

Long Stroke Slide Table

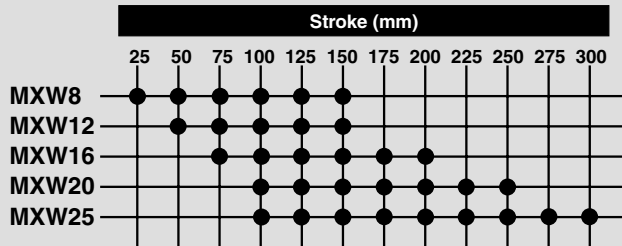
Series MXW

ø8, ø12, ø16, ø20, ø25

Linear guide table provides long stroke.
Table rigidity is constant throughout entire stroke.

Long stroke (Max. 300 mm)

Linear guide provides long stroke, and it obtains smooth operation without vibration.



Shock absorber

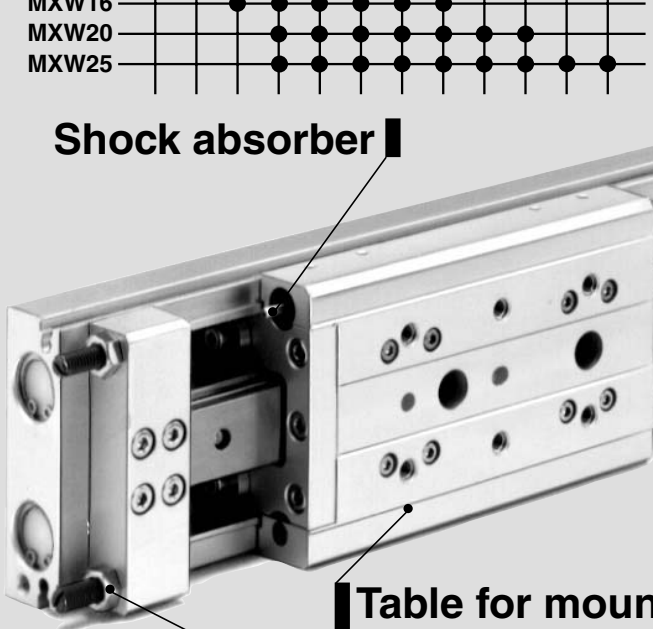


Table for mounting of work

Stroke adjuster

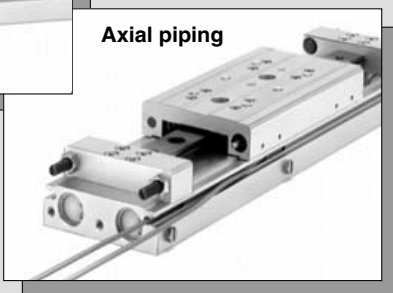
Piping, Wiring

- Piping is possible from 2 directions.
- Can pipe and wire switches from the same surface.
- Auto switch can be attached to either side of body.

Lateral piping/wiring



Axial piping



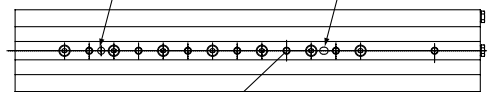
Dual piston rod

- Slim design provides 2 times the force of standard cylinder.

MXW8: ø8 x 2 MXW20: ø20 x 2
MXW12: ø12 x 2 MXW25: ø25 x 2
MXW16: ø16 x 2

Body mounting

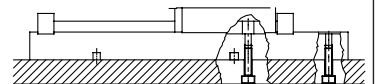
Machining of positioning hole



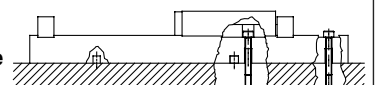
Thread for body mounting

- 2 mounting styles (Body tapped, Through-hole) are available.

Body tapped



Body through-hole



MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

Data

Series MXW Long Stroke Slide Table Operation Guide

⚠️ Precautions

Be sure to read before handling. Refer to pages 8-34-3 to 8-34-6 for Safety Instructions and Actuator Precautions.

Selection

⚠️ Caution

- Operate loads within the range of the operating limits.**
Select the model from Maximum allowable load and allowable moment. For details, refer to the following selection procedures. When actuator is used outside of operating limit, eccentric loads on the guide in excess, will cause vibration on guide, inaccuracy and shorten its life.

- If intermediate stops by external stopper are done, avoid ejection. If ejection occurs, it may cause damage. In the case slide table is stopped at intermediate positions by the external stopper then forwarded to the front, after slide table is returned to the back for just a moment to retract the stopper, supply pressure to the opposite port to operate slide table.
- Do not use it in such a way that excessive external force or impact force could work on it.**
This could result in damage.

Maximum allowable load and allowable moment will vary depending on workpiece mounting methods, mounting orientation and piston speed. A determination of usability is performed based on the operating limit values in the graphs with respect to operating conditions, but the total ($\sum \alpha_n$) of the load factors (α_n) for each weight and moment should not exceed 1.

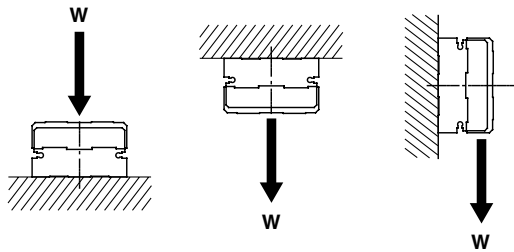
$$\sum \alpha_n = \frac{\text{Load (W)}}{\text{Maximum load weight (Wmax)}} + \frac{\text{Static moment (M)}}{\text{Allowable static moment (Mmax)}} + \frac{\text{Dynamic moment (Me)}}{\text{Allowable dynamic moment (Memax)}} < 1$$

Wmax, Mmax and Memax values are according to **graph (1), (2) and (3)** below.

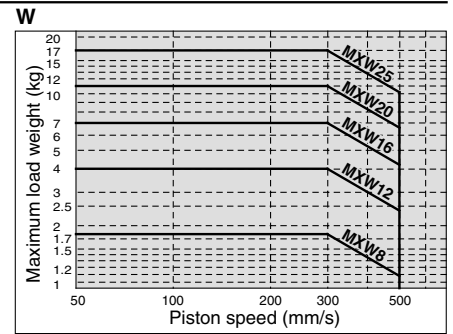
Load Weight

Maximum Load Weight (kg)

Model	W
MXW8	1.8
MXW12	4
MXW16	7
MXW20	11
MXW25	17



Note) No need to consider this load factor in the case of using perpendicularly in a vertical position.



Graph (1)

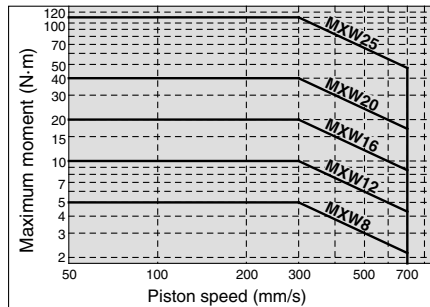
Moment

Allowable Moment

(Static moment/Dynamic moment) (N-m)

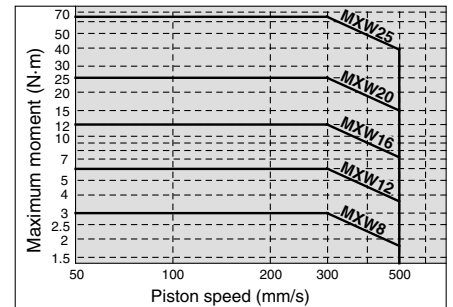
Model	Pitch moment	Yaw moment	Roll moment
	Mp/Mep	My/Mey	Mr
MXW8	5	5	3
MXW12	10	10	2
MXW16	20	20	12
MXW20	40	40	25
MXW25	110	110	65

Mp/Mep (Pitch moment) My/Mey (Yaw moment)



Graph (2)

Mr (Roll moment)



Graph (3)

Static Moment

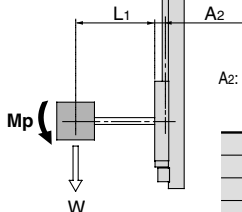
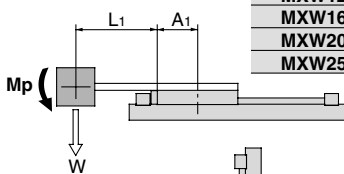
Moment generated by the workpiece weight even when the cylinder is stopped

■ Pitch moment

$$M_p = W \times 9.8 (L_1 + A_1)$$

A1: Moment center position distance compensation amount (mm)

MXW8	39
MXW12	48
MXW16	58
MXW20	75
MXW25	97



A2: Moment center position distance compensation amount (mm)

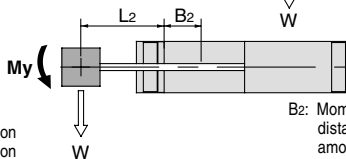
MXW8	10
MXW12	10
MXW16	14
MXW20	20
MXW25	28

■ Yaw moment

$$M_y = W \times 9.8 (L_2 + B)$$

B1: Moment center position distance compensation amount (mm)

MXW8	23
MXW12	29
MXW16	37
MXW20	49
MXW25	63



B2: Moment center position distance compensation amount (mm)

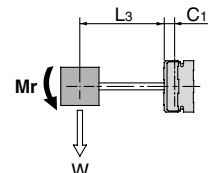
MXW8	39
MXW12	48
MXW16	58
MXW20	75
MXW25	97

■ Roll moment

$$M_r = W \times 9.8 (L_3 + C)$$

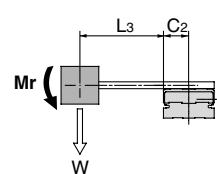
C1: Moment center position distance compensation amount (mm)

MXW8	10
MXW12	10
MXW16	14
MXW20	20
MXW25	28



C2: Moment center position distance compensation amount (mm)

MXW8	23
MXW12	29
MXW16	37
MXW20	49
MXW25	63



Dynamic Moment

Moment due to impact of load at end of stroke.

$$We = \delta \cdot W \cdot V$$

$$V = 1.4 \cdot Va$$

*) Correction factor (Reference value)

We: Equivalent weight for impact (kg)
 δ : Bumper coefficient
 With urethane bumper (standard) = 4/100
 With shock absorber = 1/100
 W: Load (kg)
 V: Collision speed (mm/s)
 Va: Average speed (mm / s)

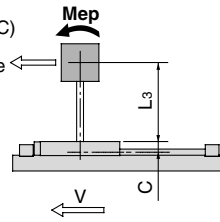
Pitch moment

$$Mep = 1/3 \cdot We \times 9.8 (L_3 + C)$$

* Average load coefficient

C: Moment center position distance compensation amount (mm)

Model	Average load coefficient
MXW8	10
MXW12	10
MXW16	14
MXW20	20
MXW25	28

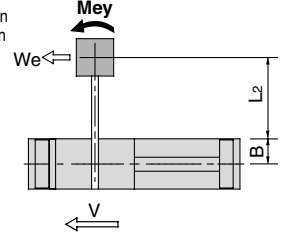


Yaw moment

$$Mey = 1/3 \cdot We \times 9.8 (L_2 + B)$$

B: Moment center position distance compensation amount (mm)

Model	Average load coefficient
MXW8	23
MXW12	29
MXW16	37
MXW20	49
MXW25	63



Selection Calculation

For selection of a proper model, find load factors (α_n) and make sure that their sum total ($\sum \alpha_n$) does not exceed 1.

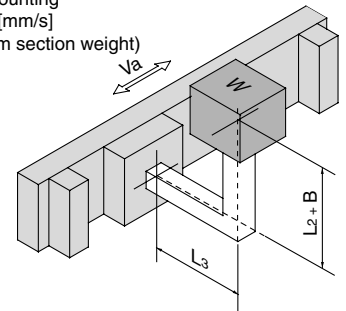
$$\sum \alpha_n = \alpha_1 + \alpha_2 + \alpha_3 < 1$$

Item	Load factor α_n	Note
1. Max. load	$\alpha_1 = W/W_{max}$	Examine W. Wmax is maximum dynamic moment at Va.
2. Static moment	$\alpha_2 = M/M_{max}$	Examine Mp, My, and Mr. Mmax is the allowable moment for Va.
3. Dynamic moment	$\alpha_3 = Me/M_{max}$	Examine Mep and Mey Memax is the allowable moment for V.

