

Air Slide Table

ø6, ø8, ø12, ø16, ø20, ø25

RoHS

Reduced in height

10%*1 reduction 27 mm*1
(Current model: 30 mm*1)

Product weight

22%*1 reduction 298 g*1
(Current model: 380 g*1)

Allowable kinetic energy

64%*1 improvement 0.09 J*1
(Current model: 0.055 J*1)

*1 Comparison between the double-ported type and the current MXQ12-30 (without adjuster)



Reduced in height and weight with thinner table

- Thin table made of special stainless steel
- Durable material with the same strength as the current model

2 combinations of guide and cylinder bore size available

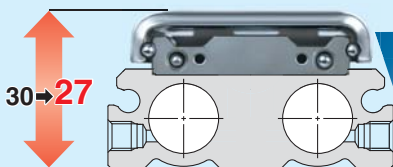
New

- The centralized adjuster of the functional option is available as standard.
- Made to order options have been added.
 - Dual stroke specification
 - Side adjuster specification
 - Combined use of shock absorber + metal stopper, etc.

Double-ported type

Page 11

Increases flexibility of wiring and piping with piping ports and auto switch mounting grooves on both sides



For MXQ12A

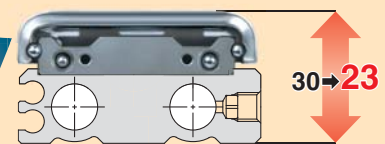
Bore size
ø12

Bore size
ø8

Low thrust with high rigidity type

Page 53

Combination with a cylinder of one bore size smaller increases rigidity according to thrust. The height can be reduced as well.

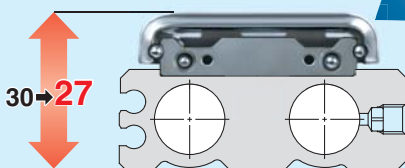


For MXQ8B

Single side-ported type

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Better auto switch visibility. Indicator LED can be checked from one side when used with a short stroke.



For MXQ12C

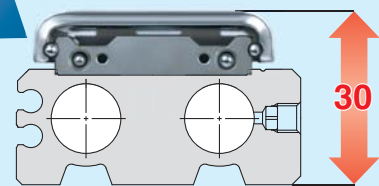
Bore size
ø12

Bore size
ø12

Height interchangeable type

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Height interchangeable with the current MXQ series



For MXQ12

1 guide!

4 bodies!

MXQ Series



CAT.ES20-211C

2 combinations of guide and cylinder bore size available



◎ Guide Size and Cylinder Bore Size Combination Chart

Guide size		Maximum load mass	Bore size	
Small guide Large guide	 32 mm	0.6 kg	When the height needs to be the same as the current model, choose the MXQ□, height interchangeable type.	
	 32 mm	1 kg	ø6 23 mm	Purpose of usage ① Guide rigidity and a large table surface are necessary but thrust is not needed. Application examples • Horizontal transfer of workpieces, transfer of tools, low thrust clamping
	 32 mm	1 kg	ø8 23 mm	Purpose of usage ① Purpose of usage ②
	 40 mm	2 kg	ø12 27 mm	Purpose of usage ② A guide with higher rigidity is necessary without changing the thrust from the current model. Application examples • Transfer of workpieces with increased overhang • High-accuracy and high-thrust clamping
	 50 mm	4 kg	ø16 35 mm	
	 60 mm	6 kg	ø20 43 mm	
	 70 mm	9 kg	ø25 52 mm	Size ø16, ø20, and ø25 have two auto switch mounting grooves on both sides.

Double-ported type MXQ□A

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■ Height reduced by **10%** of the current model

30 mm → **27 mm**

Improved visibility

■ Weight reduced by **22%**

380 g → **298 g**

For MXQ12A-30ZN

Pilot port

For ø16

Two auto switch mounting grooves

■ A piping port and auto switch mounting groove are provided on both sides.

Select the best actuator with guide according to the application.

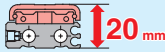
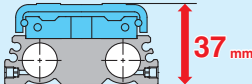
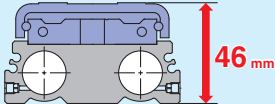
Low thrust with high rigidity type

MXQ□B

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Guide rigidity according to thrust improved

- **Guide rigidity improved by 50%**
(For MXQ8B and MXQ8A)
- **Cylinder can be downsized when load is light!**
 - Reduced in height
 - Reduced in air consumption
 - Lightweight

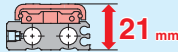
Bore size	
—	—
ø6	 Standard/Symmetric type (Figure shows standard model)
ø8	 Standard/Symmetric type (Figure shows standard model)
ø12	 Standard/Symmetric type (Figure shows standard model)
ø16	 Standard/Symmetric type (Figure shows standard model)
ø20	 Size ø16 and ø20 have two auto switch mounting grooves on both sides.

Single side-ported type

MXQ□C

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- Compact body with good switch visibility
Applicable to ø8 and ø12 only
- Compact design, Two auto switch mounting grooves on one side

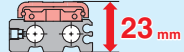
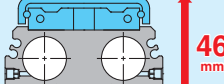
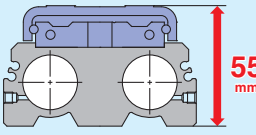
Bore size	
ø6	Not available Use the MXQ□, height interchangeable type.
ø8	 Standard/Symmetric type (Figure shows standard model)
ø12	 Standard/Symmetric type (Figure shows standard model)
ø16	
ø20	Not available Use the MXQ□A, double-ported type.
ø25	

Height interchangeable type

MXQ□

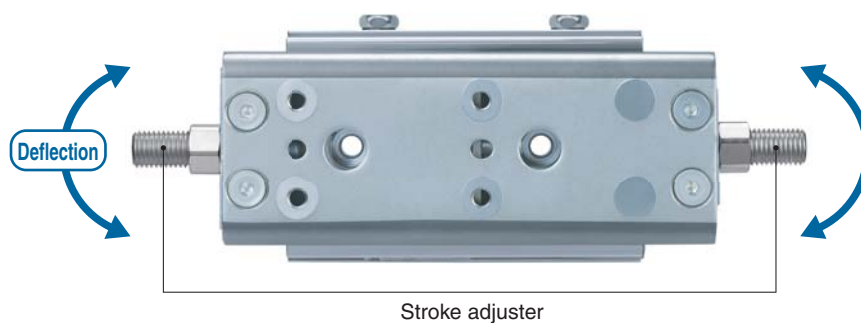
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- Same height as the current model
- Visibility of auto switches improved
- Interchangeable in mounting with the current model

Bore size	
ø6	 Standard/Symmetric type (Figure shows standard model)
ø8	 Standard/Symmetric type (Figure shows standard model)
ø12	 Standard/Symmetric type (Figure shows standard model)
ø16	 Standard/Symmetric type (Figure shows standard model)
ø20	 Standard/Symmetric type (Figure shows standard model)
ø25	 Size ø16, ø20, and ø25 have two auto switch mounting grooves on both sides.

Stroke adjuster (Option)

The stroke adjuster is positioned in the center.
Play at the stroke end is reduced.



Allowable kinetic energy improved

Allowable kinetic energy improved by reducing the weight of movable parts

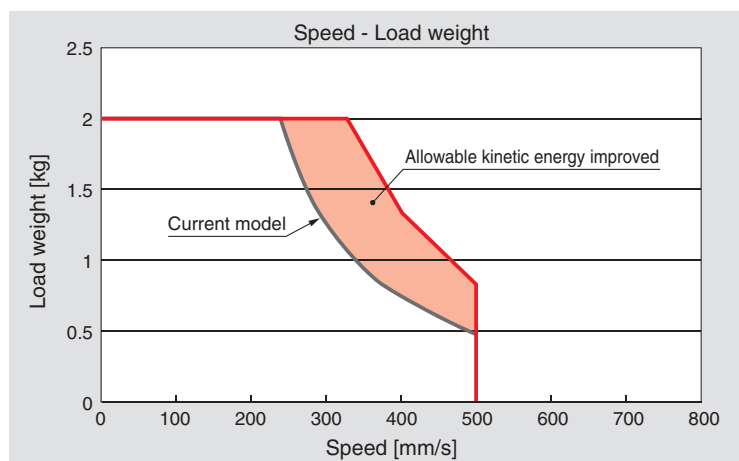
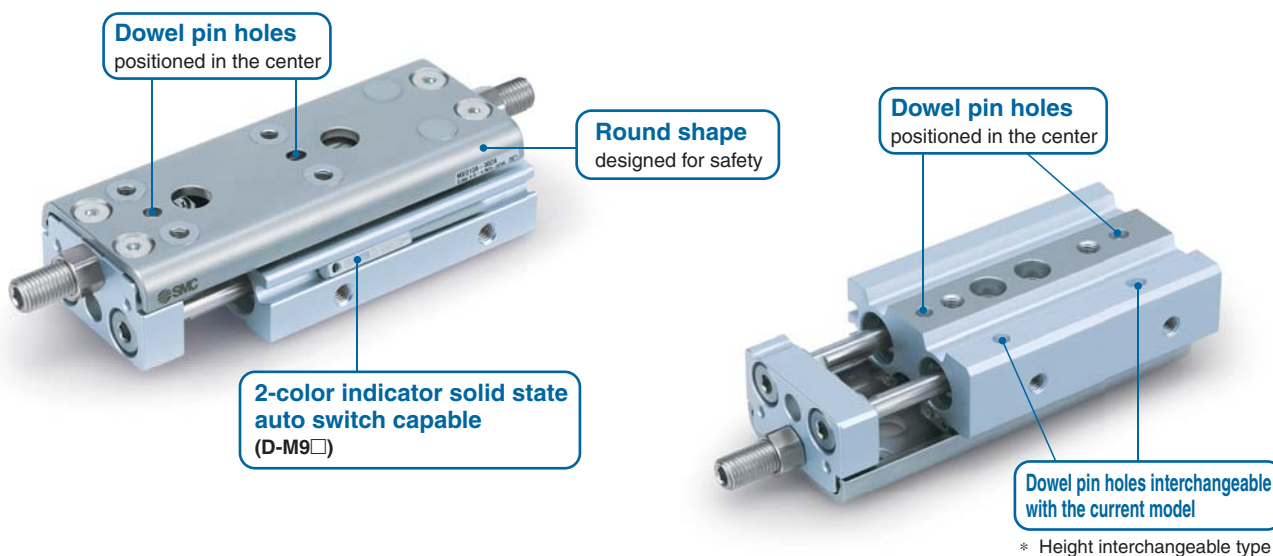


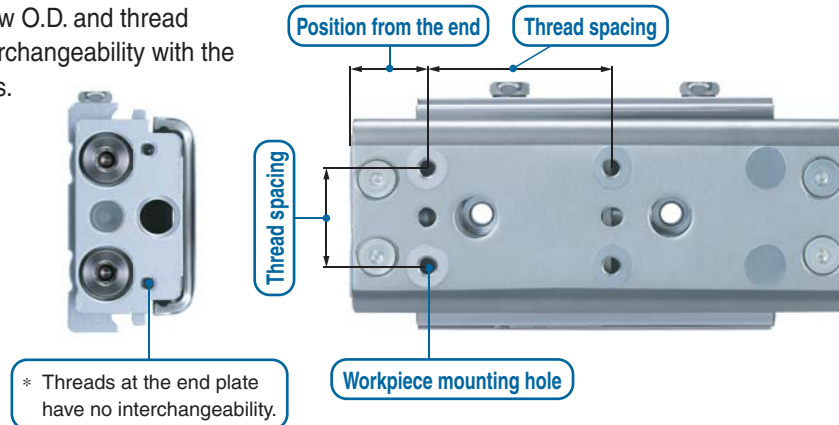
Table configuration for better function and easier maintenance



The mounting dimensions are equivalent to the current MXQ series.

Workpiece mounting

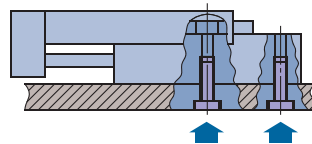
- The mounting screw O.D. and thread positions have interchangeability with the current **MXQ** series.



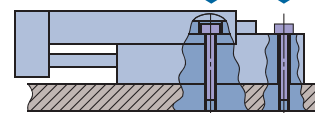
Body mounting

- Two methods of mounting are available.
- Body mounting threads and spacing have interchangeability with the current **MXQ** series.

Lateral mounting (Body tapped)



Lateral mounting (Through hole)



Various stroke adjusters (Option)

Metal Stopper with Bumper

High accuracy due to the integrated construction of the bumper and metal stopper: Repeated positioning accuracy of ± 0.05 or less
Improved cycle time
Operating speed of **300** mm/sec (Current model: 200 mm/sec)
(Compared with a stopper of the current MXQ series)



Shock Absorber

Soft type/RJ

Suitable for operations which require gentle stops, such as a lightweight workpiece transfers or low-speed transfers



Rubber Stopper

Impact reduced by 1/2 compared with models without a stroke adjuster



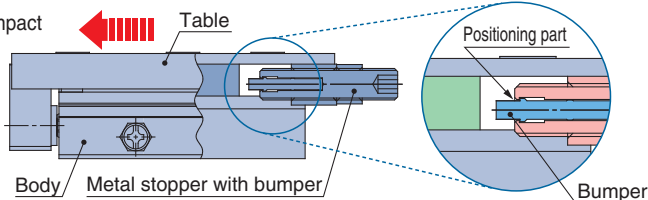
Metal Stopper

Suitable for positioning

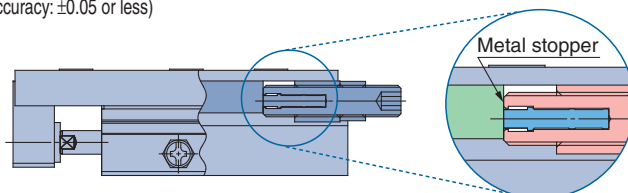


Operating Principle/Metal Stopper with Bumper

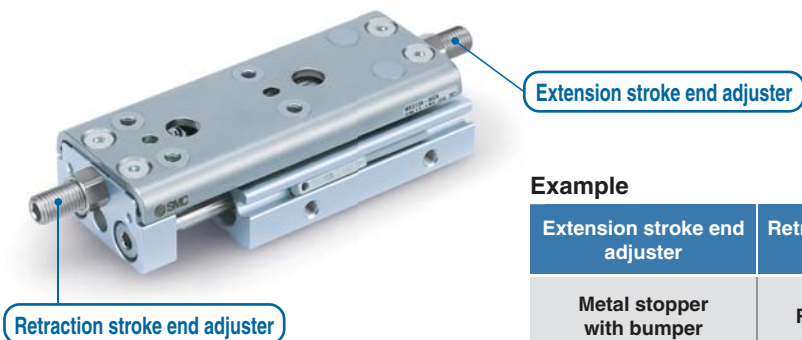
- The bumper absorbs impact at the initial stage.



- The bumper goes into the adjustment bolt, and the metal stopper performs highly accurate positioning at the end of the adjustment bolt. (Repeated positioning accuracy: ± 0.05 or less)



It is possible to combine an extension stroke end adjuster and a retraction stroke end adjuster.



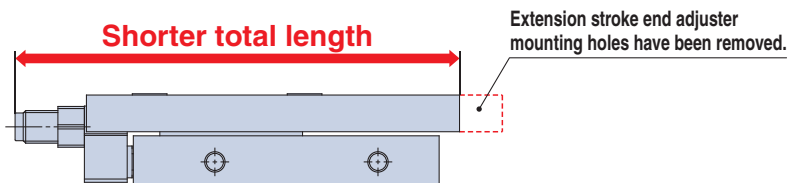
Example

Extension stroke end adjuster	Retraction stroke end adjuster
Metal stopper with bumper	Rubber stopper

Shorter total length type table is now available.

Total length shortened by **8.5 mm**
70 mm (Basic type 78.5 mm) (For MXQ8A-20)

* Extension stroke end adjusters cannot be mounted.



Compact auto switch is now available.

- Reed auto switch: D-A9□, D-A9□V
- Solid state auto switch: D-M9□(A), D-M9□W

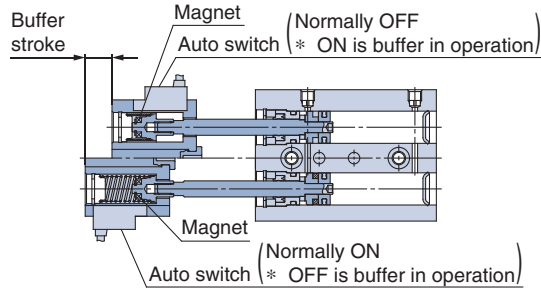


Functional Options

• With buffer mechanism

- Protects workpieces and tools by eliminating impact at the extension stroke end
- Buffer unit is auto switch capable.

Buffer mechanism operating condition

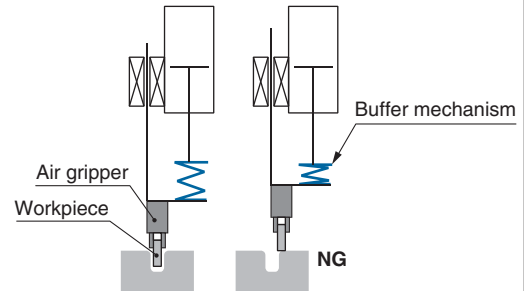


Normal condition

- * By changing the mounting angle of auto switches, the settings of normally ON/OFF can be changed.

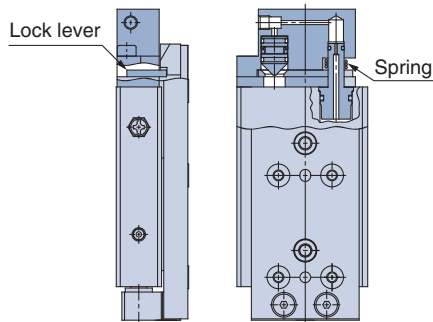
Application Example

In workpiece insertion processes when there is a problem such as faulty positioning, the buffer mechanism absorbs the shock from the workpiece impact to prevent damage.

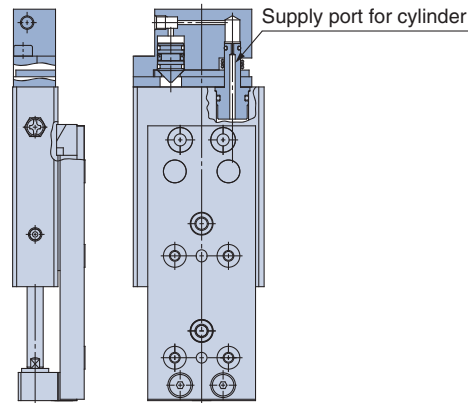


• With end lock

- Holds the cylinder's home position to prevent the dropping of a workpiece even if the air supply is cut off



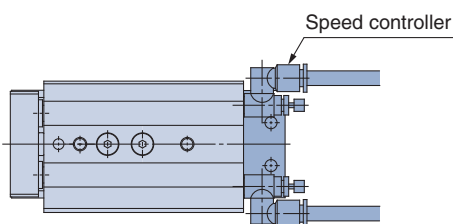
Locked



Unlocked

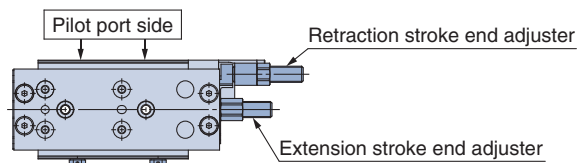
• Axial piping

- Centralized piping in the axial direction helps maintain clear space around the body



• Centralized adjuster

- The retraction stroke end adjuster is mounted on the extension stroke end adjuster side.



Variations

	Bore size						Body option		Functional option (pages 5, 6, 15)												
	6	8	12	16	20	25	 Standard type	 Symmetric type	 Shorter total length type	 Cylinder with stable lubrication function (Lube-retainer)	 With buffer	 With end lock	 Axial piping	 With buffer, end lock	 With buffer, axial piping	 Centralized adjuster	 Centralized adjuster (Symmetric type)	 Buffer, Centralized adjuster	 Buffer, Centralized adjuster (Symmetric type)		
Double-ported type MXQ□A  Page 11	●	●	●	●	●	●	●	—	●	●	●	●	●	●	●	●	●	●	●	●	
	Stroke	10	10	10	10	10															10
		20	20	20	20	20															20
		30	30	30	30	30															30
		40	40	40	40	40															40
		50	50	50	50	50															50
		75	75	75	75	75															75
		100	100	100	100	100															100
		125	125	125	125	125															125
		150	150	150	150	150															150
Low thrust with high rigidity type MXQ□B  Page 53	●	●	●	●	●	—	●	●	●	—	—	—	—	—	—	—	—	—	—		
	Stroke	10	10	10	10	10															
		20	20	20	20	20															
		30	30	30	30	30															
		40	40	40	40	40															
		50	50	50	50	50															
		75	75	75	75	75															
		100	100	100	100	100															
		125	125	125	125	125															
		150	150	150	150	150															
Single side-ported type MXQ□C  Page 67	—	●	●	—	—	—	●	●	●	—	●	●	●	●	●	●	●	●	●		
		Stroke	10	10																	
			20	20																	
			30	30																	
			40	40																	
			50	50																	
			75	75																	
			100	100																	



Adjuster option (page 4, 5)					Auto switch (page 125)	Made to order (pages 127 to 156)									
															
Metal stopper with bumper	Shock absorber	Rubber stopper	Metal stopper	Extension stroke end/ Retraction stroke end mounting	Solid state/Reed										
					PTFE grease (-X7)										
					Grease for food processing equipment (-X9)										
					Long adjustment bolt (10 mm longer adjustment range) (-X11)										
					Long adjustment bolt (20 mm longer adjustment range) (-X12)										
					Long adjustment nut and bolt (-X28)										
					Without built-in auto switch magnet (-X33)										
					Fluororubber seal (-X39)										
					Anti-corrosive guide unit (-X42)										
					EPDM seal (-X45)										
					Low-speed specification (15 to 50 mm/s) (-X580)										
					End plate compatible with the current MXQ series (-X2100)										
					Heat-resistant specification (-10 to 100°C) (-X2128)										
					Dual stroke specification (-X2192)										
					Side adjuster specification (-X2200)										
					Combined use of shock absorber + metal stopper (-X2201)										
					Extension stroke end adjuster fixed from the axial direction (-X2202)										

Double-ported type *MXQ□A Series*



When the features as shown below are required for ø8 and ø12 sizes, refer to the MXQ□C, single side-ported type as well.

- When two auto switch mounting grooves are required on one side (Two auto switches can be mounted on one side when the stroke is short.)
- When a height lower than the MXQ□A is required (for ø8)

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Optional Specifications	Page 14
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ø8	Page 23
ø12	Page 29
ø16	Page 35
ø20	Page 41
ø25	Page 47

Low thrust with high rigidity type *MXQ□B Series*



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Optional Specifications	Page 56
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ø12	Page 61
ø16	Page 63
ø20	Page 65

Single side-ported type *MXQ□C Series*

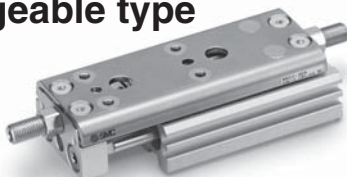


When the features as shown below are required for ø8 and ø12 sizes, refer to the MXQ□A, double-ported type as well.

- When an auto switch mounting groove and air piping are provided on both sides (for increased flexibility in piping and wiring)

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Optional Specifications	Page 70
Dimensions: ø8	Page 71
ø12	Page 77

Height interchangeable type *MXQ□ Series*



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Optional Specifications	Page 86
Dimensions: ø6	Page 87
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ø16	Page 105
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■ Common Adjuster Options	Page 123
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■ Made to Order	Page 127
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■ Specific Product Precautions	Page 195
■ Safety Instructions	Back Cover

Air Slide Table

Double-ported Type

MXQ□A Series

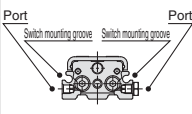
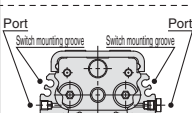
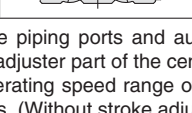
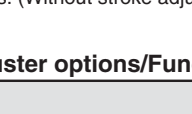
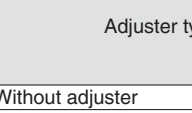
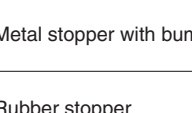
ø6, ø8, ø12, ø16, ø20, ø25

RoHS

How to Order

MXQ **12** **A** - **30** **ZA** **□** - **M9BW** **□** - **□**

1 2 3 4 5 6 7 8

1 Bore size	2 Body option: Double-ported type	3 Standard stroke [mm]
	A	
6		10, 20, 30, 40, 50
8		10, 20, 30, 40, 50, 75
12		10, 20, 30, 40, 50, 75, 100
16		10, 20, 30, 40, 50, 75, 100, 125
20		10, 20, 30, 40, 50, 75, 100, 125, 150
25		10, 20, 30, 40, 50, 75, 100, 125, 150*

* Because piping ports and auto switch grooves are provided on both sides, only the adjuster part of the centralized adjuster is symmetric.

