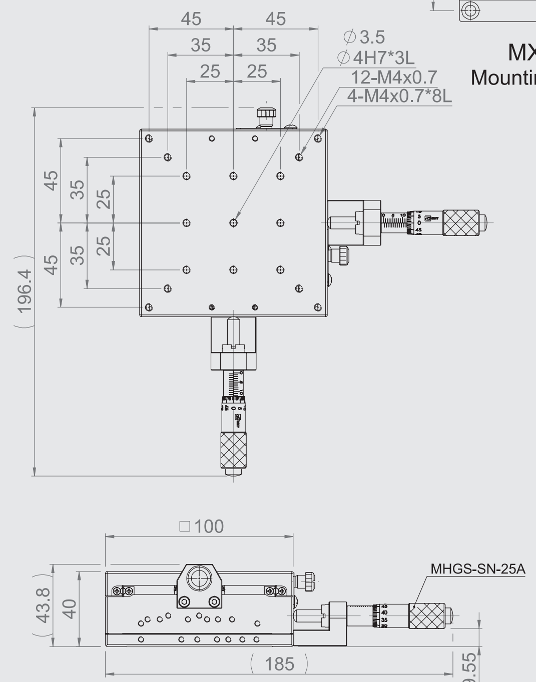
MX100-SS



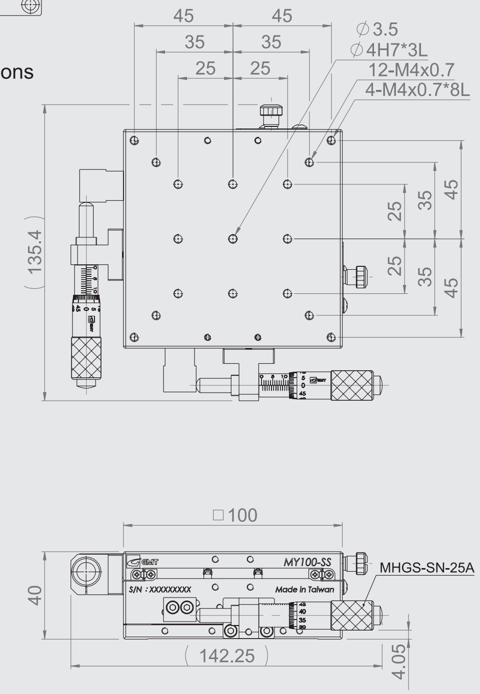


MX(Y)100-S
Mounting Dimensions

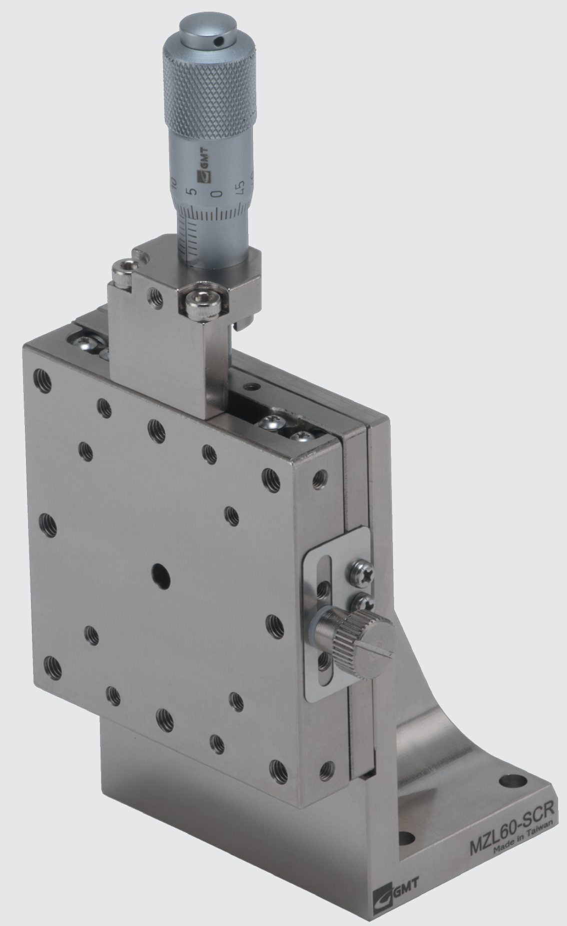
MY100-SC



MY100-SS



MZL60-SCR



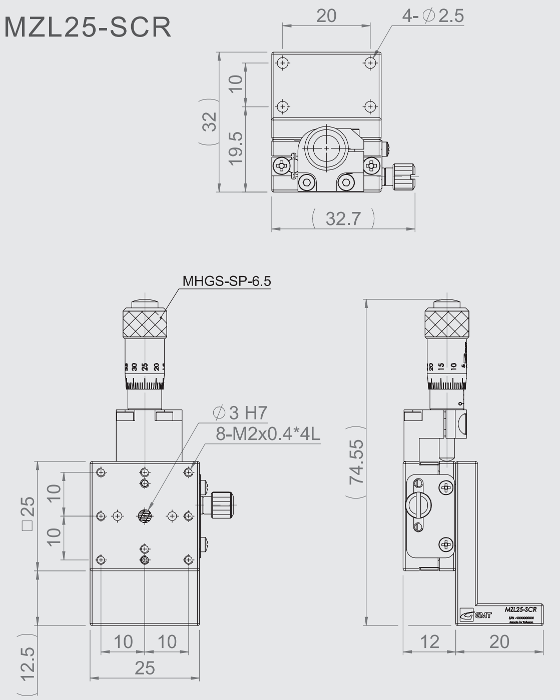
Specification

Unit : mm

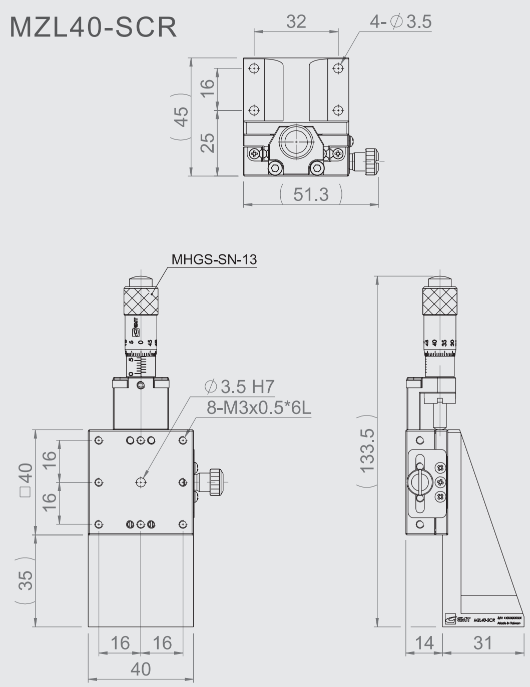
Model No.	Table Size	Travel Distance	Micrometer Minimum Reading (μm)	Movement Accuracy: Straightness (μm)	Movement Accuracy: Pitching	Movement Accuracy: Yawing	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MZL25-SCR	25*25	±3.2	10	3	30"	25"	1	0.23	SUS 440C	Electroless nickel plating
MZL40-SCR	40*40	±6.5			25"	15"	5	0.32		
MZL60-SCR	60*60							0.58		
MZL80-SCR	80*80	±12.5						1.2		

★ Brackets for Z-axis, refer to P.0195~ P.0196

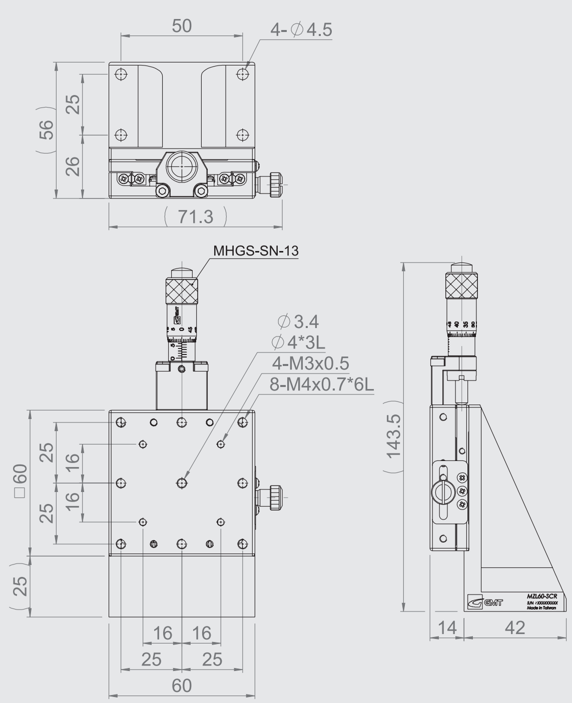
MZL25-SCR



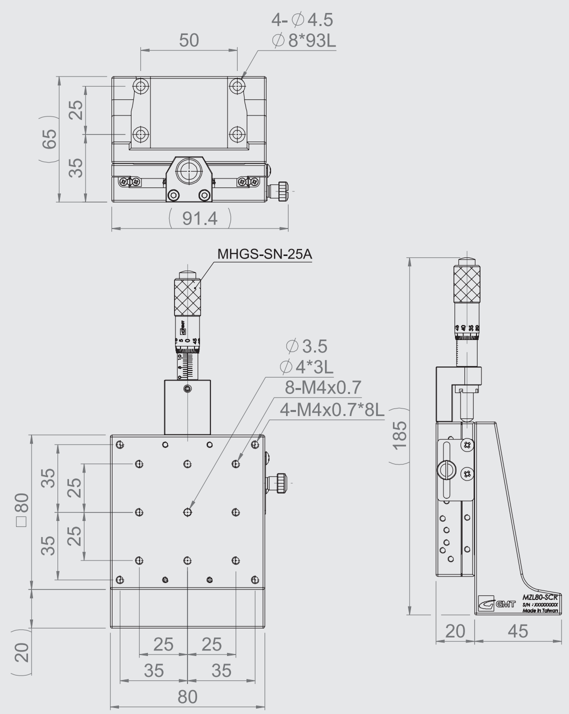
MZL40-SCR



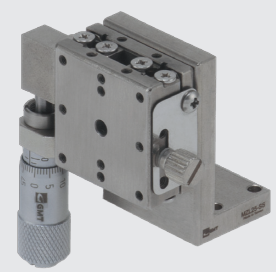
MZL60-SCR



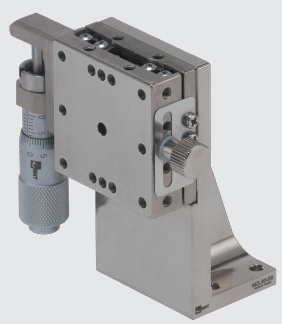
MZL80-SCR



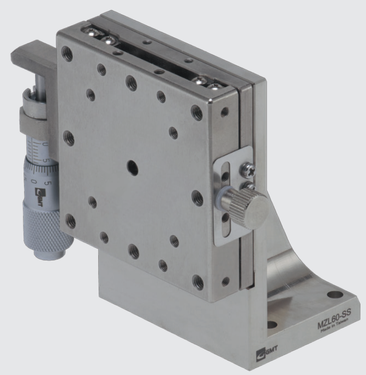
MZL25-SS



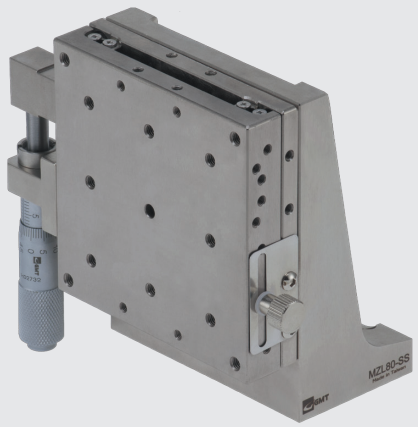
MZL40-SS



MZL60-SS



MZL80-SS



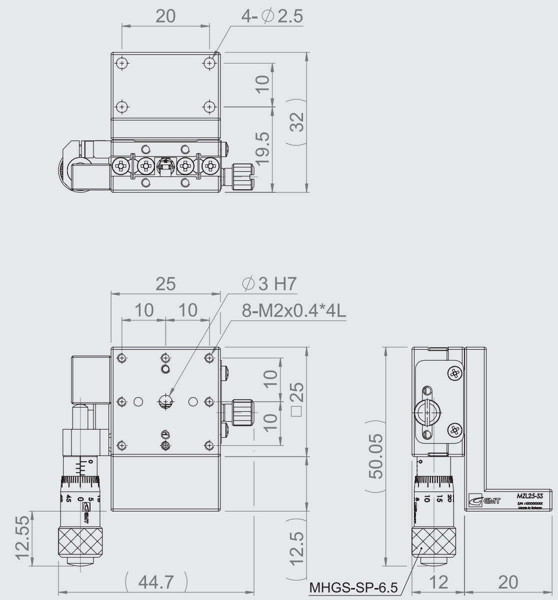
Specification

Unit : mm

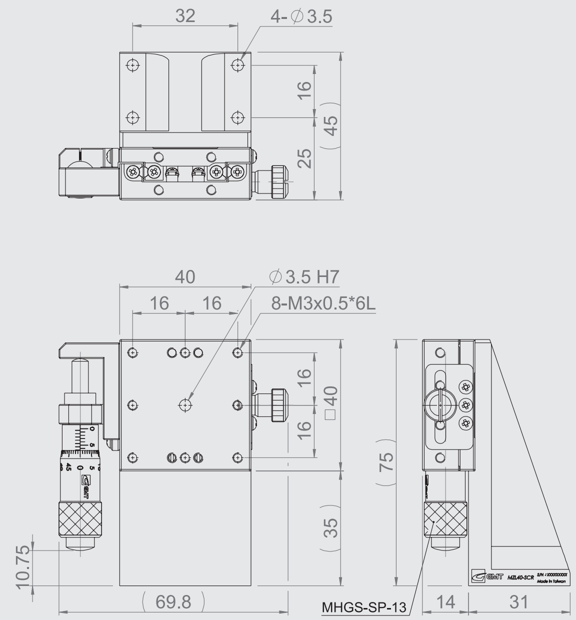
Model No.	Table Size	Travel Distance	Micrometer Minimum Reading (μm)	Movement Accuracy: Straightness (μm)	Movement Accuracy: Pitching	Movement Accuracy: Yawing	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MZL25-SS	25*25	±3.2	10	3	30"	25"	1.0	0.09	SUS 440C	Electroless nickel plating
MZL40-SS	40*40	±6.5			25"	15"	5.0	0.32		
MZL60-SS	60*60							0.58		
MZL80-SS	80*80	±12.5						1.2		

★ Brackets for Z-axis, refer to P.0195 ~ P.0196

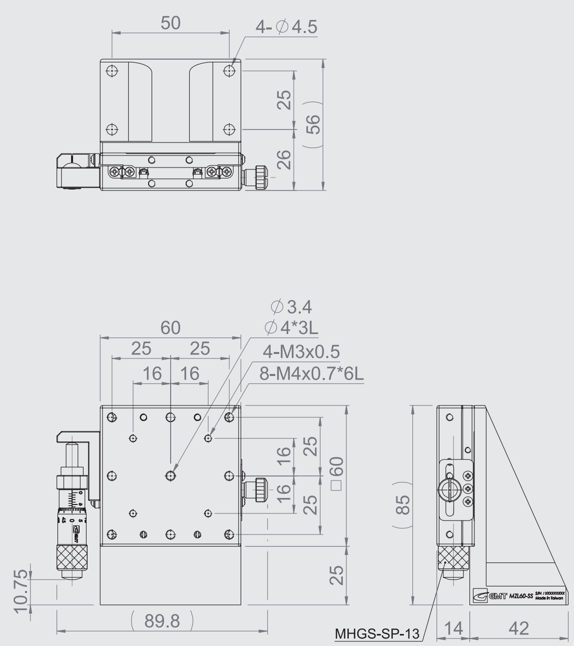
MZL25-SS



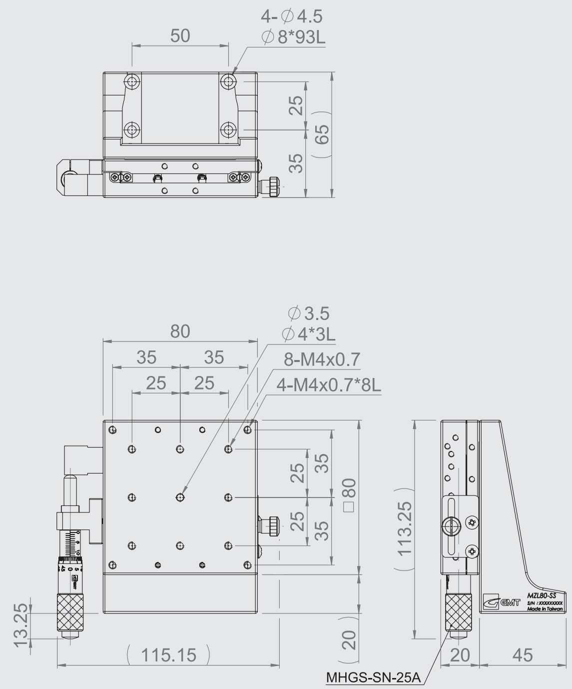
MZL40-SS



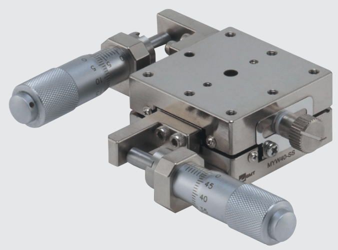
MZL60-SS



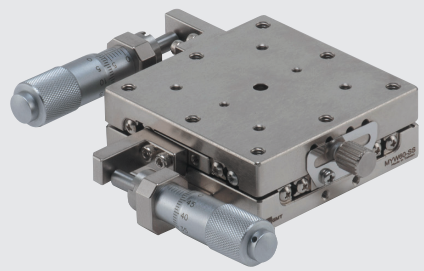
MZL80-SS



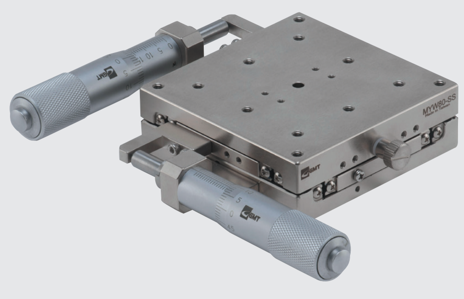
MYW40-SS



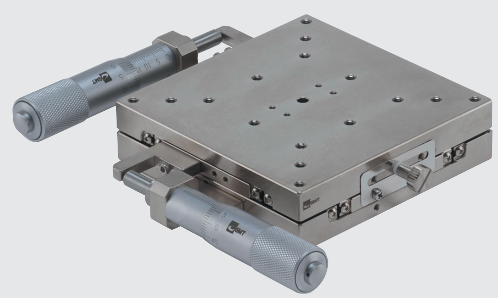
MYW60-SS



MYW80-SS



MYW100-SS

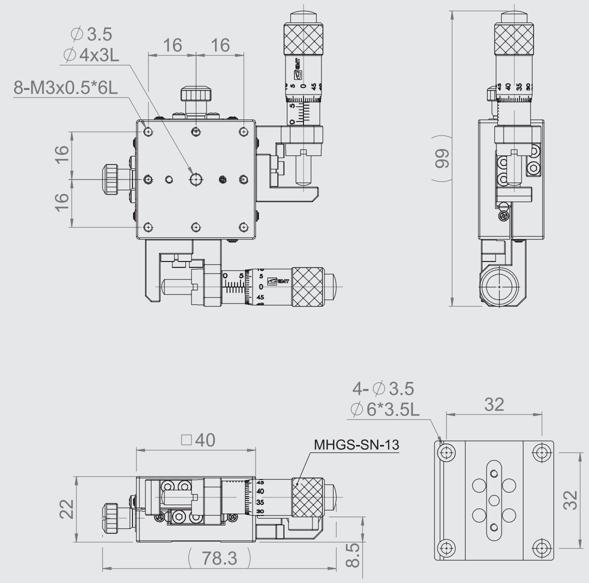


Specification

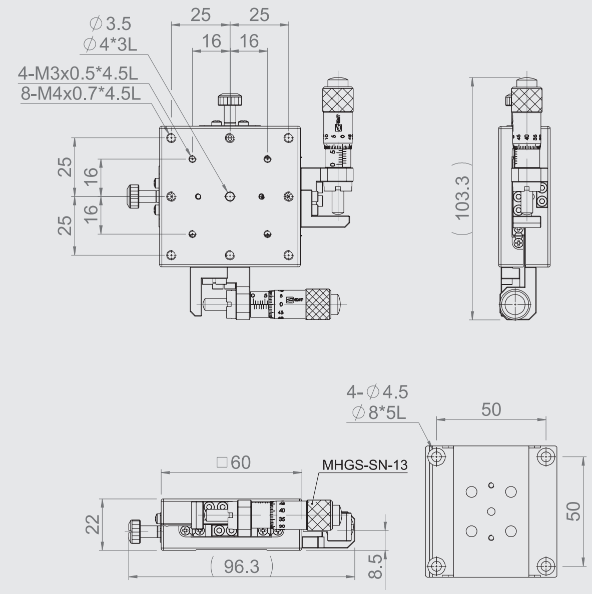
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYW40-SS	40*40	XY-axis	Side	±6.5	10	3	9	0.34	SUS 440C	Electroless nickel plating
MYW60-SS	60*60			±6.5			19	0.64		
MYW80-SS	80*80			±12.5			20	1.32		
MYW100-SS	100*100			±12.5			25	2		

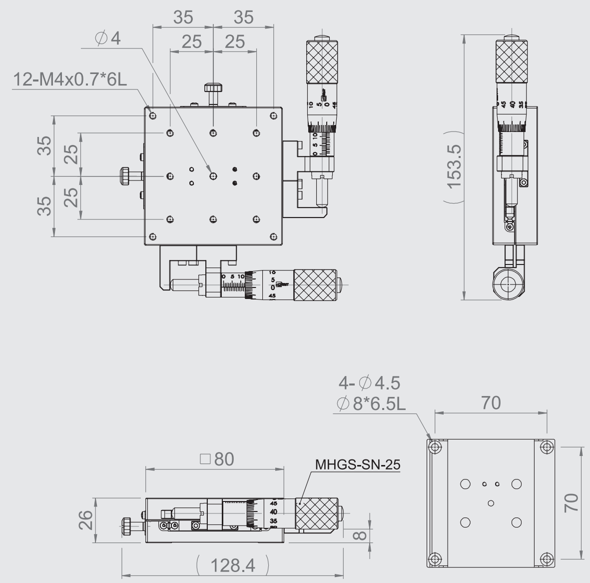
MYW40-SS



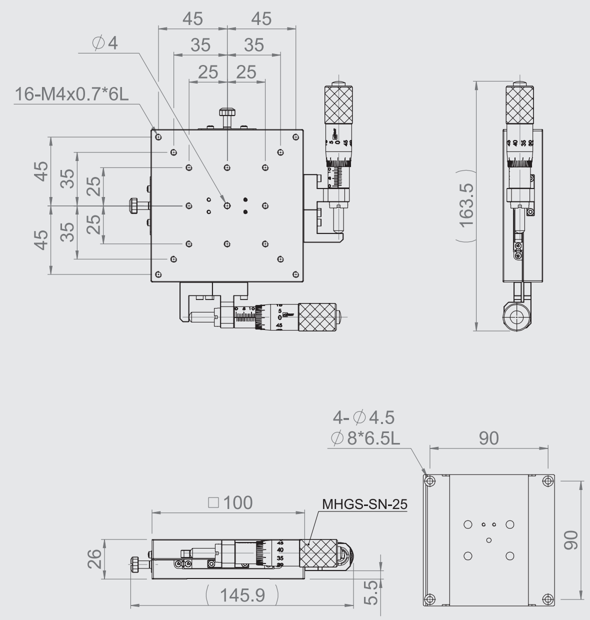
MYW60-SS



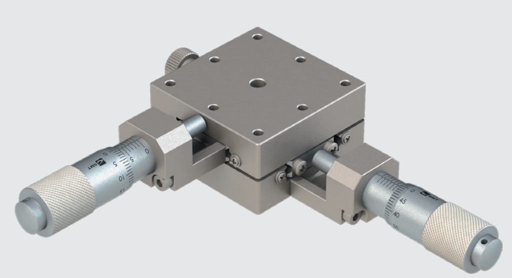
MYW80-SS



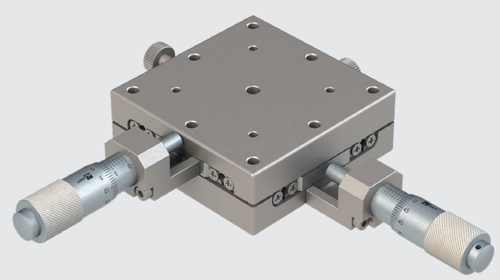
MYW100-SS



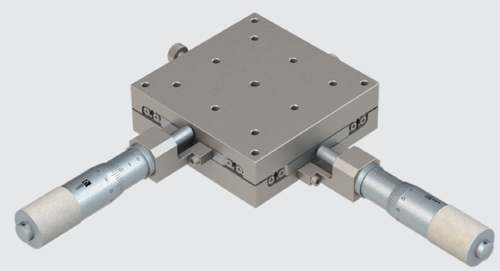
MYW40-SC



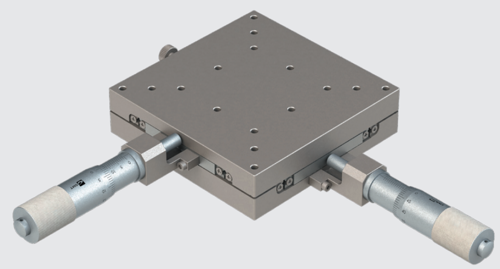
MYW60-SC



MYW80-SC



MYW100-SC

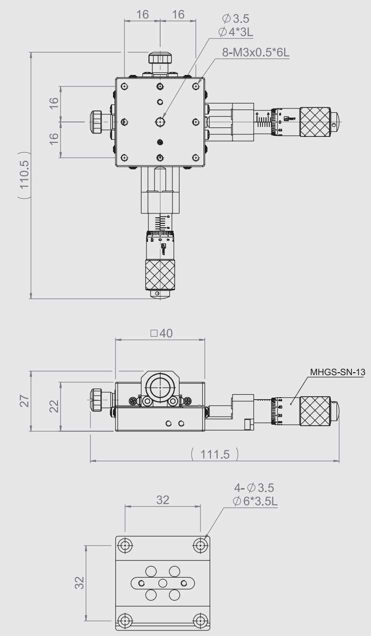


Specification

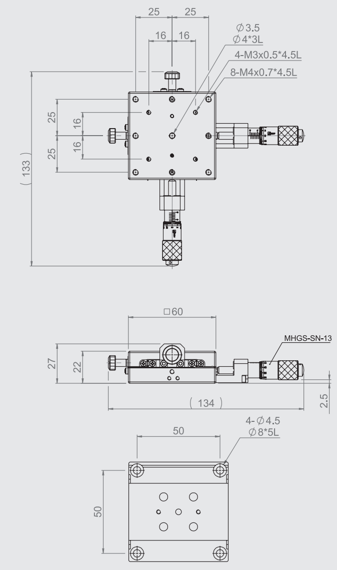
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYW40-SC	40*40	XY-axis	Central	±6.5	10	3	9	0.34	SUS 440C	Electroless nickel plating
MYW60-SC	60*60						19	0.64		
MYW80-SC	80*80			±12.5			20	1.32		
MYW100-SC	100*100						25	2		

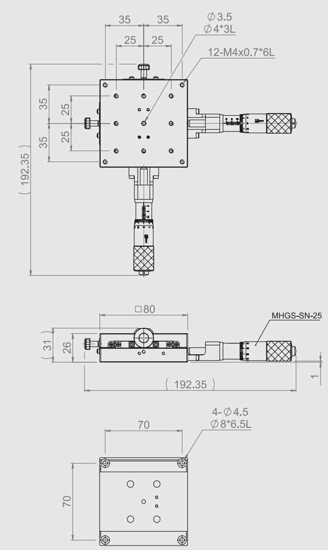
MYW40-SC



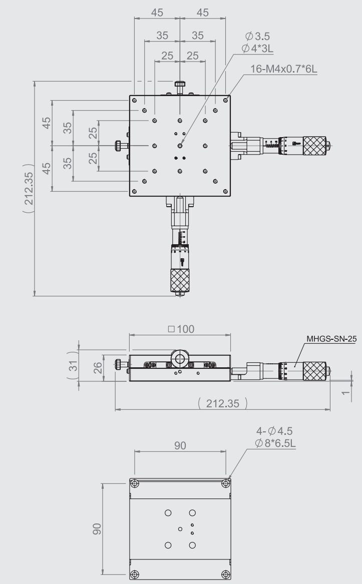
MYW60-SC

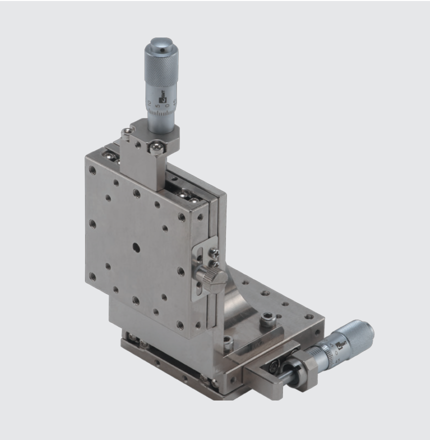


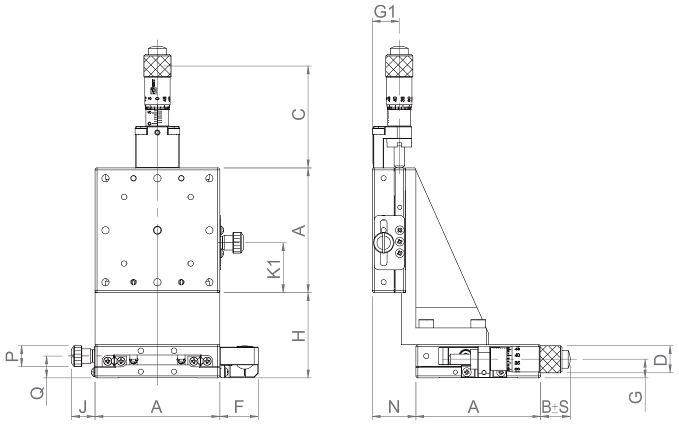
MYW80-SC



MYW100-SC



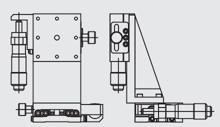
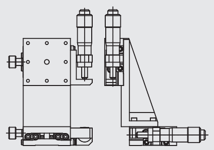
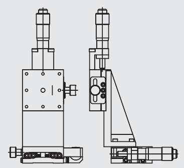
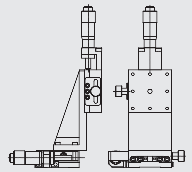




Front side viewing

Right side viewing

Unit : mm

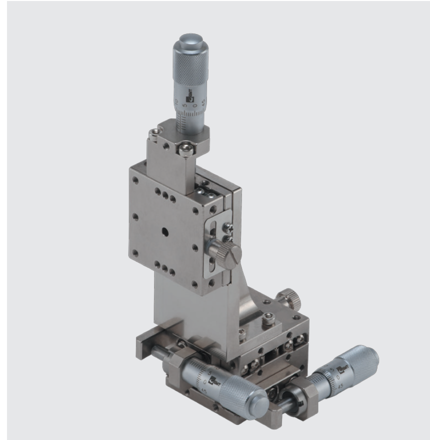
Position of Micrometer				
Specification	Side up 	Side down 	Central 	Reversed 
Code	C	CU	A	R

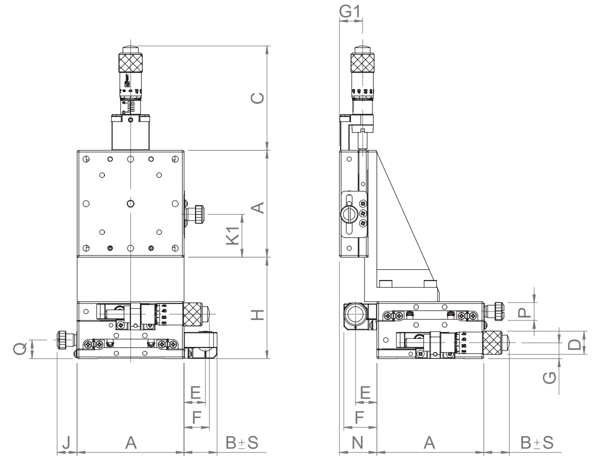
Specification

Unit : mm

Model No.		Detailed Dimension from Front Side Viewing							Detailed Dimensions from Right Side Viewing				
Type	A	H	C	K1	P	Q	J	F	B ± S (Movement)	N	D	G	G1
MXZ	25	24.5	37.1	15	6	8.5	7.7	11	25±3.2	6.8	10	7	10
	30	32	37.1	17.5	6	8.5	7.7	11	22.5±3.2	5	10	7	10
	40	51	58.5	20	10	10.6	11.2	18.5	24.3±6.5	5	13	8.9	13
	50	46	58.5	25	10	10.5	11.2	18.5	19.3±6.5	20	13	9	13
	60	41	58.5	24	10	10.5	11.2	18.5	14.3±6.5	21	13	8.9	13
	70	43	58.5	29	10	11.5	11.2	18.5	9.3±6.5	12	13	10	14
	80	40	85	55	10	14.5	11.2	24	33.3±12.5	20	13.5	10.8	16
	100	60	99.5	67.5	10	14.5	11.2	24	18.3±12.5	36	13.5	10.8	16

Model No.	Table Size	Allowable Loading (kgf)	Straightness Accuracy (μm)	Pitching	Yawing	Axis	Weight (kg)	Material	Surface Finish
MXZ25-S	25*25	1	5	30"	25"	XZ	0.15	SUS 440C	Electroless nickel plating
MXZ30-S	30*30	5		25"	15"		0.21		
MXZ40-S	40*40						0.51		
MXZ50-S	50*50						0.76		
MXZ60-S	60*60						0.98		
MXZ70-S	70*70						1.44		
MXZ80-S	80*80						2.05		
MXZ100-S	100*100						3.63		

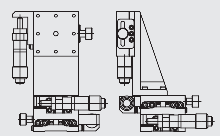
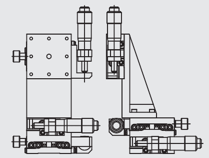
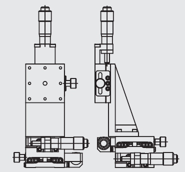
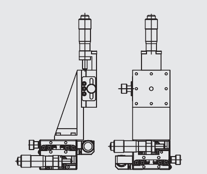




Front side viewing

Right side viewing

Unit : mm

Position of Micrometer				
Specification	Side up 	Side down 	Central 	Reversed 
Code	C	CU	A	R

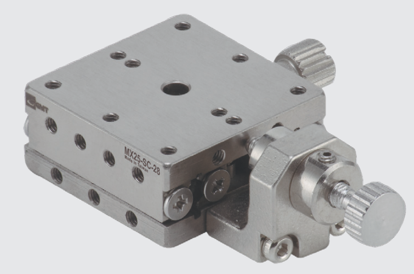
Specification

Unit : mm

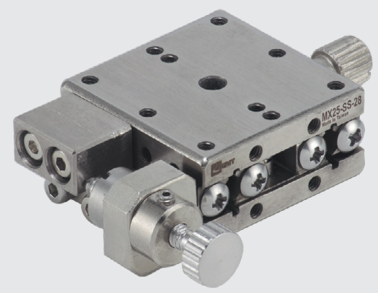
Model No.		Detailed Dimension from Front Side Viewing								Detailed Dimensions from Right Side Viewing					
Type	A	H	C	K1	Q	J	F	E	B ± S (Movement)	N	D	G	G1	P
MXYZ	25	36.5	37.1	15	8.5	7.7	11	6.8	25.1±3.2	16.8	10	7	10	6
	30	44	37	17.5	8.5	7.7	11	7	22.6±3.2	17	10	7	10	6
	40	67	58.5	20	10.6	11.2	18.5	12	24.3±6.5	21	13	9	13	10
	50	62	58.5	25	10.6	11.2	18.5	12	19.3±6.5	20	13	9	13	10
	60	57	58.5	24	10.5	11.2	18.5	12	14.3±6.5	21	13	9	13	10
	70	61	58.5	29	11.5	11.2	18.5	12	9.3±6.5	12	13	10	14	10
	80	60	85	55	14.5	11.2	24	17	33.3±12.5	20	13.5	10.8	16	10
	100	80	99.5	67.5	14.5	11.2	24	17	18.3±12.5	36	13.5	10.8	16	10

Model No.	Table Size	Allowable Loading (kgf)	Straightness Accuracy (μm)	Pitching	Yawing	Axis	Weight (kg)	Material	Surface Finish
MXYZ25-S	25*25	1	5	30"	25"	XYZ	0.21	SUS 440C	Electroless nickel plating
MXYZ30-S	30*30	5		25"	15"		0.29		
MXYZ40-S	40*40						0.72		
MXYZ50-S	50*50						1.06		
MXYZ60-S	60*60						1.38		
MXYZ70-S	70*70						2.06		
MXYZ80-S	80*80						2.96		
MXYZ100-S	100*100						4.99		

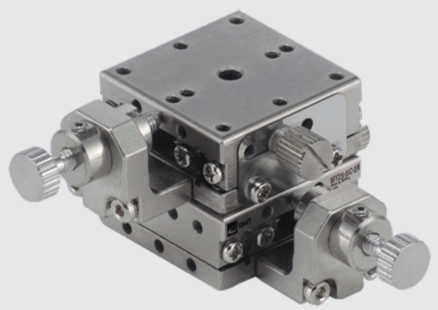
MX25-SC-28



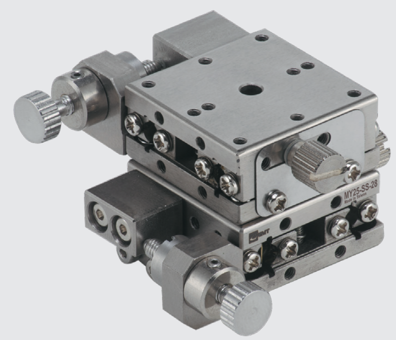
MX25-SS-28



MY25-SC-28



MY25-SS-28

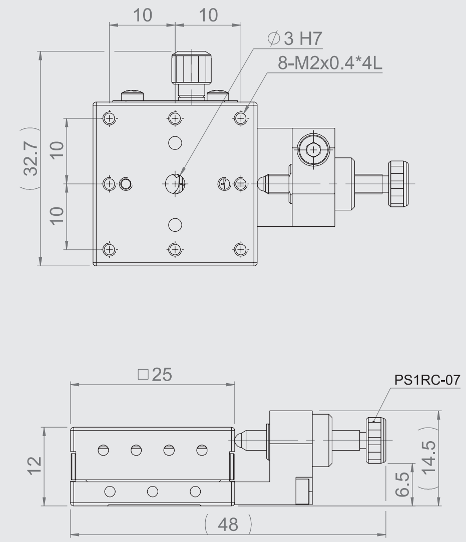


Specification

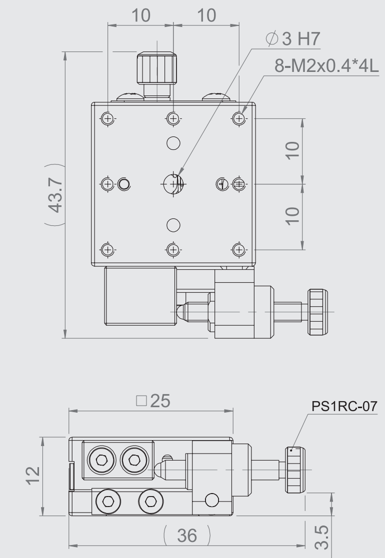
Unit : mm

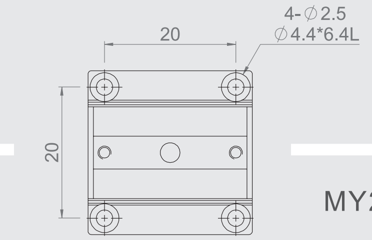
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX25-SC-28	25*25	X-axis	Central	±3.2	0.5	3	4	0.07	SUS 440C	Electroless nickel plating
MX25-SS-28			Side							
MY25-SC-28		XY-axis	Central				3.9	0.14		
MY25-SS-28			Side							

MX25-SC-28



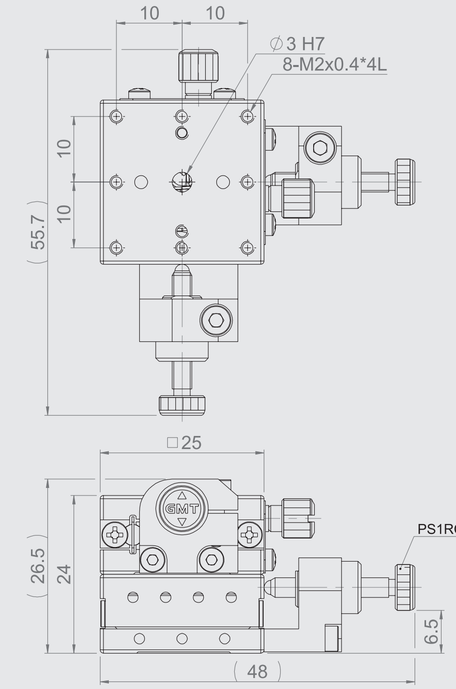
MX25-SS-28



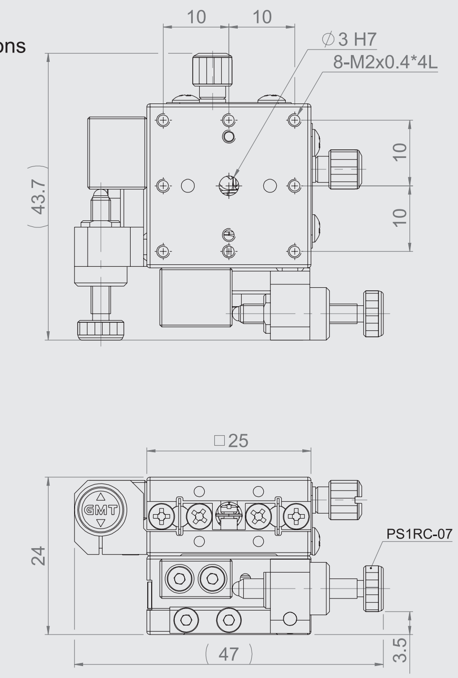


MX(Y)25-S-28
Mounting Dimensions

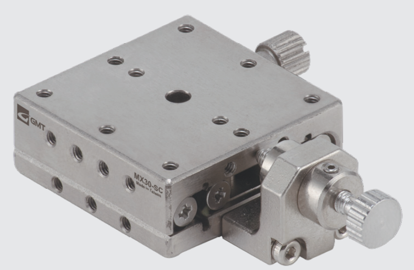
MY25-SC-28



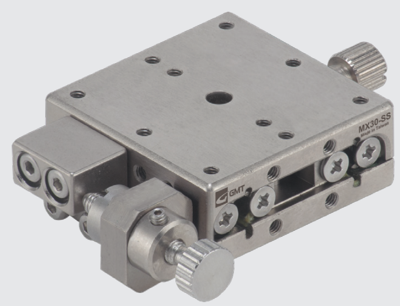
MY25-SS-28



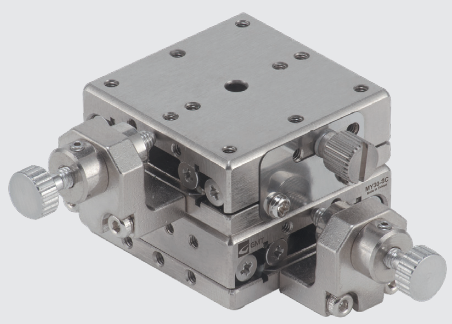
MX30-SC-28



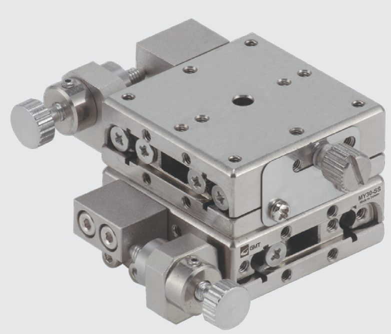
MX30-SS-28



MY30-SC-28



MY30-SS-28

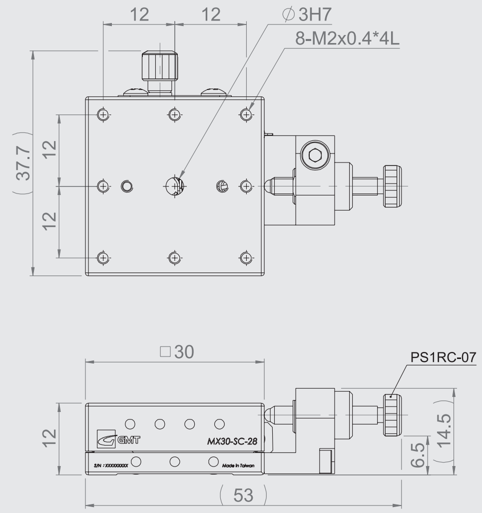


Specification

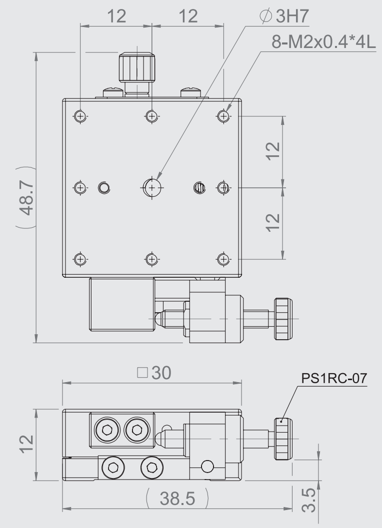
Unit : mm

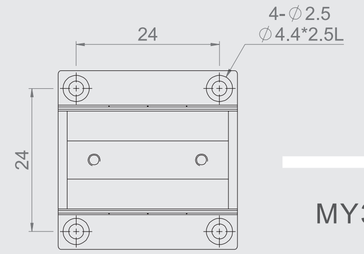
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX30-SC-28	30*30	X-axis	Central	±3.2	0.5	3	6	0.95	SUS 440C	Electroless nickel plating
MX30-SS-28			Side							
MY30-SC-28		XY-axis	Central				5.9	1.9		
MY30-SS-28			Side							

MX30-SC-28



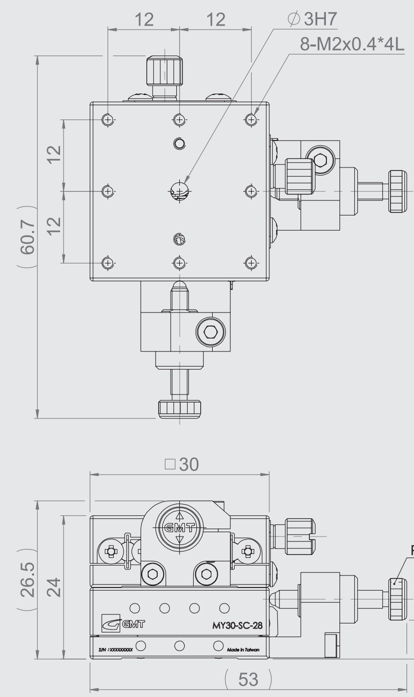
MX30-SS-28



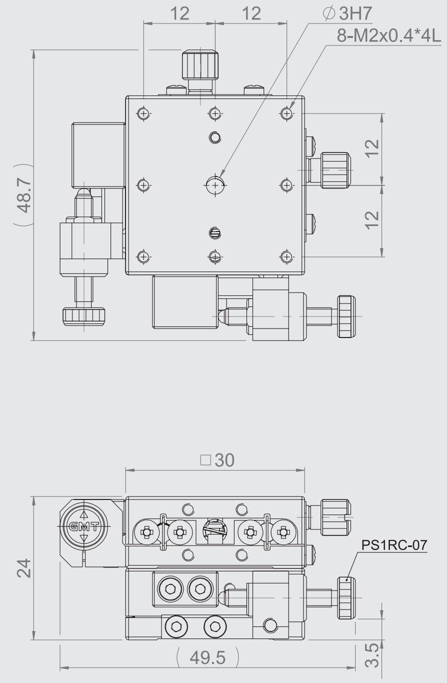


MX(Y)30-S-28
Mounting Dimensions

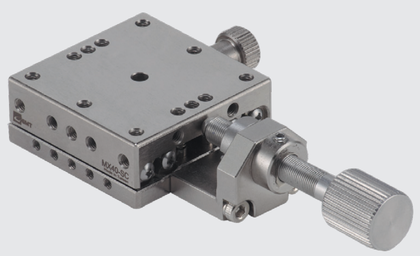
MY30-SC-28



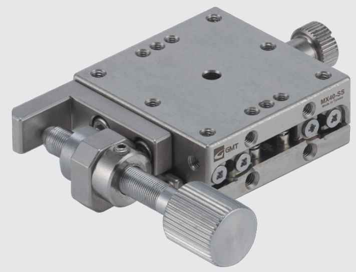
MY30-SS-28



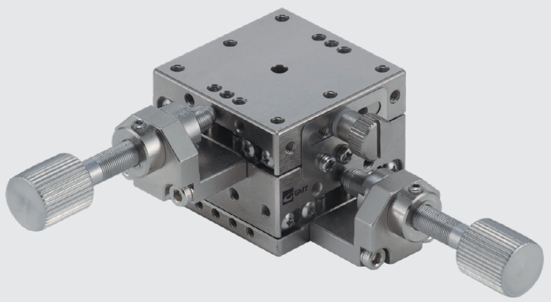
MX40-SC-28



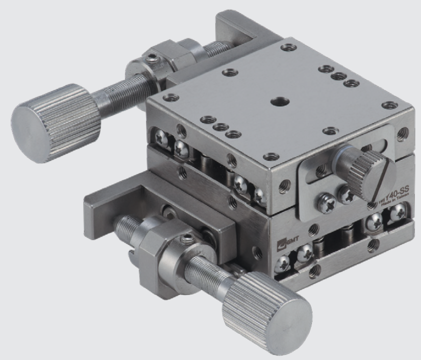
MX40-SS-28



MY40-SC-28



MY40-SS-28

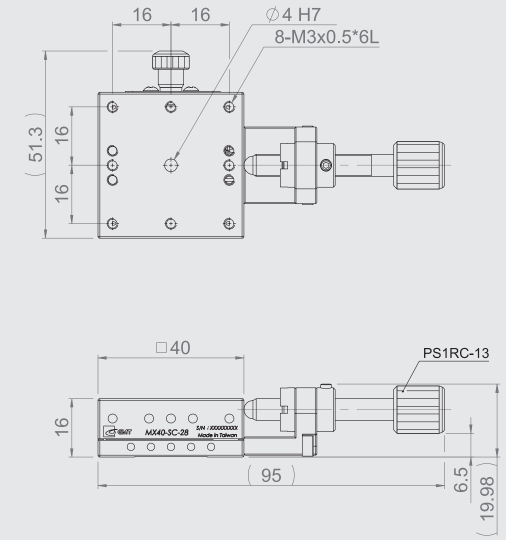


Specification

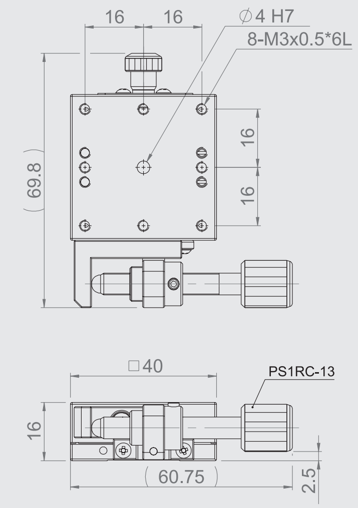
Unit : mm

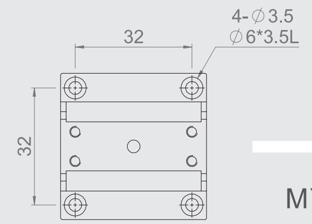
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX40-SC-28	40*40	X-axis	Central	±6.5	0.5	3	10	0.23	SUS 440C	Electroless nickel plating
MX40-SS-28			Side							
MY40-SC-28		XY-axis	Central				9.7	0.46		
MY40-SS-28			Side							

MX40-SC-28



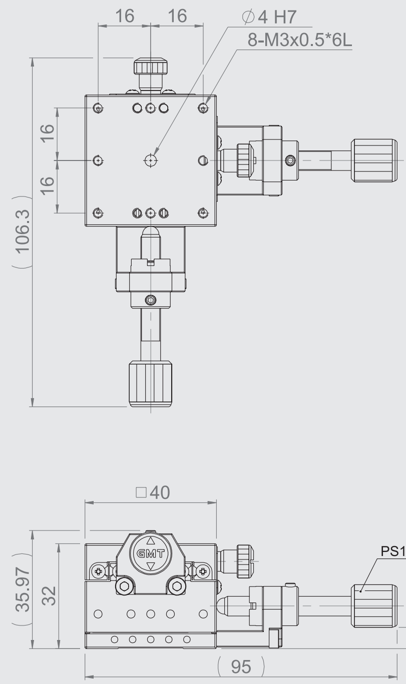
MX40-SS-28



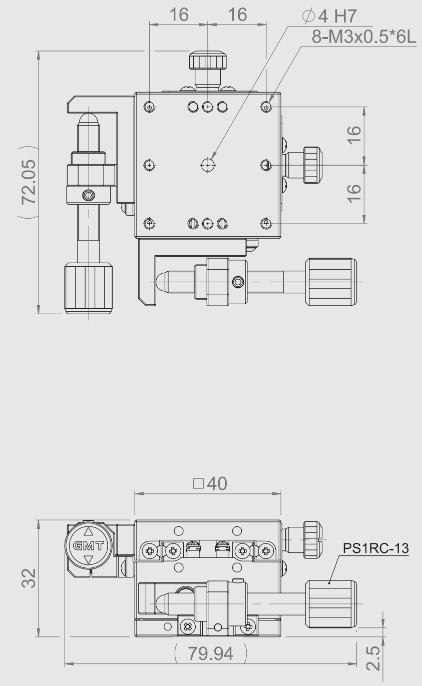


MX(Y)40-S-28
Mounting Dimensions

MY40-SC-28



MY40-SS-28

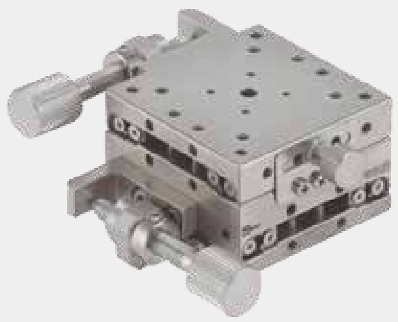


MX50-SC-28

MX50-SS-28

MY50-SC-28

MY50-SS-28



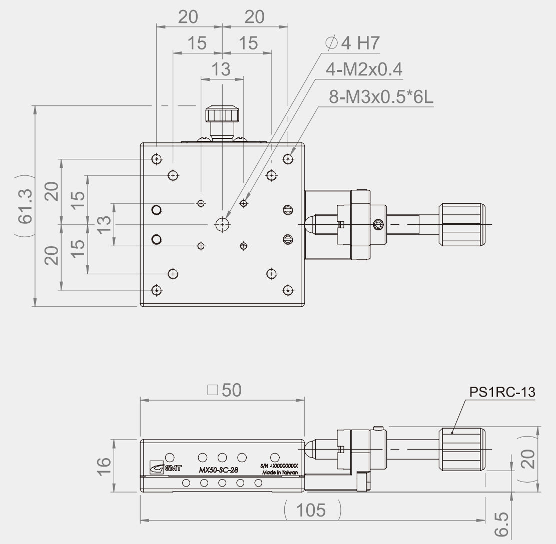
Specification

Unit : mm

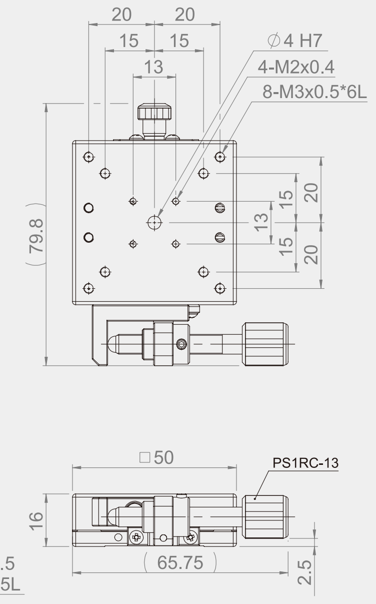
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX50-SC-28	50*50	X-axis	Central	±6.5	0.5	3	15	0.28	SUS 440C	Electroless nickel plating
MX50-SS-28			Side							
MY50-SC-28		XY-axis	Central				14.7	0.56		
MY50-SS-28			Side							

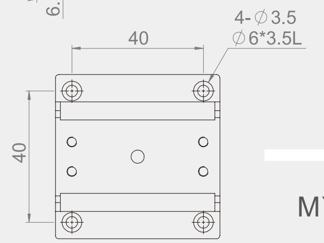
Linear Ball Bearing Stages (Feeding Screw Design) ▶ X-Axis and XY-Axis ▶ Stainless Steel
GMT GLOBAL INC.
Linear Ball Bearing Stages(Feeding Screw Design) | 50*50
Product Specification

MX50-SC-28



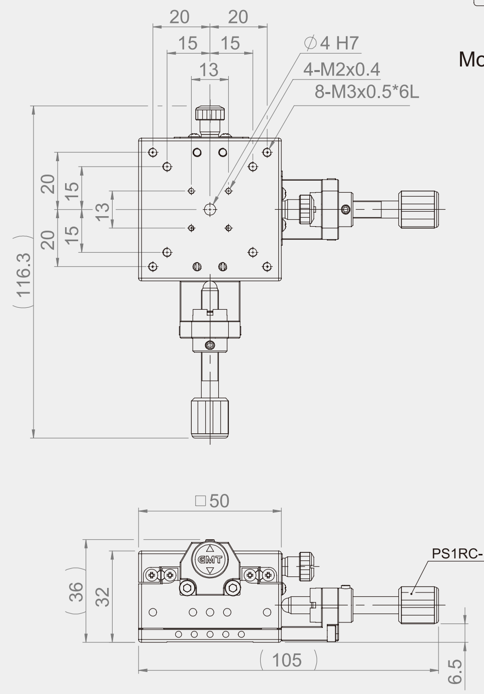
MX50-SS-28



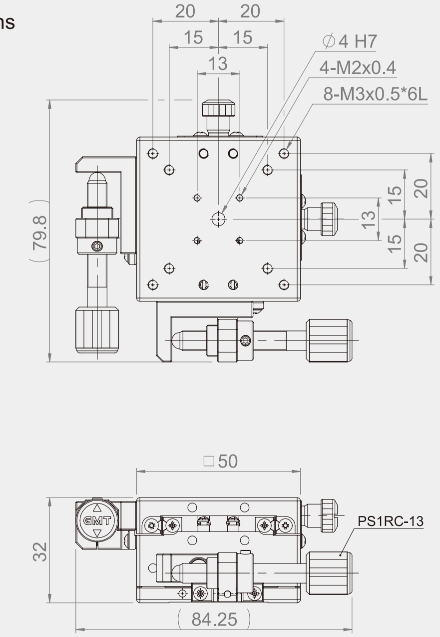


MX(Y)50-S-28
Mounting Dimensions

MY50-SC-28



MY50-SS-28



MX60-SC-28

MX60-SS-28

MY60-SC-28

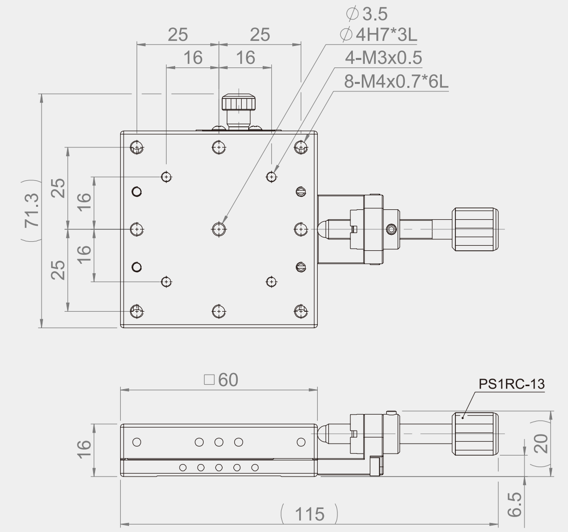
MY60-SS-28

Specification

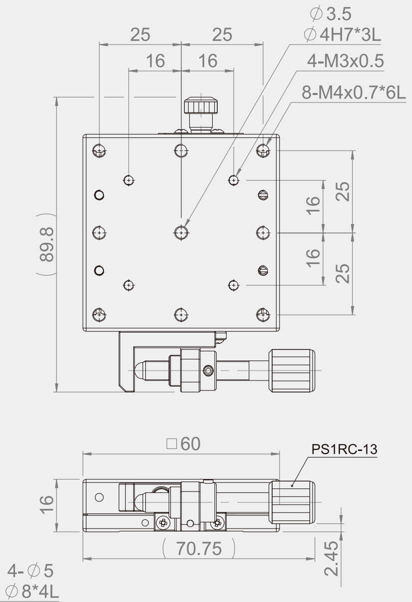
Unit : mm

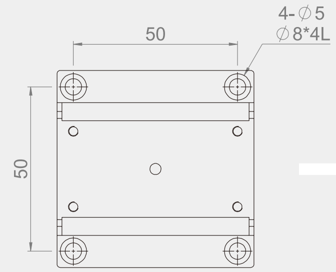
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX60-SC-28	60*60	X-axis	Central	±6.5	0.5	5	20	0.4	SUS 440C	Electroless nickel plating
MX60-SS-28			Side							
MY60-SC-28		XY-axis	Central				19.6	0.8		
MY60-SS-28			Side							

MX60-SC-28



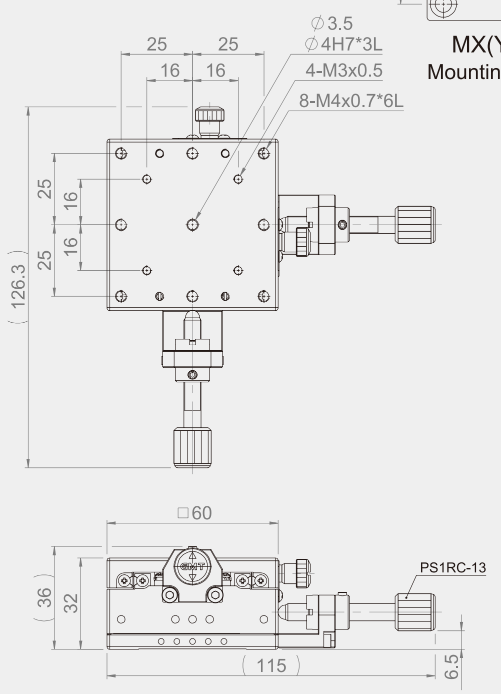
MX60-SS-28



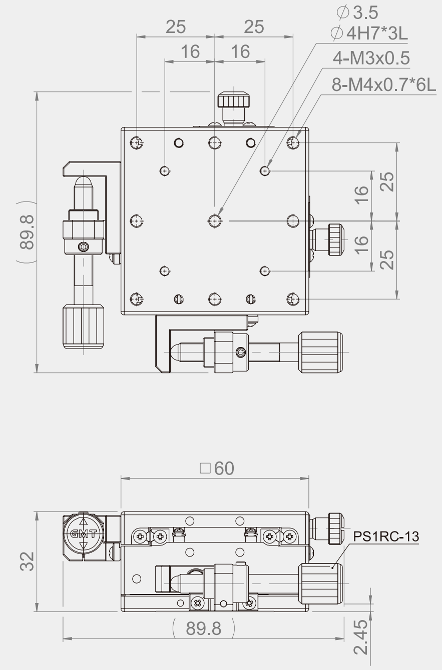


MX(Y)60-S-28
Mounting Dimensions

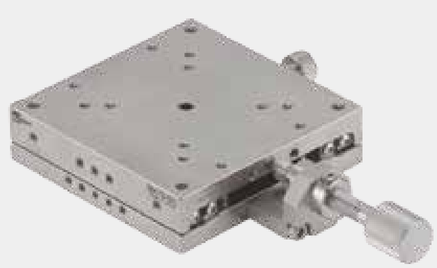
MY60-SC-28



MY60-SS-28



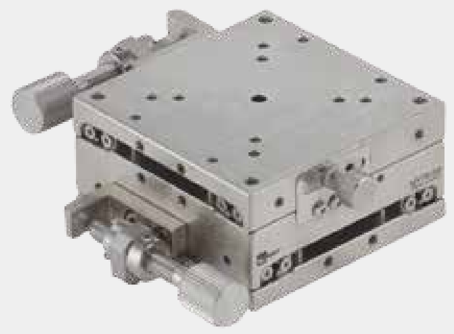
MX70-SC-28



MX70-SS-28

MY70-SC-28

MY70-SS-28

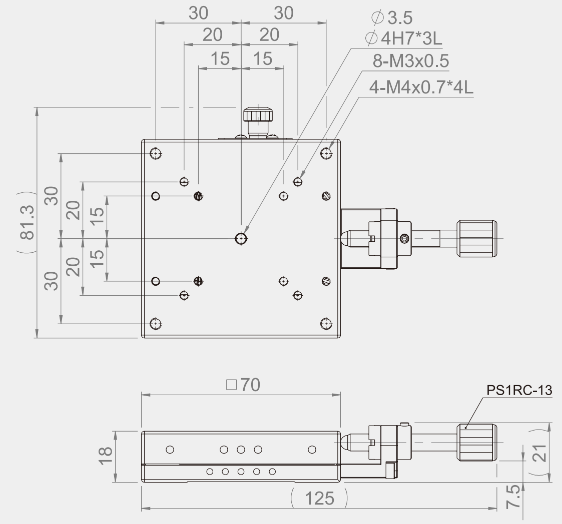


Specification

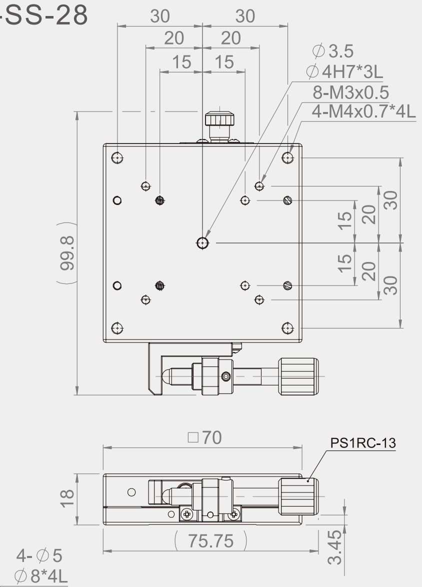
Unit : mm

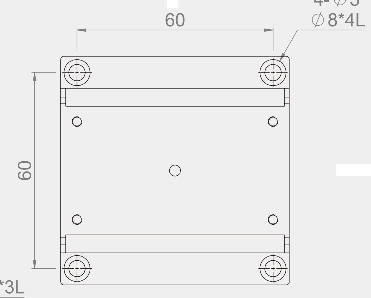
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX70-SC-28	70*70	X-axis	Central	±6.5	0.5	3	23	0.58	SUS 440C	Electroless nickel plating
MX70-SS-28			Side							
MY70-SC-28		XY-axis	Central				22.4	1.16		
MY70-SS-28			Side							

MX70-SC-28



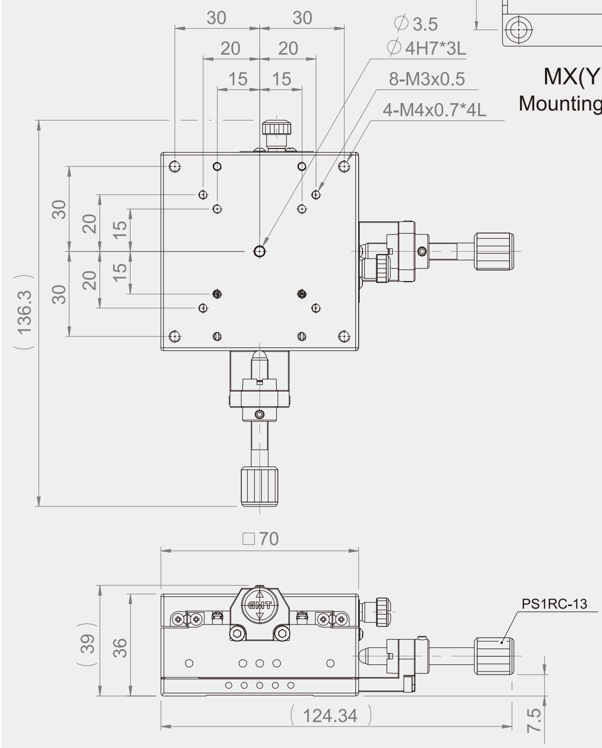
MX70-SS-28



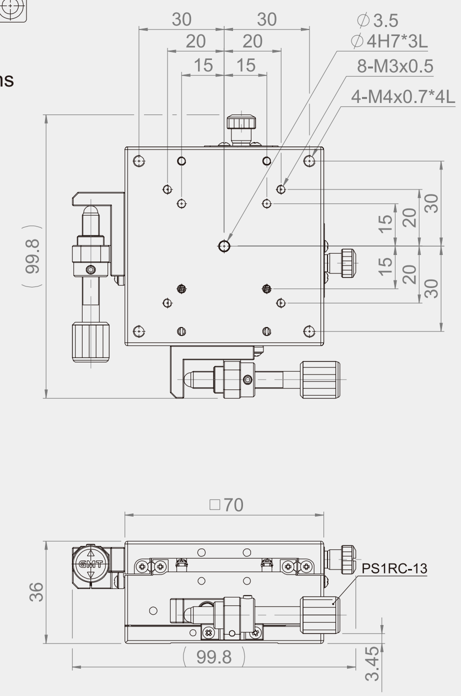


MX(Y)70-S-28
Mounting Dimensions

MY70-SC-28



MY70-SS-28

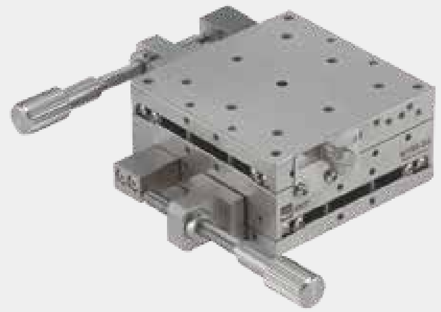


MX80-SC-28

MX80-SS-28

MY80-SC-28

MY80-SS-28

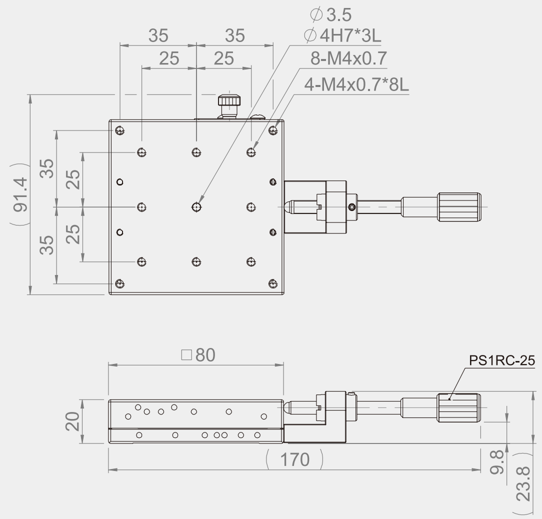


Specification

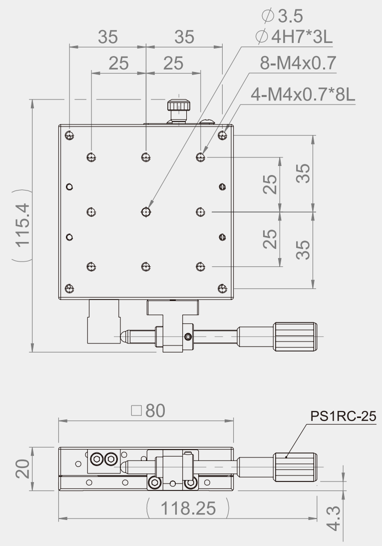
Unit : mm

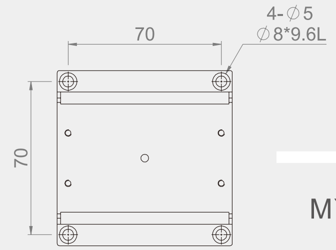
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX80-SC-28	80*80	X-axis	Central	±12.5	0.5	3	27	0.9	SUS 440C	Electroless nickel plating
MX80-SS-28			Side							
MY80-SC-28		XY-axis	Central				26.1	1.8		
MY80-SS-28			Side							