V: Collision speed, Va: Average speed

<Operating conditions>

Cylinder: MXW16
 Cushion: Standard (Urethane bumper)
 Mounting: Horizontal wall mounting
 Speed (Average): Va = 300 [mm/s]
 Load: W = 1 [kg] (Except arm section weight)
 L3 = 50 [mm]
 L2 = 50 [mm]



MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

Data

Item	Load factor α_n	Note
1. Maximum load weight 	$\alpha_1 = W/W_{max}$ $= 1/7$ $= 0.14$	Examine W. Find the value of Wmax when Va = 300 mm/s from Graph (1). (Note) No need to consider this load factor in the case of using perpendicularly in a vertical position. (Define $\alpha_1 = 0$.)
2. Static moment 	$Mr = W \times 9.8 (L_3 + C)$ $= 1 \times 9.8 (0.05 + 0.014)$ $= 0.63 \text{ [N}\cdot\text{m]}$ $\alpha_2 = Mr/M_{rmax}$ $= 0.63/12$ $= 0.053$	Examine Mr. (Mp, My values do not apply to this example.) Mrmax value is from Graph (3) at Va = 300 mm/s.
3. Dynamic moment 	$Mey = 1/3 \cdot We \times 9.8 (L_2 + B)$ $V = 1.4 Va$ $We = \delta \cdot W \cdot V$ $= 4/100 \cdot 1 \cdot 1.4 \cdot 300$ $= 168 \text{ [kg]}$ $\therefore Mey = 1/3 \times 16.8 \times 9.8 (0.05 + 0.037)$ $= 4.8 \text{ [N}\cdot\text{m]}$ $\alpha_3 = Mey/Mey_{max}$ $= 4.8/14.3$ $= 0.34$ $Mep = 1/3 We \times 9.8 (L_3 + C)$ $= 1/3 \cdot 16.8 \times 9.8 (0.05 + 0.014)$ $= 3.5 \text{ [N}\cdot\text{m]}$ $\alpha_3' = Mep/Mep_{max}$ $= 3.5/14.3$ $= 0.24$	Examine Mey. Mey: Find the equivalent weight for impact, We Bumper coefficient $\delta = 4/100$ (With urethane bumper) Meymax value is from Graph (2) at V = 1.4 Va = 420 mm/s. Examine Mep. From above formula We = 16.8 Mepmax value is from Graph (2) at V = 1.4 Va = 420 mm/s.

$$\sum \alpha_n = \alpha_1 + \alpha_2 + \alpha_3 + \alpha_3'$$

$$= 0.14 + 0.053 + 0.34 + 0.24$$

$$= 0.773$$

$\sum \alpha_n = 0.773 < 1$, Application is approved.

Series MXW Long Stroke Slide Table Operation Guide

⚠️ Precautions

Be sure to read before handling. Refer to pages 8-34-3 to 8-34-6 for Safety Instructions and Actuator Precautions.

Mounting

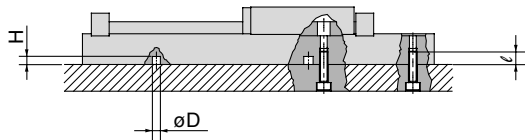
⚠️ Caution

- Do not apply scratches and dents on mounting side of body and table (guide table).**
The damage will decrease parallelism, increase vibration of guide and increase moving part resistance.
- Do not scratch or dent on the forward side of the rail.**
This could result in looseness and increased operating resistance, etc.
- Keep away from objects which are influenced by magnets.**
A magnet is built inside of guide block for use near a with the auto switch, so do not use near a magnetic disk, magnetic card, or magnetic tape. Data might be erased.
- When mounting an air slide table, use screws with appropriate length and do not exceed the maximum tightening torque.**
Tightening with a torque above the limit could malfunction. Whereas tightening insufficiently could result in misalignment or come to a drop.

Mounting of Long Stroke Slide Table

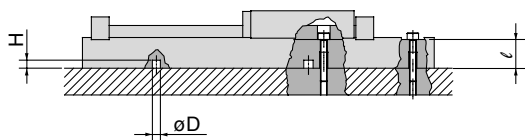
The air slide table can be mounted from 2 directions. Select the best direction according to application requirement.

1. Body tapped



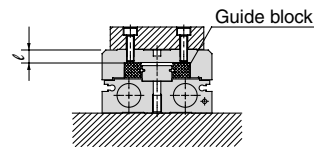
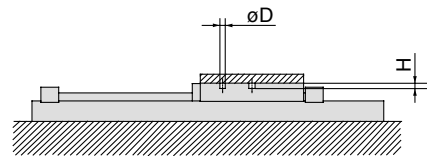
Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth l (mm)	Positioning hole $\phi D \times H$ (mm)
MXW8	M4 x 0.7	2.1	8	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW12	M5 x 0.8	4.4	10	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW16	M6 x 1	7.4	12	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW20	M6 x 1	7.4	12	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW25	M8 x 1.25	18	16	$\phi 8H9^{+0.036}_0$ depth 9

2. Through-hole



Model	Bolt	Max. tightening torque (N·m)	Depth l (mm)	Positioning hole $\phi D \times H$ (mm)
MXW8	M3 x 0.5	1.2	14.8	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW12	M4 x 0.7	2.1	19.2	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW16	M5 x 0.8	4.4	21.5	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW20	M5 x 0.8	4.4	30.5	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW25	M6 x 1	7.4	36	$\phi 8H9^{+0.036}_0$ depth 9

Mounting of Workpiece



⚠️ Caution

- To prevent the workpiece holding bolts from touching the guide block, use bolts that are 0.5 mm or more shorter than the maximum screw-in depth.**
If the bolts are too long, they come in contact with the guide block, which could lead to a malfunction.

Model	Bolt	Max. tightening torque (N·m)	Max. screw-in depth l (mm)	Positioning hole $\phi D \times H$ (mm)
MXW8	M4 x 0.7	2.1	6	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW12	M4 x 0.7	2.1	6	$\phi 5H9^{+0.030}_0$ depth 4.5
MXW16	M5 x 0.8	4.4	9	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW20	M5 x 0.8	4.4	13	$\phi 6H9^{+0.030}_0$ depth 5.5
MXW25	M6 x 1	7.4	18.5	$\phi 8H9^{+0.036}_0$ depth 9

6. Flatness of mounting surface should be less than 0.02 mm.

Insufficient flatness of workpiece or base to which Air Slide Table is mounted can generate play in guide section or increase of sliding resistance.

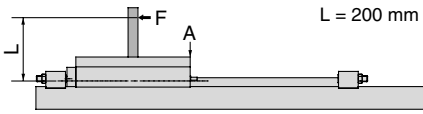
⚠️ Caution

- The positioning hole on the table and on the bottom of the body does not have the same center.**
Use these holes during reinstallation after the table has been removed for the maintenance of an identical product.

Table Deflection (Reference values)

Table displacement due to pitch moment load

Amount of displacement on A when the load is applied at F.



MXW8/12/16

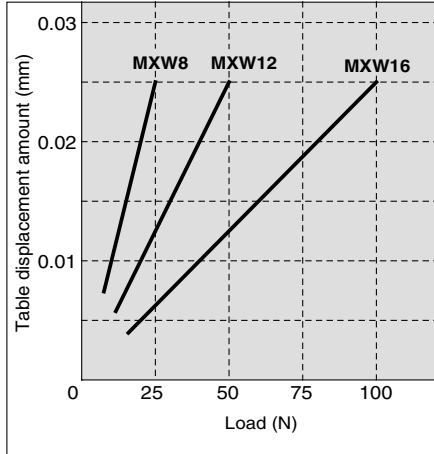
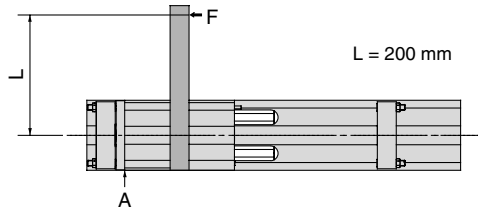


Table displacement due to yaw moment load

Amount of displacement on A when the load is applied at F.



MXW8/12/16

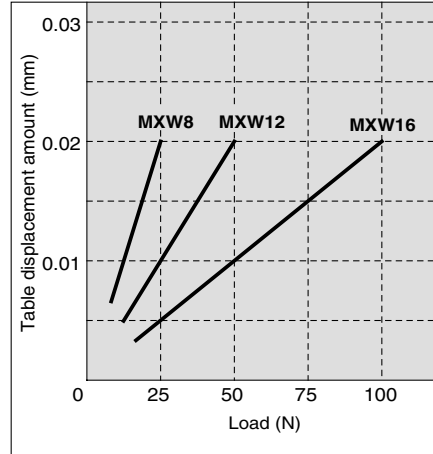
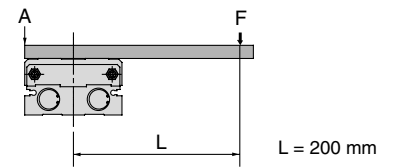
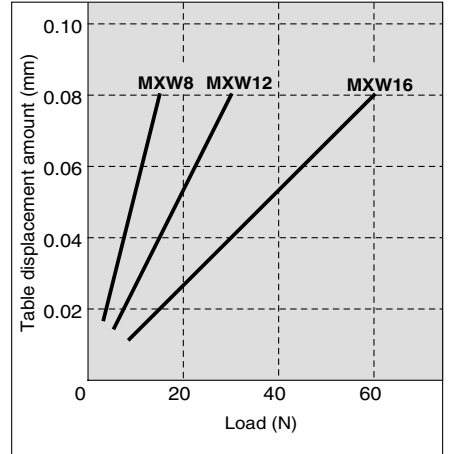


Table displacement due to roll moment load

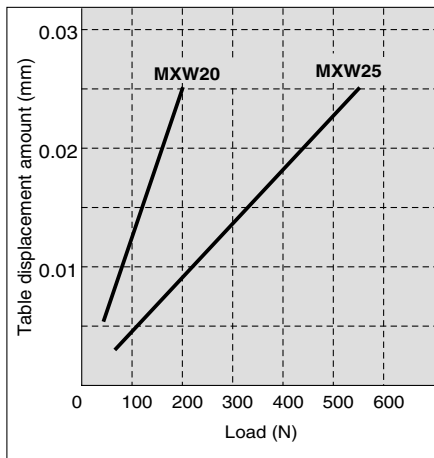
Amount of displacement on A when the load is applied at F.