* The operating speed range of the stroke marked with an asterisk (*) is 50 to 300 mm/s. (Without stroke adjuster)

5 Functional options

Symbol	Functional option
Nil	Without functional option
1	With buffer
2	With end lock
3	Axial piping
4	With buffer, end lock
5	With buffer, axial piping
6	Centralized adjuster
7	Centralized adjuster (Symmetric)
8	Buffer, Centralized adjuster
9	Buffer, Centralized adjuster (Symmetric)

7 Number of auto switches

Nil	2
S	1
n	n

8 Made to order

For details, refer to the next page.

6 Auto switch

Nil	Without auto switch
-----	---------------------

* For applicable auto switches, refer to the next page.

4 Adjuster options/Functional option combinations

Symbol	Adjuster type*9			Adjuster mounting position*1*8		Functional option combination									
						Nil	1	2	3	4	5	6	7	8	9
				Extension stroke end	Retraction stroke end	Without functional option	*2*3 With buffer	With end lock	*6 Axial piping	*2 With buffer, end lock	*2*6 With Buffer, axial piping	Centralized adjuster	*7 Centralized adjuster (Symmetric)	*2 Buffer, Centralized adjuster	*2*7 Buffer, Centralized adjuster (Symmetric)
Z	Without adjuster					○	○	○	○	○	×	×	×	×	
ZA	Metal stopper with bumper			●	●	○	×	×	○	×	×	○	○	×	×
ZB				●		○	×	○	○	×	×	×	×	×	×
ZC					●	○	×	×	○	×	×	○	○	○	○
ZD				●	●	○	×	×	○	×	×	○	○	○	○
ZE	Rubber stopper			●		○	○	○	○	○	×	×	×	×	
ZF					●	○	×	×	○	×	×	○	○	○	○
ZG	Shock absorber/RJ			●	●	○	×	×	○	×	×	○	○	×	×
ZH				●		○	×	○	○	×	×	×	×	×	×
ZJ					●	○	×	×	○	×	×	○	○	○	○
ZK				●	●	○	×	×	○	×	×	○	○	○	○
ZL	Metal stopper			●		○	○	○	○	○	×	×	×	×	
ZM					●	○	×	×	○	×	×	○	○	○	○
ZN	Shorter total length type*4	Retraction stroke end adjuster	Without adjuster			○	○*5	×	○	×	○*5	×	×	×	×
ZP			Rubber stopper	●		○	×	×	○	×	×	×	×	×	×
ZQ			Shock absorber/RJ	●		○	×	×	○	×	×	×	×	×	×
ZS			Metal stopper with bumper	●		○	×	×	○	×	×	×	×	×	×
ZT			Metal stopper	●		○	×	×	○	×	×	×	×	×	×
ZBF	Metal stopper with bumper	Rubber stopper	●	●	○	×	×	○	×	×	○	○	×	×	
ZBJ		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	×	×	
ZBM		Metal stopper	●	●	○	×	×	○	×	×	○	○	×	×	
ZEC	Rubber stopper	Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	○	○	
ZEJ		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	○	○	
ZEM		Metal stopper	●	●	○	×	×	○	×	×	○	○	○	○	
ZHC	Shock absorber/RJ	Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	×	×	
ZHF		Rubber stopper	●	●	○	×	×	○	×	×	○	○	×	×	
ZHM		Metal stopper	●	●	○	×	×	○	×	×	○	○	×	×	
ZLC	Metal stopper	Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	○	○	
ZLF		Rubber stopper	●	●	○	×	×	○	×	×	○	○	○	○	
ZLJ		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	○	○	

*1 ●: Shipped together with the product, but not assembled
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.

*3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.

*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

*5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.

*6 For axial piping, the piping ports on both sides cannot be used.

*7 Only the centralized adjuster is symmetric.

*8 For details on the adjuster mounting position, refer to the next page.

*9 The metal stopper with bumper option is not available for ø6.

Air Slide Table/Double-ported Type **MXQ□A Series**



Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]					Pre-wired connector	Applicable load	
					DC		AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	Diagnostic indication (2-color indicator)			3-wire (PNP)		12 V		M9PV	M9P	●	●	●	○	○		
				2-wire		12 V		M9BV	M9B	●	●	●	○	○		
				3-wire (NPN)		5 V, 12 V		M9NWX	M9NX	●	●	●	○	○		
				3-wire (PNP)	12 V	M9PWV		M9PW	●	●	●	○	○			
				2-wire	12 V	M9BWV		M9BW	●	●	●	○	○			
				3-wire (NPN)	5 V, 12 V	M9NAV*1		M9NA*1	○	○	●	○	○			
	Water resistant (2-color indicator)			3-wire (PNP)	12 V	M9PAV*1		M9PA*1	○	○	●	○	○			
				2-wire	12 V	M9BAV*1		M9BA*1	○	○	●	○	○			
				Reed auto switch	Grommet	Yes		3-wire (Equiv. to NPN)	—	5 V	—	A96V	A96	●	—	
None		2-wire	24 V				12 V	100 V	A93V*2	A93	●	●	●	●	—	—
						100 V or less	A90V	A90	●	—	●	—	—	IC circuit		

*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

*2 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NV
1 m M (Example) M9NVW
3 m L (Example) M9NVWL
5 m Z (Example) M9NVWZ

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

* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

* Auto switches are shipped together, but not assembled.



Made to Order

(For details, refer to pages 127 to 156.)

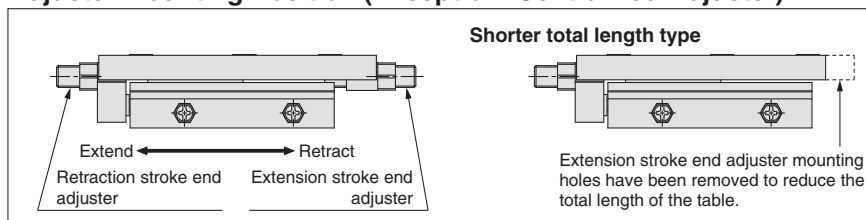
Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food processing equipment
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X39	Fluororubber seal
-X42	Anti-corrosive guide unit
-X45	EPDM seal
-X580	Low-speed specification (15 to 50 mm/s)
-X2128	Heat-resistant specification (−10 to 100°C)
-X2192	Dual stroke specification
-X2202	Extension stroke end adjuster fixed from the axial direction

Moisture Control Tube IDK Series

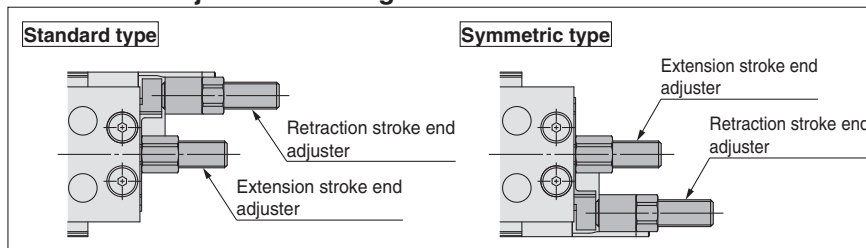


When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

Adjuster Mounting Position (Exception: Centralized Adjuster)



Centralized Adjuster Mounting Position



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Specifications

Bore size [mm]	6	8	12	16	20	25
Piping port size	M5 x 0.8					
Fluid	Air					
Action	Double acting					
Operating pressure	0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)*1					
Proof pressure	1.05 MPa					
Ambient and fluid temperatures	-10 to 60°C					
Operating speed range (Average operating speed)	50 to 500 mm/s (Metal stopper with bumper: 50 to 300 mm/s) (Metal stopper: 50 to 200 mm/s) * in the standard stroke table on page 11: 50 to 300 mm/s					
Cushion (Without stroke adjuster)	Internal rubber bumper					
Cushion (With stroke adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper					
Lubrication	Non-lube					
Auto switch	Solid state auto switch, Reed auto switch (2-wire, 3-wire) 2-color indicator solid state auto switch (2-wire, 3-wire)					
Stroke length tolerance	+2 to 0 mm					

*1 Refer to page 14 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

Weight

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6A	130	130	170	190	210	—	—	—	—	-6	10	8	30	40	No addition
MXQ8A	140	160	180	210	270	290	—	—	—	-6	10	8	30	60	
MXQ12A	270	290	310	370	400	540	610	—	—	-12	20	16	70	80	
MXQ16A	480	510	550	630	670	810	1,000	1,100	—	-21	40	30	120	150	
MXQ20A	840	840	870	950	1,100	1,300	1,600	1,900	2,000	-33	70	50 (80)	190	400	
MXQ25A	1,400	1,400	1,500	1,500	1,900	2,000	2,300	2,900	3,100	-60	110	80	310	700	

* Value in () is the additional weight of the shock absorber.

Weight of Centralized Adjuster

Model	Standard stroke [mm]									Reduction only when the product comes with a retraction stroke end adjuster
	10	20	30	40	50	75	100	125	150	
MXQ6A	175	180	225	245	265	—	—	—	—	-10
MXQ8A	190	210	230	260	320	350	—	—	—	-10
MXQ12A	355	385	405	465	495	635	705	—	—	-20
MXQ16A	640	680	720	800	840	980	1,170	1,270	—	-40
MXQ20A	1,110 (-60)	1,140 (-60)	1,170 (-60)	1,250 (-60)	1,400 (-60)	1,600 (-60)	1,950 (-60)	2,250 (-60)	2,350 (-60)	-60 (-25)
MXQ25A	1,880	1,920	2,020	2,020	2,420	2,520	2,930	3,530	3,730	-100

* Value in () is the additional weight of the shock absorber.

Weight of Moving Parts

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6A	61	66	80	89	97	—	—	—	—	-6	10	8	30	10	No addition
MXQ8A	68	76	85	97	116	138	—	—	—	-6	10	8	30	10	
MXQ12A	143	154	168	192	206	263	300	—	—	-12	20	16	70	20	
MXQ16A	240	257	277	309	329	389	469	520	—	-21	40	30	120	35	
MXQ20A	408	410	437	464	503	588	747	815	882	-33	70	50 (80)	190	65	
MXQ25A	674	681	721	761	836	935	1,078	1,284	1,384	-60	110	80	310	110	

* Value in () is the additional weight of the shock absorber.

Theoretical Output



The dual rod ensures an output twice that of current cylinders. [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	
6	3	OUT	57	11	17	23	29	34	40	
		IN	42	8	13	17	21	25	29	
8	4	OUT	101	20	30	40	51	61	71	
		IN	75	15	23	30	38	45	53	
12	6	OUT	226	45	68	90	113	136	158	
		IN	170	34	51	68	85	102	119	
16	6	OUT	402	80	121	161	201	241	281	
		IN	346	69	104	138	173	207	242	
20	8	OUT	628	126	188	251	314	377	440	
		IN	528	106	158	211	264	317	369	
25	10	OUT	982	196	295	393	491	589	687	
		IN	825	165	247	330	412	495	577	

* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 14.

Maximum Load Weight

Model	Without adjuster Internal rubber bumper	Adjuster option			
		Rubber stopper	Metal stopper with bumper	Shock absorber/RJ Horizontal Vertical	Metal stopper
MXQ6A	0.6	0.6	—	0.6	0.6
MXQ8A	1	1	1	1	1
MXQ12A	2	2	2	1.5 1	2
MXQ16A	4	4	4	4 2.5	4
MXQ20A	6	6	6	6	6
MXQ25A	9	9	9	9 6	9

Allowable Kinetic Energy

Model	Without adjuster Internal rubber bumper	Adjuster option			
		Metal stopper with bumper	Rubber stopper	Shock absorber/RJ	Metal stopper
MXQ6A	0.03	—	0.06	0.175	0.009
MXQ8A	0.04	0.018	0.06	0.2	0.009
MXQ12A	0.11	0.04	0.12	0.33	0.02
MXQ16A	0.12	0.08	0.2	0.76	0.04
MXQ20A	0.24	0.12	0.4	1.47	0.06
MXQ25A	0.39	0.18	0.6	1.73	0.09

* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

Optional Specifications

With End Lock

Model	MXQ6A	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Operating pressure range [MPa]	0.35 to 0.7					
Holding force [N]	12	12	23	45	70	110

With Buffer Mechanism

Model		MXQ6A	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Operating speed range [mm/s]		50 to 500 (Horizontal mounting 50 to 300)					
Buffer stroke [mm]		5		10			
Buffer stroke load [N]	Stroke at 0 [mm]	3	5	9	16	25	40
	Maximum stroke	6	8	15	24	38	59

Auto Switches Applicable to Buffer

Type	Model	Specifications	Electrical entry direction
Solid state auto switch	D-M9BV	With light, 2-wire	Vertical
	D-M9NV	With light, 3-wire, Output: NPN	
	D-M9PV	With light, 3-wire, Output: PNP	

Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

Metal Stopper with Bumper

Model	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Max. absorbed energy [J]	0.018	0.04	0.08	0.12	0.18
Stroke absorption [mm]	2	2.8	3.6	4.4	5.5
Min. operating pressure of metal stopper with bumper*1*2 [MPa]	0.3	0.3	0.2	0.2	0.2
Reference Full compression force of bumper [N]	20	42	65	97	154
Mounting screw size [mm]	M6 x 0.75	M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

*2 Not available for ø6

Rubber Stopper

Model	MXQ6A	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Max. absorbed energy [J]	0.06		0.12	0.2	0.4	0.6
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

Shock Absorber/RJ

Model	MXQ6A	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Max. absorbed energy [J]	0.35		0.5	1.5	3	3.7
Stroke absorption [mm]	3		5	6	7	10
Collision speed [mm/s]	50 to 500					
Max. operating frequency [cycle/min]	80		80	70	45	
Max. allowable thrust [N]	150		245	422	814	
Spring force (Extended) [N]	1.3		2.8	5.4	6.4	
Spring force (Compressed) [N]	3.9		4.9	8	15	
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1	M14 x 1.5	

Metal Stopper

Model	MXQ6A	MXQ8A	MXQ12A	MXQ16A	MXQ20A	MXQ25A
Max. absorbed energy [J]	0.009		0.02	0.04	0.06	0.09
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

With Stable Lubrication Function (Lube-retainer)

- A cylinder for operation in micro-powder (10 to 100 μm) and general environments
- The stable lubrication function (Lube-retainer) is mounted on the piston rod. This prevents the entry of dust and foreign matter and improves durability.

MXQ Bore size A M — Stroke Adjuster option Functional option — Auto switch — Made to order

Body option

With stable lubrication function (Lube-retainer)



Functional option (ø6, ø8)

Symbol	Functional option
Nil	Without functional option
2	With end lock

* ø12 to ø25: Same as the standard product

Made to order

* This differs from the standard product. Refer below.

Adjuster options/Functional option combinations (ø6, ø8) * ø12 to ø25: Same as the standard product

Symbol	Adjuster type*2 *3			Adjuster mounting position*1		Functional option combination			
				Extension stroke end	Retraction stroke end	Nil	2		
						Without functional option	End lock*5		
Z	Without adjuster				*3	○	○		
ZA	Metal stopper with bumper			●	●	○	×		
ZB				●	*3	○	○		
ZC					●	○	×		
ZD	Rubber stopper			●	●	○	×		
ZE				●	*3	○	○		
ZF					●	○	×		
ZH	Shock absorber/RJ			●		○	○		
ZK	Metal stopper			●	●	○	×		
ZL				●	*3	○	○		
ZM					●	○	×		
ZN	Shorter total length type*4				*3	○	×		
ZP					Rubber stopper	●	○	×	
ZS					Metal stopper with bumper	●	○	×	
ZT					Metal stopper	●	○	×	
ZBF	Metal stopper with bumper			●	●	○	×		
ZBM						Metal stopper	●	○	×
ZEC	Rubber stopper			●	●	○	×		
ZEM						Metal stopper	●	○	×
ZHC	Shock absorber/RJ			●	●	○	×		
ZHF						Rubber stopper	●	○	×
ZHM						Metal stopper	●	○	×
ZLC	Metal stopper			●	●	○	×		
ZLF						Rubber stopper	●	○	×

*1 ●: Shipped together with the product, but not assembled

Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

*2 The metal stopper with bumper is not available for ø6.

*3 When mounting a retraction stroke end adjuster afterward, order the long adjustment bolt specifications (-X11). (A shock absorber cannot be used with this model.)

*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

*5 The extension stroke end adjuster with end lock mechanism is available as a long adjustment nut and bolt specification (-X28). However, the product number suffix (-X28) is not required.

Made to Order ø6, ø8

Made to Order

(For details, refer to pages 127 to 156.)

Symbol	Functional option
-X33	Without built-in auto switch magnet
-X42	Anti-corrosive guide unit
-X2202	Extension stroke end adjuster fixed from the axial direction

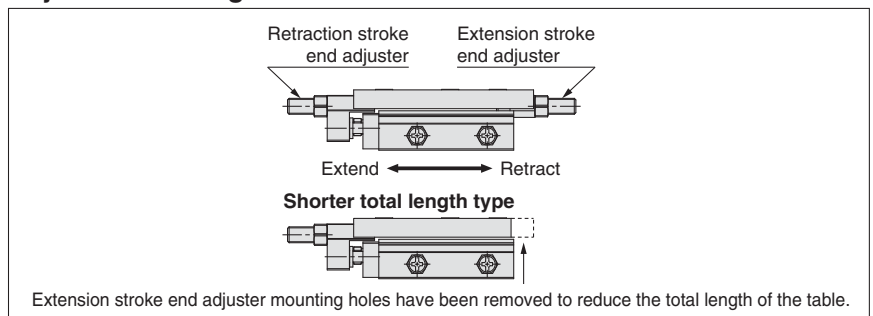
Made to Order ø12 to ø25

Made to Order

(For details, refer to pages 127 to 156.)

Symbol	Functional option
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X42	Anti-corrosive guide unit
-X2202	Extension stroke end adjuster fixed from the axial direction

Adjuster Mounting Position



Weight

Model	Standard stroke [mm]						Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option
	10	20	30	40	50	75		Extension stroke end	Retraction stroke end	
	150	150	190	210	230	—		10	10	40
MXQ6AM	150	150	190	210	230	—	-6	10	10	40
MXQ8AM	160	180	200	230	290	320	-6	10	10	60

* ø12 to ø25: Same as the standard product

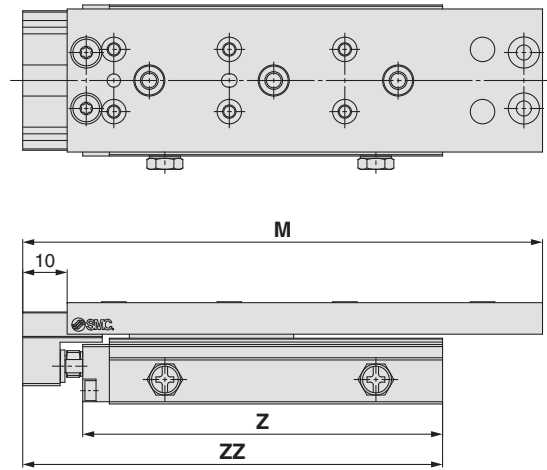
Specifications

Bore size [mm]		6	8	12	16	20	25
Action		Double acting					
Minimum operating pressure	Internal rubber bumper	0.15 MPa					
	Rubber stopper						
	Metal stopper						
	Shock absorber	—	—				
	Metal stopper with bumper	—	0.3 MPa	0.3 MPa	0.2 MPa	0.2 MPa	0.2 MPa

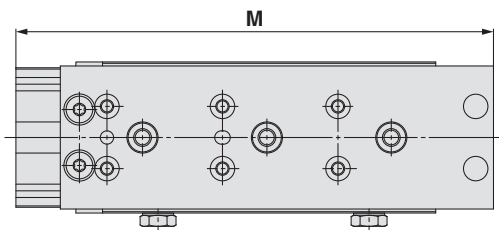
* Specifications other than those listed above are the same as those for the standard type.

Dimensions (Dimensions other than those shown below are the same as those for the standard type.)

MXQ6AM

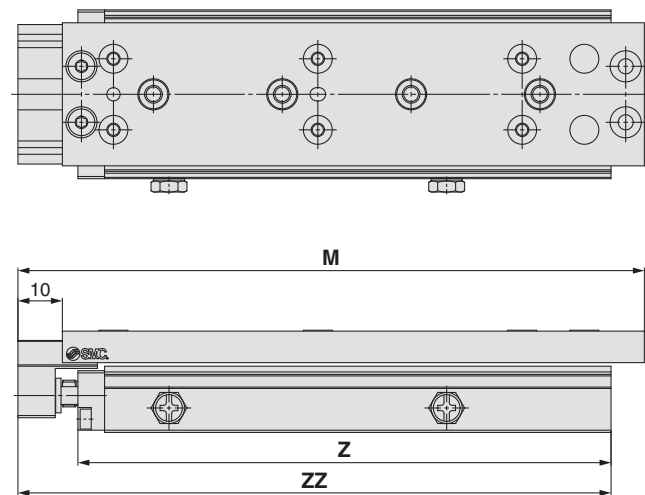


Shorter total length type

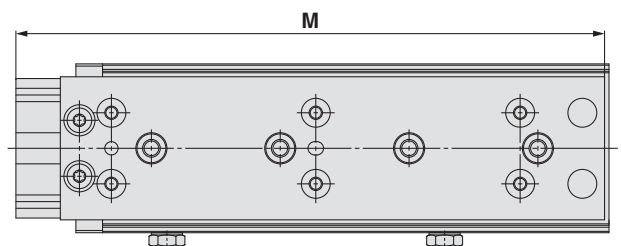


Model	M		Z	ZZ
	Standard type	Shorter total length type		
MXQ6AM-10Z	74	64.5	56	69.5
MXQ6AM-20Z	84	74.5	56	69.5
MXQ6AM-30Z	105	95.5	69	82.5
MXQ6AM-40Z	117	107.4	81	94.5
MXQ6AM-50Z	127	117.5	91	104.5

MXQ8AM



Shorter total length type



Model	M		Z	ZZ
	Standard type	Shorter total length type		
MXQ8AM-10Z	78	69.5	57	70.5
MXQ8AM-20Z	88	79.5	67	80.5
MXQ8AM-30Z	98	89.5	77	90.5
MXQ8AM-40Z	114	105.5	93	106.5
MXQ8AM-50Z	141	132.5	120	133.5
MXQ8AM-75Z	166	157.5	122	135.5

The external dimensions of the $\phi 12$ to $\phi 25$ sizes are the same as the standard product.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

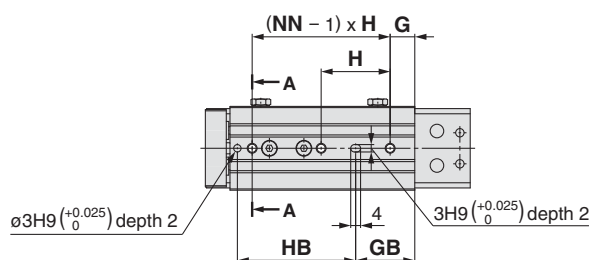
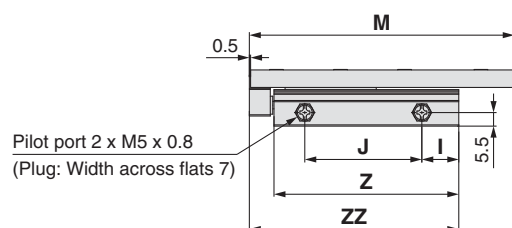
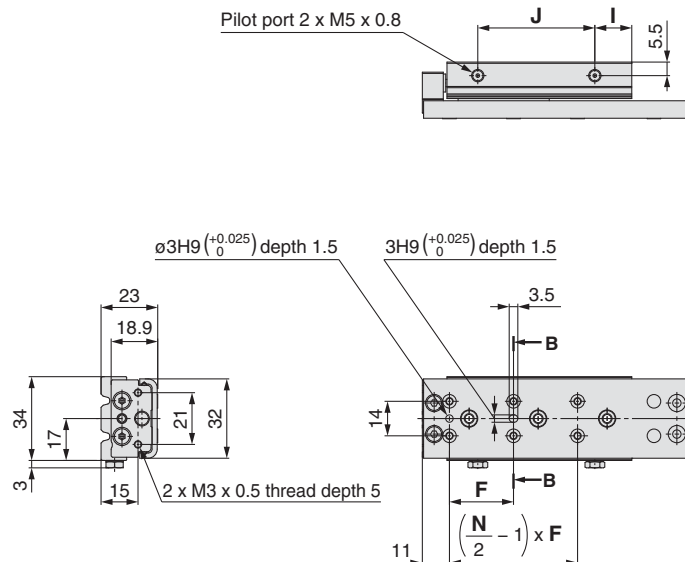
Auto Switch Mounting