MX80-SC-28



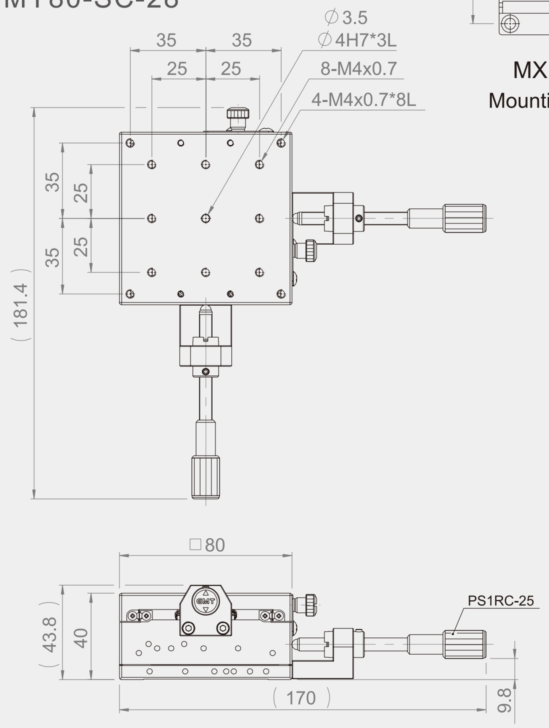
MX80-SS-28



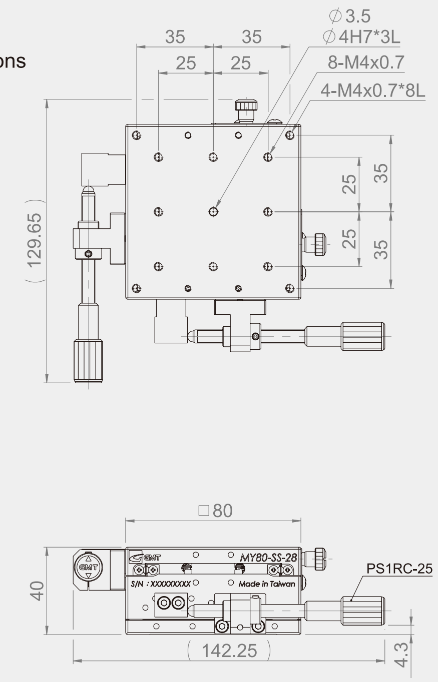


MX(Y)80-S-28
Mounting Dimensions

MY80-SC-28



MY80-SS-28

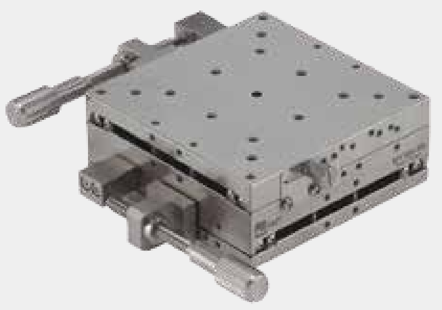


MX100-SC-28

MX100-SS-28

MY100-SC-28

MY100-SS-28

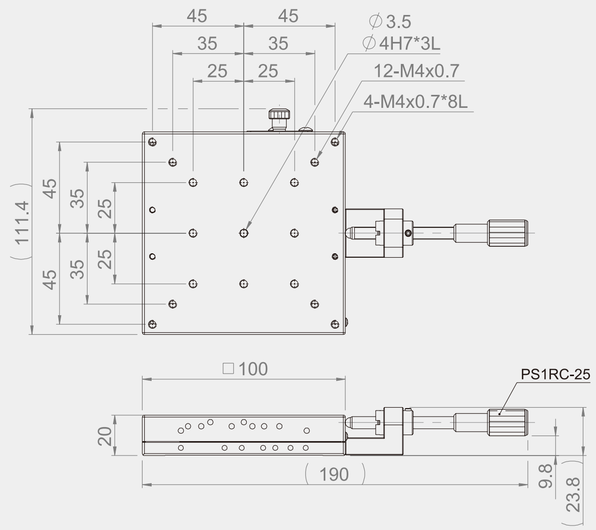


Specification

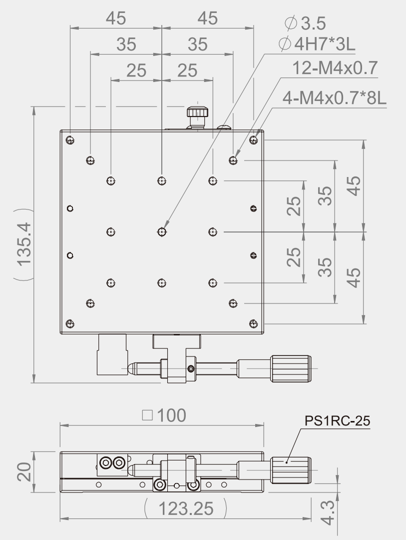
Unit : mm

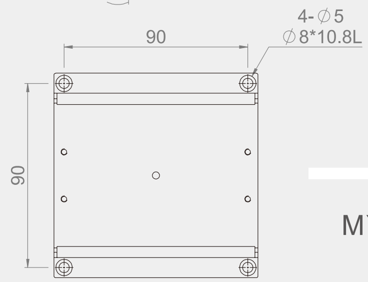
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation (mm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX100-SC-28	100*100	X-axis	Central	±12.5	0.5	3	35	1.33	SUS 440C	Electroless nickel plating
MX100-SS-28			Side							
MY100-SC-28		XY-axis	Central				33.6	2.66		
MY100-SS-28			Side							

MX100-SC-28



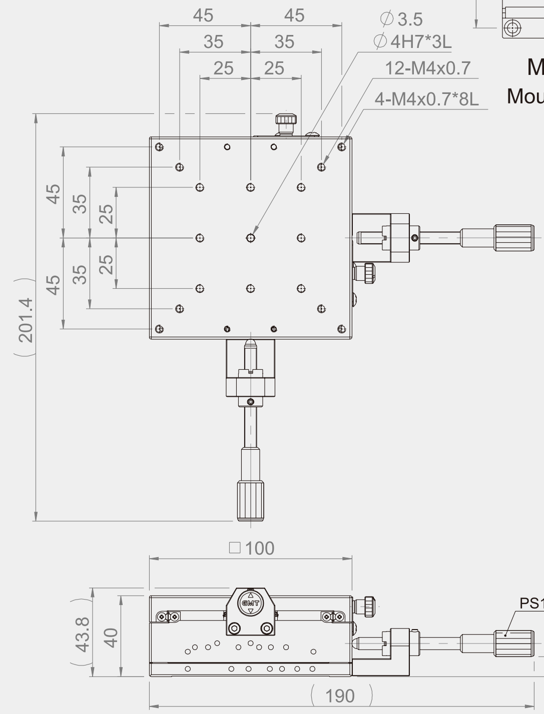
MX100-SS-28



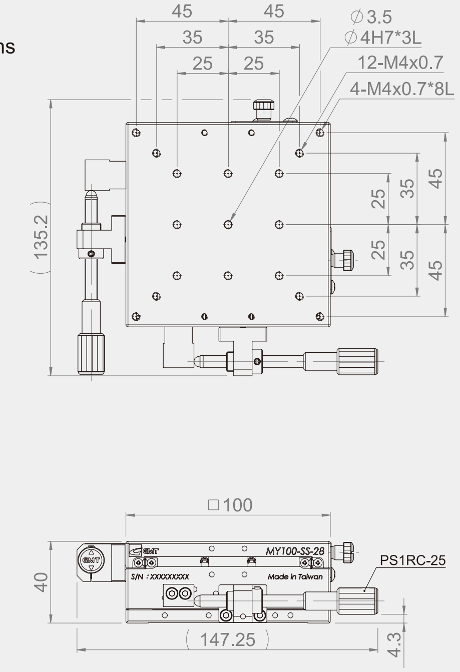


MX(Y)100-S-28
Mounting Dimensions

MY100-SC-28



MY100-SS-28



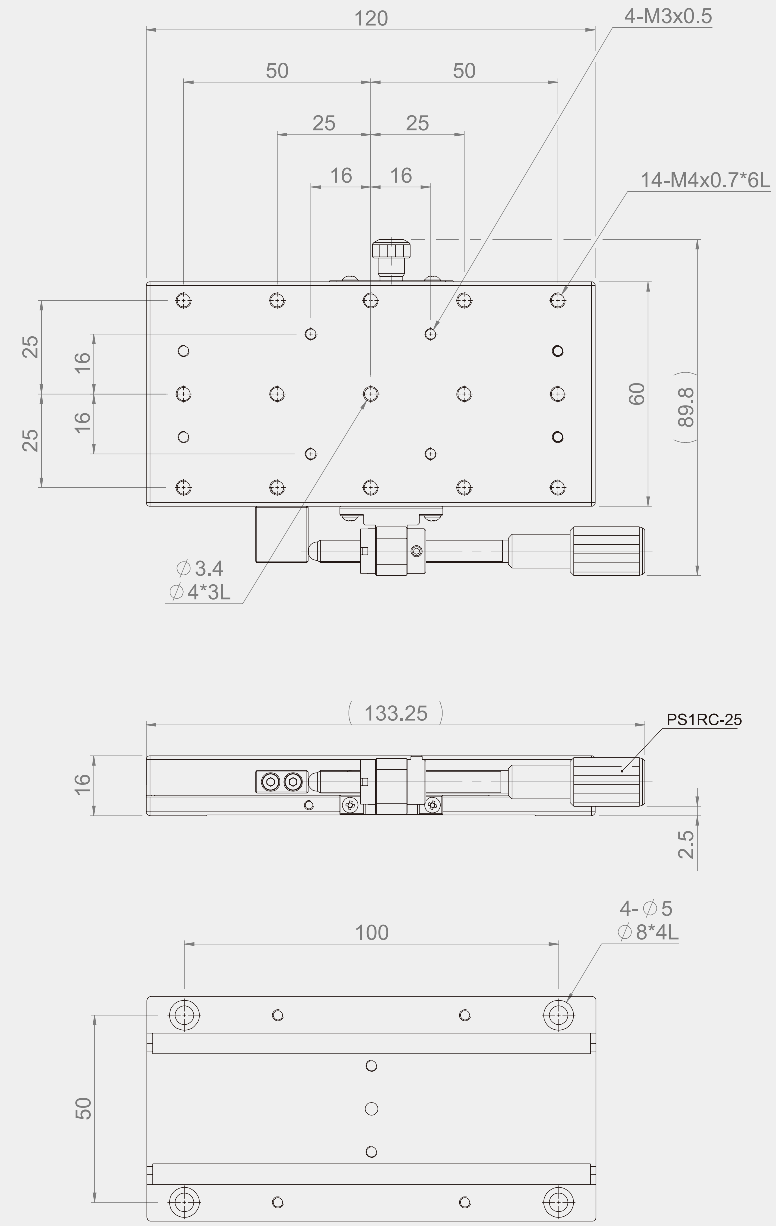
MX60L-SS-28

Specification

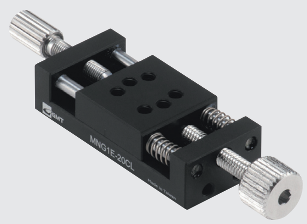
Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MX60L-SS-28	60*120	X-axis	Side	±12.5	10	3	16	0.76	SUS440C	Electroless nickel plating

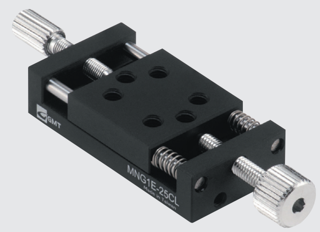
Linear Ball Bearing Guiding (Feeding Screw Type) X-Axis Stainless Steel
Linear Ball Bearing Guiding(Feeding Screw Type) | X Axis | 60*120
GMT GLOBAL INC.
Product Specification



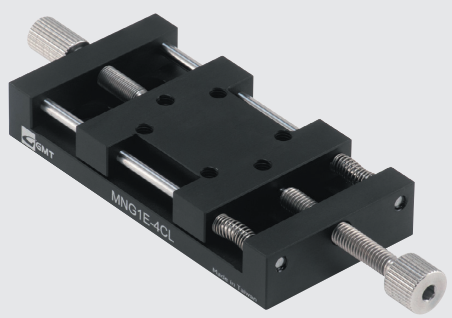
MNG1E-20CL



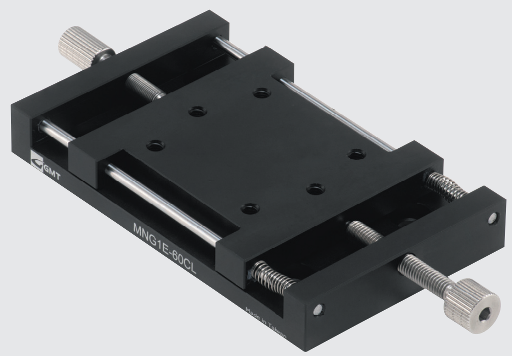
MNG1E-25CL



MNG1E-40CL



MNG1E-60CL



Specification

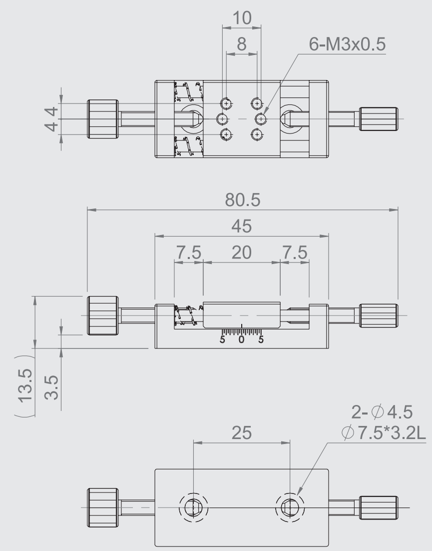
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Minimum Reading (mm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MNG1E-20CL	20*20	X-axis	±5	0.5	0.2	0.038	Aluminum alloy	Black anodized
MNG1E-25CL	25*25					0.055		
MNG1E-40CL	40*40		±7.5		1.5	0.104		
MNG1E-60CL	60*60					0.193		

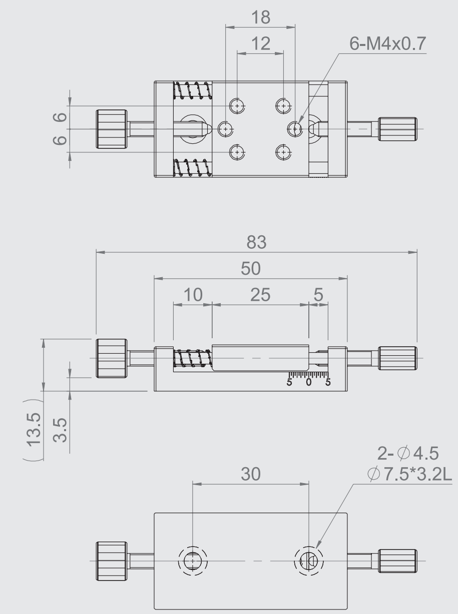
★ A full rotation of the feeding screw knob equals a 0.5mm stroke.

Simplified Stage ▶ X-Axis ▶ Feeding Screw Type
Simplified Stage | X-Axis
GMT GLOBAL INC.
Product Specification

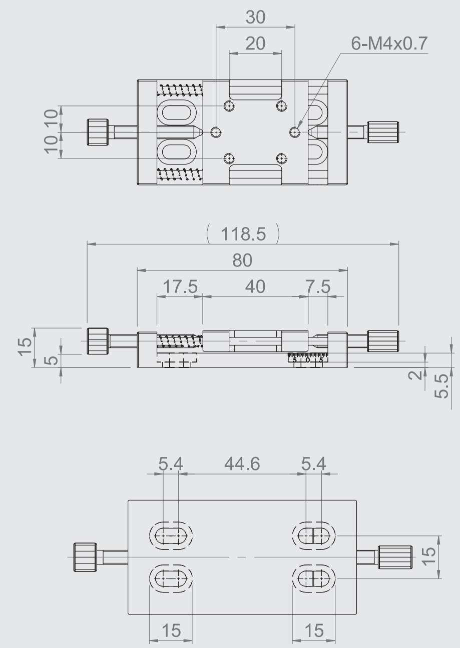
MNG1E-20CL



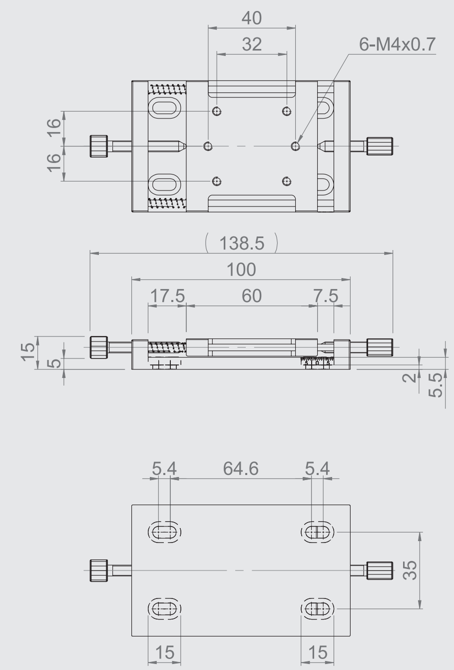
MNG1E-25CL



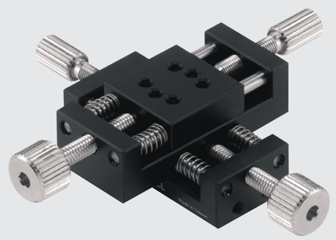
MNG1E-40CL



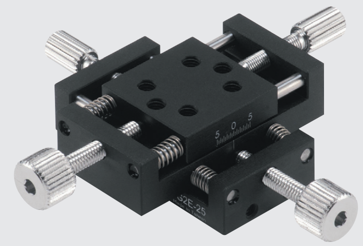
MNG1E-60CL



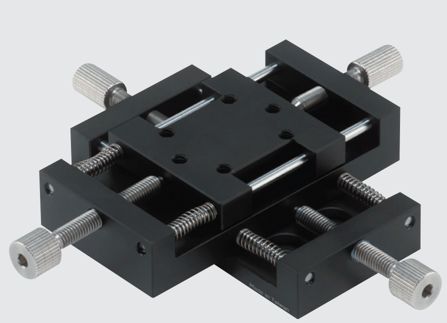
MNG2E-20CL



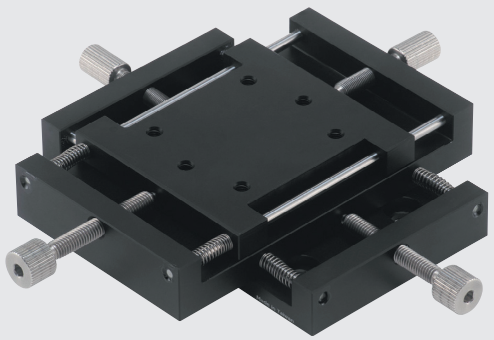
MNG2E-25CL



MNG2E-40CL



MNG2E-60CL



Specification

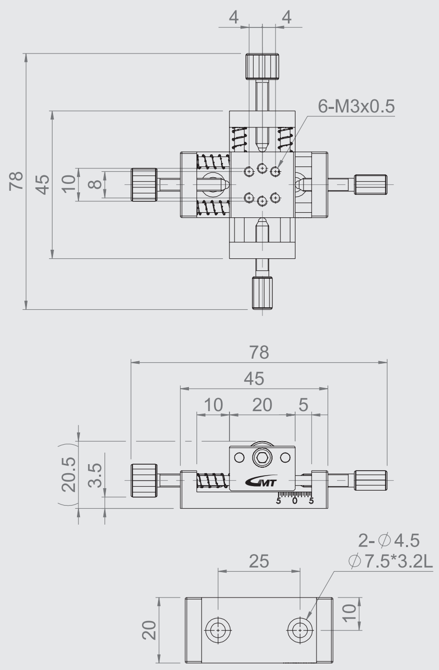
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Minimum Reading (mm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MNG2E-20CL	20*20	XY-axis	±5	0.5	1	0.038	Aluminum alloy	Black anodized
MNG2E-25CL	25*25					0.055		
MNG2E-40CL	40*40		±7.5		1.5	0.202		
MNG2E-60CL	60*60					0.358		

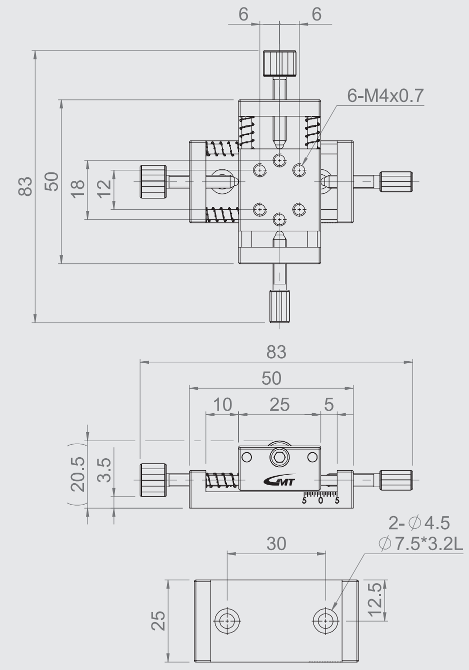
★ A full rotation of the feeding screw knob equals a 0.7mm stroke.

Simplified Stage ▶ XY-Axis ▶ Feeding Screw Type
Simplified Stage | XY-Axis
GMT GLOBAL INC.
Product Specification

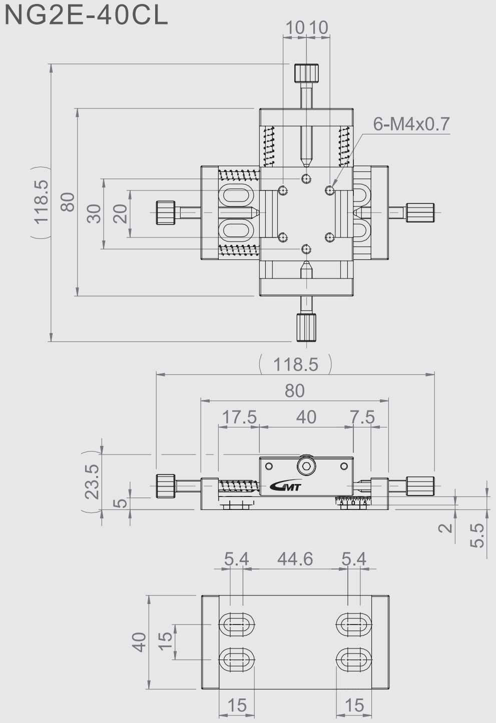
MNG2E-20CL



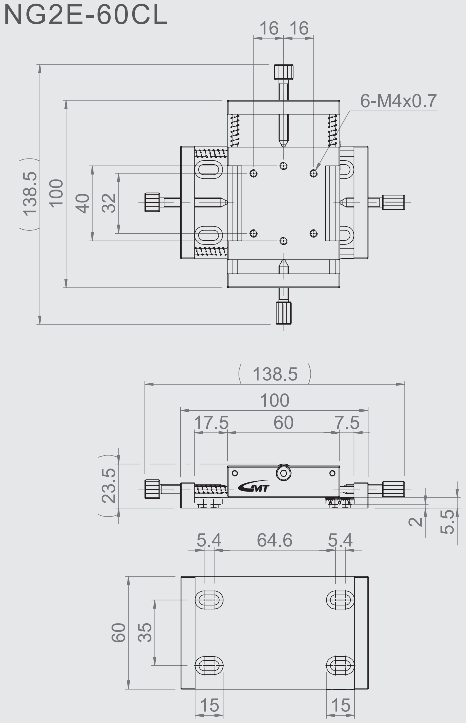
MNG2E-25CL



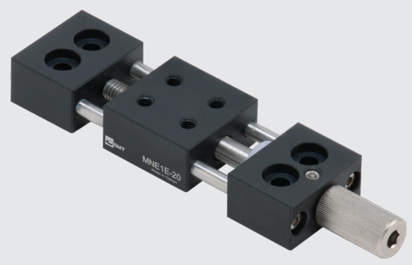
MNG2E-40CL



MNG2E-60CL



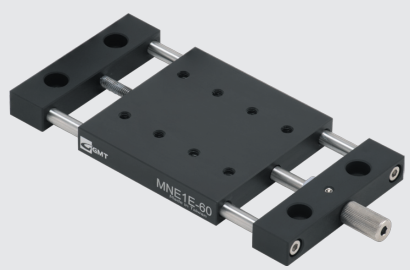
MNE1E-20



MNE1E-25

MNE1E-40

MNE1E-60

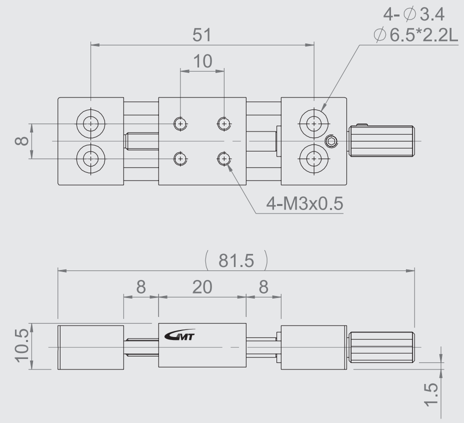


Specification

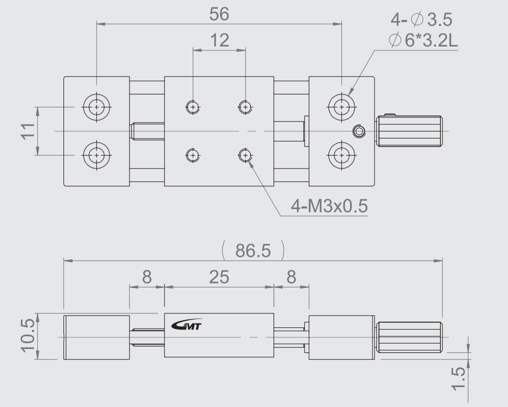
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation (mm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MNE1E-20	20*20	X-axis	±7	0.7	2	0.039	Aluminum alloy	Black anodized
MNE1E-25	25*25					0.049		
MNE1E-40	40*40		±9		4	0.104		
MNE1E-60	60*60		±13			0.176		

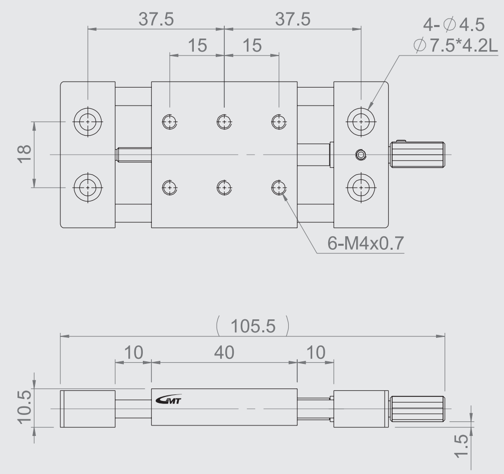
MNE1E-20



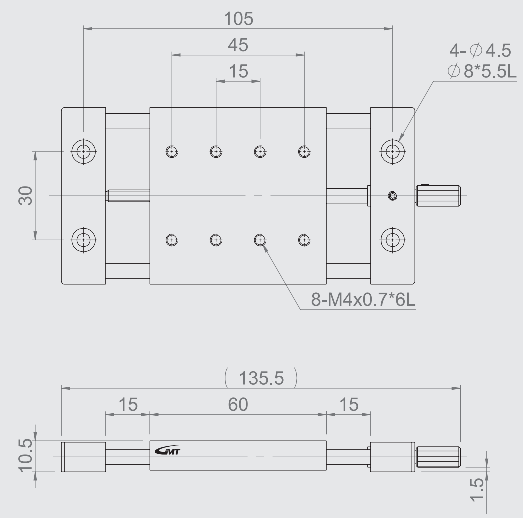
MNE1E-25



MNE1E-40



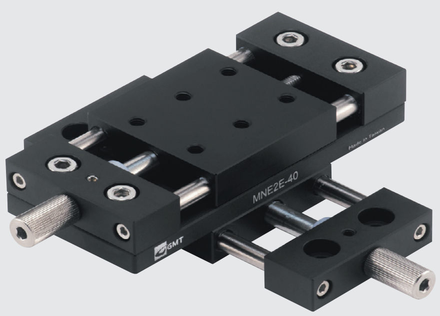
MNE1E-60



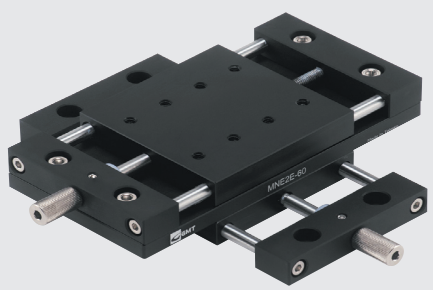
MNE2E-20

MNE2E-25

MNE2E-40



MNE2E-60



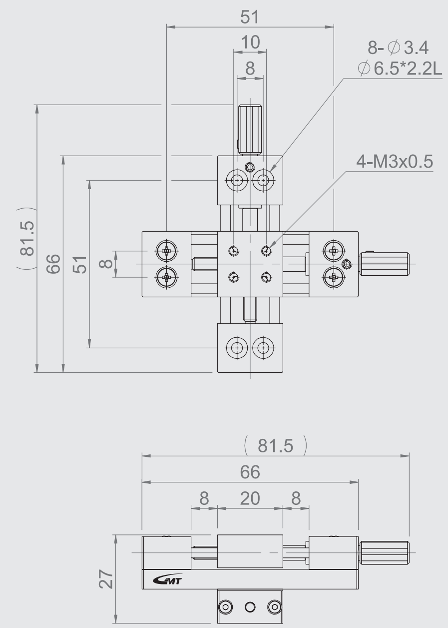
Specification

Unit : mm

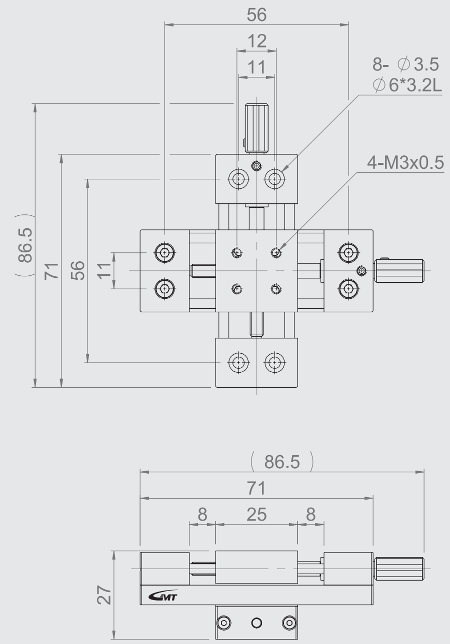
Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation (mm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MNE2E-20	20*20	XY-axis	±7	0.7	1.9	0.1	Aluminum alloy	Black anodized
MNE2E-25	25*25					0.13		
MNE2E-40	40*40		±9		3.7	0.27		
MNE2E-60	60*60		±13			0.48		

Simplified Stage (Mini Type) ▶ XY-Axis ▶ Leadscrew Type
Simplified Stage | XY-Axis
GMT GLOBAL INC.
Product Specification

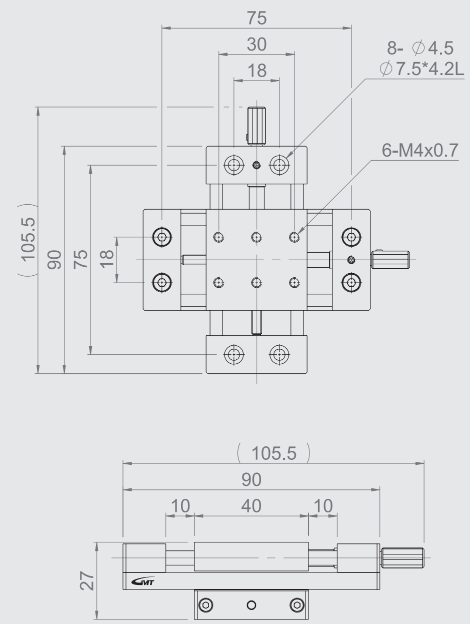
MNE2E-20



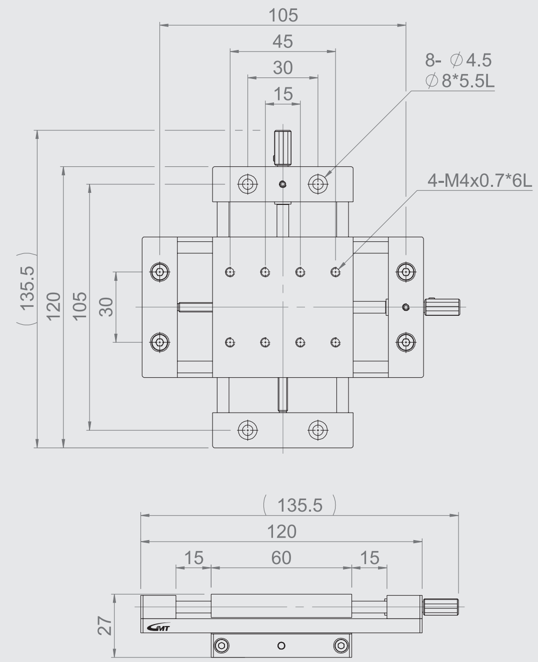
MNE2E-25



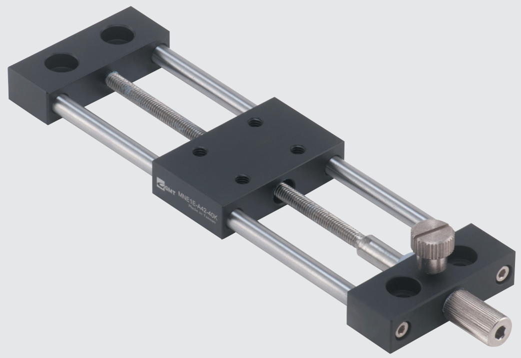
MNE2E-40



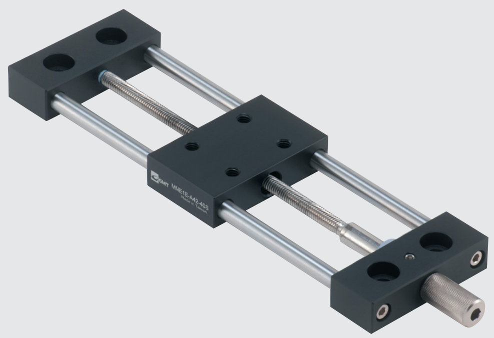
MNE2E-60



Threaded Type



Set Screw Type



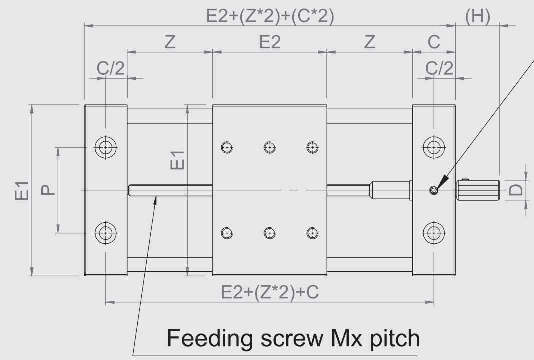
Unit : mm

Specification

Part Name	Body	Lead Axle	Knob	Feeding Screw
Material	A6063	SUS 304	SUS 303	SUS 304

Model No.	Thickness (T)	Table Size Code (E1*E2)	Z (Stroke Options)	Allowable Loading (kgf)	C	Position Fixing Type
MNE1E	A(10)	44 (40*40)	10, 25, 40, 60	(Z=10, 25) 4	15 mm	S (Set screw) K (Threaded)
		42 (40*25)		(Z=40, 60) 3.5		
		66 (60*60)	15, 30, 50, 70	(Z=15, 30) 4		S (Set screw) K (Threaded)
		64 (60*40)		(Z=50, 70) 3.5		
	B(20)	44 (40*40)	10, 25, 40, 60	(Z=10, 25) 8	25 mm	S (Set screw) K (Threaded)
		42 (40*25)		(Z=40, 60) 7		
		66 (60*60)	15, 30, 50, 70	(Z=15, 30) 8		S (Set screw) K (Threaded)
		64 (60*40)		(Z=50, 70) 7		

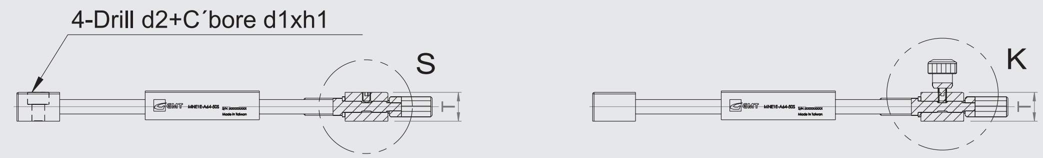
Simplified Stage (Mini Type) ▶ X-Axis ▶ Optional Combination
Simplified Stage | X-Axis
GMT GLOBAL INC.
Product Specification



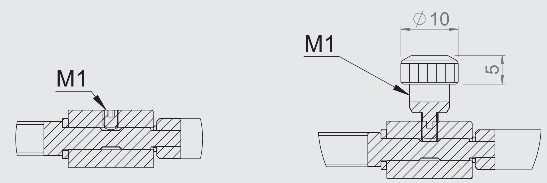
T	E1	P
10	40	18
	60	30
20	40	14
	60	30

T	d1	h1	d2
10	7.5	4.2	4.5
20	9	5.2	5.5

T	C	D	(H)	MxPitch	M1
10	15	7	16	M4xP0.7	3
20	25	10	30	M6xP1.0	4



Mounting Type

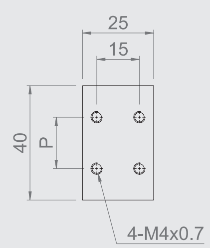


S(Standard set screw)

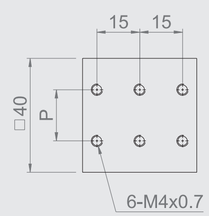
K(Threaded)

Upper Mounting Hole Positions

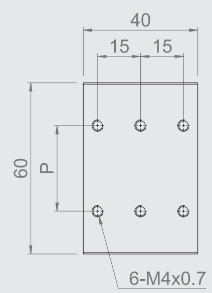
42(40*25)



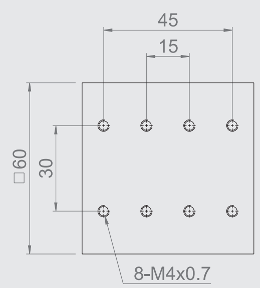
44(40*40)



64(60*40)



66(60*60)



MN1A-12

MN2A-12

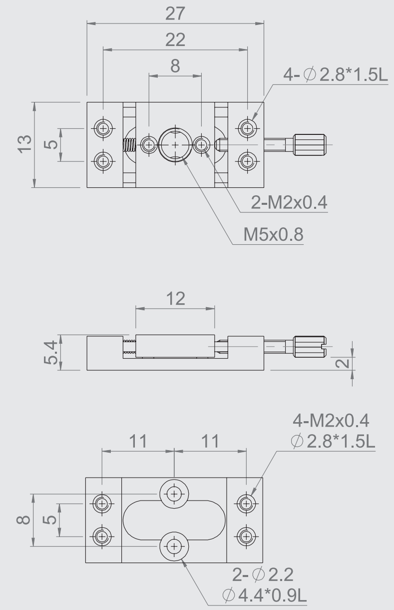
Specification

Unit : mm

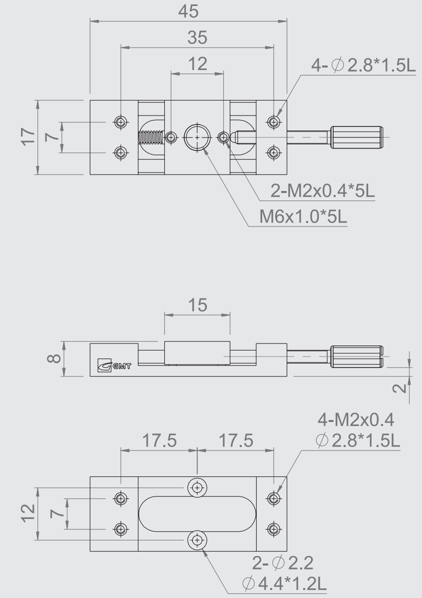
Model No.	Table Size	Axis	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MN1A-12	12*13	X-axis	±1.7	No scale	50	0.5	0.005	Aluminum alloy	Black anodized
MN1A-15	15*17		±5			1	0.02		
MN2A-12	12*13	XY-axis	±1.7			0.5	0.01		
MN2A-15	15*17		±5			1	0.04		

Simplified Stage (Mini Type) ▶ X-Axis and XY-Axis ▶ Micro-Designed Type
Simplified Stage | X-Axis and XY-Axis
GMT GLOBAL INC.
Product Specification

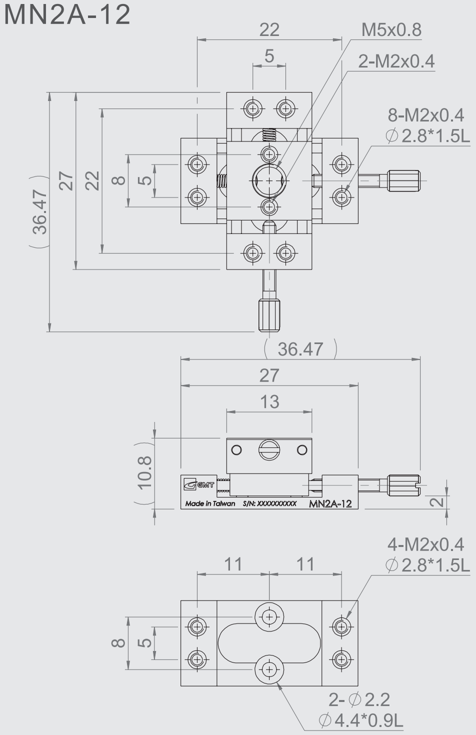
MN1A-12



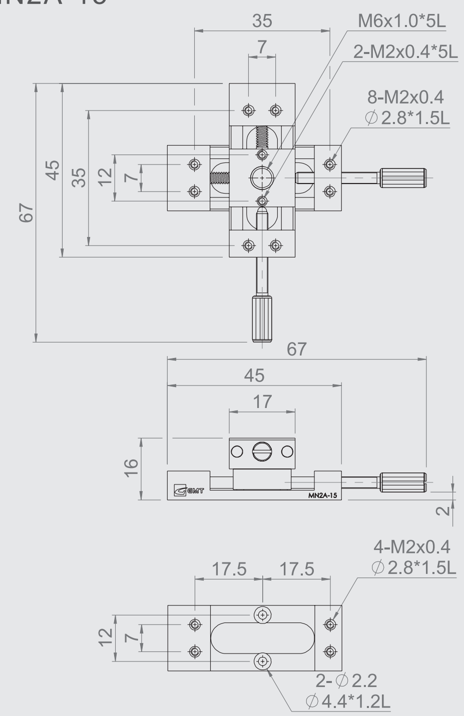
MN1A-15



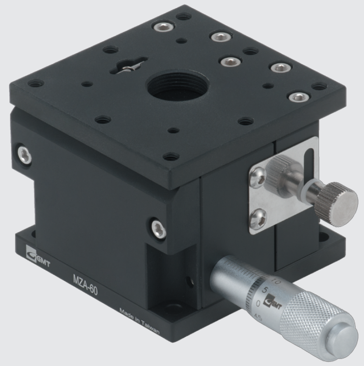
MN2A-12



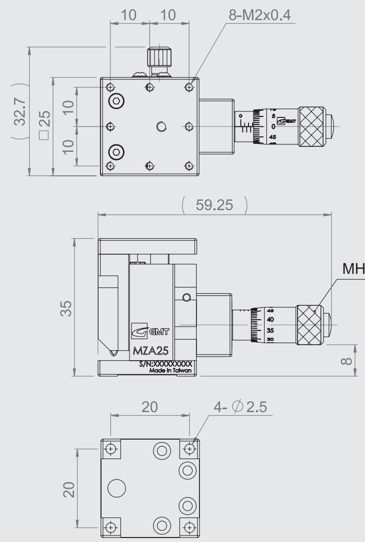
MN2A-15



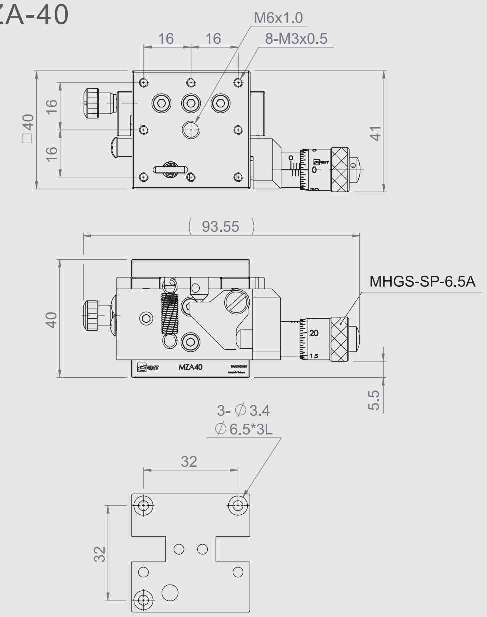
MZA-60



MZA-25



MZA-40

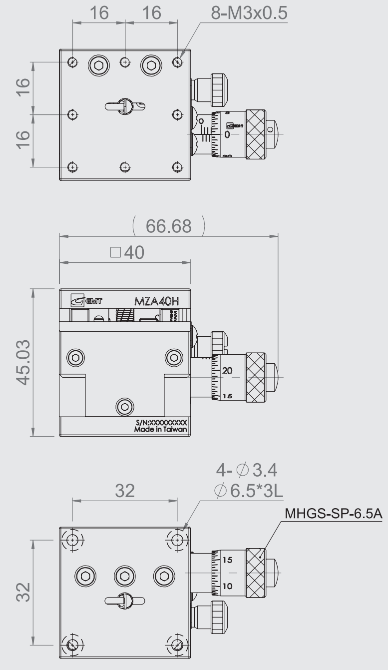


Specification

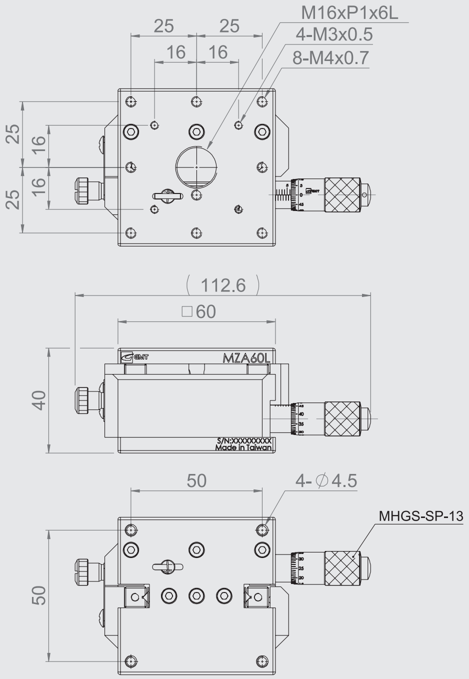
Unit : mm

Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading (μm)	Parallelism (μm)	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MZA-25	25*25	± 2.0	10	100	3	1	0.06	Aluminum alloy	Black anodized
MZA-40	40*40	± 3.0				1	0.2		
MZA-40H	40*40	± 3.0				2	0.2		
MZA-60L	60*60	± 3.0				2	0.3		
MZA-60	60*60	± 5.0				4	0.6		
MZA-80	80*80					3	1.0		

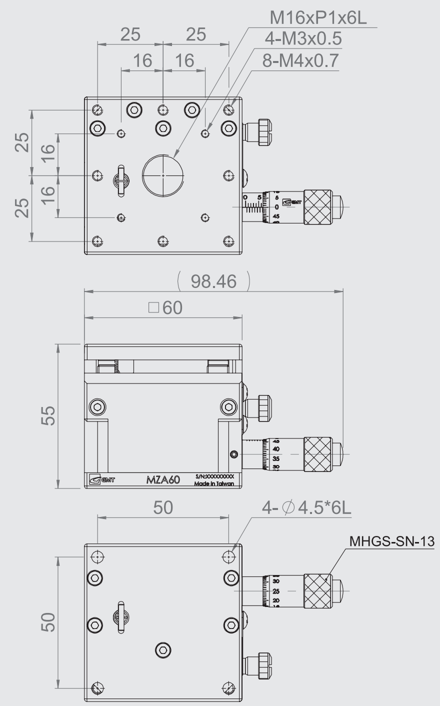
MZA-40H



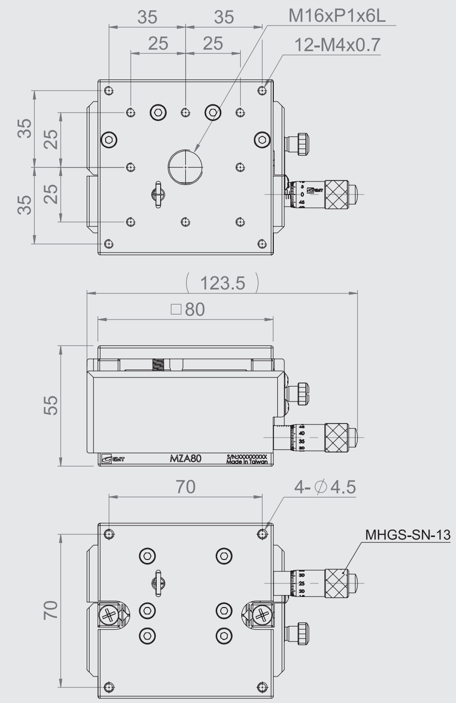
MZA-60L



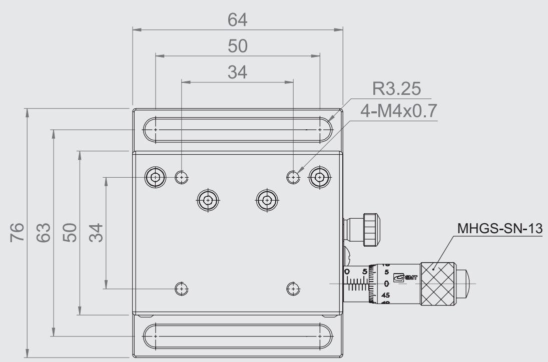
MZA-60

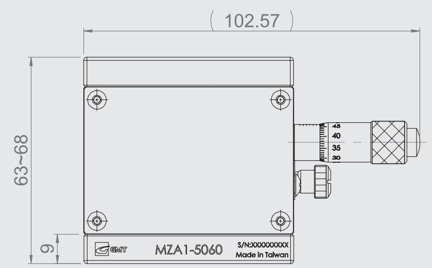


MZA-80



MZA1-5060



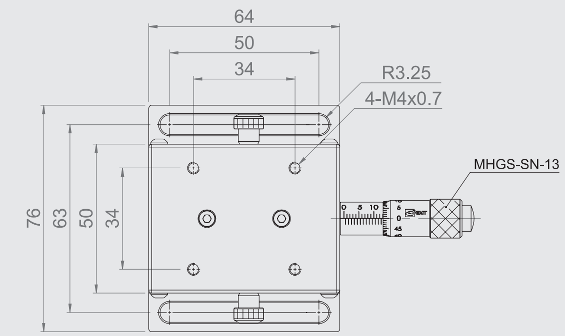


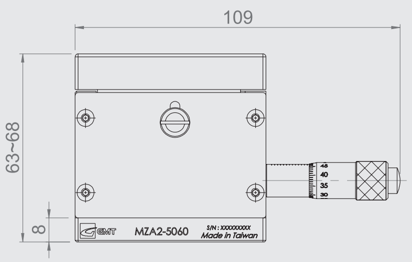
Specification

Unit : mm

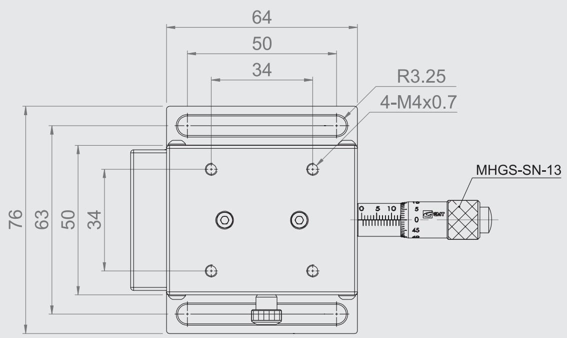
Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading (μm)	Horizontal Deviation of Elevation (mm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MZA1-5060					7	0.62		
MZA2-5060	50*64	5	10	0.03	8	0.63	Aluminum alloy	Black anodized
MZA3-5060					10	0.72		

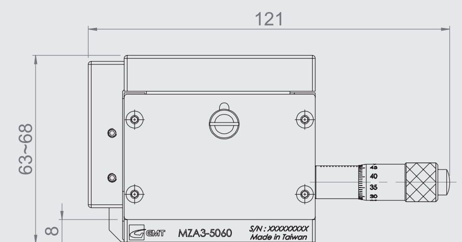
MZA2-5060





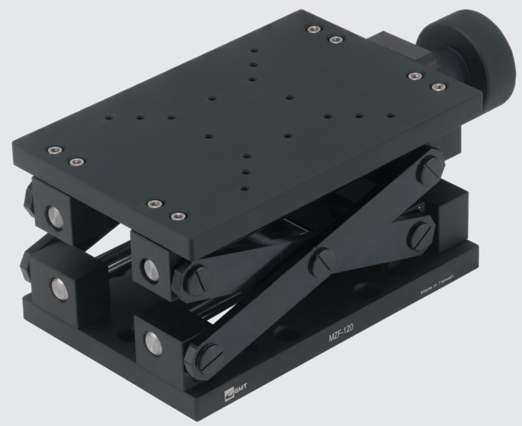
MZA3-5060





MZF-80

MZF-120

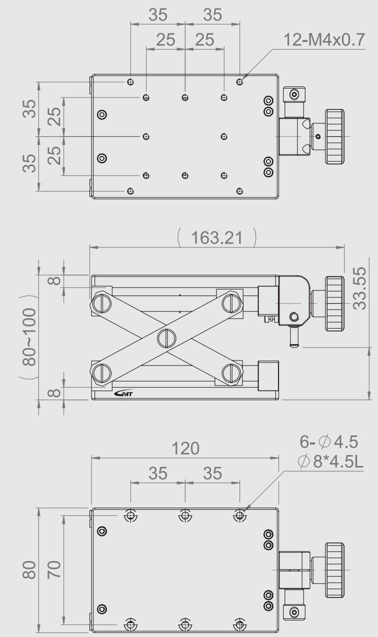


Specification

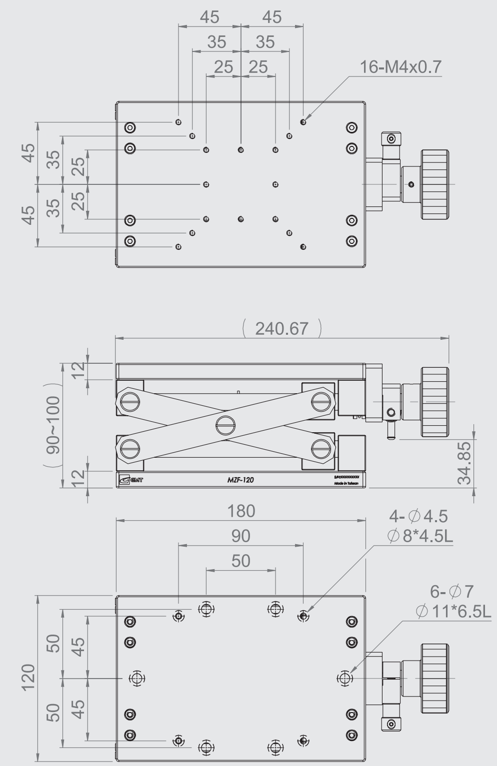
Unit : mm

Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Parallelism (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MZF-80	80*120	40	2	200	7	1.25	Aluminum alloy	Black anodized
MZF-120	120*180	70	3		10	3.5		

MZF-80

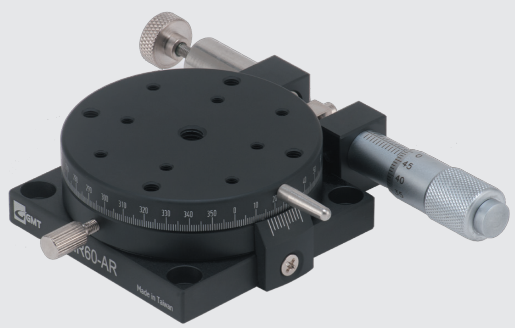


MZF-120



MR38-AR

MR60-AR



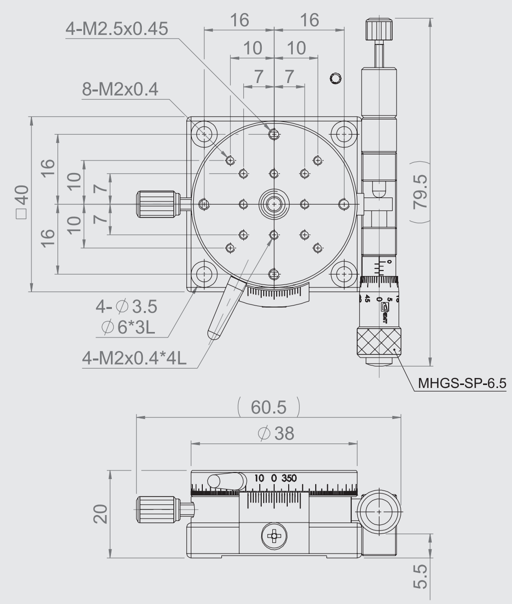
Specification

Unit : mm

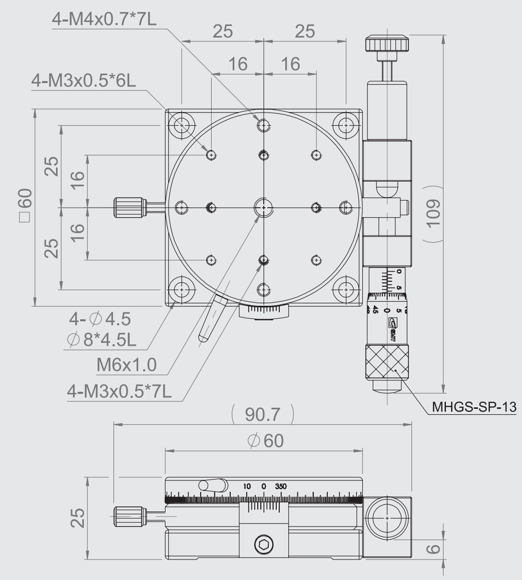
Model No.	Table Size	Travel Stroke	Rotation Accuracy	Micrometer Minimum Reading	Offset (Eccentric)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MR38-AR	Ø 38	Cursory 360° Fine ± 5°	0.2°	≒ 1'26"/ Vernier	0.05	1	0.09	Aluminum alloy	Black anodized
MR60-AR	Ø 60			≒ 55"/ Vernier		3	0.28		
MR85-AR	Ø 85		0.1°	≒ 43"/ Vernier		4	0.48		
MR110-AR	Ø 110			≒ 34"/ Vernier		5	0.75		

★ MR series have been integrated with the brass rotation interface.

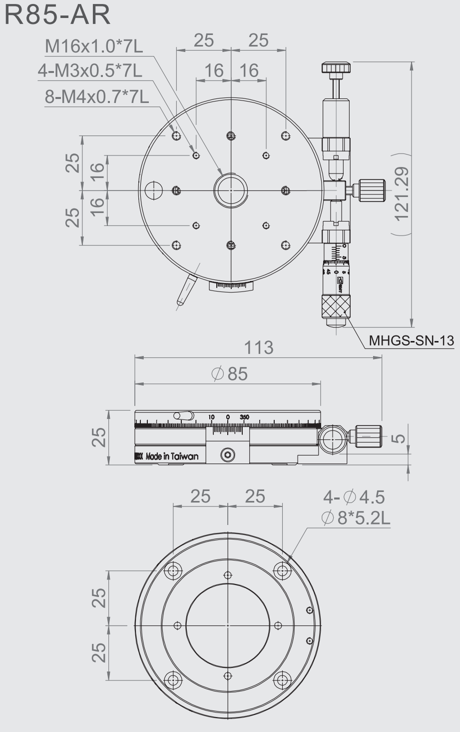
MR38-AR



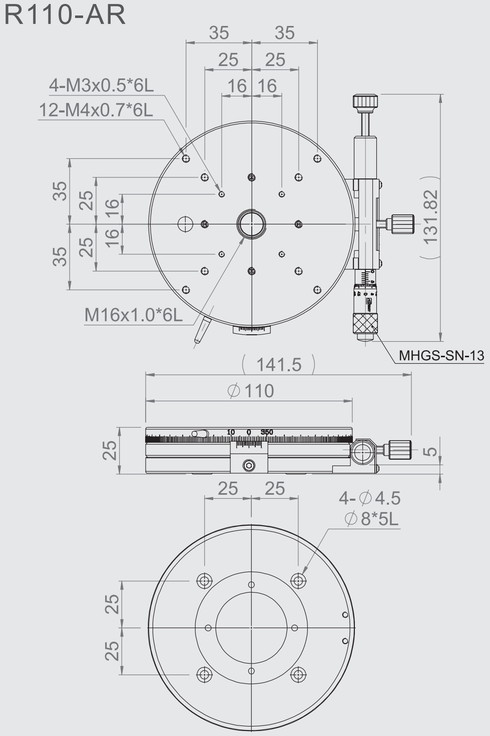
MR60-AR



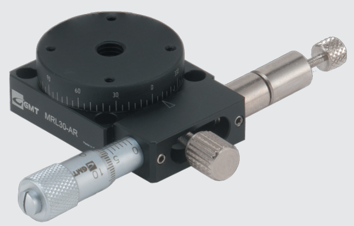
MR85-AR



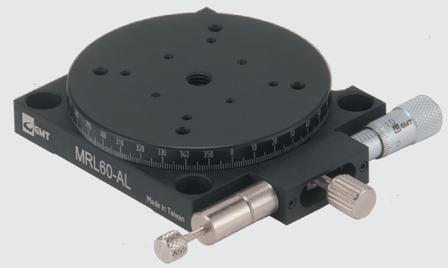
MR110-AR



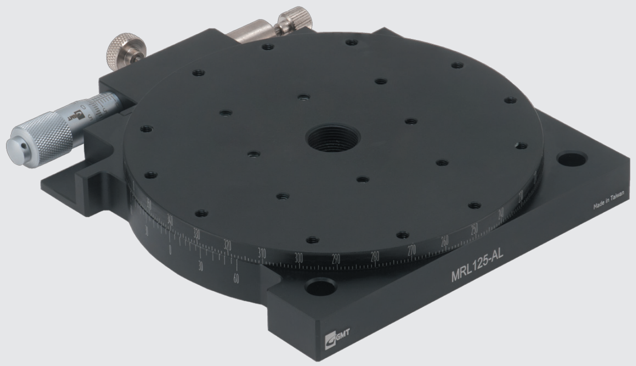
MRL30-AR



MRL60-AL



MRL125-AL



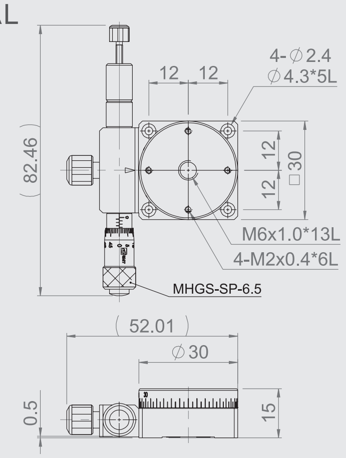
Specification

Unit : mm

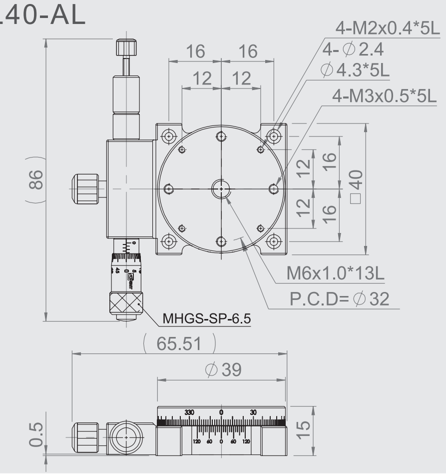
Model No.	Table Size	Travel Stroke	Rotation Accuracy	Micrometer Minimum Reading	Offset (Eccentric)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MRL30-AL	Ø 30	Cursory 360° Fine ± 5°	5°	≒ 1'38"	0.02	1	0.1	Aluminum alloy	Black anodized
MRL40-AL	Ø 40		2°	≒ 1'11"	0.05	1.5	0.1		
MRL60-AL	Ø 60		1°	≒ 58"	0.04	3	0.2		
MRL90-AL	Ø 90		1°	≒ 36"	0.04	3	0.5		
MRL125-AL	Ø 125		1°	≒ 28"	0.05	3	0.9		

★ MR series have been integrated with the brass rotation interface.