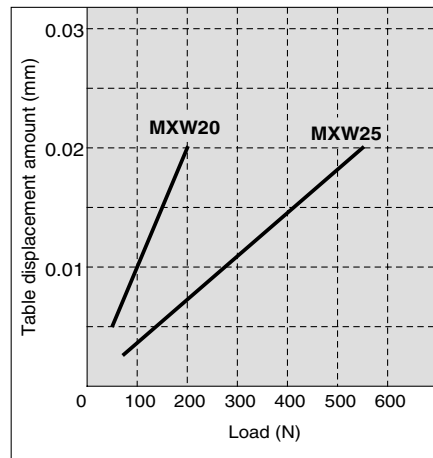
MXW8/12/16



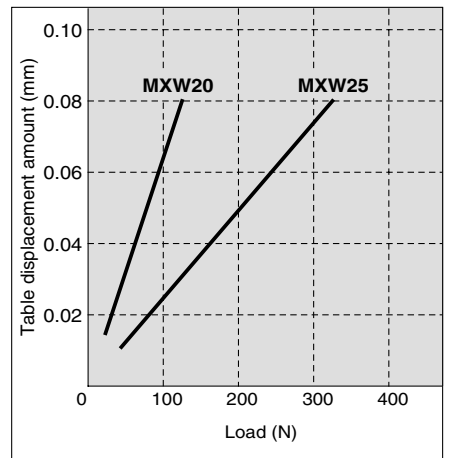
MXW20/25



MXW20/25



MXW20/25



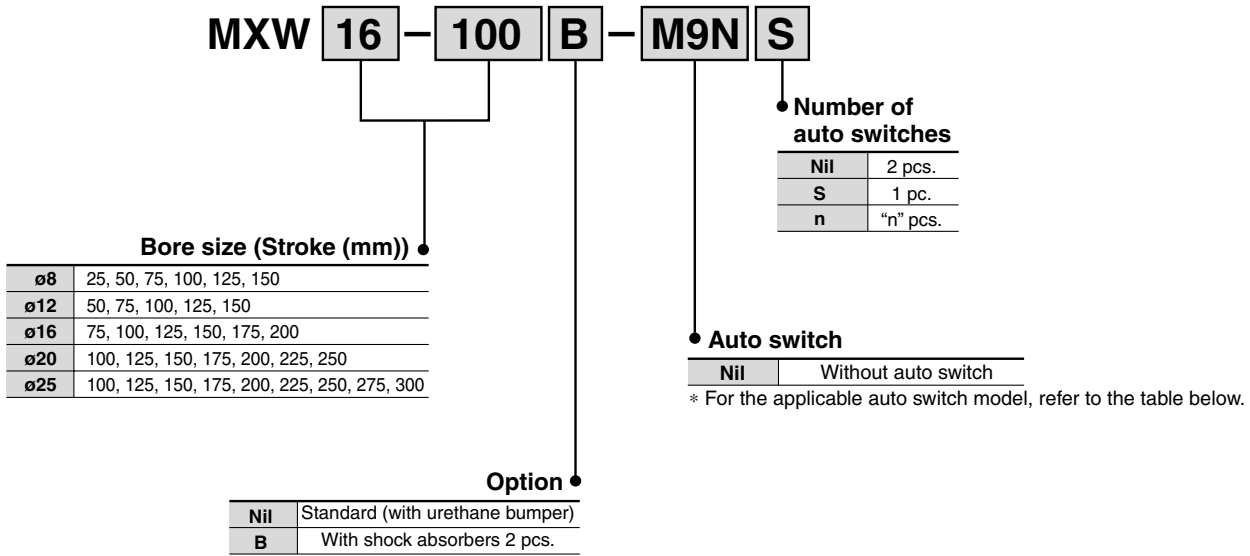
- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

Long Stroke Slide Table

Series *MXW*

ø8, ø12, ø16, ø20, ø25

How to Order



Applicable Auto Switch/Refer to page 8-30-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length*			Pre-wire connector	Applicable load		
					DC	AC	Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)				
Read switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	A93V	A93	●	●	—	—	—	Relay, PLC
Solid state switch	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	F9NV	F9N	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				F9PV	F9P	●	●	○	○		
				2-wire				F9BV	F9B	●	●	○	○	—	
				3-wire (NPN)				F9NWV	F9NW	●	●	○	○	IC circuit	
				3-wire (PNP)				F9PWV	F9PW	●	●	○	○	—	
				2-wire				F9B WV	F9B W	●	●	○	○	—	

* Lead wire length symbols: 0.5 m.....Nil (Example) M9N
 3 m.....L (Example) M9NL
 5 m.....Z (Example) M9NZ

* Solid state switches marked with "○" are produced upon receipt of order.

- Since there are other applicable auto switches than listed, refer to page 8-7-22 for details.
- For details about auto switches with pre-wire connector, refer to page 8-30-52.

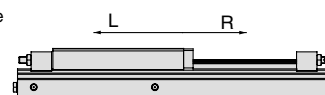
Long Stroke Slide Table Series MXW



Specifications

Model	MXW8	MXW12	MXW16	MXW20	MXW25
Bore size (mm)	ø8 x 2 (ø11 or its equivalent)	ø12 x 2 (ø17 or its equivalent)	ø16 x 2 (ø23 or its equivalent)	ø20 x 2 (ø28 or its equivalent)	ø25 x 2 (ø35 or its equivalent)
Piping port size	M5 x 0.8			Rc 1/8	
Fluid	Air				
Action	Double acting				
Operating pressure	0.15 to 0.7 MPa				
Proof pressure	1.05 MPa				
Ambient and fluid temperature	-10 to +60°C				
Piston speed	50 to 500 mm/s				
Cushion	Both ends urethane bumper (Standard) Shock absorber at both ends (Option)				
Lubrication	Non-lube				
Auto switch (Option)	Reed switch Solid state switch (2-wire, 3-wire) 2-color indication solid state switch (2-wire, 3-wire)				
Stroke length tolerance	+1 0 mm				
Stroke adjustment range	One side: 5 mm (Both sides: 10 mm)				

<Operating direction>
When viewed from size with lateral ports.
R: Right (OUT side)
L: Left (IN side)



Made to Order Specifications
(For details, refer to page 8-31-1.)

Symbol	Specifications
-X42	Anti-corrosive specifications for guide unit

Theoretical Output

Dual rod cylinder produces double the thrust of standard cylinder. (N)

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)					
				0.2	0.3	0.4	0.5	0.6	0.7
8	4	R	101	20	30	40	51	61	71
		L	75	15	23	30	38	45	53
12	6	R	226	45	68	90	113	136	158
		L	170	34	51	68	85	102	119
16	8	R	402	80	121	161	201	241	281
		L	302	60	91	121	151	181	211
20	10	R	628	126	188	251	314	377	440
		L	471	94	141	188	236	283	330
25	12	R	982	196	295	393	491	589	687
		L	756	151	227	302	378	454	529

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm²)

Standard Stroke (mm)/Weight (g)

(g)

Model	Standard stroke (mm)											
	25	50	75	100	125	150	175	200	225	250	275	300
MXW8	550	610	700	790	880	980	—	—	—	—	—	—
MXW12	—	930	1010	1140	1270	1400	—	—	—	—	—	—
MXW16	—	—	1850	1970	2150	2350	2540	2740	—	—	—	—
MXW20	—	—	—	4440	4640	5000	5360	5710	6070	6430	—	—
MXW25	—	—	—	9300	9620	9970	10500	11100	11700	12200	12800	13400

Option Specifications

Stopper Bolt Assembly

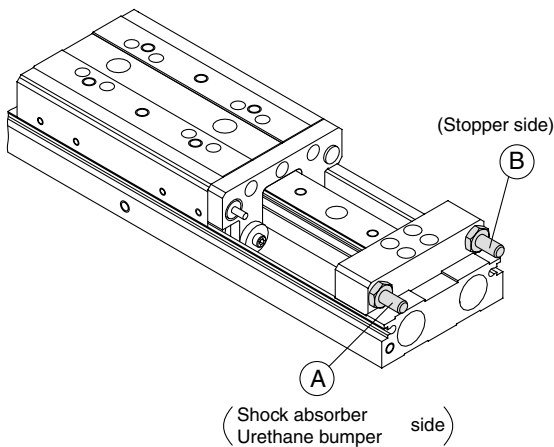
Stopper bolt assembly can be ready for the following manner.

Change of adjuster assembly		Qty. needed for stopper bolt assembly		Parts to be Changed (Refer to the figure below.)
		Standard	Option (-X11)	
Changing the stroke adjustment range from 5 mm to 15 mm for one side	W/o shock absorber	—	2	Replace (A)
	With shock absorber	—	4	Replace (A)(B)
Changing to the one with shock absorber		2	—	Add (B)
Changing to the one with shock absorber and stroke adjustment range of 15 mm		—	4	Replace (A) Add (B)

Note 1) When only one side of stroke is changed, the quantity needed is the half of the above.

Note 2) Shock absorber must be ordered separately.

For the shock absorber model numbers, refer to page 8-7-9.



How to Order Stopper Bolt Assembly

MXW - A 16 12 - X11

Applicable bore size (mm)

MXW8	ø8
MXW12	ø12
MXW16	ø16
MXW20	ø20
MXW25	ø25

Adjustment range

Nil	5 mm	Standard
X11	15 mm	Option

Note) The above model number is one adjuster bolt assembly only.

⚠ Precautions

Adjustment

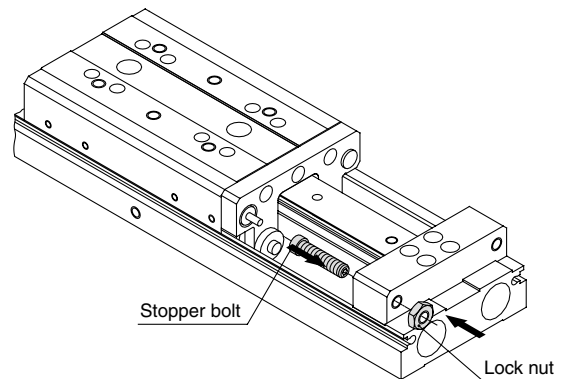
⚠ Caution

1. Do not operate within 1 mm.

The effectiveness of the shock absorber and urethane bumper will not be brought into full play, and could be adversely affected.

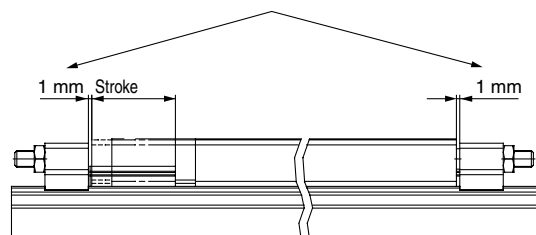
How to mount

1. Thread in the adjuster bolt from the direction of the arrow.
2. Fasten the lock nut from the direction of the arrow.

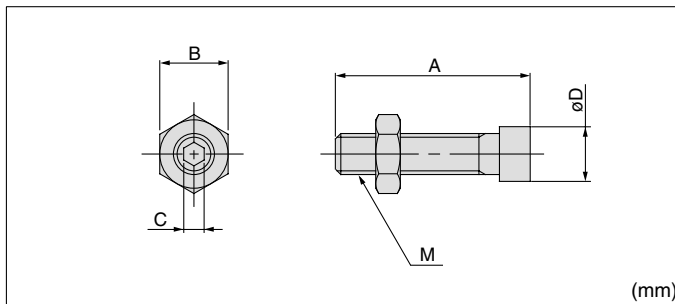


Avoid operating within 1 mm.

The effectiveness of the shock absorber and urethane damper will not be brought into full play, and could be adversely affected.



Dimensions



Applicable size	Model	Stroke adjustable range (mm)	A	B	C	D	M
MXW8	MXW-A812	5	21	8	2.5	6	M5 x 0.5
	MXW-A812-X11	15	31				
MXW12	MXW-A1212	5	23.5	8	2.5	6	M5 x 0.8
	MXW-A1212-X11	15	33.5				
MXW16	MXW-A1612	5	28.5	10	3	8	M6 x 1
	MXW-A1612-X11	15	38.5				
MXW20	MXW-A2012	5	34.5	13	4	10	M8 x 1.25
	MXW-A2012-X11	15	44.5				
MXW25	MXW-A2512	5	40	17	5	14	M10 x 1.5
	MXW-A2512-X11	15	50				

Shock Absorber

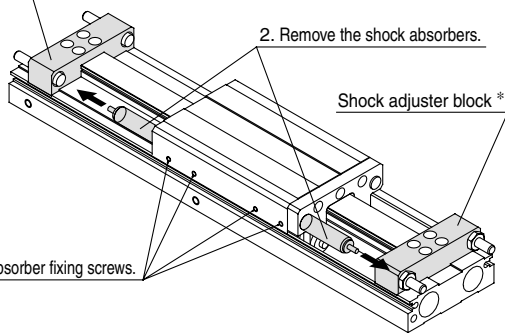
Specifications

Shock absorber model	RB0805-X552	RB0806-X552	RB1007-X552	RB1412-X552	RB2015-X552	
Applicable slide table	MXW8	MXW12	MXW16	MXW20	MXW25	
Max. absorbing energy (J)	0.98	2.94	5.88	19.6	58.8	
Stroke absorption (mm)	5	6	7	12	15	
Max. collision speed (m/sec)	0.05 to 5					
Max. operating frequency (cycle/min)	80	80	70	45	25	
Max. allowable thrust (N)	245	245	422	814	1961	
Ambient temperature range (°C)	-10 to 80					
Spring force (N)	Extended	1.96	1.96	4.22	6.86	8.34
	Retracted	3.83	4.22	6.86	15.98	20.50
Weight (g)	15	15	25	65	150	

How to Replace

1. How to Remove

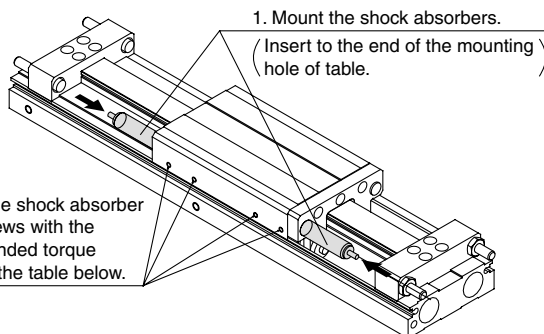
Shock adjuster block *



1. Loosen the shock absorber fixing screws.

* In the case of MXW8-25, first take out the adjuster block, and then the shock absorber. Tighten the mounting bolt with the torque 0.3 N·m when assembling the adjuster block.