Made to Order

Model Selection

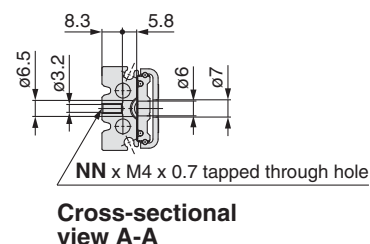
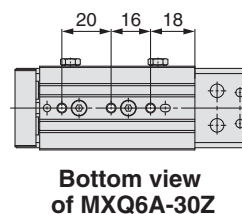
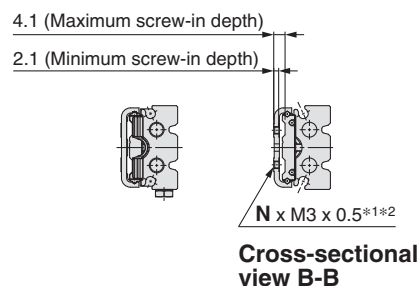
Dimensions: MXQ **6A** [Standard]

MXQ **6A**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



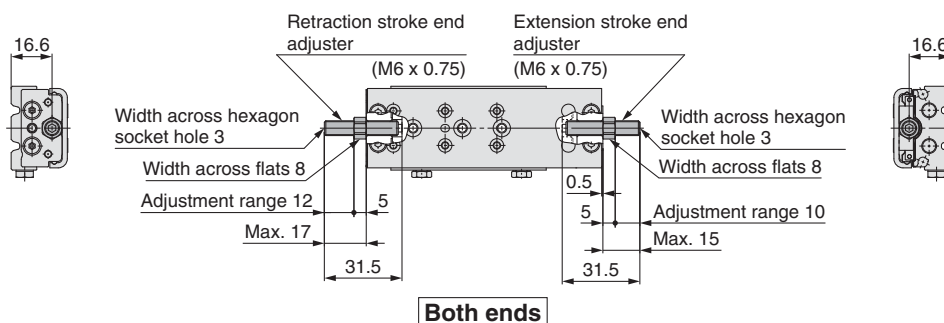
Dimensions

Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ6A-10Z	22	18	9	23	38	10	27.5	64.5	4	2	50	60
MXQ6A-20Z	25	15	9	26	38	10	27.5	74.5	4	2	50	60
MXQ6A-30Z	21	—	12	—	48	13	37.5	95.5	6	3	63	73
MXQ6A-40Z	26	10	24	28	48	15	47.5	107.5	6	3	75	85
MXQ6A-50Z	27	20	34	28	48	15	57.5	117.5	6	3	85	95

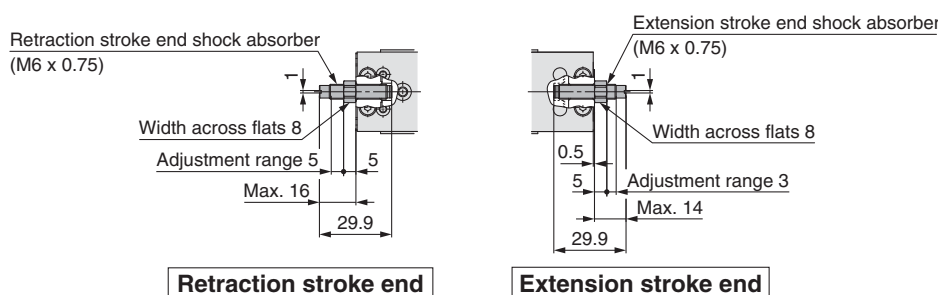
Dimensions: MXQ **6A** [Adjuster Option]

MXQ **6A**-□ With adjuster option (ø6)

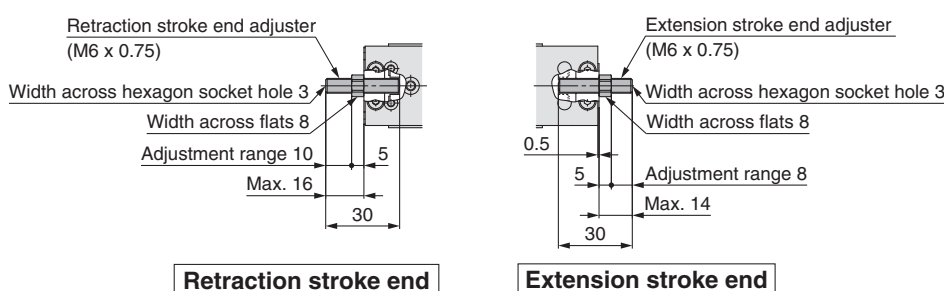
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

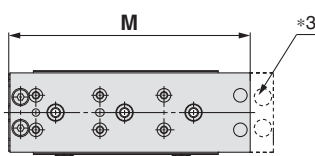


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ6A-10ZN	55
MXQ6A-20ZN	65
MXQ6A-30ZN	86
MXQ6A-40ZN	98
MXQ6A-50ZN	108

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

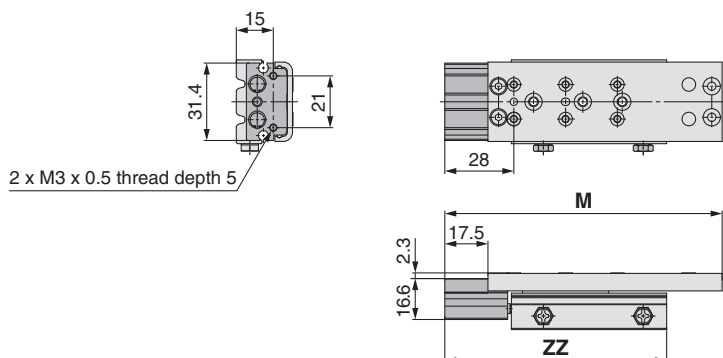
Auto Switch Mounting

Made to Order

Model Selection

Dimensions: MXQ **6A** [Functional Option]

MXQ **6A**-□□**1** With buffer (ø6)

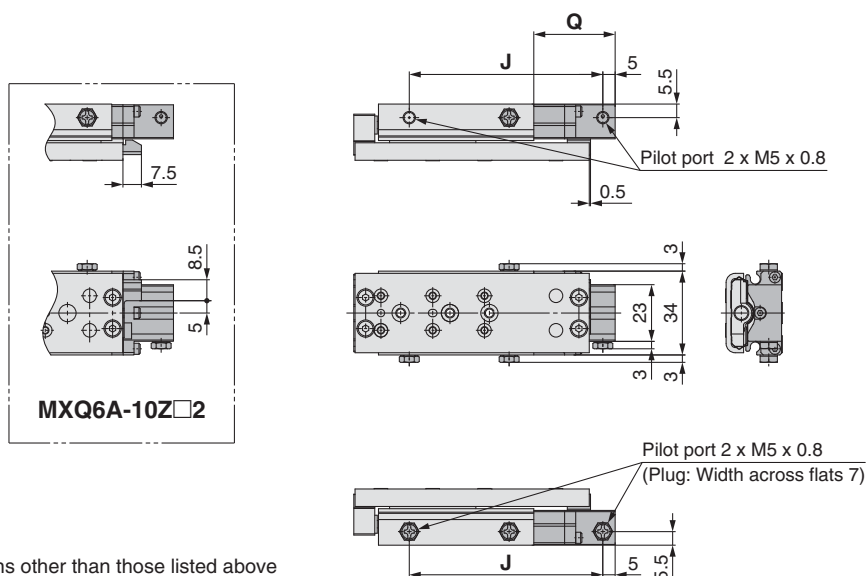


Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ6A-10Z□1	81.5	72	77
MXQ6A-20Z□1	91.5	82	
MXQ6A-30Z□1	112.5	103	90
MXQ6A-40Z□1	124.5	115	102
MXQ6A-50Z□1	134.5	125	112

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A**-□□**2** With end lock (ø6)



Dimensions [mm]

Model	J	Q
MXQ6A-10Z□2	57.5	25
MXQ6A-20Z□2		
MXQ6A-30Z□2	78.5	33
MXQ6A-40Z□2	90.5	
MXQ6A-50Z□2	100.5	

* Dimensions other than those listed above are the same as those for the standard type.

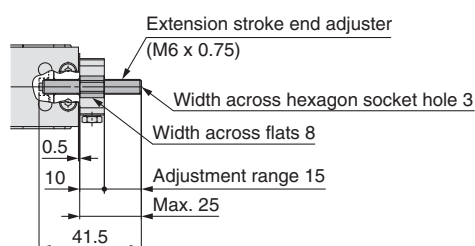
MXQ **6A**-□□**2** With end lock, extension stroke end adjuster (ø6)

Select the long adjustment nut and bolt specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

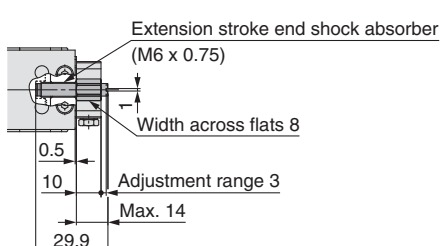
Type	Adjuster part no.	Single adjustment bolt part no.*1
Rubber stopper: ZE	MXQA-AT8-X28	MXQA-A827-X11
Shock absorber/RJ: ZH	MXQA-JT8-X28	RJ0603N
Metal stopper: ZL	MXQA-DT8-X28	MXQA-A838-X11

*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

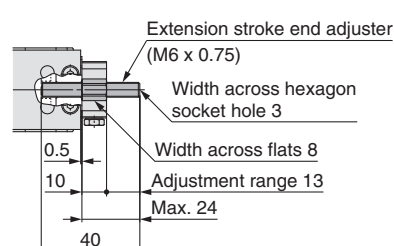
Rubber stopper: **ZE**



Shock absorber/RJ: **ZH**



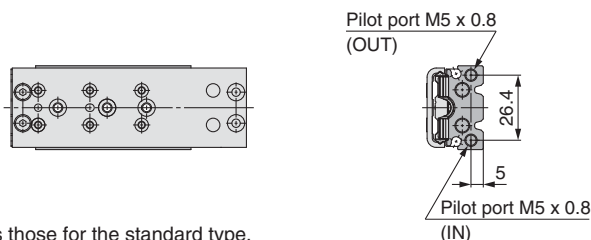
Metal stopper: **ZL**



* Dimensions other than those listed above are the same as those for the standard type.

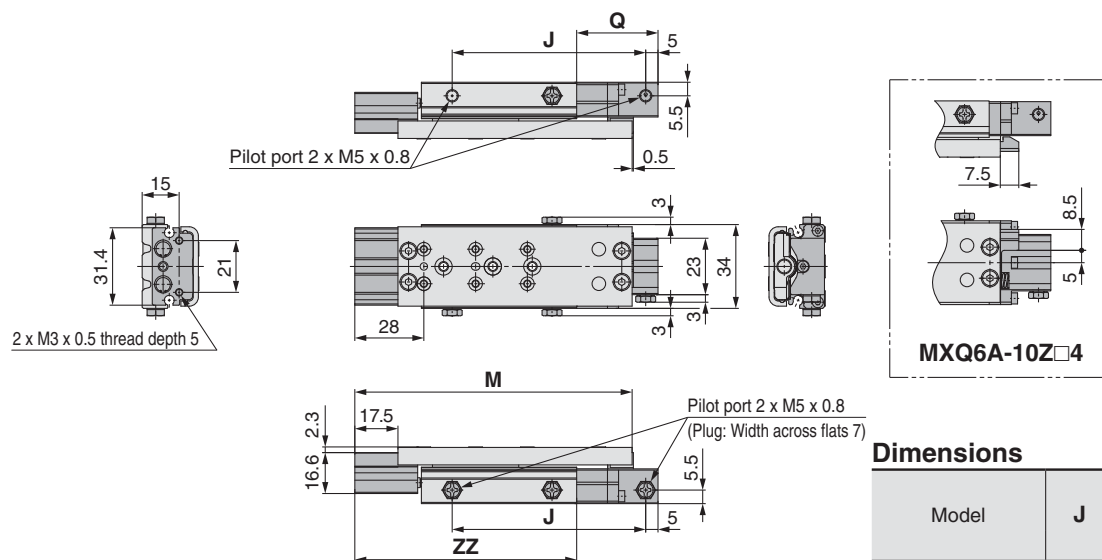
Dimensions: MXQ **6A** [Functional Option]

MXQ **6A-□□3** Axial piping (ø6)



* Dimensions other than those listed above are the same as those for the standard type.

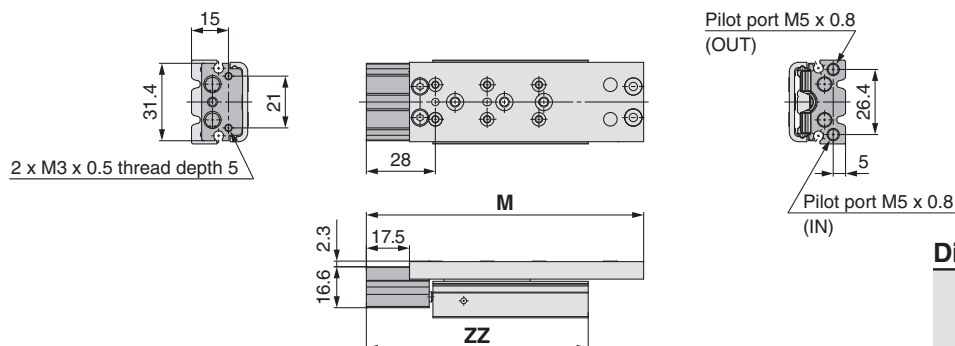
MXQ **6A-□□4** With buffer, end lock (ø6)



Dimensions [mm]				
Model	J	Q	Standard type	Shorter total length type
			M	M
MXQ6A-10Z□4	57.5	25	81.5	72
MXQ6A-20Z□4			91.5	82
MXQ6A-30Z□4	78.5	33	112.5	103
MXQ6A-40Z□4	90.5		124.5	115
MXQ6A-50Z□4	100.5		134.5	125
				ZZ

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A-□□5** With buffer, axial piping (ø6)



Dimensions [mm]			
Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ6A-10Z□5	81.5	72	77
MXQ6A-20Z□5	91.5	82	
MXQ6A-30Z□5	112.5	103	90
MXQ6A-40Z□5	124.5	115	102
MXQ6A-50Z□5	134.5	125	112

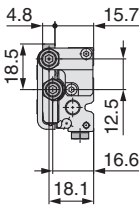
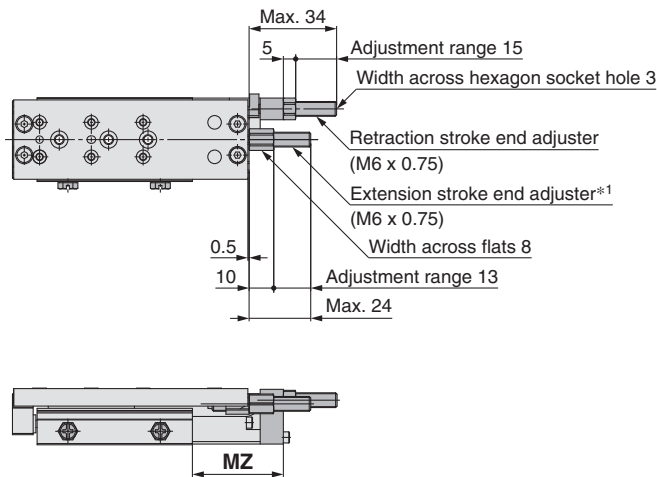
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **6A** [Functional Option]

MXQ **6A**-□□**6** Centralized adjuster (ø6)

Metal stopper **ZK**: Both ends,
ZM: Retraction stroke end

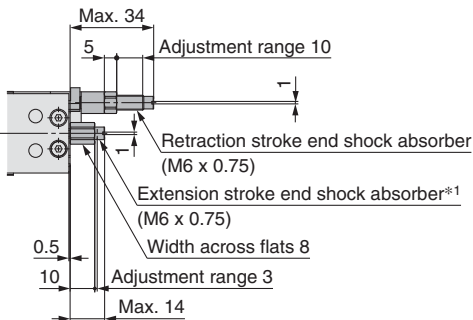
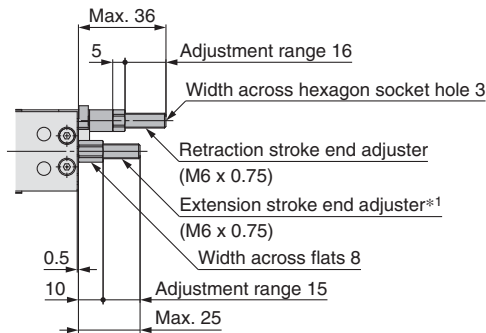
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ6A-10Z□6	18.9
MXQ6A-20Z□6	28.9
MXQ6A-30Z□6	
MXQ6A-40Z□6	36.9
MXQ6A-50Z□6	

Rubber stopper **ZD**: Both ends,
ZF: Retraction stroke end

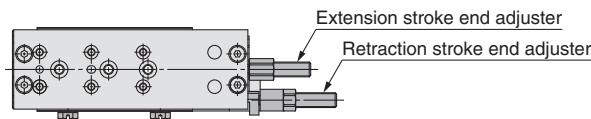
Shock absorber/RJ **ZG**: Both ends,
ZJ: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ **6A**-□□**7** Centralized adjuster / Symmetric type (ø6)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

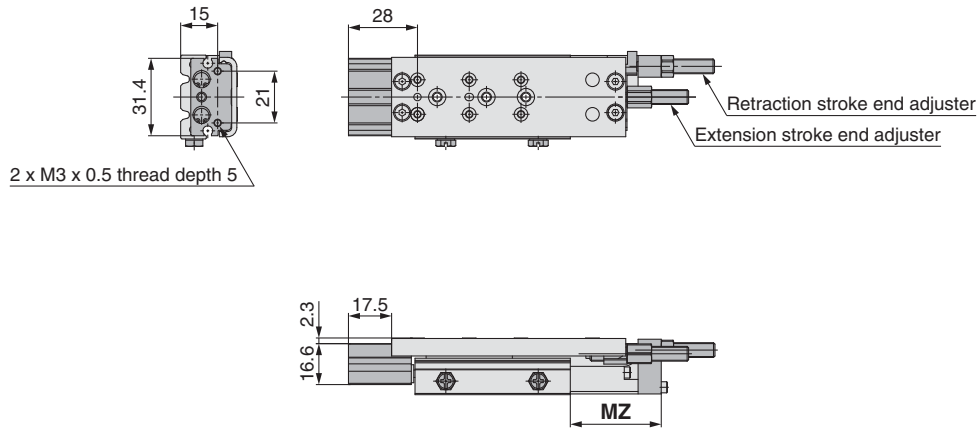


* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **6A** [Functional Option]

MXQ **6A**-□□**8** Buffer, Centralized adjuster (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

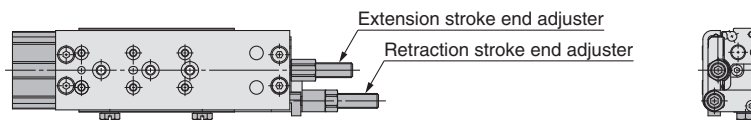


Dimensions [mm]	
Model	MZ
MXQ6A-10Z□6	18.9
MXQ6A-20Z□6	28.9
MXQ6A-30Z□6	
MXQ6A-40Z□6	36.9
MXQ6A-50Z□6	

- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ **6A**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

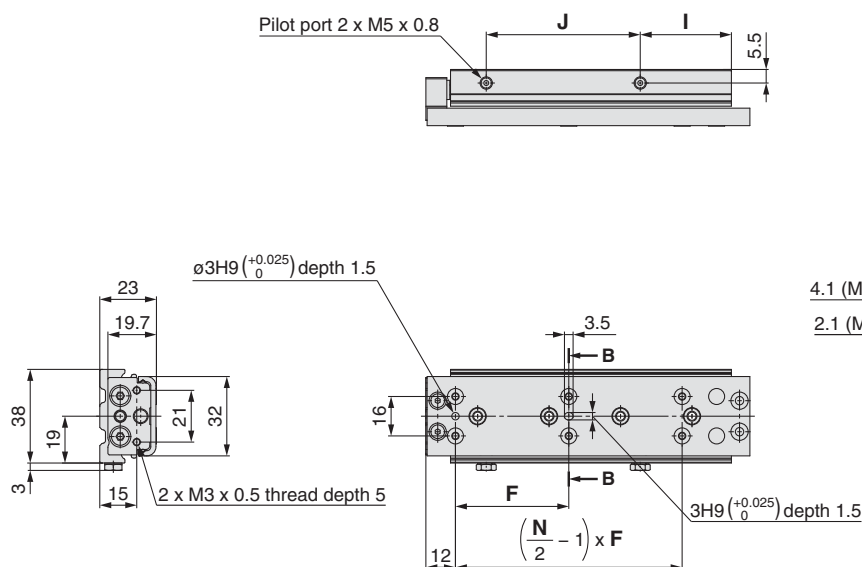
Auto Switch
Mounting

Made to Order

Model Selection

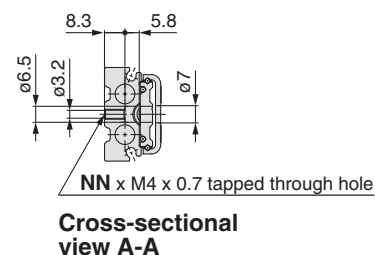
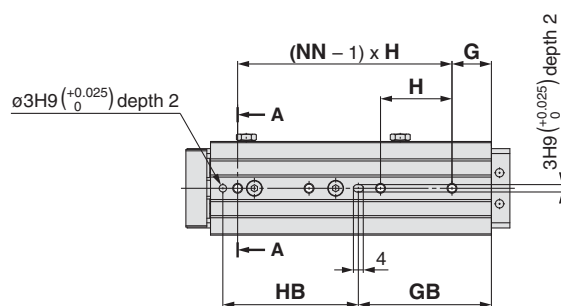
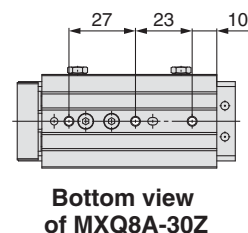
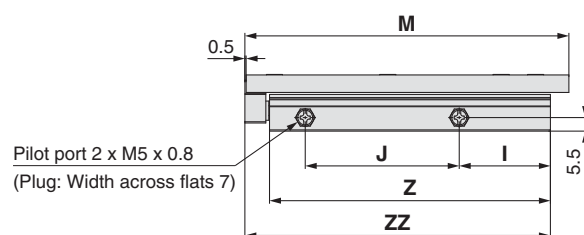
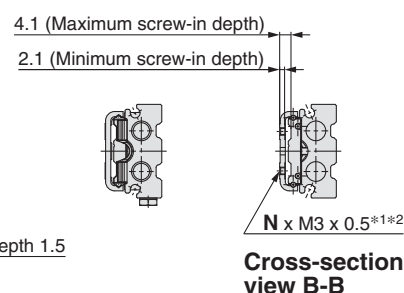
Dimensions: MXQ **8A** [Standard]