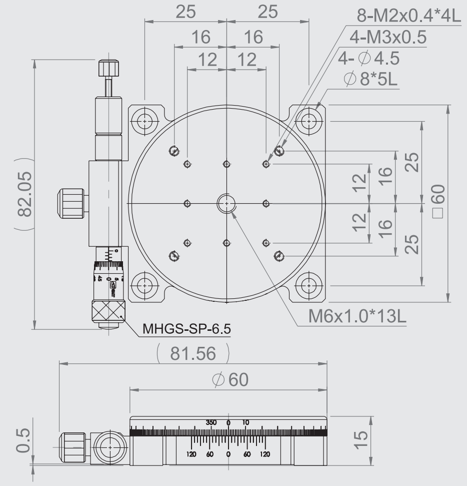
MRL30-AL



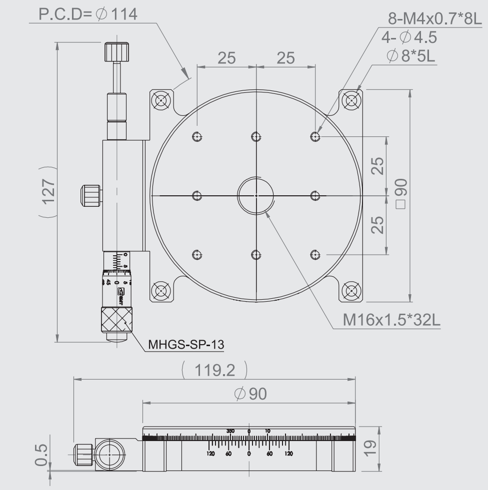
MRL40-AL



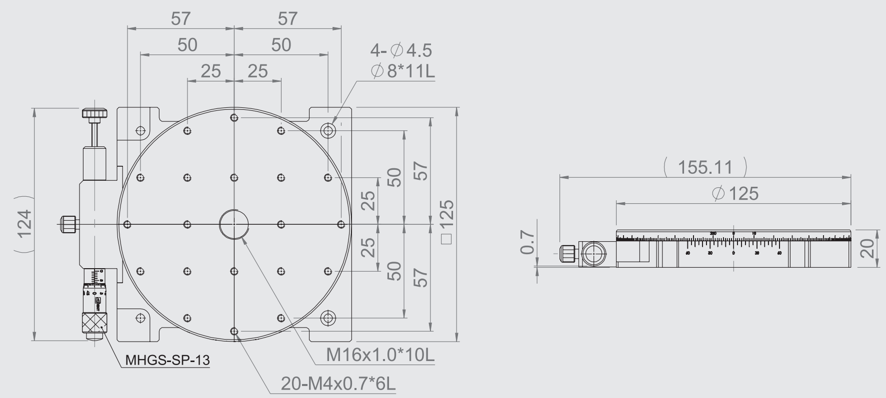
MRL60-AL



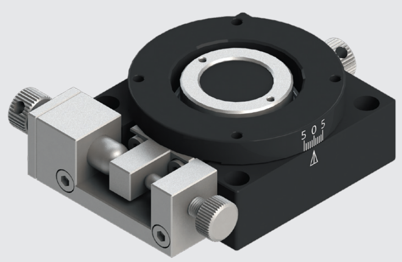
MRL90-AL

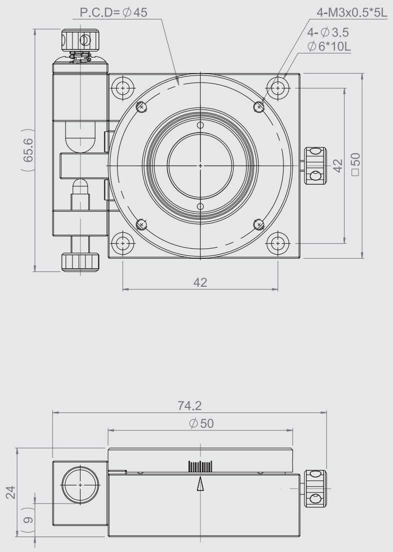


MRL125-AL

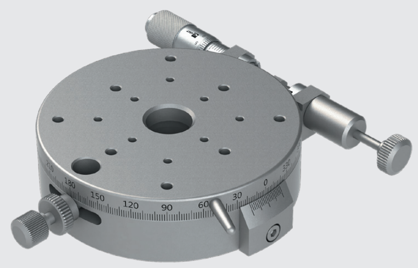


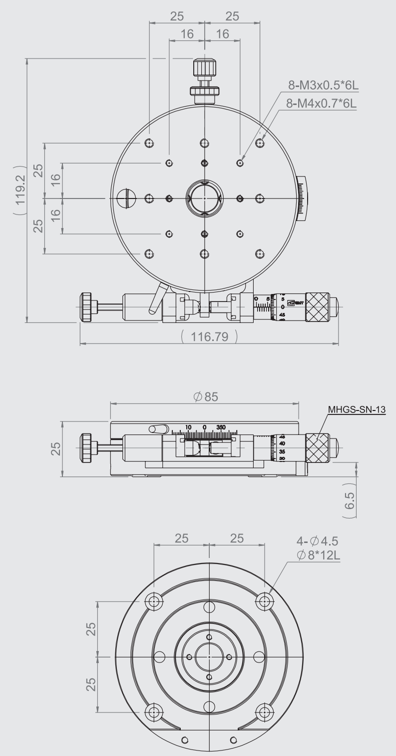
MR50-AR-48





MR85-S





Specification

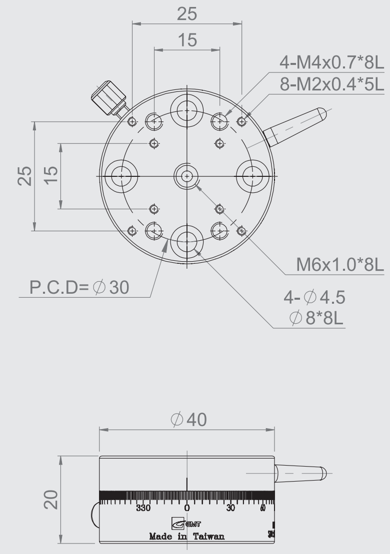
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Micrometer Minimum Reading	Offset (Eccentric)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MR50-AR-48	Ø 50	Θ-axis	±5.5˚	0.1˚	0.05	1.8	0.26	Aluminum alloy	Black anodized
MR85-S	Ø 85		360˚ Cursory ±5.5˚(Fine)			6	1	Stainless stell	

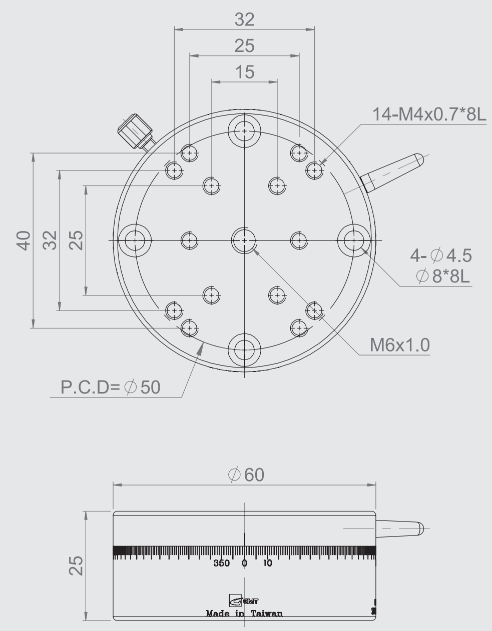
★ Combinable with MC1B (P.149)、MC2B (P.150)、MC4B (P.151)、MC1C (P.152)

★ MRE-60AL requires ASAP 60˚(page 233)

MRE40-A



MRE60-A



Specification

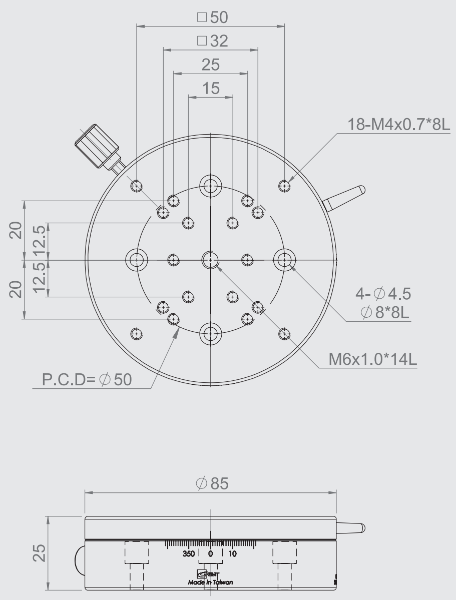
Unit : mm

Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading	Offset (Eccentric)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MRE40-A	Ø 40	Cursory 360°	2°	0.05	5	0.14	Aluminum alloy	Black anodized
MRE60-A	Ø 60		1°		7	0.2		

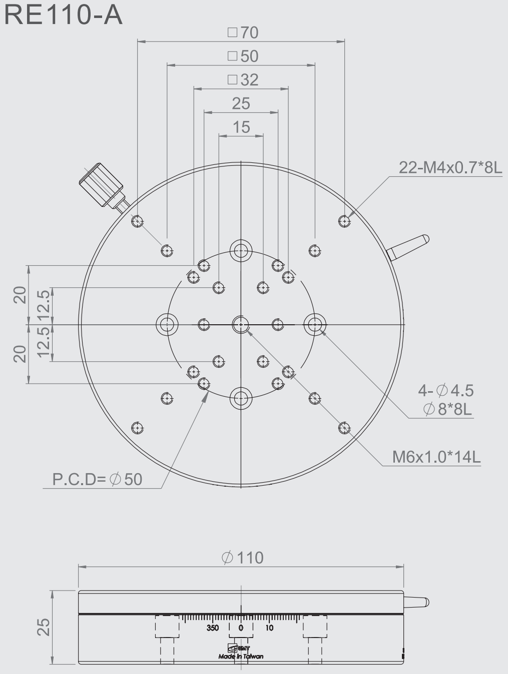
MRE85-A

MRE110-A

MRE85-A



MRE110-A

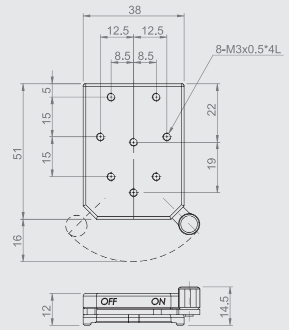


Specification

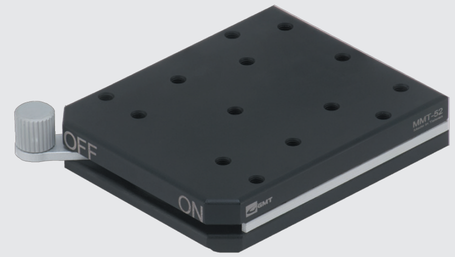
Unit : mm

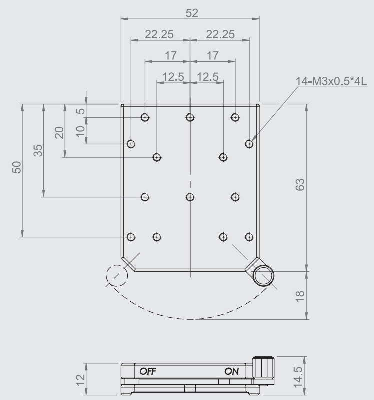
Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading	Offset (Eccentric)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MRE85-A	Ø 85	Cursory 360°	1°	0.05	8	0.4	Aluminum alloy	Black anodized
MRE110-A	Ø 110				9	0.66		

MMT-38

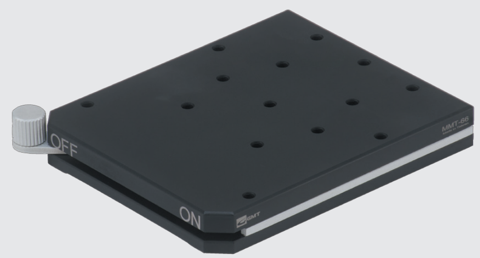


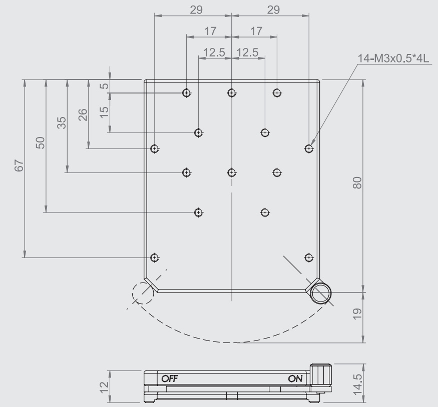
MMT-52





MMT-66





Specification

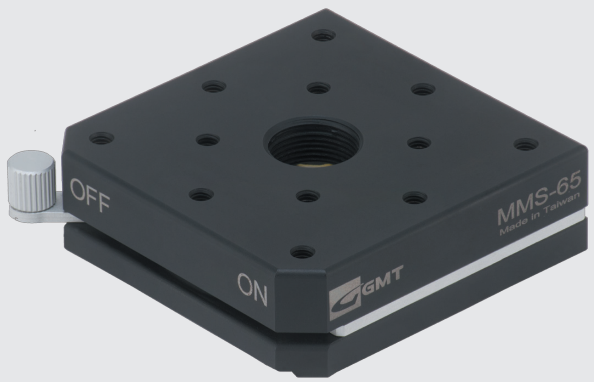
Unit : mm

Model No.	Table Size	Magnetic (kgf)	Parallelism	Weight (kg)	Material	Surface Finish
MMT-38	12*38*51	1.0	0.015	0.3	Carbon steel	Black Zinc plated
MMT-52	12*52*63	3.3	0.02	0.6		
MMT-66	12*66*80	3.8	0.02	1.2		

★ Customized mounting holes are available in case the holes do not match.

MMS-45

MMS-65



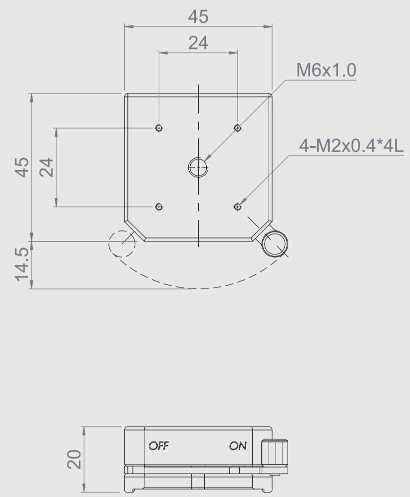
Specification

Unit : mm

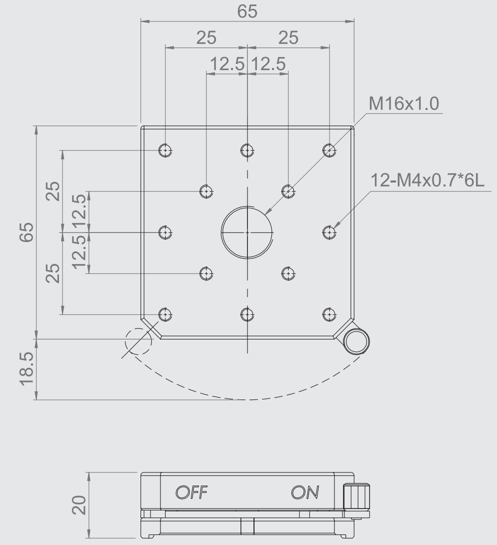
Model No.	Table Size	Magnetic Force (kgf)	Parallelism	Weight (kg)	Material	Surface Finish
MMS-45	20*45*45	17.0	0.015	0.3	Carbon steel	Black zinc plated
MMS-65	20*65*65	20.0	0.02	0.6		
MMS-90	20*90*90	25.0	0.02	1.2		
MMS-125	20*125*125	70.0	0.02	2.8		

Magnetic Base ▶ Standard Type
Magnetic Base
GMT GLOBAL INC.
Product Specification

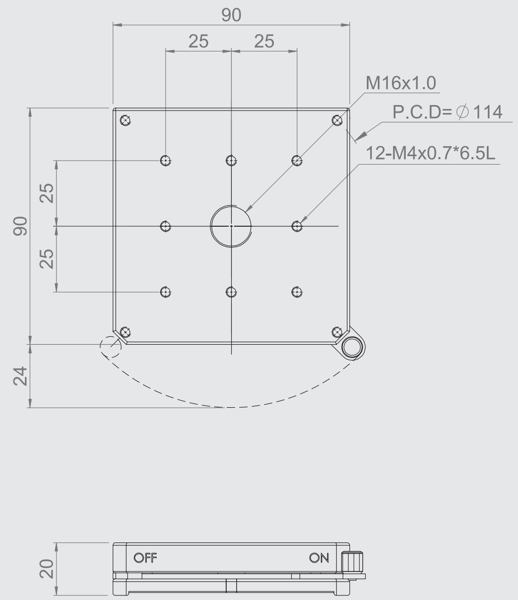
MMS-45



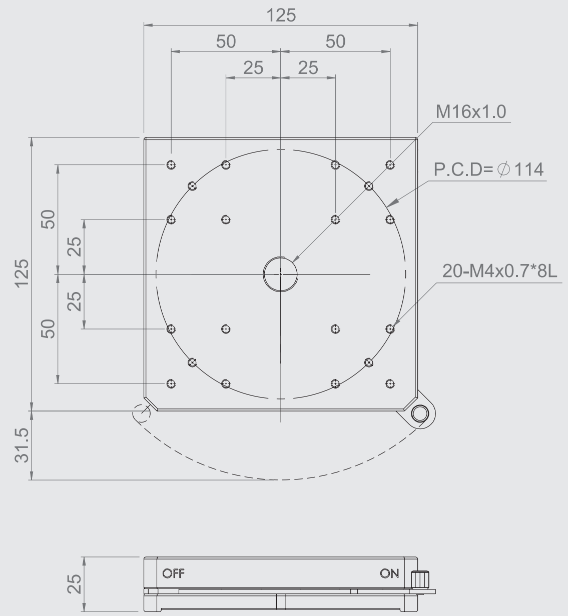
MMS-65



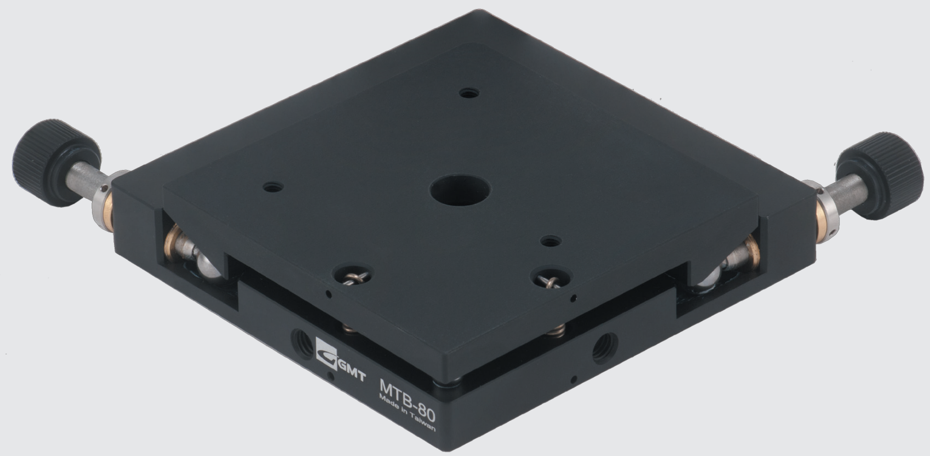
MMS-90



MMS-125



MTB-80



Specification

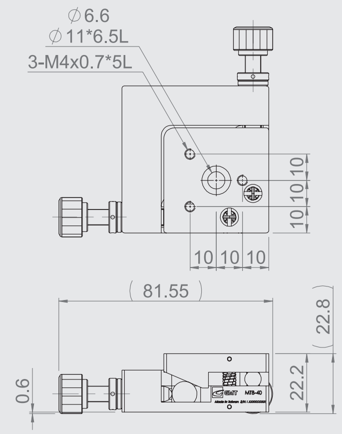
Unit : mm

Model No.	Table Size	Movement Direction	Transmission	Travel Stroke	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MTB-40	40*40	2 directions	0.54° per manual rotation	±2°	2	0.03	Aluminum alloy	Black anodized
MTB-60	60*60				4	0.15		
MTB-80	80*80				5	0.4		

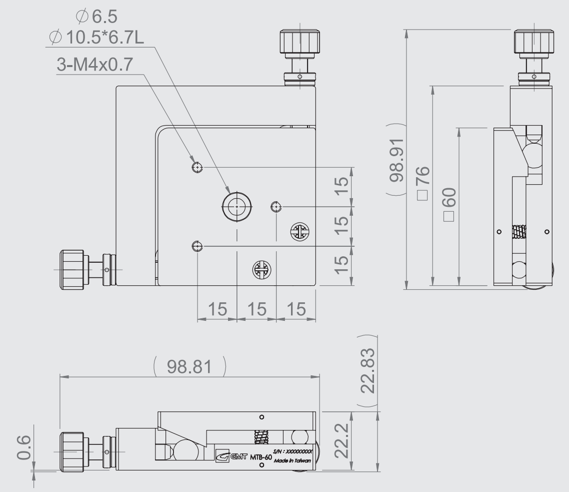
★ Customized mounting holes are available in case the holes do not match.

Tilt Stage ▶ Feeding Screw Type
Tilt Stage
GMT GLOBAL INC.
Product Specification

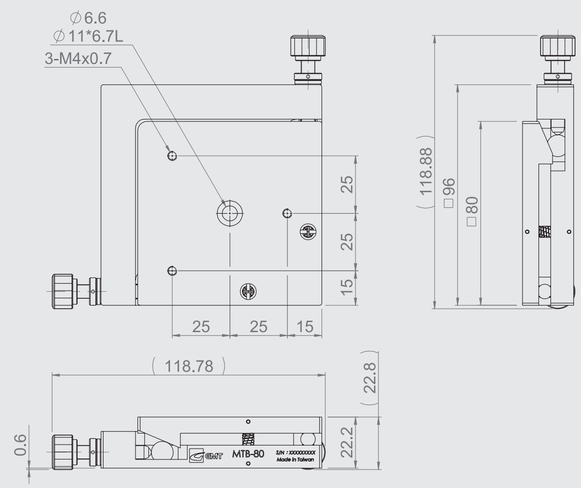
MTB-40



MTB-60

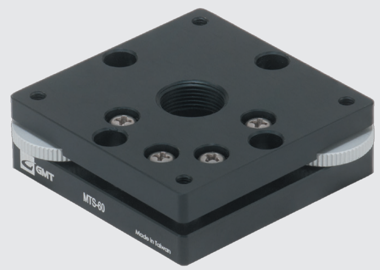


MTB-80

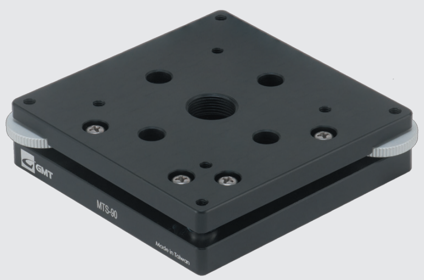


MTS-30

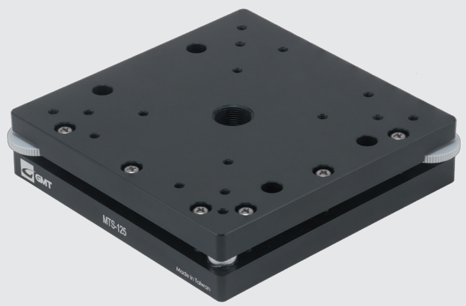
MTS-60



MTS-90



MTS-125

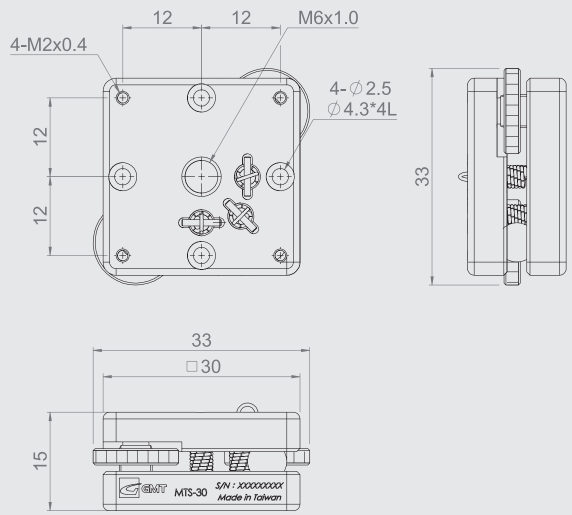


Specification

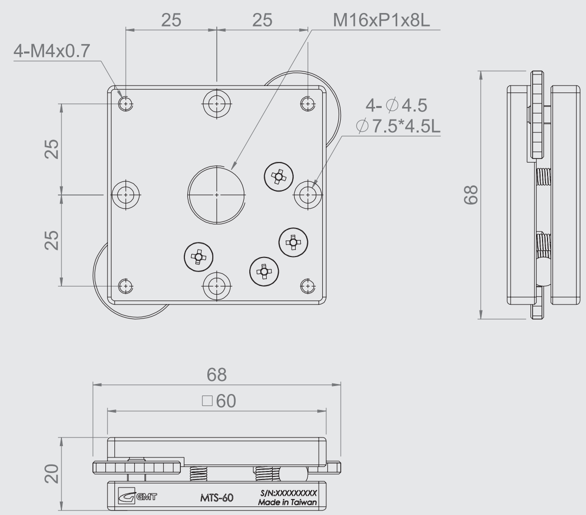
Unit : mm

Model No.	Table Size	Travel Direction	Transmission	Travel Stroke	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MTS-30	30*30	2 directions	1° 25' per manual rotation	±2°	2	0.03	Aluminum alloy	Black anodized
MTS-60	60*60		0° 40' per manual rotation		4	0.15		
MTS-90	90*90		0° 24' per manual rotation		5	0.4		
MTS-125	125*125		0° 15' per manual rotation		5	1.0		

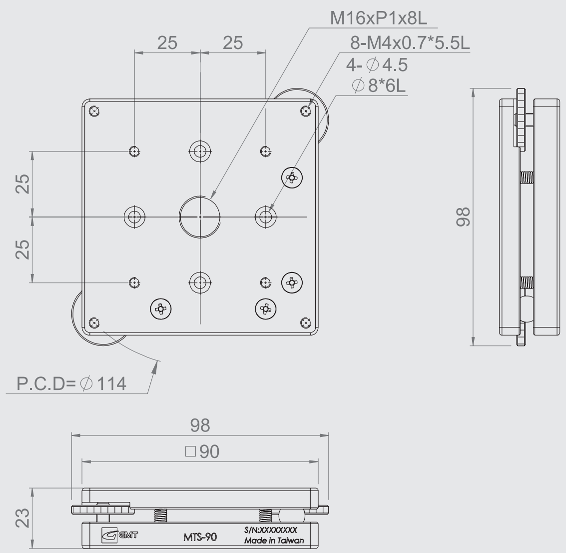
MTS-30



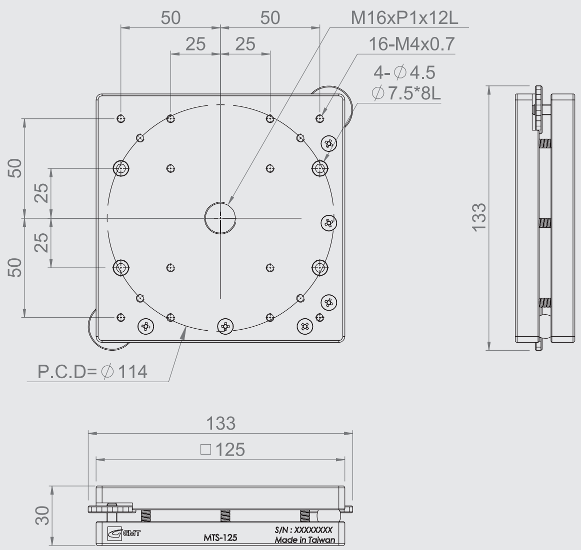
MTS-60



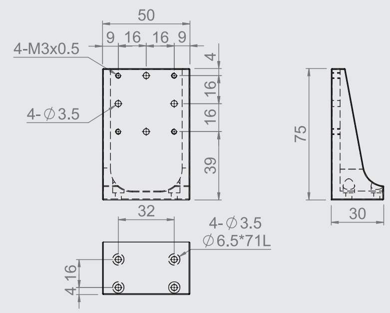
MTS-90



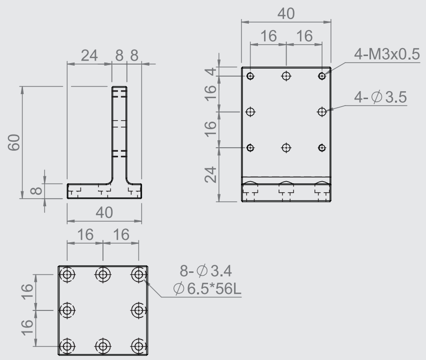
MTS-125



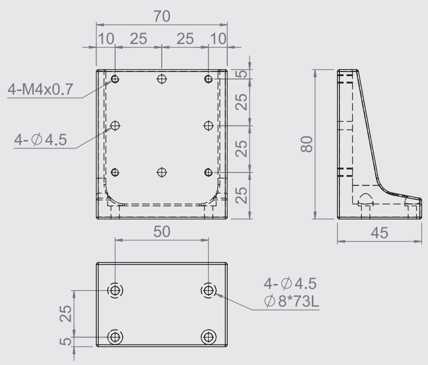
AZB40-1



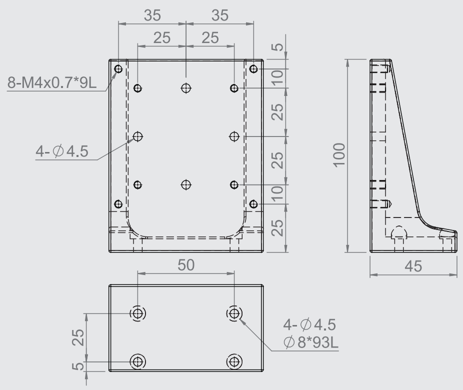
AZB40-2



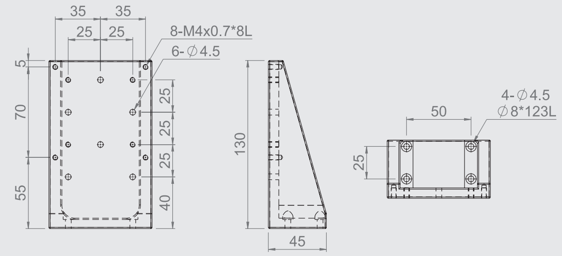
AZB60-1



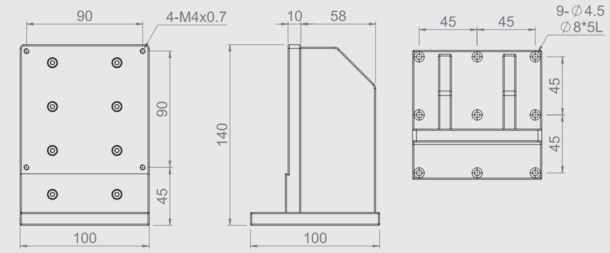
AZB80-1



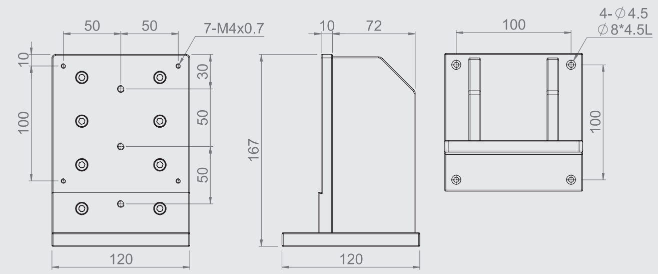
AZB80-2



AZB100-1



AZB120-1

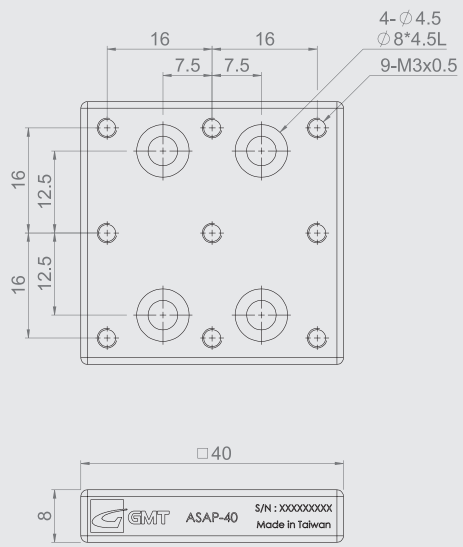


Specification

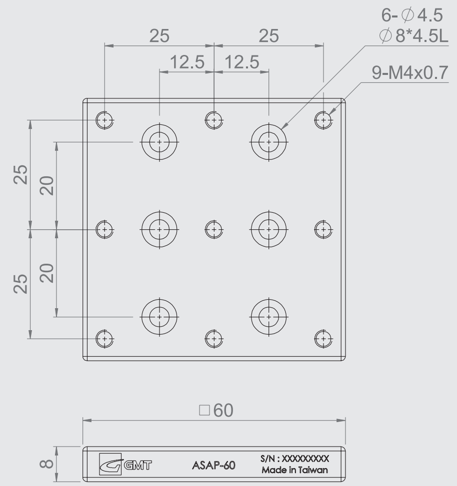
Unit : mm

Model No.		Transmission Direction					Weight
Aluminum+Black Anodized	S50C+Nickel Plating	CZ	SZ	SRZ	SR	S	(kg)
AZB40-1	AZB40-1-N	●			●	●	0.08
AZB40-2	AZB40-2-N		●	●			0.07
AZB60-1	AZB60-1-N	●	●	●	●	●	0.19
AZB80-1	AZB80-1-N	●	●	●			0.29
AZB80-2	AZB80-2-N				●	●	0.41
AZB100-1	AZB100-1-N	●	●	●	●	●	1.04
AZB120-1	AZB120-1-N	●	●	●	●	●	1.80

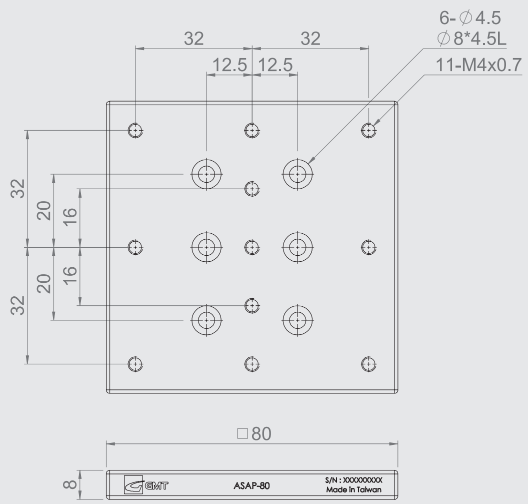
ASAP-40



ASAP-60



ASAP-80

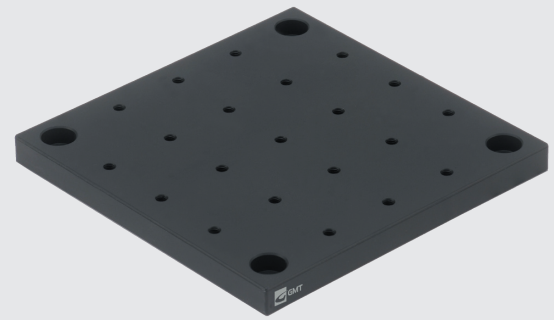


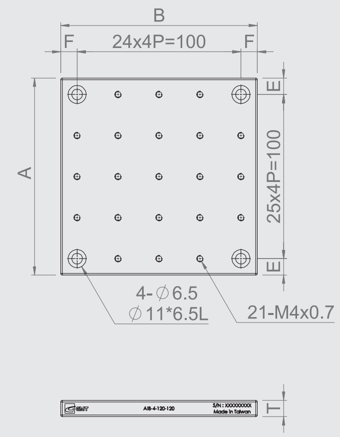
Specification

Unit : mm

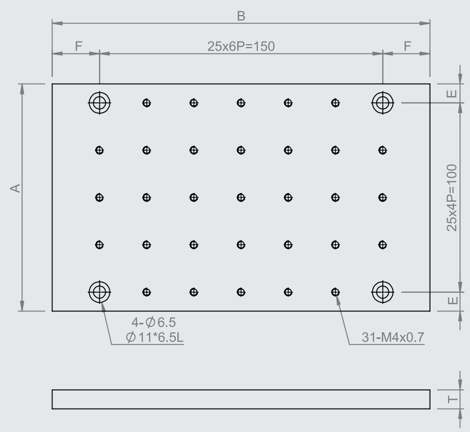
Model No.	Table Size	Material	Surface Finish	Suitable for The Following Gmt Stage Models
ASAP-40	40*40	Aluminum alloy	Black anodized	MC1B-40, MC2B-40, MC4B-40
ASAP-60	60*60			MC1B-60, MC1B-90, MC1B-140
ASAP-80	80*80			MC2B-60, MC2B-90, MC4B-60, MC4B-90

AIB-□-120-120

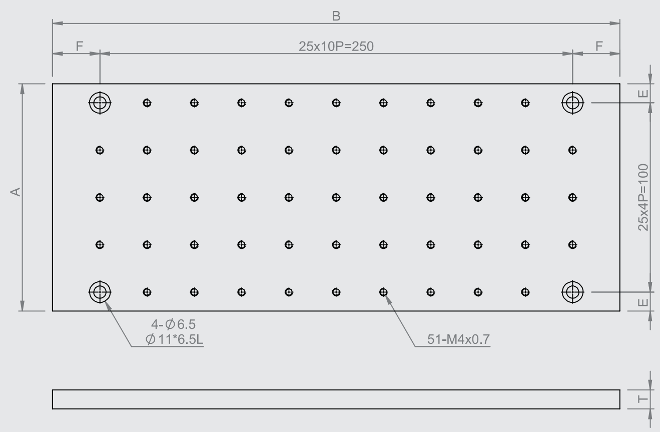




EAIB-□-120-200



EAIB-□-120-300



Specification

Unit : mm

Model No.		A	B	Numbers of Hole	T	E	F	Material	Surface Finish
M4	M6								
AIB-4-120-120	AIB-6-120-120	120	120	21	10	10	10	Aluminum alloy	Black anodized
EAIB-4-120-200	EAIB-6-120-200		200	31			25		
EAIB-4-120-300	EAIB-6-120-300		300	51					
AIB-4-150-150	AIB-6-150-150	150	150	21		25			
EAIB-4-150-200	EAIB-6-150-200		200	31					
EAIB-4-150-300	EAIB-6-150-300		300	51					
AIB-4-200-200	AIB-6-200-200	200	200	45					
EAIB-4-200-300	EAIB-6-200-300		300	73					
EAIB-4-300-600	EAIB-6-300-600	300	600	272					
EAIB-4-450-600	EAIB-6-450-600	450	600	410					

★ 4 * M6 mounting holes have been initially set on the 100 mm area in the middle of the plate.

★ Suitable for the precision stages, or can be mounted on the anti-vibration platform.

M C 2 A - 60

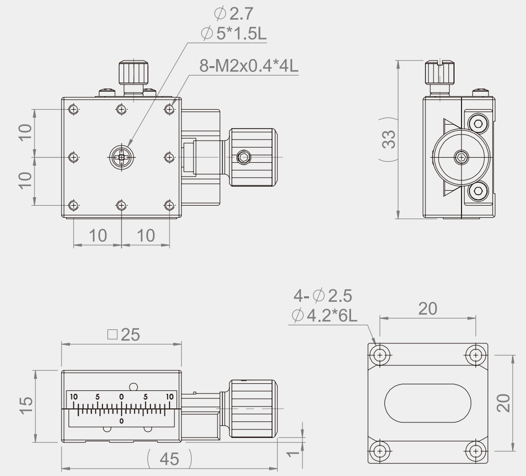
Transmission	Guide Device	Axis	Feeding Specification	Stage Dimension
M : Manual	C : Dovetail type	1 : X-axis	A : Feeding screw	Selectable from catalogue
	T: Tilt type	2 : XY-axis	B : Rack and pinion	
	M : Magnetic type	3 : Z-axis	C : Rack and pinion with long stroke	
	Z : Horizontal Z axis	4 : X-axis+L bracket	D : Rack and pinion in simple design	
	N : Double bars with single spring	5 : XZ-axis	E : Feeding screw (Hex. Wrench type)	
	NG : Double bars with double springs	6 : XYZ-axis	F : Standard micrometer	
	NE : Double bars	7 : XX-axis	G : Feeding screw (Knob with scale)	

M C S - 44 W L

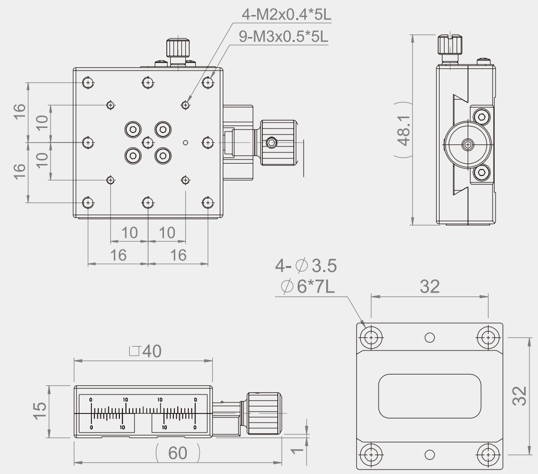
Transmission	Guide Device	Axis	Dimension	Knob Type	Stroke Direction
M : Manual	C : Dovetail type	S : X-axis	Selectable from catalogue	NIL : Single knob	NIL : Z-axis (Up & Down stroke)
		D : XY-axis		W : Double knobs	L : Z-axis (Up stroke)
		V : Z-axis			
		M : XZ-axis			
		T: XY-axis+Z-plate			

MC1A-60

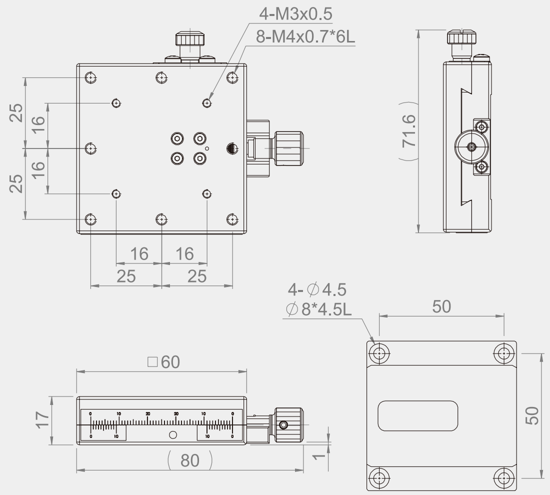
MC1A-25



MC1A-40



MC1A-60



Specification

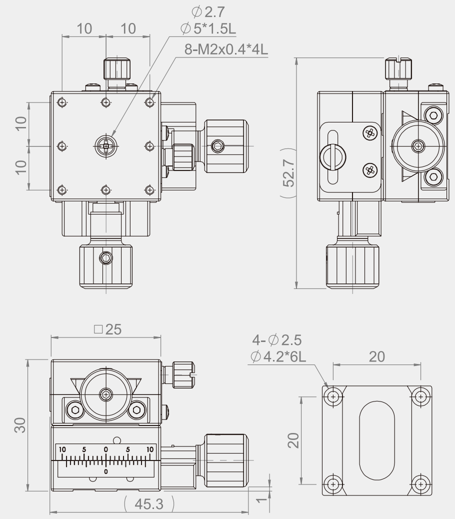
Unit : mm

Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-25	25*25	±3	0.1 mm / Vernier	30	3	0.07	Stage body : brass alloy feeding screw Knob : aluminum	Black fluororesin finished
MC1A-40	40*40	±7			3	0.19		
MC1A-60	60*60	±9			4	0.47		

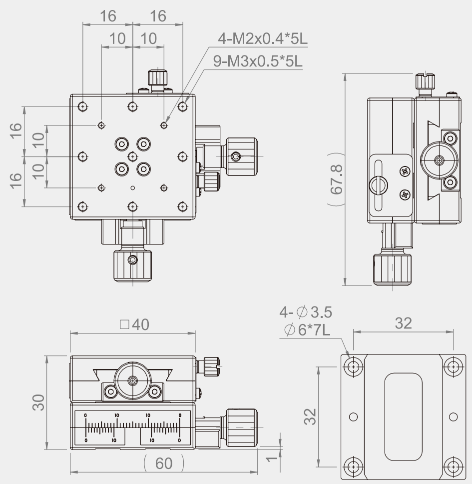
★ A full rotation of the feeding screw knob equals a 0.5mm stroke.

MC2A-60

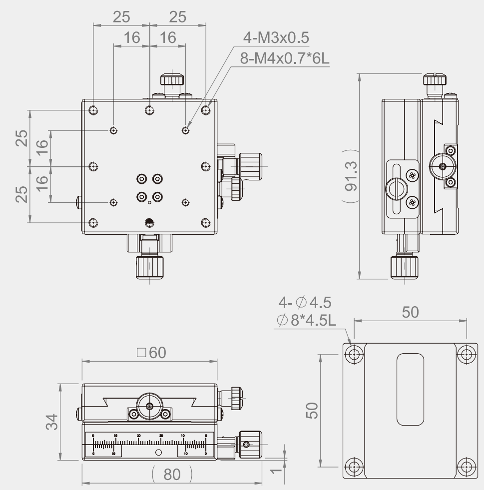
MC2A-25



MC2A-40



MC2A-60



Specification

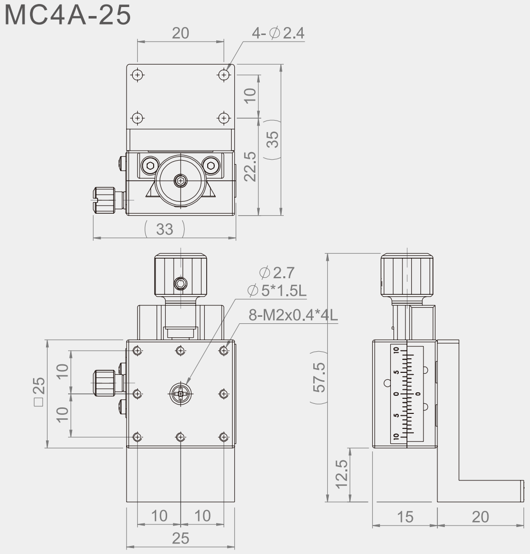
Unit : mm

Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC2A-25	25*25	±3	0.1 mm / Vernier	30	2.9	0.15	Stage body : brass alloy feeding screw Knob : aluminum	Black fluororesin finished
MC2A-40	40*40	±7			2.8	0.38		
MC2A-60	60*60	±9			3.4	1.2		

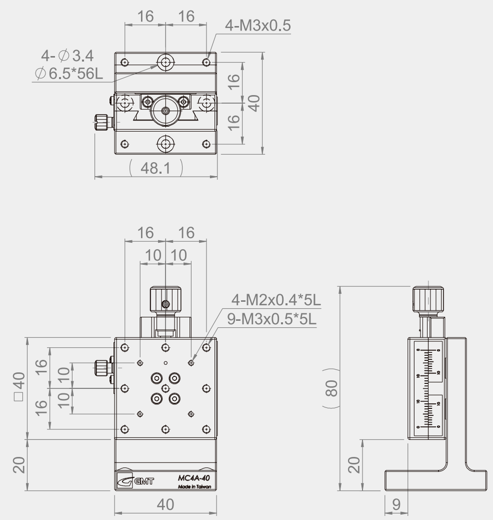
★ A full rotation of the feeding screw knob equals a 0.5mm stroke.

MC4A-60

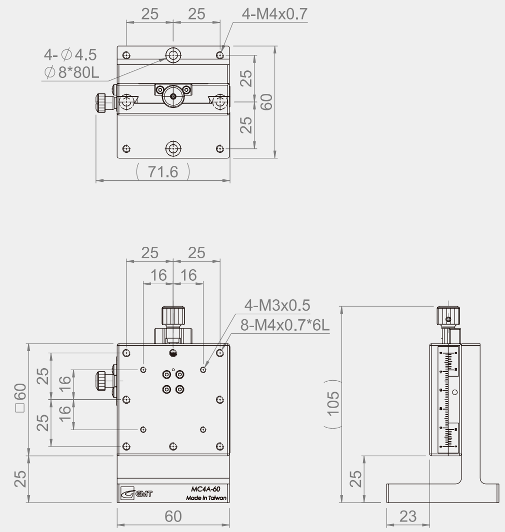
MC4A-25



MC4A-40



MC4A-60



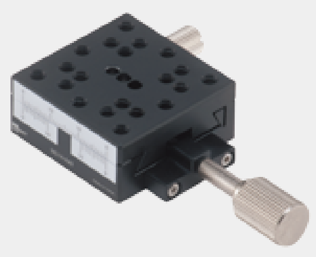
Specification

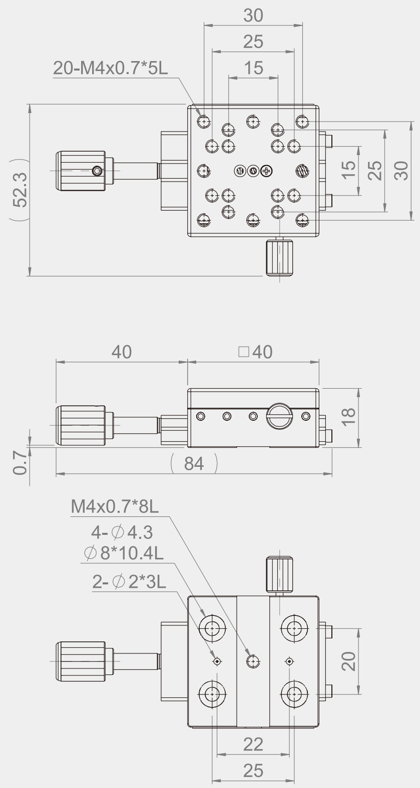
Unit : mm

Model No.	Table Size	Travel Stroke	Micrometer Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC4A-25	25*25	±3	0.1 mm / Vernier	30	1	0.09	Stage body : brass alloy feeding screw Knob:aluminum	Black fluororesin finished
MC4A-40	40*40	±7			1	0.26		
MC4A-60	60*60	±9			2	0.75		

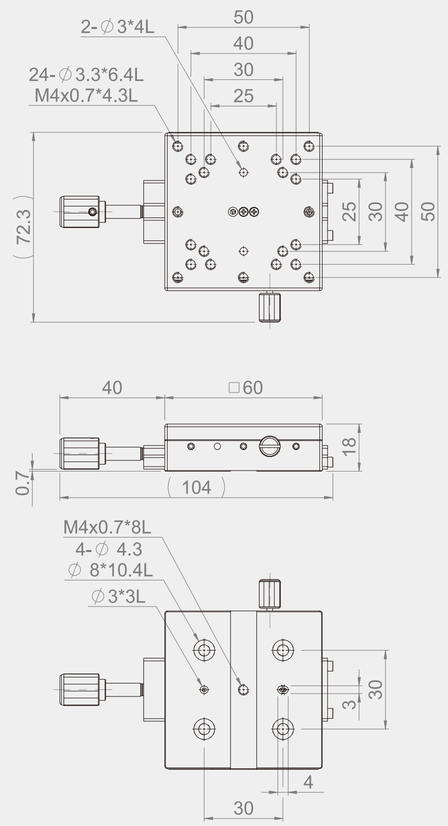
★ A full rotation of the feeding screw knob equals a 0.5mm stroke.

MC1A-A40





MC1A-A60

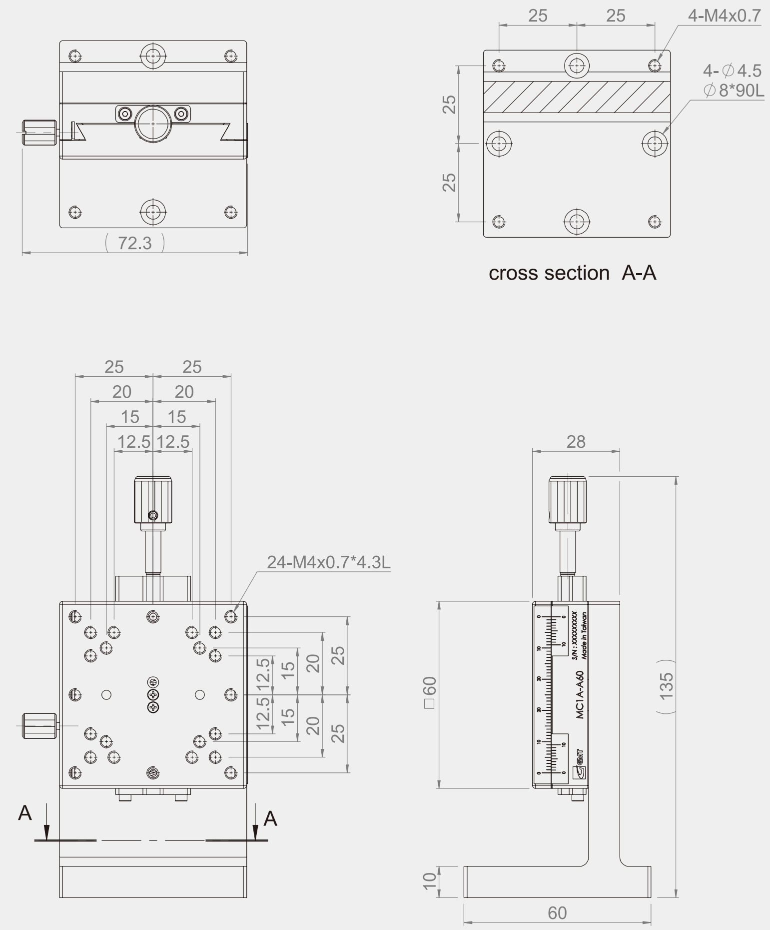


Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-A40	40*40	X-axis	Central	± 11	0.1mm/ Vernier	30	2	0.10	Aluminum alloy	Black anodized
MC1A-A60	60*60			± 21			3	0.19		

MC4A-A60

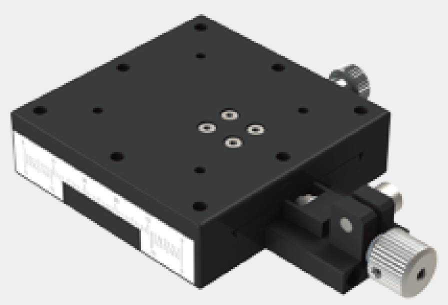


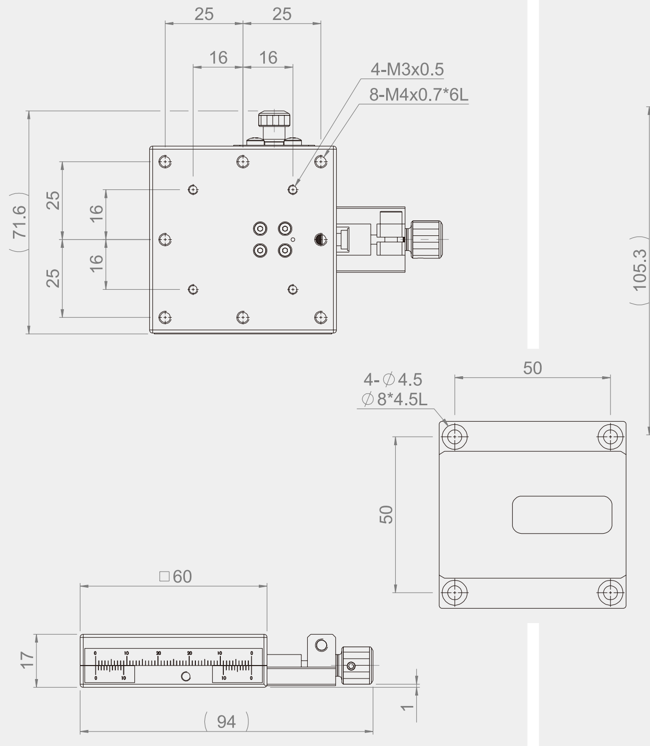
Specification

Unit : mm

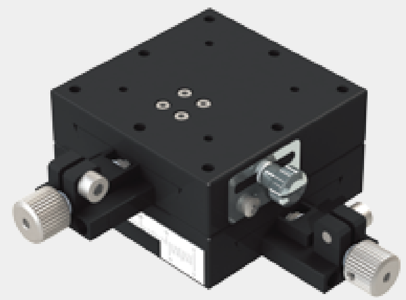
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC4A-A60	60*60	Z-axis	Central	±21	4.2	0.1 mm / Vernier	30	2.1	0.42	Aluminum alloy	Black anodized

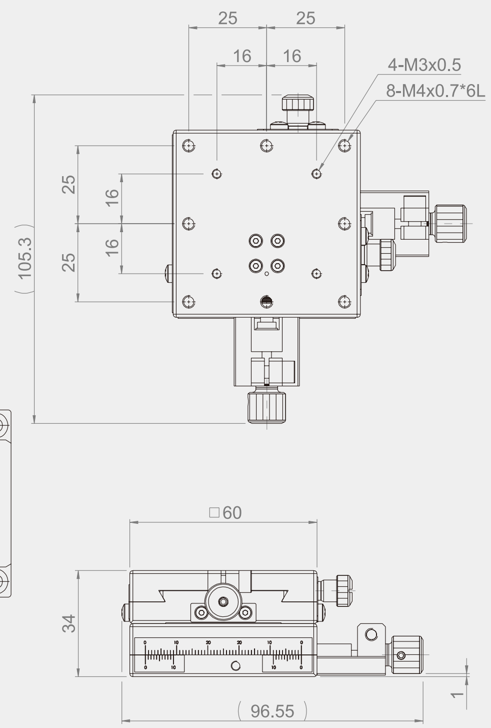
MC1A-60CL





MC2A-60CL





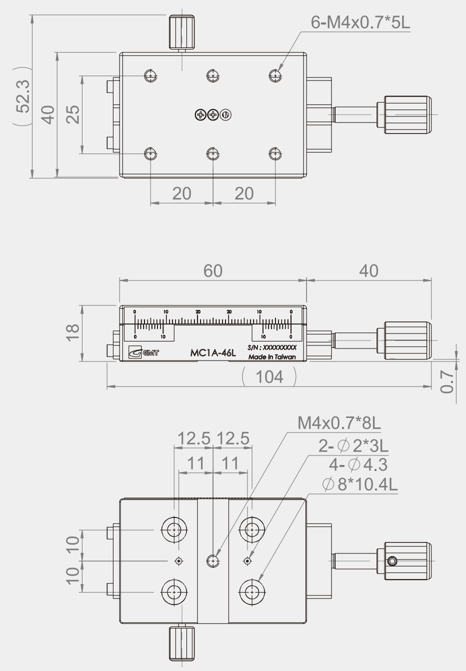
Specification

Unit : mm

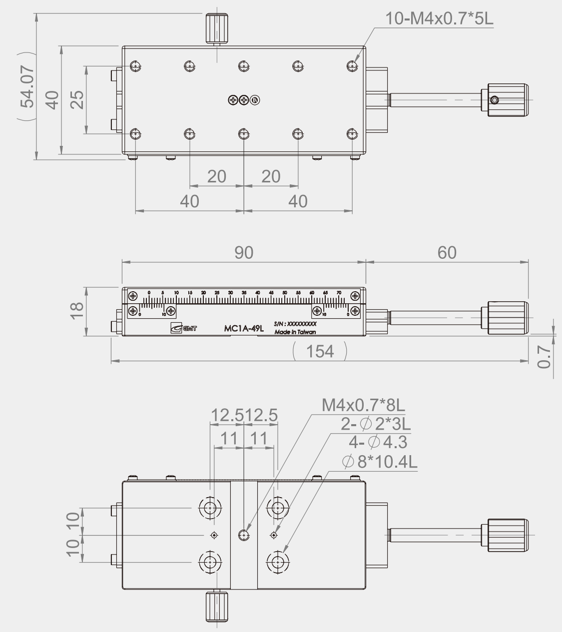
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-60CL	60*60	X-axis	Central	±9	0.5	0.1 mm / Vernier	30	4	0.47	Stage body : brass alloy feeding screw Knob : aluminum	Black fluororesin finished
MC2A-60CL		XY-axis						3.4	0.98		

MC1A-46L

MC1A-46L



MC1A-49L

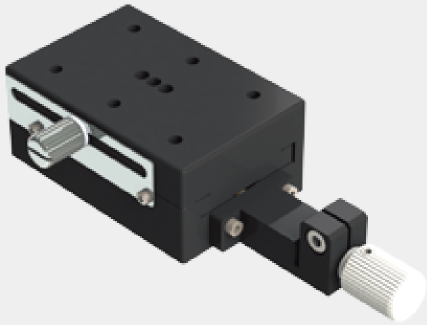


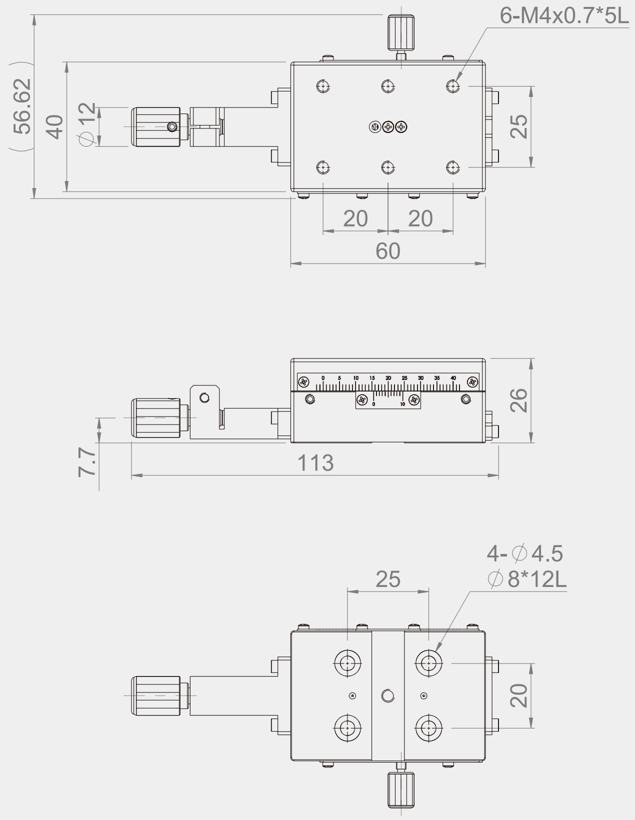
Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-46L	40*40	X axis	Central	± 21	0.1mm / Vernier	30	3	0.14	Aluminum alloy	Black anodized
MC1A-49L	40*90			± 35			3	0.19		

MC1A-46C



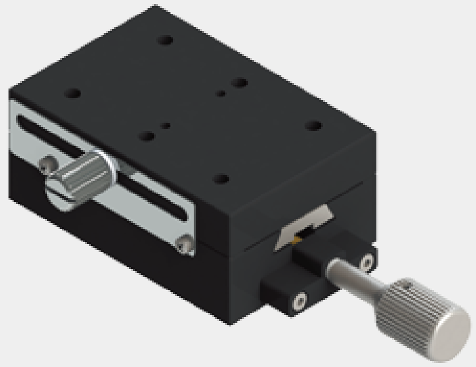


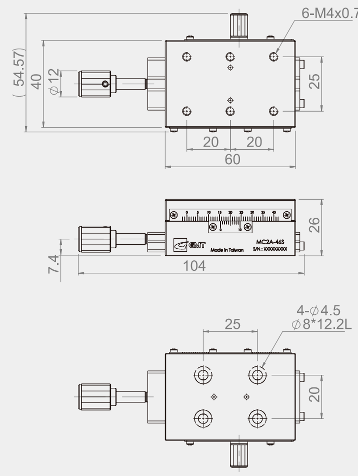
Specification

Unit : mm

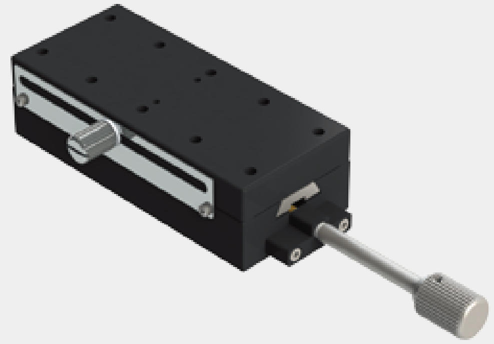
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (mm)	Dynamic Straightness Accuracy (mm)	Dynamic Parallel (mm)	Horizontal/ Vertical Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-46C	40*60	X-axis	Central	±21	0.1 mm / Vernier	0.01	0.03	0.03	4 / 2	0.19	Aluminum alloy	Black anodized

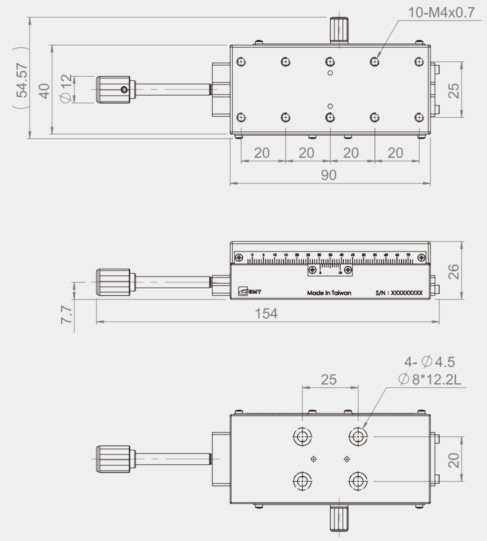
MC1A-46S





MC1A-49S



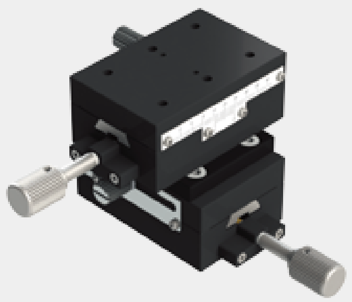


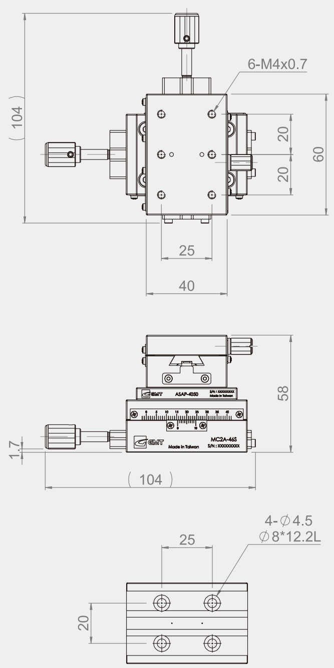
Specification

Unit : mm

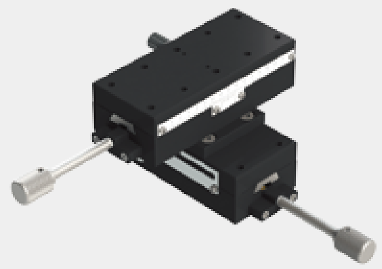
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (mm)	Dynamic Straightness Accuracy (mm)	Dynamic Parallel (mm)	Horizontal/ Vertical Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-46S	40*60	X-axis	Central	±21	0.1 mm / Vernier	0.03	0.03	0.03	4 / 2	0.19	Aluminum alloy	Black anodized
MC1A-49S	40*90	X-axis	Central	±35	0.1 mm / Vernier	0.03	0.03	0.03	4 / 2	0.29	Aluminum alloy	Black anodized

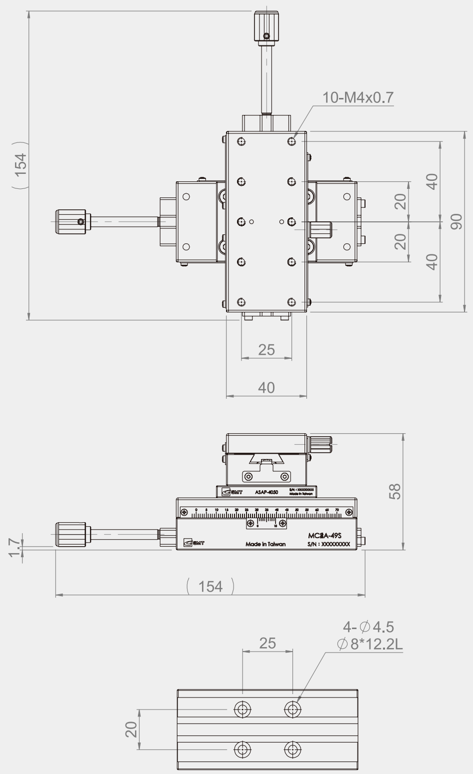
MC2A-46S





MC2A-49S



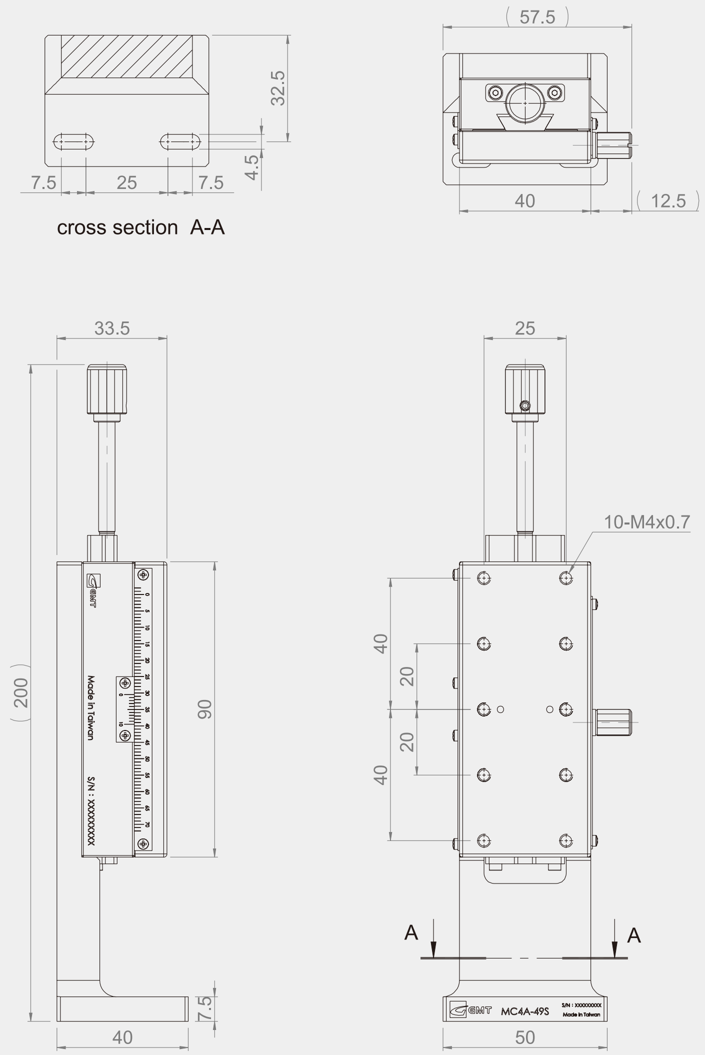


Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC2A-46S	40*60	XY-axis	Central	±21	4.2	0.1 mm / Vernier	30	3.8	0.43	Aluminum alloy	Black anodized
MC2A-49S	40*90			±35				3.72	0.62		

MC4A-49S

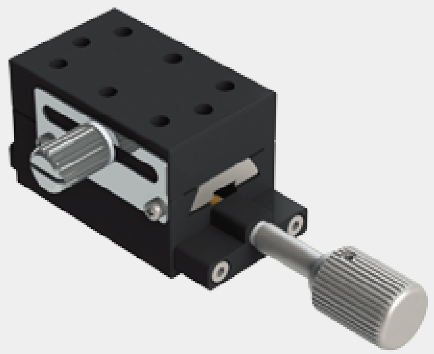


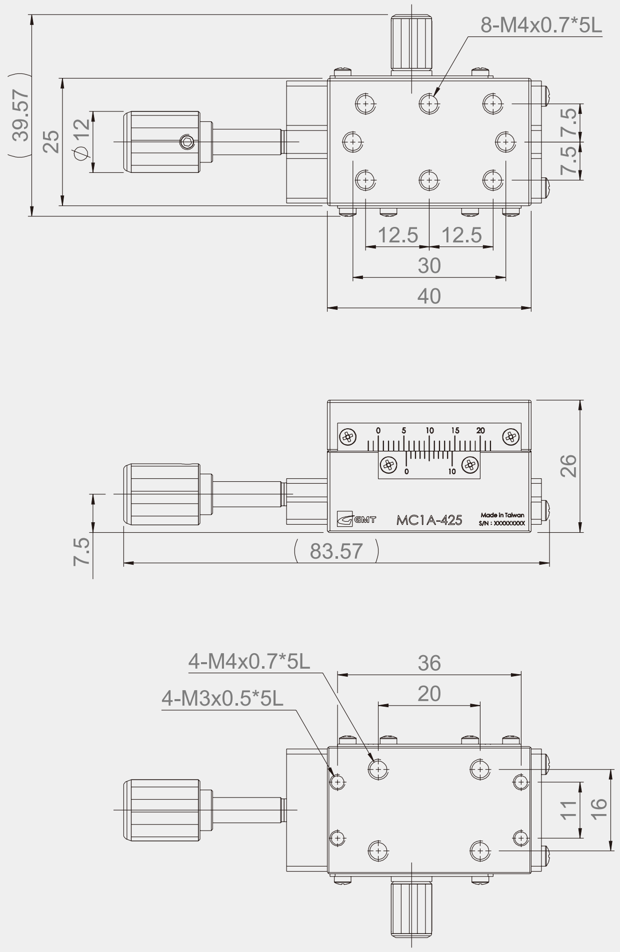
Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC4A-49S	40*90	Z-axis	Central	±35	4.2	0.1 mm / Vernier	30 μm	2	0.46	Aluminum alloy	Black anodized

MC1A-425



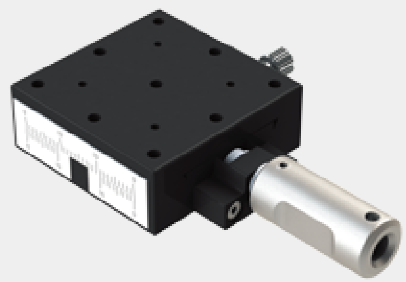


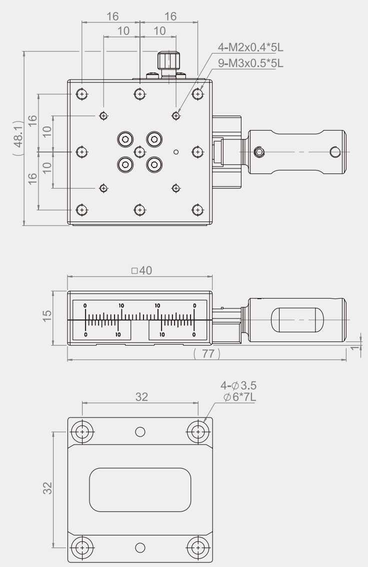
Specification

Unit : mm

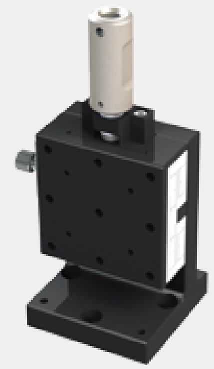
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (mm)	Dynamic Straightness Accuracy (mm)	Dynamic Parallel (mm)	Horizontal/ Vertical Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-425	25*40	X-axis	Central	±12	0.1 mm / Vernier	0.01	0.02	0.03	3 / 1.5	0.09	Aluminum alloy	Black anodized

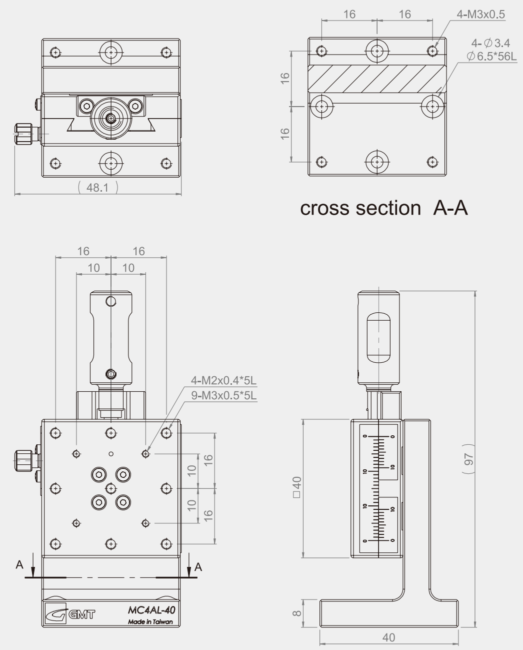
MC1AL-40





MC4AL-40





Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1AL-40	40*40	X-axis	Central	±7	0.5	0.1 mm / Vernier	30	3	0.2	Stage body : brass Alloy feeding screw Knob : aluminum	Black fluororesin finished
MC4AL-40		Z-axis						2.1	0.28		

MC1A-48KM

MC1A-48KMR

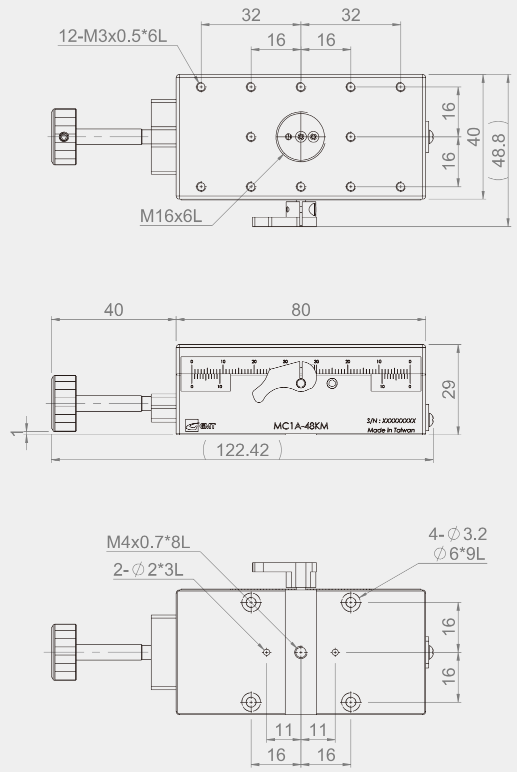
Specification

Unit : mm

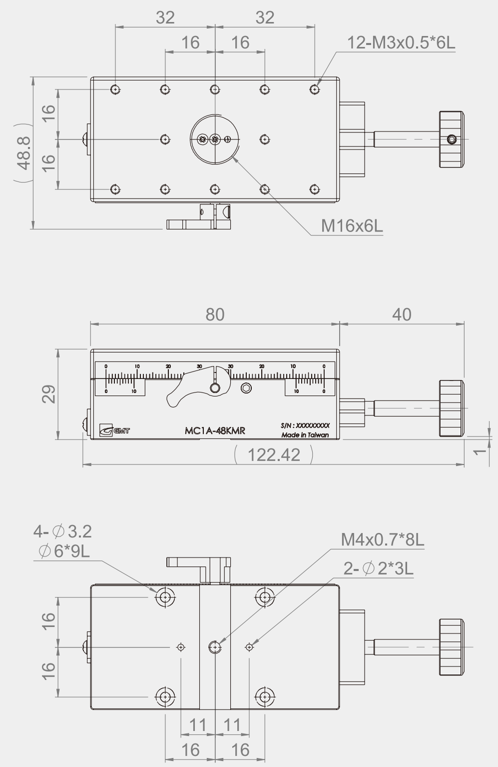
Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1A-48KM/R	40*80	X-axis	Central	± 30	0.1mm/ Vernier	30	4	0.31	Aluminum alloy	Black anodized

Product Specification

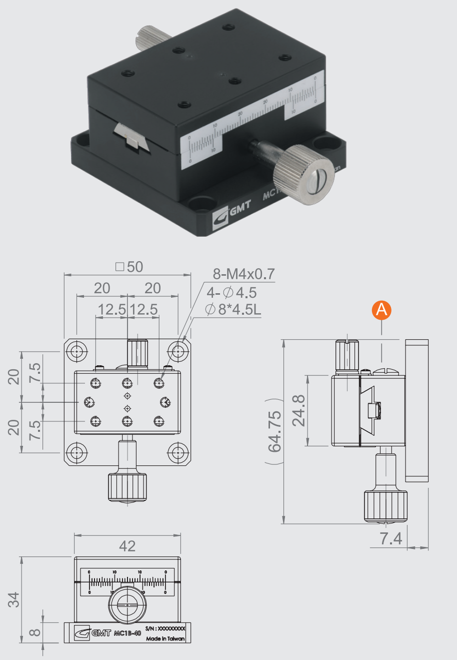
MC1A-48KM



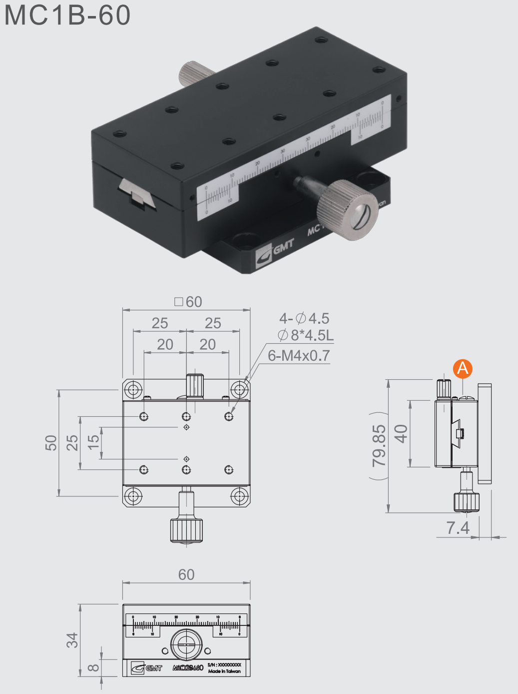
MC1A-48KMR



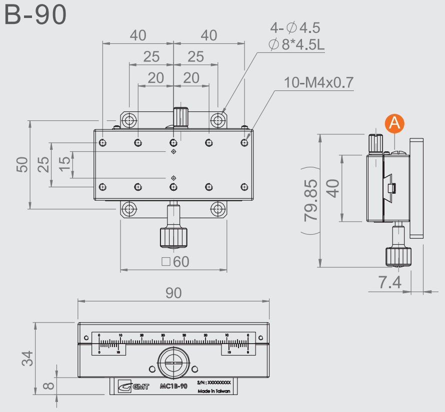
MC1B-40



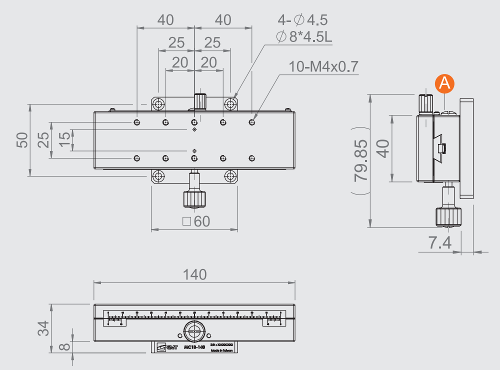
MC1B-60



MC1B-90



MC1B-140



★ Use a flat driver to turn Ⓐ clockwise for slow motion, or turn counterclockwise for smooth motion.