2. How to Mount



2. Tighten the shock absorber fixing screws with the recommended torque shown in the table below.

Recommended Tightening Torque

Model	Shock absorber fixing thread size	Recommended tightening torque (N·m)	Hexagon wrench width across flats (mm)
MXW8	M3 x 4	0.6	1.5
MXW12	M3 x 4	0.6	1.5
MXW16	M3 x 4	0.6	1.5
MXW20	M4 x 5	0.8	2
MXW25	M5 x 6	1	2.5

⚠ Precautions

Adjustment

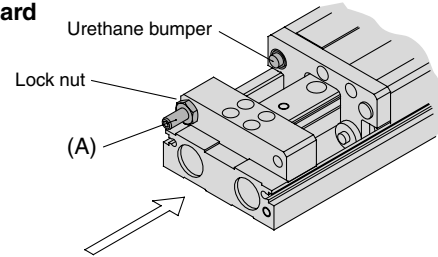
⚠ Caution

1. Do not operate in such a state that the stopper blocks and stopper bolts on both sides are removed.

Doing so could create shocks, which could loosen and cause damage.

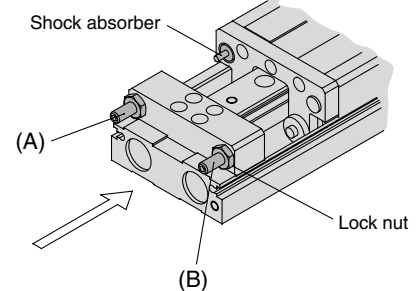
Stroke adjustment

1. Standard



Loosen the adjuster bolt lock nut on side (A), insert a wrench in the direction of the arrow to adjust the stroke, and then tighten the lock nut.

2. With shock absorber (Option)



Stroke adjustment

● Loosen the adjuster bolt lock nut on side (B), insert a wrench in the direction of the arrow to adjust the stroke, and then tighten the lock nut.

Stroke absorption adjustment for shock absorber

● Loosen the adjuster bolt lock nut on side (A), insert a wrench in the direction of the arrow to adjust the stroke, and then tighten the lock nut.

MX□

MTS

MY□

CY□

MG□

CX□

D-

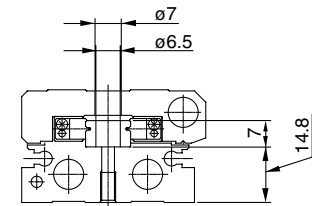
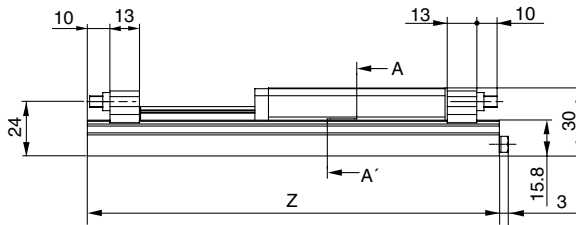
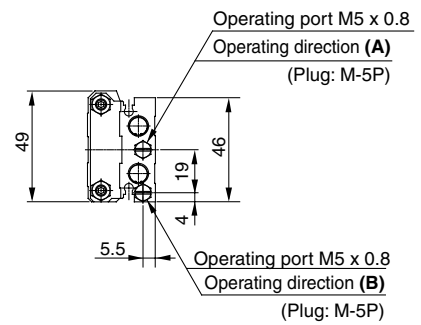
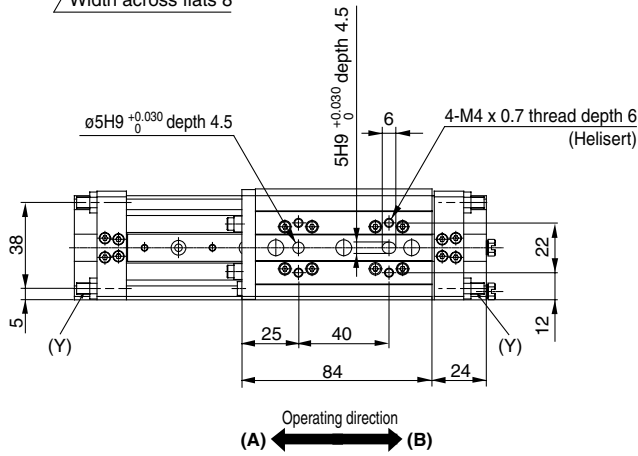
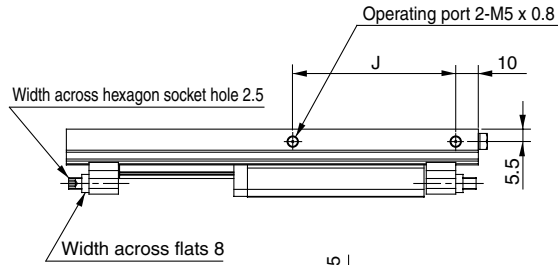
-X

20-

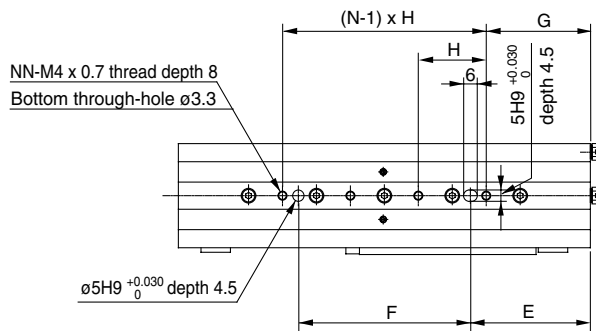
Data

Series MXW

Dimensions: MXW8 Stroke: 25, 50 mm



Cross section AA'



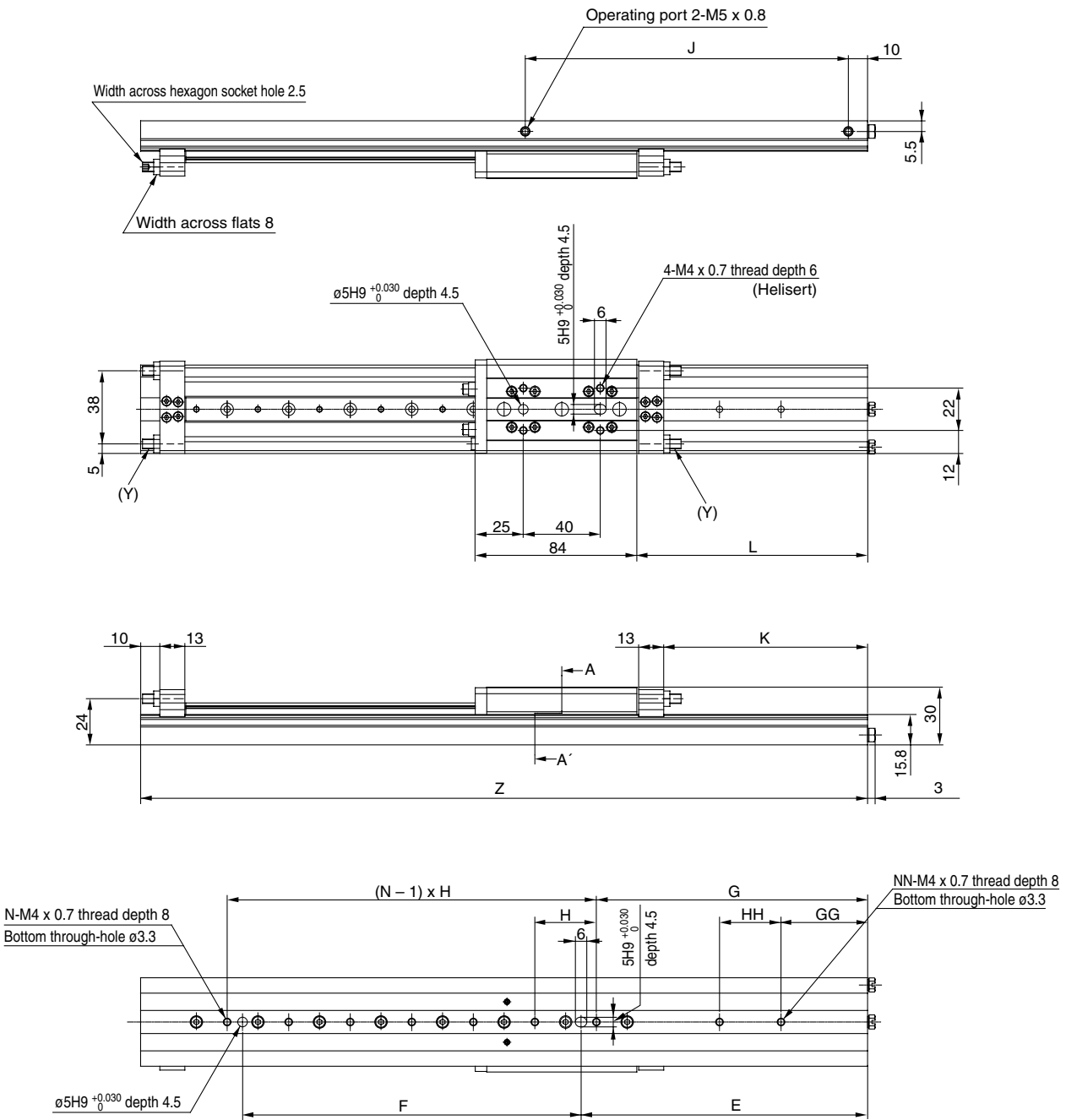
(mm)

Model	E	F	G	H	J	N	Z
MXW8-25	55	48	47	32	64	3	157
MXW8-50	53	76	46	30	71	4	182

Note) Adjuster bolt (Y) shown in the section above is attached only on B type (with shock absorber).