MXQ **8A**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

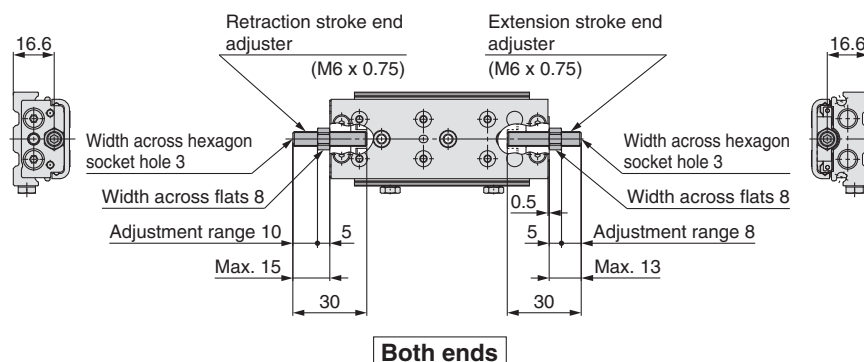
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ8A-10Z	25	15	9	25	37	10	26.5	68.5	4	2	51	61
MXQ8A-20Z	25	22	16	28	40	14	32.5	78.5	4	2	61	71
MXQ8A-30Z	26	—	26	—	40	14.5	42	88.5	6	3	71	81
MXQ8A-40Z	32	14	27	31	55	20	52.5	104.5	6	3	87	97
MXQ8A-50Z	46	16	54	29	55	37	62.5	131.5	6	4	114	124
MXQ8A-75Z	50	15	56	30	55	10	91.5	156.5	6	4	116	126

Dimensions: MXQ **8A** [Adjuster Option]

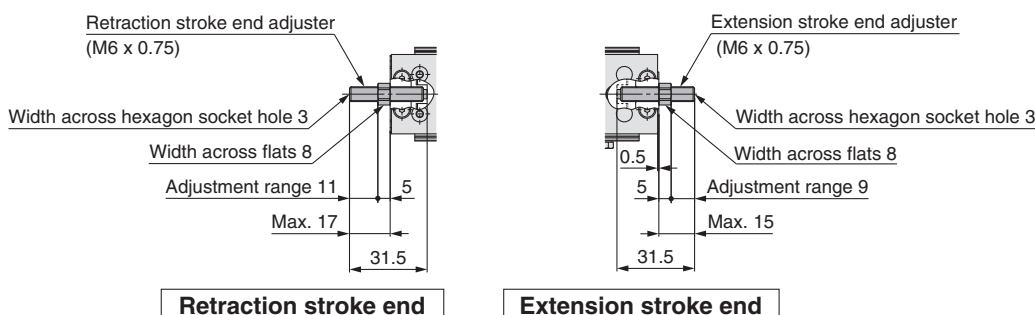
MXQ **8A**-□ With adjuster option (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

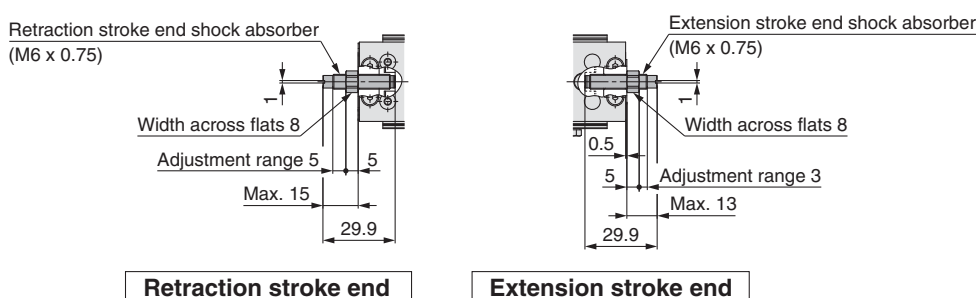
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

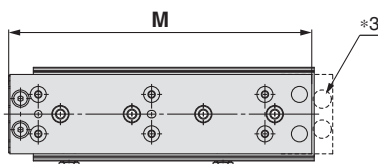


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8A**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

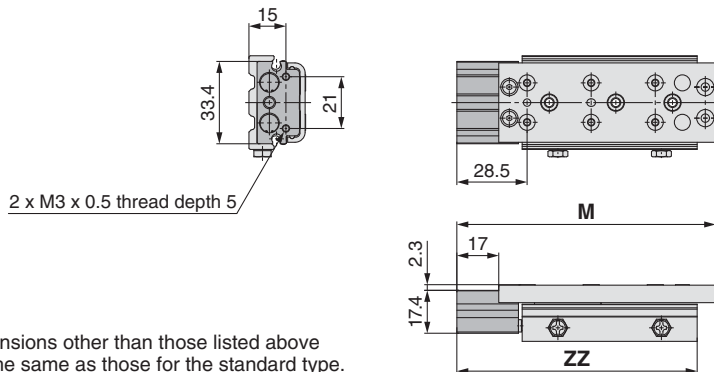
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ8A-10ZN	60
MXQ8A-20ZN	70
MXQ8A-30ZN	80
MXQ8A-40ZN	96
MXQ8A-50ZN	123
MXQ8A-75ZN	148

MXQ□A Series

Dimensions: MXQ **8A** [Functional Option]

MXQ **8A**-□□**1** With buffer (ø8)

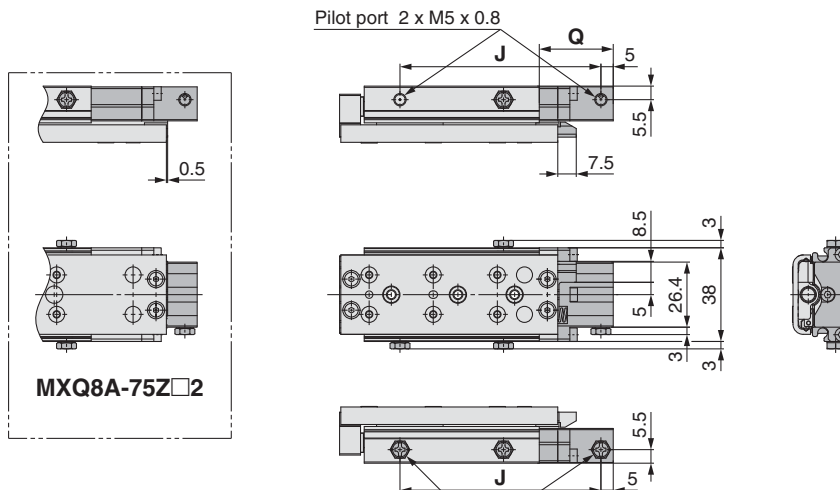


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8A-10Z□1	85	76.5	77.5
MXQ8A-20Z□1	95	86.5	87.5
MXQ8A-30Z□1	105	96.5	97.5
MXQ8A-40Z□1	121	112.5	113.5
MXQ8A-50Z□1	148	139.5	140.5
MXQ8A-75Z□1	173	164.5	142.5

MXQ **8A**-□□**2** With end lock (ø8)



* Dimensions other than those listed above are the same as those for the standard type.

Pilot port 2 x M5 x 0.8
(Plug: Width across flats 7)

Dimensions [mm]

Model	J	Q
MXQ8A-10Z□2	61.5	30
MXQ8A-20Z□2	71.5	
MXQ8A-30Z□2	81.5	
MXQ8A-40Z□2	97.5	
MXQ8A-50Z□2	124.5	43
MXQ8A-75Z□2	139.5	

MXQ **8A**-□□**2** With end lock, extension stroke end adjuster (ø8)

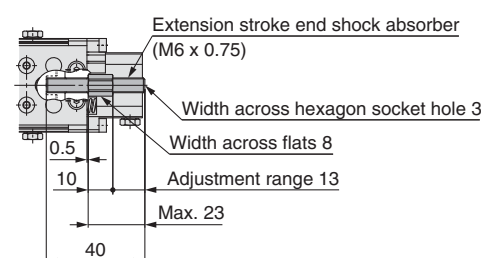
Select the long adjustment nut and bolt specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no. *1
Metal stopper with bumper: ZB	MXQA-CT8-X28	MXQA-A887-X11
Rubber stopper: ZE	MXQA-AT8-X28	MXQA-A827-X11
Shock absorber/RJ: ZH	MXQA-JT8-X28	RJ0603N
Metal stopper: ZL	MXQA-DT8-X28	MXQA-A838-X11

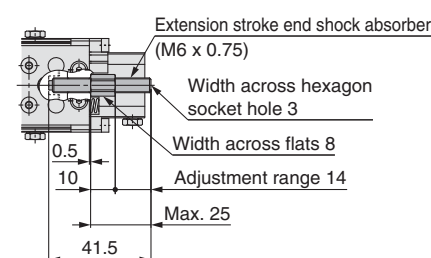
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

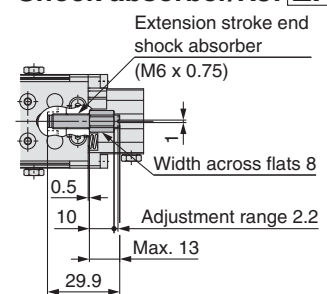
Metal stopper: **ZL**



Rubber stopper: **ZE**



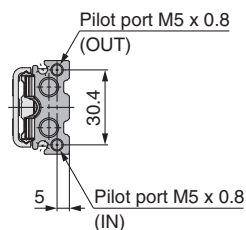
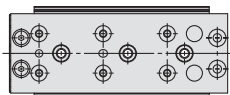
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

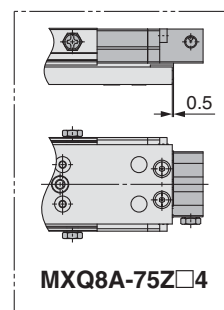
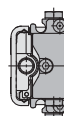
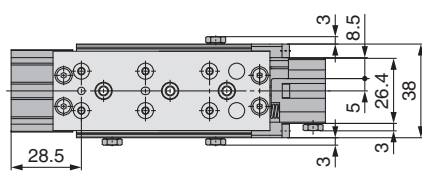
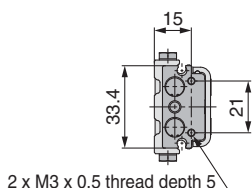
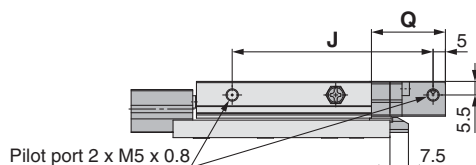
Dimensions: MXQ **8A** [Functional Option]

MXQ **8A**-□□**3** Axial piping (ø8)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8A**-□□**4** With buffer, end lock (ø8)

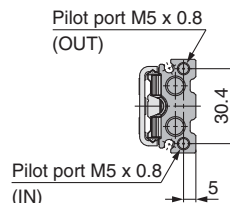
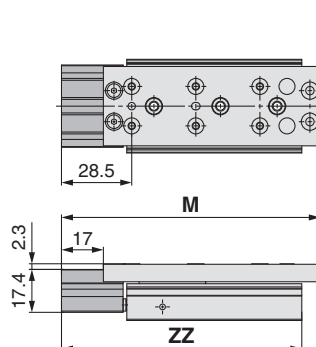
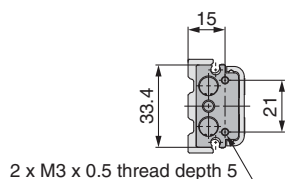


Dimensions

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
MXQ8A-10Z□4	61.5	30	85	76.5	77.5
MXQ8A-20Z□4	71.5		95	86.5	87.5
MXQ8A-30Z□4	81.5		105	96.5	97.5
MXQ8A-40Z□4	97.5		121	112.5	113.5
MXQ8A-50Z□4	124.5	43	148	139.5	140.5
MXQ8A-75Z□4	139.5		173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8A**-□□**5** With buffer, axial piping (ø8)



Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8A-10Z□5	85	76.5	77.5
MXQ8A-20Z□5	95	86.5	87.5
MXQ8A-30Z□5	105	96.5	97.5
MXQ8A-40Z□5	121	112.5	113.5
MXQ8A-50Z□5	148	139.5	140.5
MXQ8A-75Z□5	173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

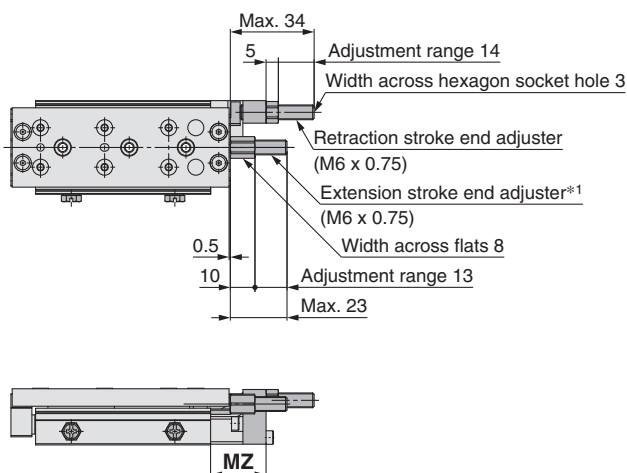
Dimensions: MXQ **8A** [Functional Option]

MXQ **8A**-□□**6** Centralized adjuster (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

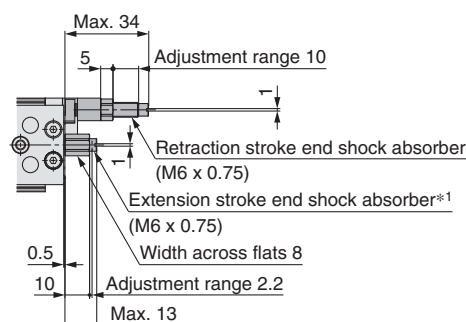
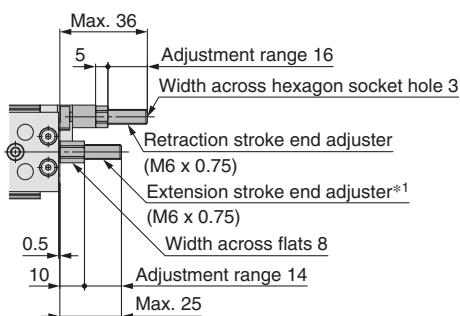
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ8A-10Z□6	22.5
MXQ8A-20Z□6	
MXQ8A-30Z□6	
MXQ8A-40Z□6	
MXQ8A-50Z□6	46.5
MXQ8A-75Z□6	

Rubber stopper **ZD**: Both ends,
ZF: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends,
ZJ: Retraction stroke end

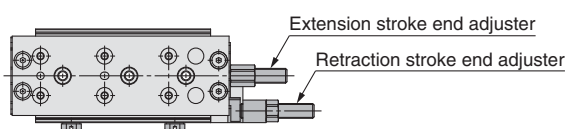


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ **8A**-□□**7** Centralized adjuster / Symmetric type (ø8)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



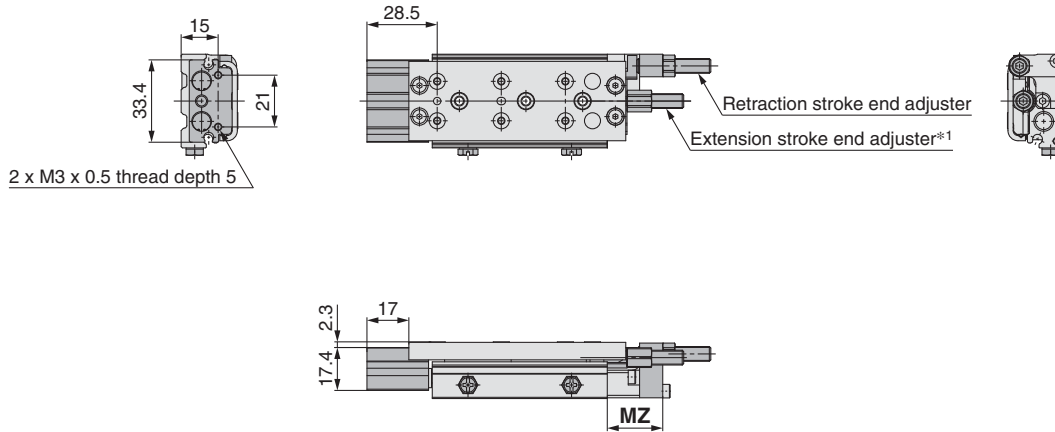
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **8A** [Functional Option]

MXQ **8A**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



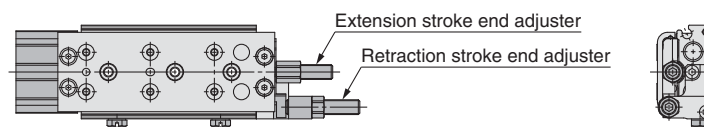
Dimensions [mm]	
Model	MZ
MXQ8A-10Z□6	22.5
MXQ8A-20Z□6	
MXQ8A-30Z□6	
MXQ8A-40Z□6	
MXQ8A-50Z□6	46.5
MXQ8A-75Z□6	

* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ **8A**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

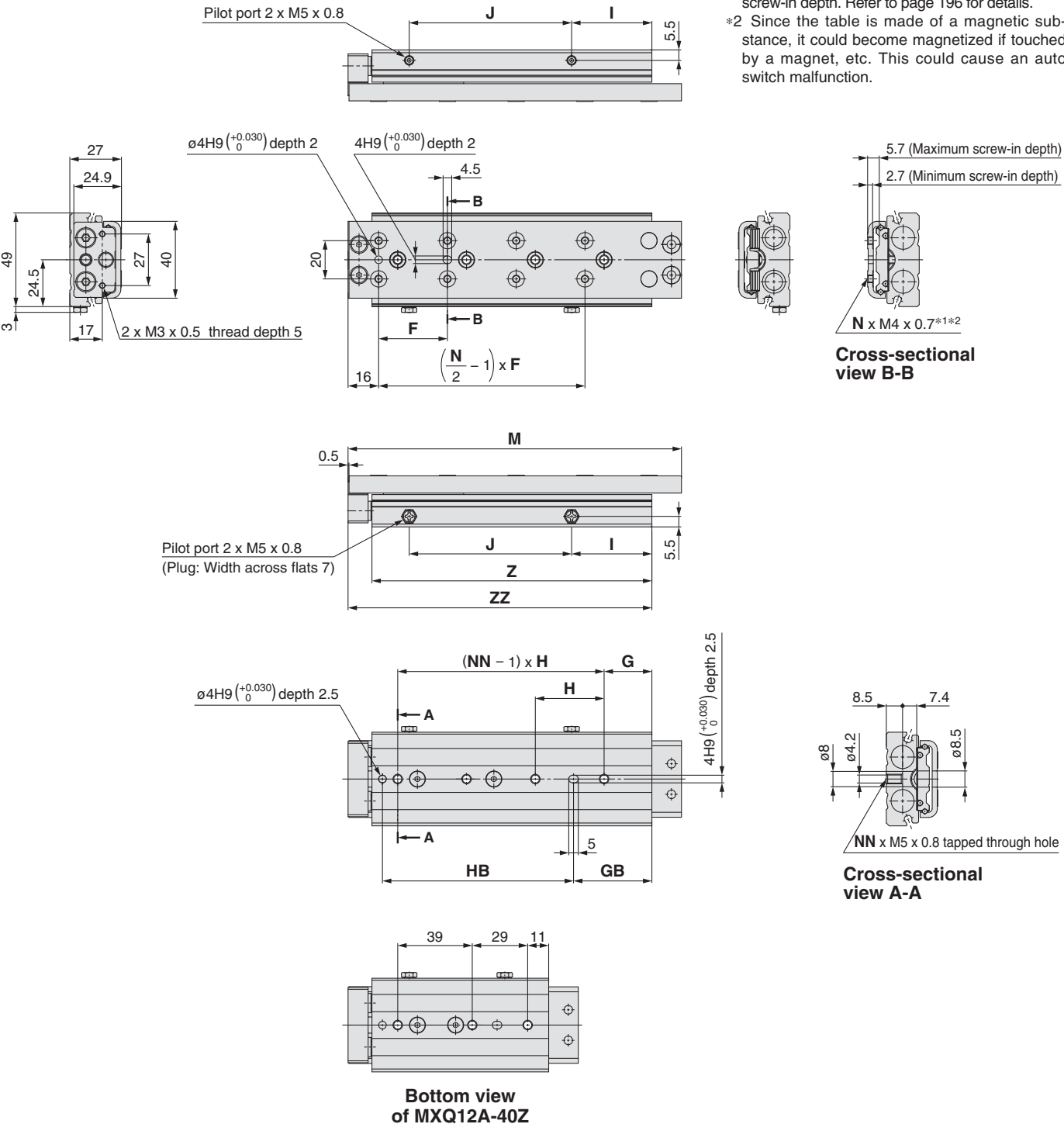
Auto Switch
Mounting

Made to Order

Model Selection

Dimensions: MXQ **12A** [Standard]

MXQ **12A**-□Z Standard type



Dimensions												[mm]
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ12A-10Z	28	17	11	32	46	11	32	82.5	4	2	62.5	75
MXQ12A-20Z	28	19	11	32	48	13	32	92.5	4	2	64.5	77
MXQ12A-30Z	38	21	11	40	58	15	40	102.5	4	2	74.5	87
MXQ12A-40Z	34	—	27	—	60	23	50	120.5	6	3	92.5	105
MXQ12A-50Z	34	11	37	39	60	23	60	130.5	6	3	102.5	115
MXQ12A-75Z	36	25	41	36	100	42	85	174.5	8	4	146.5	159
MXQ12A-100Z	36	14	66	36	100	42	110	199.5	10	5	171.5	184

MXQ 12A- **With adjuster option (ø12)**

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Retraction stroke end adjuster
(M8 x 1)

Extension stroke end adjuster
(M8 x 1)

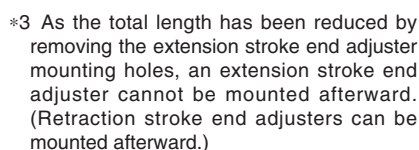


Retraction stroke end shock absorber (M8 x 1) Extension stroke end shock absorber (M8 x 1)



Height interchangeable type
MXQ ☐

Auto Switch Mounting	Common Adjuster Options
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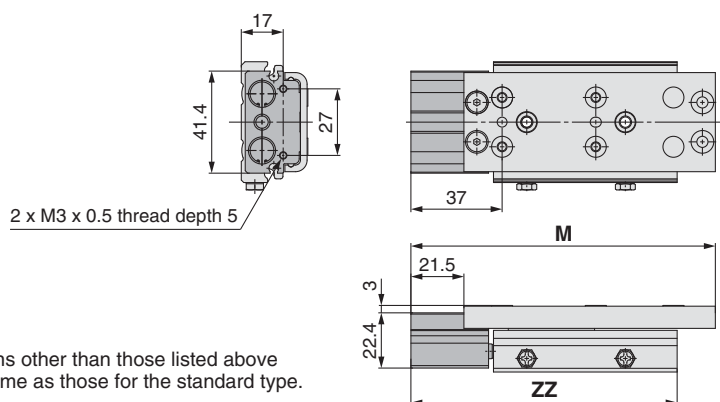


Model Selection	Made to Order
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30

Dimensions: MXQ **12A** [Functional Option]

MXQ **12A**-□□1 With buffer (ø12)

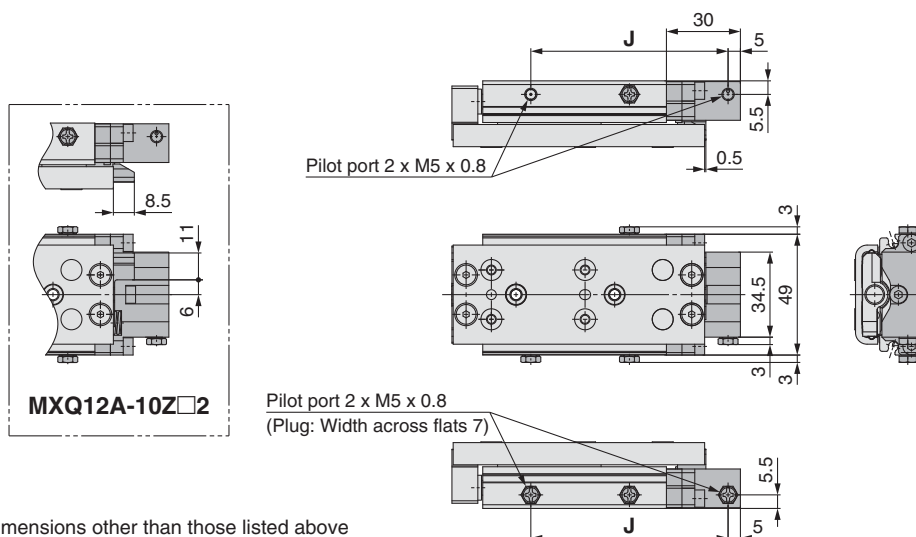


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12A-10Z□1	103.5	93	96
MXQ12A-20Z□1	113.5	103	98
MXQ12A-30Z□1	123.5	113	108
MXQ12A-40Z□1	141.5	131	126
MXQ12A-50Z□1	151.5	141	136
MXQ12A-75Z□1	195.5	185	180
MXQ12A-100Z□1	220.5	210	205