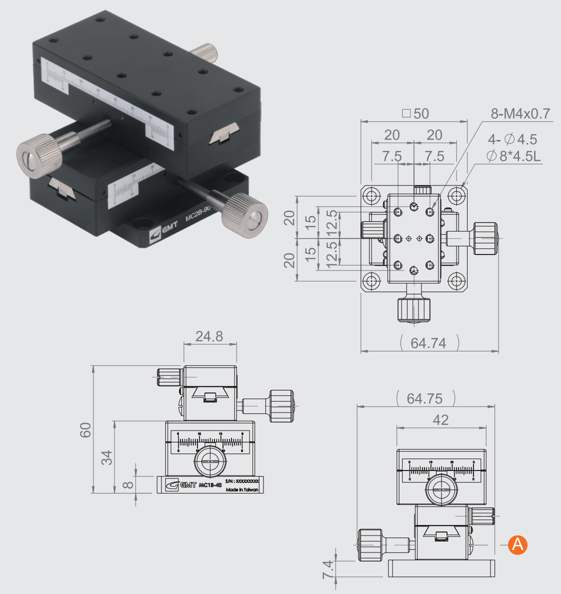
Specification

Unit : mm

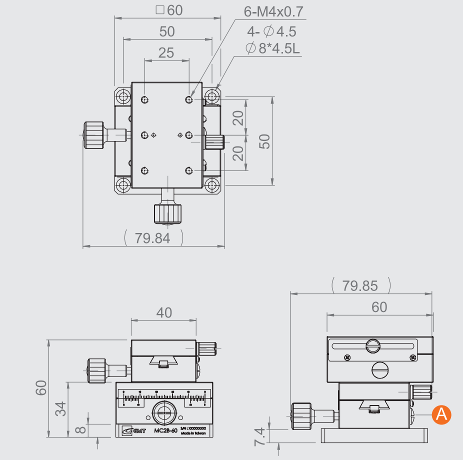
Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1B-40	24.8*42	±12	0.1 mm / Vernier	30	3	0.17	Aluminum alloy	Black anodized
MC1B-60	40*60	±21			4	0.29		
MC1B-90	40*90	±35				0.40		
MC1B-140	40*140	±60				0.56		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

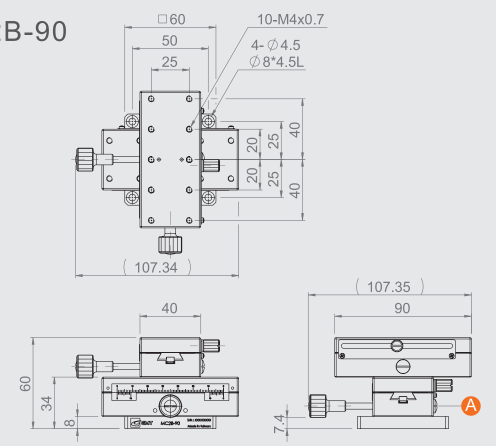
MC2B-40



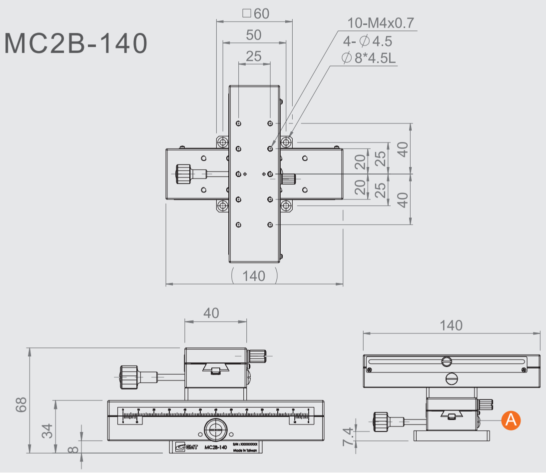
MC2B-60



MC2B-90



MC2B-140



★ Use a flat driver to turn Ⓐ clockwise for slow motion, or turn counterclockwise for smooth motion.
★ Photo shown：MC2B-90。

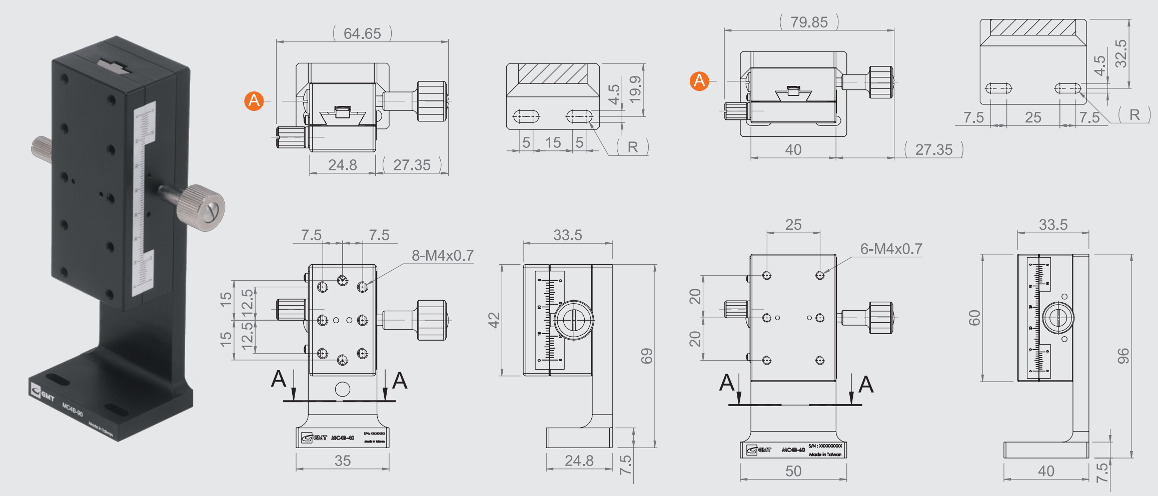
Specification

Unit : mm

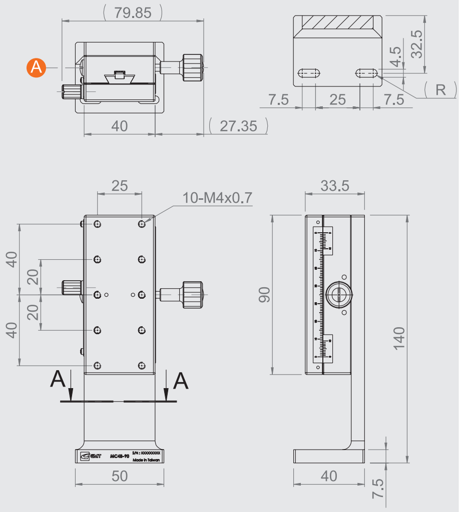
Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC2B-40	24.8*42	±12	0.1 mm / Vernier	30	2.5	0.29	Aluminum alloy	Black anodized
MC2B-60	40*60	±21			3.5	0.51		
MC2B-90	40*90	±35				0.73		
MC2B-140	40*140	±60				1.08		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

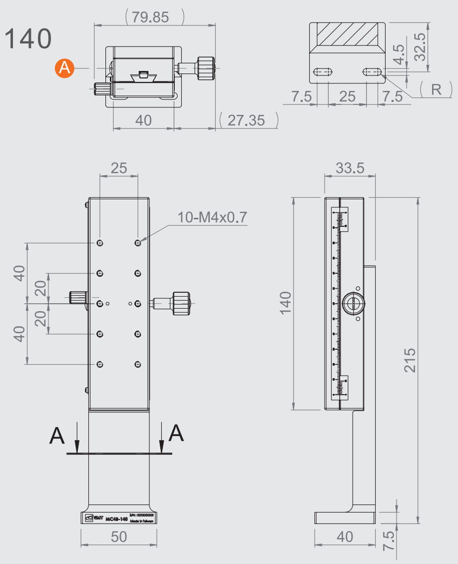
MC4B-40 MC4B-60



MC4B-90



MC4B-140



★ Use a flat driver to turn A clockwise for slow motion, or turn counterclockwise for smooth motion.

★ Photo shown：MC4B-90。

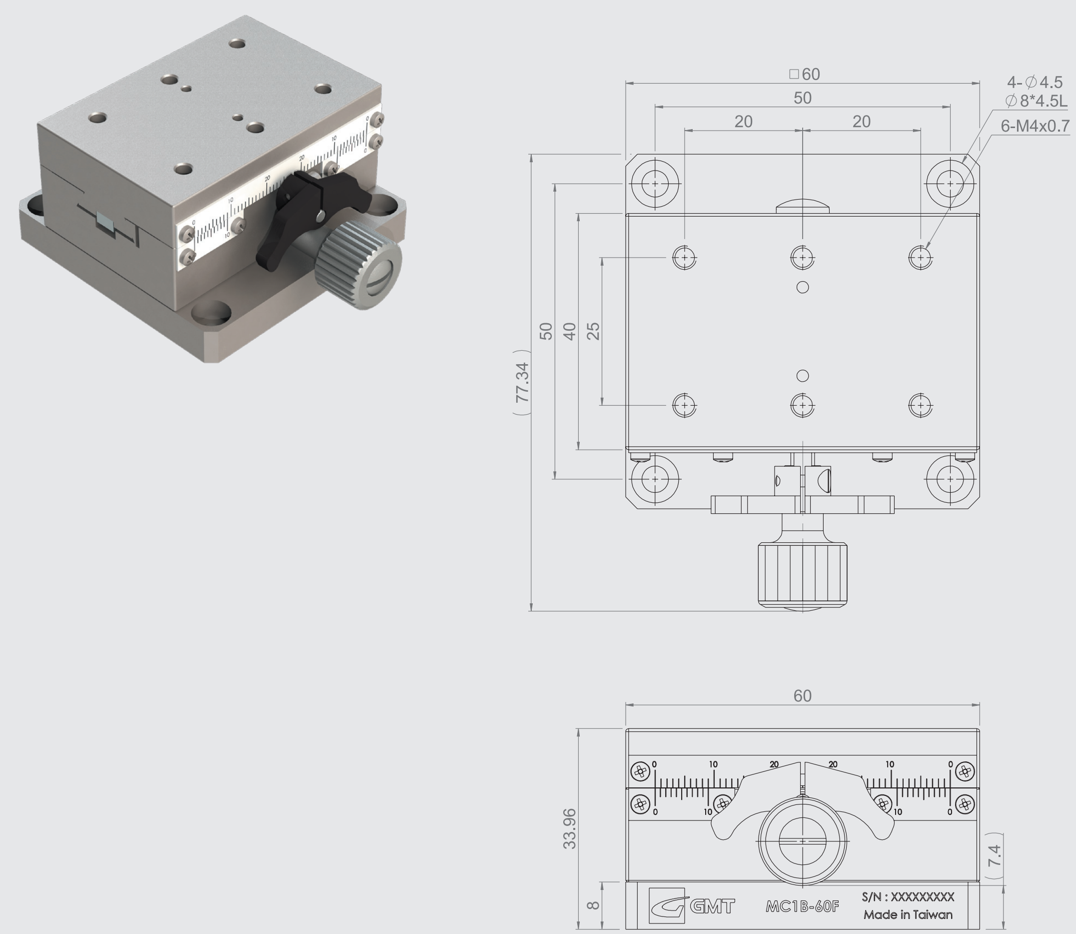
Specification

Unit : mm

Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC4B-40	24.8*42	±12	0.1 mm / Vernier	30	1.5	0.17	Aluminum alloy	Black anodized
MC4B-60	40*60	±21			2	0.33		
MC4B-90	40*90	±35				0.45		
MC4B-140	40*140	±60				0.68		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

MC1B-60F



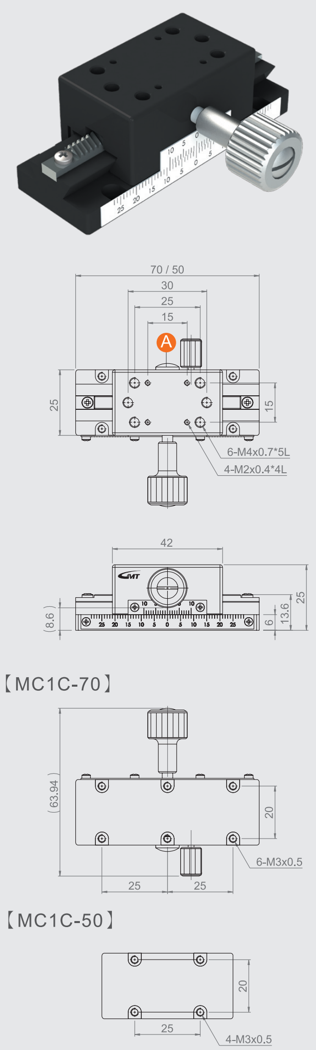
Specification

Unit : mm

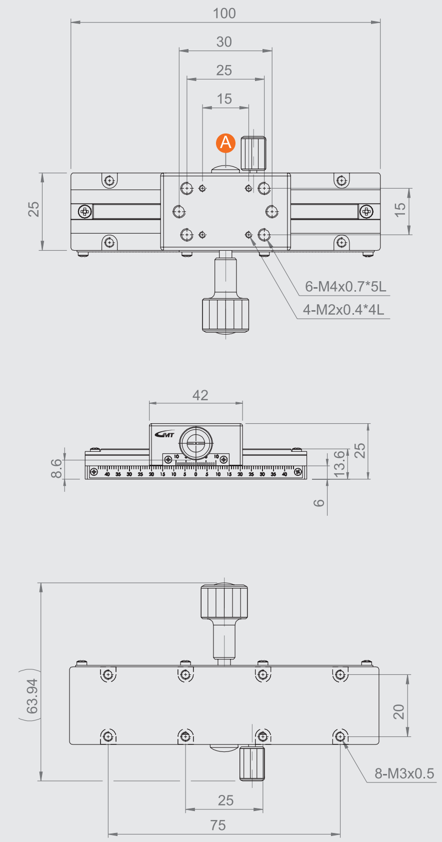
Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1B-60F	40*60	±21	0.1 mm / Vernier	40	20	1.6	Carbon Steel	Electro-less nickel plating

★ A full rotation of the feeding screw knob equals a 18mm stroke.

MC1C-50/70



MC1C-100



★ The upper assembly was set by M2 screws, and the base assembly was set by M3 screws.

★ Use a flat driver to turn A clockwise for slow motion, or turn counterclockwise for smooth motion.

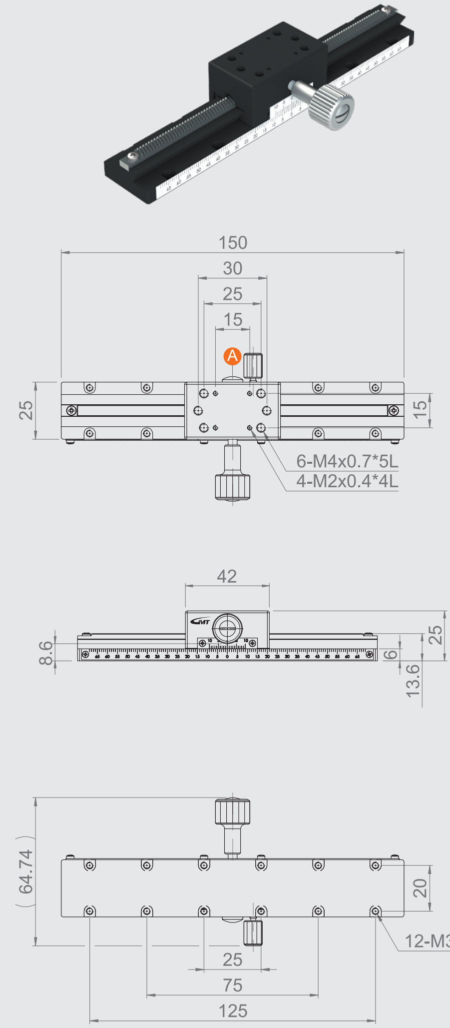
Specification

Unit : mm

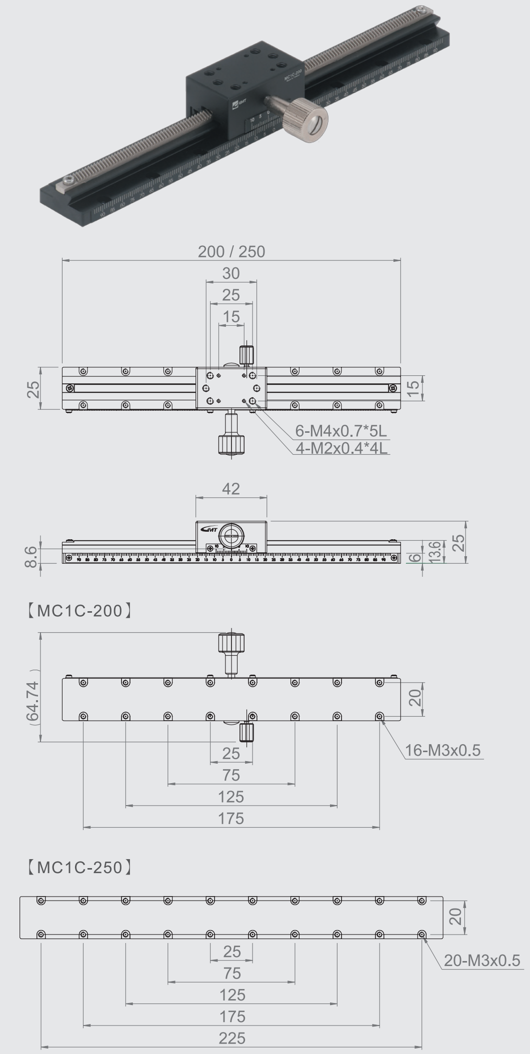
Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1C-50	50	±15	0.1 mm / Vernier	30	3	0.12	Aluminum alloy	Black anodized
MC1C-70	70	±25		30				
MC1C-100	100	±40		30		0.14		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

MC1C-150



MC1C-200/250



★ The upper assembly was set by M2 screws, and the base assembly was set by M3 screws.

★ Use a flat driver to turn A clockwise for slow motion, or turn counterclockwise for smooth motion.

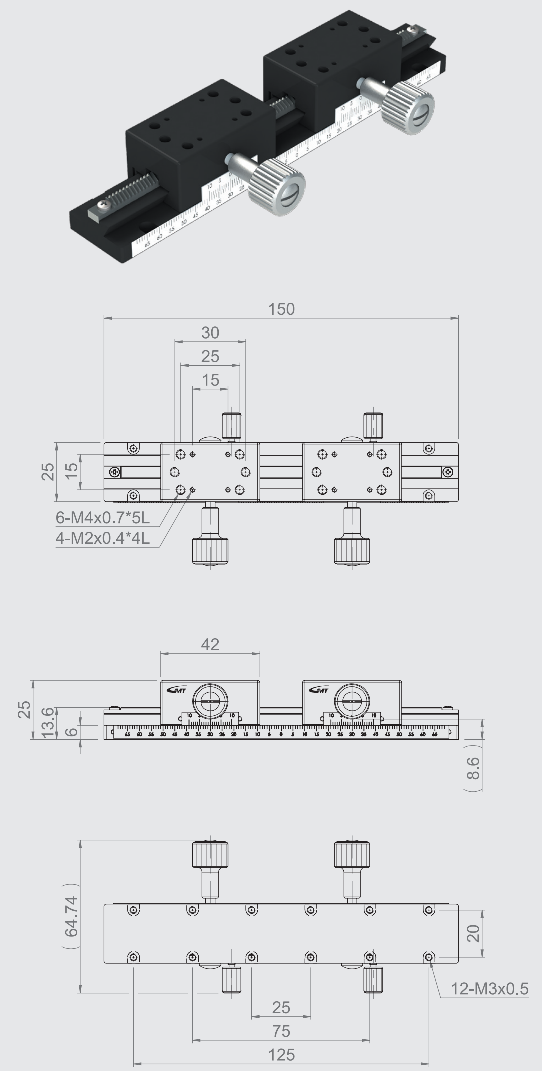
Specification

Unit : mm

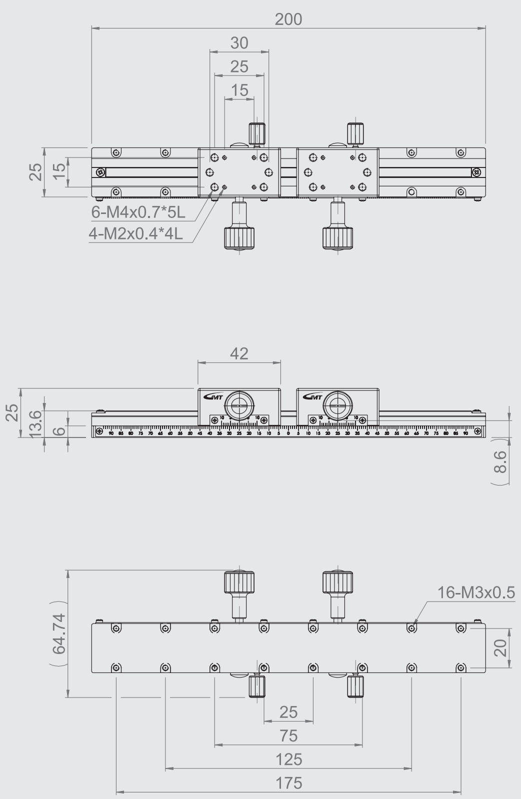
Model No.	Table Size	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1C-150	150	±65	0.1 mm / Vernier	40	3	0.17	Aluminum alloy	Black anodized
MC1C-200	200	±90		50		0.21		
MC1C-250	250	±115				0.36		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

MC1C-150-2



MC1C-200-2

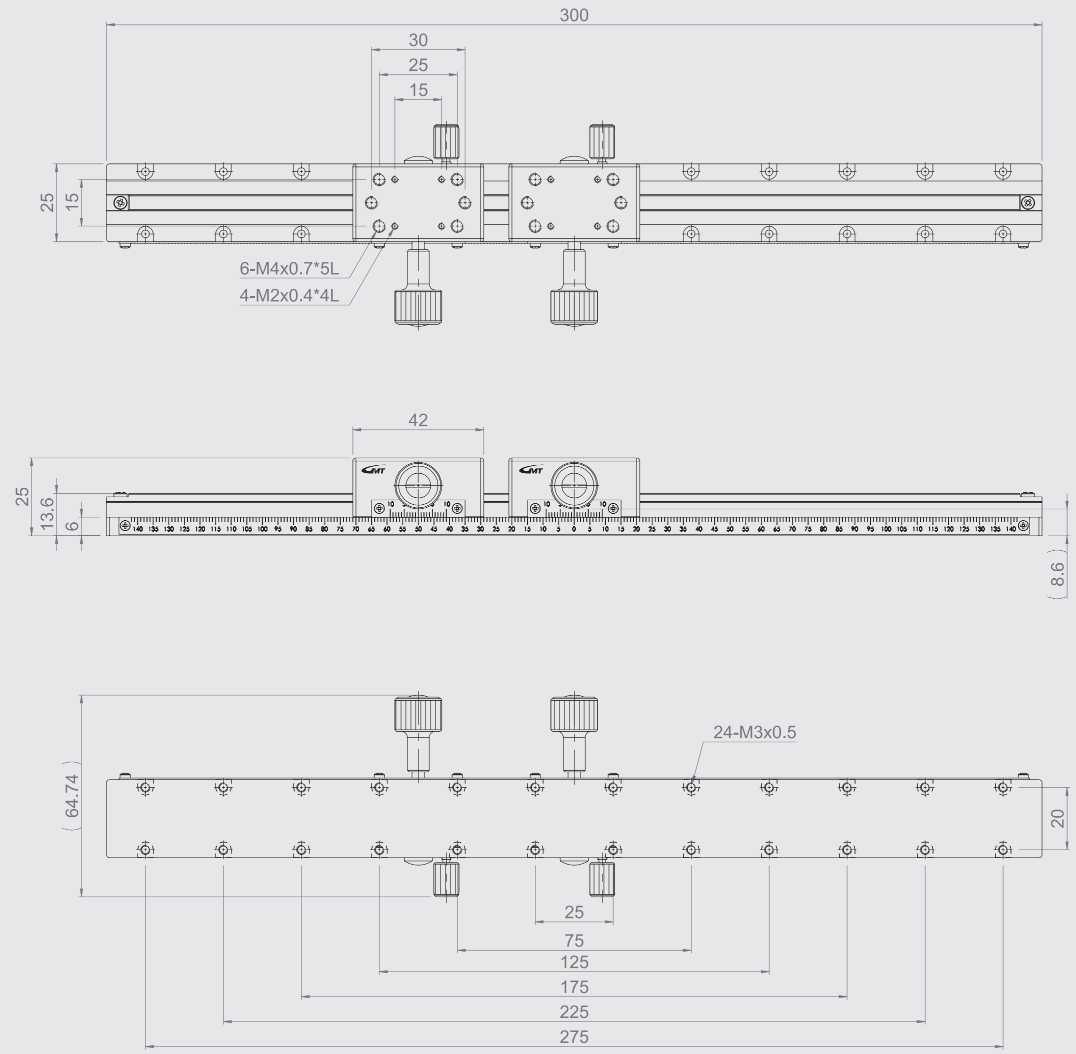


Specification

Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish	Remarks
MC1C-150-2	150	X-axis	±20	18	0.1 mm / Vernier	40	3	0.24	Aluminum alloy	Black anodized	Two slide blocks
MC1C-200-2	200		±37			50		0.28			

MC1C-300-2

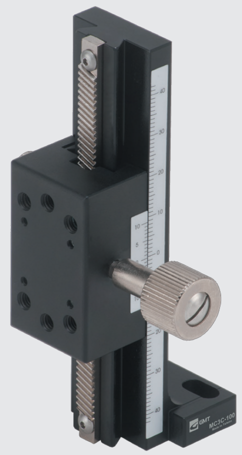


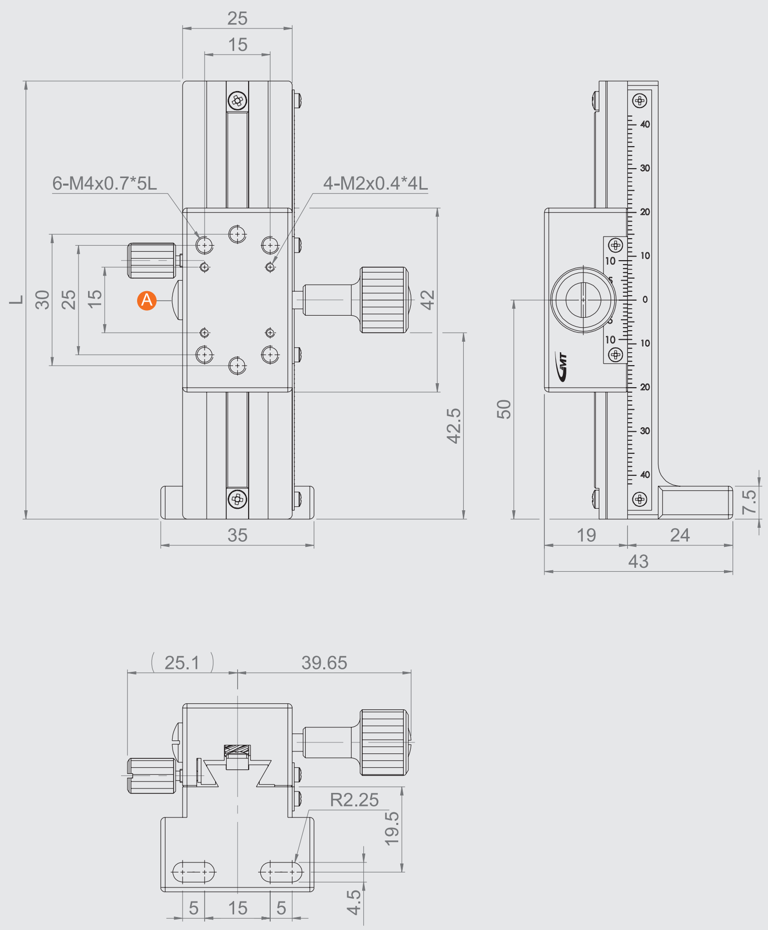
Specification

Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish	Remarks
MC1C-300-2	300	X-axis	±70	18	0.1 mm / Vernier	70	3	0.35	Aluminum alloy	Black anodized	Two slide blocks

MC3C-100





★ Combinble with MC1B (P.149), MC2B(P.150), MC1C(P.153).

★ Use a flat driver to turn A clockwise for slow motion, or turn counterclockwise for smooth motion.

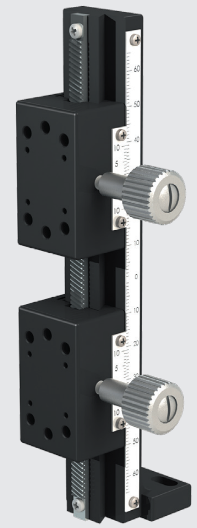
Specification

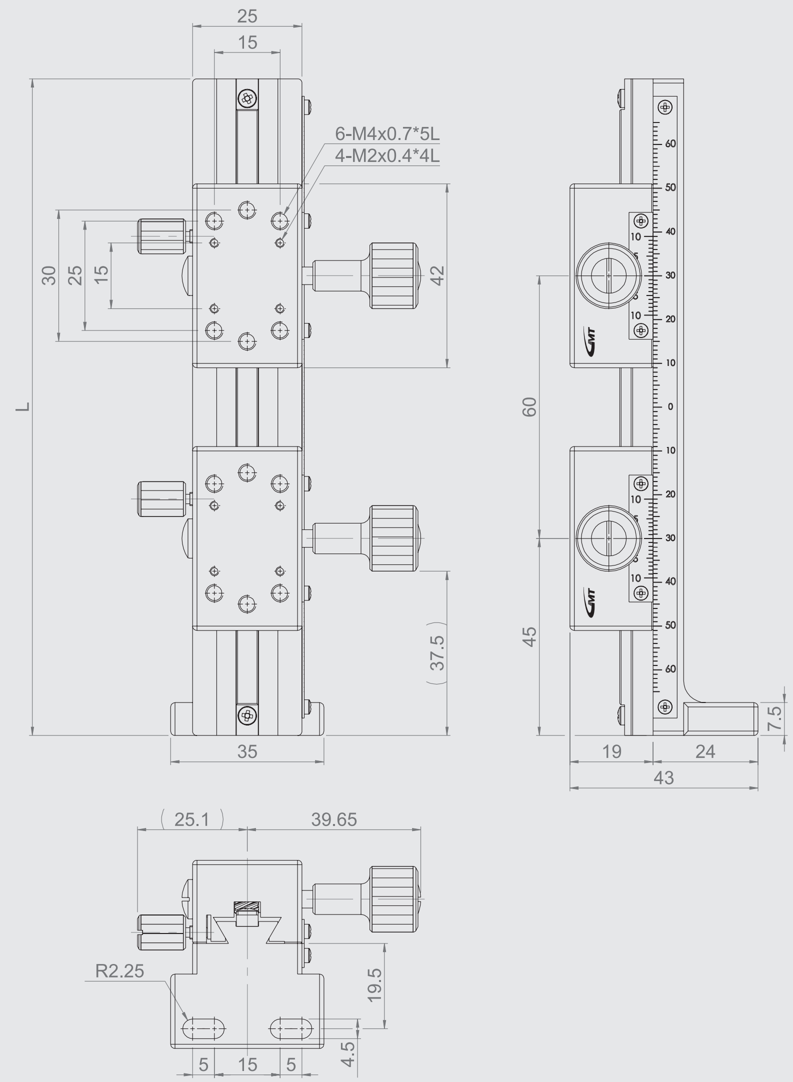
Unit : mm

Model No.	Table Size (L)	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC3C-50	50	±15	0.1 mm / Vernier	30	1.5	0.12	Aluminum alloy	Black anodized
MC3C-70	70	±25				0.135		
MC3C-100	100	±40				0.16		
MC3C-150	150	±65		40		0.215		
MC3C-200	200	±90		50		0.3		
MC3C-250	250	±115		50		0.36		
MC3C-300	300	±140		70		0.41		

★ A full rotation of the feeding screw knob equals a 18mm stroke.

MC3C-150-2



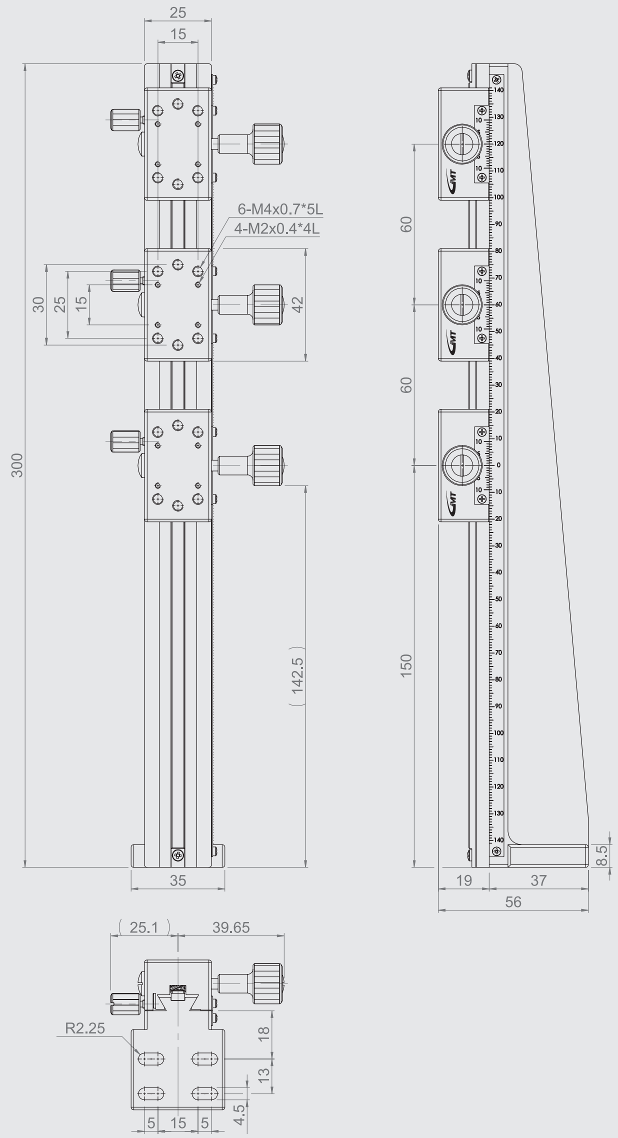


Specification

Unit : mm

Model No.	Table Size (L)	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish	Remarks
MC3C-150-2	150	Z-axis	±20	18	0.1 mm / Vernier	40	3	0.27	Aluminum alloy	Black anodized	Two slide blocks
MC3C-200-2	200		±37			50	1.5	0.3			
MC3C-300-2	300		±70			70	1.5	0.48			

MC3C-300-3



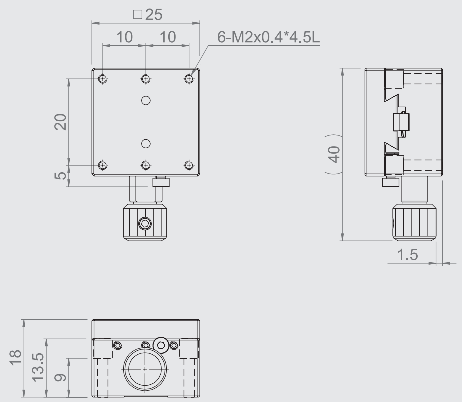
Specification

Unit : mm

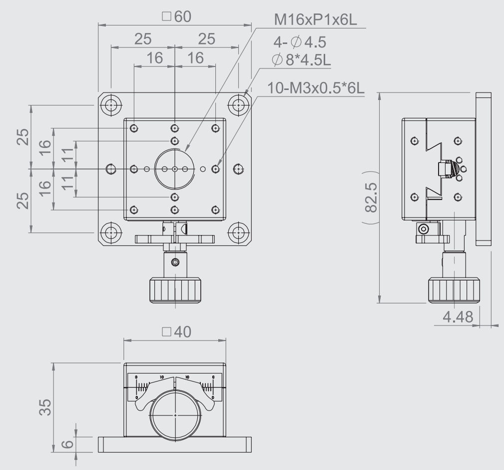
Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish	Remarks
MC3C-300-3	300	Z-axis	±43	18	0.1 mm / Vernier	70	1.5	0.55	Aluminum alloy	Black anodized	Three slide blocks

MC1D-60

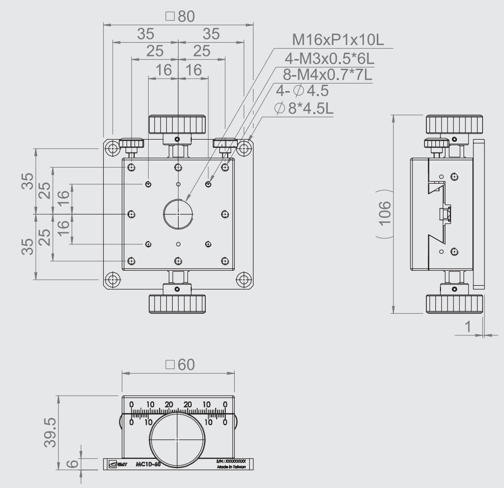
MC1D-25



MC1D-40



MC1D-60



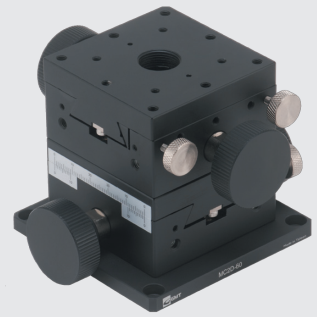
★ The vernier of MC1D-25, MC1D-60 is on the opposite of the mounting surface of the fixture.

Specification

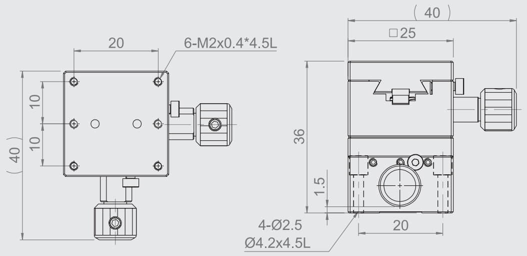
Unit : mm

Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1D-25	25*25	±5	17	0.1 mm / Vernier	20	3	0.09	Brass alloy	Black fluororesin finished
MC1D-40	40*40	±10	20		20		0.21	Aluminum alloy	Black anodized
MC1D-60	60*60	±20	18		30	4	0.64		

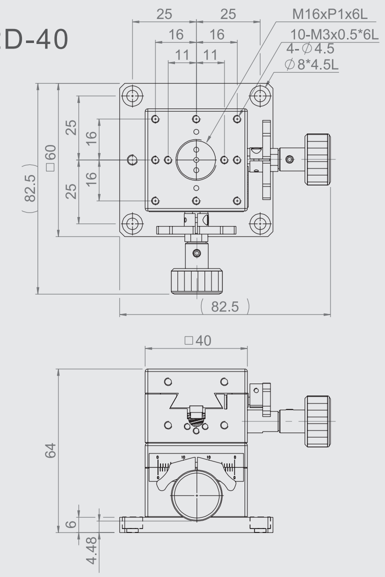
MC2D-60



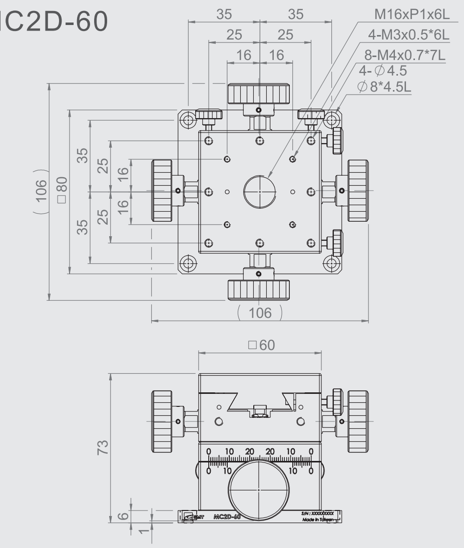
MC2D-25



MC2D-40



MC2D-60



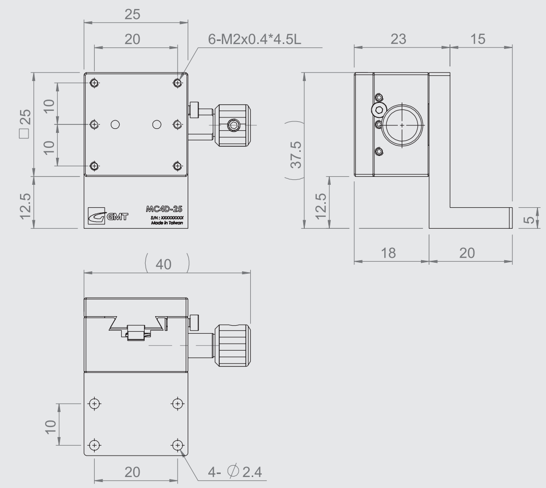
Specification

Unit : mm

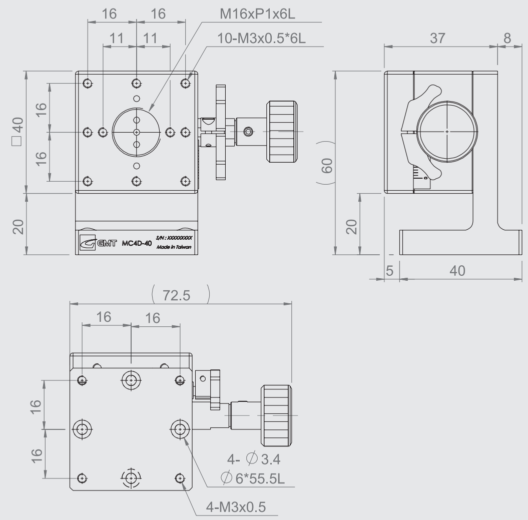
Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC2D-25	25*25	±5	17		20	2.9	0.18	Brass alloy	Black fluororesin finished
MC2D-40	40*40	±10	20	0.1 mm / Vernier	20	2.8	0.37	Aluminum alloy	Black anodized
MC2D-60	60*60	±20	18		30	3	1.19		

MC4D-60

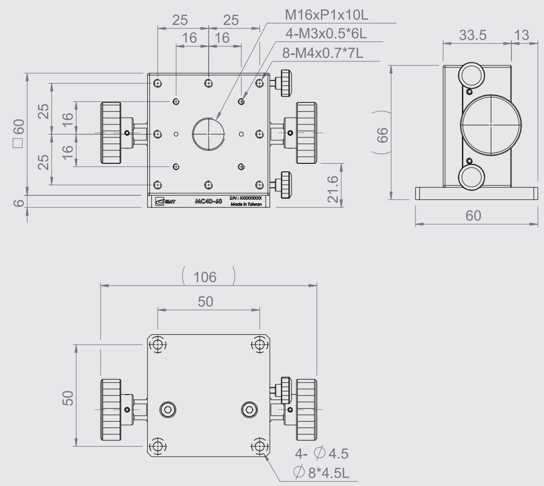
MC4D-25



MC4D-40



MC4D-60



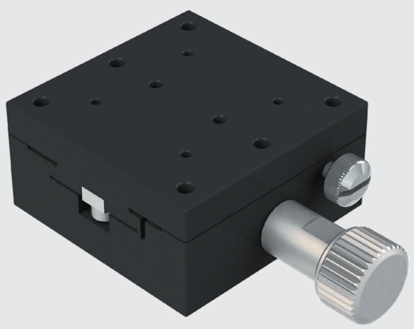
★ The vernier of MC4D-25 is on the opposite of the mounting surface of the fixture.

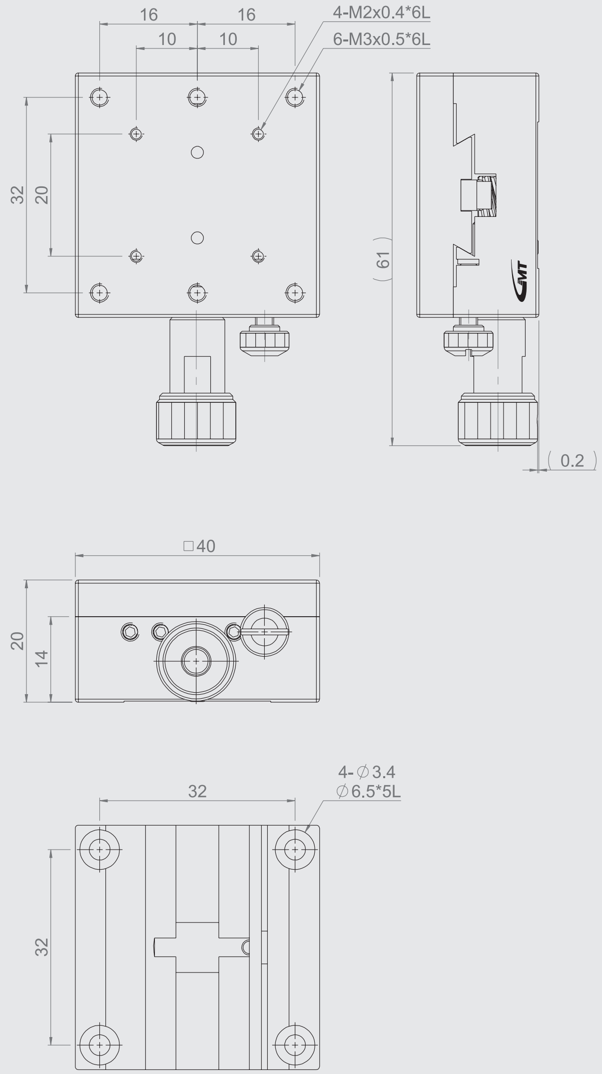
Specification

Unit : mm

Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC4D-25	25*25	±5	17		20	0.7	0.11	Brass alloy	Black fluororesin finished
MC4D-40	40*40	±10	20	0.1 mm / Vernier	20	1.5	0.23	Aluminum alloy	Black anodized
MC4D-60	60*60	±20	18		30	2	0.60		

MC1D-40L



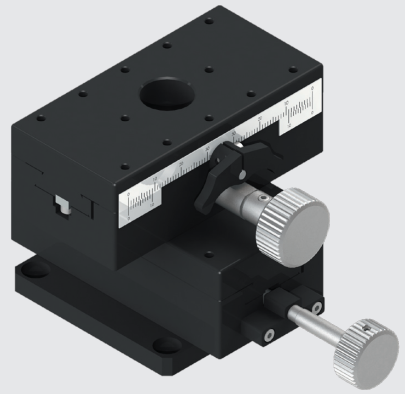


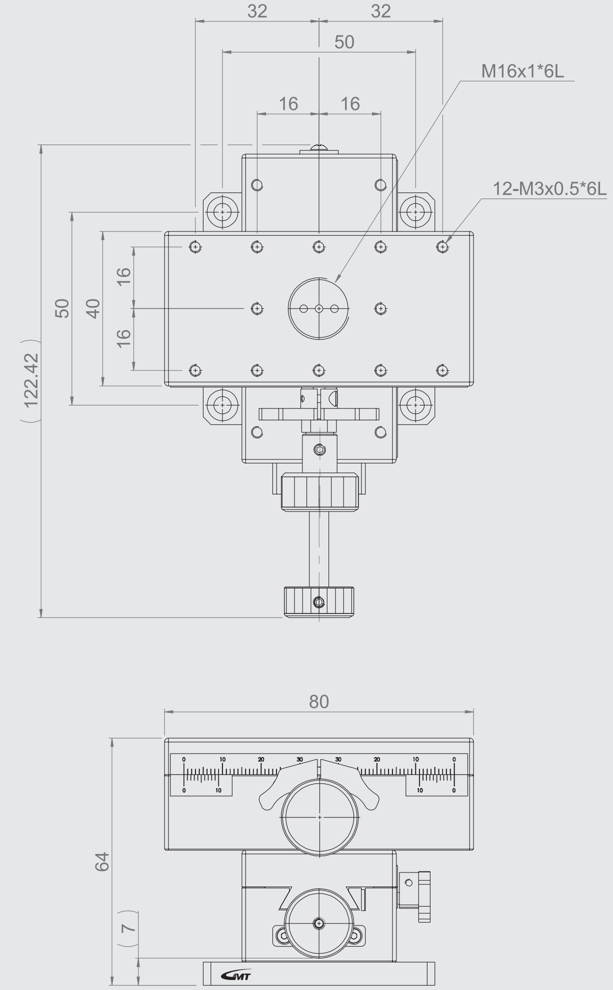
Specification

Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC1D-40L	40*40	X-axis	±10	20	30	2	0.25	Aluminum alloy	Black fluororesin finished

MC2DA-48NH



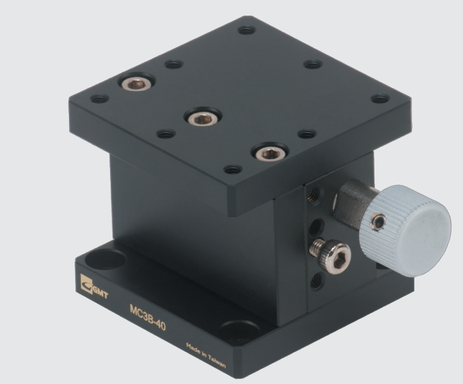


Specification

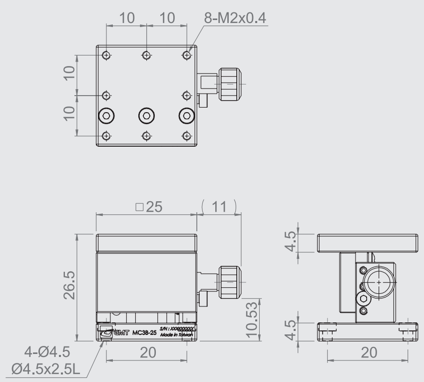
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC2DA-48NH	40*80(upper)	Y-axis	±35	18	0.1 mm / Vernier	30	3	0.6	Aluminum alloy	Black anodized
	40*80(lower)	X-axis	±30	42						

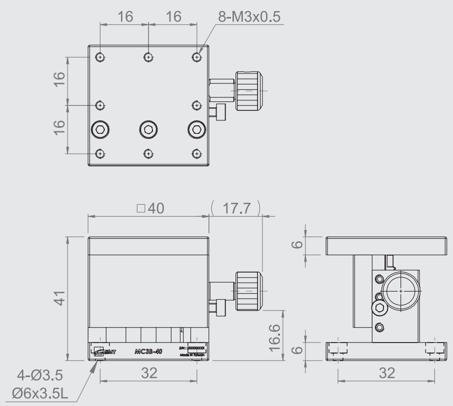
MC3B-40



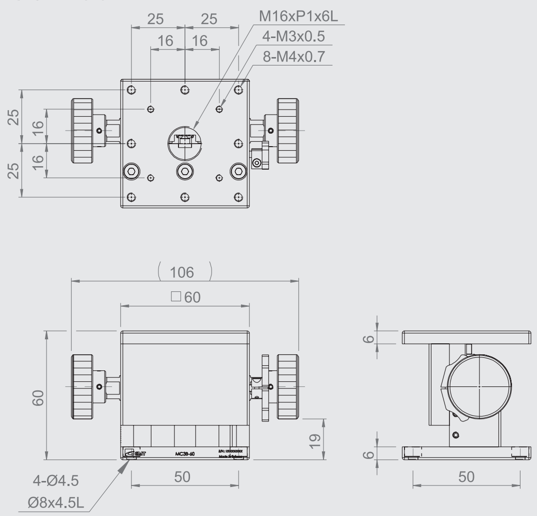
MC3B-25



MC3B-40



MC3B-60



Specification

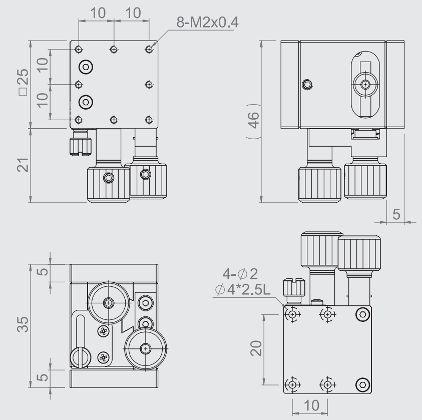
Unit : mm

Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC3B-25	25*25	±2.5	≒8	0.1 mm / Vernier	30	0.7	0.08	Brass alloy	Black fluororesin finished
MC3B-40	40*40	±5	≒13			1	0.12		
MC3B-60	60*60	±10	≒18			1.5	0.47	Aluminum alloy	Black anodized

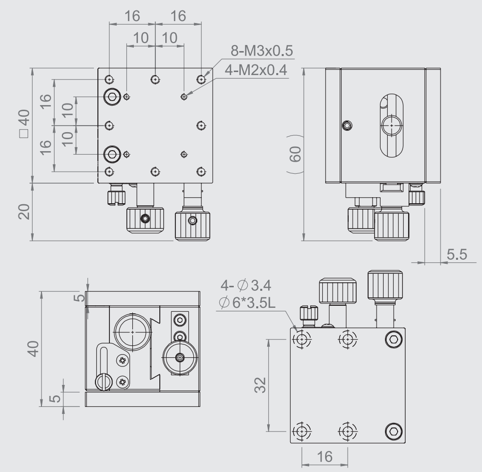
★ The Vernier is on the opposite side of the mounting surface of the fixture.

MC5B-40

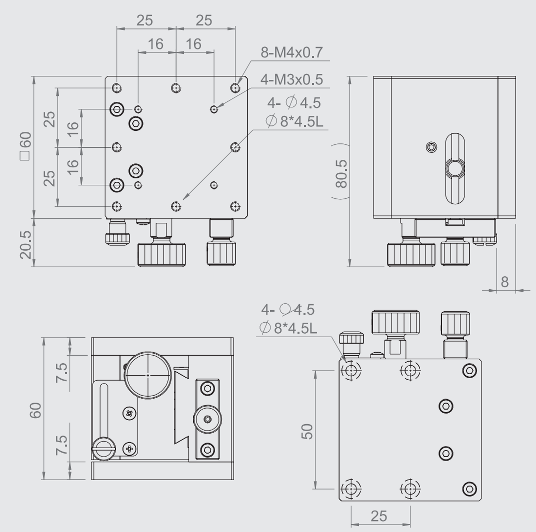
MC5B-25



MC5B-40



MC5B-60

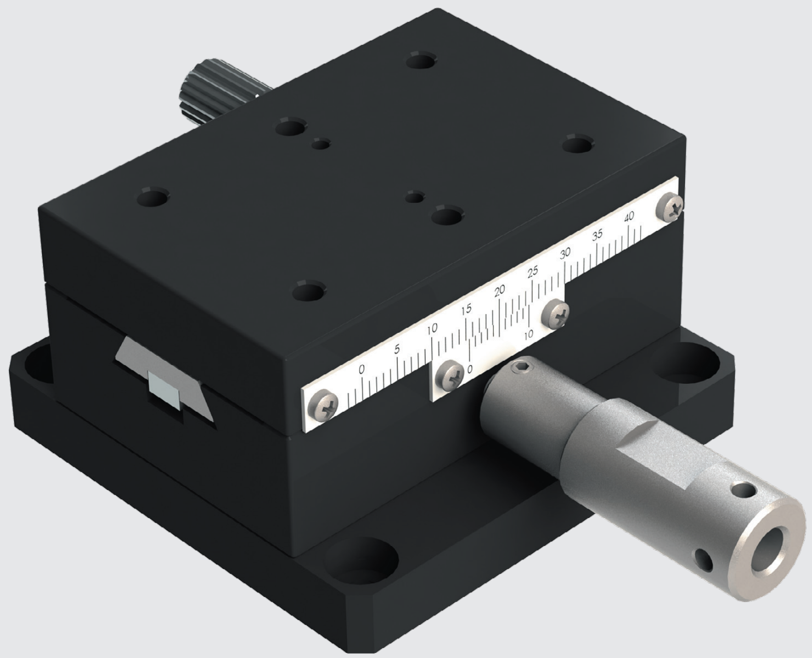


Specification

Unit : mm

Model No.	Table Size	Travel Stroke	Movement Per Knob Rotation	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC5B-25	25*25	X: ±5 Z: +10	X: 0.5 Z: ≒14	30	1	0.17	Brass alloy	Black fluororesin finished
MC5B-40	40*40	X: ±7 Z: +10	X: 0.5 Z: ≒14			0.51		
MC5B-60	60*60	X: ±10 Z: +25	X: 0.5 Z: ≒20			0.62	Aluminum alloy	Black anodized

MC1BL-60

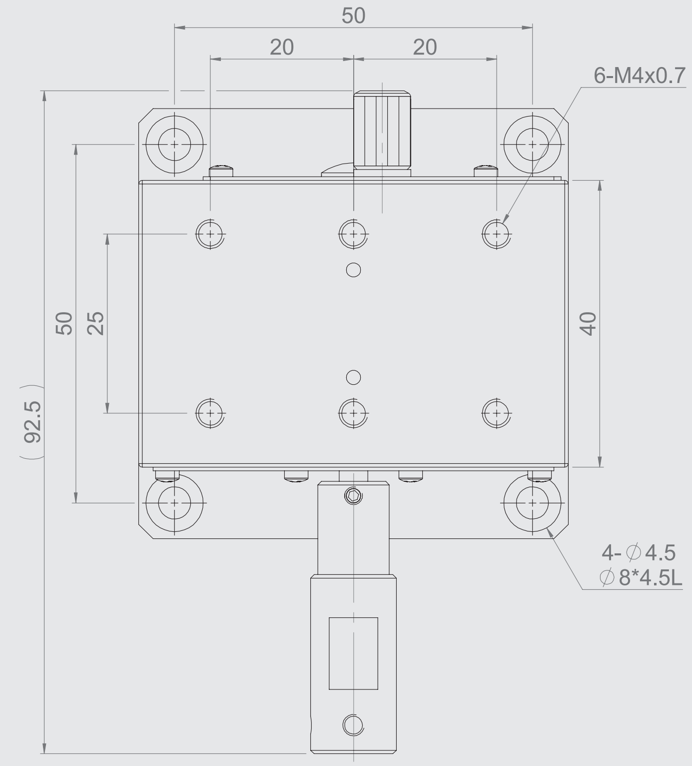


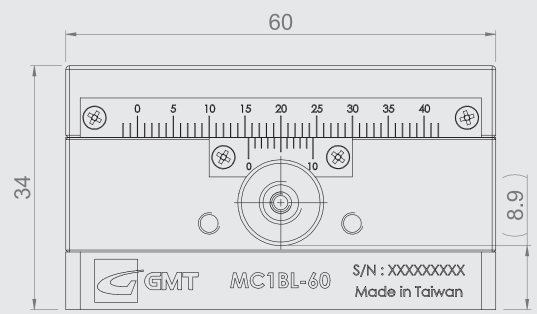
Specification

Unit : mm

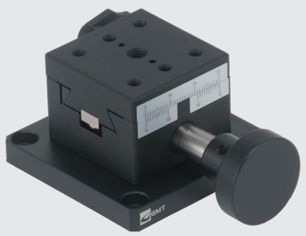
Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Rotation	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MC1BL-60	40*60	X-axis	±21	18	0.1 mm / Vernier	30	3	0.3	Aluminum alloy	Black anodized

GMT GLOBAL INC.
Dovetail Guiding ▶ X-Axis ▶ Rack and Pinion Type
Dovetail Stage | X-Axis | Extend Handle
Product Specification

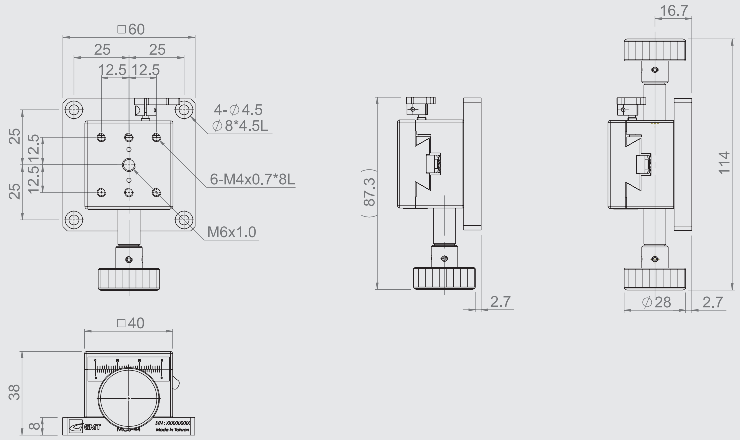




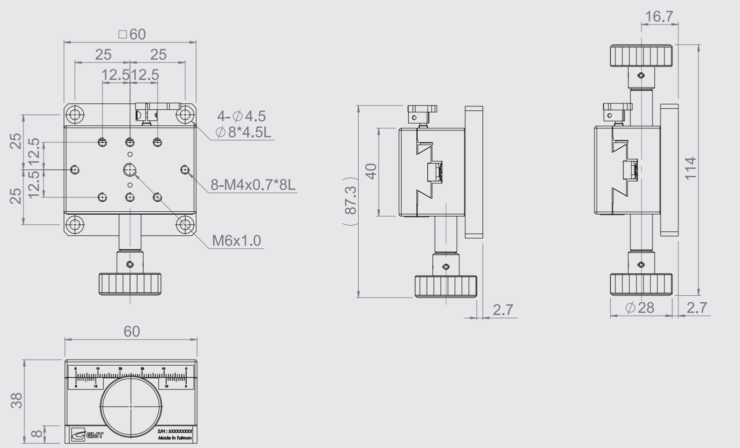
MCS-44



MCS-44 MCS-44W



MCS-46 MCS-46W



Specification

Unit : mm

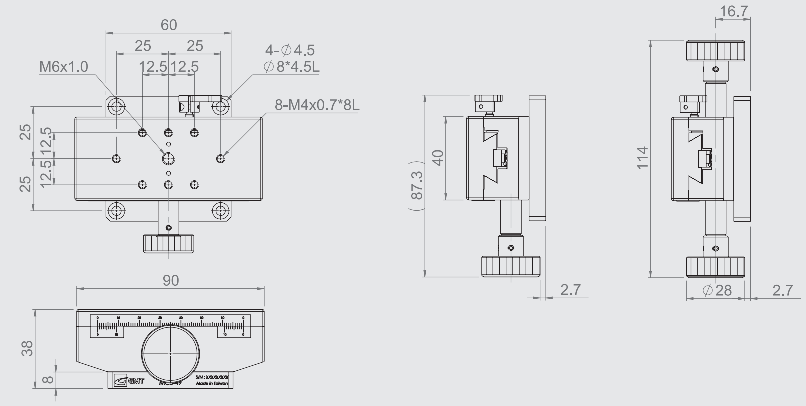
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MCS-44	40*40	X-axis	Single	±10	0.1 mm / Vernier	30	4	0.24	Aluminum alloy	Black anodized
MCS-44W			Dual					0.27		
MCS-46	40*60		Single	±15				0.31		
MCS-46W			Dual					0.33		

★ The Vernier is on the opposite side of the mounting surface of the fixture.