Long Stroke Slide Table Series MXW

Dimensions: MXW8 Stroke 75, 100, 125, 150 mm



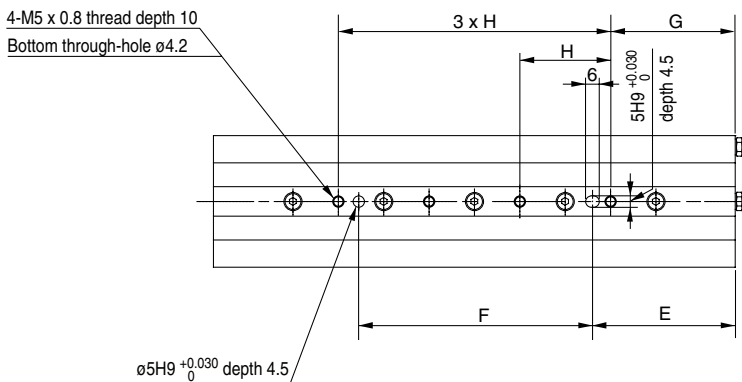
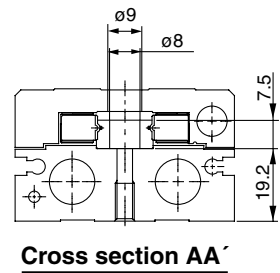
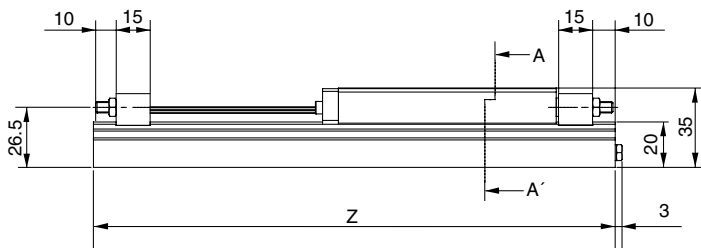
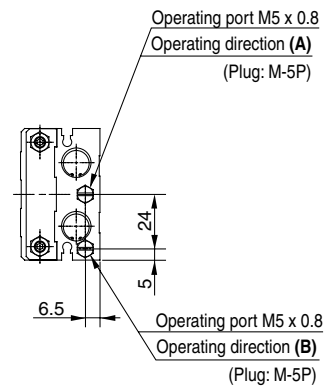
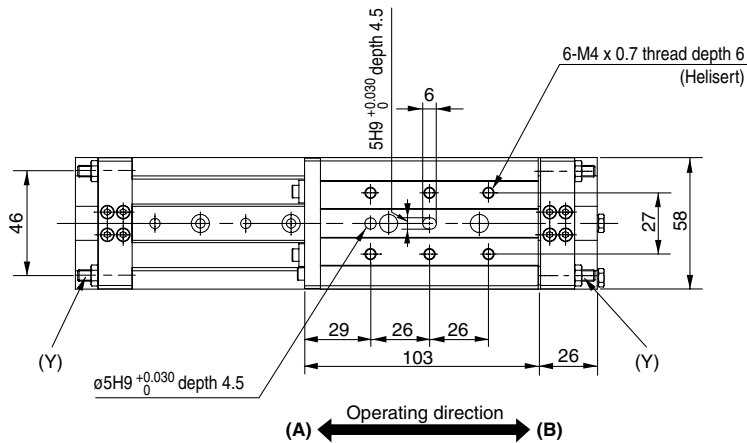
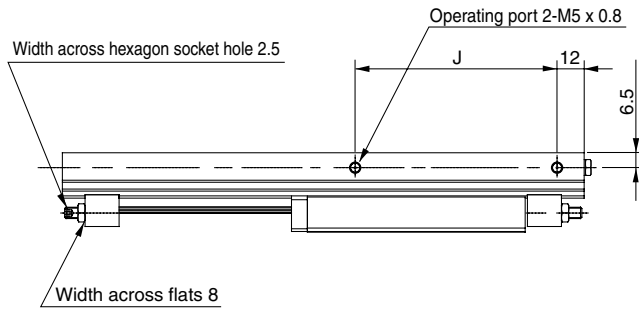
- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

(mm)

Model	E	F	G	GG	H	HH	J	K	L	N	NN	Z
MXW8-75	71	106	64	19	30	—	92	31	45	5	1	228
MXW8-100	106	112	98	34	32	—	115	56	70	5	1	278
MXW8-125	129	144	121	25	32	32	138	81	95	6	2	328
MXW8-150	149	176	141	45	32	32	168	106	120	7	2	378

Series MXW

Dimensions: MXW12 Stroke 50, 75 mm



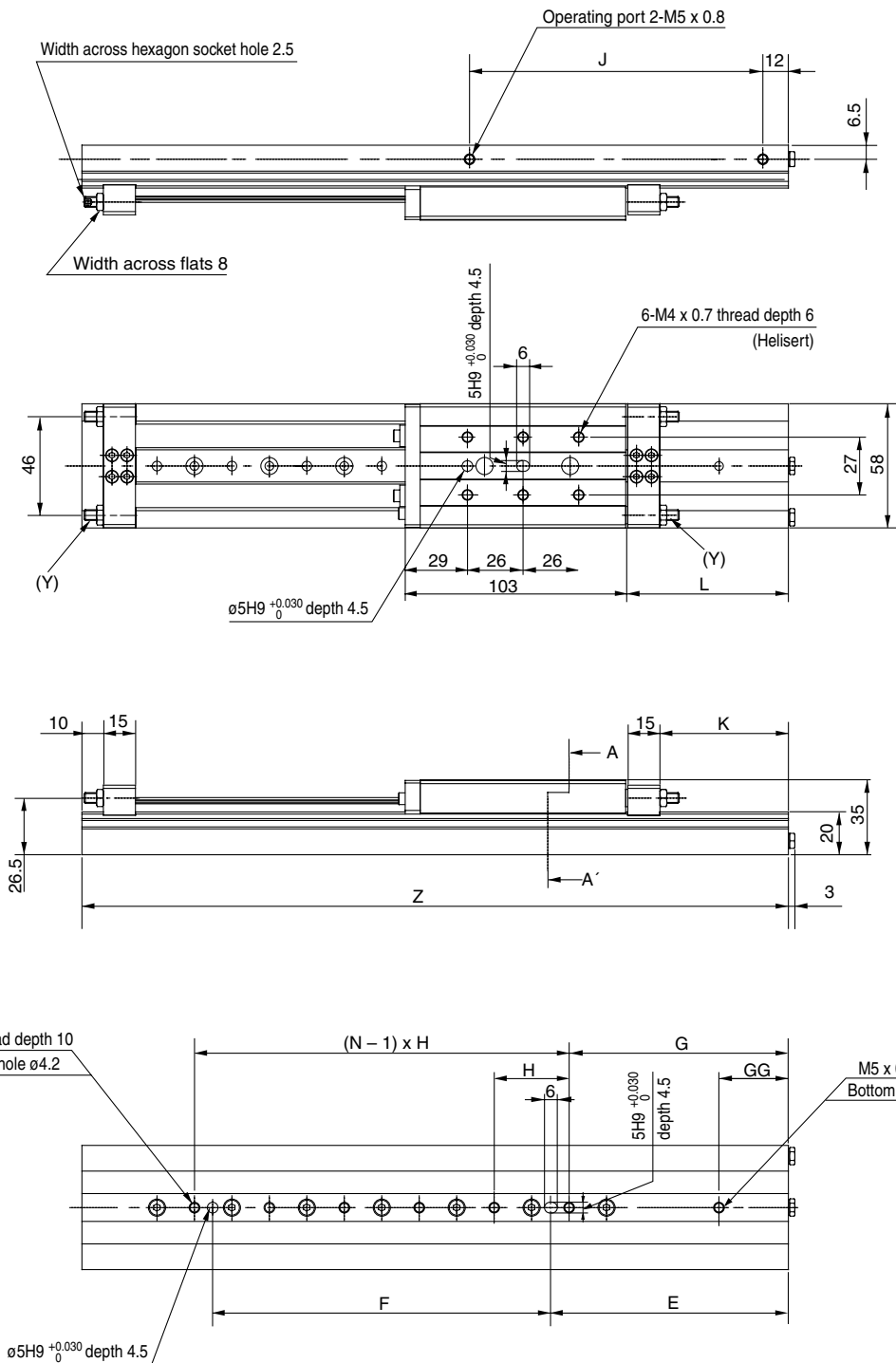
(mm)

Model	E	F	G	H	J	Z
MXW12-50	58	88	50	35	84	205
MXW12-75	63	103	55	40	89	230

Note) Adjuster bolt (Y) shown in the section above is attached only on type B (with shock absorber).

Long Stroke Slide Table Series MXW

Dimensions: MXW12 Stroke 100, 125, 150 mm



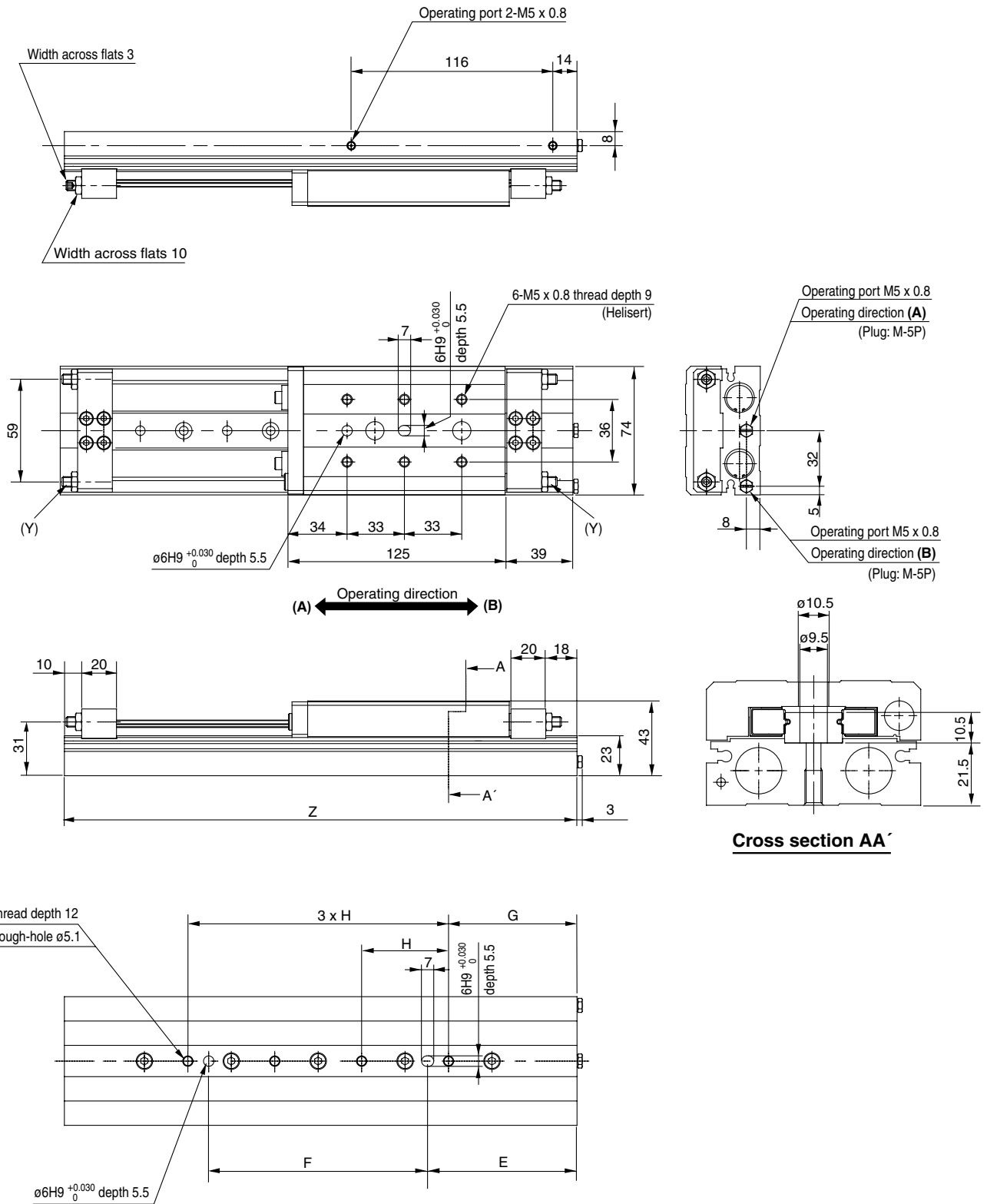
- MX□
- MTS
- MY□
- CY□
- MG□
- CX□
- D-
- X
- 20-
- Data

(mm)

Model	E	F	G	GG	H	J	K	L	N	Z
MXW12-100	91	123	82.5	30	35	114	35	51	5	280
MXW12-125	111	158	102.5	32.5	35	137	60	76	6	330
MXW12-150	136	182	127.5	47.5	40	164	85	101	6	380