MXQ **12A**-□□2 With end lock (ø12)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	J
MXQ12A-10Z□2	68
MXQ12A-20Z□2	70
MXQ12A-30Z□2	80
MXQ12A-40Z□2	98
MXQ12A-50Z□2	108
MXQ12A-75Z□2	152
MXQ12A-100Z□2	177

MXQ **12A**-□□2 With end lock, extension stroke end adjuster (ø12)

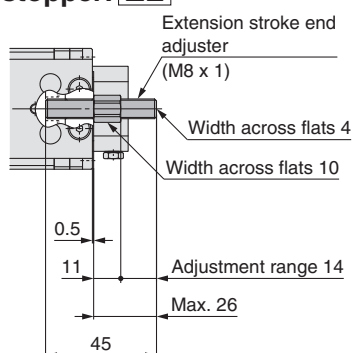
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT12-X28	MXQA-A1287-X11
Rubber stopper: ZE	MXQA-AT12-X28	MXQA-A1227-X11
Shock absorber/RJ: ZH	MXQA-JT12-X28	RJ0805U-X2300
Metal stopper: ZL	MXQA-DT12-X28	MXQA-A1238-X11

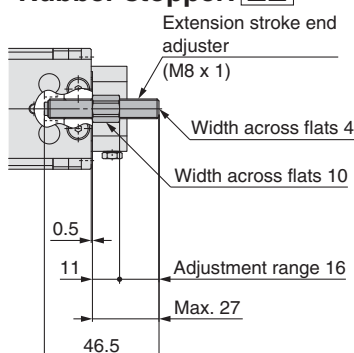
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

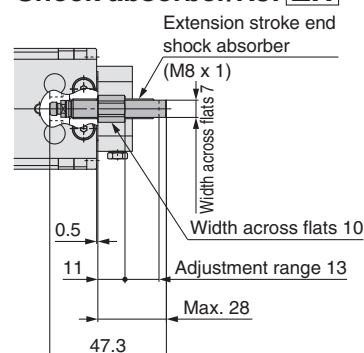
Metal stopper: **ZL**



Rubber stopper: **ZE**

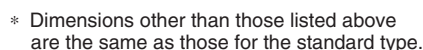


Shock absorber/RJ: **ZH**

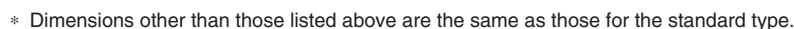


* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12A-□□3 Axial piping (ø12)

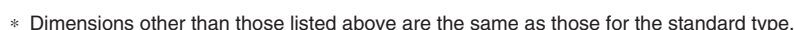


MXQ 12A-□□4 With buffer, end lock (ø12)



Dimensions				[mm]
Model	J	Standard type	Shorter total length type	ZZ
		M	M	
MXQ12A-10Z□4	68	103.5	93	96
MXQ12A-20Z□4	70	113.5	103	98
MXQ12A-30Z□4	80	123.5	113	108
MXQ12A-40Z□4	98	141.5	131	126
MXQ12A-50Z□4	108	151.5	141	136
MXQ12A-75Z□4	152	195.5	185	180
MXQ12A-100Z□4	177	220.5	210	205

MXQ 12A-□□5 With buffer, axial piping (ø12)



Dimensions			[mm]
Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12A-10Z□5	103.5	93	96
MXQ12A-20Z□5	113.5	103	98
MXQ12A-30Z□5	123.5	113	108
MXQ12A-40Z□5	141.5	131	126
MXQ12A-50Z□5	151.5	141	136
MXQ12A-75Z□5	195.5	185	180
MXQ12A-100Z□5	220.5	210	205

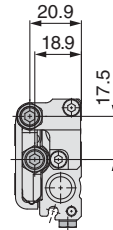
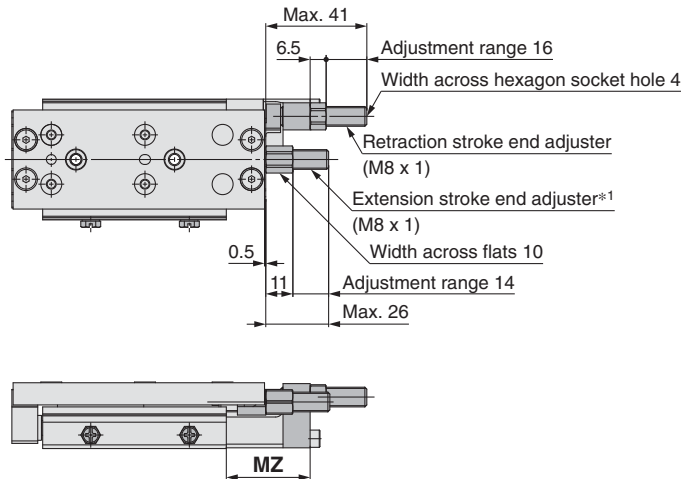
Dimensions: MXQ **12A** [Functional Option]

MXQ 12A-□□6 Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

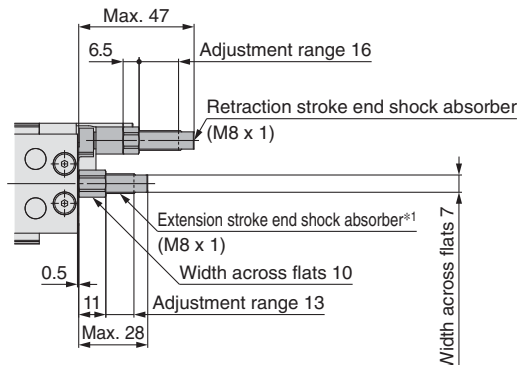
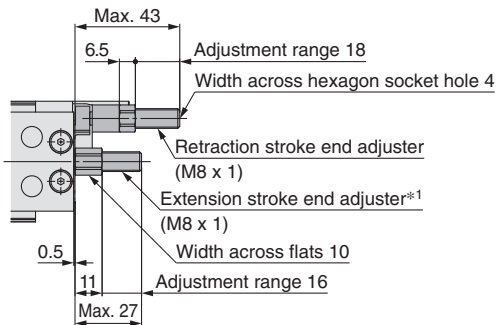
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ12A-10Z□6	26
MXQ12A-20Z□6	34
MXQ12A-30Z□6	
MXQ12A-40Z□6	
MXQ12A-50Z□6	
MXQ12A-75Z□6	
MXQ12A-100Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

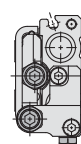
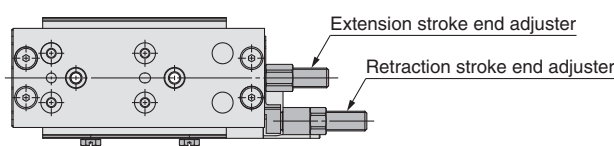


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 12A-□□7 Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



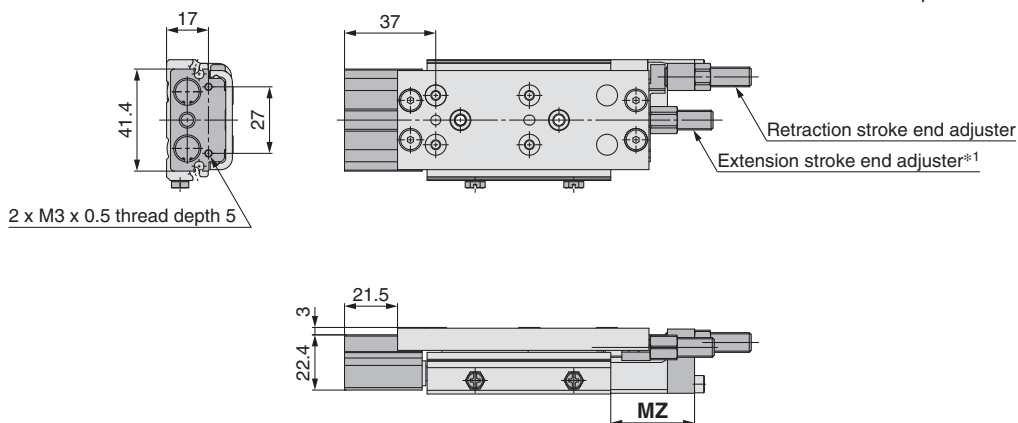
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **12A** [Functional Option]

MXQ 12A-□□8 Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

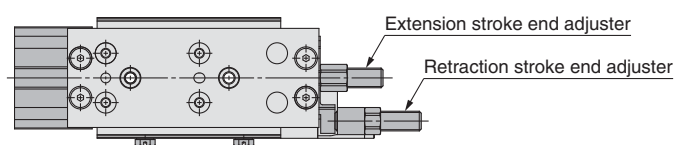


- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions [mm]	
Model	MZ
MXQ12A-10Z□8	26
MXQ12A-20Z□8	34
MXQ12A-30Z□8	
MXQ12A-40Z□8	
MXQ12A-50Z□8	
MXQ12A-75Z□8	
MXQ12A-100Z□8	

MXQ 12A-□□9 Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

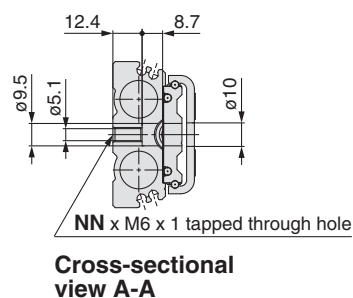
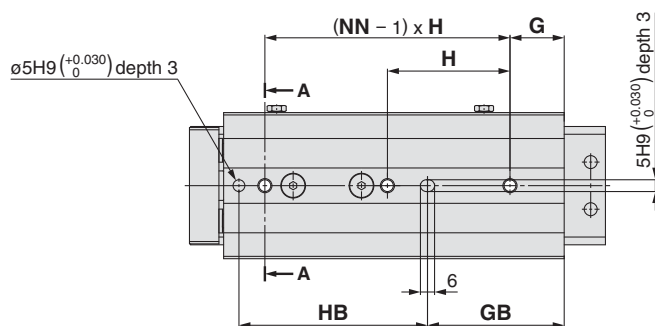
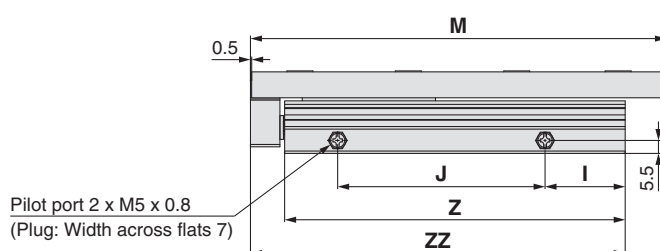
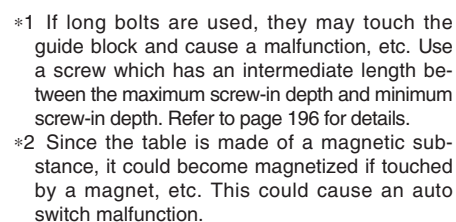
Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

16A [Standard]



[mm]

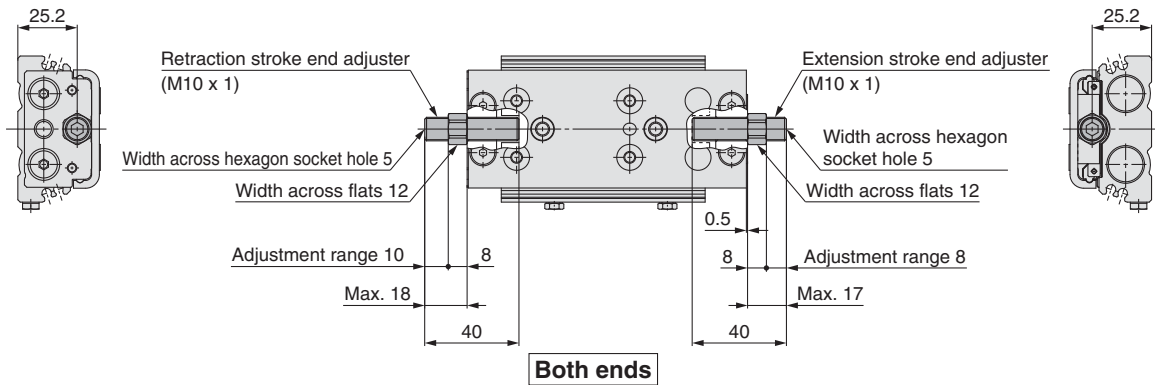
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ16A-10Z	38	16	8	39	58	22	28	98.5	4	2	72.5	87
MXQ16A-20Z	38	20	12	39	58	15	39	108.5	4	2	76.5	91
MXQ16A-30Z	48	21	30	48	50	16	48	118.5	4	2	86.5	101
MXQ16A-40Z	58	28	17	58	80	23	58	135.5	4	2	103.5	118
MXQ16A-50Z	40	—	27	—	80	28	63	145.5	6	3	113.5	128
MXQ16A-75Z	46	23	58	52	80	34	88	176.5	6	3	144.5	159
MXQ16A-100Z	44	39	102	44	80	53	113	220.5	8	4	188.5	203
MXQ16A-125Z	44	20	127	44	80	53	138	245.5	10	5	213.5	228

Dimensions: MXQ **16A** [Adjuster Option]

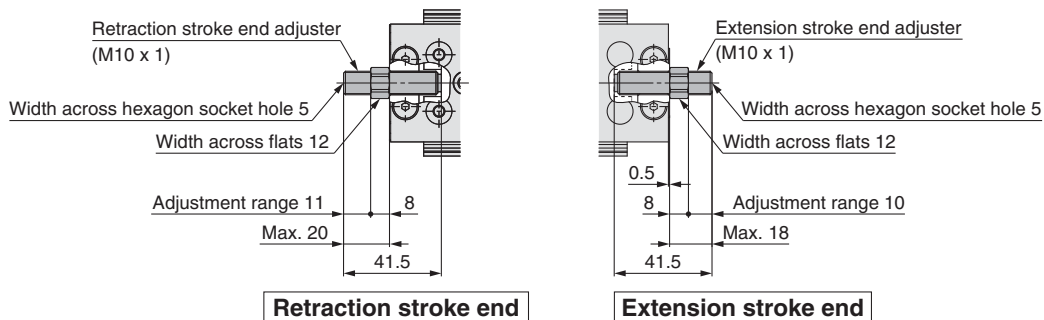
MXQ 16A-□ With adjuster option (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

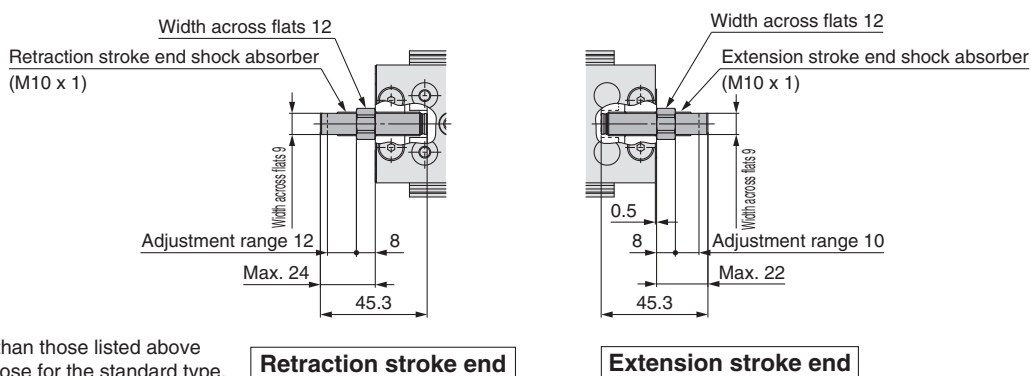
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

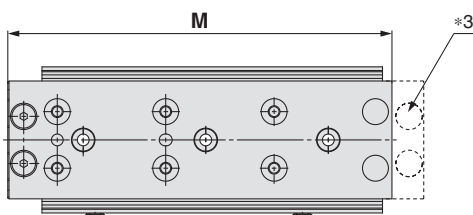


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 16A-□ZN Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	M
MXQ16A-10ZN	85
MXQ16A-20ZN	95
MXQ16A-30ZN	105
MXQ16A-40ZN	122
MXQ16A-50ZN	132
MXQ16A-75ZN	163
MXQ16A-100ZN	207
MXQ16A-125ZN	232

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

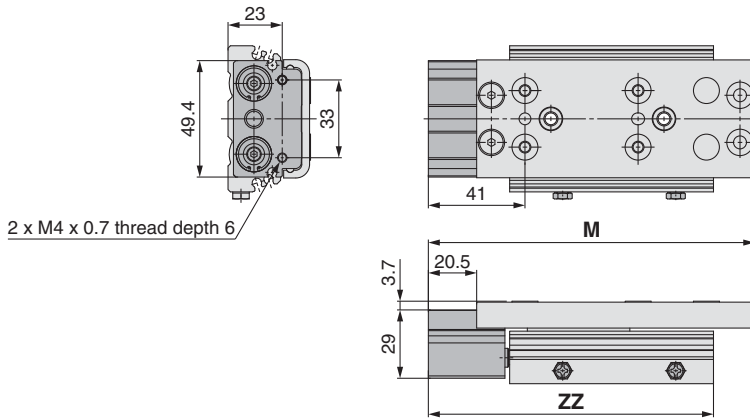
Auto Switch
Mounting

Made to Order

Model Selection

Dimensions: MXQ **16A** [Functional Option]

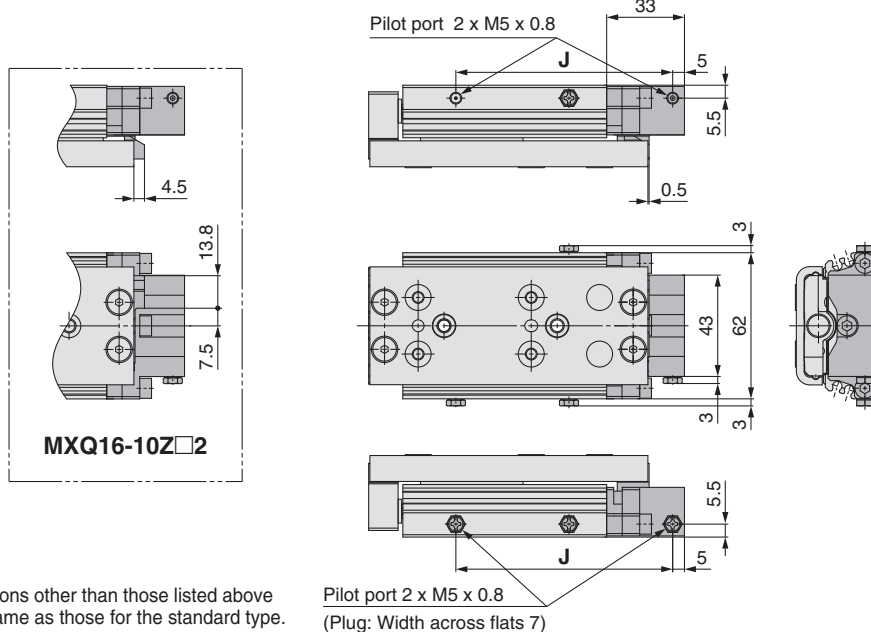
MXQ 16A-□□1 With buffer (ø16)



Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ16A-10Z□1	118.5	105	107
MXQ16A-20Z□1	128.5	115	111
MXQ16A-30Z□1	138.5	125	121
MXQ16A-40Z□1	155.5	142	138
MXQ16A-50Z□1	165.5	152	148
MXQ16A-75Z□1	196.5	183	179
MXQ16A-100Z□1	240.5	227	223
MXQ16A-125Z□1	265.5	252	248

MXQ 16A-□□2 With end lock (ø16)



Dimensions [mm]

Model	J
MXQ16A-10Z□2	78
MXQ16A-20Z□2	82
MXQ16A-30Z□2	92
MXQ16A-40Z□2	109
MXQ16A-50Z□2	119
MXQ16A-75Z□2	150
MXQ16A-100Z□2	194
MXQ16A-125Z□2	219

* Dimensions other than those listed above are the same as those for the standard type.

Pilot port 2 x M5 x 0.8
(Plug: Width across flats 7)

MXQ 16A-□□2 With end lock, extension stroke end adjuster (ø16)

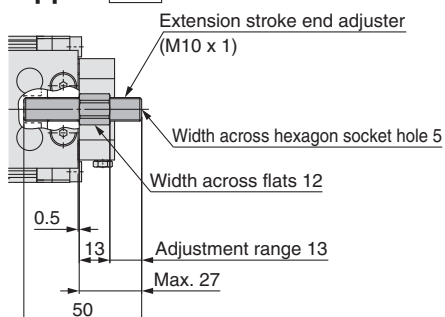
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no. *1
Metal stopper with bumper: ZB	MXQA-CT16-X28	MXQA-A1687-X11
Rubber stopper: ZE	MXQA-AT16-X28	MXQA-A1627-X11
Shock absorber/RJ: ZH	MXQA-JT16-X28	RJ1006U-X2300
Metal stopper: ZL	MXQA-DT16-X28	MXQA-A1638-X11

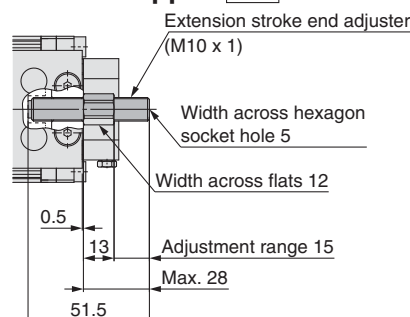
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

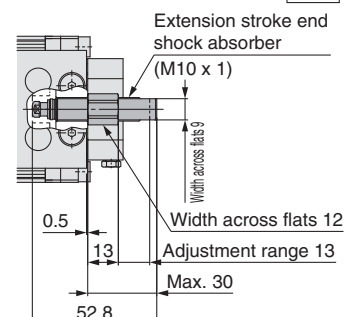
Metal stopper: **ZL**



Rubber stopper: **ZE**



Shock absorber/RJ: **ZH**

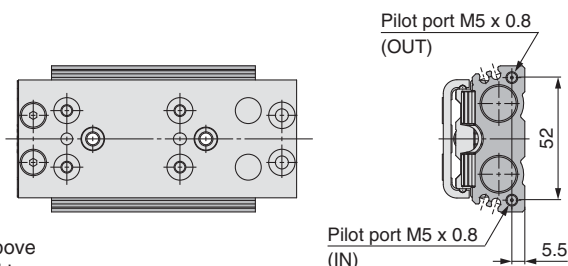


* Dimensions other than those listed above are the same as those for the standard type.

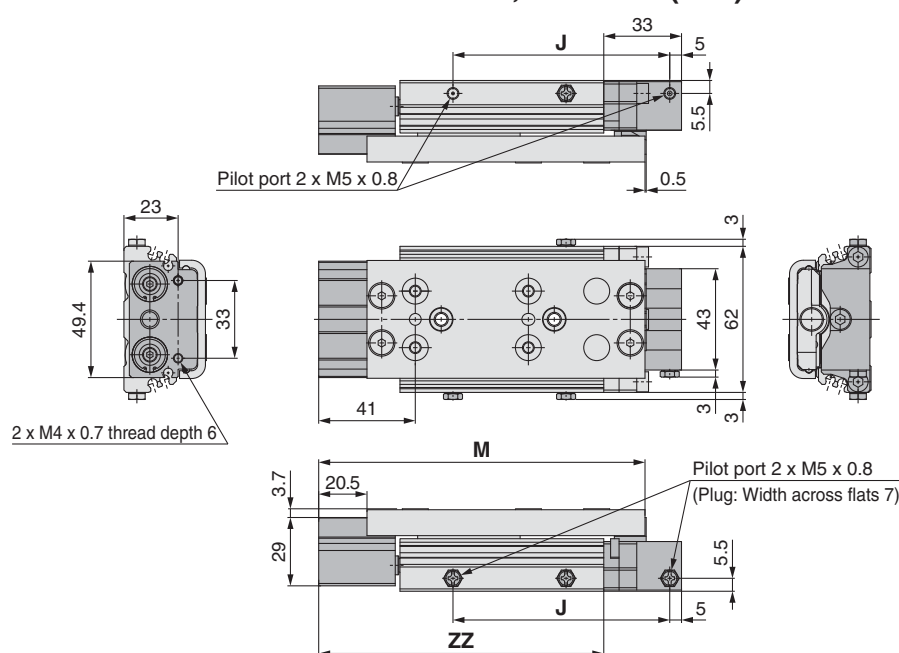
Dimensions: MXQ **16A** [Functional Option]

MXQ **16A-□□3** Axial piping (ø16)

* Dimensions other than those listed above are the same as those for the standard type.