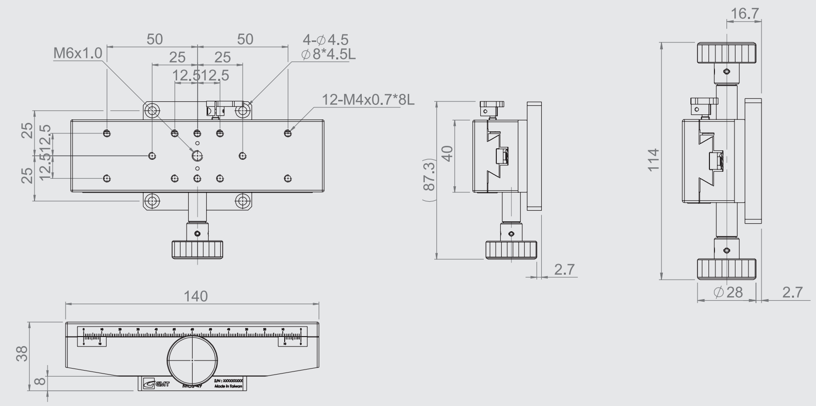
Dovetail Stage ▶ X-Axis ▶ Rack and Pinion Type
Dovetail Stage | X-Axis
GMT GLOBAL INC.
Product Specification

MCS-49

MCS-49 MCS-49W



MCS-41 MCS-41W



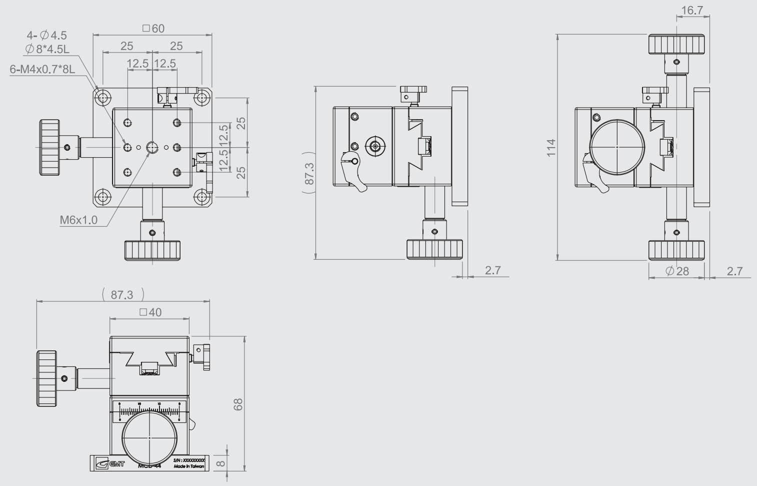
Specification

Unit : mm

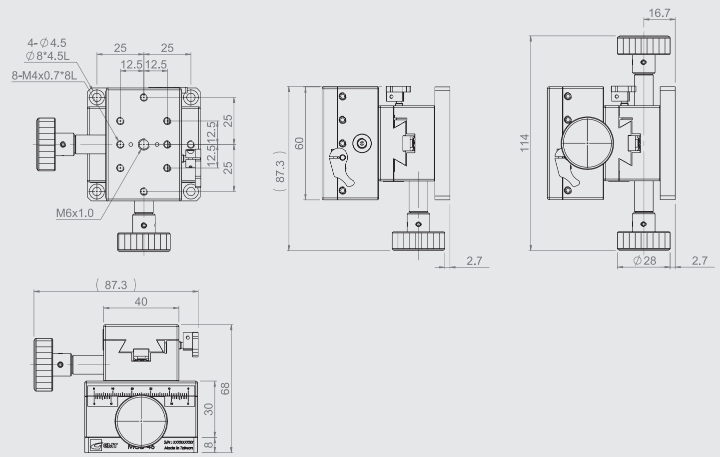
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MCS-49	40*90	X-axis	Single	±30	0.1 mm / Vernier	30	4	0.4	Aluminum alloy	Black anodized
MCS-49W			Dual					0.42		
MCS-41	40*140		Single	±50				0.55		
MCS-41W			Dual					0.58		

MCD-44

MCD-44 MCD-44W



MCD-46 MCD-46W

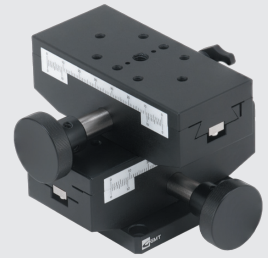


Specification

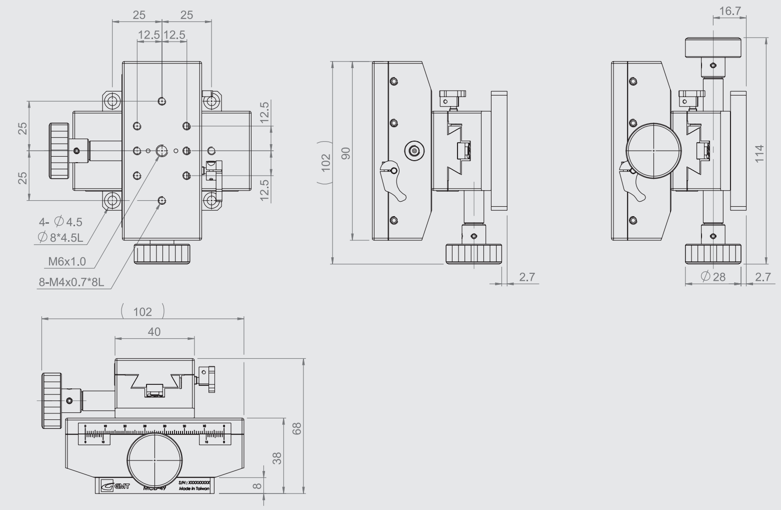
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight kg	Material	Surface Finish
MCD-44	40*40	XY-axis	Single	±10	0.1 mm / Vernier	30	3.5	0.41	Aluminum alloy	Black anodized
MCD-44W			Dual					0.46		
MCD-46	40*60		Single	±15				0.54		
MCD-46W			Dual					0.59		

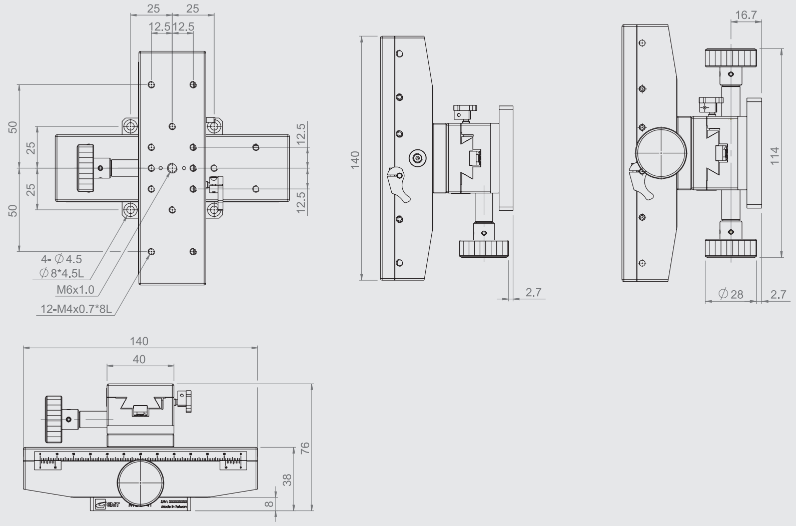
MCD-49



MCD-49 MCD-49W



MCD-41 MCD-41W



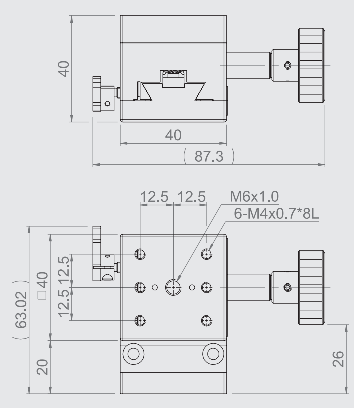
Specification

Unit : mm

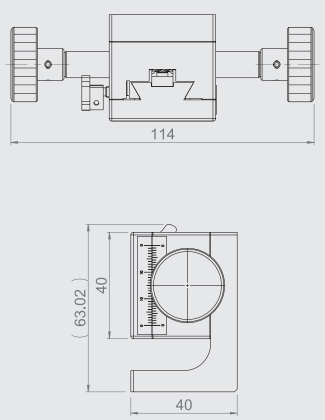
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCD-49	40*90	XY-axis	Single	±30	0.1 mm / Vernier	30	3.5	0.72	Aluminum alloy	Black anodized
MCD-49W			Dual					0.77		
MCD-41	40*140		Single	±50				1.07		
MCD-41W			Dual					1.12		

MCV-44

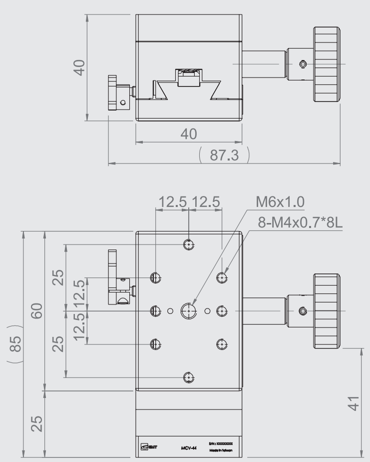
MCV-44



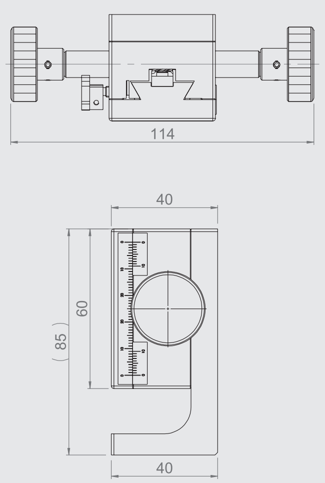
MCV-44W



MCV-46



MCV-46W



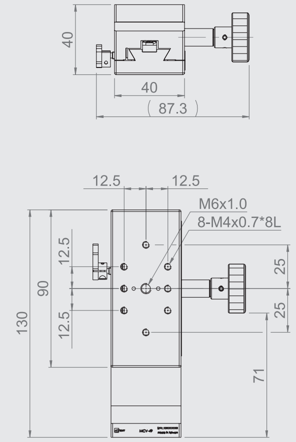
Specification

Unit : mm

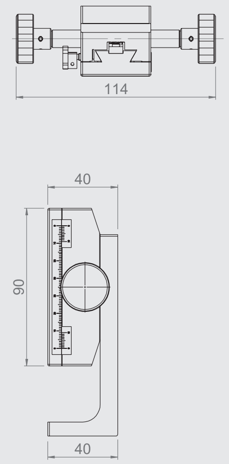
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCV-44	40*40	Z-axis	Single	±10	0.1 mm / Vernier	30	2	0.26	Aluminum alloy	Black anodized
MCV-44W			Dual					0.28		
MCV-46	40*60		Single	±15				0.36		
MCV-46W			Dual					0.38		

MCV-49

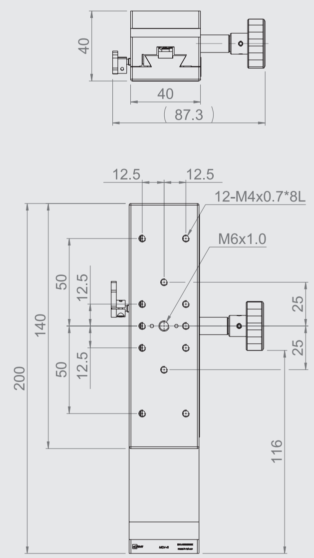
MCV-49



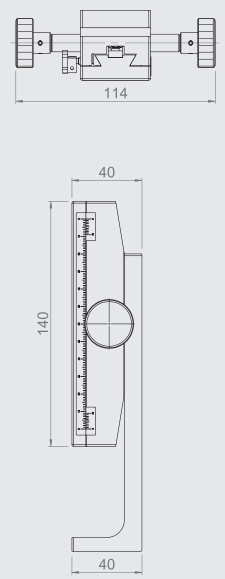
MCV-49W



MCV-41



MCV-41W

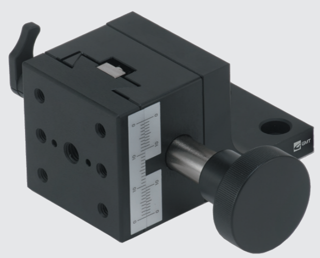


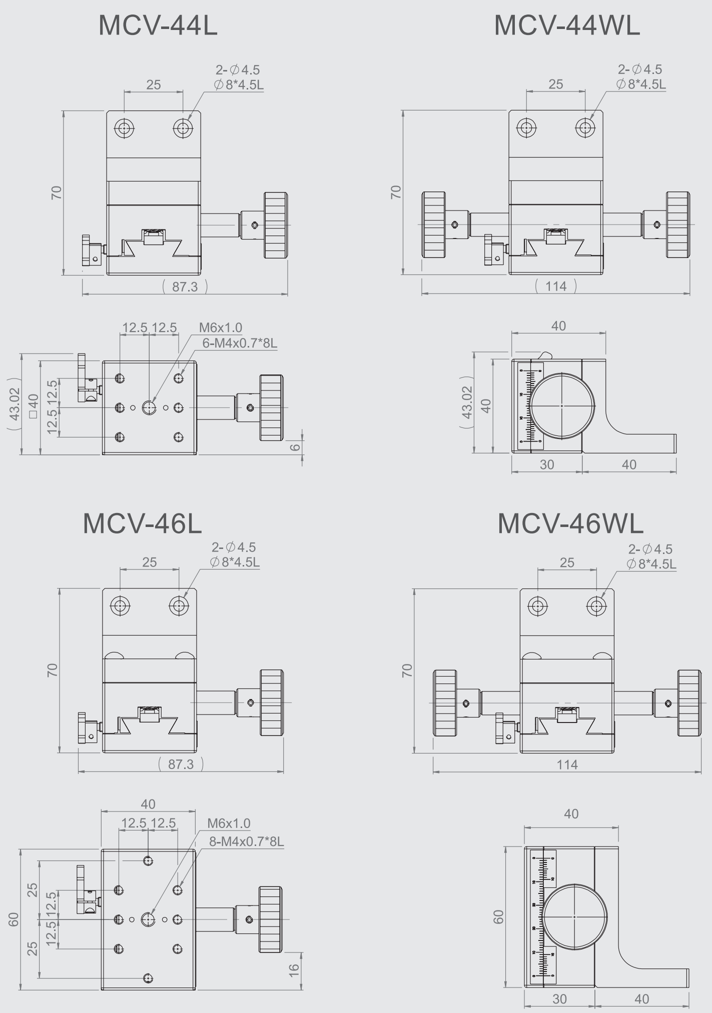
Specification

Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCV-49	40*90	Z-axis	Single	±30	0.1 mm / Vernier	30	2	0.47	Aluminum alloy	Black anodized
MCV-49W			Dual					0.5		
MCV-41	40*140		Single	±50				0.67		
MCV-41W			Dual					0.7		

MCV-44L





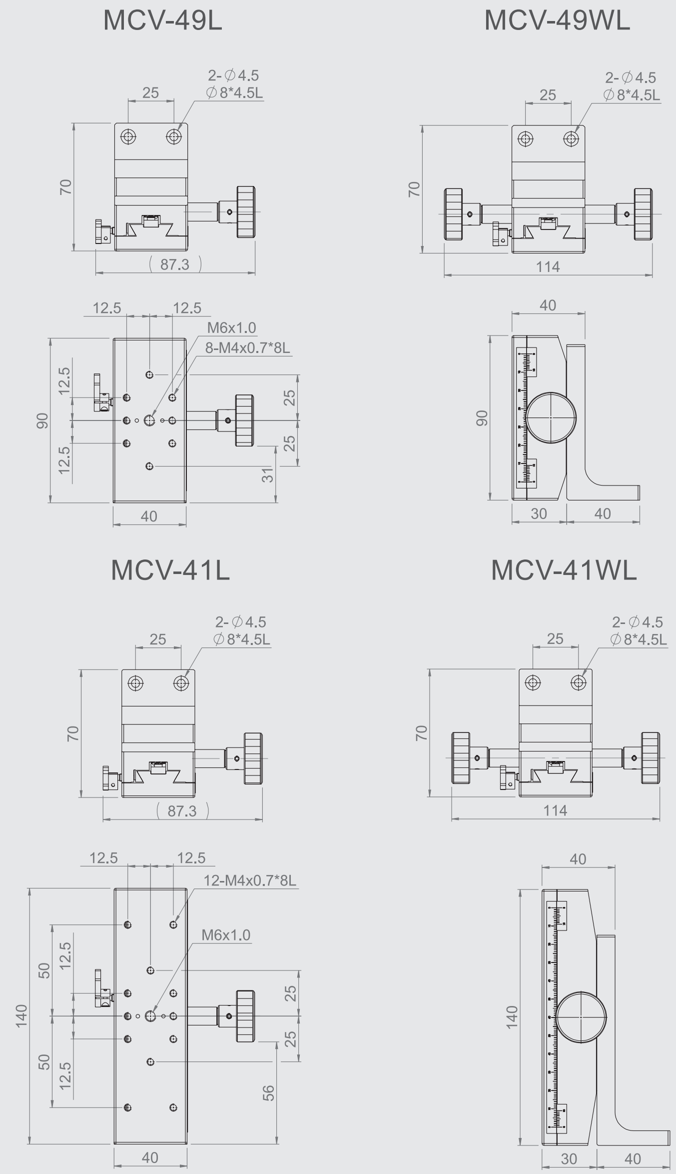
Specification

Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCV-44L	40*40	Z-axis	Single	±10	0.1 mm / Vernier	30	2	0.23	Aluminum alloy	Black anodized
MCV-44WL			Dual					0.26		
MCV-46L	40*60		Single	±15				0.33		
MCV-46WL			Dual					0.35		

Dovetail Stage ▶ Z-Axis ▶ Rack and Pinion Type
Dovetail Stage | Z-Axis
GMT GLOBAL INC.
Product Specification

MCV-49L

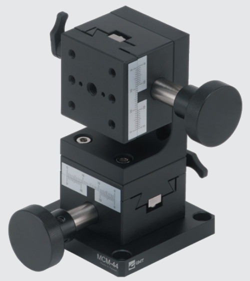


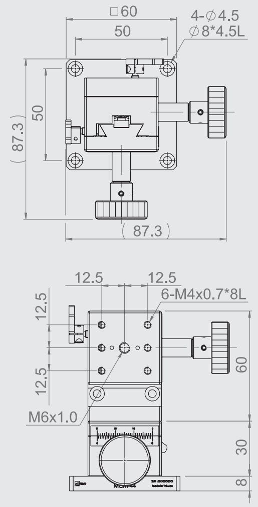
Specification

Unit : mm

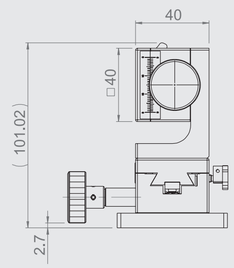
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCV-49L	40*90	Z-axis	Single	±30	0.1 mm / Vernier	30	2	0.45	Aluminum alloy	Black anodized
MCV-49WL			Dual					0.47		
MCV-41L	40*140		Single	±50				0.63		
MCV-41WL			Dual					0.66		

MCM-44

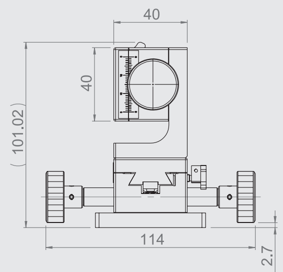


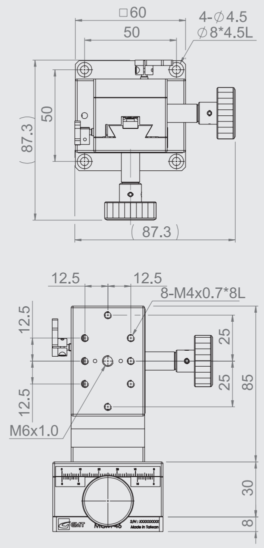


MCM-44

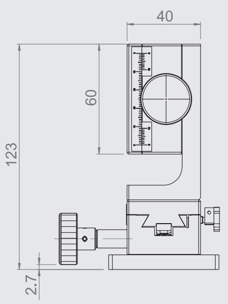


MCM-44W

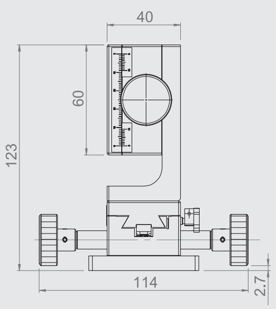




MCM-46



MCM-46W

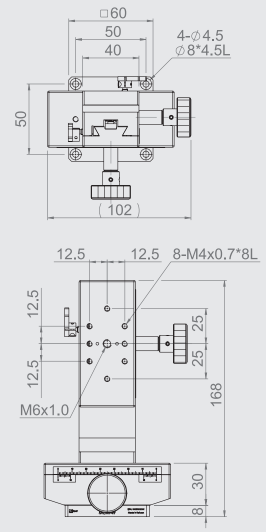


Specification

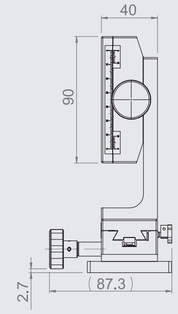
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCM-44	40*40	X+Z axis	Single	±10	0.1 mm / Vernier	30	2	0.5	Aluminum alloy	Black anodized
MCM-44W			Dual					0.55		
MCM-46	40*60		Single	±15				0.67		
MCM-46W			Dual					0.72		

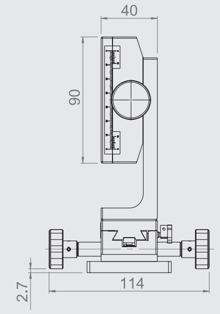
MCM-49

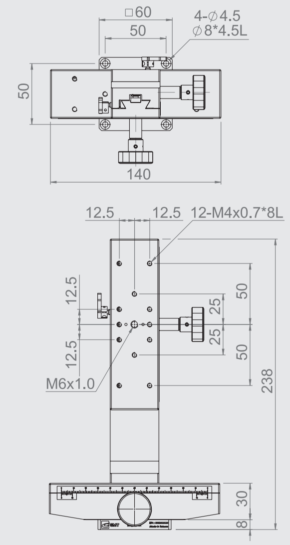


MCM-49

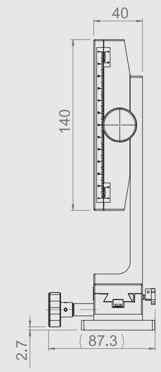


MCM-49W

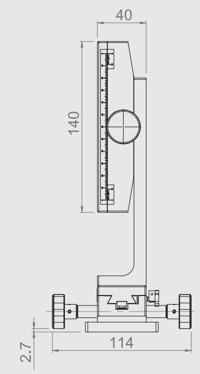




MCM-41



MCM-41W

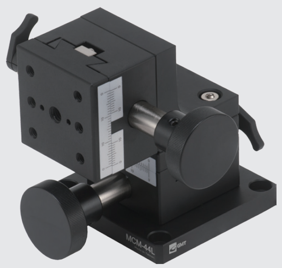


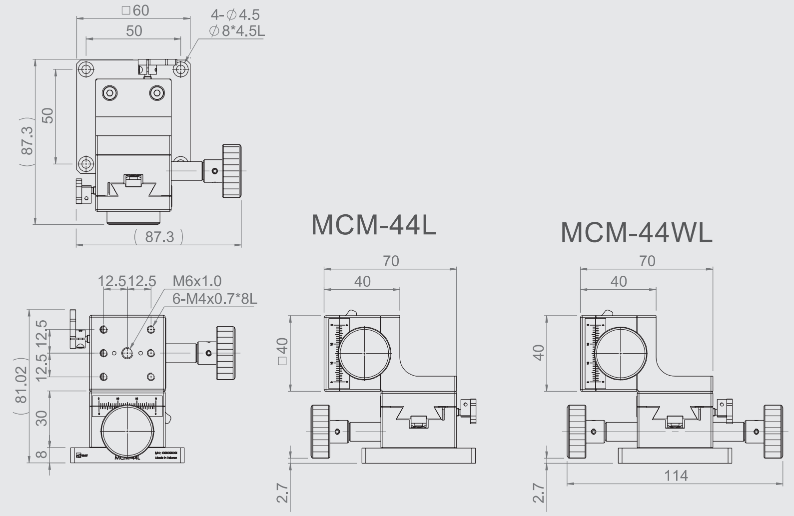
Specification

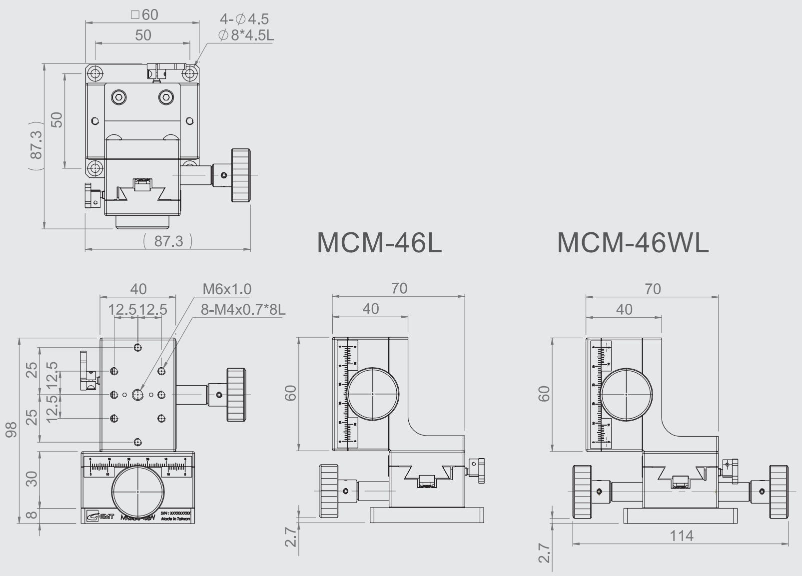
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCM-49	40*90	X+Z axis	Single	±30	0.1 mm / Vernier	30	2	0.87	Aluminum alloy	Black anodized
MCM-49W			Dual					0.92		
MCM-41	40*140		Single	±50				1.23		
MCM-41W			Dual					1.28		

MCM-44L







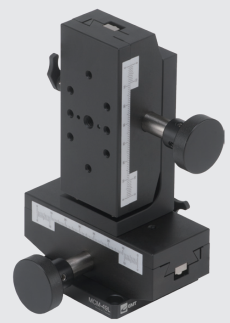
Specification

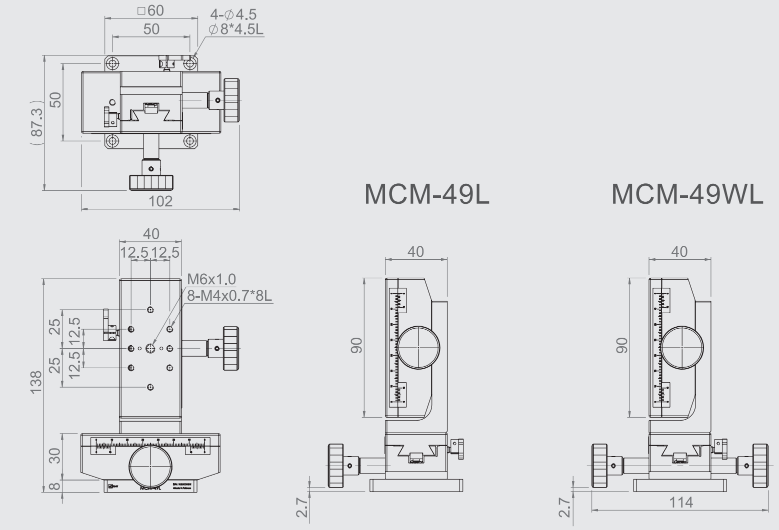
Unit : mm

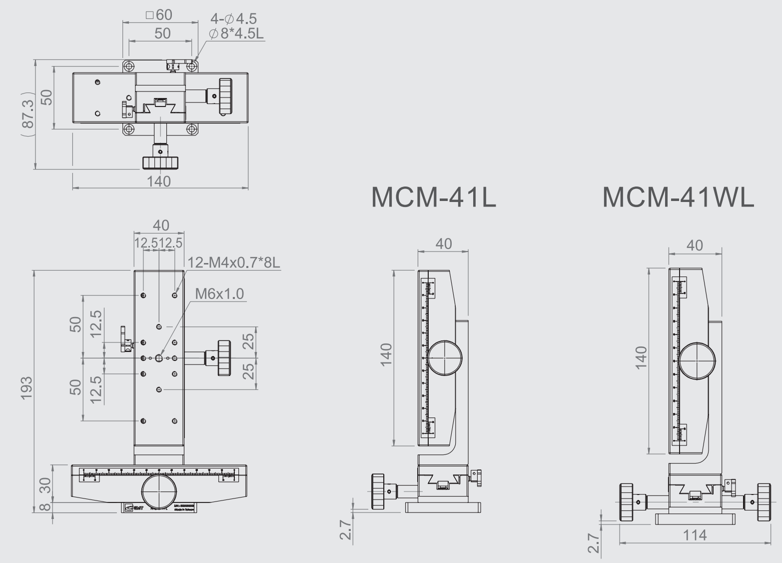
Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCM-44L	40*40	X+Z axis	Single	X: ±10 Z: 10	0.1 mm / Vernier	30	2	0.47	Aluminum alloy	Black anodized
MCM-44WL			Dual					0.52		
MCM-46L	40*60		Single	X: ±15 Z: 15				0.64		
MCM-46WL			Dual					0.68		

Dovetail Stage ▸ X+Z Axis ▸ Rack and Pinion Type
Dovetail Stage | X+Z Axis
GMT GLOBAL INC.
Product Specification

MCM-49L





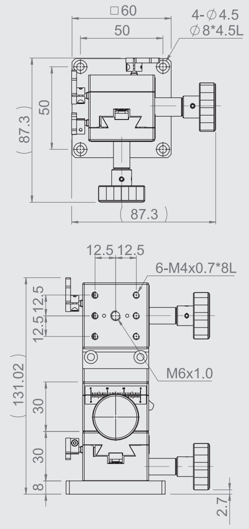


Specification

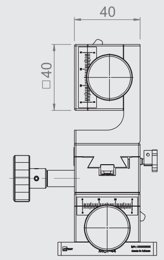
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCM-49L	40*90	X+Z axis	Single	X: ±30 Z: 30	0.1 mm / Vernier	30	2	0.85	Aluminum alloy	Black anodized
MCM-49WL			Dual					0.89		
MCM-41L	40*140		Single	X: ±50 Z: 50				1.18		
MCM-41WL			Dual					1.24		

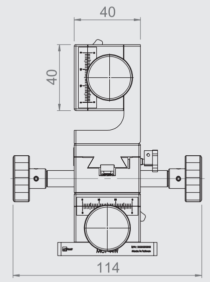
MCT-44

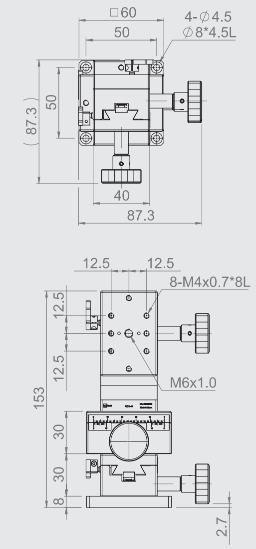


MCT-44

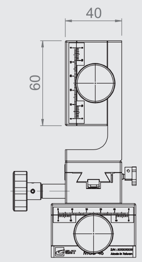


MCT-44W

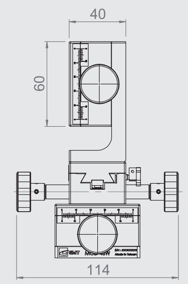




MCT-46



MCT-46W

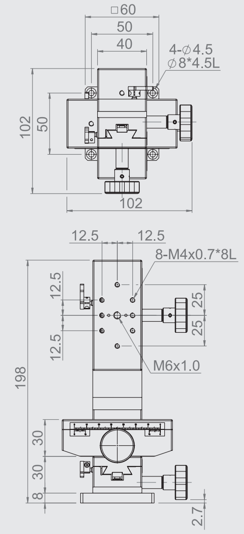


Specification

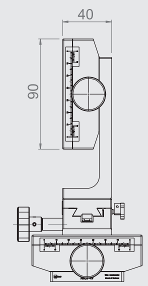
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCT-44	40*40	XY+Z axis	Single	±10	0.1 mm / Vernier	30	2	0.67	Aluminum alloy	Black anodized
MCT-44W			Dual					0.74		
MCT-46	40*60		Single	±15				0.9		
MCT-46W			Dual					0.98		

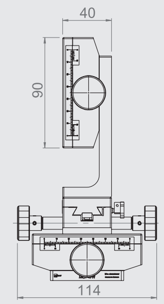
MCT-49

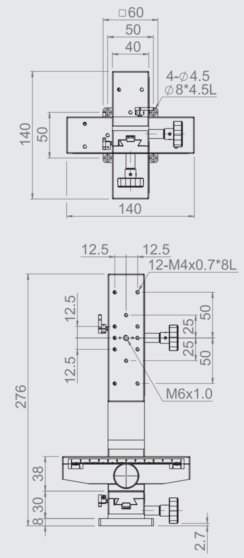


MCT-49

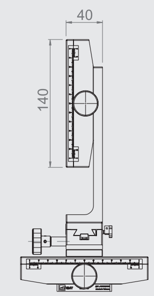


MCT-49W

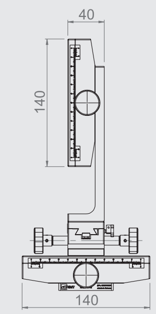




MCT-41



MCT-41W

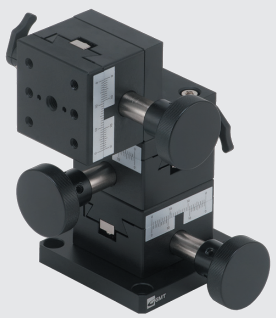


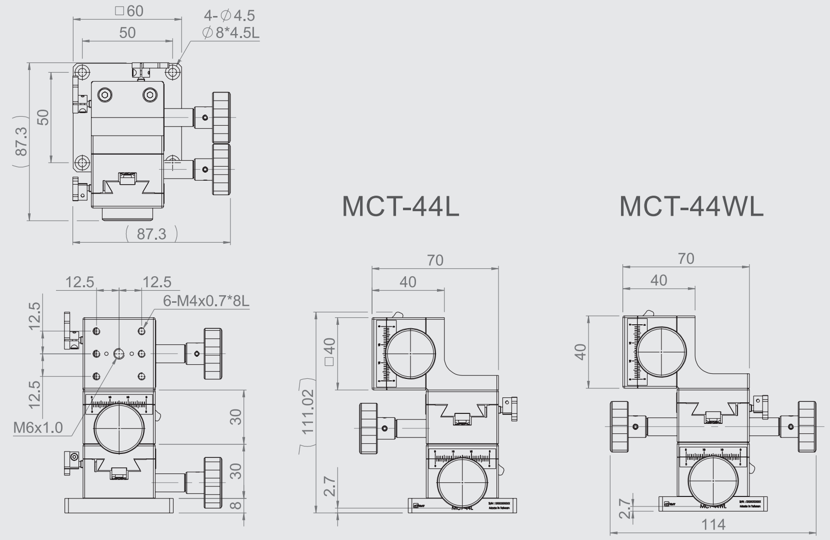
Specification

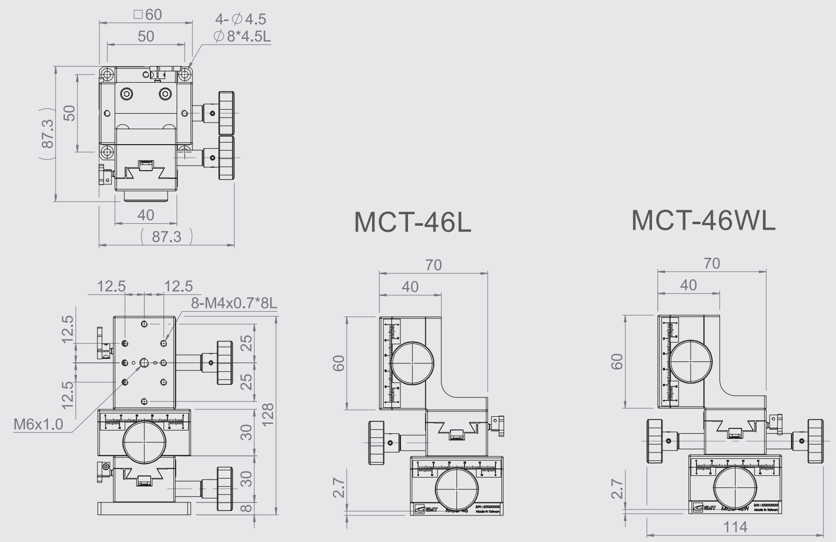
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCT-49	40*90	XY+Z axis	Single	±30	0.1 mm / Vernier	30	2	1.2	Aluminum alloy	Black anodized
MCT-49W			Dual					1.27		
MCT-41	40*140		Single	±50				1.74		
MCT-41W			Dual					1.82		

MCT-44L





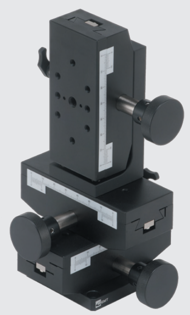


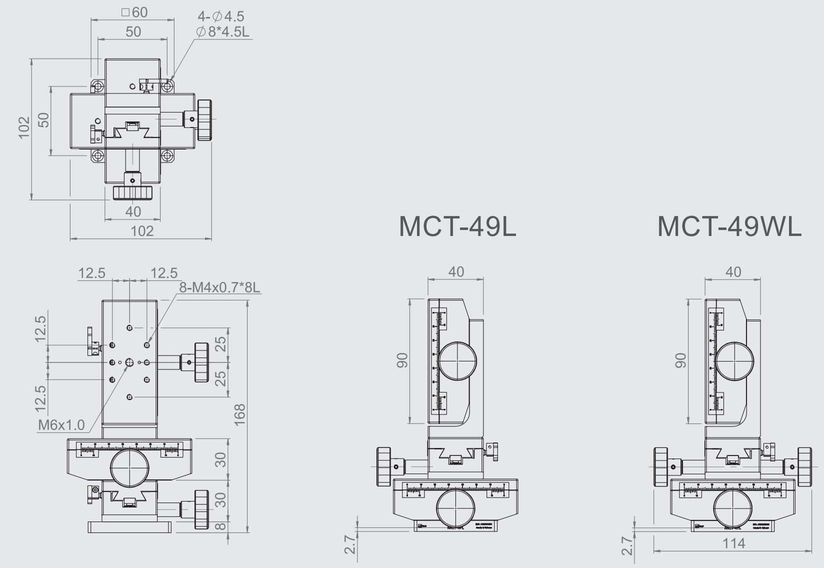
Specification

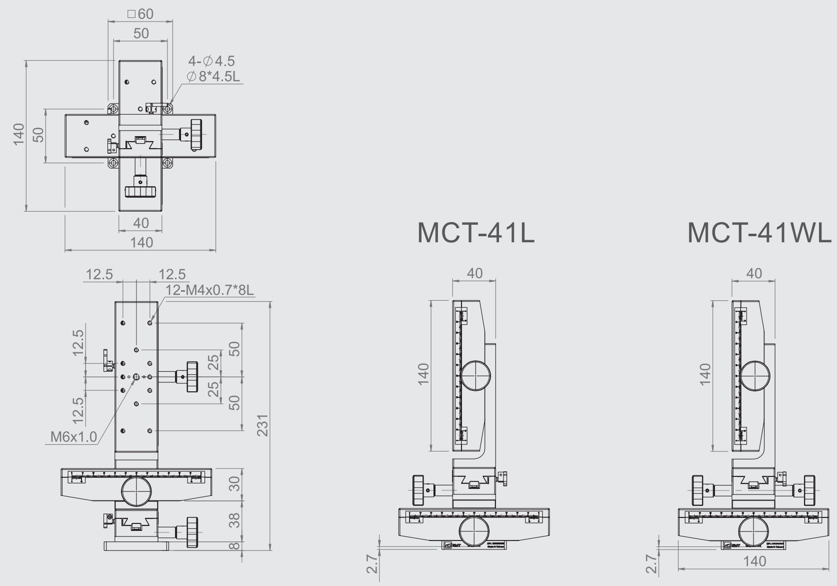
Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCT-44L	40*40	XY+Z axis	Single	XY: ±10 Z: 10	0.1 mm / Vernier	30	2	0.64	Aluminum alloy	Black anodized
MCT-44WL			Dual					0.72		
MCT-46L	40*60		Single	XY: ±15 Z: 15				0.87		
MCT-46WL			Dual					0.94		

MCT-49L





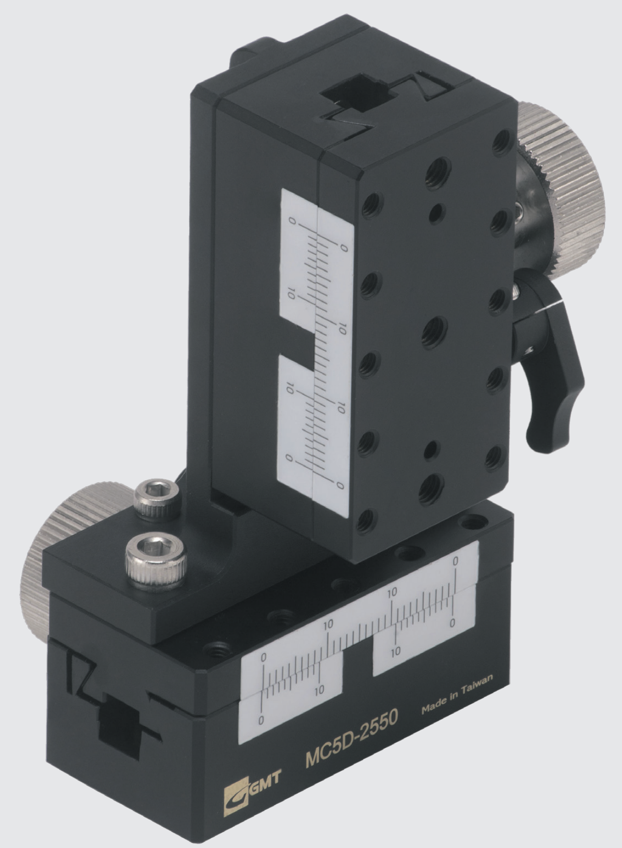


Specification

Unit : mm

Model No.	Table Size	Axis	Knob Type	Travel Stroke	Minimum Reading	Straightness Accuracy (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCT-49L	40*90	XY+Z axis	Single	XY: ±30 Z: 30	0.1 mm / Vernier	30	2	1.17	Aluminum alloy	Black anodized
MCT-49WL			Dual					1.24		
MCT-41L	40*140		Single	XY: ±50 Z: 50				1.7		
MCT-41WL			Dual					1.78		

MC5D-2550

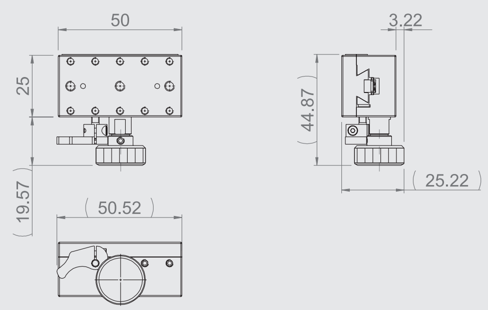


Specification

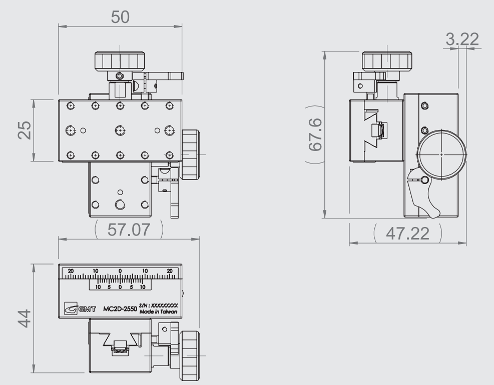
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Minimum Reading	Straightness (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1D-2550	25*50	X-axis	±10	0.1 mm / Vernier	30	8	0.22	Brass alloy	Black fluororesin finished
MC2D-2550		XY-axis				8	0.44		
MC4D-2550		Z-axis				1	0.3		
MC5D-2550		X+Z axis				1	0.52		
MC6D-2550		XY+Z axis				1	0.75		

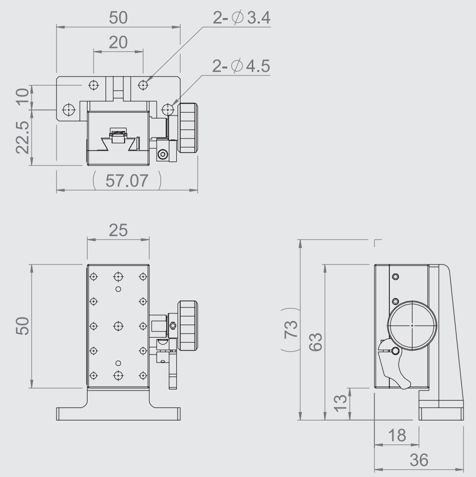
MC1D-2550



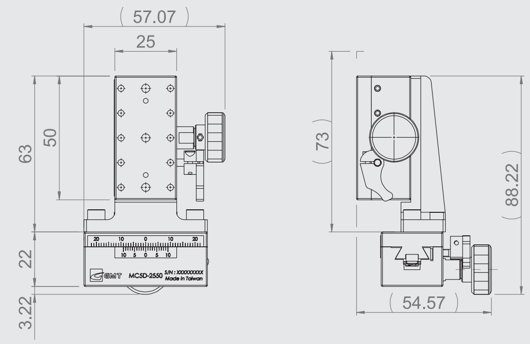
MC2D-2550



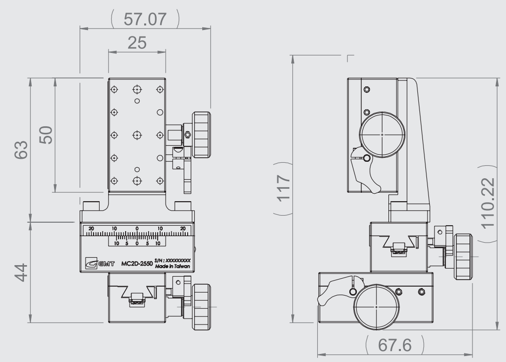
MC4D-2550



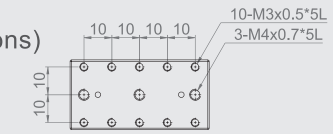
MC5D-2550



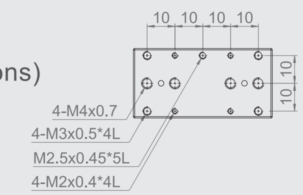
MC6D-2550



MC#A-2550
(Table Dimensions)



MC#A-2550
(Table Dimensions)



MC1E-60

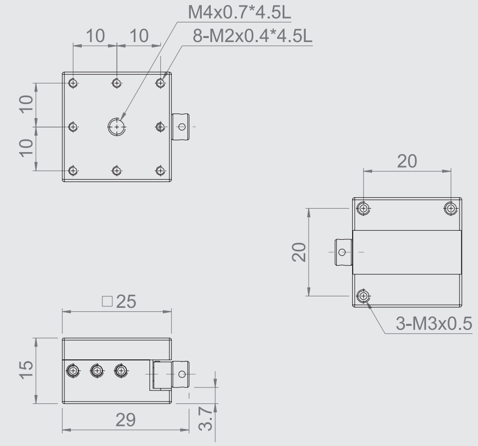
MC2E-60

Specification

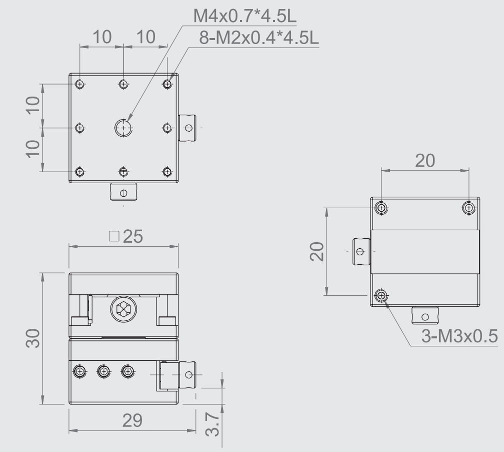
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Minimum Reading	Straightness (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1E-25	25*25		±3			3	0.07		
MC1E-40	40*40	X-axis	±5			3	0.19		
MC1E-60	60*60		±7	No Scale	30	4	0.6	Brass alloy	Black fluororesin finished
MC2E-25	25*25		±3			2.9	0.15		
MC2E-40	40*40	XY-axis	±5			2.8	0.38		
MC2E-60	60*60		±7			3.4	1.2		

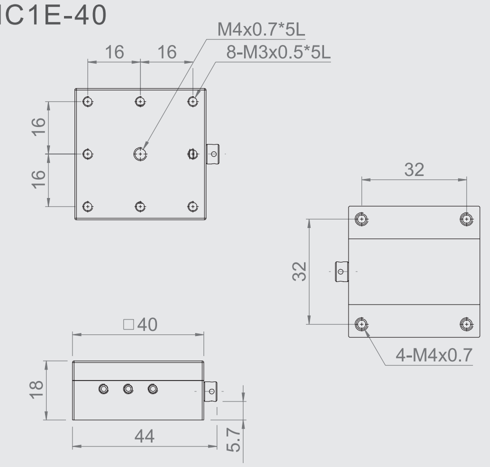
MC1E-25



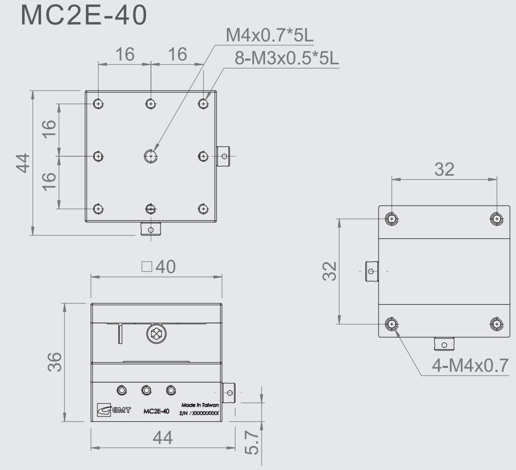
MC2E-25



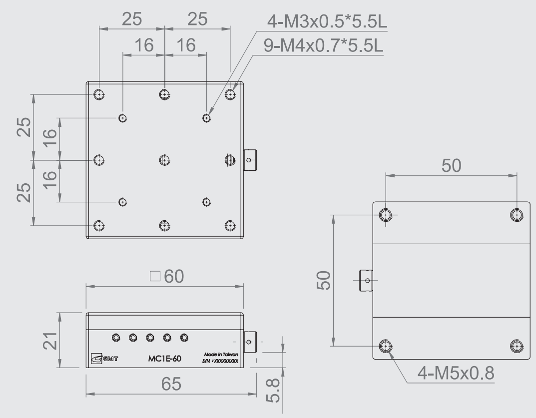
MC1E-40



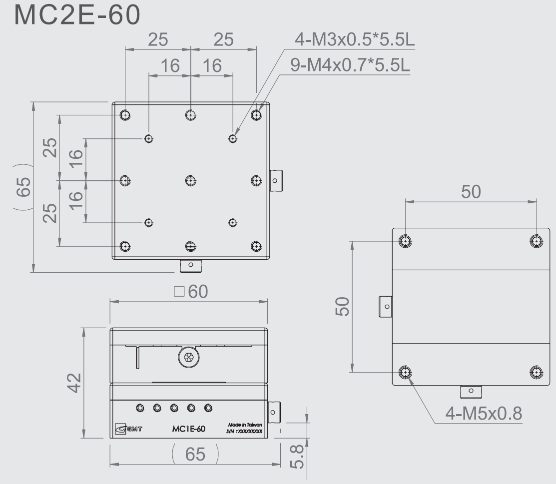
MC2E-40



MC1E-60



MC2E-60



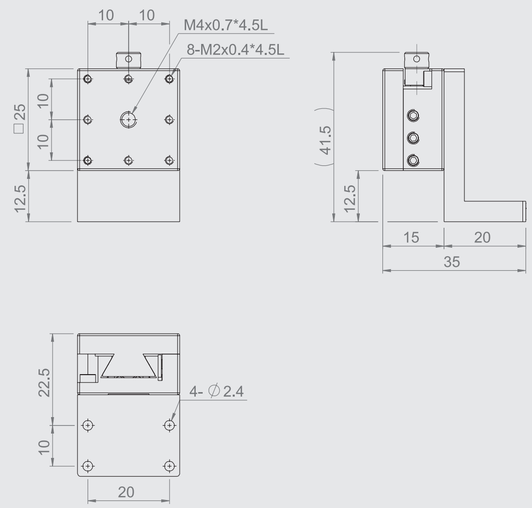
MC4E-60

Specification

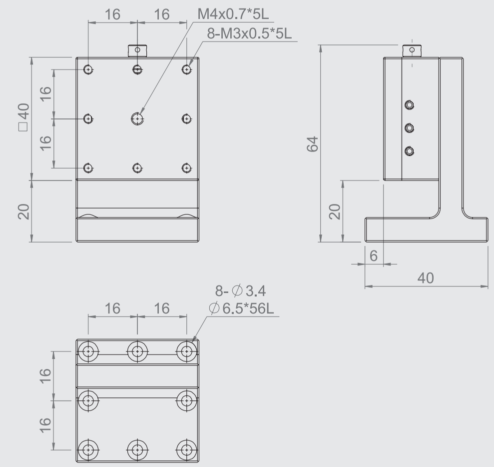
Unit : mm

Model No.	Table Size	Axis	Travel Stroke	Minimum Reading	Straightness (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC4E-25	25*25	Z-axis	±3	No Scale	30	1	0.08	Brass alloy	Black fluororesin finished
MC4E-40	40*40		±5			1	0.27		
MC4E-60	60*60		±7			2	0.65		

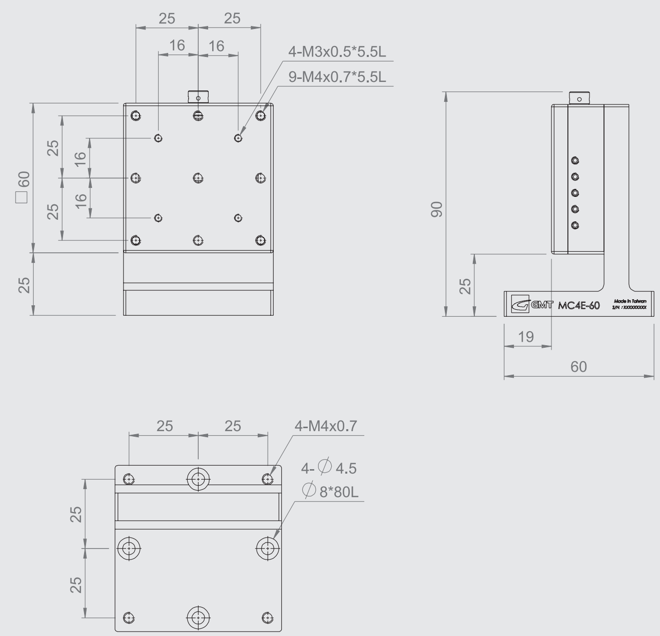
MC4E-25



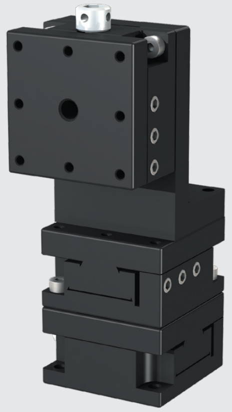
MC4E-40

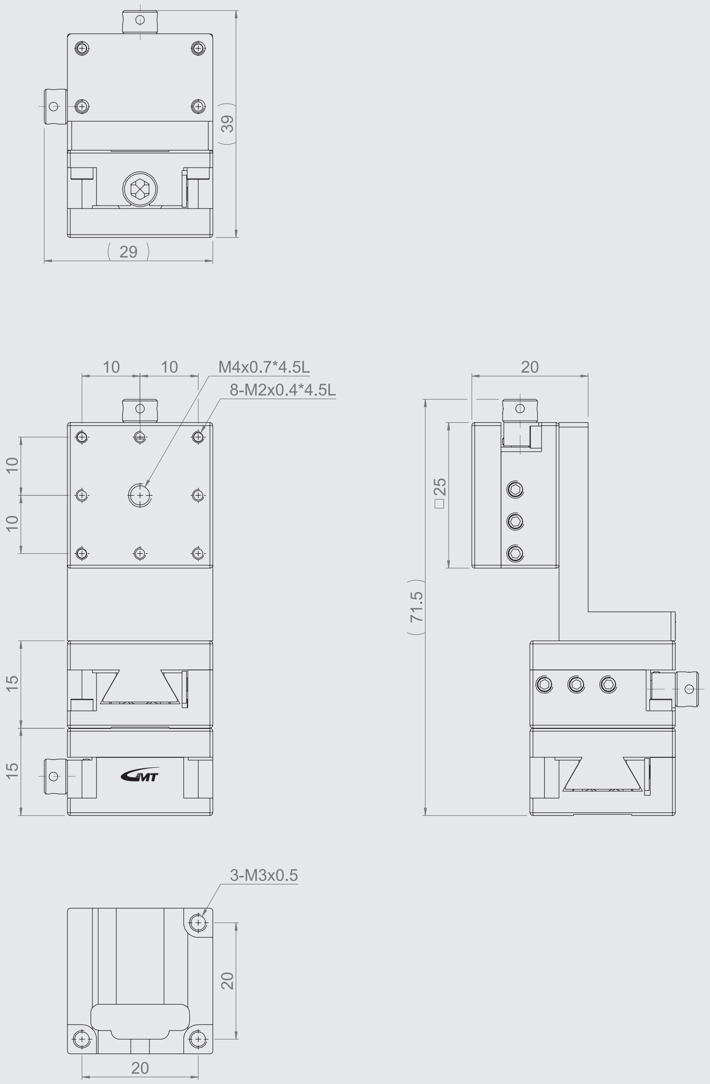


MC4E-60



MC6E-25



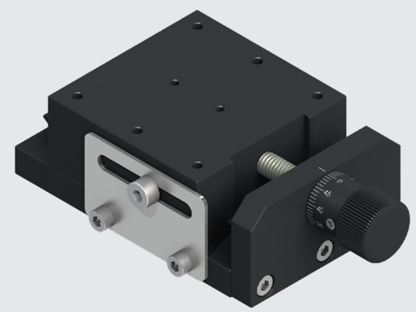


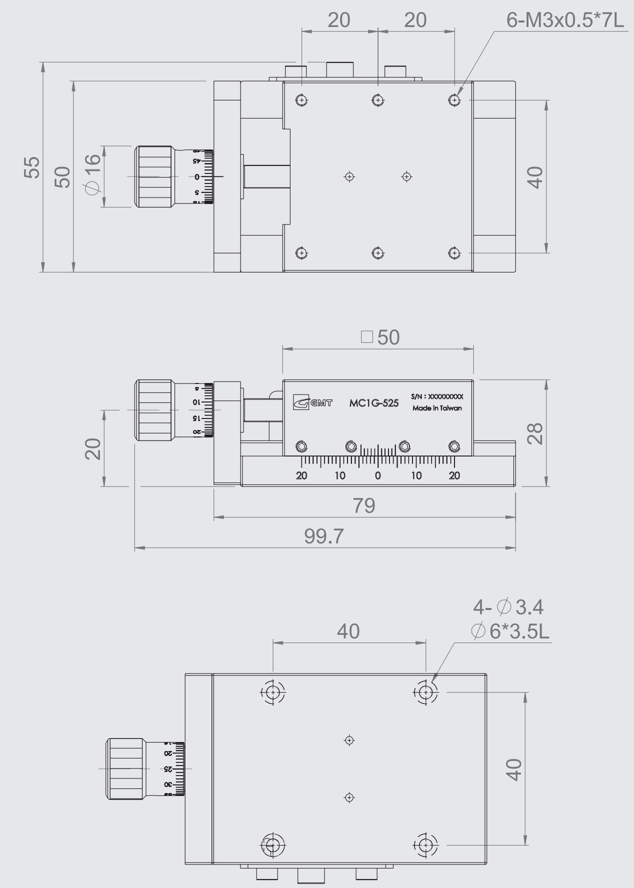
Specification

Unit : mm

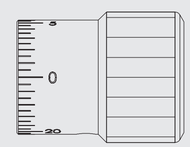
Model No.	Table Size	Axis	Travel Stroke	Movement Per Knob Cycle	Straightness (μm)	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC6E-25	25*25	XY+Z axis	±3	0.5	30	1.9	0.22	Brass alloy	Black flororesin finished

MC1G-525C(F)

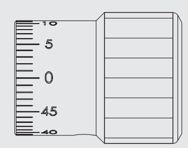




Knob type :



MC1G-525F(Fit PITCH0.25)



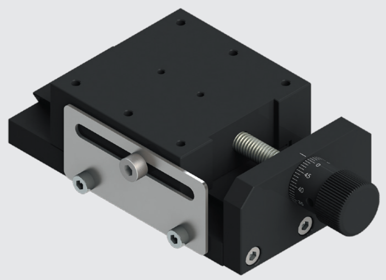
MC1G-525C(Fit PITCH0.5)

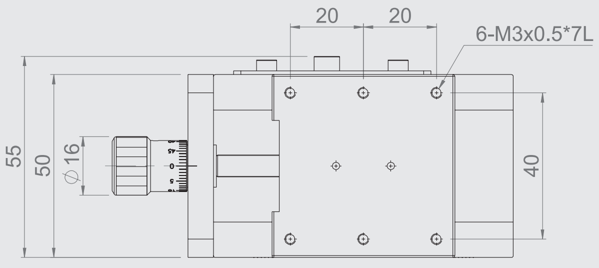
Specification

Unit : mm

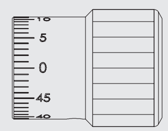
Model No.	Table Size	Base Dimensions	Adjustment Structure: Movement Per Knob Cycle	Adjustment Structure: Knob Mini. Reading	Adjustment Structure: Travel Stroke	Straightness Accuracy	Parallel	Dynamic Parallel	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1G-525C	50*50	50*79	0.5	0.01/div.	±11	0.03	0.05	0.04	5	0.27	Aluminum alloy	Black anodized
MC1G-525F			0.25	0.005/div.								

MC1G-535C(F)

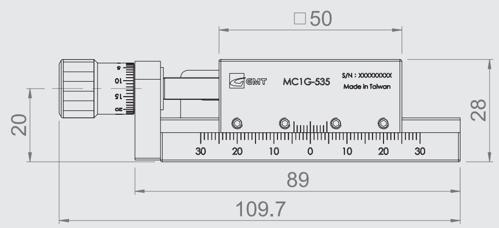


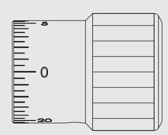


Knob type :

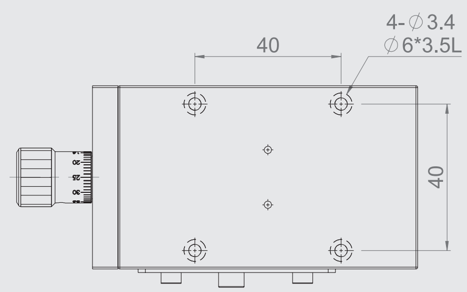


MC1G-535C(Fit PITCH0.5)





MC1G-535F(Fit PITCH0.25)

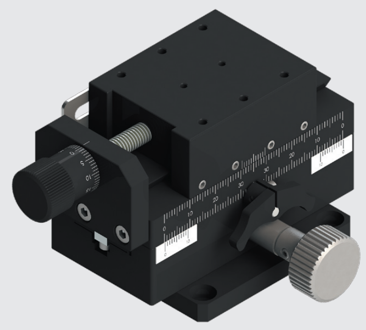


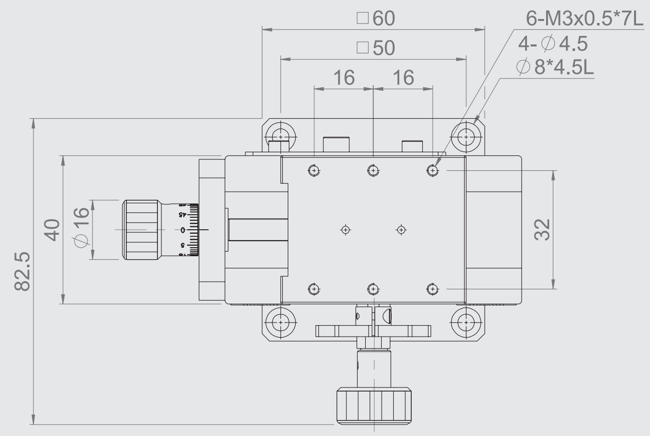
Specification

Unit : mm

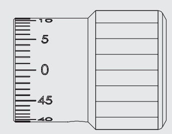
Model No.	Table Size	Base Dimensions	Adjustment Structure			Straightness Accuracy	Parallel	Dynamic Parallel	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
			Movement Per Knob Cycle	Knob Mini. Reading	Travel Stroke							
MC1G-535C	50*50	50*89	0.5	0.01/div.	±16	0.03	0.05	0.04	5	0.29	Aluminum alloy	Black anodized
MC1G-535F			0.25	0.005/div.								

MC7G-4050C(F)

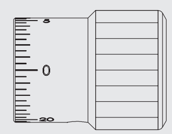




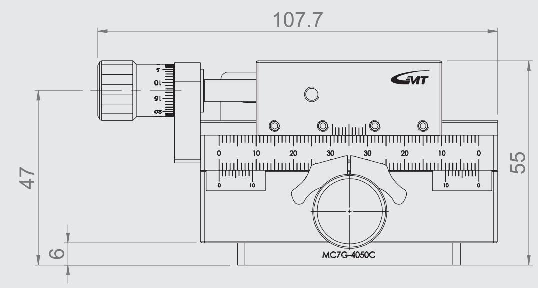
Knob type :



MC7G-4050C(Fit PITCH0.5)



MC7G-4050F(Fit PITCH0.25)

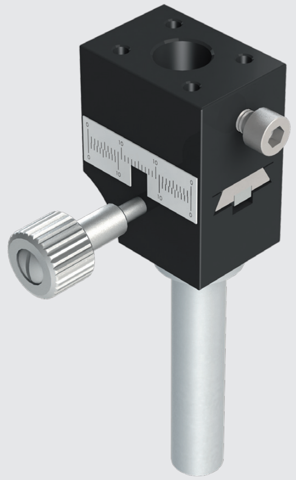


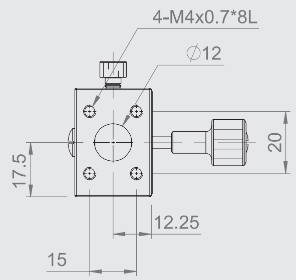
Specification

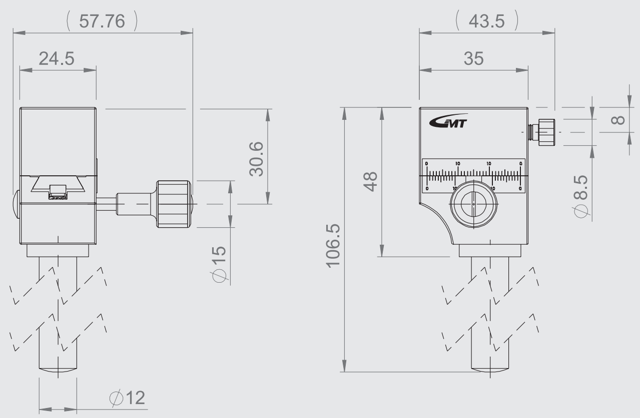
Unit : mm

Model No.	Table Size	Base Dimensions	Fine Tuning			Coarse Adjustment			Straightness Accuracy	Parallel	Dynamic Parallel	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
			Movement Per Knob Cycle	Knob Mini. Reading	Travel Stroke	Movement Per Knob Cycle	Minimum Reading	Travel Stroke							
MC7G-4050C	40*50	40*80	0.5	0.01/div.	±17.5	≒18 mm	0.1mm / Vernier	±30	0.03	0.05	0.04	4	0.5	Aluminum alloy	Black anodized
MC7G-4050F			0.25	0.005/div.											