Series MXW

Dimensions: MXW16 Stroke 75, 100 mm



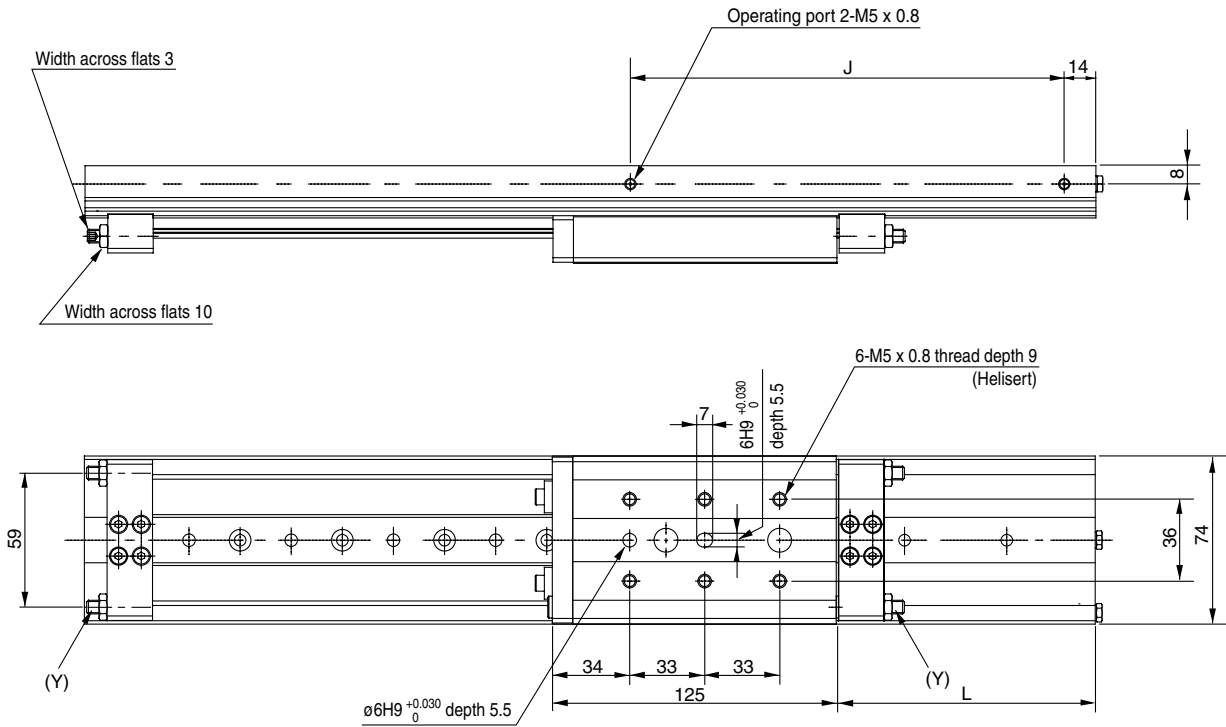
(mm)

Model	E	F	G	H	Z
MXW16-75	83	112	71.5	45	270
MXW16-100	86	126	74	50	295

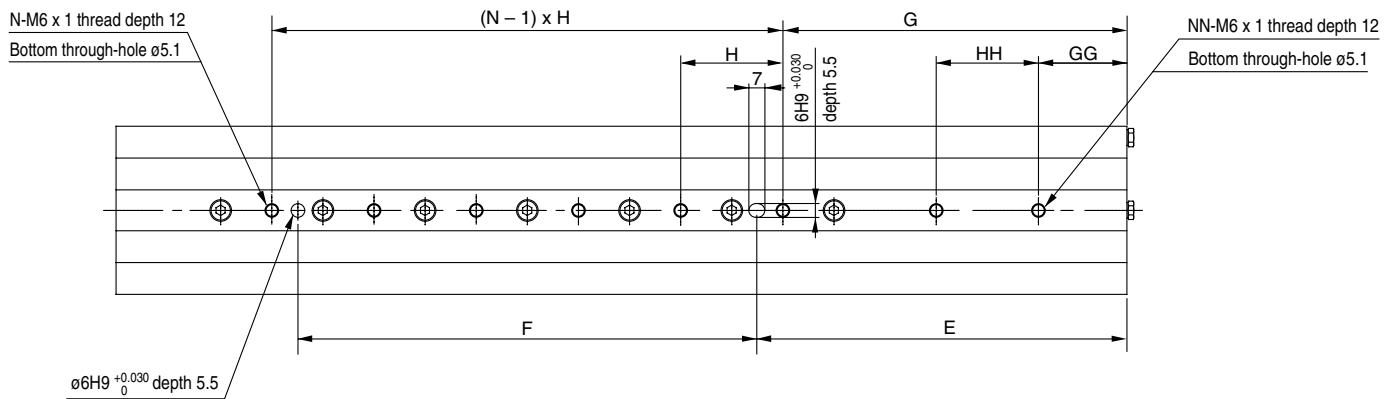
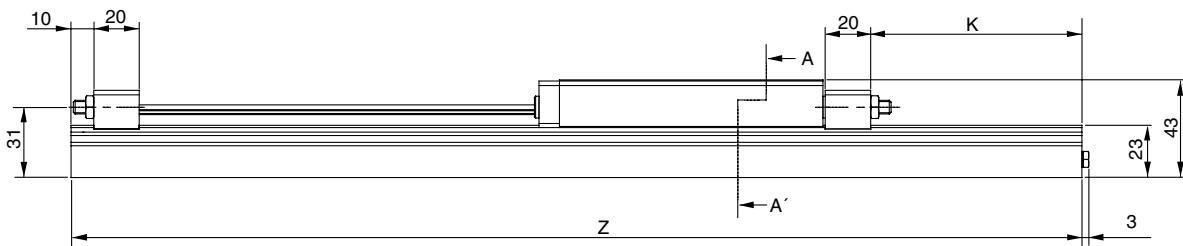
Note) Adjuster bolt (Y) shown in the section above is attached only on type B (with shock absorber).

Long Stroke Slide Table Series MXW

Dimensions: MXW16 Stroke 125, 150, 175, 200 mm



- MX□
- MTS
- MY□
- CY□
- MG□
- CX□
- D-
- X
- 20-
- Data

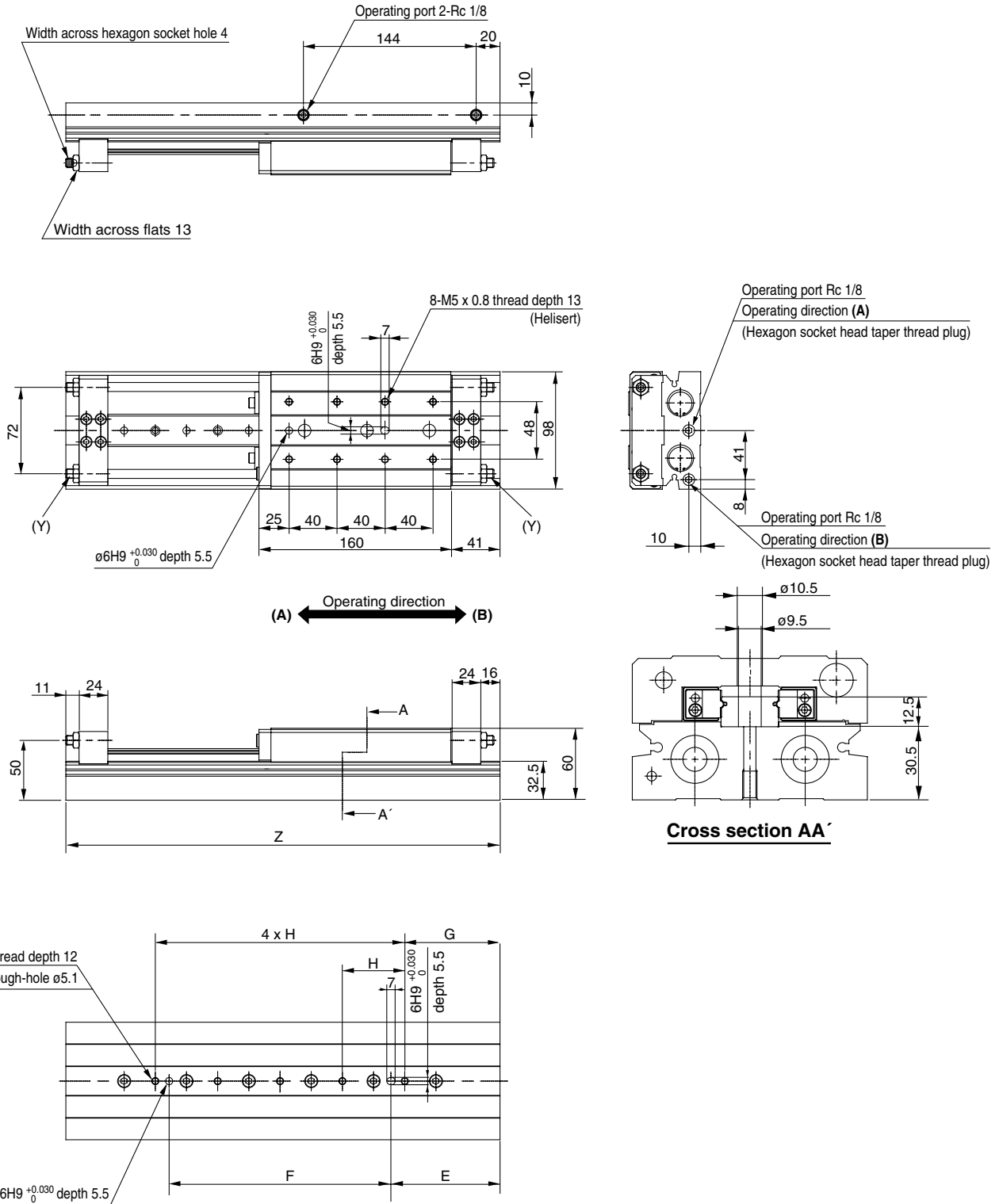


(mm)

Model	E	F	G	GG	H	HH	J	K	L	N	NN	Z
MXW16-125	110	157	99	31.5	45	—	141	43	64	5	1	345
MXW16-150	136	176	124	24	50	—	166	68	89	5	1	395
MXW16-175	163	202	151.5	39	45	45	191	93	114	6	2	445
MXW16-200	186	226	174	24	50	50	216	118	139	6	2	495

Series MXW

Dimensions: MXW20 Stroke 100, 125 mm



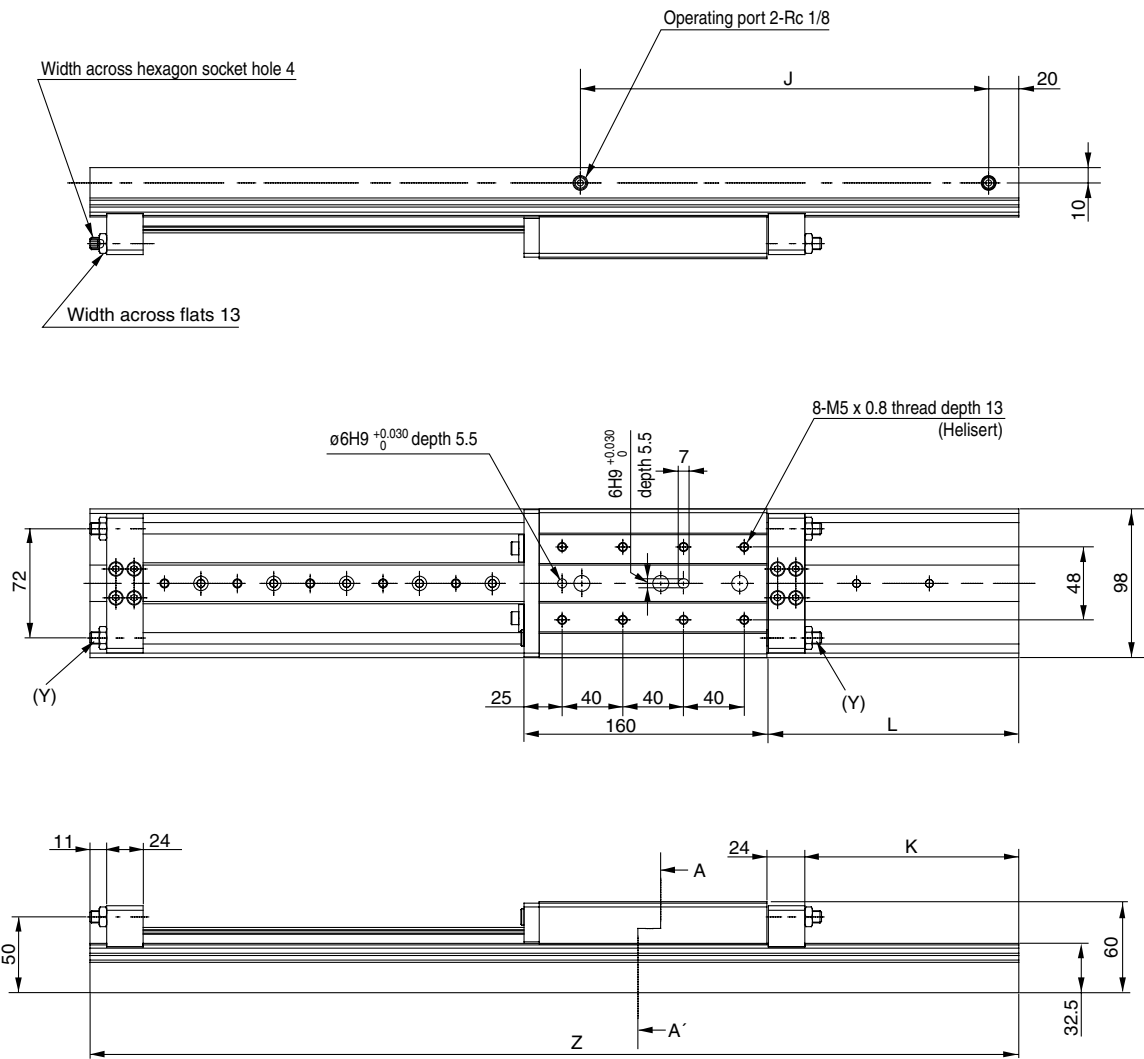
(mm)