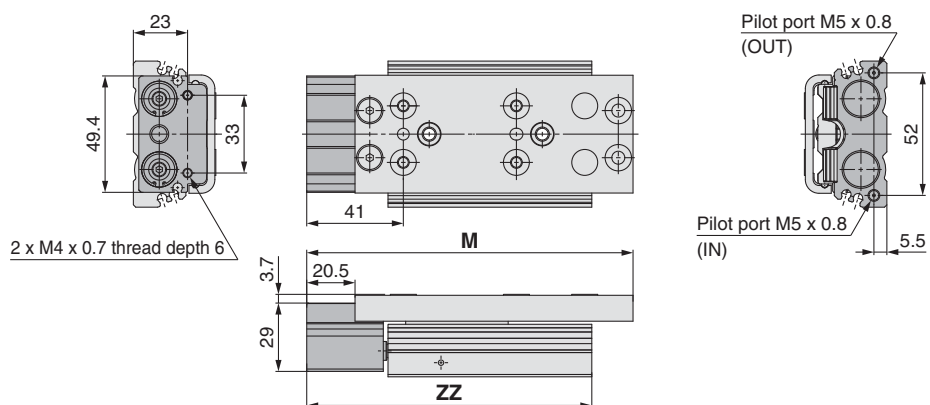


MXQ **16A-□□4** With buffer, end lock (ø16)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **16A-□□5** With buffer, axial piping (ø16)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	J	Standard type	Shorter total length type	ZZ
		M	M	
MXQ16A-10Z□4	78	118.5	105	107
MXQ16A-20Z□4	82	128.5	115	111
MXQ16A-30Z□4	92	138.5	125	121
MXQ16A-40Z□4	109	155.5	142	138
MXQ16A-50Z□4	119	165.5	152	148
MXQ16A-75Z□4	150	196.5	183	179
MXQ16A-100Z□4	194	240.5	227	223
MXQ16A-125Z□4	219	265.5	252	248

Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ16A-10Z□5	118.5	105	107
MXQ16A-20Z□5	128.5	115	111
MXQ16A-30Z□5	138.5	125	121
MXQ16A-40Z□5	155.5	142	138
MXQ16A-50Z□5	165.5	152	148
MXQ16A-75Z□5	196.5	183	179
MXQ16A-100Z□5	240.5	227	223
MXQ16A-125Z□5	265.5	252	248

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

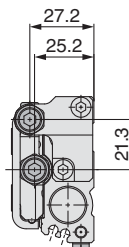
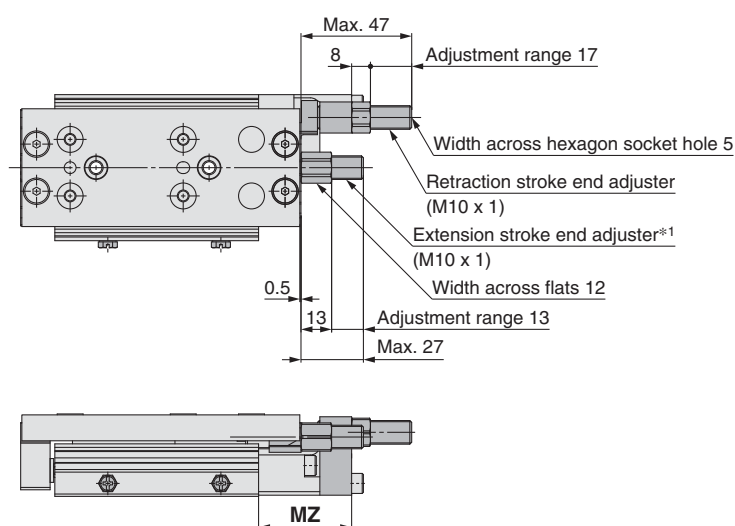
Dimensions: MXQ **16A** [Functional Option]

MXQ 16A-□□6 Centralized adjuster (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

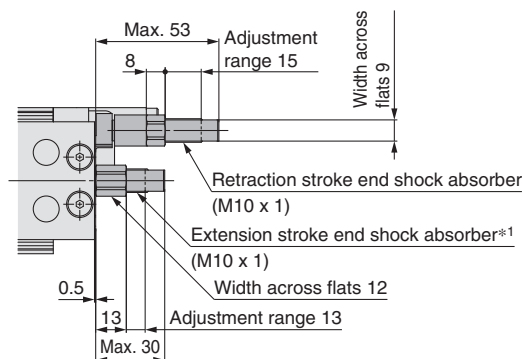
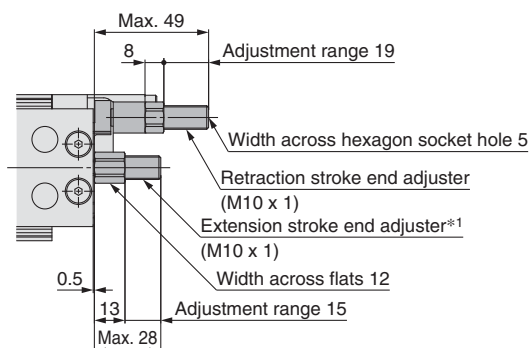
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ16A-10Z□6	33.5
MXQ16A-20Z□6	39.5
MXQ16A-30Z□6	
MXQ16A-40Z□6	
MXQ16A-50Z□6	
MXQ16A-75Z□6	
MXQ16A-100Z□6	39.5
MXQ16A-125Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

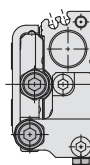
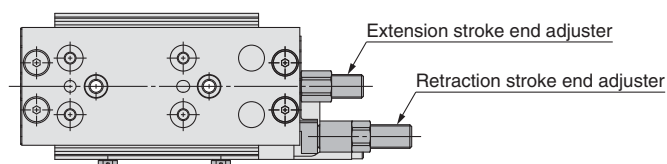


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 16A-□□7 Centralized adjuster / Symmetric type (ø16)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



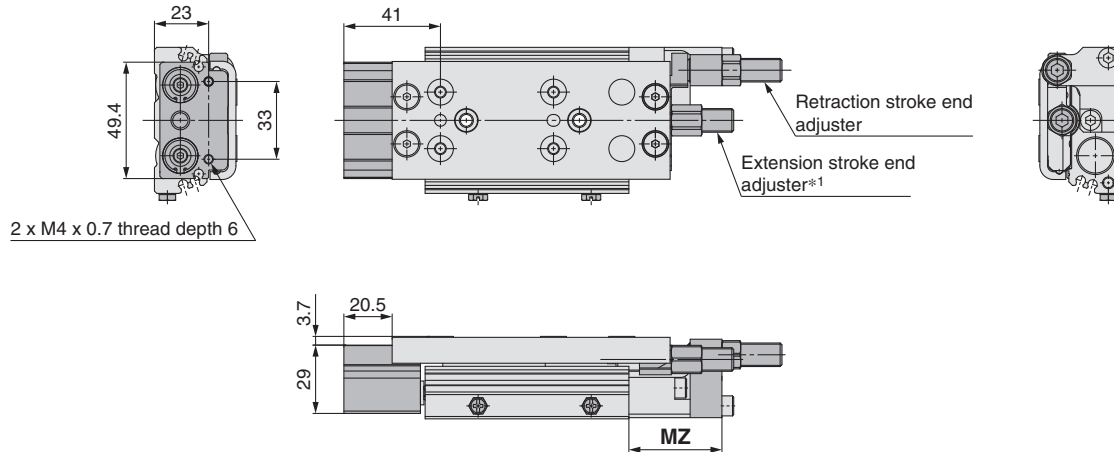
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **16A** [Functional Option]

MXQ 16A-□□8 Buffer, Centralized adjuster (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

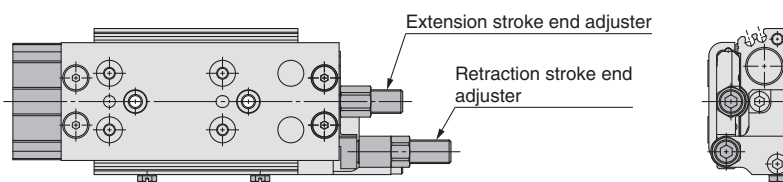


- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions [mm]	
Model	MZ
MXQ16A-10Z□8	33.5
MXQ16A-20Z□8	39.5
MXQ16A-30Z□8	
MXQ16A-40Z□8	
MXQ16A-50Z□8	
MXQ16A-75Z□8	
MXQ16A-100Z□8	45.5
MXQ16A-125Z□8	

MXQ 16A-□□9 Buffer, Centralized adjuster / Symmetric type (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

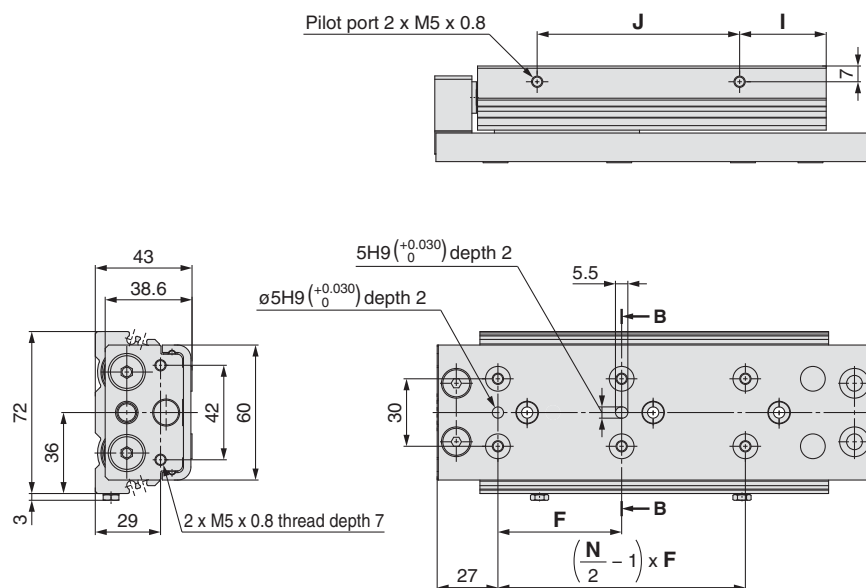
Auto Switch
Mounting

Made to Order

Model Selection

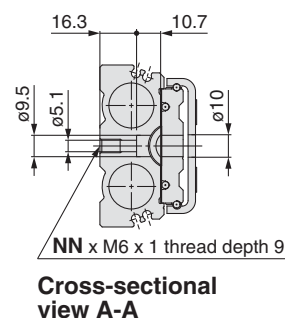
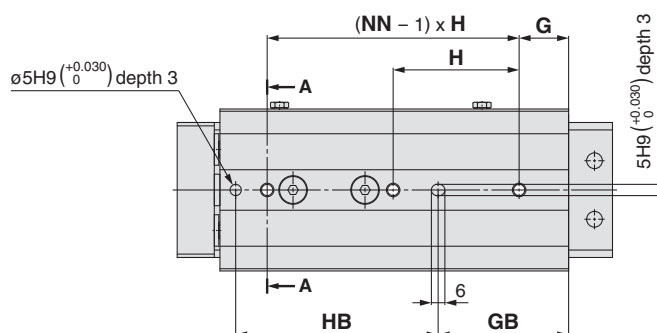
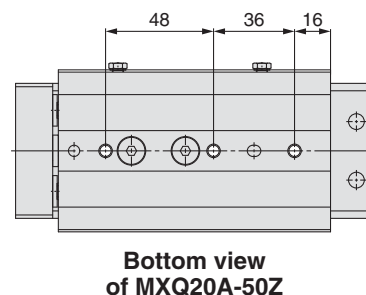
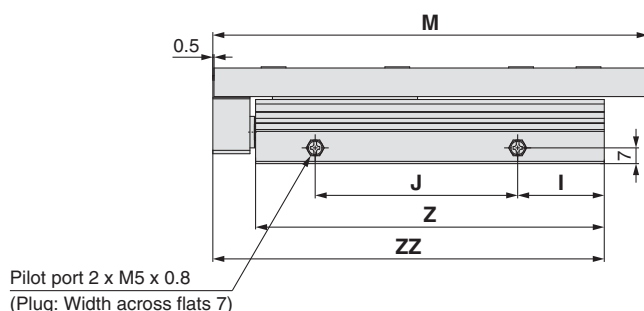
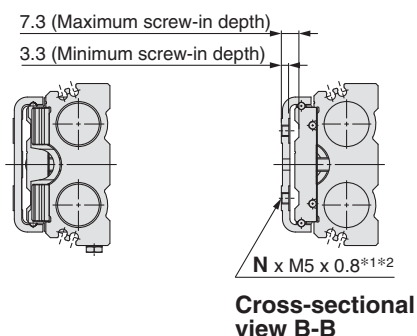
Dimensions: MXQ **20A** [Standard]

MXQ **20A**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

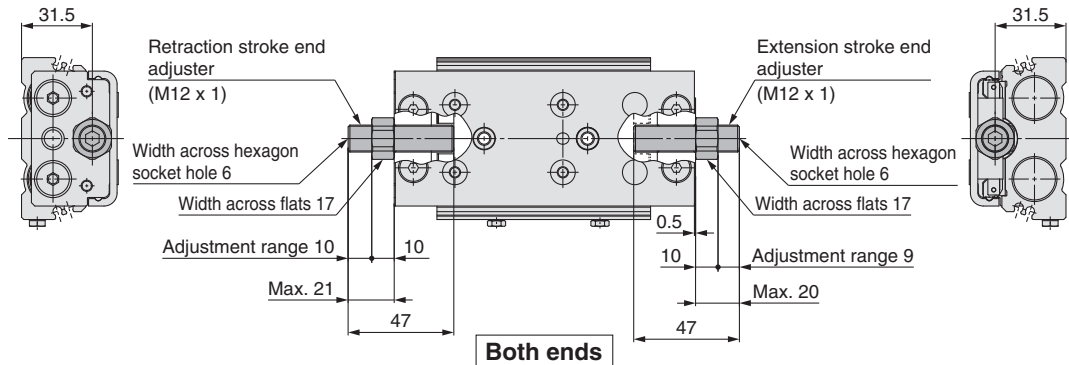
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ20A-10Z	45	18	8	46	70	24.5	34	113.5	4	2	85	104
MXQ20A-20Z	40	18	8	46	70	24.5	34	123.5	4	2	85	104
MXQ20A-30Z	48	28	18	46	70	22.5	46	133.5	4	2	95	114
MXQ20A-40Z	58	28	18	56	80	22.5	56	143.5	4	2	105	124
MXQ20A-50Z	42	—	34	—	80	30.5	64	159.5	6	3	121	140
MXQ20A-75Z	55	22	58	56	90	38.5	90	193.5	6	3	155	174
MXQ20A-100Z	50	16	108	56	90	63.5	115	266.5	8	4	205	224
MXQ20A-125Z	55	32	133	59	90	63.5	140	291.5	8	4	230	249
MXQ20A-150Z	62	48	158	62	90	63.5	165	316.5	8	4	255	274

Dimensions: MXQ **20A** [Adjuster Option]

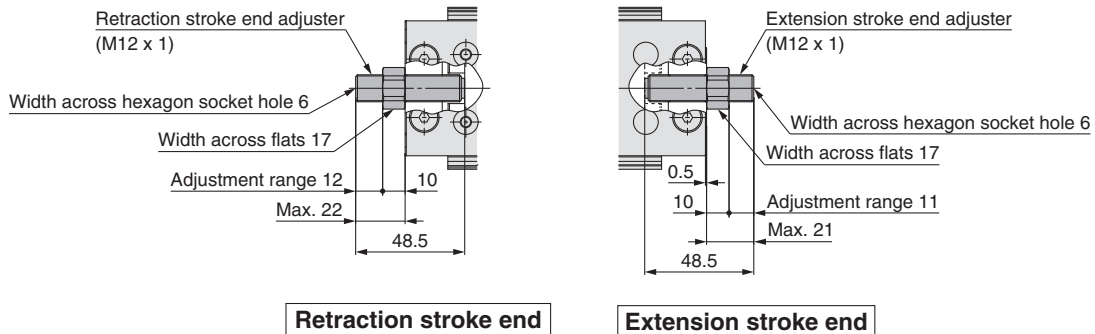
MXQ **20A**-□□ With adjuster option (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

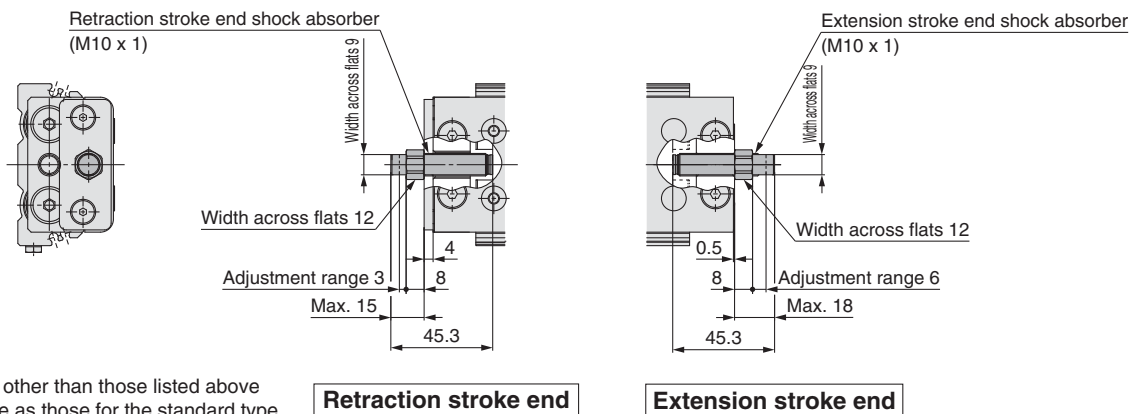
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

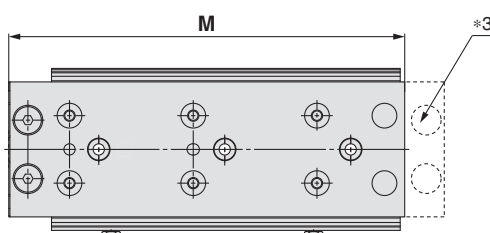


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **20A**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	M
MXQ20A-10ZN	96
MXQ20A-20ZN	106
MXQ20A-30ZN	116
MXQ20A-40ZN	126
MXQ20A-50ZN	142
MXQ20A-75ZN	176
MXQ20A-100ZN	249
MXQ20A-125ZN	274
MXQ20A-150ZN	299

[illegible]

Dimensions			[mm]
Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ20A-10Z□1	131	113.5	121.5
MXQ20A-20Z□1	141	123.5	
MXQ20A-30Z□1	151	133.5	131.5
MXQ20A-40Z□1	161	143.5	141.5
MXQ20A-50Z□1	177	159.5	157.5
MXQ20A-75Z□1	211	193.5	191.5
MXQ20A-100Z□1	284	266.5	241.5
MXQ20A-125Z□1	309	291.5	266.5
MXQ20A-150Z□1	334	316.5	291.5

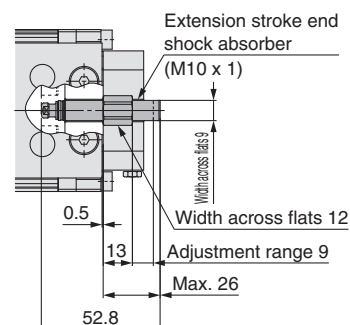
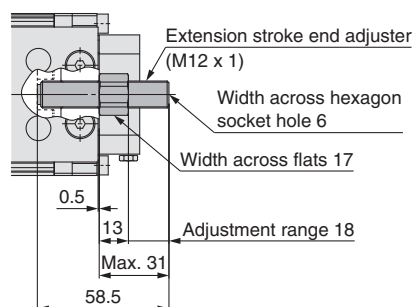
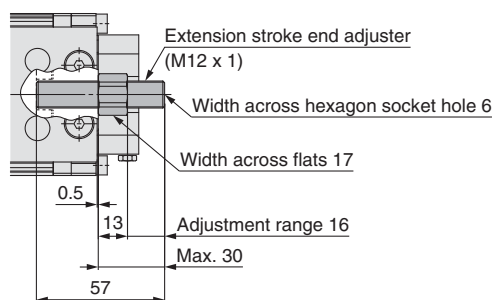
Technical drawings of the MXQ20A-10Z valve. The left side shows a side view and a front view of the valve body. The right side shows a top view and a side view of the valve assembly with dimensions. Dimensions include: 9.5, 16.2, 10, 10Z, 2, 2 x M5 x 0.8, Q, 5, 7, 0.5, 3, 53, 72, 3, 3, 7, 5, J, 10Z, 2.

Dimensions		[mm]
Model	J	Q
MXQ20A-10Z□2	91.5	38
MXQ20A-20Z□2		
MXQ20A-30Z□2		
MXQ20A-40Z□2		
MXQ20A-50Z□2		
MXQ20A-75Z□2	127.5	61
MXQ20A-100Z□2	161.5	
MXQ20A-125Z□2	234.5	
MXQ20A-150Z□2	259.5	
	284.5	

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT20-X28	MXQA-A208-X11
Rubber stopper: ZE	MXQA-AT20-X28	MXQA-A2027-X11
Shock absorber/RJ: ZH	MXQA-JT20-X28	RJ1007HU-X2300
Metal stopper: ZL	MXQA-DT20-X28	MXQA-A2038-X11

*1 This part number is only for a single unit of the adjustment bolt without a nut.
It can be used as a spare part when the adjustment bolt is worn.