MC1B-35LG





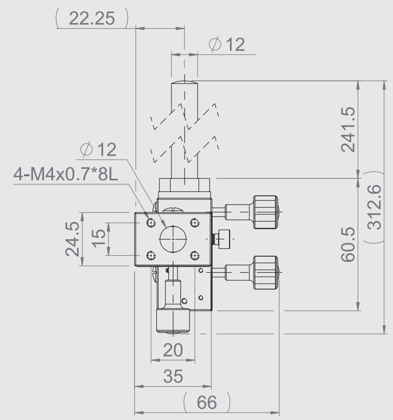


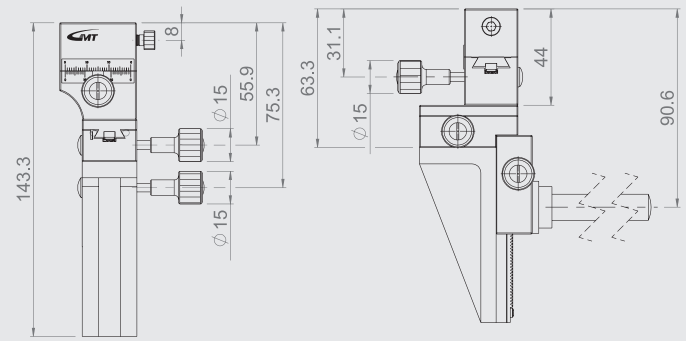
Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Minimum Reading	Straightness Accuracy	Dynamic Straightness	Dynamic Parallel	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1B-35LG	24.5*35	X-axis	central	±10 mm	0.1mm / Vernier	0.03 mm	N / A	N / A	3	0.25	Aluminum alloy	Black anodized

MC6B-35LG



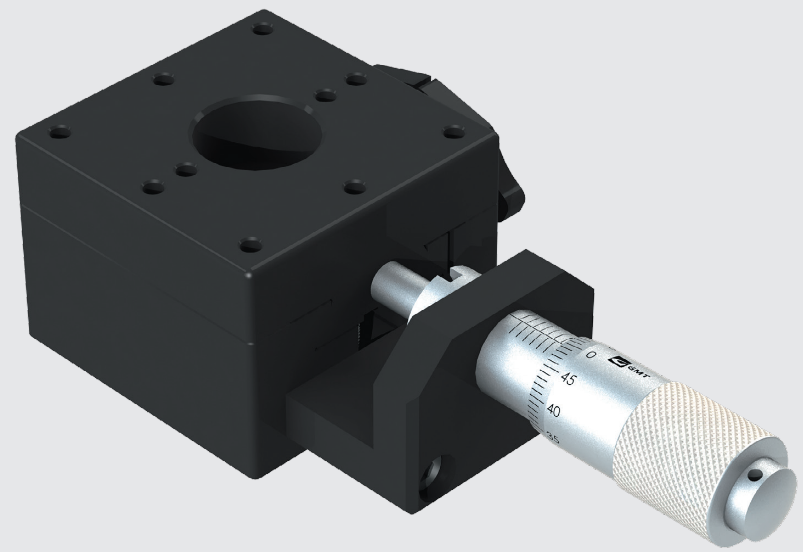


Specification

Unit : mm

Model No.	Axis / Travel Stroke			Movement Per Full Knob Rotation	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
	X-axis	Y-axis	Z-axis					
MC6B-35LG	20	30	60	18	2	0.81	Aluminum alloy	Black anodized

MC1F-40

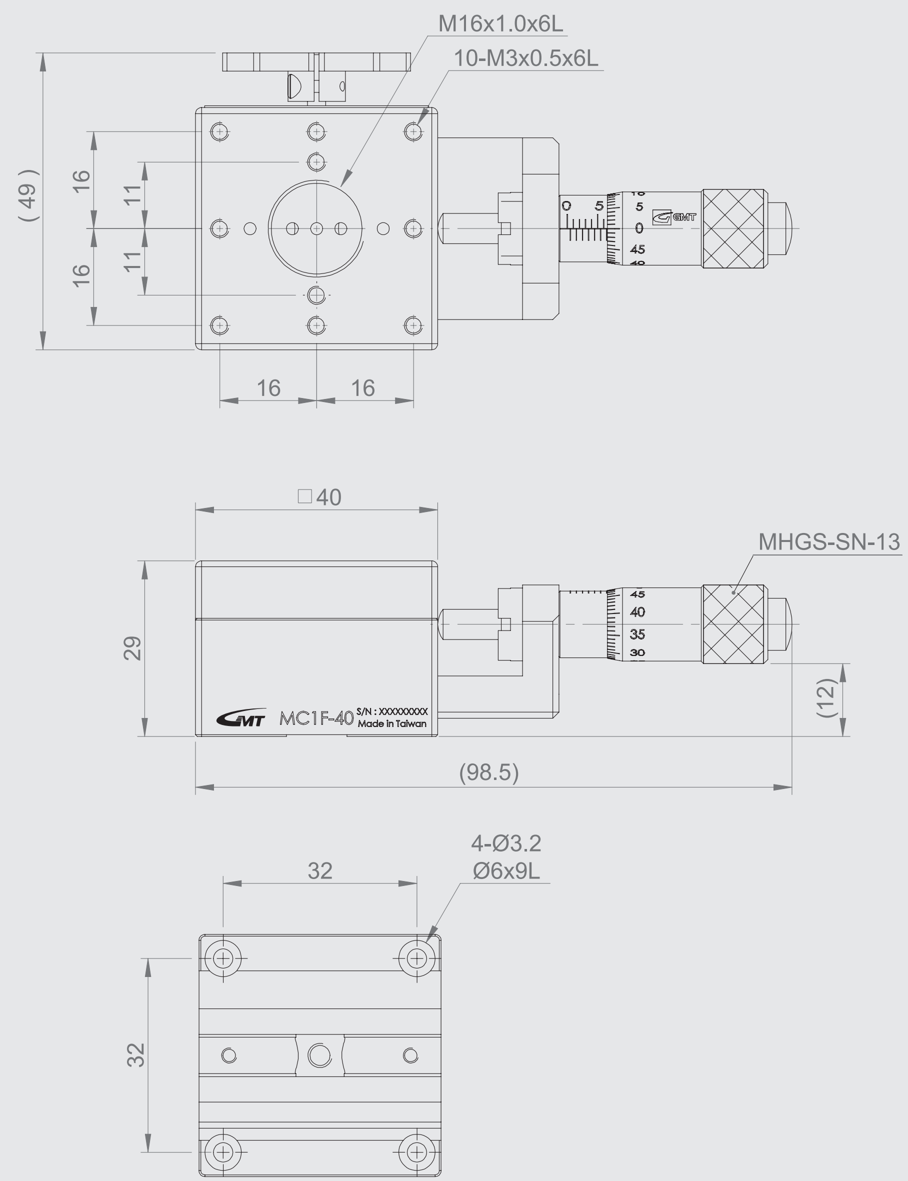


Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Travel Stroke	Micrometer Minimum Reading	Straightness	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MC1F-40	40*40	X-axis	central	±10	10 μm	30 μm	3	0.17	Aluminum alloy	Black anodized

MC1F-40

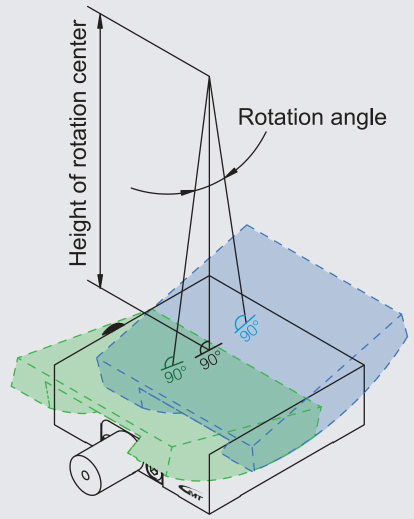


Model No. Description

M X G 4 - 60 C S

Transmission	Axis no.	Axis direction	Table size	Height of rotation center	Slide way	Feeding specification
M: Manual	X: Single axis Y: Dual axes	G: α & β axis	4 : 40 6 : 60	Refer to dimension tables	V: V groove rails C: Dovetail	E: Leadscrew S: Worm and worm gears M: Micrometer

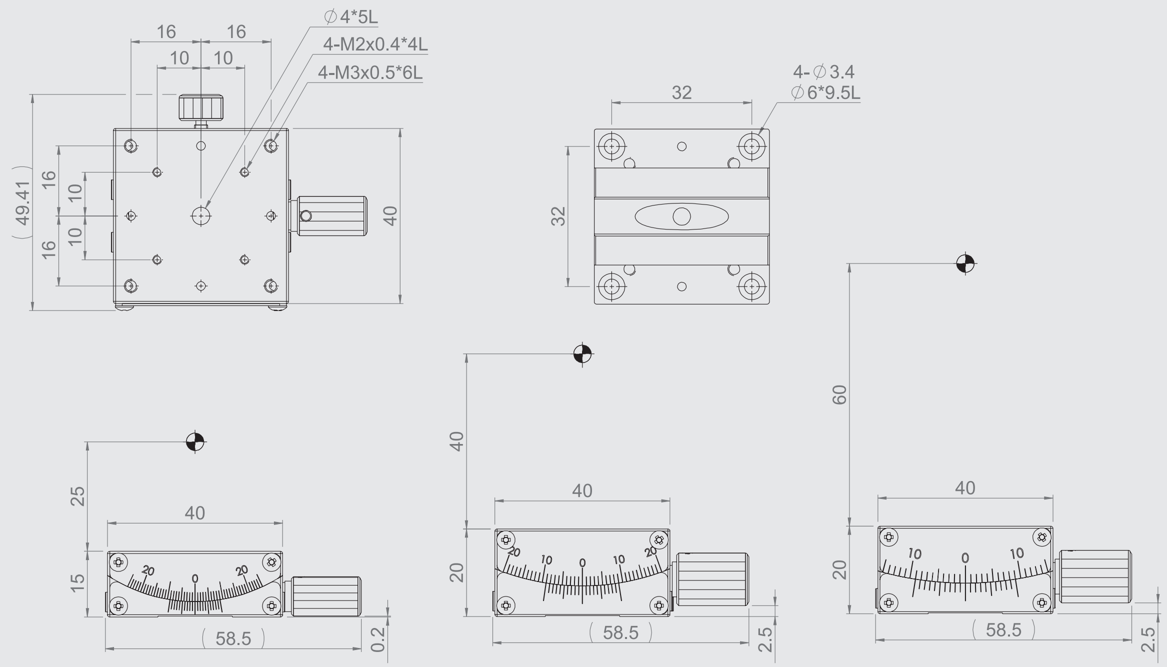
MXG4-40CS



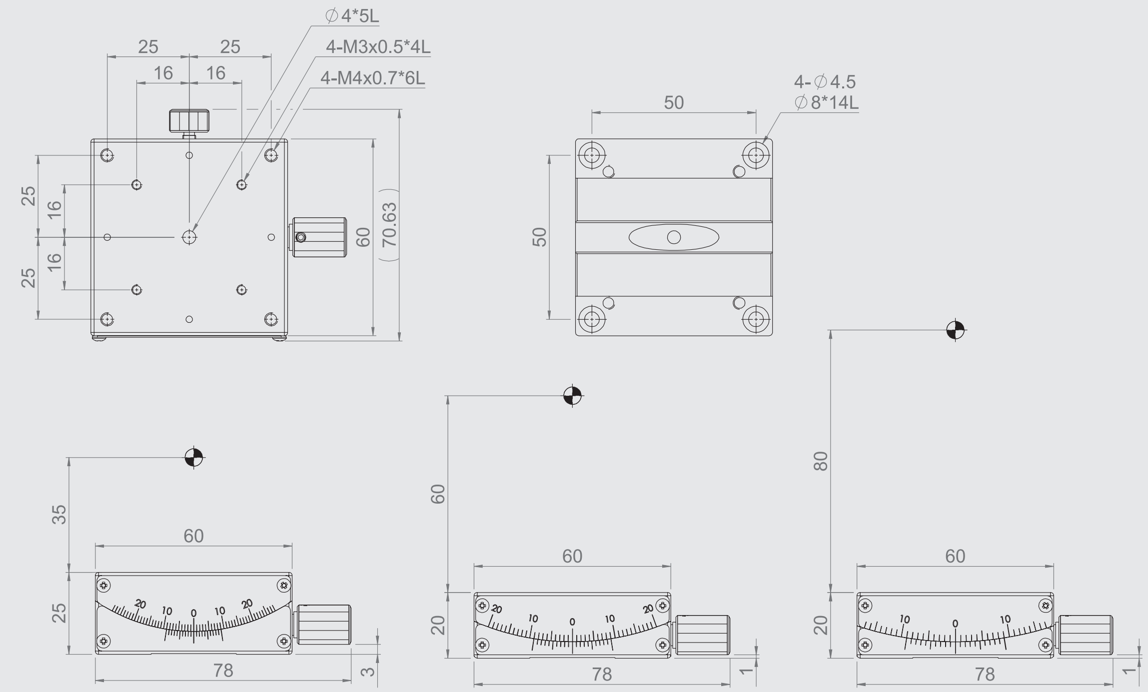
Specification

Unit : mm

Model No.	Table Size	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG4-25CS	40*40	25	± 20°	0.1°/ Vernier	≒ 2.2°	3	0.18	Brass Alloy	Black fluororesin
MXG4-40CS		40	± 15°		≒ 1.89°		0.24		
MXG4-60CS		60	± 10°		≒ 1.33°				
MXG6-35CS	60*60	35	± 25°		≒ 2.0°	6	0.69		
MXG6-60CS		60	± 20°		≒ 1.3°		0.55		
MXG6-80CS		80	± 15°		≒ 1.0°				



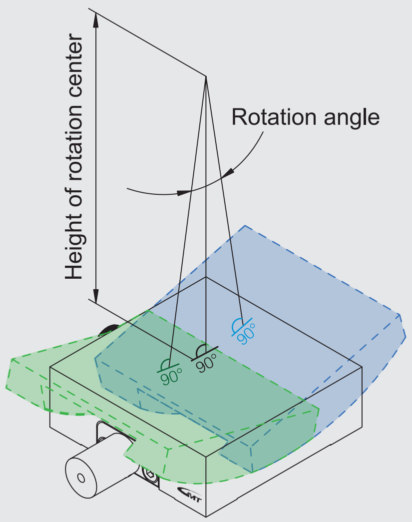
MXG4-25CS MXG4-40CS MXG4-60CS



MXG6-35CS MXG6-60CS MXG6-80CS

Product Specification

MYG4-40CS

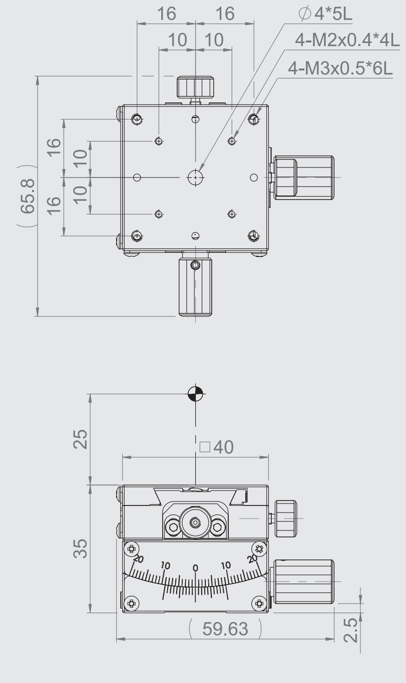


Specification

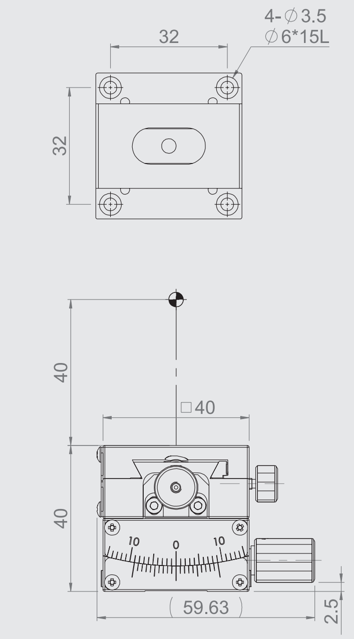
Unit : mm

Model No.	Table Size	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MYG4-25CS	40*40	25	Upper axis ± 20° Lower axis ± 15°	0.1°/ Vernier	Upper axis ≒2.2° Lower axis ≒1.89°	2.8	0.42	Brass Alloy	Black fluororesin
MYG4-40CS		40	Upper axis ± 15° Lower axis ± 10°		Upper axis ≒1.89° Lower axis ≒1.33°	2.7	0.48		
MYG6-35CS	60*60	35	Upper axis ± 25° Lower axis ± 20°		Upper axis ≒2.0° Lower axis ≒1.3°	5.3	1.24		
MYG6-60CS		60	Upper axis ± 20° Lower axis ± 15°		Upper axis ≒1.3° Lower axis ≒1.0°	5.4	1.10		

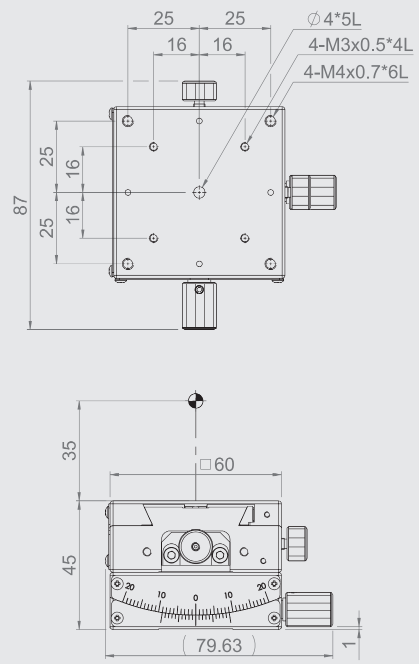
Product Specification



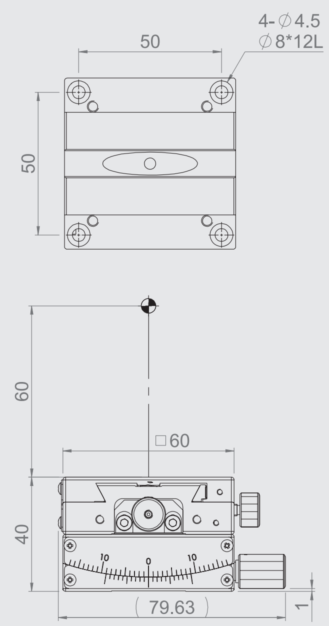
MYG4-25CS



MYG4-40CS

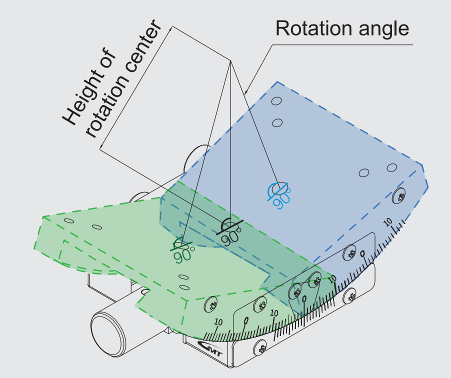


MYG6-35CS

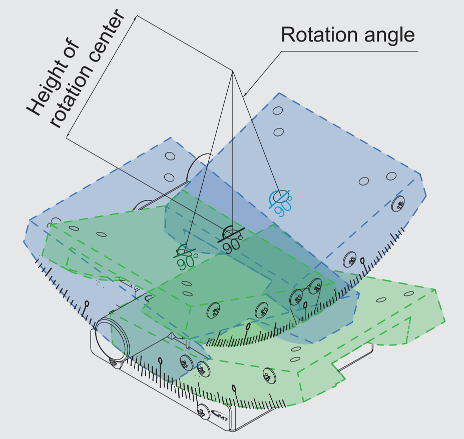


MYG4-60CS

MXG5-□CS【α-axis】



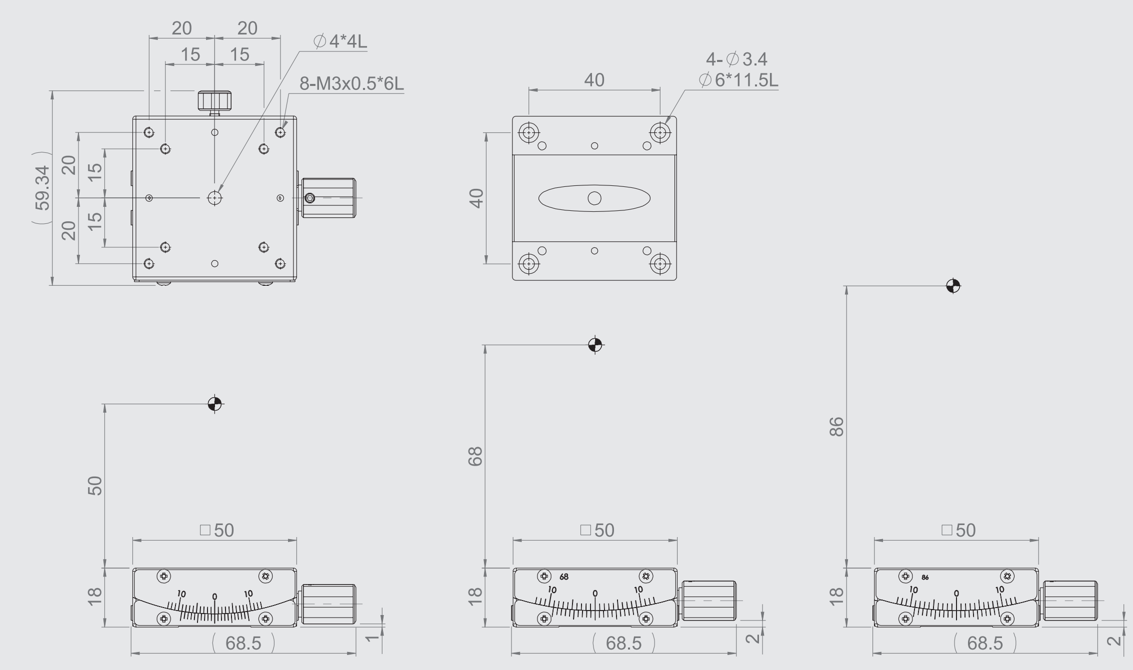
MYG5-□CS【αβ-axis】



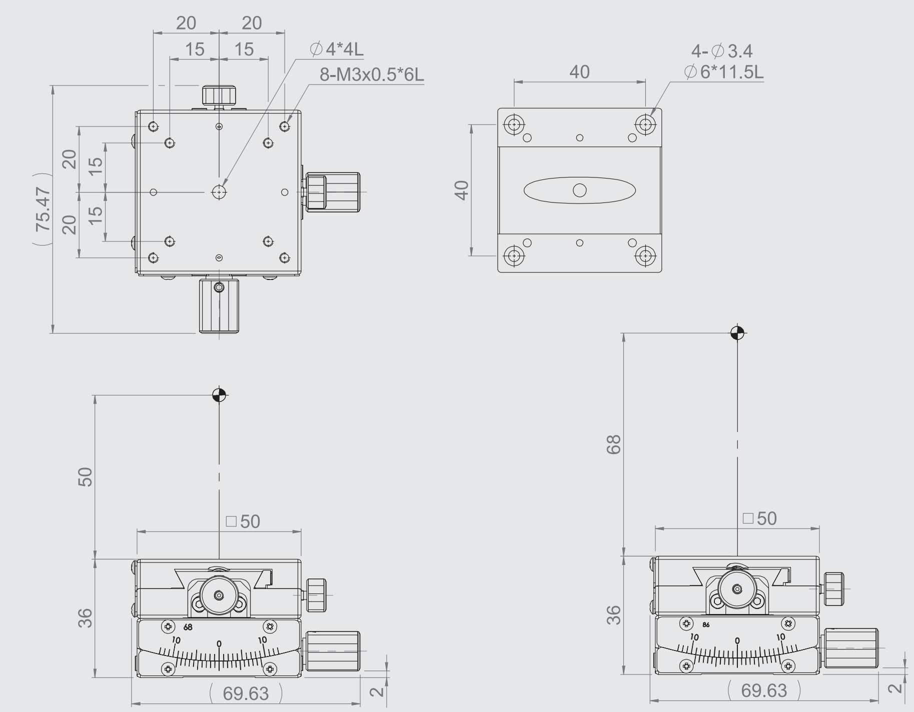
Specification

Unit : mm

Model No.	Table Size	Axis	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG5-50CS			50	± 10°		≒1.55°				
MXG5-68CS		α	68	± 10°		≒1.2°		0.36		
MXG5-86CS	50*50		86	± 8°	0.1°/ Vernier	≒0.97°	3		Brass Alloy	Black fluororesin
MYG5-50CS		αβ	50	Upper axis ± 10° Lower axis ± 10°		Upper axis ≒1.55° Lower axis ≒1.2°		0.71		
MYG5-68CS			68	Upper axis ± 10° Lower axis ± 8°		Upper axis ≒1.2° Lower axis ≒0.97°				

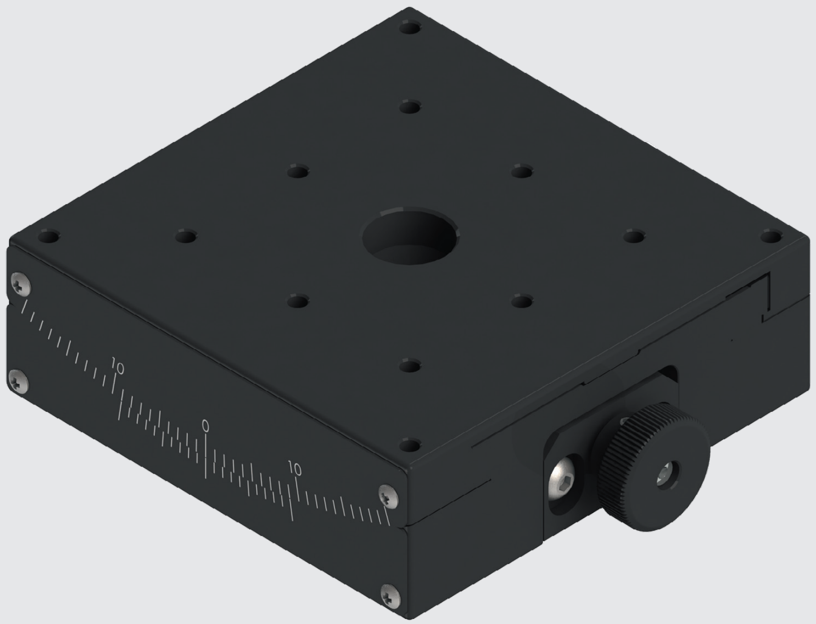


MXG5-50CS MXG5-68CS MXG5-86CS



MYG5-50CS MYG5-68CS

MXG9-118CS

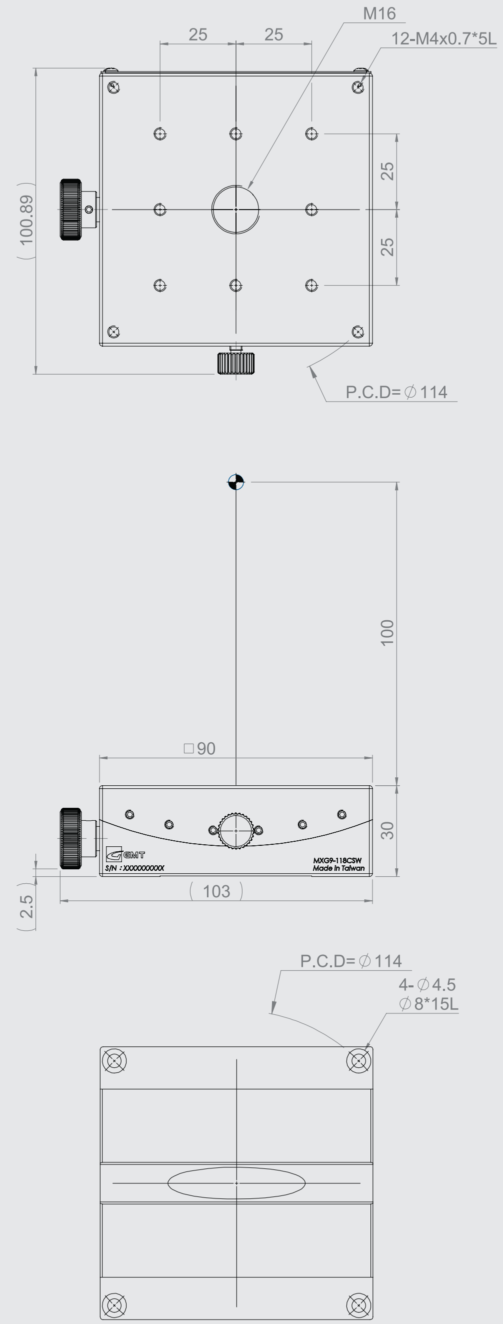


Specification

Unit : mm

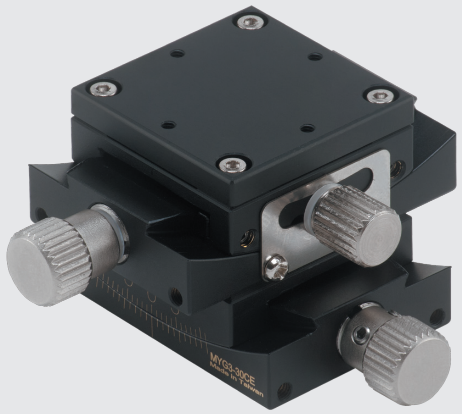
Model No.	Table Size	Axis	Feed Position	Height of Rotation Center	Travel Stroke	Minimum Reading	Micrometer Minimum Reading	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG9-118CS	90*90	α	Central	100	±12°	1° / Vernier	≒ 92"	7.5	0.33	Brass alloy	Black fluororesin

MXG9-118CS



MXG3-30CE

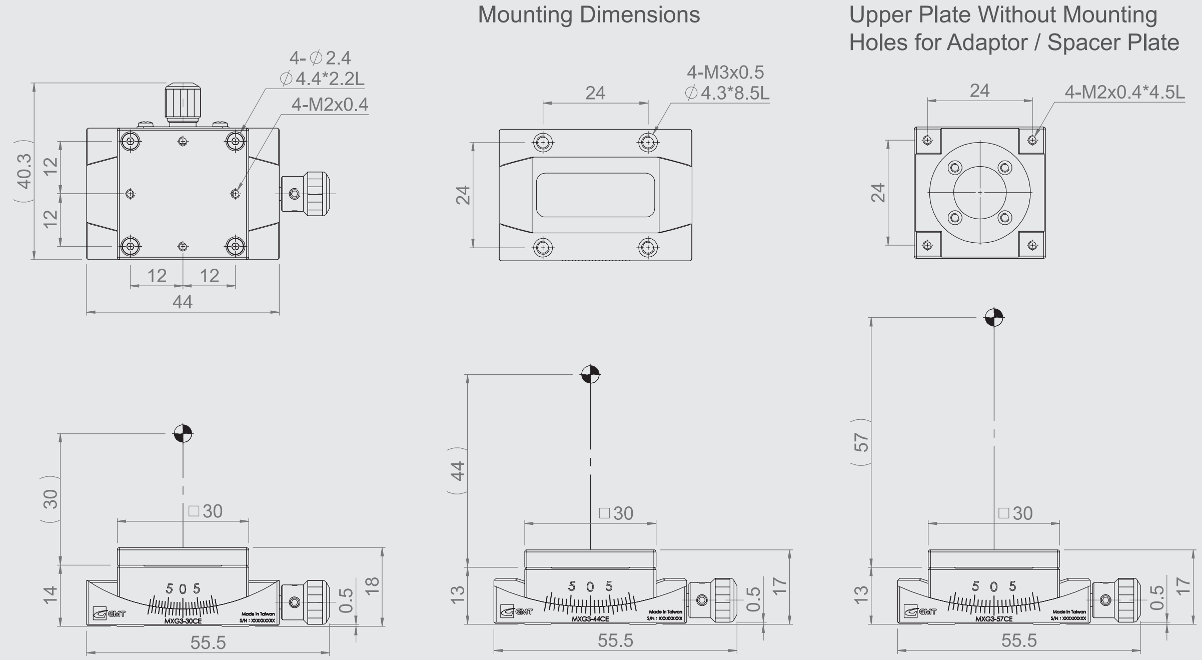
MYG3-30CE



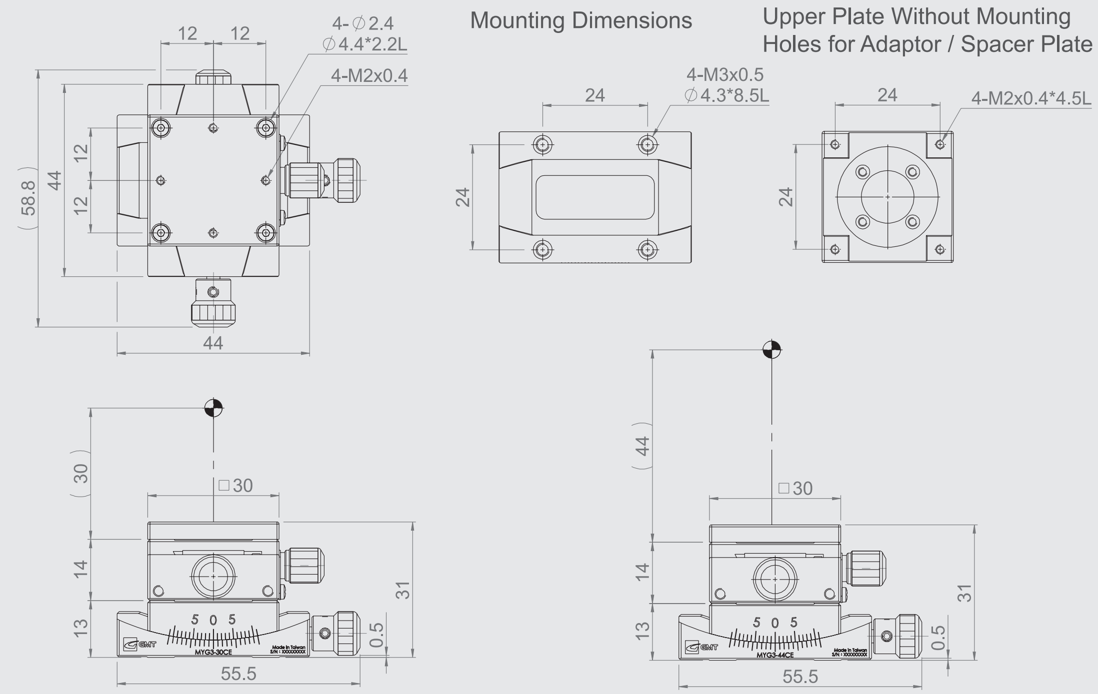
Specification

Unit : mm

Model No.	Table Size	Axis	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG3-30CE	30*30	α	30	± 8°	1°/ Vernier	≒44'39"	1.5	0.1	Brass Alloy	Black fluororesin
MXG3-44CE			44	± 6°		≒33'23"				
MXG3-57CE			57	± 5°		≒26'39"				
MYG3-30CE		αβ	30	Upper axis ± 8° Lower axis ± 6°		Upper axis≒44'39" Lower axis≒33'23"		0.2		
MYG3-44CE			44	Upper axis ± 6° Lower axis ± 5°		Upper axis≒33'23" Lower axis≒26'39"				



MXG3-30CE MXG3-44CE MXG3-57CE



MYG3-30CE MYG3-44CE

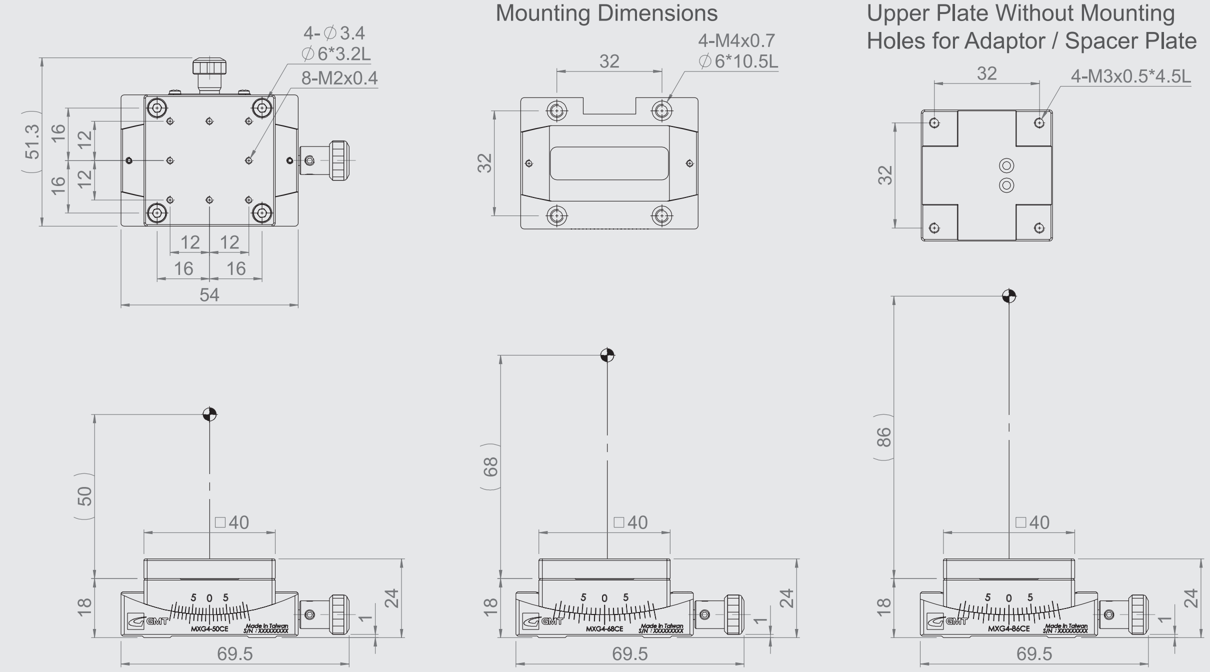
MXG4-50CE

MYG4-50CE

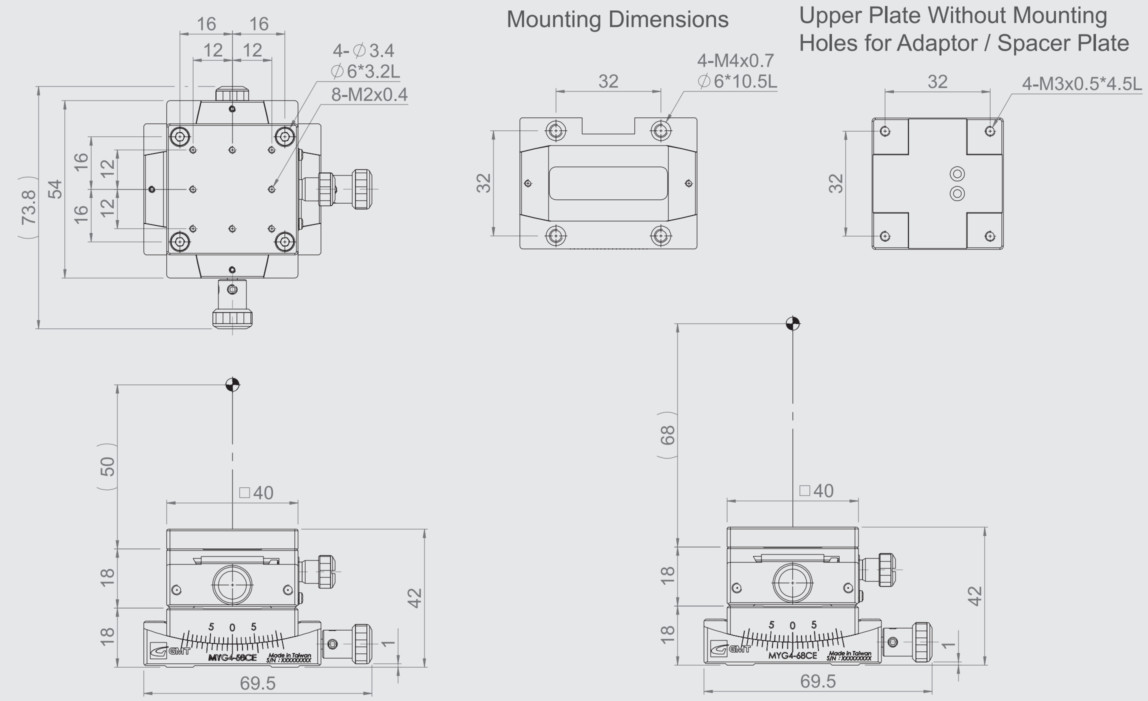
Specification

Unit : mm

Model No.	Table Size	Axis	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG4-50CE	40*40	α	50	± 8°	1°/ Vernier	≒28'11"	3	0.3	Brass Alloy	Black fluororesin
MXG4-68CE			68	± 6°		≒21'45"				
MXG4-86CE			86	± 5°		≒17'43"				
MYG4-50CE		αβ	50	Upper axis ± 8° Lower axis ± 6°		Upper axis≒28'11" Lower axis≒21'45"		0.6		
MYG4-68CE			68	Upper axis ± 6° Lower axis ± 5°		Upper axis≒21'45" Lower axis≒17'43"				

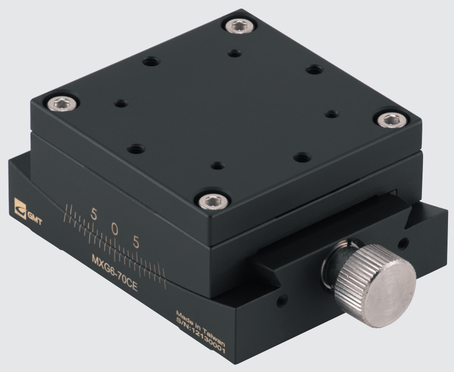


MXG4-50CE MXG4-68CE MXG4-86CE

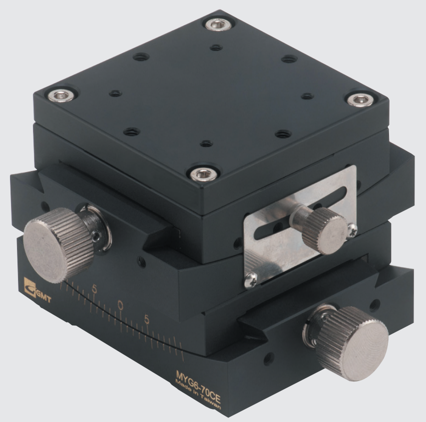


MYG4-50CE MYG4-68CE

MXG6-70CE



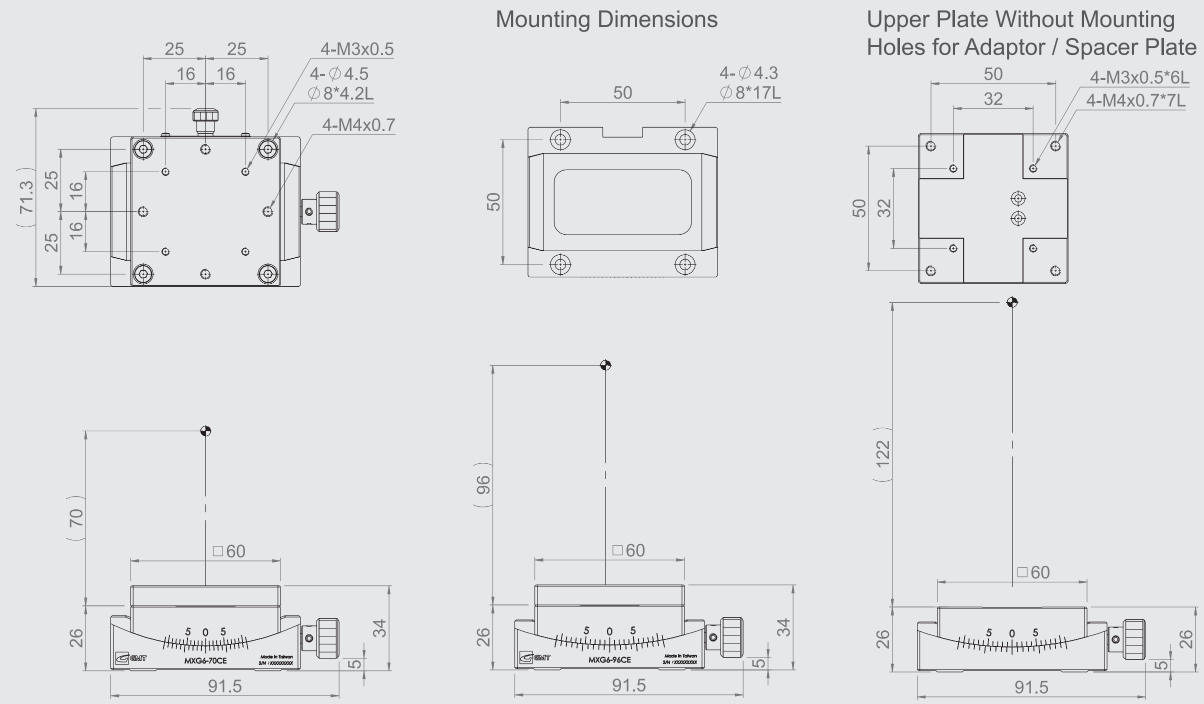
MYG6-70CE



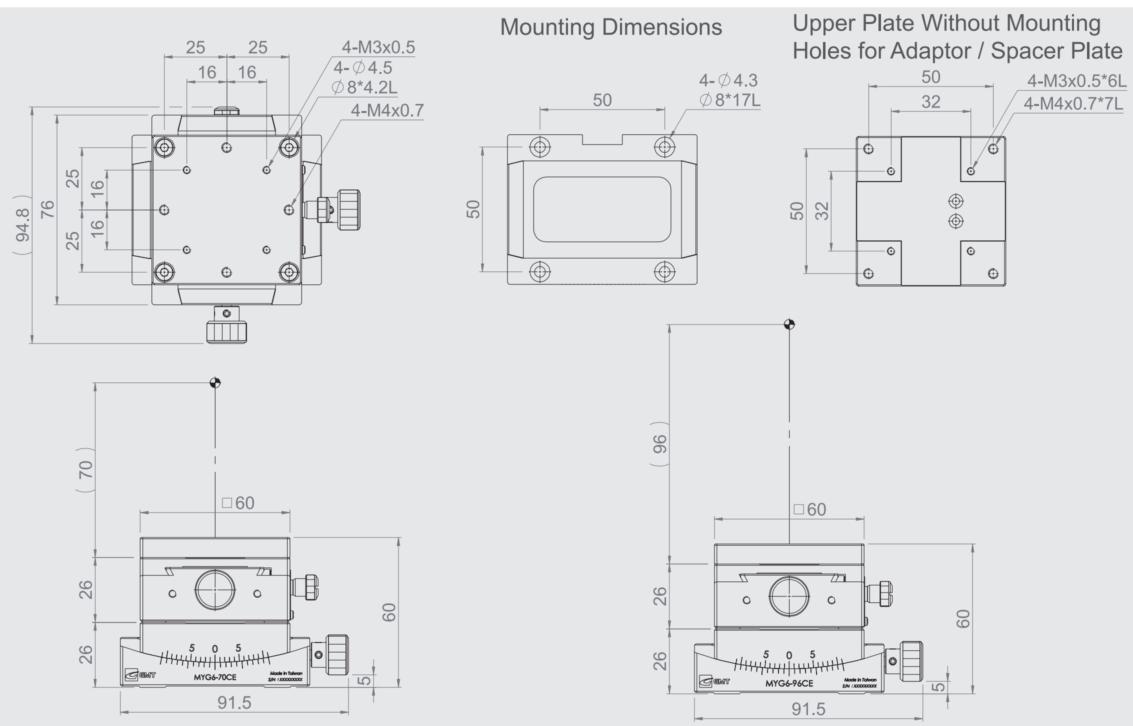
Specification

Unit : mm

Model No.	Table Size	Axis	Height of Rotation Center	Travel Stroke	Minimum Reading	Stroke Per Revolution	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG6-70CE			70	± 8°		= 19'59"				
MXG6-96CE		α	96	± 6°		= 15'21"		0.7		
MXG6-122CE	60*60		122	± 5°	1°/ Vernier	= 12'27"	5		Brass Alloy	Black fluororesin
MYG6-70CE		αβ	70	Upper axis ± 8° Lower axis ± 6°		Upper axis = 19'59" Lower axis = 15'21"		1.4		
MYG6-96CE			96	Upper axis ± 6° Lower axis ± 5°		Upper axis = 15'21" Lower axis = 12'27"				

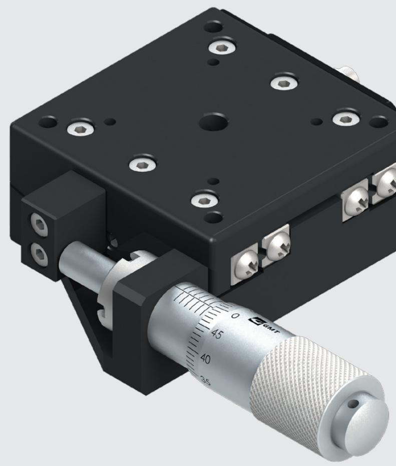


MXG6-70CE MXG6-96CE MXG6-122CE

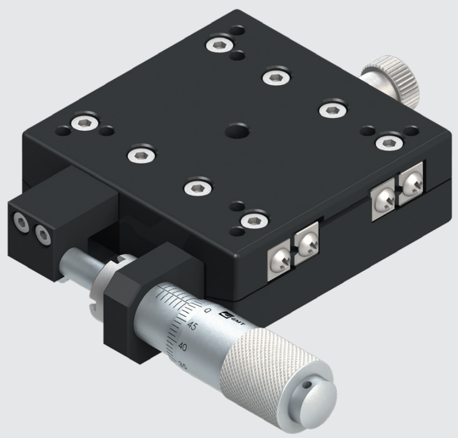


MYG6-70CE MYG6-96CE

MXG4-□□VM



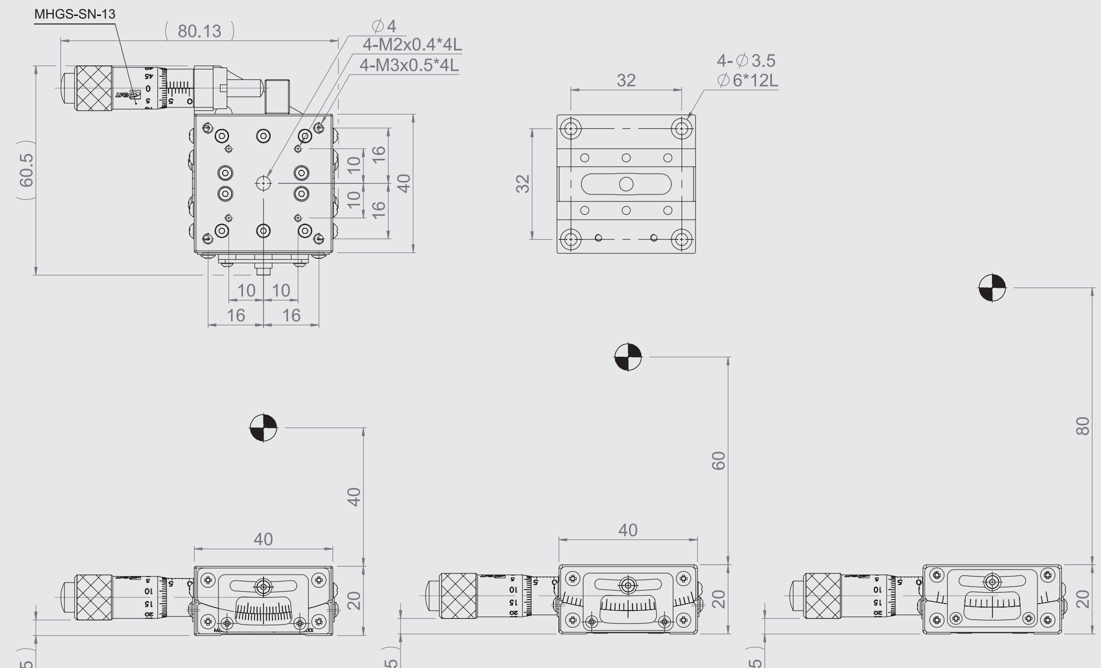
MXG5-50VM



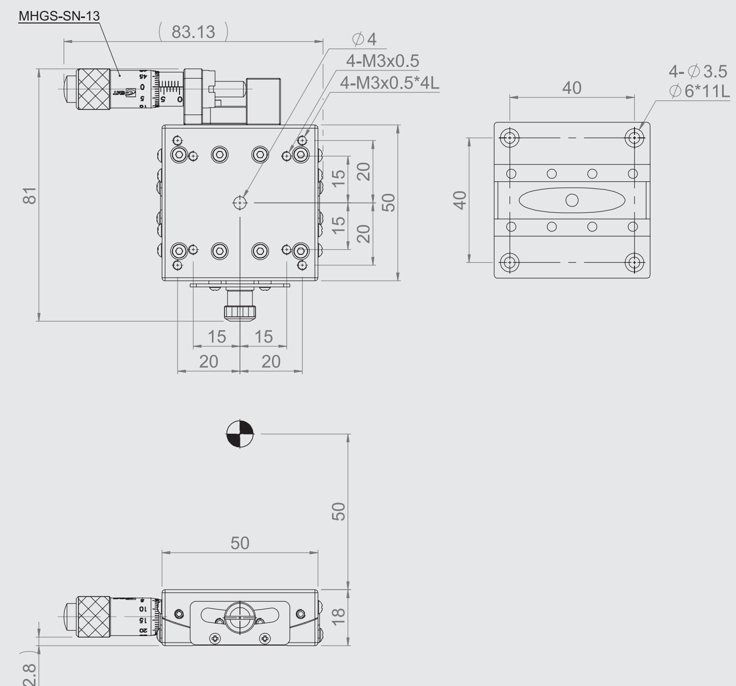
Specification

Unit : mm

Model No.	Table Size	Axis	Feed Position	Height of Rotation Center	Travel Stroke	Minimum Reading	Micrometer Minimum Reading	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG4-40VM	40*40	α	Side	40	±7°	0.1°	≒ 40"	3	0.15	Aluminum alloy	Black anodized
MXG4-60VM	40*40			60	±4°		≒ 29"		0.15		
MXG4-80VM	40*40			80	±4°		≒ 22"		0.15		
MXG5-50VM	50*50			50	±3°		≒ 53"		0.2		

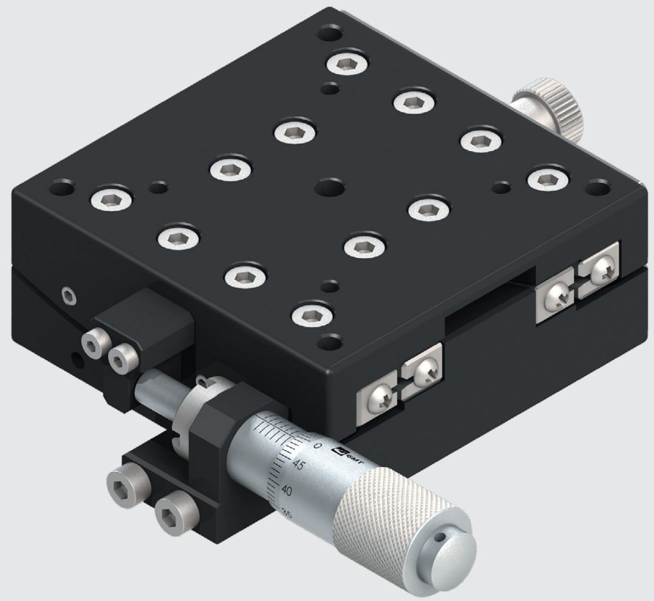


MXG4-40VM MXG4-60VM MXG4-80VM



MXG5-50VM

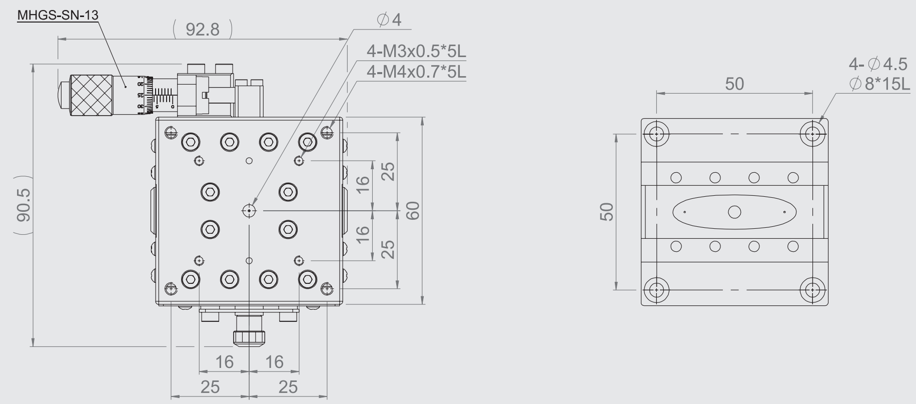
MXG6-□ VM

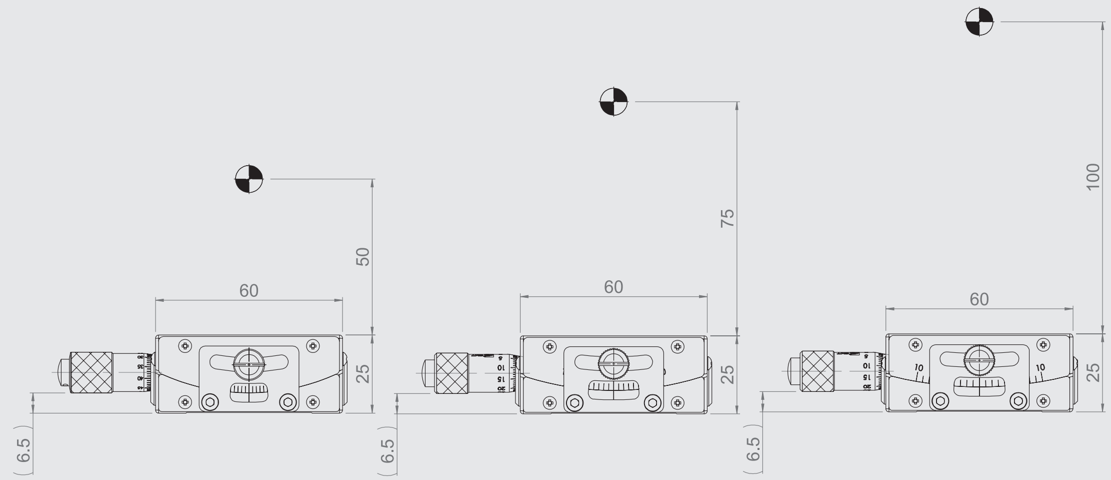


Specification

Unit : mm

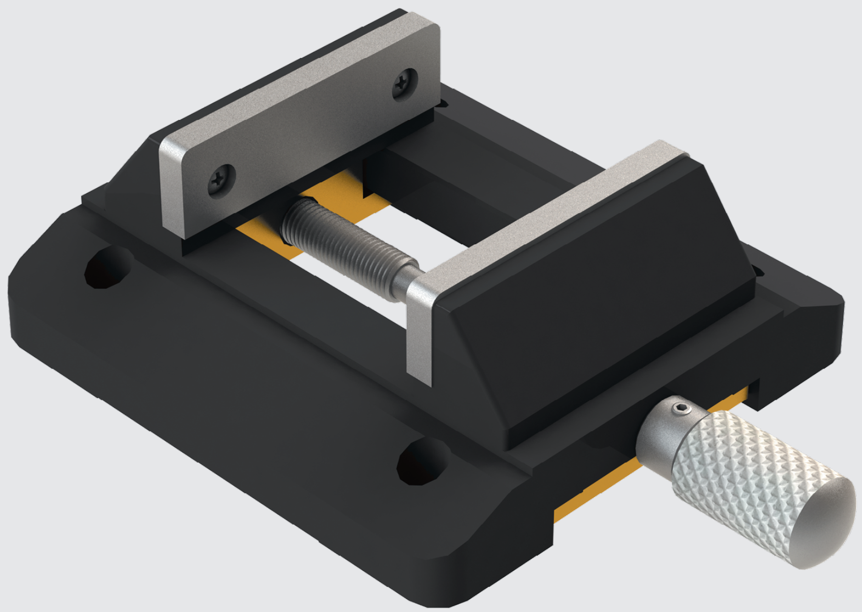
Model No.	Table Size	Axis	Feed Position	Height of Rotation Center	Travel Stroke	Minimum Reading	Micrometer Minimum Reading	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MXG6-50VM	60*60	α	Side	50	±4°	0.1°	≒ 32"	4.5	0.33	Aluminum alloy	Black anodized
MXG6-75VM	60*60			75	±3°		≒ 23"				
MXG6-100VM	60*60			100	±3°		≒ 18"				





MXG6-50VM MXG6-75VM MXG6-100VM

MCV100-AS

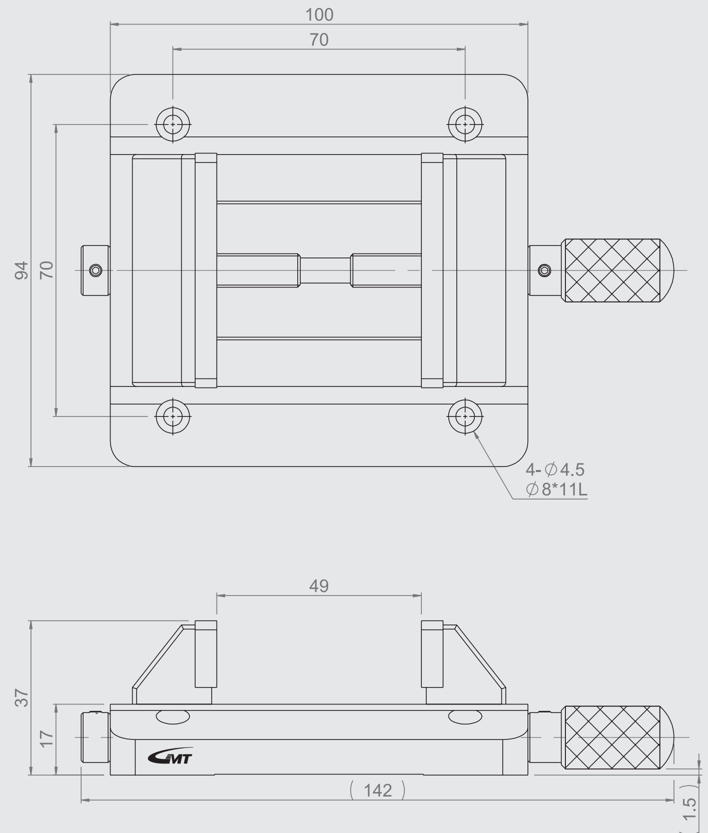


Specification

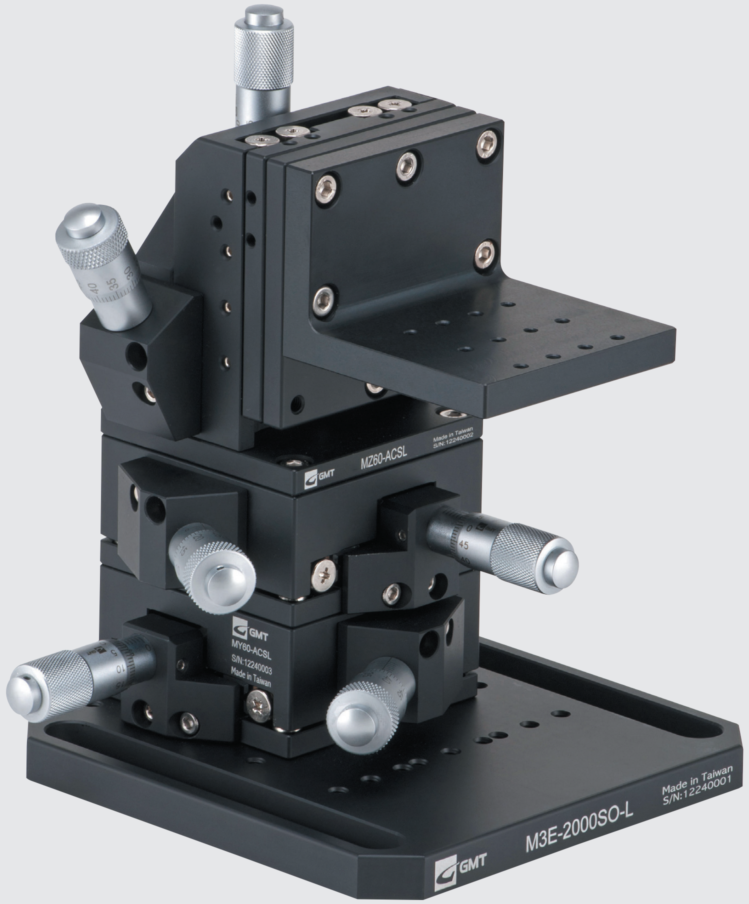
Unit : mm

Model No.	Table Size	Feed Position	Clamping Drmension	Allowable Loading (kgf)	Weight (kg)	Material	Surface Finish
MCV100-AS	100*94	Side	0~49	20	0.55	Aluminum alloy	Black anodized

MCV100-AS



M3E-2000S-L



Specification

Unit : mm

Axis \ Specification	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5

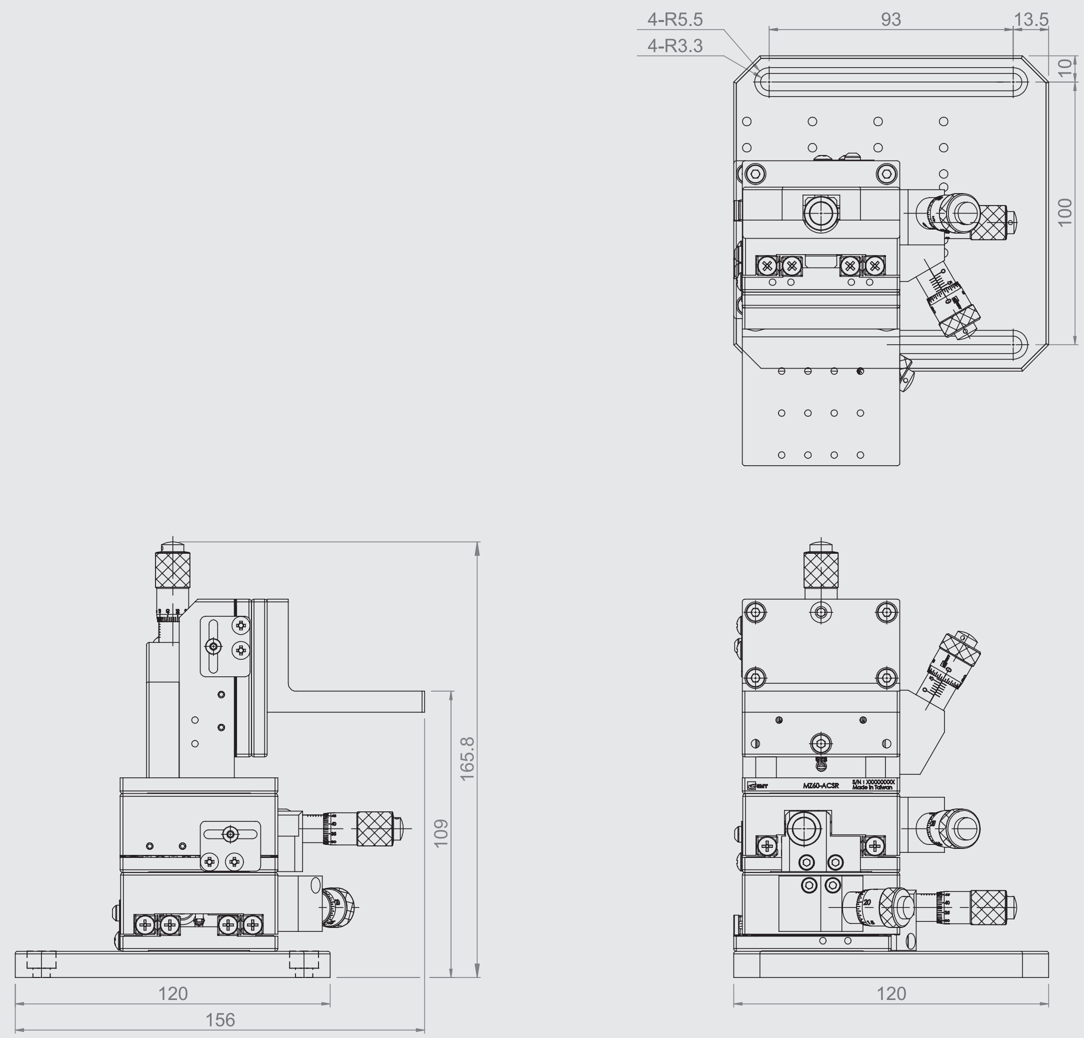
M3E-2000S-L models consist of the XYZ manual positioning stage and a L-bracket in order to perform tilt movement.

Remark : There are available options for XYZ module with ordering code : MXYZ60-ACSL.

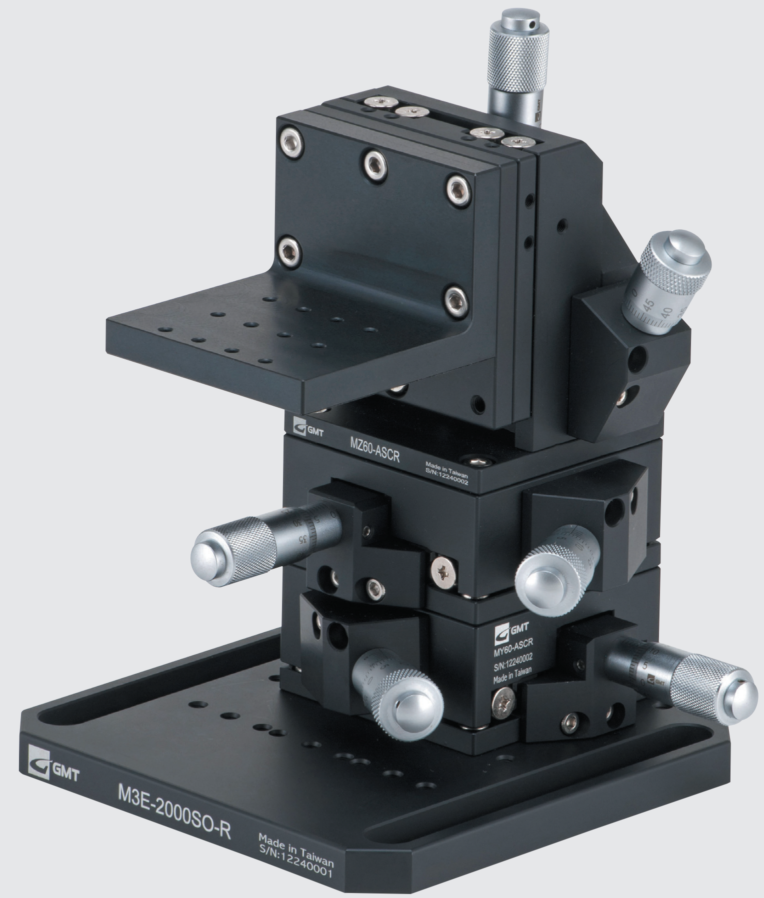
The images are used as reference. For the actual designs, please refer to the 2D drawing (download).

Manual Fiber Positioning Stages
XYZ-Axis
GMT GLOBAL INC.
Product Specification

M3E-2000S-L



M3E-2000S-R



Specification

Unit : mm

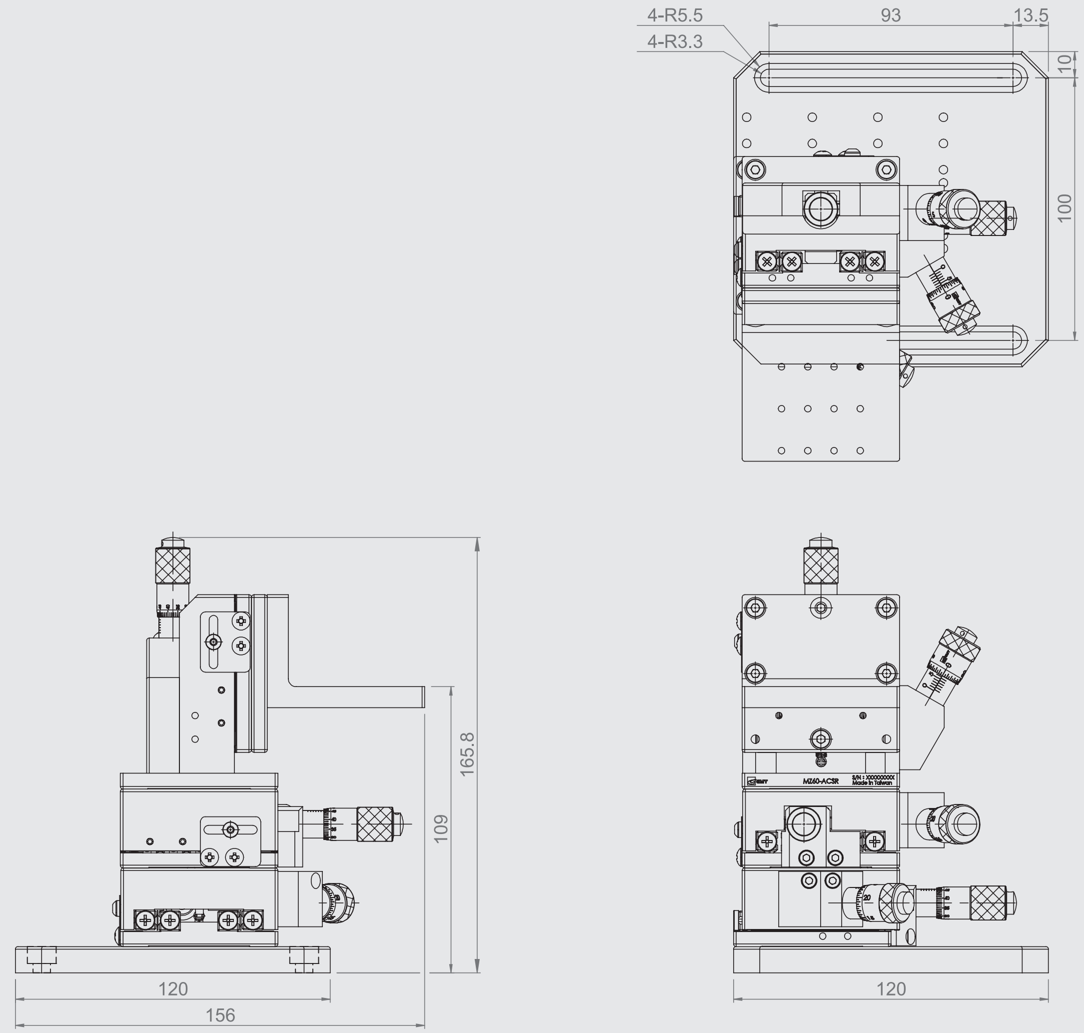
Specification / Axis	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5

M3E-2000S-R models consist of the XYZ manual positioning stage and a L-bracket in order to perform tilt movement.

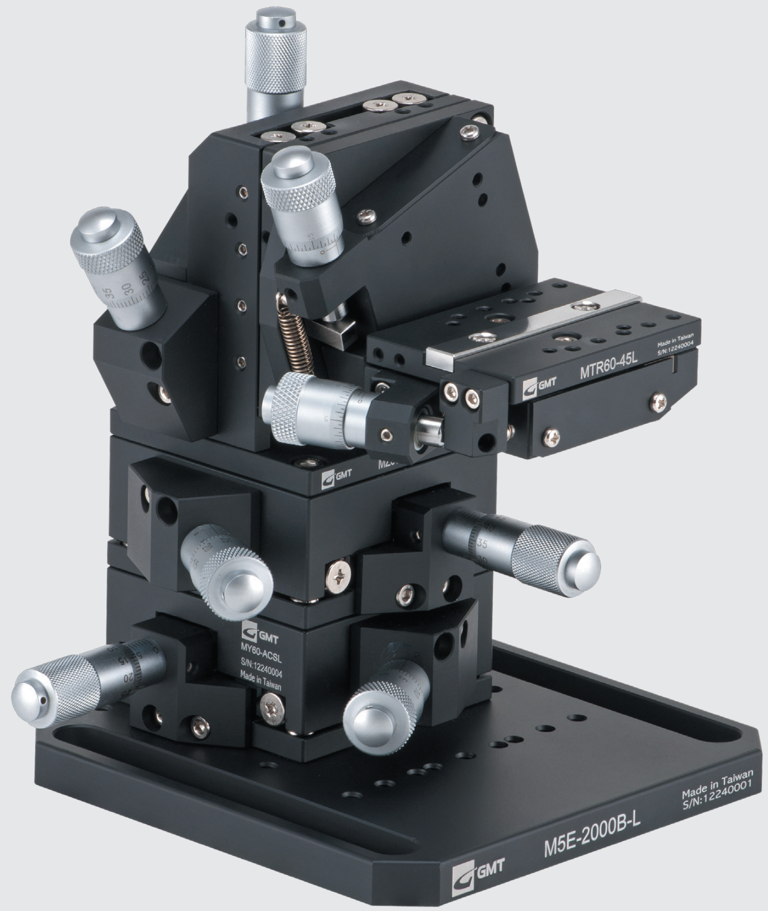
Remark : There are available options for XYZ module with ordering code : MXYZ60-ACSR.

The images are used as reference. For the actual designs, please refer to the 2D drawing (download).

M3E-2000S-R



M5E-2000B-L



Specification

Unit : mm

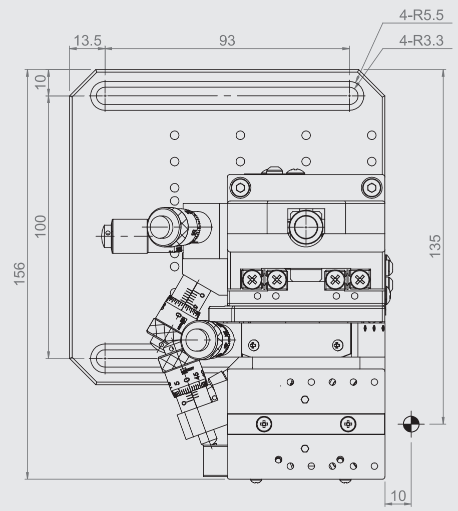
Axis \ Specification	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5
θx	±3°		≒ 29.3 ″/div.	
θy	±3°		≒ 27.8 ″/div.	

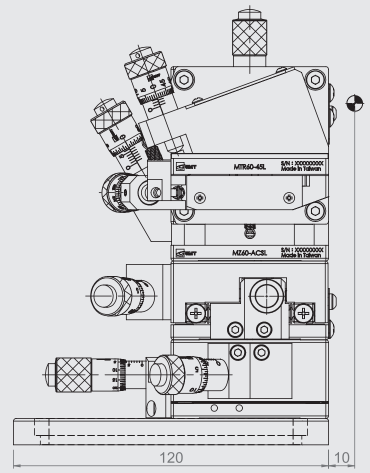
M5E-2000B-L models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 5-axis high resolution positioning stage to be designed to perform the single-fiber positioning.
(Without translation) : The height of the rotational center is approximately 130mm, and could be heightened by adding the adaptor plates.