Model	E	F	G	H	Z
MXW20-100	87	168	75	48	337
MXW20-125	91	185	79.5	52	362

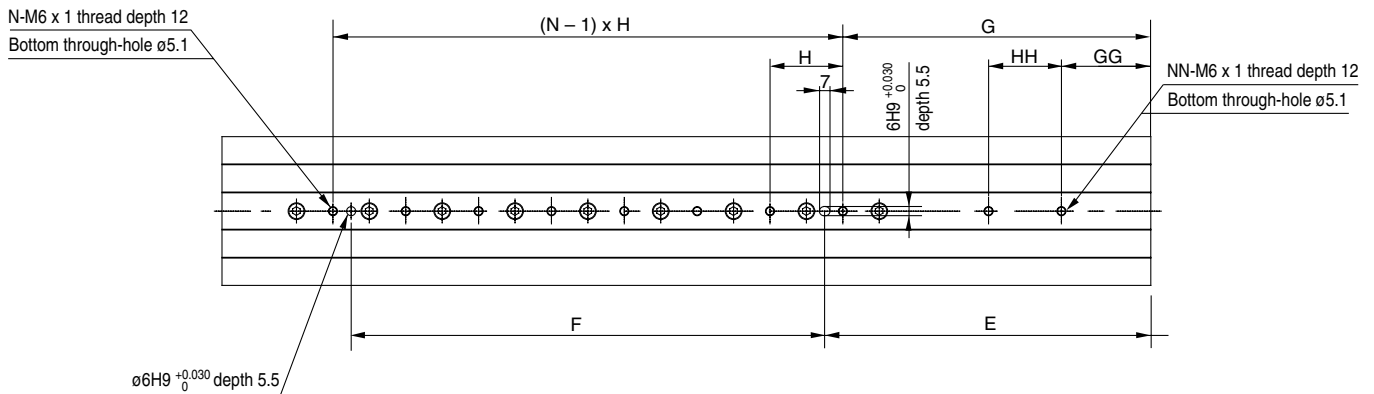
Note) Adjuster bolt (Y) shown in the section above is attached only on type B (with shock absorber).

Long Stroke Slide Table Series MXW

Dimensions: MXW20 Stroke 150, 175, 200, 225, 250 mm



- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

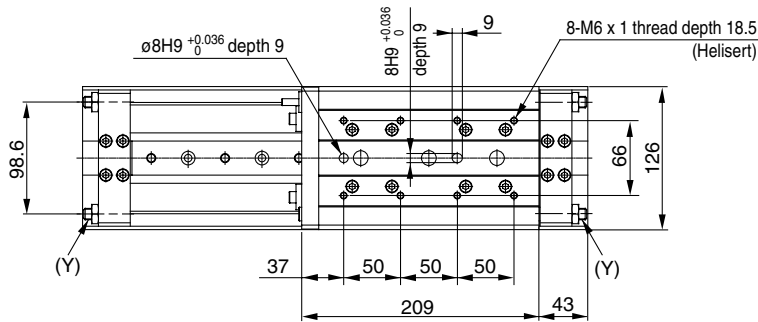
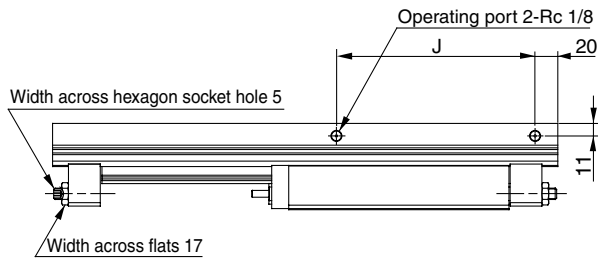


(mm)

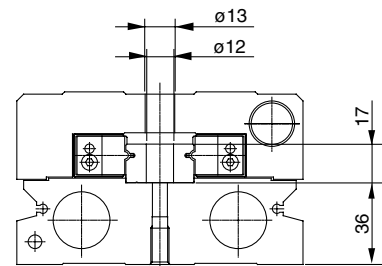
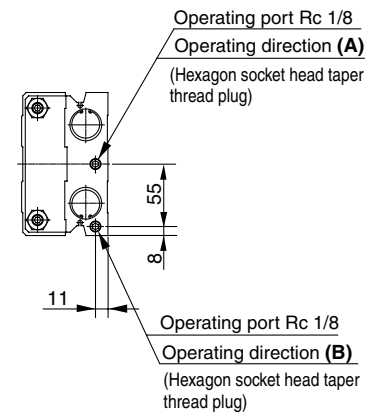
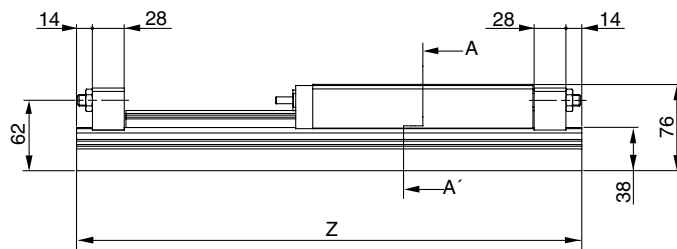
Model	E	F	G	GG	H	HH	J	K	L	N	NN	Z
MXW20-150	113	216	101	29	48	—	169	41	66	6	1	412
MXW20-175	140	237	128.5	50.5	52	—	194	66	91	6	1	462
MXW20-200	164	264	152	56	48	—	219	91	116	7	1	512
MXW20-225	189	288	177.5	73.5	52	—	244	116	141	7	1	562
MXW20-250	215	312	203	59	48	48	269	141	166	8	2	612

Series MXW

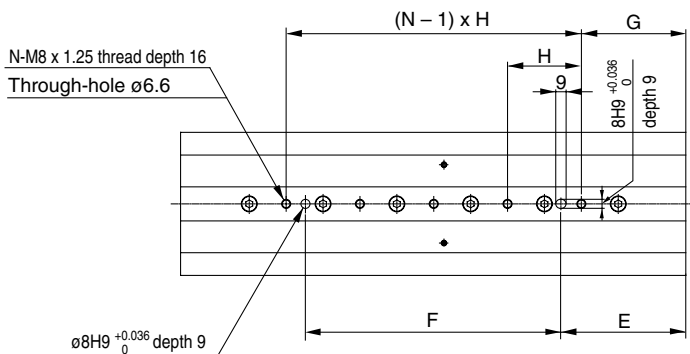
Dimensions: MXW25 Stroke 100, 125, 150 mm



(A) ← Operating direction → (B)



Cross section AA'



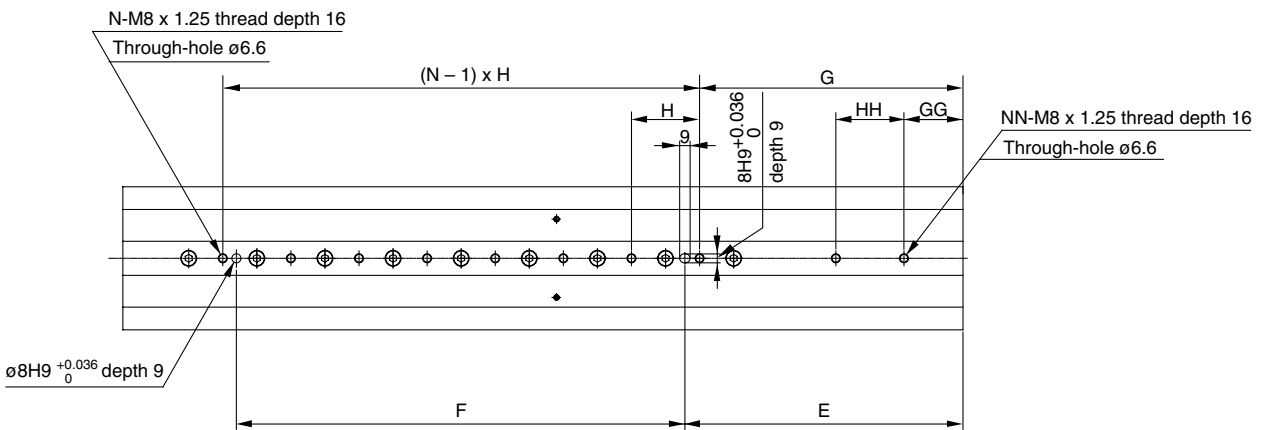
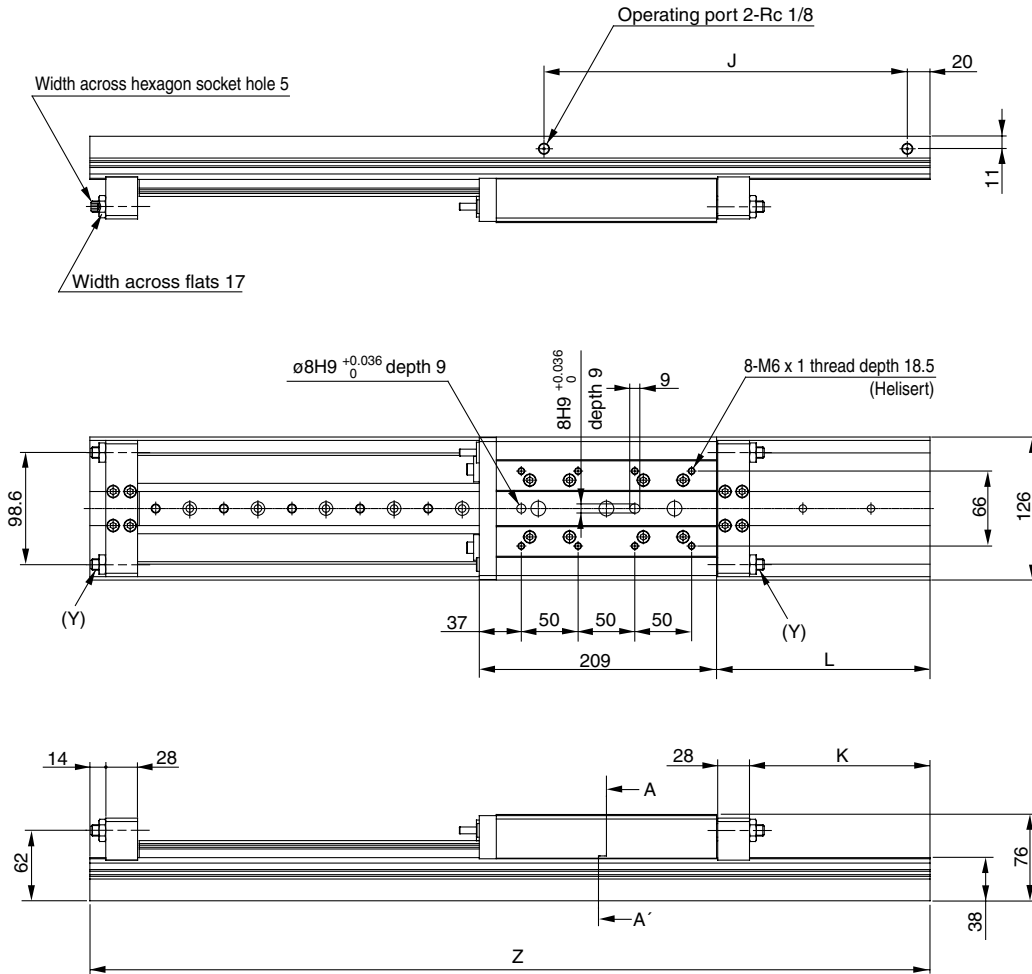
(mm)

Model	E	F	G	H	J	N	Z
MXW25-100	115	165	100	65	165	4	395
MXW25-125	105	210	90	60	180	5	420
MXW25-150	110	225	92	65	180	5	445

Note) Adjuster bolt (Y) shown in the section above is attached only on type B (with shock absorber).