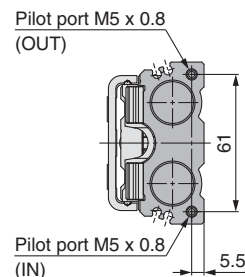
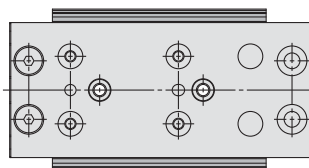
Shock absorber/RJ: **ZH**

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **20A** [Functional Option]

MXQ **20A**-□□**3**

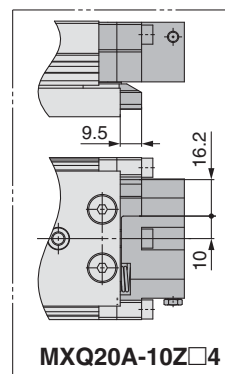
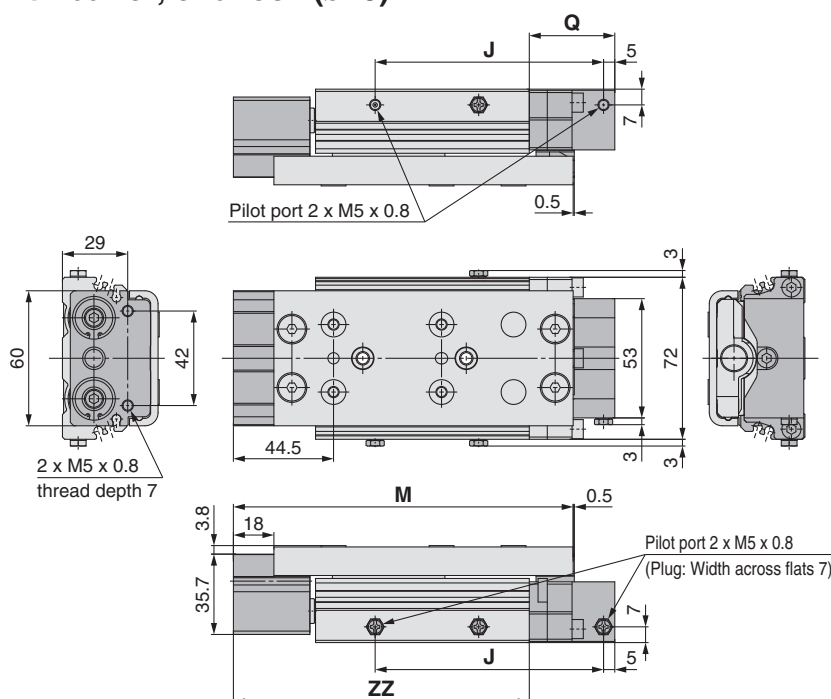
Axial piping (ø20)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **20A**-□□**4**

With buffer, end lock (ø20)



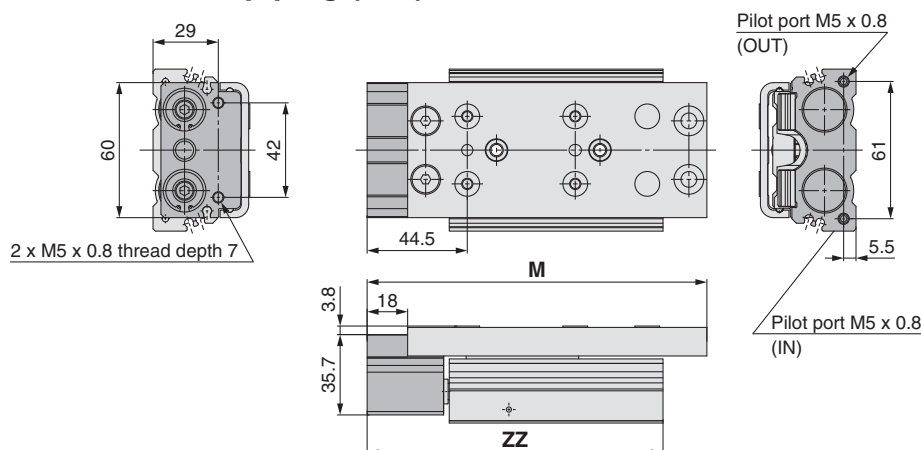
Dimensions

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
MXQ20A-10Z□4	91.5	38	131	113.5	121.5
MXQ20A-20Z□4			141	123.5	
MXQ20A-30Z□4	101.5		151	133.5	131.5
MXQ20A-40Z□4	111.5		161	143.5	141.5
MXQ20A-50Z□4	127.5	61	177	159.5	157.5
MXQ20A-75Z□4	161.5		211	193.5	191.5
MXQ20A-100Z□4	234.5		284	266.5	241.5
MXQ20A-125Z□4	259.5		309	291.5	266.5
MXQ20A-150Z□4	284.5		334	316.5	291.5

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **20A**-□□**5**

With buffer, axial piping (ø20)



Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ20A-10Z□5	131	113.5	121.5
MXQ20A-20Z□5	141	123.5	
MXQ20A-30Z□5	151	133.5	131.5
MXQ20A-40Z□5	161	143.5	141.5
MXQ20A-50Z□5	177	159.5	157.5
MXQ20A-75Z□5	211	193.5	191.5
MXQ20A-100Z□5	284	266.5	241.5
MXQ20A-125Z□5	309	291.5	266.5
MXQ20A-150Z□5	334	316.5	291.5

* Dimensions other than those listed above are the same as those for the standard type.

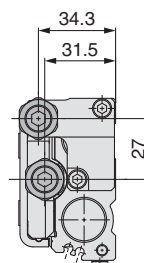
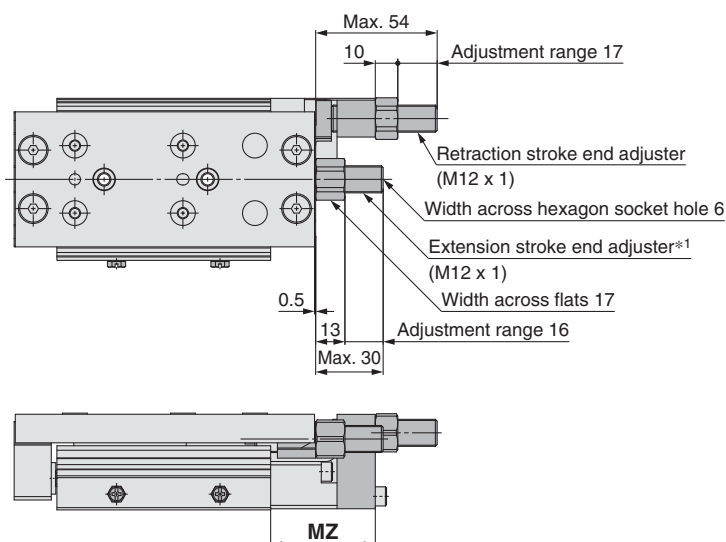
Dimensions: MXQ **20A** [Functional Option]

MXQ **20A**-□□**6** Centralized adjuster (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

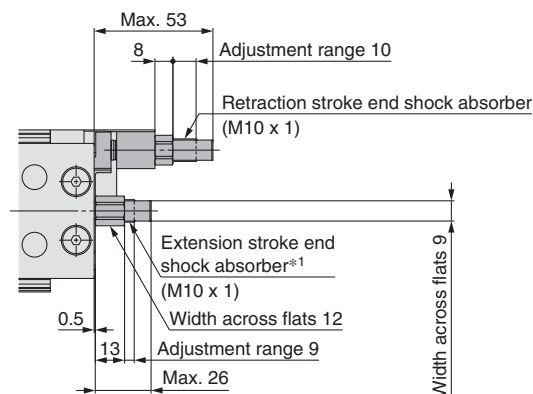
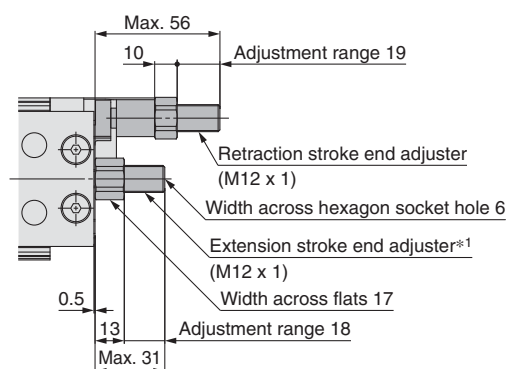
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ20A-10Z□6	36.5
MXQ20A-20Z□6	46.5
MXQ20A-30Z□6	
MXQ20A-40Z□6	
MXQ20A-50Z□6	
MXQ20A-75Z□6	69.5
MXQ20A-100Z□6	
MXQ20A-125Z□6	
MXQ20A-150Z□6	

Rubber stopper **ZD**: Both ends,
ZF: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends,
ZJ: Retraction stroke end

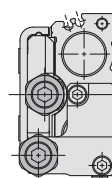
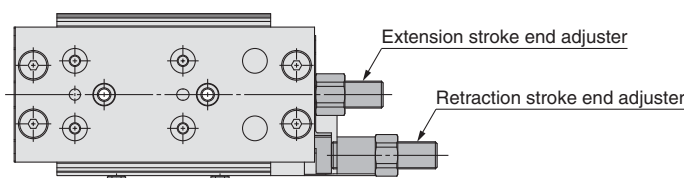


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ **20A**-□□**7** Centralized adjuster / Symmetric type (ø20)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



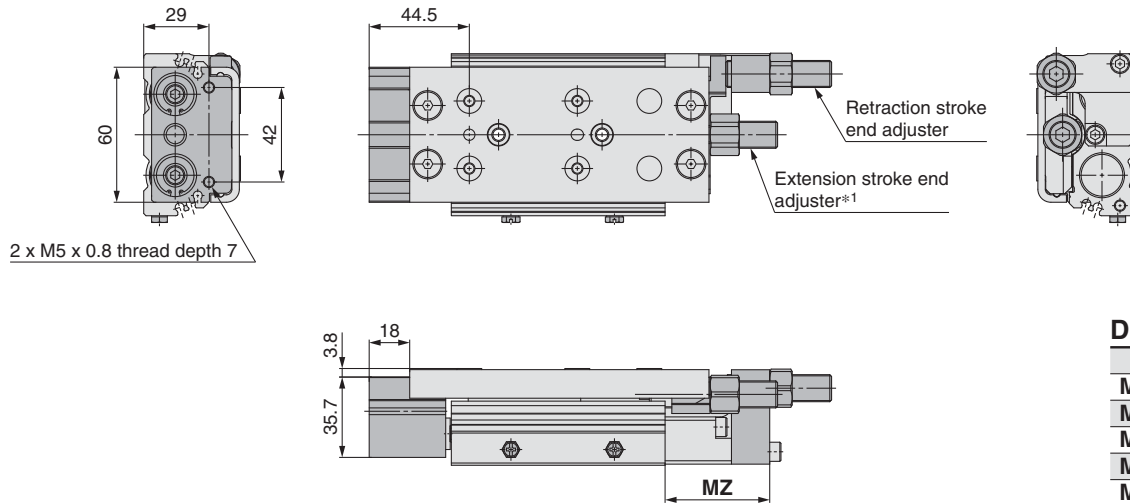
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **20A** [Functional Option]

MXQ **20A**-□□**8** Buffer, Centralized adjuster (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

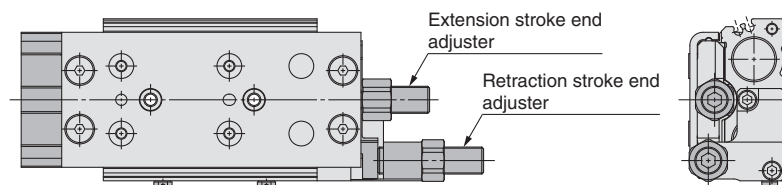


- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions [mm]	
Model	MZ
MXQ20A-10Z□8	36.5
MXQ20A-20Z□8	
MXQ20A-30Z□8	
MXQ20A-40Z□8	46.5
MXQ20A-50Z□8	
MXQ20A-75Z□8	
MXQ20A-100Z□8	
MXQ20A-125Z□8	69.5
MXQ20A-150Z□8	

MXQ **20A**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

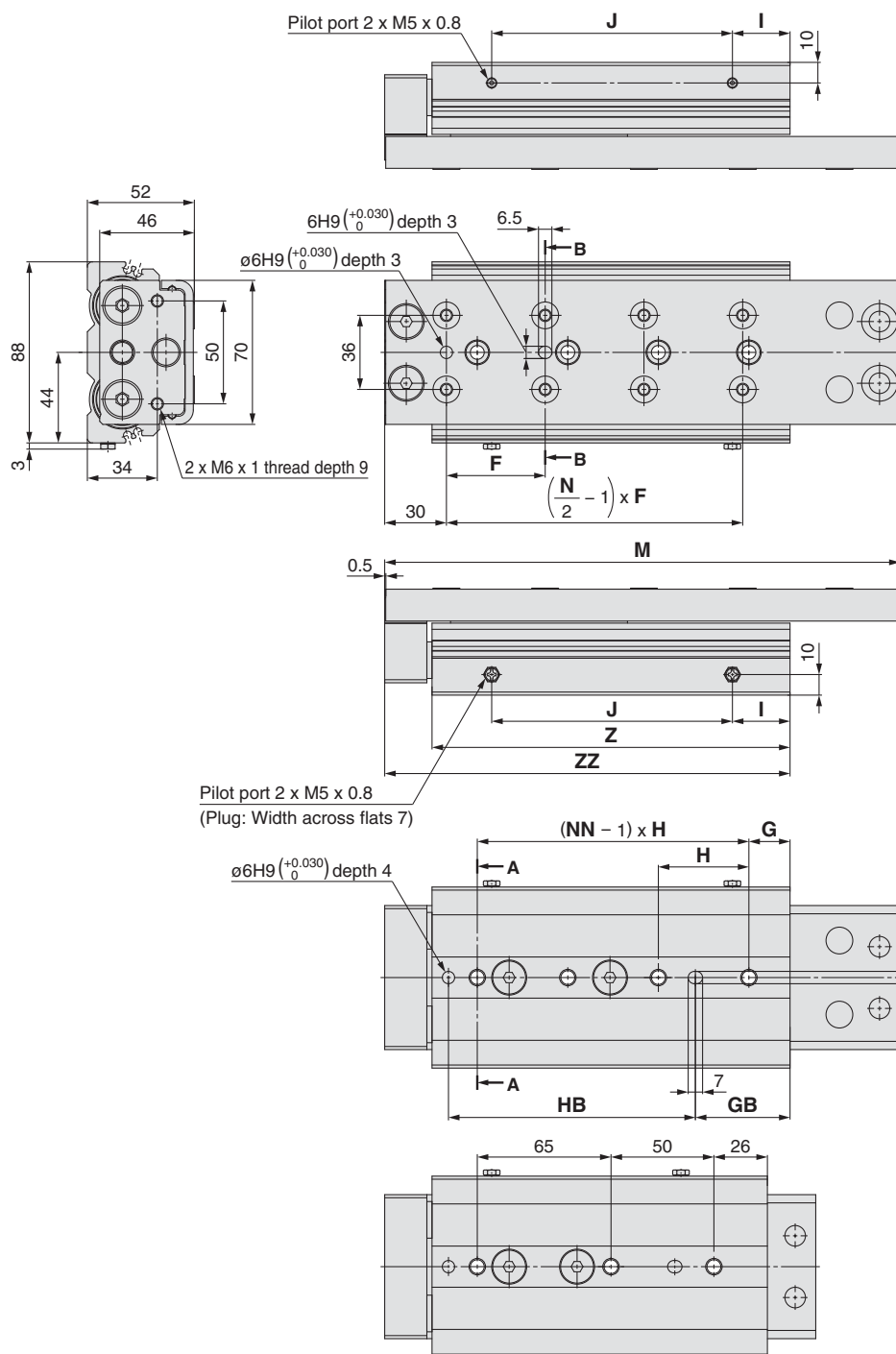
Auto Switch
Mounting

Made to Order

Model Selection

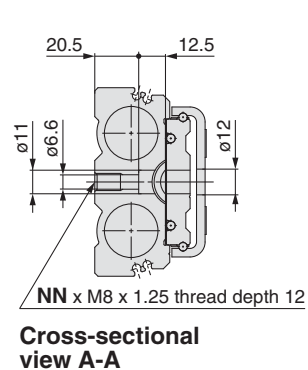
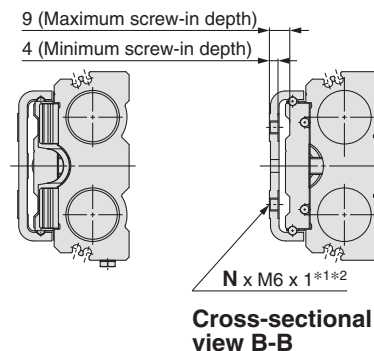
Dimensions: MXQ **25A** [Standard]

MXQ **25A**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Bottom view of MXQ25A-75Z

Dimensions

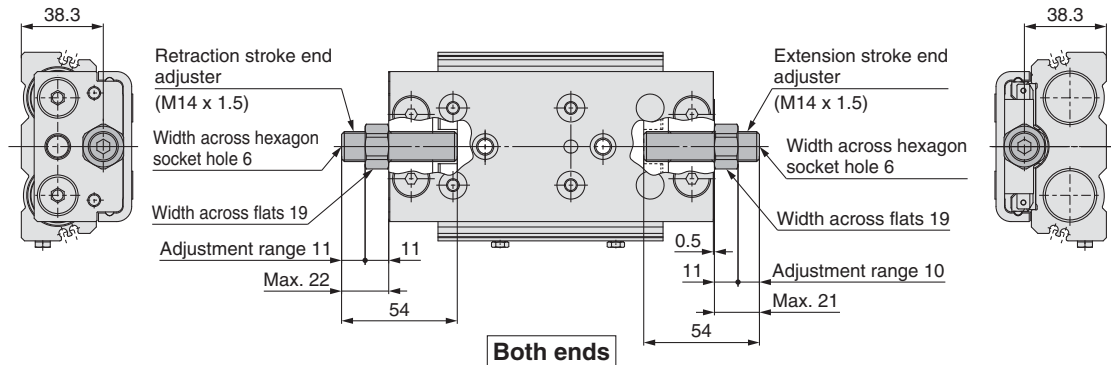
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ25A-10Z	55	18	7	55	80	30	36	131.5	4	2	95	118
MXQ25A-20Z	46	18	7	55	80	30	36	141.5	4	2	95	118
MXQ25A-30Z	55	28	17	55	80	22	54	151.5	4	2	105	128
MXQ25A-40Z	65	28	17	65	90	22	64	161.5	4	2	115	138
MXQ25A-50Z	75	36	20	80	110	43	66	184.5	4	2	138	161
MXQ25A-75Z	60	—	45	—	110	42	92	209.5	6	3	163	186
MXQ25A-100Z	48	20	46	44	120	28	117	250.5	8	4	174	197
MXQ25A-125Z	60	18	60	66	170	67	142	314.5	8	4	238	261
MXQ25A-150Z	65	43	85	66	170	66	168	339.5	8	4	263	286

Dimensions: MXQ **25A** [Adjuster Option]

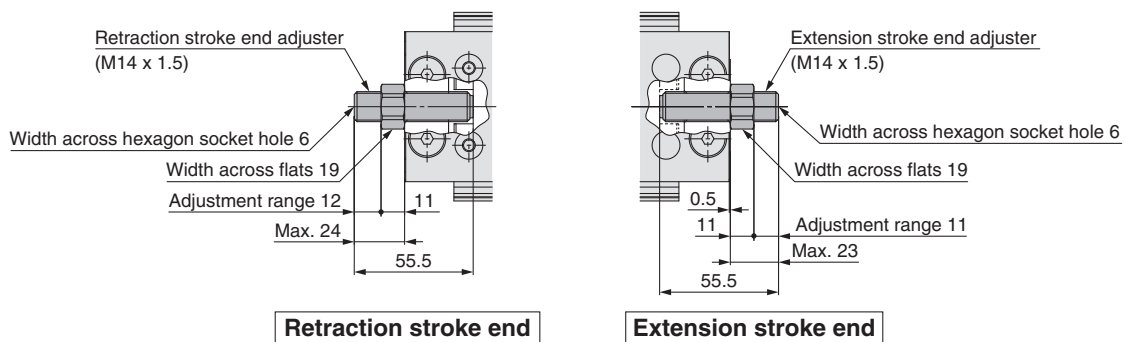
MXQ **25A**-□ With adjuster option (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

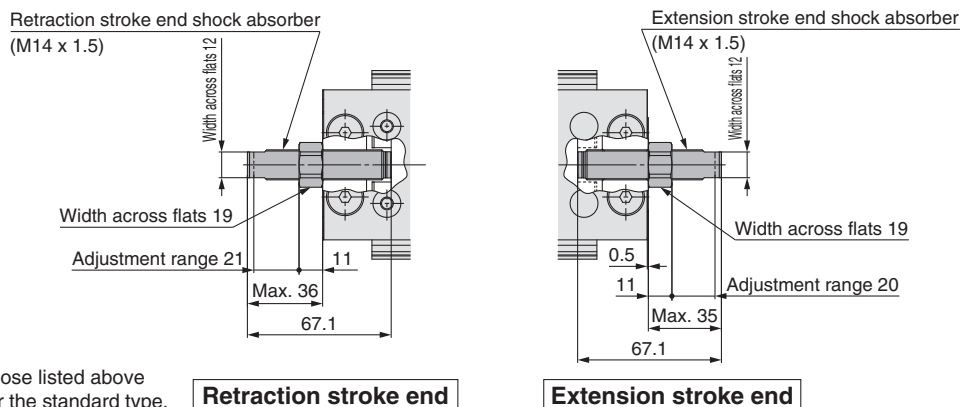
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

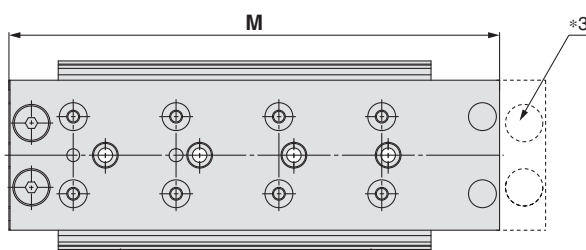


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25A**-□ **ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ25A-10ZN	110
MXQ25A-20ZN	120
MXQ25A-30ZN	130
MXQ25A-40ZN	140
MXQ25A-50ZN	163
MXQ25A-75ZN	188
MXQ25A-100ZN	229
MXQ25A-125ZN	293
MXQ25A-150ZN	318

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

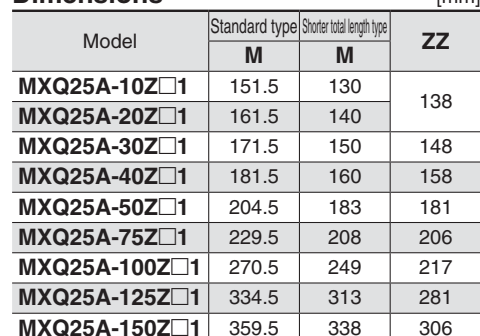
Common Adjuster Options

Auto Switch Mounting

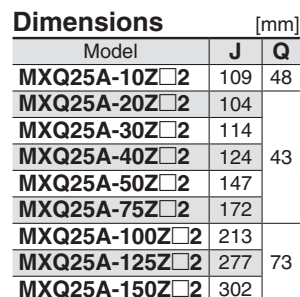
Made to Order

Model Selection

Dimensions [mm]



MXQ 25A-□□2 With end lock (ø25)



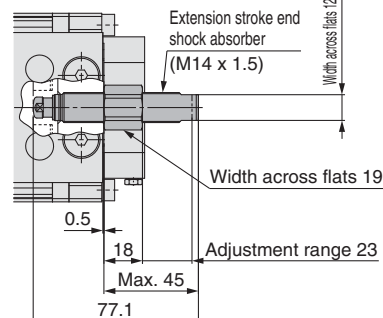
MXQ 25A-□□2 With end lock,
extension stroke end adjuster (ø25)

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT25-X28	MXQA-A2587-X11
Rubber stopper: ZE	MXQA-AT25-X28	MXQA-A2527-X11
Shock absorber/RJ: ZH	MXQA-JT25-X28	RJ1410U-X2300
Metal stopper: ZL	MXQA-DT25-X28	MXQA-A2538-X11

Metal stopper with bumper: ZB

Metal stopper: ZL

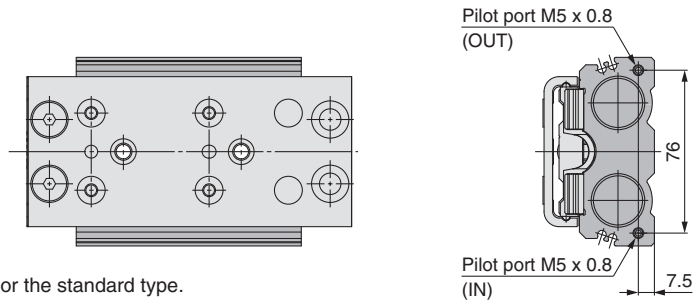
Rubber stopper: **ZE**

Shock absorber/RJ: **ZH**

49

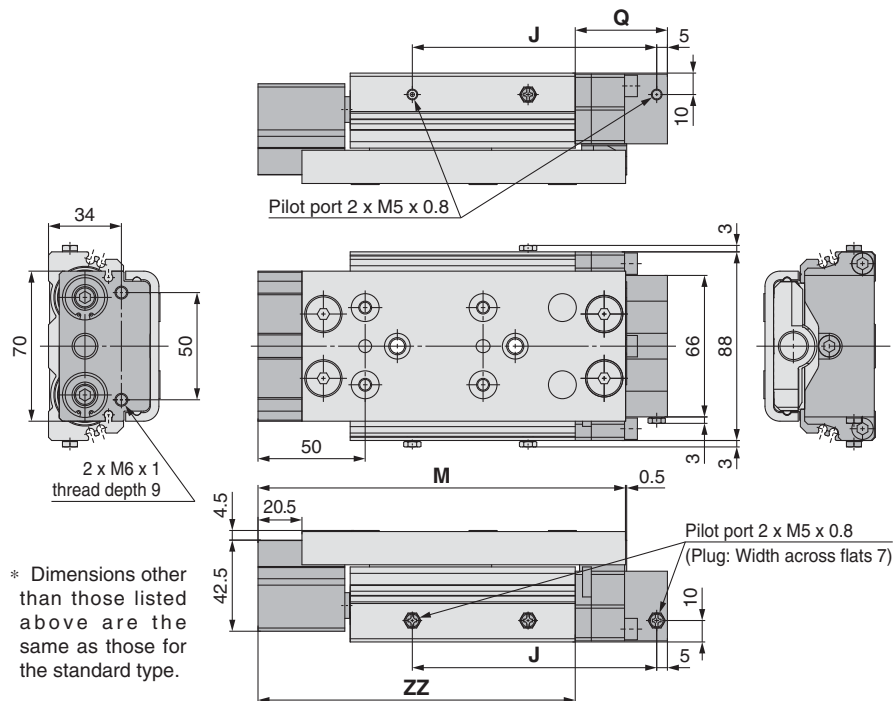
Dimensions: MXQ **25A** [Functional Option]

MXQ **25A-□□3** Axial piping (ø25)

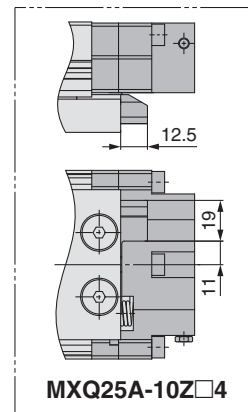


* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25A-□□4** With buffer, end lock (ø25)



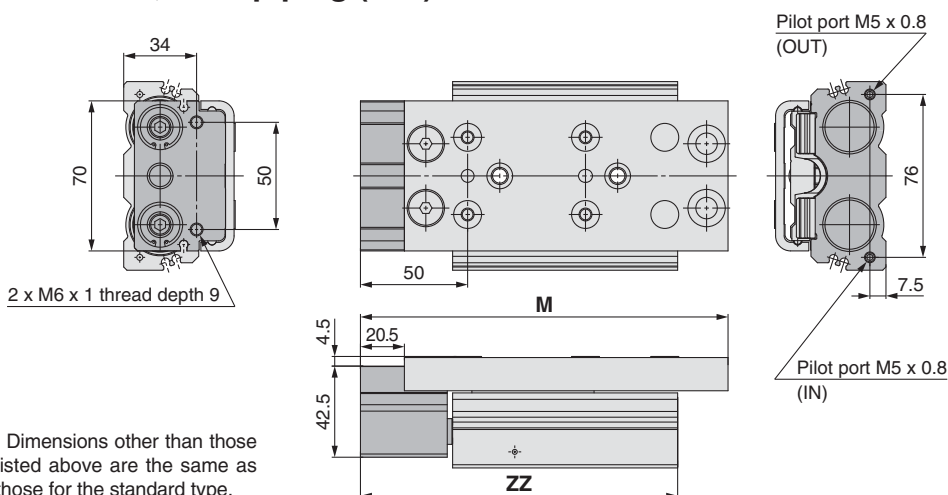
* Dimensions other than those listed above are the same as those for the standard type.