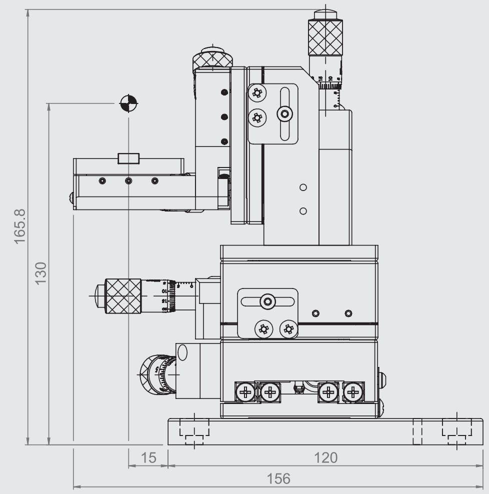
Remark : For separate order :
XYZ module - MXYZ60-ACSL
Tilt module - MTR60-45R
The images are used as reference. For the actual designs, please refer to the 2D drawing (download).a

GMT GLOBAL INC.
Manual Fiber Positioning Stages
XYZ θx, θy-Axis
Product Specification

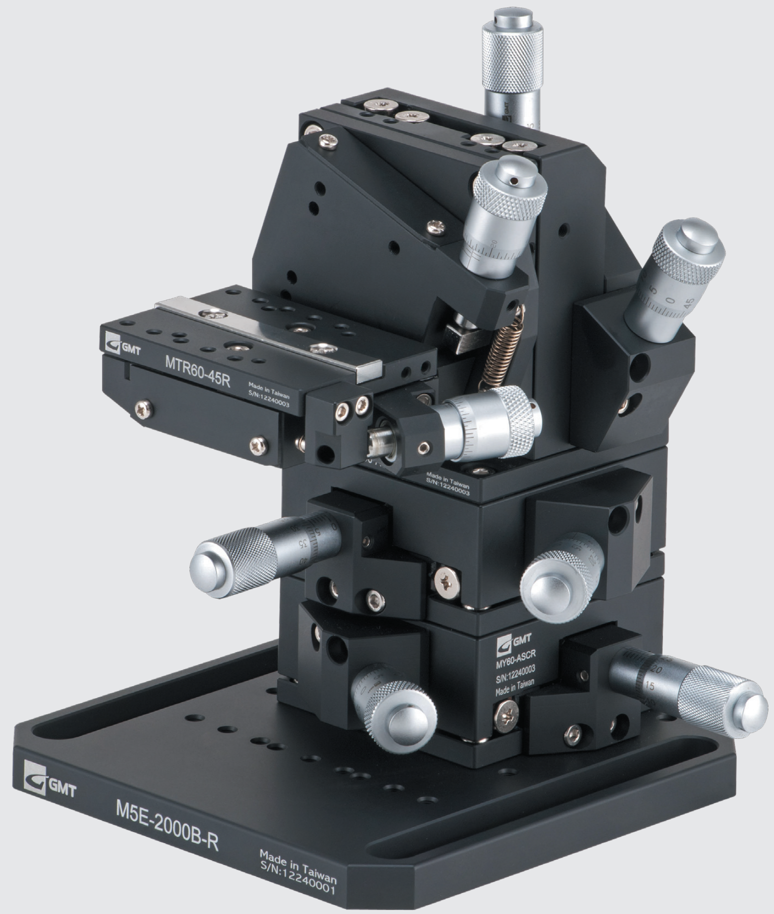
M5E-2000B-L







M5E-2000B-R



Specification

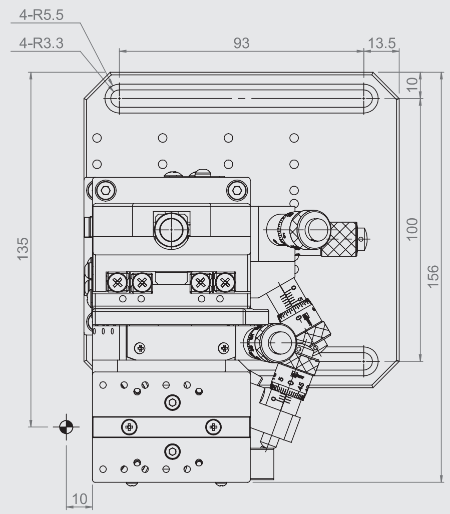
Unit : mm

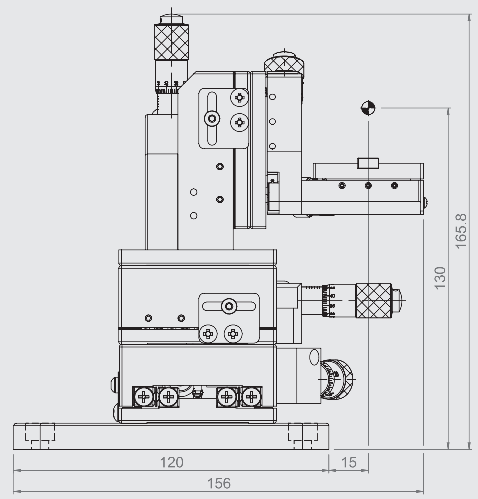
Specification / Axis	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5
θx	±3°		≒ 29.3 ″/div.	
θy	±3°		≒ 27.8 ″/div.	

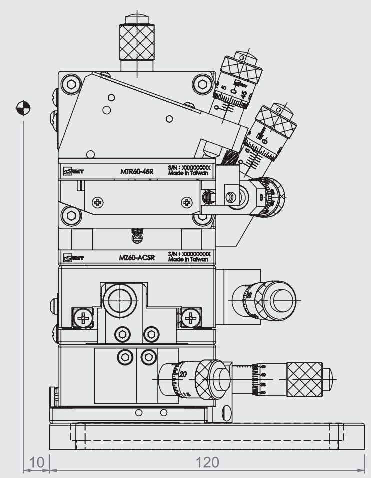
M5E-2000B-R models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 5-axis high resolution positioning stage to be designed to perform the single-fiber positioning.

The height of the rotational center is approximately 130mm, and could be heightened by adding the adaptor plates.
For more information, please visit our website (www.gmtlinear.com) or contact to local agents.
For separate order :
XYZ stage module : MXYZ 60-ACSR
Tilt stage module : MTR60-45R
The images are used as reference. For the actual designs, please refer to the 2D drawing (download).

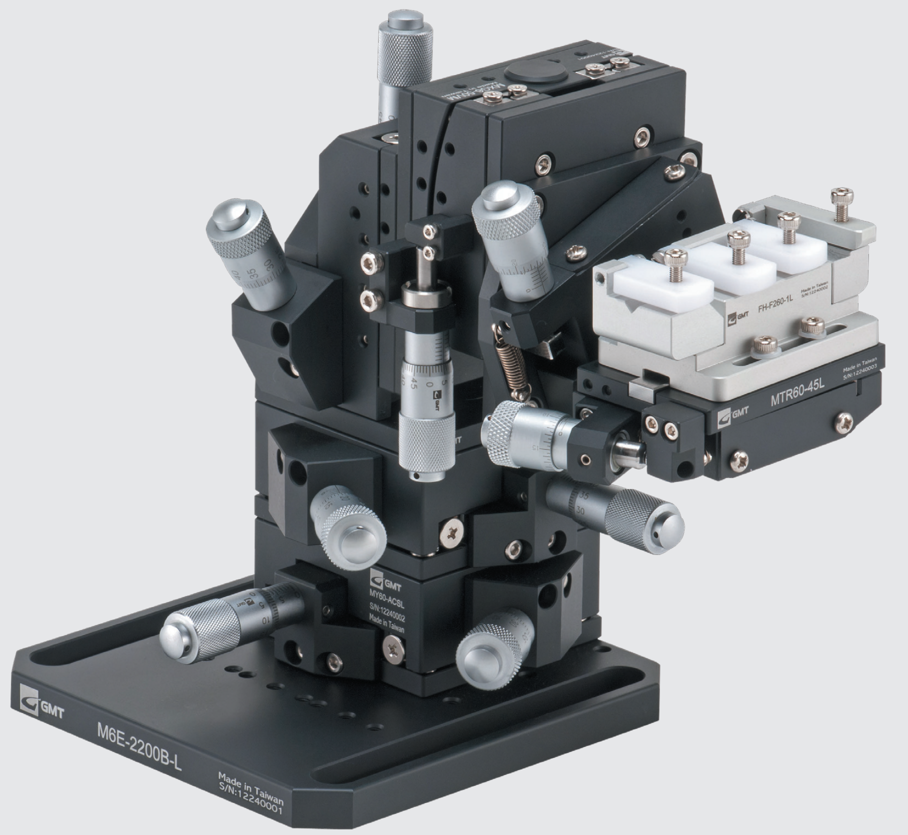
M5E-2000B-R







M6E-2200B-L



Coarse Tuning Fine Tuning Coarse Tuning Fine Tuning

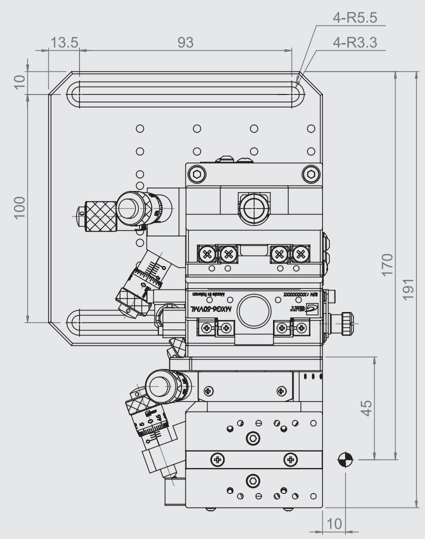
Specification

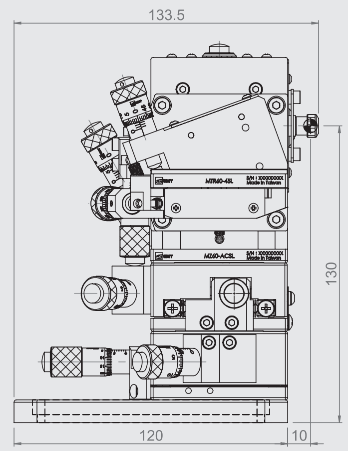
Unit : mm

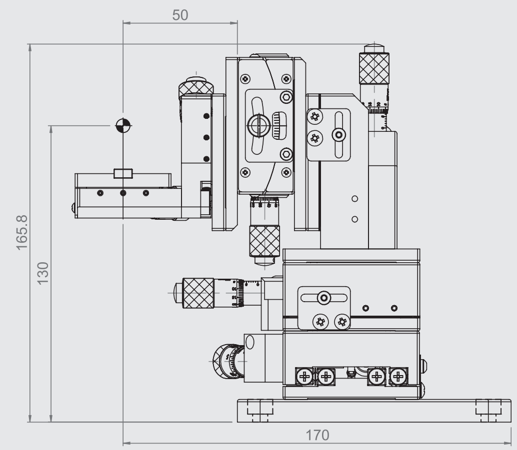
Specification / Axis	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5
θx	±3°		≒ 29.3 ˝/div.	
θy	±3°		≒ 27.8 ˝/div.	
θz	±4°		≒ 33 ˝/div.	

M6E-2200B-L models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 5-axis high resolution positioning stage to be designed to perform the single-fiber positioning or as the application for industry of optical waveguide.
The height of the rotational center is approximately 130mm, and could be heightened by adding the adaptor plates.
For more information, please visit our website (www.gmtlinear.com) or contact to local agents.
For separate order :
XYZ stage module : MXYZ60-ACSL
Tilt stage module : MTR60-45R
a-axis stage : MXG6-50VMR
The images are used as reference. For the actual designs, please refer to the 2D drawing (download).

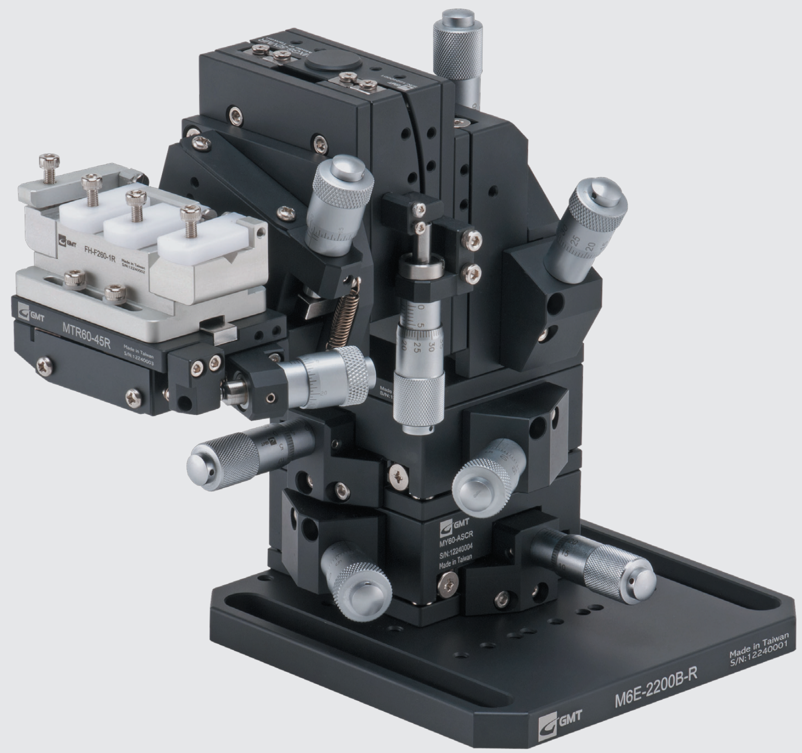
M6E-2200B-L







M6E-2200B-R



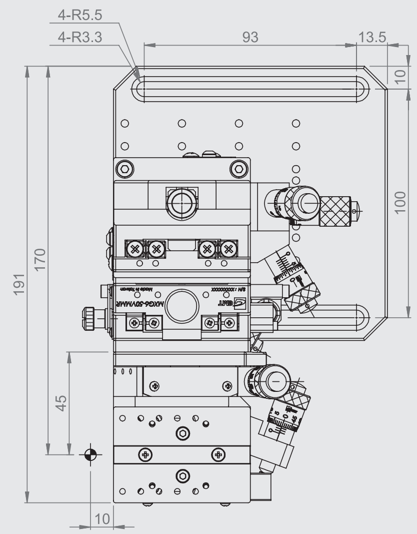
Specification

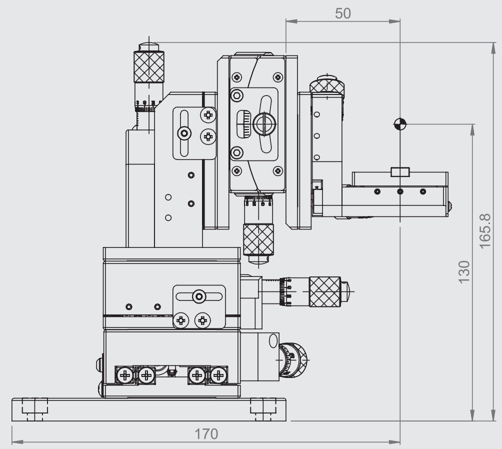
Unit : mm

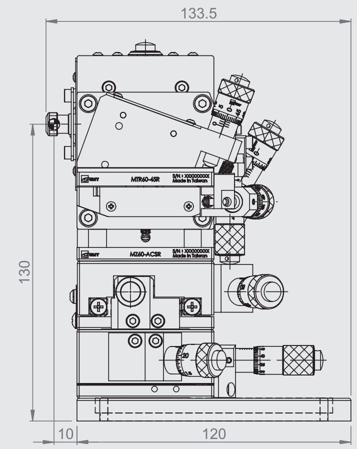
Specification / Axis	Travel Stroke		Resolution	
	Cursory Tuning (mm)	Fine Tuning (mm)	Cursory Tuning (μm)	Fine Tuning (μm)
X	±6.5	±0.3	10	0.5
Y	±6.5	±0.3	10	0.5
Z	±6.5	±0.3	10	0.5
θx	±3°		≒ 29.3 ″/div.	
θy	±3°		≒ 27.8 ″/div.	
θz	±4°		≒ 33 ″/div.	

M6E-2200B-R models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 6-axis high resolution positioning stage in order to perform the single-fiber positioning or as the application for industry of optical waveguide.
(Without translation) : The height of the rotational center is approximately 130mm, and could be heightened by adding the adaptor plates.
For more information, please visit our website (www.gmtlinear.com) or contact to local agents.
For separate order :
XYZ stage module : MXYZ60-ACSL
Tilt stage module : MTR60-45R
a-axis stage : MXG6-50VMR
The images are used as reference. For the actual designs, please refer to the 2D drawing (download).

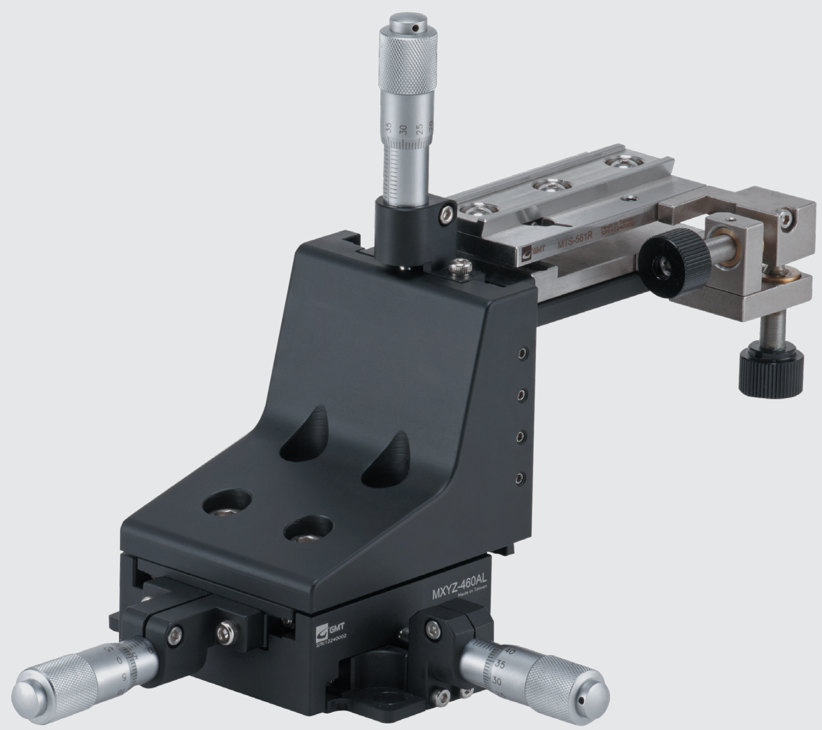
M6E-2200B-R







M5F-460A561-L



Specification

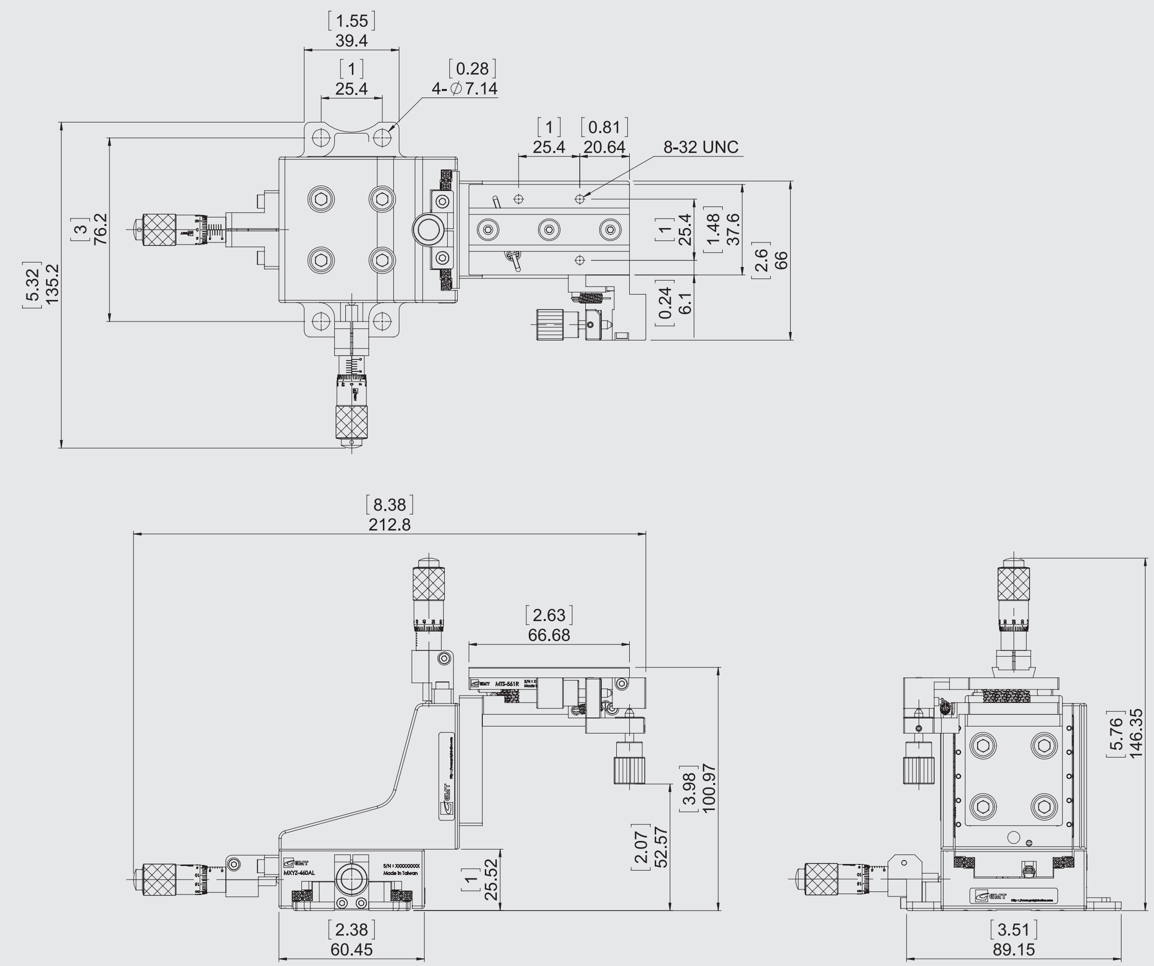
Unit : mm

Specification / Axis	Travel Stroke 【Inch.(mm)】	Allowable Loading (N)	Material
X	0.5(12.7)	67	Aluminum alloy
Y	0.5(12.7)		
Z	0.5(12.7)		
θx	±5°		Stainless Steel
θy	±5°		

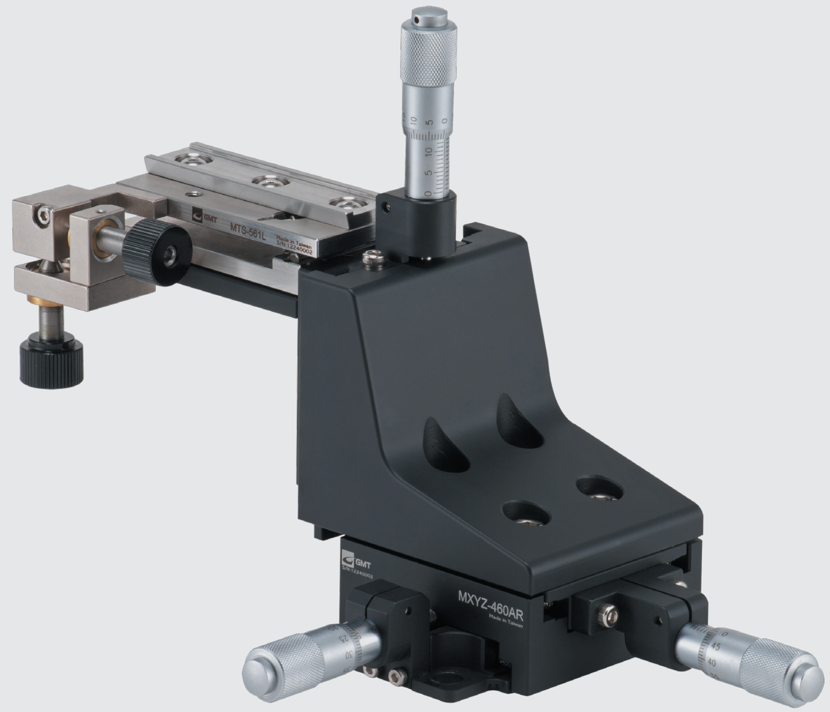
Thread Hole	Size 【Inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

The module combines : MTS-561L, MXYZ-460AL, M5F-460A561-BKT.
M5F-460A561-L models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 6-axis high resolution positioning stage in order to perform the single-fiber positioning.
For more information, please visit our website (www.gmtlinear.com) or contact to local agents.
For separate order :
XYZ stage module : MXYZ460-AL
Tilt stage module : MTS-561-L

M5F-460A561-L



M5F-460A561-R



Specification

Unit : mm

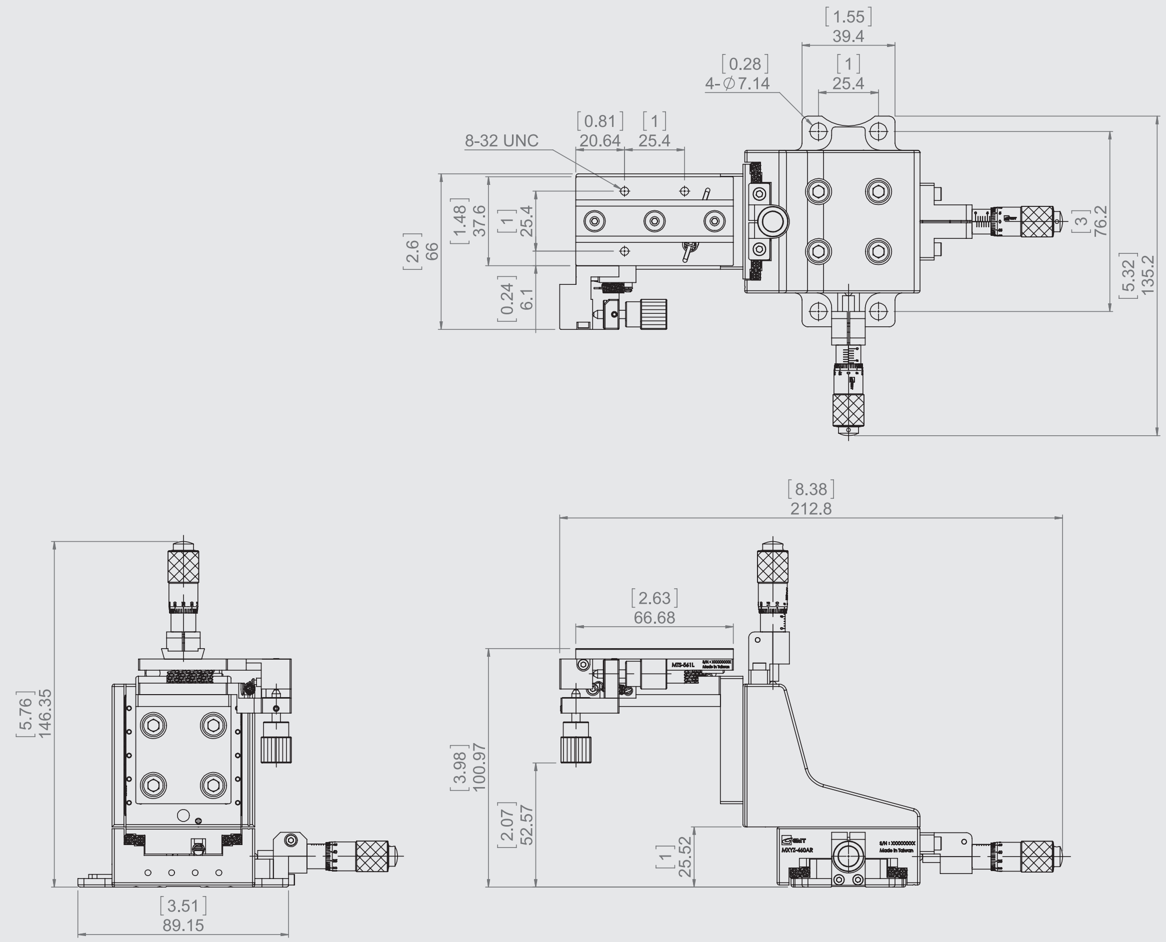
Specification / Axis	Travel Stroke 【Inch.(mm)】	Allowable Loading (N)	Material
X	0.5(12.7)	67	Aluminum alloy
Y	0.5(12.7)		
Z	0.5(12.7)		
θx	±5°		Stainless Steel
θy	±5°		

Thread Hole	Size 【Inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

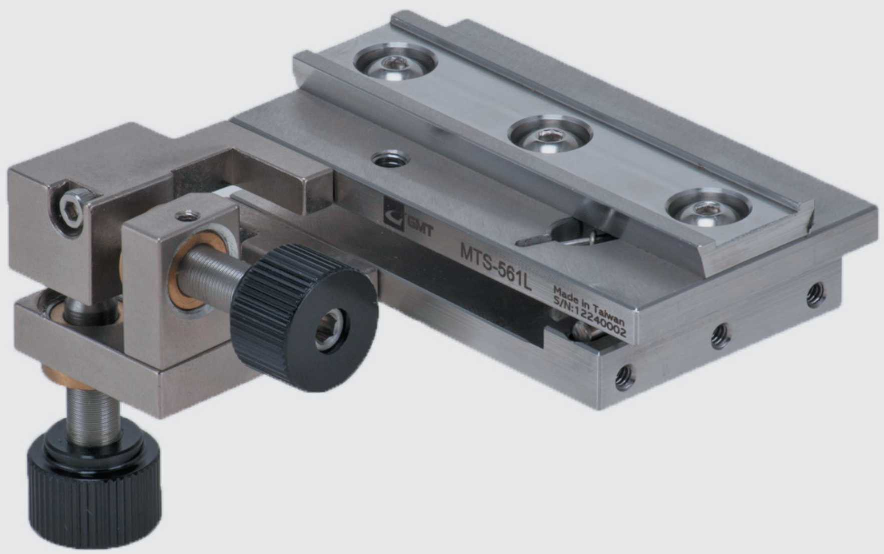
The module combines : MTS-561R, MXYZ-460AR, M5F-460A561-BKT.
M5F-460A561-R models consist of the XYZ manual positioning stage and a tilt stage (θx, θy). It is a 6-axis high resolution positioning stage in order to perform the single-fiber positioning.
For more information, please visit our website (www.gmtlinear.com) or contact to local agents.
For separate order :
XYZ stage module : MXYZ460-AR
Tilt stage module : MTS-561-R

GMT GLOBAL INC.
Manual Fiber Positioning Stages
XYZ θx, θy-Axis
Product Specification

M5F-460A561-R



MTS-561-L



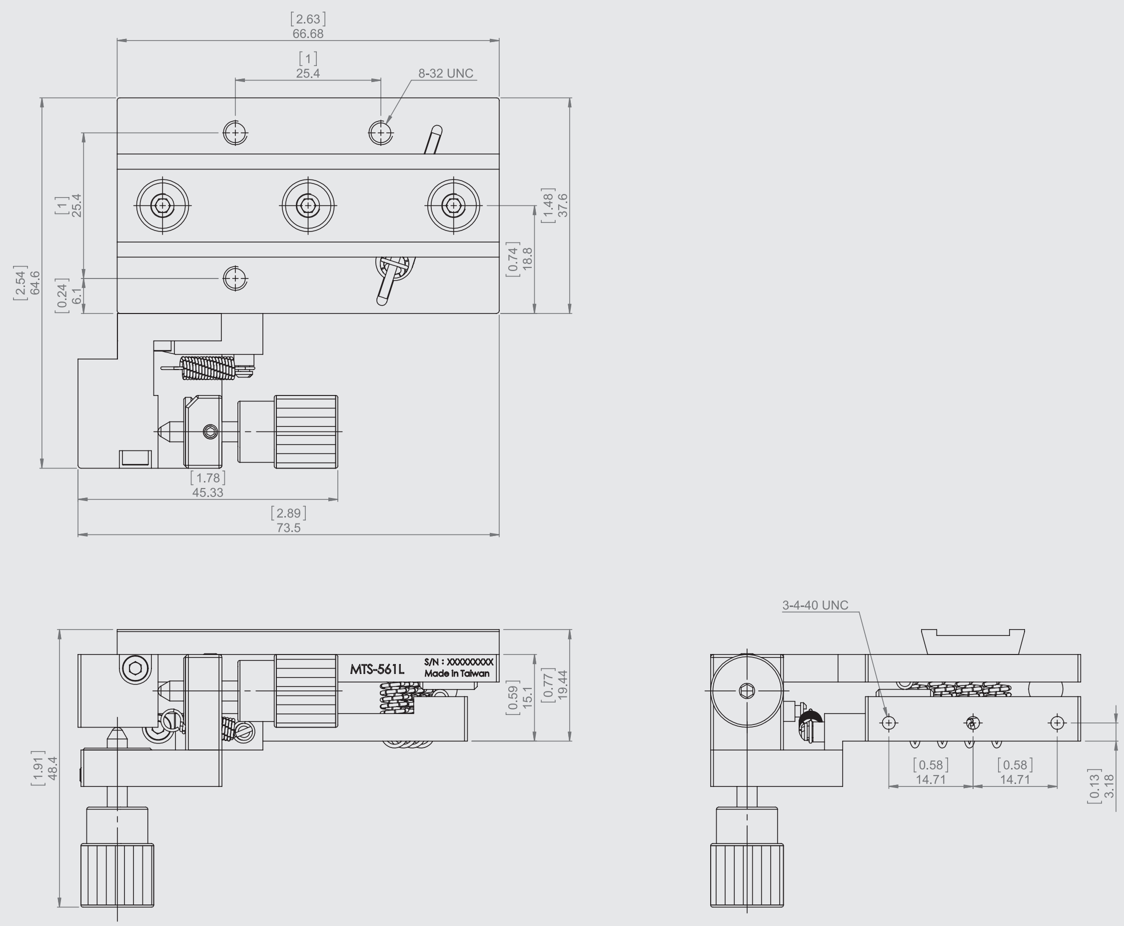
Specification

Unit : mm

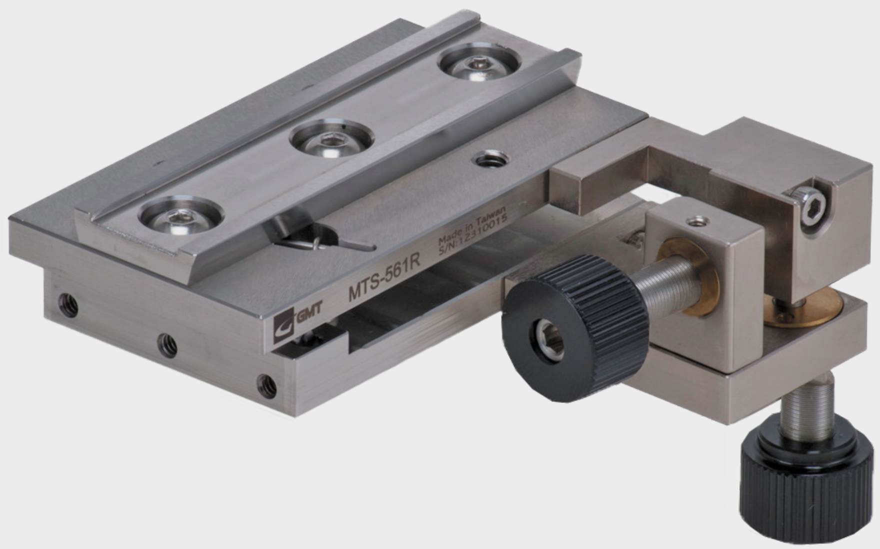
Specification / Axis	Travel Stroke	Sensitivity	Allowable Loading (N)	Material
θx	±5°	Each circular motion equals 5arc-seconds	22	Stainless Steel
θy	±5°			

The body of MTS-561-L made of stainless steel is of an excellent stability, capable of working for a long period. And the 5arc-second sensitivity could make the positioning adjustment much more simpler and easier.

MTS-561-L



MTS-561-R



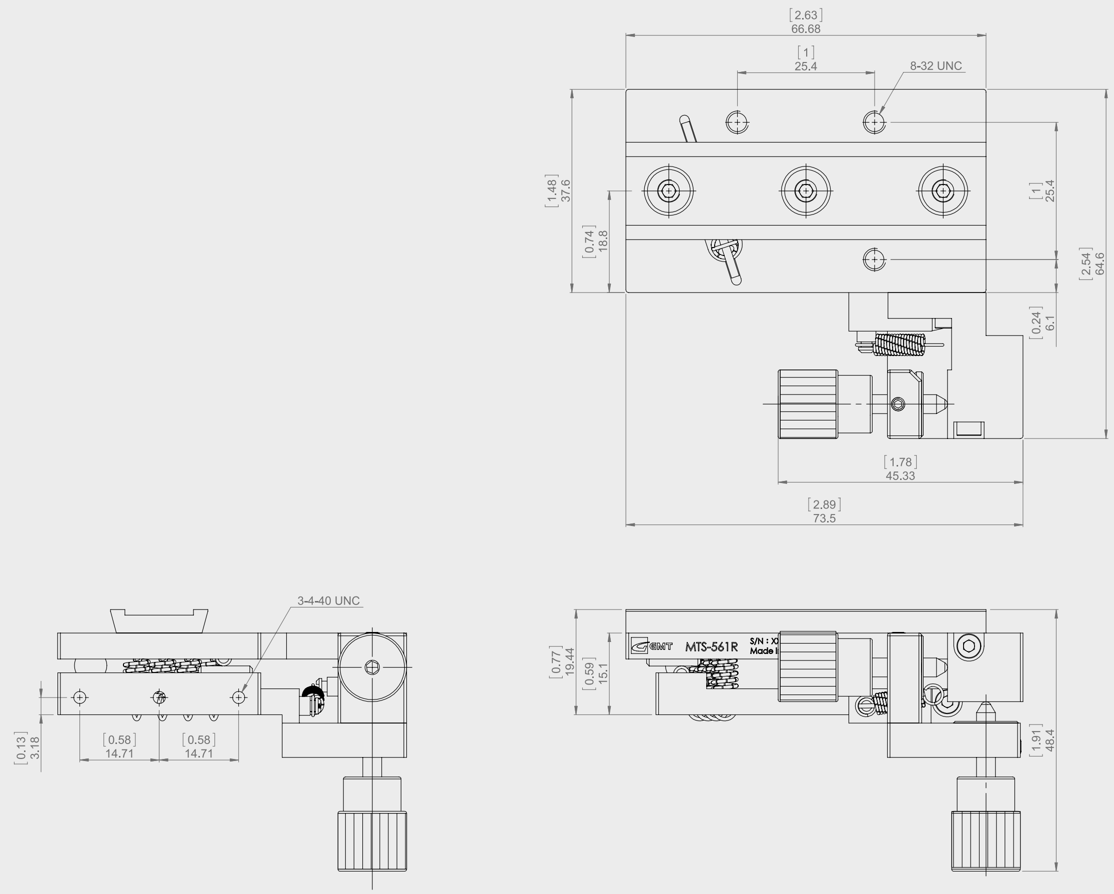
Specification

Unit : mm

Specification / Axis	Travel Stroke	Sensitivity	Allowable Loading (N)	Material
θx	±5°	Each circular motion equals 5arc-seconds	22	Stainless Steel
θy	±5°			

The body of MTS-561-R made of stainless steel is of an excellent stability, capable of working for a long period. And the 5arc-second sensitivity could make the positioning adjustment much more simpler and easier.

MTS-561-R



MXY-460AL

Specification

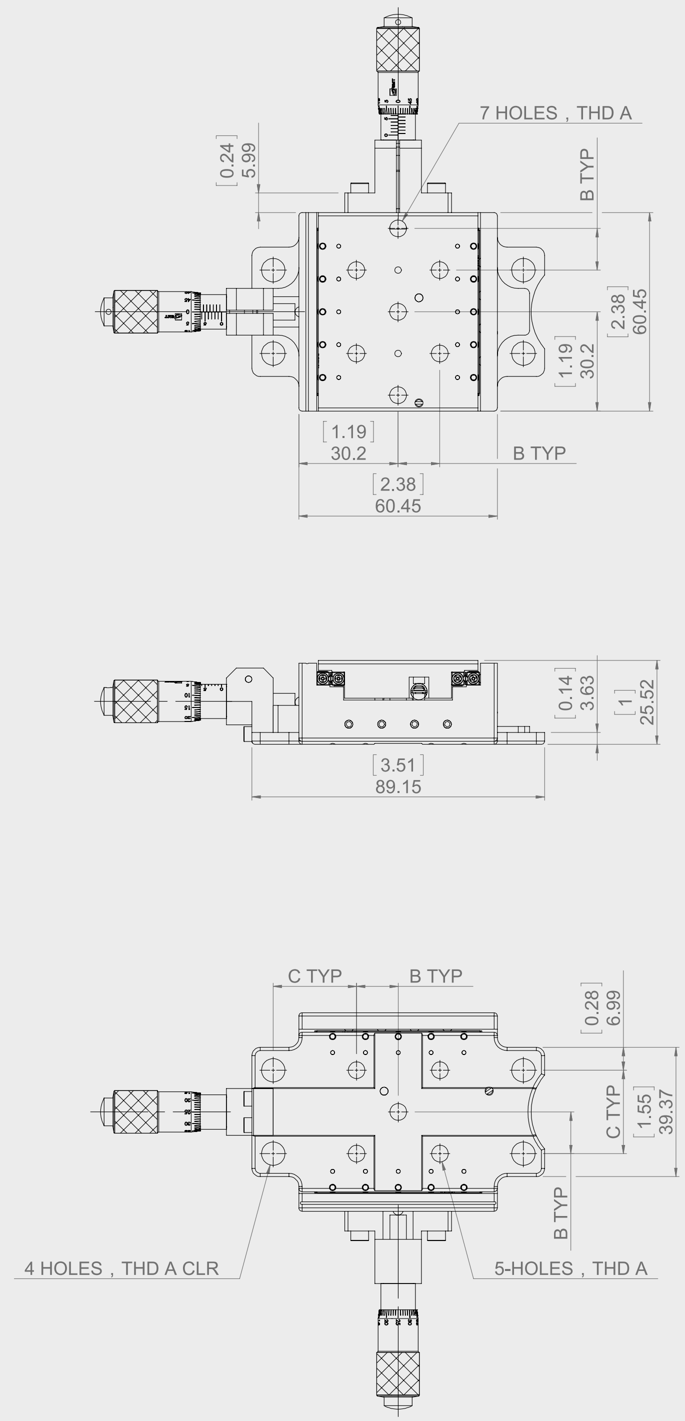
Unit : mm

Specification / Axis	Travel Stroke	Resolution (μm)	Allowable Loading(N)	Material
X	0.5 inch(12.7 mm)	10	67	Aluminum alloy
Y	0.5 inch(12.7 mm)			

Thread Hole	Size【inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

The body of MXY-460AL is aluminum alloyed, and a feature of the series is that containing the GMT crossed roller rails, of which the roller transmission could offer reliable resistance of heavy loading.

MXY-460AL



MXY-460AR

Specification

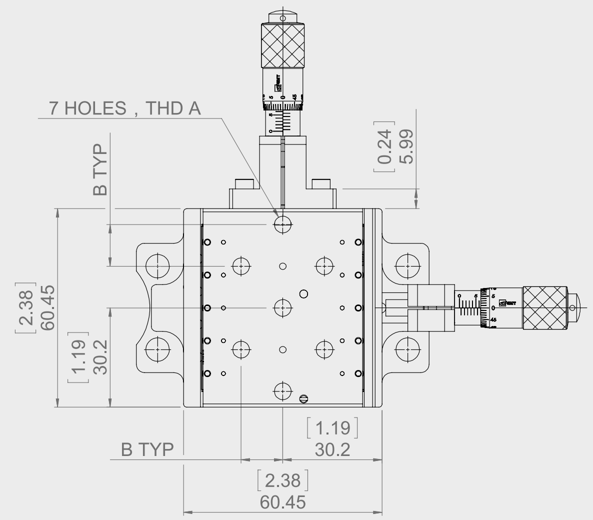
Unit : mm

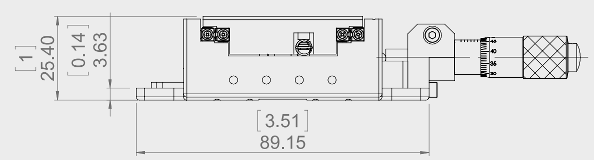
Specification / Axis	Travel Stroke	Resolution (μm)	Allowable Loading(N)	Material
X	0.5 inch(12.7 mm)	10	67	Aluminum alloy
Y	0.5 inch(12.7 mm)			

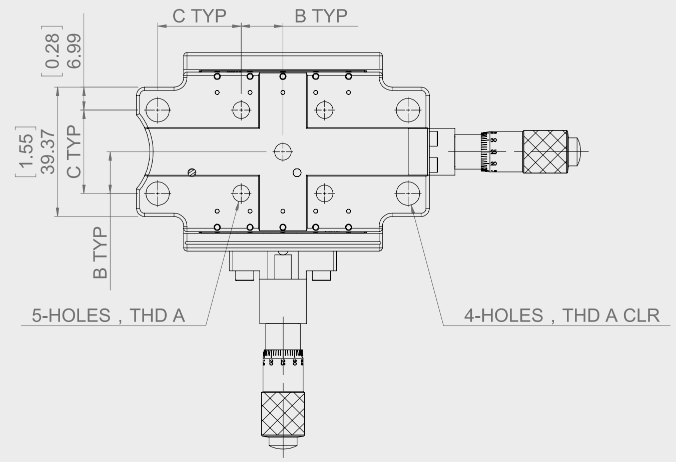
Thread Hole	Size 【inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

The body of MXY-460A-R is aluminum alloyed, and a feature of the series is that containing the GMT crossed roller rails, of which the roller transmission could offer reliable resistance of heavy loading.

MXY-460AR







MXYZ-460AL

Specification

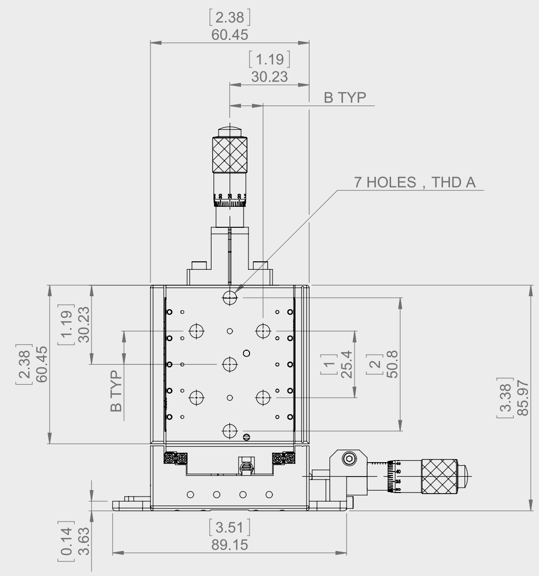
Unit : mm

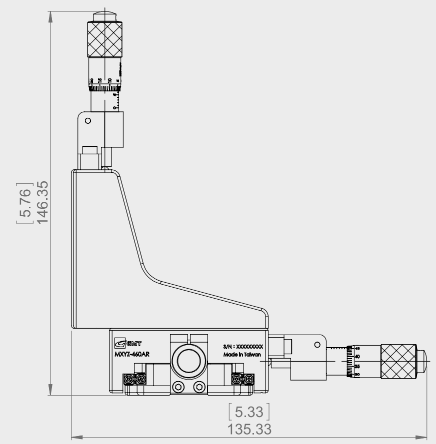
Specification / Axis	Travel Stroke	Resolution (μm)	Allowable Loading(N)	Material
X	0.5 inch(12.7 mm)	10	67	Aluminum alloy
Y	0.5 inch(12.7 mm)			
Z	0.5 inch(12.7 mm)			

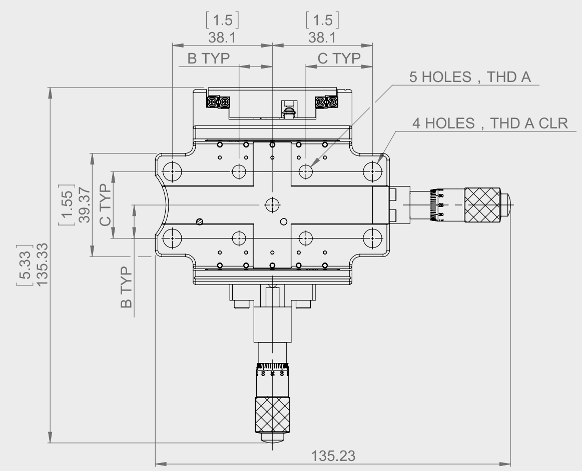
Thread Hole	Size【inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

The body of the triple-axis precision stage MXYZ-460AL is aluminum alloyed, and a feature of the series is that containing the GMT crossed roller rails. In addition, the module could be taken apart into a XY-axis stage or XZ-axis stage.

MXYZ-460AL







MXYZ-460AR

Specification

Unit : mm

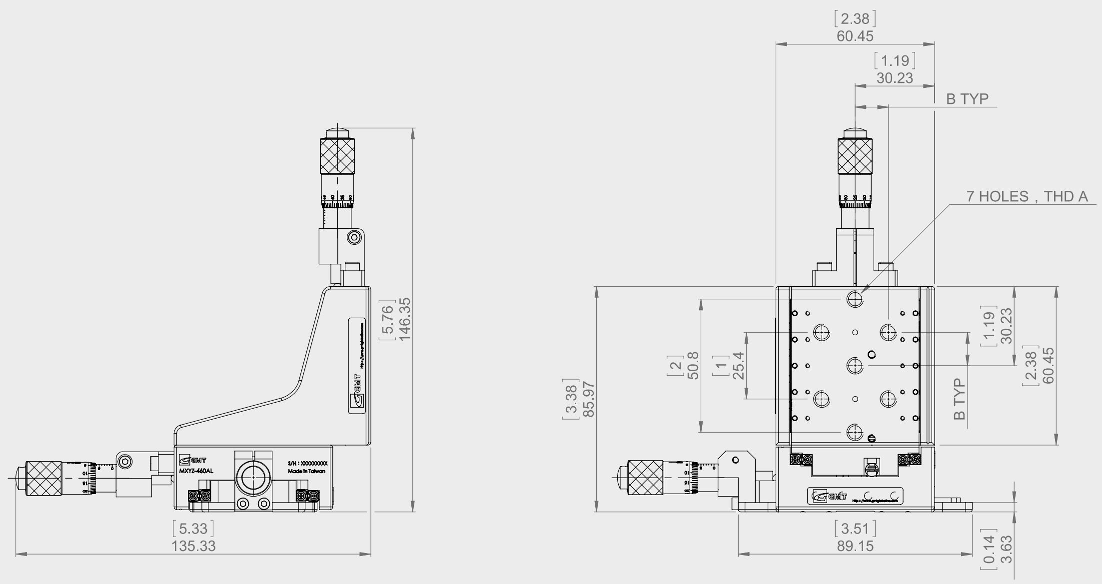
Specification / Axis	Travel Stroke	Resolution (μm)	Allowable Loading(N)	Material
X	0.5 inch(12.7 mm)	10	67	Aluminum alloy
Y	0.5 inch(12.7 mm)			
Z	0.5 inch(12.7 mm)			

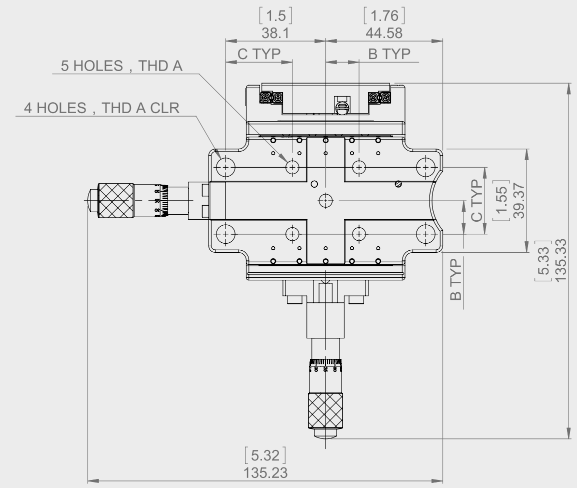
Thread Hole	Size 【inch.(mm)】	
A	B	C
1/4-20	0.5(12.5)	1(25.4)

The body of the triple-axis precision stage MXYZ-460AR is aluminum alloyed, and a feature of the series is that containing the GMT crossed roller rails. In addition, the module could be taken apart into a XY-axis stage or XZ-axis stage.

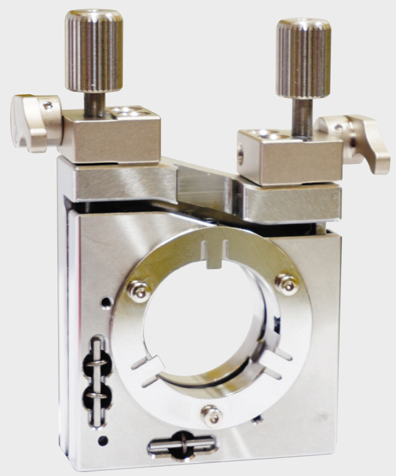
GMT GLOBAL INC.
Manual Fiber Positioning Stages
XYZ-Axis Crossed Roller Guiding Type
Product Specifiction

MXYZ-460AR

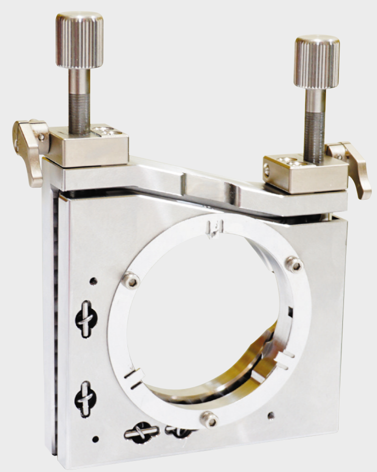




MOVM-S1



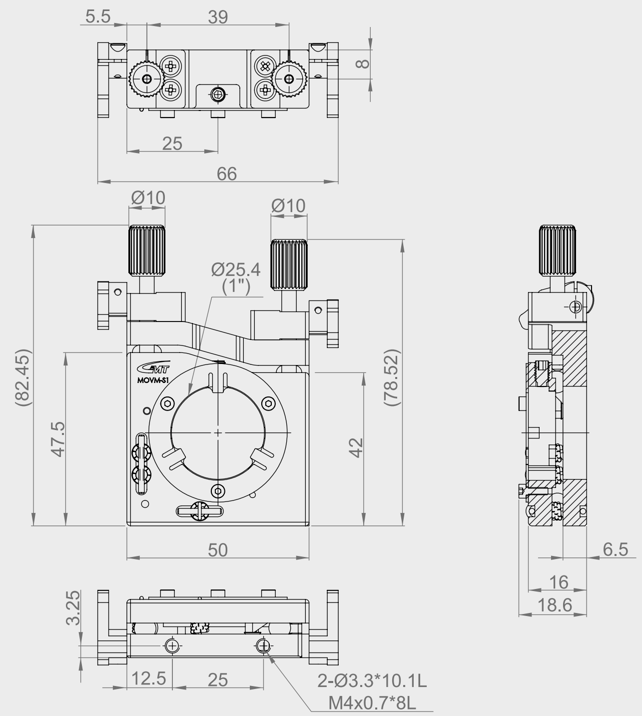
MOVM-S2



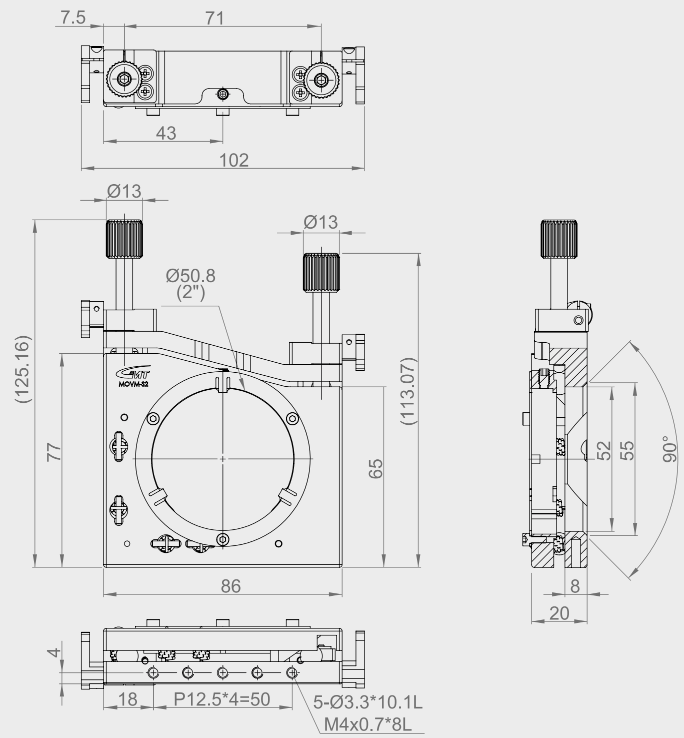
Specifications

Model No.	Optics Diameter	Fine Screw Thread	Tilt Range		Sensitivity	Locking	Material	Weight
MOVM-S1	1"	M4×0.25	X :±2.5°	Y:±2.5°	2 arcsec	Both axes	Stainless steel	0.25 kg
MOVM-S2	2"	M6×0.25						0.6 kg

MOVM-S1



MOVM-S2

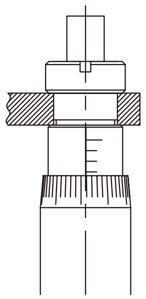
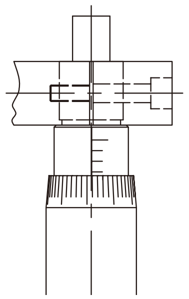


Purpose

The micrometer type is particularly designed for high accuracy positioning devices, such as optical instruments, precisely fine tuning stages, various machine tools, gauging instruments, precisely positioning devices, fixed amount transmissions, etc.

Installation

The heads of the micrometers are classified by their forms as the type of lock screw and set screw.

Fixing form	Lock Screw		Set Screw	
Installation Diagram				
Shaft Dia.	Ø6	Ø9.525 Ø9.5	Ø6	Ø9.525 Ø9.5
Mounting Hole Tolerance	G7(+0.004~+0.016)	G7(+0.005~+0.020)	G7(+0.004~+0.016)	G7(+0.005~+0.020)
Notice	The right angle opposite to mounting hole A must be within 0.16/6.5,digrees, or the fixing may be affected		Pleasse notice burrs occurred from inner wall of mounting holes.	
Axial Static Load	8.63~9.8kN(880~1000kgf)		0.69~0.98kN(70~100kgf)	
Remark	Simply and firmly locked		need of locking and tacking process	

★ Loading data is exlusive of maintaining accuracy

Micrometer selection

The considerations of selecting a micrometer might be including gauging range, the shape of gauging face, shaft, and the size of reading axis. Selections should be based on purposes.

Gauging plane selection

The shaft is designed with the most suitable dimension for the body using an allowable tolerance h6.
Once the instrument be used for gauging purposes, it is generally suggested to use the plate type; for transferring purposes, using the sphere type could minimize the errors.

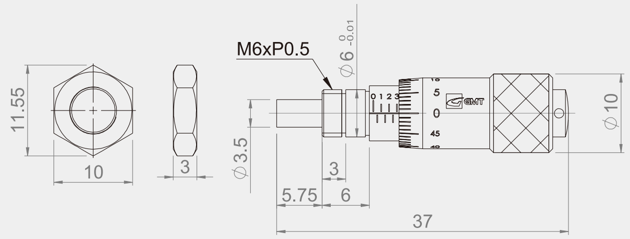
MHGS - F N - 13

Model No. | Front Shape | Installation | Travel Stroke

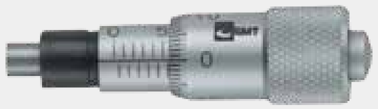
GMT	Measurement Range	Accuracy	Minimum Resolution	Micrometer Tolerance	Vernier	Fronttip		Installation	
Model No.	mm	mm	mm	μm		Flate	Round	Lock Screw	Set Screw
MHGS-FN-6.5	0~6.5	0.005	0.01	± 2	Positive scale	●		●	
MHGS-FP-6.5						●			●
MHGS-SN-6.5							●	●	
MHGS-SP-6.5							●		●
MHGS-FN-13	0~13					●		●	
MHGS-FP-13						●			●
MHGS-SN-13							●	●	
MHGS-SP-13							●		●
MHGS-FN-15	0~15					●		●	
MHGS-FP-15						●			●
MHGS-SN-15							●	●	
MHGS-SP-15							●		●
MHGS-FN-25	0~25					●		●	
MHGS-FP-25						●			●
MHGS-SN-25							●	●	
MHGS-SP-25							●		●
MHGS-FN-50	0~50					●		●	
MHGS-FP-50						●			●
MHGS-SN-50							●	●	
MHGS-SP-50							●		●

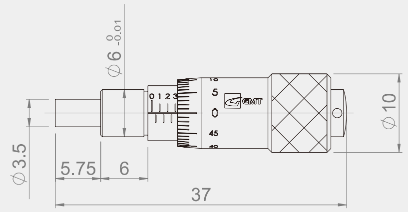
- MHGS type (standard type) is mostly used worldwide.
- Gauging face material: SKS3(Hardness: above HRC60)
- Scale surface finish: Hard chrome-plating

MHGS-FN-6.5

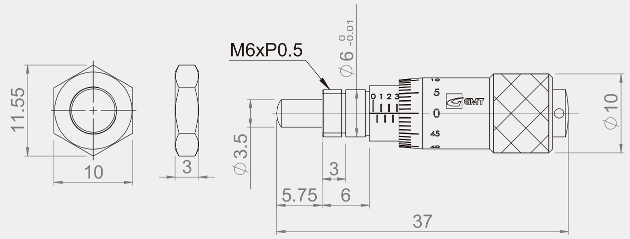


MHGS-FP-6.5

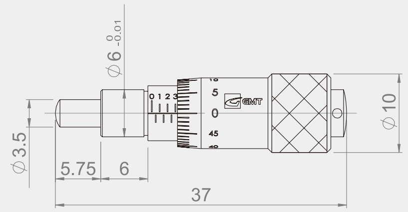




MHGS-SN-6.5

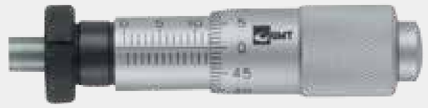


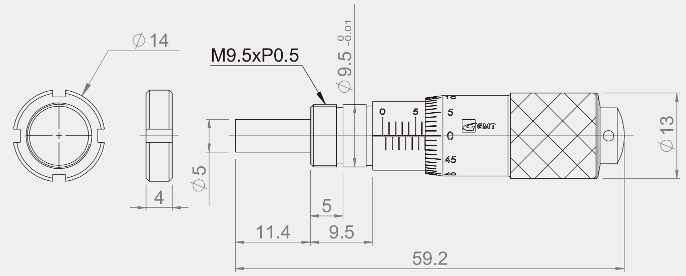
MHGS-SP-6.5



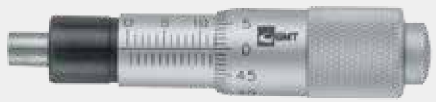
Product Specifications

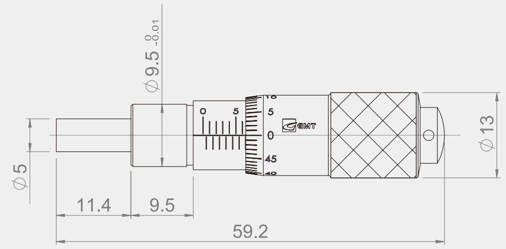
MHGS-FN-13



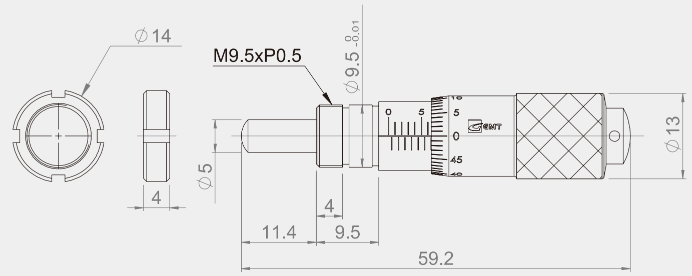


MHGS-FP-13

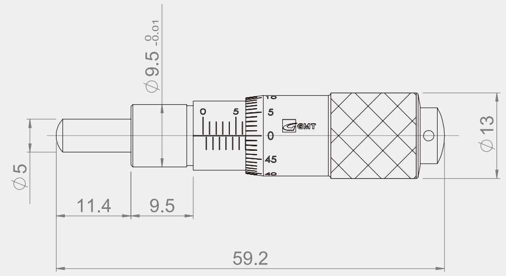




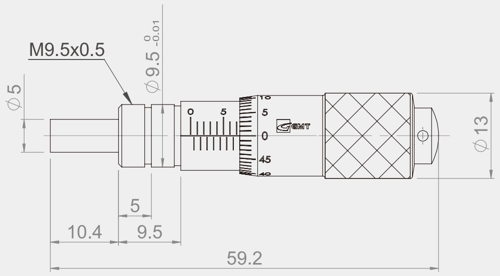
MHGS-SN-13



MHGS-SP-13

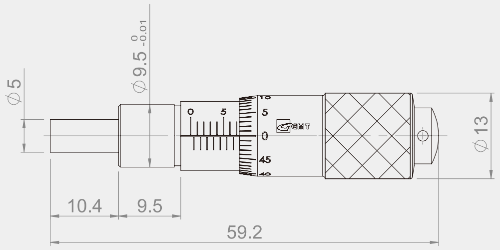


MHGS-FN-15

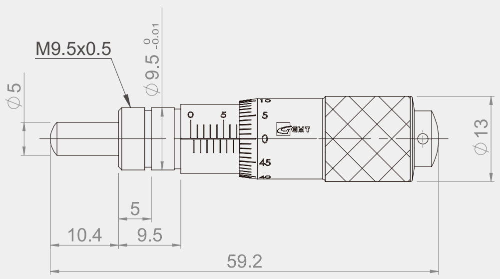



Screw ptions please refer to：MHGS-FN-13

MHGS-FP-15

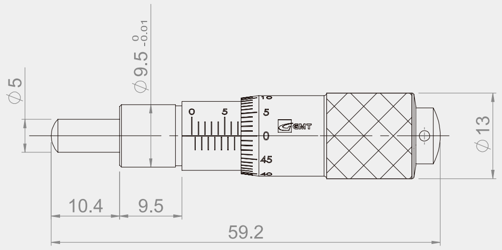



MHGS-SN-15

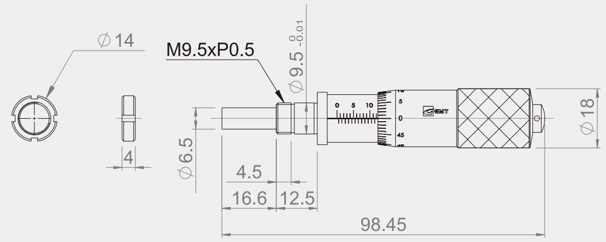



Screw options please refer to：MHGS-FN-13

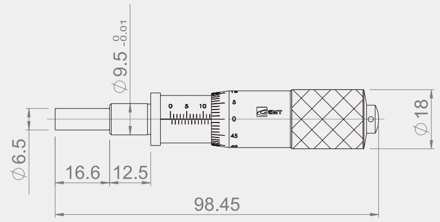
MHGS-SP-15

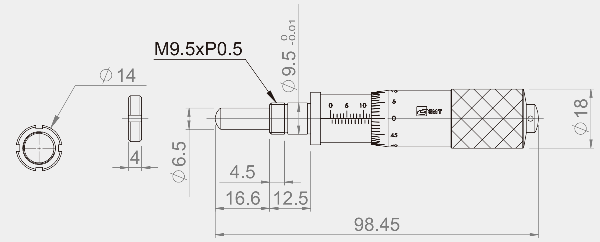
MHGS-FN-25

MHGS-FP-25

MHGS-SN-25

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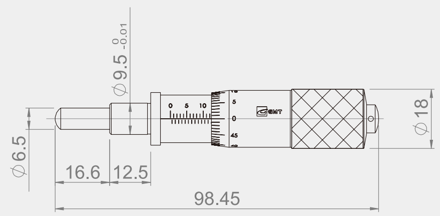
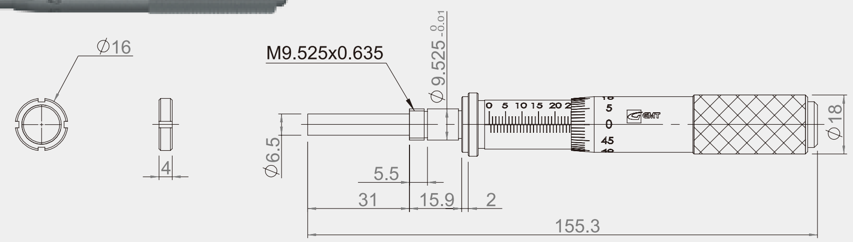
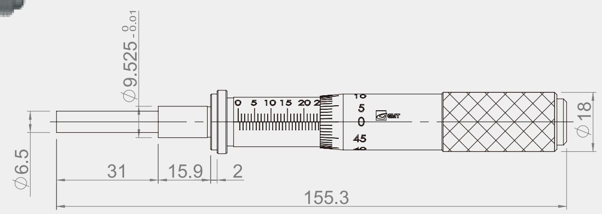


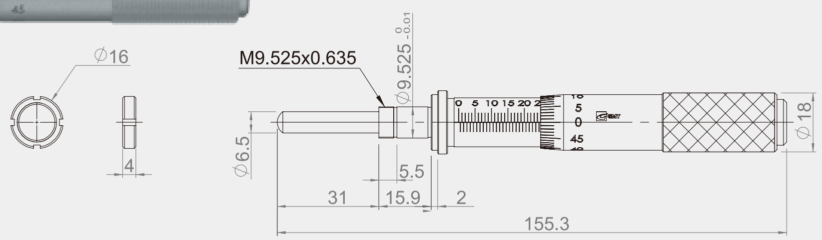
MHGS-FN-50



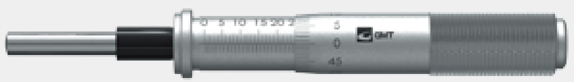
MHGS-FP-50

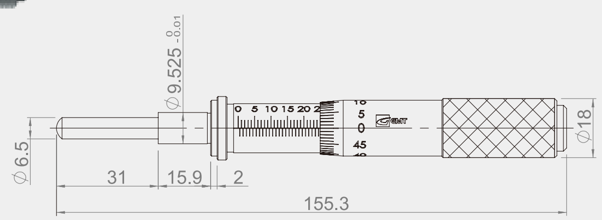


MHGS-SN-50

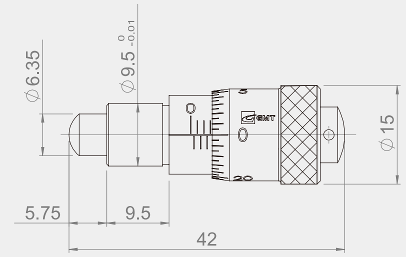


MHGS-SP-50



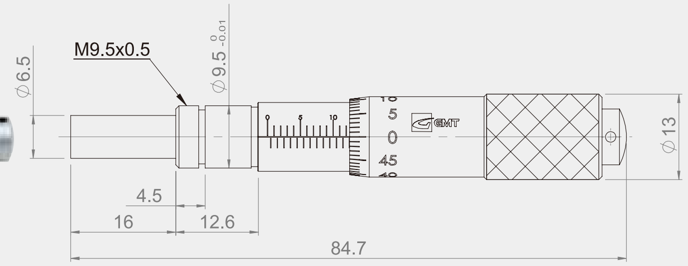


MHGS-SP-6.5A(B)



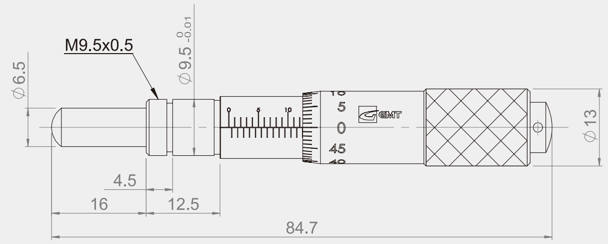
PITCH : A(0.25mm) ; B(0.5mm)

MHGS-FN-25A



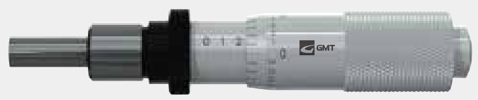
Screw options please refer to : MHGS-FN-13

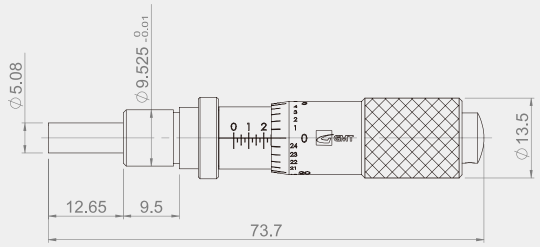
MHGS-SN-25A



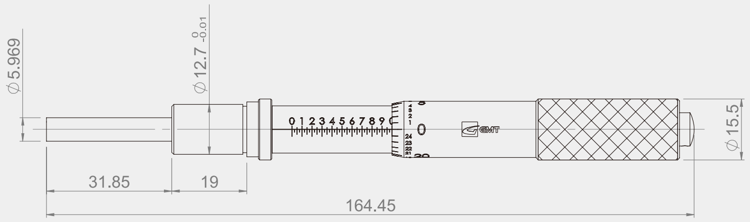
Screw options please refer to : MHGS-FN-13

MHGS-FN-1/2"

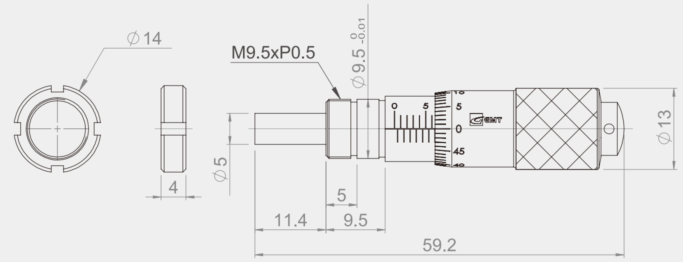




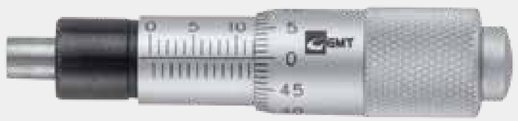
MHGS-FN-2"

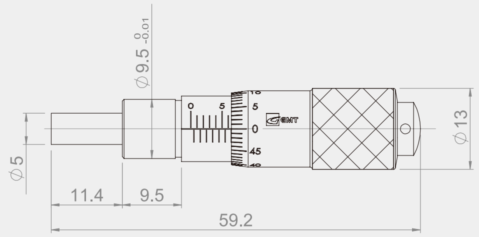


EMHGS-FN-13

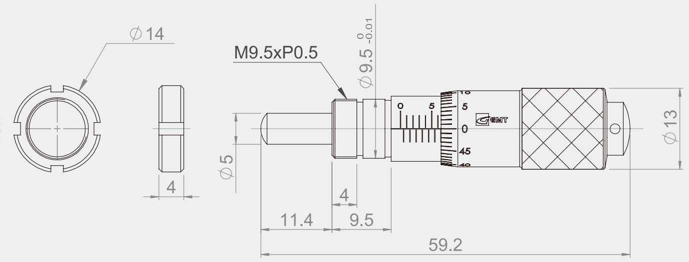


EMHGS-FP-13

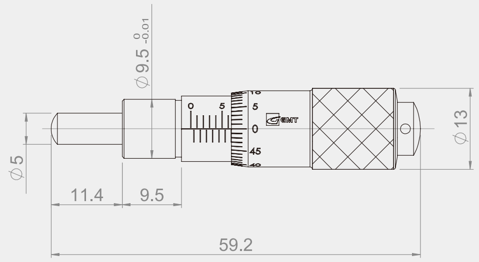




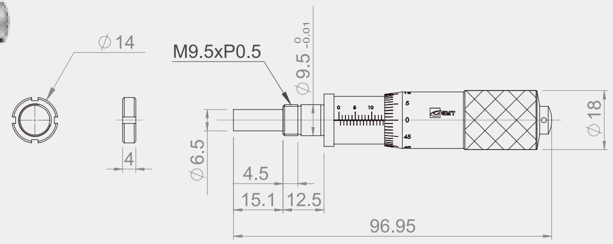
EMHGS-SN-13



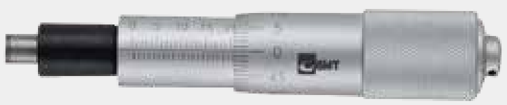
EMHGS-SP-13

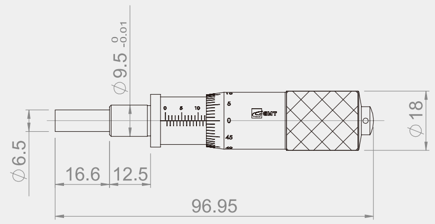


EMHGS-FN-25

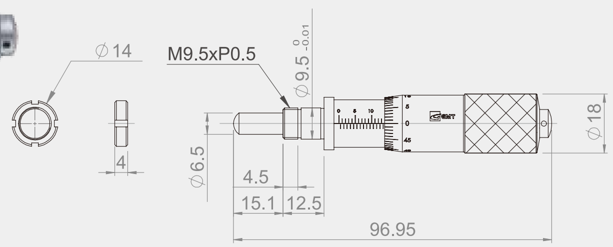


EMHGS-FP-25

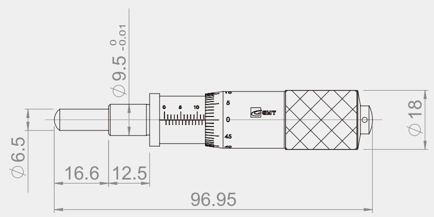




EMHGS-SN-25



EMHGS-SP-25

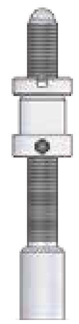


Usage

Feeding screw: Can be applied to the mechanical structures which performing general precision movement, adjusting devices, etc. Widely used in various applications because of the lower cost in contrast to the micrometer.