Long Stroke Slide Table Series MXW

Dimensions: MXW25 Stroke 175, 200, 225, 250, 275, 300 mm

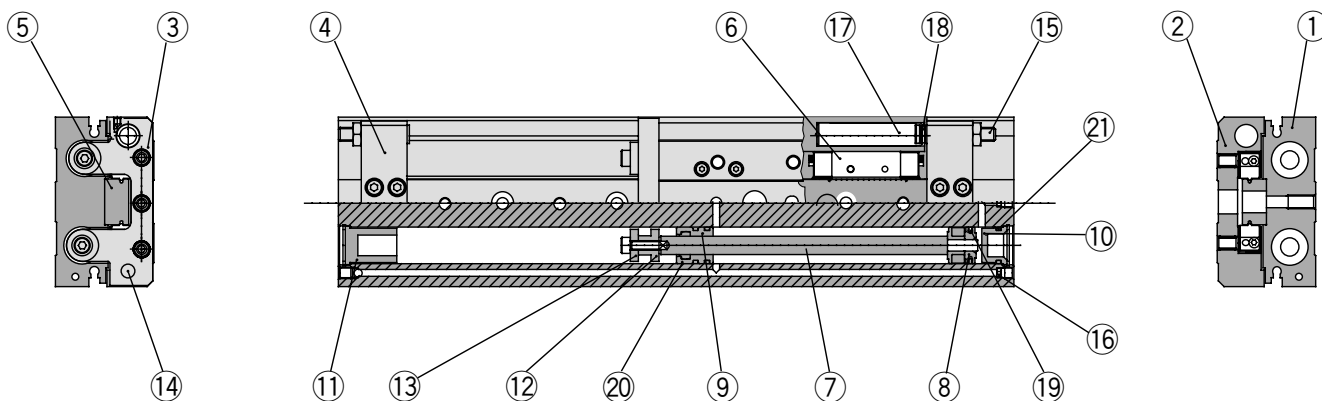


- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-
- Data

Model	E	F	G	GG	H	HH	J	K	L	N	NN	Z
MXW25-175	120	270	105	—	60	—	195	34	63	6	—	490
MXW25-200	155	275	142	—	60	—	225	59	88	6	—	540
MXW25-225	175	305	165	55	55	—	245	84	113	7	1	590
MXW25-250	200	335	187	67	60	—	275	109	138	7	1	640
MXW25-275	225	360	210	80	65	—	300	134	163	7	1	690
MXW25-300	245	395	232	52	60	60	320	159	188	8	2	740

Series MXW

Construction



Component Parts

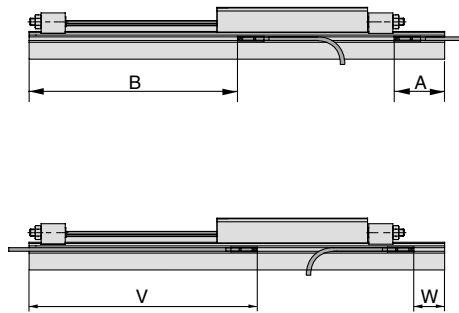
No.	Description	Material	Note
①	Body	Aluminum alloy	Hard anodized
②	Table	Aluminum alloy	Hard anodized
③	End plate	Aluminum alloy	Hard anodized
④	Stroke adjuster block	Aluminum alloy	Hard anodized
⑤	Rail	High carbon chrome bearing steel	Heat treated
⑥	Guide block	High carbon chrome bearing steel	Heat treated
⑦	Rod	Stainless steel	
⑧	Piston assembly	—	With magnet
⑨	Rod cover	Aluminum alloy	
⑩	Head cap	Resin	
⑪	End cap	Resin	
⑫	Floating bushing A	Stainless steel	
⑬	Floating bushing B	Stainless steel	
⑭	Stopper	Stainless steel	Heat treated
⑮	Stroke adjusting bolt	Carbon steel	Heat treated, Electroless nickel plated
⑯	Orifice	Brass	Electroless nickel plated
⑰	Absorber shaft	Aluminum alloy	Chromate treated
⑱	Adjusting bumper	Polyurethane	
⑲	Piston seal	NBR	
⑳	Rod seal	NBR	
㉑	O-ring	NBR	

Replacement Parts: Seal Kit

Bore size (mm)	Kit no.	Contents
8	MXW8-PS	Set of nos. above ⑲, ⑳, ㉑
12	MXW12-PS	
16	MXW16-PS	
20	MXW20-PS	
25	MXW25-PS	

* Seal kit includes ⑲, ⑳, ㉑. Order the seal kit, based on each bore size.

Proper Auto Switch Mounting Position (Detection at stroke end)



Reed Switch: D-A90(V), D-A93(V), D-A96(V)

Model		Stroke (mm)											
		25	50	75	100	125	150	175	200	225	250	275	300
MXW8	A	52.5	31.5	27.5	27.5	27.5	27.5	—	—	—	—	—	—
	B	79.5	100.5	125.5	150.5	175.5	200.5	—	—	—	—	—	—
	W	32.5	11.5	7.5	7.5	7.5	7.5	—	—	—	—	—	—
	V	99.5	120.5	145.5	170.5	195.5	220.5	—	—	—	—	—	—
MXW12	A	—	51	31	31	31	31	—	—	—	—	—	—
	B	—	104	124	149	174	199	—	—	—	—	—	—
	W	—	31	11	11	11	11	—	—	—	—	—	—
	V	—	124	144	169	194	219	—	—	—	—	—	—
MXW16	A	—	—	59.5	34.5	34.5	34.5	34.5	34.5	—	—	—	—
	B	—	—	135.5	160.5	185.5	210.5	235.5	260.5	—	—	—	—
	W	—	—	39.5	14.5	14.5	14.5	14.5	14.5	—	—	—	—
	V	—	—	155.5	180.5	205.5	230.5	225.5	280.5	—	—	—	—
MXW20	A	—	—	—	68.5	43.5	43.5	43.5	43.5	43.5	43.5	—	—
	B	—	—	—	168.5	193.5	218.5	243.5	268.5	293.5	318.5	—	—
	W	—	—	—	48.5	23.5	23.5	23.5	23.5	23.5	23.5	—	—
	V	—	—	—	188.5	213.5	238.5	263.5	288.5	313.5	338.5	—	—
MXW25	A	—	—	—	86.5	74.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
	B	—	—	—	208.5	220.5	250.5	270.5	295.5	320.5	345.5	370.5	395.5
	W	—	—	—	66.5	54.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
	V	—	—	—	228.5	240.5	270.5	290.5	315.5	340.5	365.5	390.5	415.5

MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

Data

Solid State Switch: D-M9B(V), D-M9N(V), D-M9P(V)

2-color Indication Solid State Switch: D-F9BW(V), D-F9NW(V), D-F9PW(V)

Model		Stroke (mm)											
		25	50	75	100	125	150	175	200	225	250	275	300
MXW8	A	48.5	27.5	23.5	23.5	23.5	23.5	—	—	—	—	—	—
	B	83.5	104.5	129.5	154.5	179.5	204.5	—	—	—	—	—	—
	W	36.5	15.5	11.5	11.5	11.5	11.5	—	—	—	—	—	—
	V	95.5	116.5	141.5	166.5	191.5	216.5	—	—	—	—	—	—
MXW12	A	—	47	27	27	27	27	—	—	—	—	—	—
	B	—	108	128	153	178	203	—	—	—	—	—	—
	W	—	35	15	15	15	15	—	—	—	—	—	—
	V	—	120	140	165	190	215	—	—	—	—	—	—
MXW16	A	—	—	55.5	30.5	30.5	30.5	30.5	30.5	—	—	—	—
	B	—	—	140	165	190	215	240	265	—	—	—	—
	W	—	—	43.5	18.5	18.5	18.5	18.5	18.5	—	—	—	—
	V	—	—	152	177	202	227	252	277	—	—	—	—
MXW20	A	—	—	—	64.5	39.5	39.5	39.5	39.5	39.5	39.5	—	—
	B	—	—	—	172.5	197.5	222.5	247.5	272.5	297.5	322.5	—	—
	W	—	—	—	52.5	27.5	27.5	27.5	27.5	27.5	27.5	—	—
	V	—	—	—	184.5	209.5	234.5	259.5	284.5	309.5	334.5	—	—
MXW25	A	—	—	—	82.5	70.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
	B	—	—	—	212.5	224.5	254.5	274.5	299.5	324.5	349.5	374.5	399.5
	W	—	—	—	70.5	58.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
	V	—	—	—	224.5	236.5	266.5	286.5	311.5	336.5	361.5	386.5	411.5

Series MXW

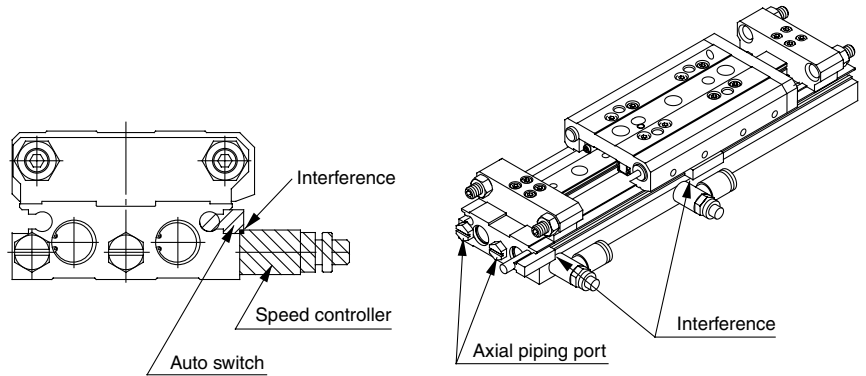
Operating Range

Auto switch model	Applicable bore size (mm)				
	8	12	16	20	25
D-A9□ D-A9□V	6	6	8.5	10	10
D-M9□ D-F9□W D-M9□V D-F9□WV	3 (2)	3 (3)	4 (3)	6 (4)	5.5 (4)

Note) Figures in parentheses are the case for D-M9□, D-M9□V switch types.

⚠ Caution

Caution on Handling Auto Switches/For MXW8 only



When an auto switch is installed on the port side of MXW8, some switches could interfere with the speed controller or a fitting. Therefore, use one of the methods described below for installing the auto switch.

1. Use the port for piping in the axial direction.
2. Install an auto switch on the opposite side of the port.
3. Use a pipe fitting with 7 mm width across flats or $\phi 8$ external diameter or less.

- **M-5J** + **AS1201F-M5-04**
(Extension fittings) + (Speed controller with One-touch fittings, Elbow style)
- **KJL04-M5** + **AS1001F-04**
(One-touch fitting) + (Speed controller with One-touch fittings, In-line style)

Table for Auto Switch Interference with Speed Controller and Fittings

Auto switch model	Electrical entry direction	Wiring type	Auto switch model
Solid state switch D-M9□, D-M9□V	Perpendicular	3-wire	D-M9NV, D-M9PV
		2-wire	D-M9BV
2-color indication solid state switch D-F9□W, D-F9□WV	Perpendicular	3-wire	D-F9NWV, D-F9PWV
		2-wire	D-F9BWV

Other than the models listed in "How to Order", the following auto switches are applicable. For detailed specifications, refer to page 8-30-1.

Type	Model	Electrical entry (Fetching direction)	Features
Reed switch	D-A90	Grommet (In-line)	Without indicator light
	D-A90V	Grommet (Perpendicular)	

* Normally closed (NC = b contact), solid state switch (D-F9G/F9H type) are also available. For details, refer to page 8-30-31.