Installation

There are two types of locking available: Threaded and Cylinder.

Lock Type	Threaded Locking	Cylinder Locking
Installation method		
Axis diameter	Ø6mm 、 Ø9.5mm	
Tolerance suggestion for installation hole embeddingn	G7【＋0.004～＋0.020】	
Remark	It's simple, rapid and lock tightly	Use set screw to lock with assisting parts

★ Once the feeding screw be used for transferring purposes, using the sphere type could minimize the errors.

Common Used Lock (3-d Diagrams):

Thread Type

Cylinder Type

★ The diagrams are used as reference, the locking type can be customized.

P S 1 R C – 13

Model	Knob Type	Lock Type	Stroke / Guiding【mm】	Code《Travel》
P:Precision S:Screw	1：Pattern 2：Hexagon Socket	M：Thread Type R：Cylinder Type	N：General Type / 1 C：Standard Type / 0.5	07《7》 13《13》 25《25》

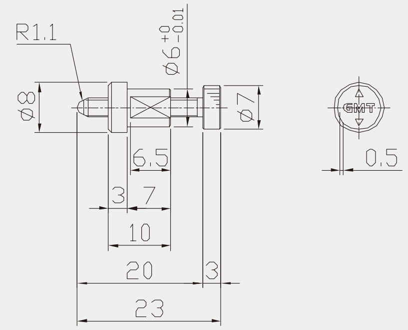
Feeding Screw Selection Table

GMT Model		Travel Stroke Range (mm)	Accuracy (mm)	Minimum Reading (Vernier)	Knob Type: Pattern	Knob Type: Hexagon Socket	Page
PS1R □-	0 7	0～7	0.03	0.1 mm／Vernier	●		P0329
	1 3	0～13			●		
	2 5	0～25			●		
PS2R □-	0 7	0～7				●	
	1 3	0～13				●	P0329 ≀ P0330
	2 5	0～25				●	
PS1M □-	0 7	0～7			●		
	1 3	0～13			●		
	2 5	0～25			●		P0331
PS2M □-	0 7	0～7				●	
	1 3	0～13				●	
	2 5	0～25				●	

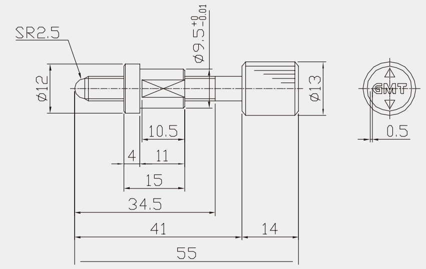
★notice

- PS1M and PS2M series would be attached with the particular wrench.
- The thread and bushing parts are both in high precision and able to inhibit shaking.
- Thread part material ：SUS303。

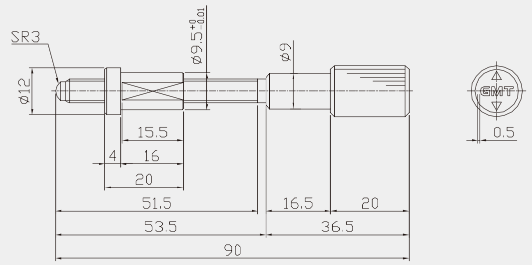
Model No：PS1R ☐—07；Threaded Screw：M3x [Pitch：0.25 or 0.5]



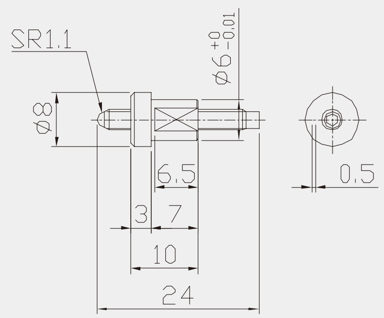
Model No：PS1R ☐—13；Threaded Screw：M6x [Pitch：0.25 or 0.5]



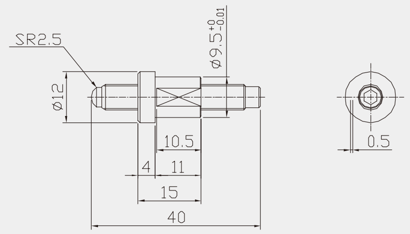
Model No：PS1R ☐—25；Threaded Screw：M6x [Pitch：0.5 or 1]



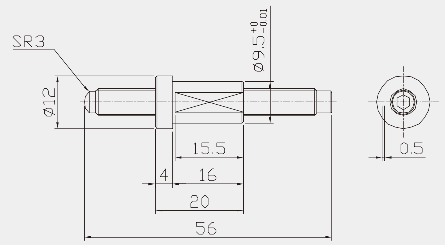
Model No：PS2R ☐—07；Threaded Screw：M3x [Pitch：0.25 or 0.5]



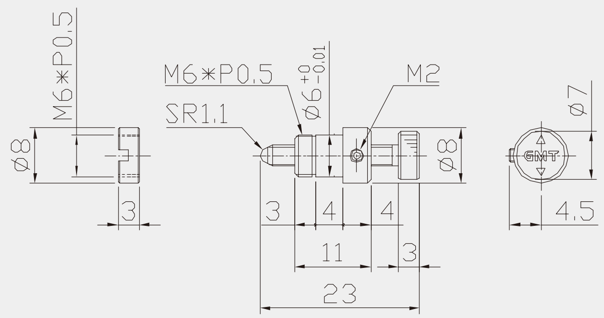
Model No：PS2R ☐—13；Threaded Screw：M6x [Pitch：0.25 Or 0.5]



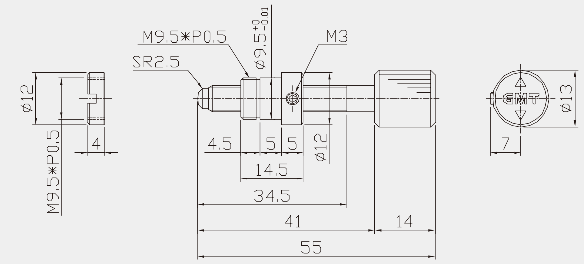
Model No：PS2R ☐—25；Threaded Screw：M6x [Pitch：0.5 or 1]



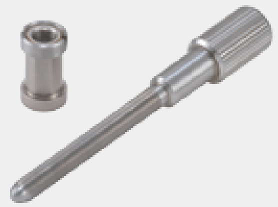
Model No：PS1M ☐—07；Threaded Screw：M3x [Pitch：0.25 or 0.5]

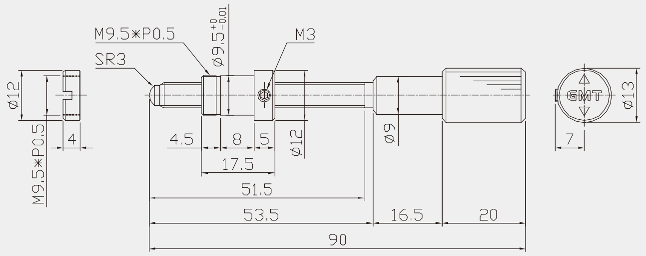


Model No：PS1M ☐—13；Threaded Screw：M6x [Pitch：0.25 or 0.5]

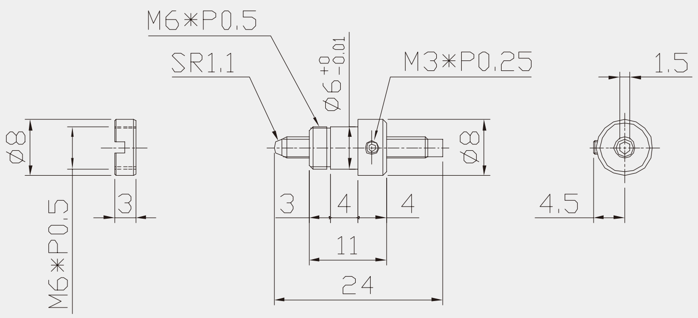


Model No：PS1M □—25；Threaded Screw：M6x [Pitch：0.5 or 1]

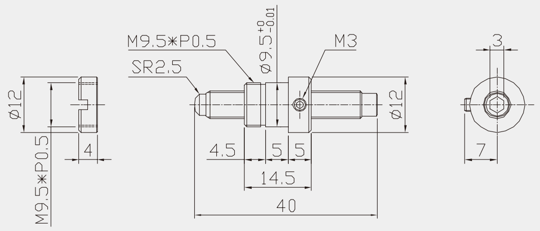




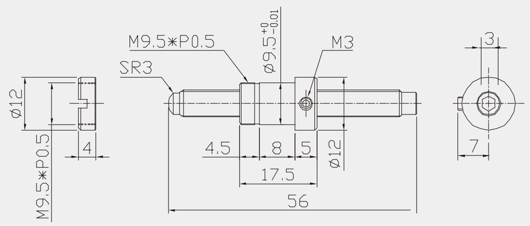
Model No：PS2M □—07；Threaded Screw：M3x [Pitch：0.25 or 0.5]



Model No：PS2M □—13；Threaded Screw：M6x [Pitch：0.25 or 0.5]



Model No：PS2M □—25；Threaded Screw：M6x [Pitch：0.5 or 1]

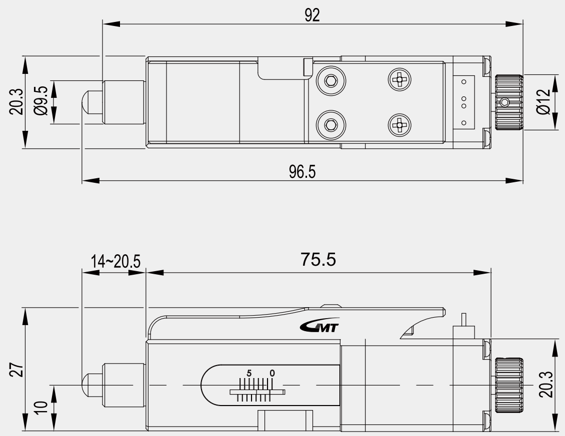


Model Specification

GACT	-	S	N	-	6.5
Model No.		Pilot Shape	Installation		Stroke
GACT : Actuator		F : Flat measuring surface S : Spherical measuring surface	N : Locknuts P : Set screws		6.5 : 6.5 mm

Model No.			GACT-SP-6.5	GACT-SN-6.5	GACT-FP-6.5	GACT-FN-6.5
Mechanical Specifications	Measuring Range		0 ~ 6.5			
	Transmission		Precision thread M6x0.5P			
	Body Weight(kg)		0.129			
	Pilot Shape		F : Flat measuring surface / S : Spherical measuring surface			
	Installation		N : Locknuts / P : set screws			
	Scale Shape		N scale			
	Material / Color		Actuator : aluminum ally / black anodized			
Precision Specifications	Dpi(Pulse)	Full / Half(mm)	0.0025 / 0.00125			
	Veneered Positioning Accuracy(mm)		0.01 mm			
	Repeat Positioning Accuracy		0.003			
	Allowable Load(N)		29.4			
	Maximum Speed(mm / sec)		2			
Electrical Specifications	Motor	Motor Model / Shaft Numbers	2-phase stepping / 20□ dual extension shafts			
		Manufacturers	Orientalmotor / GMT			
		Model No.	CVK213BK / 2MS-N20D33A			
	Connector	Actuator cable connector	15Pin Public-side connector D-SUB			

GACT series



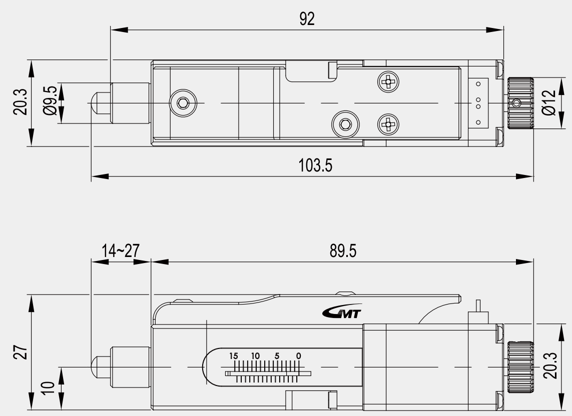
◎ GACT-SP-13 ◦
◎ If institutions qualify for the HRS, please inform.

Model Specification

GACT	-	S	N	-	13
Model No.		Pilot Shape	Installation		Stroke
GACT : Actuator		F : Flat measuring surface S : Spherical measuring surface	N : Locknuts P : Set screws		13 : 13 mm

Model No.			GACT-SP-13	GACT-SN-13	GACT-FP-13	GACT-FN-13
Mechanical Specifications	Measuring Range		0 ~ 13			
	Transmission		Precision thread M6x0.5P			
	Body Weight(kg)		0.156 kg			
	Pilot Shape		F : Flat measuring surface / S : Spherical measuring surface			
	Installation		N : Locknuts / P : set screws			
	Scale Shape		N scale			
	Material / Color		Actuator : aluminum ally / black anodized			
Precision Specifications	Dpi(Pulse)	Full / Half(mm)	0.0025 / 0.00125			
	Veneered Positioning Accuracy(mm)		0.01 mm			
	Repeat Positioning Accuracy		0.003			
	Allowable Load(N)		29.4			
	Maximum Speed(mm / sec)		2			
Electrical Specifications	Motor	Motor Model / Shaft Numbers	2-phase stepping / 20□ dual extension shafts			
		Manufacturers	Orientalmotor / GMT			
		Model No.	CVK213BK / 2MS-N20D33A			
	Connector	Actuator cable connector	15Pin Public-side connector D-SUB			

GACT series



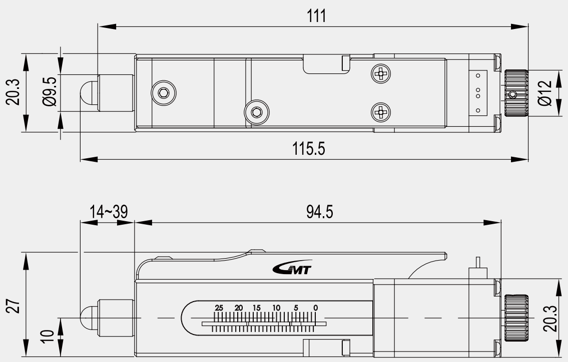
If institutions qualify for the HRS, please inform.

Model Specification

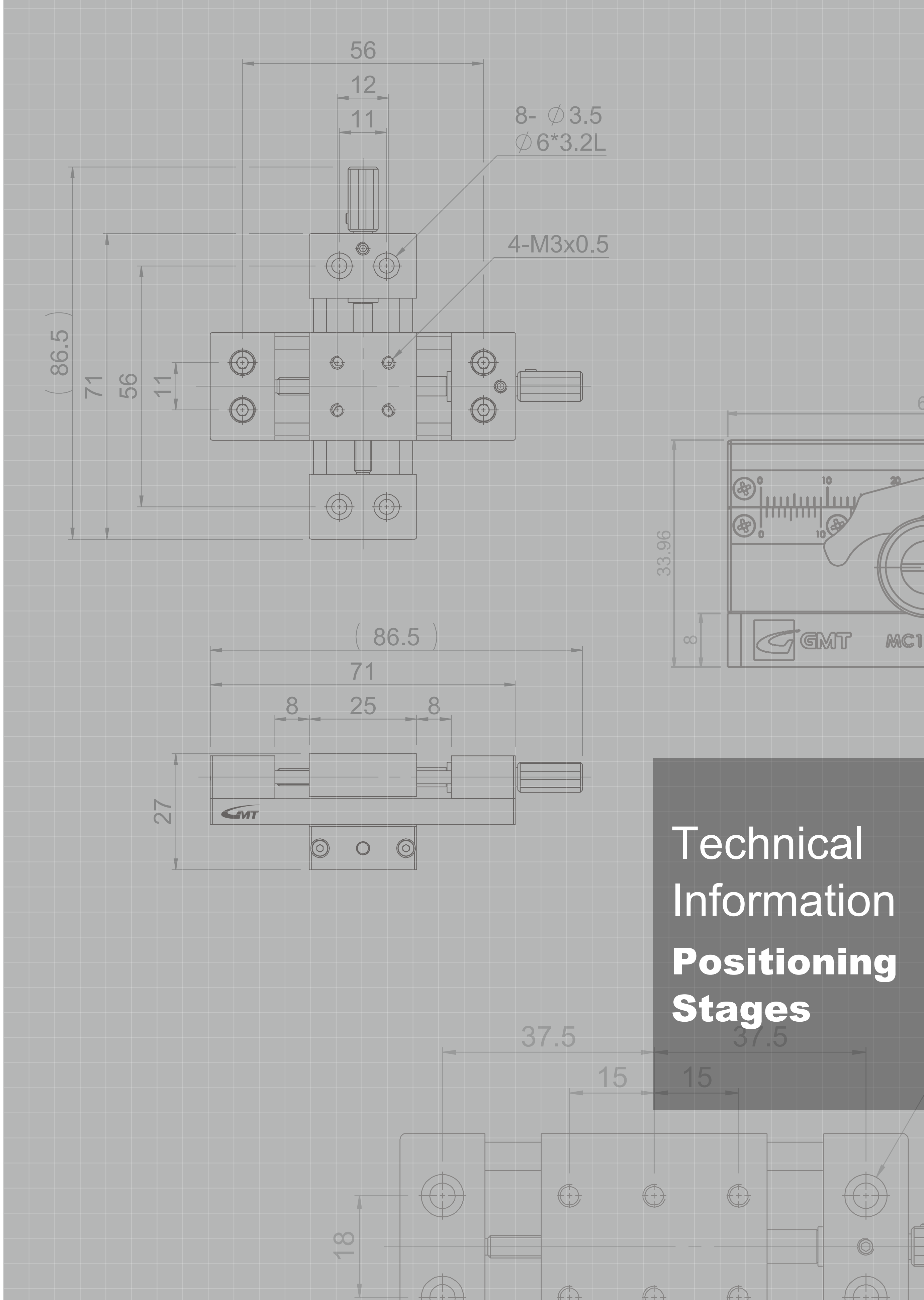
GACT	-	S	N	-	25
Model No.		Pilot Shape	Installation		Stroke
GACT : Actuator		F : Flat measuring surface S : Spherical measuring surface	N : Locknuts P : Set screws		25 : 25 mm

Model No.			GACT-SP-25	GACT-SN-25	GACT-FP-25	GACT-FN-25
Mechanical Specifications	Measuring Range		0 ~ 25			
	Transmission		Precision thread M6x0.5P			
	Body Weight(kg)		0.163kg			
	Pilot Shape		F : Flat measuring surface / S : Spherical measuring surface			
	Installation		N : Locknuts / P : set screws			
	Scale Shape		N scale			
	Material / Color		Actuator : aluminum ally / black anodized			
Precision Specifications	Dpi(Pulse)	Full / Half(mm)	0.0025 mm / 0.00125 mm			
	Veneered Positioning Accuracy(mm)		0.01 mm			
	Repeat Positioning Accuracy		0.003			
	Allowable Load(N)		29.4			
	Maximum Speed(mm / sec)		2			
Electrical Specifications	Motor	Motor Model / Shaft Numbers	2-phase stepping / 20□ dual extension shafts			
		Manufacturers	Orientalmotor / GMT			
		Model No.	CVK213BK / 2MS-N20D33A			
	Connector	Actuator cable connector	15Pin Public-side connector D-SUB			

GACT series

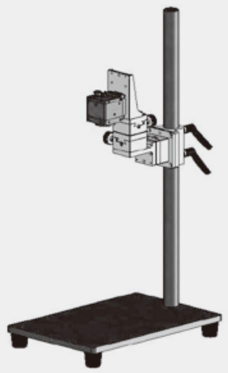


◎ GACT-SP-13。
◎ If institutions qualify for the HRS, please inform.

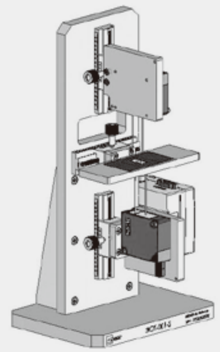


Technical Information
Positioning Stages

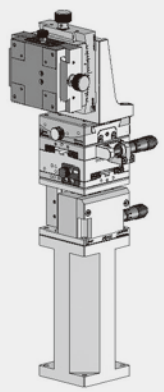
Simplized & rapid adjustment module for CCD monitoring.



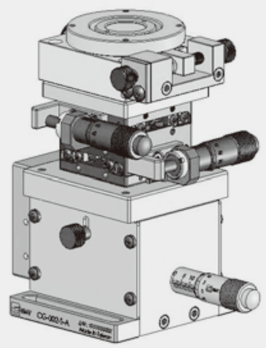
Measuring module for membrane thickness of transparent material.



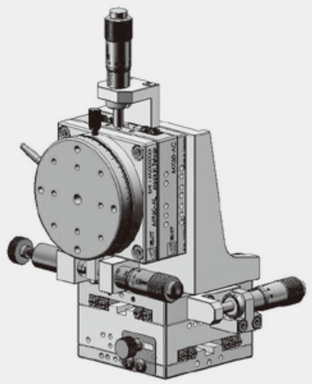
Multiple axes module for Universal fine tuning.



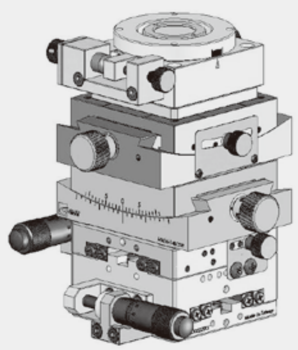
Multi-axes, micro-adjustment module.



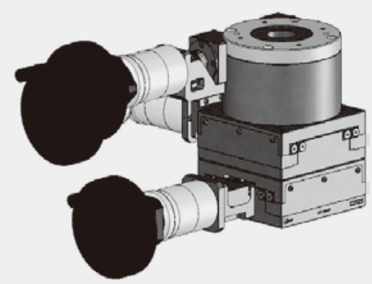
Micro-alignment module of CCD fabricated equipment.



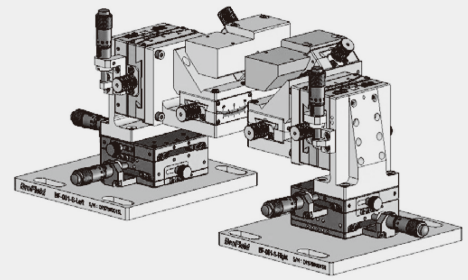
Micro-alignment module for AOI system.



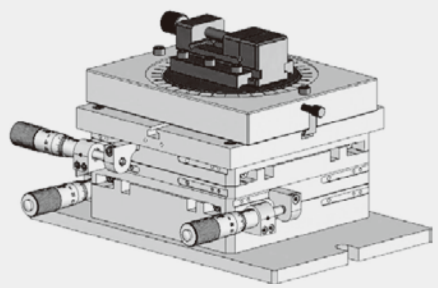
XYR-axis alignment stage module.



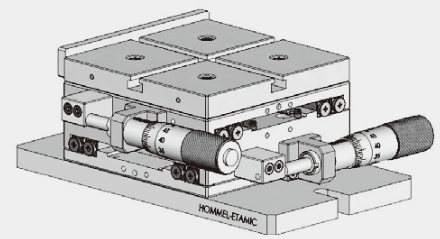
LED wafer characteristic inspection stage module.



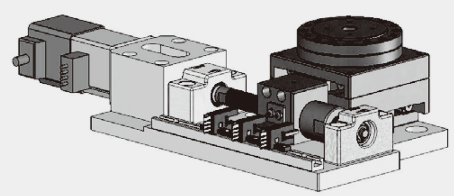
Profile measuring module.



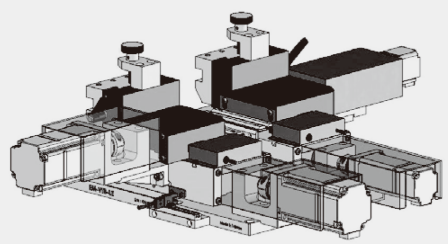
Stage module for surface roughness measuring.

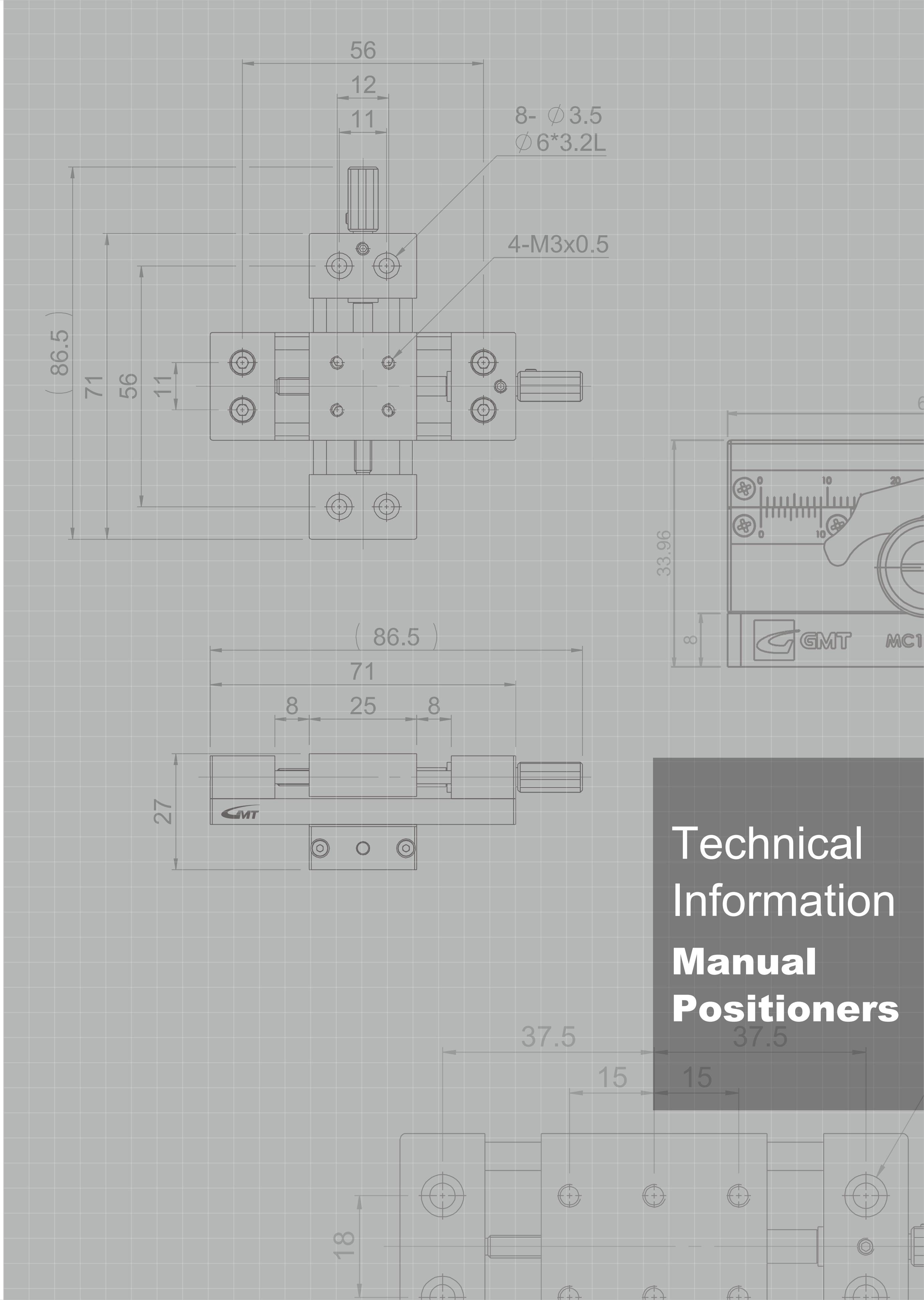


Single axis movement module of large-scale alignment stage.



Lathing stage module equipped with mini-size motors





Technical Information

Manual Positioners

Reference Table of Basic Shaft Fitting

Unit：μ=0.001mm

Basic Shaft	Bore Tolerance Classes																
	Clearance fit							Transition fit			Interference fit						
h5							H6	JS6	K6	M6	N6*	P6					
h6					F6	G6	H6	JS6	K6	M6	N6*	P6*					
					F7	G7	H7	JS7	K7	M7	N7	P7*	R7	S7	T7	U7	X7
h7				E7	F7		H7										
					F8		H8										
h8			D8	E8	F8		H8										
			D9	E9			H9										
h9			D8	E8			H8										
		C9	D9	E9			H9										
	B10	C10	D10														

★ There may be exceptions in these fits depending on dimension classes.

Reference Table for Basic Bore Fitting

Unit：μ=0.001mm

Basic Bore	Shaft Tolerance Classes																
	Clearance fit							Transition fit			Interference fit						
H6						g5	h5	js5	k5	m5							
						g6	h6	js6	k6	m6	n6*	p6*					
H7					f6	g6	h6	js6	k6	m6	n6	p6*	r6*	s6	t6	u6	x6
					f6		h7	js7									
H8				e7	f7		h7										
					f7		h8										
				e8	f8												
H9			d9	e9			h8										
			d8	e8			h9										
H9		c9	d9	e9													
	b9	c9	d9														
H10	b9	c9	d9														

★ There may be exceptions in these fits depending on dimension classes.

Reference Table of Shaft Tolerance

Unit：μ=0.001mm

Basic Dimensions (mm)		Tolerance Zone Class for Shaft																
		b9	c9	d8	d9	e7	e8	e9	f6	f7	f8	g5	g6	h5	h6	h7	h8	h9
—	≤3	-140 -165	-60 -85	-20 -34	-20 -45	-14 -24	-14 -28	-14 -39	-6 -12	-6 -16	-6 -20	-2 -6	-2 -8	0 -4	0 -6	0 -10	0 -14	0 -25
>3	≤6	-140 -170	-70 -100	-30 -48	-30 -60	-20 -32	-20 -38	-20 -50	-10 -18	-10 -22	-10 -28	-4 -9	-4 -12	0 -5	0 -8	0 -12	0 -18	0 -30
>6	≤10	-150 -186	-80 -116	-40 -62	-40 -76	-25 -40	-25 -47	-25 -61	-13 -22	-13 -28	-13 -35	-5 -11	-5 -14	0 -6	0 -9	0 -15	0 -22	0 -36
>10	≤14	-150 -193	-95 -138	-50 -77	-50 -93	-32 -50	-32 -59	-32 -75	-16 -27	-16 -34	-16 -43	-6 -14	-6 -17	0 -8	0 -11	0 -18	0 -27	0 -43
>14	≤18																	
>18	≤24	-160 -212	-110 -162	-65 -98	-65 -117	-40 -61	-40 -73	-40 -92	-20 -33	-20 -41	-20 -53	-7 -16	-7 -20	0 -9	0 -13	0 -21	0 -33	0 -52
>24	≤30																	
>30	≤40	-170 -232	-120 -182	-80 -119	-80 -142	-50 -75	-50 -89	-50 -112	-25 -41	-25 -50	-25 -64	-9 -20	-9 -25	0 -11	0 -16	0 -25	0 -39	0 -62
>40	≤50	-180 -242	-130 -192															
>50	≤65	-190 -264	-140 -214	-100 -146	-100 -174	-60 -90	-60 -106	-60 -134	-30 -49	-30 -60	-30 -76	-10 -23	-10 -29	0 -13	0 -19	0 -30	0 -46	0 -74
>65	≤80	-200 -274	-150 -224															
>80	≤100	-220 -307	-170 -257	-120 -174	-120 -207	-72 -107	-72 -126	-72 -159	-36 -58	-36 -71	-36 -90	-12 -27	-12 -34	0 -15	0 -22	0 -35	0 -54	0 -87
>100	≤120	-240 -327	-180 -267															
>120	≤140	-260 -360	-200 -300	-145 -208	-145 -245	-85 -125	-85 -148	-85 -185	-43 -68	-43 -83	-43 -106	-14 -32	-14 -39	0 -18	0 -25	0 -40	0 -63	0 -100
>140	≤160	-280 -380	-210 -310															
>160	≤180	-310 -410	-230 -330															
>180	≤200	-340 -455	-240 -355	-170 -242	-170 -285	-100 -146	-100 -172	-100 -215	-50 -79	-50 -96	-50 -122	-15 -35	-15 -44	0 -20	0 -29	0 -46	0 -72	0 -115
>200	≤225	-380 -495	-260 -375															
>225	≤250	-420 -535	-280 -395															
>250	≤280	-480 -610	-300 -430	-190 -271	-190 -320	-110 -162	-110 -191	-110 -240	-56 -88	-56 -108	-56 -137	-17 -40	-17 -49	0 -23	0 -32	0 -52	0 -81	0 -130
>280	≤315	-540 -670	-330 -460															
>315	≤355	-600 -740	-360 -500	-210 -299	-210 -350	-125 -182	-125 -214	-125 -265	-62 -98	-62 -119	-62 -151	-18 -43	-18 -54	0 -25	0 -36	0 -57	0 -89	0 -140
>355	≤400	-680 -820	-400 -540															
>400	≤450	-760 -915	-440 -595	-230 -327	-230 -385	-135 -198	-135 -232	-135 -290	-68 -108	-68 -131	-68 -165	-20 -47	-20 -60	0 -27	0 -40	0 -63	0 -97	0 -155
>450	≤500	-840 -995	-480 -635															

★ In each column,the upper value is the upper dimensional tolerance, and the lower figure is the lower dimensional tolerance.

Reference Table of Bore Tolerance

Unit：μ=0.001mm

Basic Dimensions (mm)		Tolerance Zone Class for Bore																		
		B10	C9	C10	D8	D9	D10	E7	E8	E9	F6	F7	F8	G6	G7	H6	H7	H8	H9	H10
—	3	+180 +140	+85 +60	+100 +60	+34 +20	+45 +20	+60 +20	+24 +14	+28 +14	+39 +14	+12 +6	+16 +6	+20 +6	+8 +2	+12 +2	+6 0	+10 0	+14 0	+25 0	+40 0
>3	≤6	+188 +140	+100 +70	+118 +70	+48 +30	+60 +30	+78 +30	+32 +20	+38 +20	+50 +20	+18 +10	+22 +10	+28 +10	+12 +4	+16 +4	+8 0	+12 0	+18 0	+30 0	+48 0
>6	≤10	+208 +150	+116 +80	+138 +80	+62 +40	+76 +40	+98 +40	+40 +25	+47 +25	+61 +25	+22 +13	+28 +13	+35 +13	+14 +5	+20 +5	+9 0	+15 0	+22 0	+36 0	+58 0
>10	≤14	+220 +150	+138 +95	+165 +95	+77 +50	+93 +50	+120 +50	+50 +32	+59 +32	+75 +32	+27 +16	+34 +16	+43 +16	+17 +6	+24 +6	+11 0	+18 0	+27 0	+43 0	+70 0
>14	≤18																			
>18	≤24	+244 +160	+162 +110	+194 +110	+98 +65	+117 +65	+149 +65	+61 +40	+73 +40	+90 +40	+33 +20	+41 +20	+53 +20	+20 +7	+28 +7	+13 0	+21 0	+33 0	+52 0	+84 0
>24	≤30																			
>30	≤40	+270 +170	+182 +120	+220 +120	+119 +80	+142 +80	+180 +80	+75 +50	+89 +50	+112 +50	+41 +25	+50 +25	+64 +25	+25 +9	+34 +9	+16 0	+25 0	+39 0	+62 0	+100 0
>40	≤50	+280 +180	+192 +130	+230 +130																
>50	≤65	+310 +190	+214 +140	+260 +140	+146 +100	+174 +100	+220 +100	+90 +60	+106 +60	+134 +60	+49 +30	+60 +30	+76 +30	+29 +10	+40 +10	+19 0	+30 0	+46 0	+74 0	+120 0
>65	≤80	+320 +200	+224 +150	+270 +150																
>80	≤100	+360 +220	+257 +170	+310 +170	+174 +120	+207 +120	+260 +120	+107 +72	+126 +72	+159 +72	+58 +36	+71 +36	+90 +36	+34 +12	+47 +12	+22 0	+35 0	+54 0	+87 0	+140 0
>100	≤120	+380 +240	+267 +180	+320 +180																
>120	≤140	+420 +260	+300 +200	+360 +200	+208 +145	+245 +145	+305 +145	+125 +85	+148 +85	+185 +85	+68 +43	+83 +43	+106 +43	+39 +14	+54 +14	+25 0	+40 0	+63 0	+100 0	+160 0
>140	≤160	+440 +280	+310 +210	+370 +210																
>160	≤180	+470 +310	+330 +230	+390 +230																
>180	≤200	+525 +340	+255 +240	+425 +240	+242 +170	+285 +170	+355 +170	+146 +100	+172 +100	+215 +100	+79 +50	+96 +50	+122 +50	+44 +15	+61 +15	+29 0	+46 0	+72 0	+115 0	+185 0
>200	≤225	+565 +380	+375 +260	+445 +260																
>225	≤250	+605 +420	+395 +280	+465 +280																
>250	≤280	+690 +480	+430 +300	+510 +300	+271 +190	+320 +190	+400 +190	+162 +110	+191 +110	+240 +110	+88 +56	+108 +56	+137 +56	+49 +17	+69 +17	+32 0	+52 0	+81 0	+130 0	+210 0
>280	≤315	+750 +540	+460 +330	+540 +330																
>315	≤355	+830 +600	+500 +360	+590 +360	+299 +210	+350 +210	+440 +210	+182 +125	+214 +125	+265 +125	+98 +62	+119 +62	+151 +62	+54 +18	+75 +18	+36 0	+57 0	+89 0	+140 0	+230 0
>355	≤400	+910 +680	+540 +400	+630 +400																
>400	≤450	+1010 +760	+595 +440	+690 +440	+327 +230	+385 +230	+480 +230	+198 +135	+232 +135	+290 +135	+108 +68	+131 +68	+165 +68	+60 +20	+83 +20	+40 0	+63 0	+97 0	+155 0	+250 0
>450	≤500	+1090 +840	+635 +480	+730 +480																

★ In each column,the upper value is the upper dimensional tolerance, and the lower figure is the lower dimensional tolerance.

Hardness Reference Table

(HRC) Rockwell C scale hardness	(HV) Vickers hardness	Brinell hardness 10mm dia. ball bearing 3000kgf load		Rockwell hardness			Rockwell superficial hardness Diamond conic indenter			(HS) Shore hardness	Tensile strength (Approx. value) MPa kgf/mm²	(HRC) Rockwell C scale hardness
		Standard ball bearing	Tungster carbide ball bearing	(HRA) A scale 60kgf load Diamond conic indenter	(HRB) B scale 100kgf load 1.6mm (1/16in) dia.tube	(HRD) D scale 100kgf load Diamond conic indenter	15-N scale 15kgf load	30-N scale 15kgf load	45-N scale 15kgf load			
68	940	—	—	85.6	—	76.9	93.2	84.4	75.4	97	—	68
67	900	—	—	85	—	76.1	92.9	83.6	74.2	95	—	67
66	865	—	—	84.5	—	75.4	92.5	82.8	73.3	92	—	66
65	832	—	-739	83.9	—	74.5	92.2	81.9	72	91	—	65
64	800	—	-722	83.4	—	73.8	91.8	81.1	71	88	—	64
63	772	—	-705	82.8	—	73	91.4	80.1	69.9	87	—	63
62	746	—	-688	82.3	—	72.2	91.1	79.3	68.8	85	—	62
61	720	—	-670	81.8	—	71.5	90.7	78.4	67.7	83	—	61
60	697	—	-654	81.2	—	70.7	90.2	77.5	66.6	81	—	60
59	674	—	-634	80.7	—	69.9	89.8	76.6	65.5	80	—	59
58	653	—	615	80.1	—	69.2	89.3	75.7	64.3	78	—	58
57	633	—	595	79.6	—	68.5	88.9	74.8	63.2	76	—	57
56	613	—	577	79	—	67.7	88.3	73.9	62	75	—	56
55	595	—	560	78.5	—	66.9	87.9	73	60.9	74	2075	55
54	577	—	543	78	—	66.1	87.4	71.2	59.8	72	2015	54
53	560	—	525	77.4	—	65.4	86.9	70.2	58.6	71	1950	53
52	544	-500	512	76.8	—	64.6	86.4	69.4	57.4	69	1880	52
51	528	-487	496	76.3	—	63.8	85.9	68.5	56.1	68	1820	51
50	513	-475	481	75.9	—	63.1	85.5	67.6	55	67	1760	50
49	598	-464	469	75.2	—	62.1	85	66.7	53.8	66	1695	49
48	584	451	455	74.7	—	61.4	84.5	65.8	52.5	64	1635	48
47	471	442	443	74.1	—	60.8	83.9	64.8	51.4	63	1580	47
46	458	432	432	73.6	—	60	83.5	64	50.3	62	1530	46
45	446	421	421	73.1	—	59.2	83	63.1	49	60	1480	45
44	434	409	409	72.5	—	58.5	82.5	62.2	47.8	58	1435	44
43	423	400	400	72	—	57.7	82	61.3	46.7	57	1385	43
42	412	390	390	71.5	—	56.9	81.5	60.4	45.5	56	1340	42
41	402	381	381	70.9	—	56.2	80.9	59.5	44.3	55	1295	41
40	392	371	371	70.4	—	55.4	79.9	58.6	43.1	54	1250	40
39	382	362	362	69.9	—	54.6	79.4	57.7	41.9	52	1215	39
38	372	353	353	69.4	—	53.8	78.8	56.8	40.8	51	1180	38
37	363	344	344	68.9	—	53.1	78.3	55.9	39.6	50	1160	37
36	354	336	336	68.4	-109	52.3	77.7	54.2	38.4	49	1115	36
35	345	327	327	67.9	-108.5	51.5	77.2	53.3	37.2	48	1080	35
34	336	319	319	67.4	-108	50.8	76.6	52.1	36.1	47	1055	34
33	327	311	311	66.8	-107.5	50.0	76.1	51.3	34.9	46	1025	33
32	318	301	301	66.3	-107	49.2	75.6	50.4	33.7	44	1000	32
31	310	294	294	65.8	-106	48.4	75	49.5	32.5	43	980	31
30	302	286	286	65.3	-105.5	47.7	74.5	48.6	31.3	42	950	30
29	294	279	279	64.7	-104.5	47	73.9	47.7	30.1	41	930	29
28	286	271	271	64.3	-104	46.1	73.3	46.8	28.9	41	910	28
27	279	264	264	63.8	-103	45.2	72.8	45.9	27.8	40	880	27
26	272	258	258	62.8	-102.5	44.6	72.2	45	26.7	38	860	26
25	266	253	253	62.4	-101.5	43.8	71.6	44	25.5	38	840	25
24	260	247	247	62	-101	43.1	71	43.2	24.3	37	825	24
23	254	243	243	61.5	100	42.1	70.5	42.3	23.1	36	805	23
22	248	237	237	61	99	41.6	69.9	41.5	22	35	785	22
21	243	231	231	60.5	98.5	40.9	69.4	—	20.7	35	770	21
20	238	226	226	—	97.8	40.1	—	—	19.6	34	760	20
18	230	219	219	—	96.7	—	—	—	—	33	730	18
16	222	212	212	—	95.5	—	—	—	—	32	705	16
14	213	203	203	—	93.9	—	—	—	—	31	675	14
12	204	194	194	—	92.3	—	—	—	—	29	650	12
10	196	187	187	—	90.7	—	—	—	—	28	620	10
8	188	179	179	—	89.5	—	—	—	—	27	600	8
6	180	171	171	—	87.1	—	—	—	—	26	580	6
4	173	165	165	—	85.5	—	—	—	—	25	550	4
2	166	158	158	—	83.5	—	—	—	—	24	530	2
0	160	152	152	—	81.7	—	—	—	—	24	515	0

Material Reference : Stainless Steel Series

● About Stainless Steel

1. Stainless steel is a common name for metal alloys that consist of 10.5% or more Chromium(Cr) and more than 50% Iron(Fe). Generally, an increase of chromium content improves the corrosion resistance of stainless steels. The addition of Ni, Mo, Cu, Al, Si, etc. improves corrosion resistance, mechanical properties, workability, and other properties.
2. Stainless steel is divided into Cr and Cr-Ni series by main elements. The three major classes of stainless steel are martensite, ferrite, and austenitic series. Two additional classes worth mentioning include Duplex(with austenitic and ferritic structures), and precipitation hardening stainless steel, used in certain extreme conditions.

● Categories of Stainless Steel

Category	Cr Series		Cr-Ni Series
Metal Structure	Martensite Series	Ferrite Series	Austenitic Series
Hardening	Quench Hardening	Anti-Quench Hardening	Work Hardening

● Effect of Each Element which Influences Properties

Element		Improved Properties
C	Low Carbon	Corrosion Resistance (Intergranular Corrosion Resistance)
	High Carbon	Strength, Hardness
Mo		Corrosion Resistance (Pitting Corrosion Resistance)
Cu		Acidity Resistance
Ti/Nb		Corrosion Resistance (Intergranular Corrosion Resistance)
Si/Al		Oxidation Resistance
S/Se		Cutting Performance

● Grades and Characteristics of Stainless Steel

Grade	Characteristics
SUS302	Standard grade of 18Cr-8Ni. SUS303 and SUS304 are improvements over SUS302. They exhibit better corrosion resistance and mechanical properties due to the addition of Ni.
SUS303	Cutting performance is improved by adding S and P to SUS302. There is less corrosion resistance, but this improved by adding Mo.
SUS304 SUS304L	Improved grade of SUS302. Has a lower amount of carbon, better corrosion resistance and improved weldability. The most commonly specified in austenitic stainless steels. SUS304L contains lower carbon amounts that SUS304 and has improved intergranular corrosion resistance and weldability.
SUS316 SUS316L	Better corrosion resistance (pitting corrosion resistance) and acidity resistance due to the addition of Mo. Has great strength and heat resistance.SUS316L contains lower carbon amounts that SUS316 and has improved intergranular corrosion resistance and weldability.
SUSXM7	Work Hardening by cold working is restrained due to the addition of Cu to SUS304.
SUS430	Standard grade of 18Cr steel with better cold working and corrosion resistance. Most widely used ferrite stainless steel due to its low price.
SUS434	Improved corrosion resistance through adding Mo to SUS430.
SUS410	The most widely used martensite stainless steel. Better mechanical properties and corrosion resistance after heat treatment.
SUS403	Smaller percentage of Si and Cr with improved corrosion resistance and toughness after heat treatment. Used for valves, pump shafts, cutlery, bolts, nuts, steam turbine wings, jet engine parts, etc.
SUS416	Improved cutting performance of 13Cr steel due to the addition of S and P. Corrosion resistance is slightly inferior to the standard type.
SUS431	Improved toughness due to the addition of Ni and improved corrosion resistance due to the addition of Cr. Best corrosion resistance in martensite steels in which heat treatment is available. Used for paper making machines, shafts for shipping, airplane parts, etc.
SUS440C	The hardest of stainless steels with superior wear resistance. Used for dice, ball bearings, etc.

Components and Mechanical Properties of Stainless Steel

● About Stainless Steel

	Components (%)									Mechanical Properties		
Grade	C	Si	Mn	P	S	Ni	Cr	Mo	others	Tensile Strength (N/mm^2)	Elongation (%)	Brinell Hardness (HB)
SUS302	Below 0.15	Below 1.00	Below 2.00	Below 0.045	Below 0.03	8.00~10.00	17.00~19.00	—	—	Above 520	Above 40	Below 187
SUS303	Below 0.15	Below 1.00	Below 2.00	Below 0.20	Above 0.15	8.00~10.00	17.00~19.00	Below 0.60	—	Above 520	Above 40	Above 187
SUS304	Below 0.08	Below 1.00	Below 2.00	Below 0.045	Below 0.03	8.00~10.50	18.00~20.00	—	—	Above 520	Above 40	Below 187
SUS304L	Below 0.03	Below 1.00	Below 2.00	Below 0.045	Below 0.03	9.00~13.00	18.00~20.00	—	—	Above 480	Above 40	Below 187
SUS316	Below 0.08	Below 1.00	Below 2.00	Below 0.045	Below 0.03	10.00~14.00	16.00~18.00	2.00~3.00	—	Above 520	Above 40	Below 187
SUS316L	Below 0.03	Below 1.00	Below 2.00	Below 0.045	Below 0.03	12.00~15.00	16.00~18.00	2.00~3.00	—	Above 480	Above 40	Below 187
SUSXM7	Below 0.08	Below 1.00	Below 2.00	Below 0.045	Below 0.03	8.50~10.50	17.00~19.00	—	Cu:3.00-4.00	Above 480	Above 40	Below 187

● Ferrite Series

	Components (%)									Mechanical Properties		
Grade	C	Si	Mn	P	S	Ni	Cr	Mo	others	Tensile Strength (N/mm^2)	Elongation (%)	Brinell Hardness (HB)
SUS430	Below 0.12	Below 0.75	Below 1.00	Below 0.04	Below 0.03	Below 0.60	16.00~18.00	—	—	Above 450	Above 40	Below 187
SUS434	Below 0.12	Below 1.00	Below 1.00	Below 0.04	Below 0.03	Below 0.60	16.00~18.00	0.75~1.25	—	Above 450	Above 40	Below 187

● Martensite Series

	Components (%)									Mechanical Properties		
Grade	C	Si	Mn	P	S	Ni	Cr	Mo	others	Tensile Strength (N/mm^2)	Elongation (%)	Brinell Hardness (HB)
SUS410	Below 0.15	Below 1.00	Below 1.00	Below 0.04	Below 0.03	Below 0.60	11.50~13.50	—	—	Above 540	Above 25	Below 159
SUS416	Below 0.15	Below 1.00	Below 1.25	Below 0.06	Above 0.15	Below 0.60	12.00~14.00	Below 0.60	—	Above 540	Above 17	Below 159
SUS440C	0.95~1.20	Below 1.00	Below 1.00	Below 0.04	Below 0.03	Below 0.60	16.00~18.00	Below 0.75	—	Above 780	Below 15	Above 56HRC

★ The numerical values listed above are for reference only; they are not guaranteed under performance conditions.

Material Reference : Aluminum Alloy-Series

Alloy Type	Symbol	Descriptions
Al-Cu series	A2011 A2014 A2017 A2024	2017 and 2024, known as duralumin and super duralumin, are typical of this type, which is almost as strong as steel. This type has superior machinability. 2011, which contains Pb and Bi, is widely used as free-cutting alloy for machine parts. 2014 has a wide range for high-strength forging applications. It is not corrosion resistant because it contains a considerable amount of copper and therefore requires sufficient corrosion prevention processing when exposed to a corrosive environment.
Al-Mn series	A3003 A3004	This type, which is alloyed with Mn, maintains the workability and corrosion-resistance of pure aluminum, but has slightly higher strength. It has a wide range of applications including various wares, building materials and containers. 3003 is the most typical alloy of this type. 3004 adds 1% of Mg to the alloy components of 3003, yielding higher strength. 3004 is widely used for aluminum cans, roof boards and door panel materials.
Al-Si series	A4032	4032 is alloyed with Si and has less thermal expansion and better abrasion resistance. In addition, 1% of respective Cu, Ni and Mn are added to improve heat resistance. Better heat resistance and little thermal expansion make this type suitable for forging piston materials.
Al-Mg system	A5005 A5052 A5083	5005 is a typical type that contains a small amount of Mg. It is used for interior ceiling boards for vehicles, building materials and various ware materials. 5052 is a typical alloy of this type that contains a medium amount of Mg. It is the most common alloy and exhibits medium strength. 5083 contains a large amount of Mg, and has the best strength among non-thermal treatment alloys and superior weldability. It is used as a structural material for marine vessels, vehicles and chemical plants.
Al-Mg-Si series	A6061 A6063	Alloys of this type have superior strength, corrosion resistance and are used as structural materials. 6061 is alloyed with a small amount of Cu for better strength with slightly weaker corrosion-resistance, but has superior forgeability and is used for rivet materials and small parts of vehicles. It has the benefit of providing the allowable stress equivalent to that of SS400 steel if proof stress is 254N/mm² or more and deflection does not cause any design problem. 6063 has lower strength but superior extrusion performance. It is used for structural materials that do not require the strength equivalent to that of 6061.
Al-Zn series	A7075 A7N01	Alloys of this type are divided into two categories: Al-Zn-Mg-Cu and Al-Zn-Mg. The Al-Zn-Mg-Cu alloys have the highest strength among aluminum alloys. Al-Zn-Mg alloys contain no Cu and are used for welding construction. A typical type of Al-Zn-Mg-Cu series is 7075, which is used for airplanes, sport gears, etc. Al-Zn-Mg alloys have comparatively high strength. The post-welding heat-affected areas recover strength by natural aging that is close to the strength of the original material, thereby providing superior joint efficiency. 7N01 is typical of this type and is used as a structural material for railroad vehicles etc.

• Chemical Components of Aluminum Alloy

Symbol	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others
A2011	0.4 or less	0.7 or less	5.0~6.0	—	—	—	0.30 or less	—	Remaining	Pb:0.20~0.6
A2014	0.50~1.2	0.7 or less	3.9~5.0	0.40~1.2	0.2~0.8	0.1 or less	0.25 or less	—	Remaining	Zr+Ti:0.2 or less
A2017	0.20~0.8	0.7 or less	3.5~4.5	0.40~1.0	0.4~0.8	0.1 or less	0.25 or less	—	Remaining	Zr+Ti:0.2 or less
A2024	0.5 or less	0.5 or less	3.8~4.9	0.30~0.9	1.2~1.8	0.1 or less	0.25 or less	—	Remaining	Zr+Ti:0.2 or less
A3003	0.6 or less	0.7 or less	0.05~0.20	1.0~1.5	—	—	0.10 or less	—	Remaining	—
A3004	0.3 or less	0.7 or less	0.25 or less	1.0~1.5	0.8~1.3	—	0.25 or less	—	Remaining	—
A4032	11.0~13.5	1.0 or less	0.50~1.3	—	0.8~1.3	0.1 or less	0.25 or less	—	Remaining	Ni:0.50~1.3
A5005	0.3 or less	0.7 or less	0.2 or less	0.2 or less	0.50~1.1	0.1 or less	0.25 or less	—	Remaining	—
A5052	0.25 or less	0.4 or less	0.1 or less	0.1 or less	2.2~2.8	0.15~0.35	0.10 or less	—	Remaining	—
A5083	0.4 or less	0.4 or less	0.1 or less	0.40~1.0	4.0~4.9	0.05~0.25	0.25 or less	0.15 or less	Remaining	—
A6061	0.40~0.8	0.7 or less	0.15~0.40	0.15 or less	0.8~1.2	0.04~0.35	0.25 or less	0.15 or less	Remaining	—
A6063	0.20~0.6	0.35 or less	0.1 or less	0.1 or less	0.45~0.9	0.1 or less	0.10 or less	0.10 or less	Remaining	—
A7075	0.4 or less	0.5 or less	1.2~2.0	0.3 or less	2.1~2.9	0.18~0.28	5.1~6.1	0.10 or less	Remaining	Zr+Ti:0.25

Temper Designation of Aluminum Alloys

Symbol	Definition	Meaning
F	As fabricated	Products obtained from the manufacturing process with no special adjustment by work hardening or thermal treatment
O	Annealed	Wrought alloys are annealed to achieve the softest state. Cast alloys are annealed for better extension and size stabilization.
H	Work hardened	Work hardened for higher strength, regardless of whether additional thermal treatment to obtain proper softness is carried out.
T	Products with stable temper other than F, O and H, obtained by thermal treatment	Thermal treatment is carried out to obtain stable temper, regardless of whether additional thermal treatment is carried out.

Subdesignation Symbol	Meaning
H1	Work hardened only: Products are only work hardened with no additional thermal treatment in order to obtain prescribed mechanical properties.
H2	Thermally softened in proper manner after work hardened: Products are work hardened to obtain values higher than prescribed and then thermally treated in a proper manner to reduce strength to a prescribed level. The alloys of this temper, which are aged and softened at room temperature, have strength almost equivalent to that of the temper H3. Other alloys of this temper have strength almost equivalent to that of H1 temper, but slightly higher extension.
H3	Stabilization treated after work hardened: Products are work hardened and then stabilized using low temperature heating. This results in slightly reduced strength but better extension. This stabilization treatment is applied only to alloys that contain magnesium, which are gradually aged and softened at room temperature.
T1	Cooled and naturally aged after high temperature processing: Products, such as extruded alloys, are processed at a high temperature, cooled and then naturally aged to a sufficiently stable state. No positive cold working is carried out so correction using cold working has only a small effect on alloys of this type.
T2	Cooled, cold worked, and then naturally aged after high temperature processing: Products, such as extruded alloys, are processed at a high temperature, cooled, positively cold worked and then naturally aged to a sufficiently stable state.
T3	Solution treated, cold worked and then naturally aged: Products are solution treated, cold worked to increase their strength, and then naturally aged to a sufficiently stable state.
T4	Solution treated and then naturally aged: Products are solution treated and naturally aged to a sufficiently stable state. No positive cold working is carried out so correction using cold working has only a small effect on alloys of this type.
T5	Cooled, artificially aged and work hardened after high temperature processing: Products, such as cast alloys or extruded alloys, are processed at a high temperature, cooled, and then artificially aged and work hardened. No positive cold working is carried out so correction using cold working has only a small effect on alloys of this type.
T6	Solution treated, then artificially aged and work hardened: Products are solution treated and artificially aged only. No positive cold working is carried out so correction using cold working has only a small effect on alloys of this type.
T7	Solution treated and then stabilization treated: Products are solution treated, artificially aged and work hardened excessively to obtain strength higher than the maximum specified by the artificial aging conditions and to obtain special mechanical properties.
T8	Solution treated, cooled, and then artificially aged and work hardened: Products are solution treated, cold worked to increase the strength, and then artificially aged and work hardened.
T9	Solution treated, artificially aged and work hardened, and then cold worked: Products are solution treated, artificially aged, strongly work hardened, and then cool worked to increase the strength.

• Mechanical Properties of Aluminum Alloy

Class (JIS Name)	Temper	Tensile Strength (N/mm²)	Proof Stress (N/mm²)	Extension (%)	Brinell Hardness (HBS 10/500)	Fatigue Strength (N/mm²)
A2014	T6	485	415	13	135	125
A2017	O	180	70	22	45	90
A2024	T4	470	325	20	120	140
A3003	O	110	40	30	28	50
A4032	T6	380	315	9	120	110
A5052	H38	290	255	7	77	140
A5083	H116	315	230	16	—	160
A6061	T6	310	275	12	95	95
A6063	T6	240	215	12	73	70
A7075	T6	570	505	11	150	160
A7N01	T5	345	295	15	100	125

★ The values shown in the table above are just for reference, but they are not guaranteed values.

● High speed tool steel & Alloy tool steel

JIS	ISO	AISI ASTM	BS	DIN VDEh	
SKH51	HS 6-5-2	M2	BM2	S 6-5-2	1.3343
SKH55	HS 6-5-2-5	—	BM35	S 6-5-2-5	1.3243
SKS 3	—	—	—	—	1.2419
SKD11	—	D2	BD2	—	1.2379
SKD61	40CrMoV5	H13	BH13	X40CrMoV51	1.2344

● High-carbon chrome bearing steel

JIS	ISO	AISI ASTM	BS	DIN	
SUJ 2	BLor100Cr6	52100	—	100Cr6	1.2067/1.3505

● Carbon steel for machine structural use & Chrome molybdenum steel

JIS	ISO 683/1,10,11[5]	AISI SAE	BS 970Part1,3 BS EN 10083-1,2	DIN	
S45C	C45 C45E4 C45M2	1045 0146	C45 C45E C45R	C45 C45E C45R	1.0503 1.1191 1.1193
S50C	C50 C50E4 C50M2	1049	080M50 C50 C50E C50R	C50 C50E C50R	1.1213
S55C	C55 C55E4 E55M2	1055	070M55 C55 C55E C55R	C55 C55E C55R	1.0535/1.1203
SCM430	—	4133	—	—	1.7218
SCM435	34CrMo4 34CrMoS4	4137	34CrMo4 34CrMoS4	34CrMo4 34CrMoS4	1.722
SCM440	42CrMo4 42CrMoS4	4140 4142	708M40 709M40 42CrMo4 42CrMoS4	42CrMo4 42CrMoS4	1.7225

● Stainless Steel

JIS	ISO TR 15510 L・No.	AISI	BS	DIN	
SUS 303	13	303	303S21	X10CrNiS189	1.4305
SUS 304	6	304	304S31	X5CrNiS1810	1.4301
SUS 430	41	430	430S17	X6Cr17	1.4016
SUS 440C	—	440C	—	X105CrMo17	1.4125

● Aluminum and aluminum alloy extender

JISH4000:88	ISO 6361:90 ISO 209:89	ASTM B209 M:95	BS EN485-2:95 BS EN573-3:95	DIN EN485-2:95 DIN EN573-3:95
	AIMg2.5	5052	EN AW-5052	EN AW-5052
	—	6061	EN AW-6061	EN AW-6061
	AIZn5.5MgCu	7075	EN AW-7075	EN AW-7075

● Remar ks: : AISI (USA), ASTM (USA), BS (UK), DIN (Germany)
● ISO (International Standard.) JIS (Japan)

If two lubricants incompatible, but mixed to use, would change functionally and physically, such as viscosity, shear stability, oil filtration, and oxidized stability…etc, and also soften lubricant mixed to increase oil leakage. It's better to use same thickener for the mixture of two lubricants.
If two lubricants with different thickeners required to mix, you need to check compatibility of two thickeners first. To avoid mixture of different thickeners is safest.

● Compatibility comparison of different thickeners as follows :

Critical compatible
Compatible
Incompatible
Same lubricant

	Aluminum complex	Barium-based	Calcium-based	Calcium 12-hydroxysteric acid	Calcium complex	Clay-based	Lithium-based	Lithium 12-hydroxysteric acid	Lithium complex	Urea-based
Aluminum complex	Same lubricant	Incompatible	Incompatible	Compatible	Incompatible	Incompatible	Incompatible	Incompatible	Compatible	Incompatible
Barium-based	Incompatible	Same lubricant	Incompatible	Compatible	Incompatible	Incompatible	Incompatible	Incompatible	Incompatible	Incompatible
Calcium-based	Incompatible	Incompatible	Same lubricant	Compatible	Incompatible	Compatible	Compatible	Critical compatible	Compatible	Incompatible
Calcium 12-hydroxysteric acid	Compatible	Compatible	Compatible	Same lubricant	Critical compatible	Compatible	Compatible	Compatible	Compatible	Incompatible
Calcium complex	Incompatible	Incompatible	Incompatible	Critical compatible	Same lubricant	Incompatible	Incompatible	Incompatible	Compatible	Compatible
Clay-based	Incompatible	Incompatible	Compatible	Compatible	Incompatible	Same lubricant	Incompatible	Incompatible	Incompatible	Incompatible
Lithium-based	Incompatible	Incompatible	Compatible	Compatible	Incompatible	Incompatible	Same lubricant	Compatible	Compatible	Incompatible
Lithium 12-hydroxysteric acid	Incompatible	Incompatible	Critical compatible	Compatible	Incompatible	Incompatible	Compatible	Same lubricant	Compatible	Incompatible
Lithium complex	Compatible	Incompatible	Compatible	Compatible	Compatible	Incompatible	Compatible	Compatible	Same lubricant	Incompatible
Urea-based	Incompatible	Incompatible	Incompatible	Incompatible	Compatible	Incompatible	Incompatible	Incompatible	Incompatible	Same lubricant

All GMT Slide Rail Set / Slide Table has been cryogenic processing.

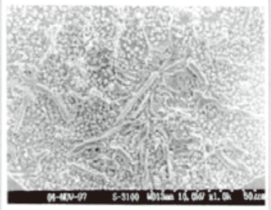
Cryogenic process is to place the part in the medium with temperature under 196℃, followed step by step progress of new technic to improve material character. Found by relevant search, cryogenic process is not only obviously increase on strength and life of black (colour)metal, plastic and china…etc, but also improve the structure evenly. Increase of dimension stability brings huge economic benefit and promising application in aviation, aerospace, optics, creatures, chemistry, machinery, electronic and light industry.

Purpose of cryogenic process

Improving physical character (mechanical character) of metal or other material by progress of subzero processing, to raise usage life, efficiency and quality of parts or workpiece.

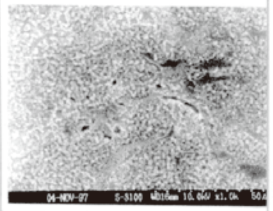
Ex： Comparison of metallographic analysis

Not Processed



Metallographic analysis before cryogenic process

Cryogenically Processed



Metallographic analysis after cryogenic process

Benefic analysis of aluminum alloy after cryogenic process:

Improvement during process or in the end of process:

(1) Deformation of microstructure stress caused by designed material shape.
(2) Effectively controlling aging deformation.
(3) After mechanical testing, mechanism strength has been obviously improved, and perfectly perform the desinged mechanism.

Practical application：

After dissolving aluminum alloy(Duralumin), have it with cryogenic process and unfrozen immediately. It could not only speed up aging, but reduce most of residual stress at same time to improve mechanical character. Found by another info, aluminum alloy casting with cryogenic process has improvement of processed ability.

Material	Parts	Hardness	Durability	Processing life	Dimension stability	Others
SKH	Drill, Cutting, Tools	+	+	+	+	1 time temper
SKD11	Blanking Die, Punch, Cutting Blade,Roller	+	+	+	+	Avoid broken by grinding
SKD61	Aluminum extrusion die	+	+			
SUJ	Rail, Roll Guide	+	+		+	
Inner parts	Bearing, Gear, Bushing, Cam	+	+		+	Avoid broken by grinding
SUS	Austenite(300) Martensitic(420J2 , 440) Separated(630 , 631)	+ + +	+ + +	 +	+ + +	Improvement of Improvement of corrosion resistance
18Ni 280Grade	18%Ni type 25%Ni type	+ +	+ +		+ +	Speed up sging Speed up sging
Sintering alloy	Cutting tools, Roller, Automobile parts		+	+	+	Reduce residual stress
Cu alloy	Electrode，Fire gate		+		+	
AL alloy	Automatic machinery, precision processing, die manufacture, electponic and precision instrument, SMT, PC board soldering device		+		+	Improvement of processed ability

Product Alphabetical Index Page