Dimensions

Model	J	Q	Standard type		ZZ
			M	M	
MXQ25A-10Z□4	109	48	151.5	130	138
MXQ25A-20Z□4	104		161.5	140	
MXQ25A-30Z□4	114		171.5	150	148
MXQ25A-40Z□4	124	43	181.5	160	158
MXQ25A-50Z□4	147		204.5	183	181
MXQ25A-75Z□4	172		229.5	208	206
MXQ25A-100Z□4	213		270.5	149	217
MXQ25A-125Z□4	277	73	334.5	313	281
MXQ25A-150Z□4	302		359.5	338	306

MXQ **25A-□□5** With buffer, axial piping (ø25)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	Standard type		ZZ
	M	M	
MXQ25A-10Z□5	151.5	130	138
MXQ25A-20Z□5	161.5	140	
MXQ25A-30Z□5	171.5	150	148
MXQ25A-40Z□5	181.5	160	158
MXQ25A-50Z□5	204.5	183	181
MXQ25A-75Z□5	229.5	208	206
MXQ25A-100Z□5	270.5	149	217
MXQ25A-125Z□5	334.5	313	281
MXQ25A-150Z□5	359.5	338	306

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

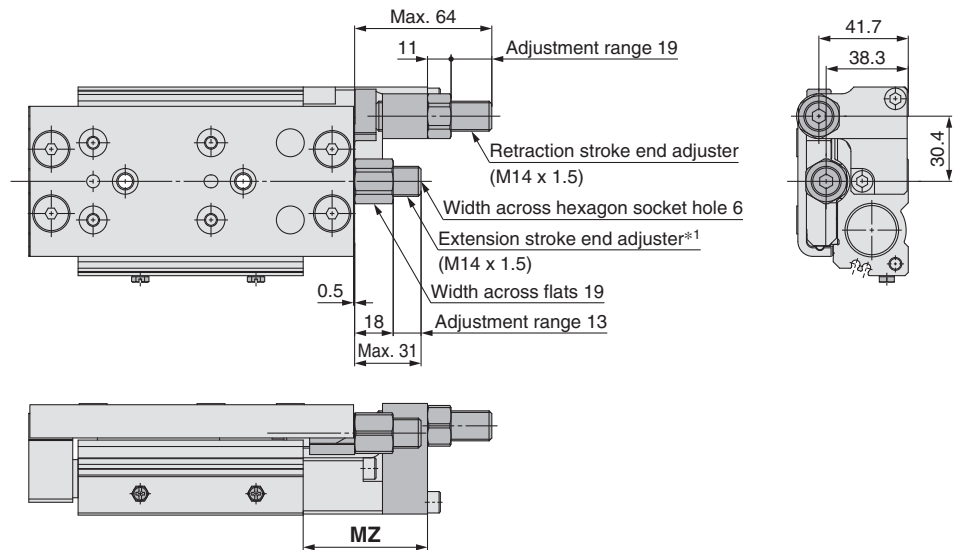
Model Selection

Dimensions: MXQ **25A** [Functional Option]

MXQ **25A-□□6** Centralized adjuster (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end
Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

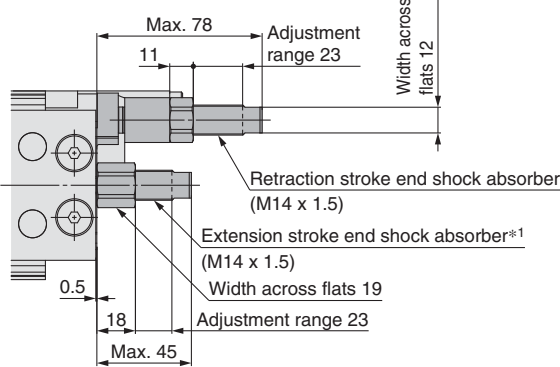
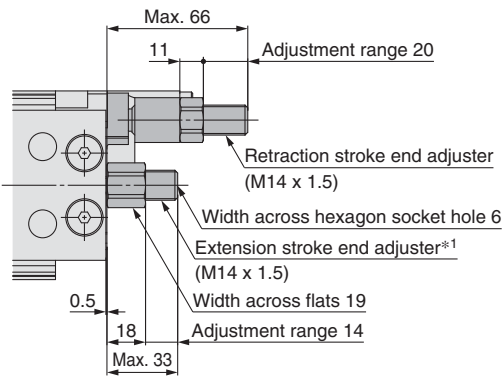
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ25A-10Z□6	48
MXQ25A-20Z□6	58
MXQ25A-30Z□6	
MXQ25A-40Z□6	
MXQ25A-50Z□6	
MXQ25A-75Z□6	88
MXQ25A-100Z□6	
MXQ25A-125Z□6	
MXQ25A-150Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

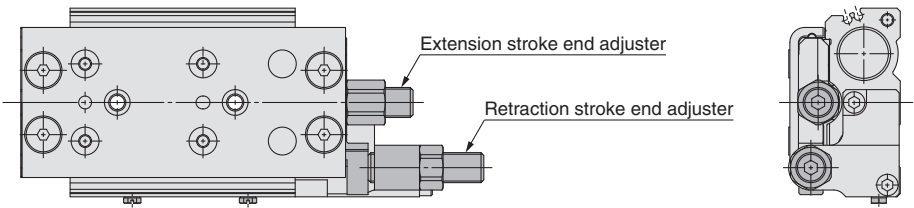
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25A-□□7** Centralized adjuster / Symmetric type (ø25)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

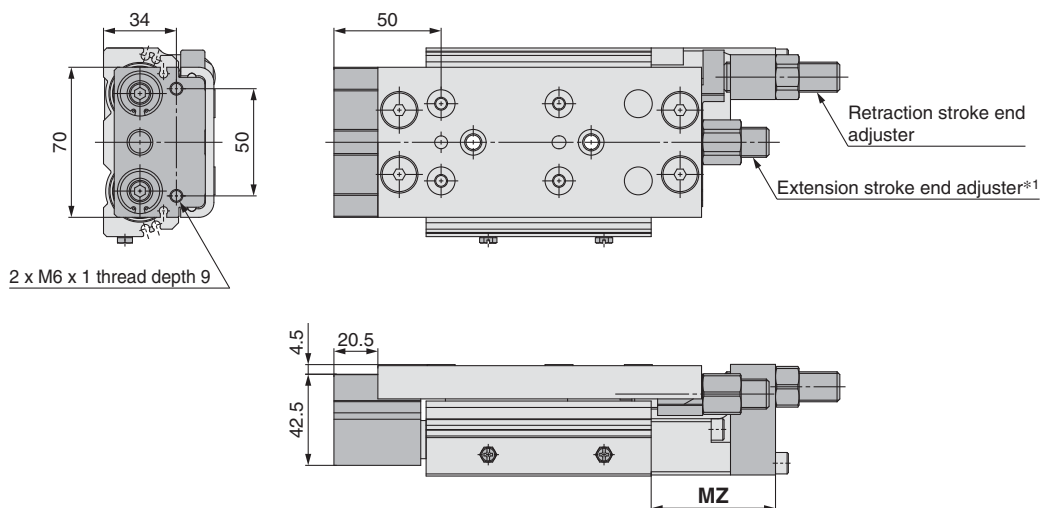


Dimensions: MXQ **25A** [Functional Option]

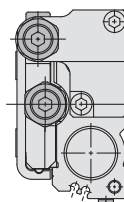
MXQ **25A**-□□**8** Buffer, Centralized adjuster (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



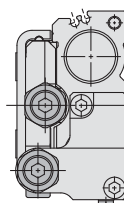
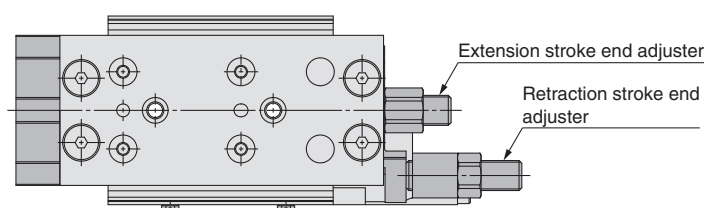
* Dimensions other than those listed above are the same as those for the standard type.



Dimensions [mm]	
Model	MZ
MXQ25A-10Z□8	48
MXQ25A-20Z□8	
MXQ25A-30Z□8	
MXQ25A-40Z□8	58
MXQ25A-50Z□8	
MXQ25A-75Z□8	
MXQ25A-100Z□8	
MXQ25A-125Z□8	88
MXQ25A-150Z□8	

MXQ **25A**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

Air Slide Table

Low Thrust with High Rigidity Type

MXQ□B Series

ø6, ø8, ø12, ø16, ø20

RoHS

How to Order

MXQ **12** **B** - **30** **ZA** - **M9BW** **□** - **□**

1 2 3 4 5 6 7

1 Bore size	2 Body option		3 Standard stroke [mm]
	Standard type B	Symmetric type BL	
6			10, 20, 30, 40, 50*, 75*
8			10, 20, 30, 40, 50, 75*, 100*
12			10, 20, 30, 40, 50, 75, 100, 125
16		—*1	10, 20, 30, 40, 50, 75, 100*, 125*, 150*
20			10, 20, 30, 40, 50, 75, 100, 125*, 150*

*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type.

* The operating speed range of the strokes marked with an asterisk (*) is 50 to 300 mm/s. (Without stroke adjuster)

4 Adjuster options

Symbol	Adjuster type*3		Adjuster mounting position*1	
			Extension stroke end	Retraction stroke end
Z	Without adjuster			
ZA	Metal stopper with bumper		●	●
ZB			●	
ZC				●
ZD			●	●
ZE	Rubber stopper		●	
ZF				●
ZG			●	●
ZH	Shock absorber/RJ		●	
ZJ				●
ZK			●	●
ZL	Metal stopper		●	
ZM				●
ZN	Shorter total length type*2	Without adjuster		
ZP		Rubber stopper		●
ZQ		Shock absorber/RJ		●
ZS		Metal stopper with bumper		●
ZT		Metal stopper		●
ZBF	Extension stroke end adjuster	Rubber stopper	●	●
ZBJ		Shock absorber/RJ	●	●
ZBM		Metal stopper	●	●
ZEC		Metal stopper with bumper	●	●
ZEJ	Rubber stopper	Shock absorber/RJ	●	●
ZEM		Metal stopper	●	●
ZHC		Metal stopper with bumper	●	●
ZHF	Shock absorber/RJ	Rubber stopper	●	●
ZHM		Metal stopper	●	●
ZLC		Metal stopper with bumper	●	●
ZLF	Metal stopper	Rubber stopper	●	●
ZLJ		Shock absorber/RJ	●	●

5 Auto switch

Nil Without auto switch

* For applicable auto switches, refer to the next page.

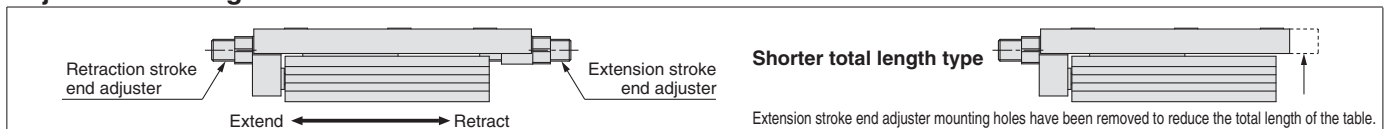
6 Number of auto switches

Nil	2
S	1
n	n

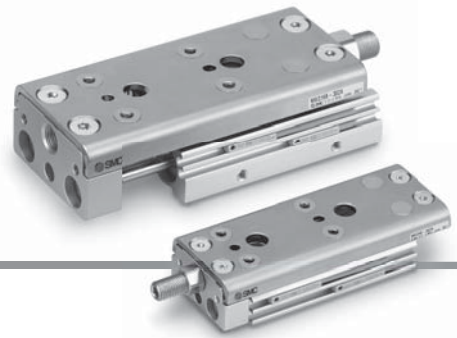
7 Made to order

For details, refer to the next page.

Adjuster Mounting Position



Air Slide Table/Low Thrust with High Rigidity Type **MXQ□B Series**



Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load	
					DC		AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	3-wire (PNP)			12 V		M9PV		M9P	●	●	●	○	○			
	2-wire					M9BV		M9B	●	●	●	○	○			
	Diagnostic indication (2-color indicator)			3-wire (NPN)	5 V, 12 V	M9NWV		M9NW	●	●	●	○	○	IC circuit		
				3-wire (PNP)		M9PWV		M9PW	●	●	●	○	○			
	Water resistant (2-color indicator)			2-wire	12 V	M9BWV		M9BW	●	●	●	○	○	—		
				3-wire (NPN)	5 V, 12 V	M9NAV*1		M9NA*1	○	○	●	○	○	IC circuit		
				3-wire (PNP)		M9PAV*1		M9PA*1	○	○	●	○	○			
				2-wire		12 V		M9BAV*1	M9BA*1	○	○	●	○		○	
Reed auto switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
				None	2-wire	24 V	12 V	100 V	A93V*2	A93	●	●	●	●	—	—
			100 V or less					A90V	A90	●	—	●	—	—	IC circuit	

*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

*2 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 mNil (Example) M9NW
1 mM (Example) M9NWM
3 mL (Example) M9NWL
5 mZ (Example) M9NWX

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

* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

* Auto switches are shipped together, but not assembled.



Made to Order

(For details, refer to pages 127 to 156.)

Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food processing equipment
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X39	Fluororubber seal
-X42	Anti-corrosive guide unit
-X45	EPDM seal
-X580	Low-speed specification (15 to 50 mm/s)
-X2128	Heat-resistant specification (−10 to 100°C)
-X2202	Extension stroke end adjuster fixed from the axial direction

Moisture Control Tube IDK Series



When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to **the IDK series in the Best Pneumatics No. 6 Catalog**.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Specifications

Bore size [mm]	6	8	12	16	20
Piping port size	M5 x 0.8				
Fluid	Air				
Action	Double acting				
Operating pressure	0.15 to 0.7 MPa*1				
Proof pressure	1.05 MPa				
Ambient and fluid temperatures	-10 to 60°C				
Operating speed range (Average operating speed)	50 to 500 mm/s (Metal stopper with bumper: 50 to 200 mm/s) (Metal stopper: 50 to 200 mm/s) * in the standard stroke table on page 53: 50 to 300 mm/s				
Cushion (Without stroke adjuster)	Internal rubber bumper				
Cushion (With stroke adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper				
Lubrication	Non-lube				
Auto switch	Solid state auto switch, Reed auto switch (2-wire, 3-wire) 2-color indicator solid state auto switch (2-wire, 3-wire)				
Stroke length tolerance	+2 to 0 mm				

*1 Refer to page 56 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

Weight

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option	
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end
MXQ6B	120	140	150	180	230	260	—	—	—	-6	10	8
MXQ8B	220	240	260	310	330	450	500	—	—	-12	20	16
MXQ12B	420	450	480	550	580	700	890	970	—	-21	40	30
MXQ16B	710	730	770	820	920	1,100	1,400	1,700	1,800	-33	70	50 (80)
MXQ20B	1,200	1,200	1,300	1,300	1,600	1,700	2,000	2,600	2,700	-60	110	80

* Value in () is the additional weight of the shock absorber.

Weight of Moving Parts

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option	
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end
MXQ6B	63	68	76	87	106	125	—	—	—	-6	10	8
MXQ8B	116	128	141	161	174	224	255	—	—	-12	20	16
MXQ12B	226	241	262	293	313	373	454	504	—	-21	40	30
MXQ16B	331	352	375	399	434	510	661	720	779	-33	70	50 (80)
MXQ20B	591	601	637	672	743	831	963	1,157	1,246	-60	110	80

* Value in () is the additional weight of the shock absorber.

Maximum Load Weight

Model	Without adjuster	Adjuster option				
	Internal rubber bumper	Rubber stopper	Metal stopper with bumper	Shock absorber/RJ	Metal stopper	
MXQ6B	0.6	1	—	1	1	
MXQ8B	1	2	1	1.5	1	2
MXQ12B	2	4	2	4	2.5	4
MXQ16B	4	6	4	6	6	
MXQ20B	6	9	6	9	6	9

Theoretical Output



The dual rod ensures an output twice that of current cylinders. [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	
6	3	OUT	57	11	17	23	29	34	40	
		IN	42	8	13	17	21	25	29	
8	4	OUT	101	20	30	40	51	61	71	
		IN	75	15	23	30	38	45	53	
12	6	OUT	226	45	68	90	113	136	158	
		IN	170	34	51	68	85	102	119	
16	6	OUT	402	80	121	161	201	241	281	
		IN	346	69	104	138	173	207	242	
20	8	OUT	628	126	188	251	314	377	440	
		IN	528	106	158	211	264	317	369	

* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 56.

Allowable Kinetic Energy

Model	Without adjuster	Adjuster option			
	Internal rubber bumper	Metal stopper with bumper	Rubber stopper	Shock absorber/RJ	Metal stopper
MXQ6B	0.03	—	0.06	0.2	0.009
MXQ8B	0.06	0.018	0.12	0.33	0.02
MXQ12B	0.12	0.04	0.2	0.76	0.04
MXQ16B	0.2	0.08	0.4	1.47	0.06
MXQ20B	0.4	0.12	0.6	1.73	0.09

* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

Optional Specifications

Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

Metal Stopper with Bumper

Model	MXQ8B	MXQ12B	MXQ16B	MXQ20B
Max. absorbed energy [J]	0.018	0.04	0.08	0.12
Stroke absorption [mm]	2	2.8	3.6	4.4
Min. operating pressure of metal stopper with bumper*1*2 [MPa]	0.3	0.3	0.2	0.2
Reference) Full compression force of bumper [N]	20	42	65	97
Mounting screw size [mm]	M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

*2 Not available for ø6

Rubber Stopper

Model	MXQ6B	MXQ8B	MXQ12B	MXQ16B	MXQ20B
Max. absorbed energy [J]	0.06	0.12	0.2	0.4	0.6
Mounting screw size [mm]	M6 x 0.75	M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

Shock Absorber/RJ

Model	MXQ6B	MXQ8B	MXQ12B	MXQ16B	MXQ20B
Max. absorbed energy [J]	0.35	0.5	1.5	3	3.7
Stroke absorption [mm]	3	5	6	7	10
Collision speed [mm/s]	300 to 500	50 to 500			
Max. operating frequency [cycle/min]	80	80	70	45	
Max. allowable thrust [N]	150	245	422	814	
Spring force (Extended) [N]	1.3	2.8	5.4	6.4	
Spring force (Compressed) [N]	3.9	4.9	8	15	
Mounting screw size [mm]	M6 x 0.75	M8 x 1	M10 x 1	M14 x 1.5	

Metal Stopper

Model	MXQ6B	MXQ8B	MXQ12B	MXQ16B	MXQ20B
Max. absorbed energy [J]	0.009	0.02	0.04	0.06	0.09
Mounting screw size [mm]	M6 x 0.75	M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

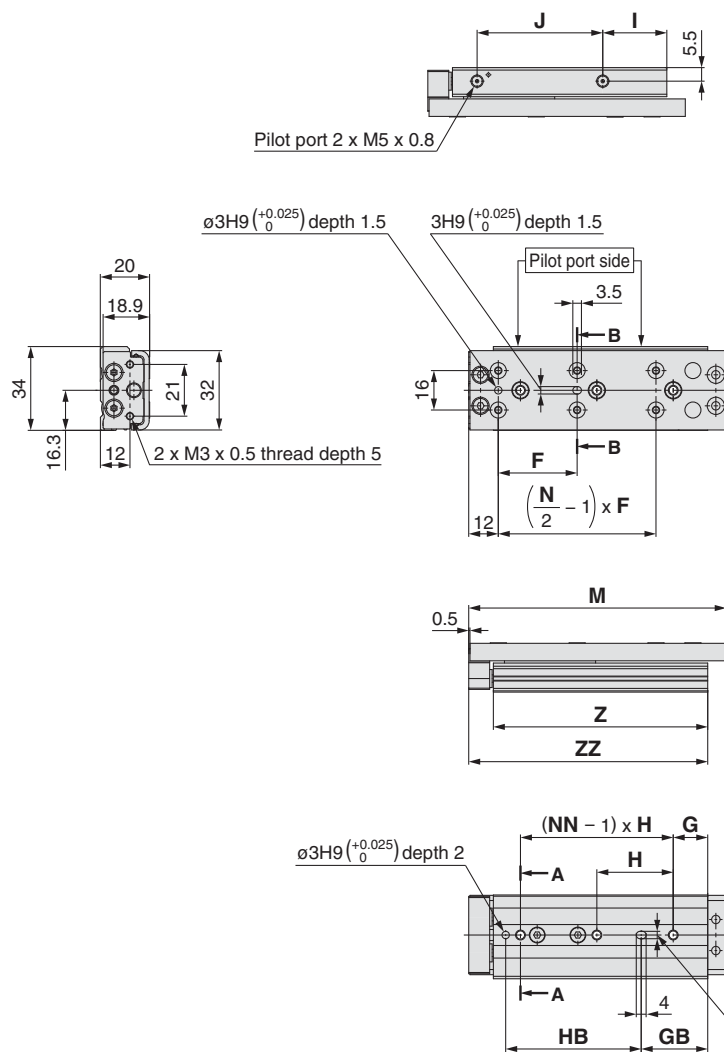
Made to Order

Model Selection

MXQ□B Series

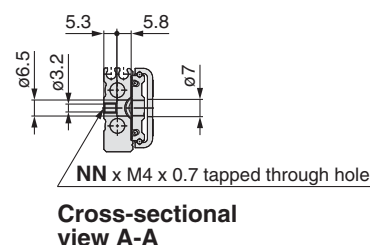
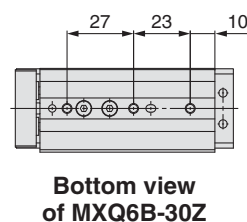
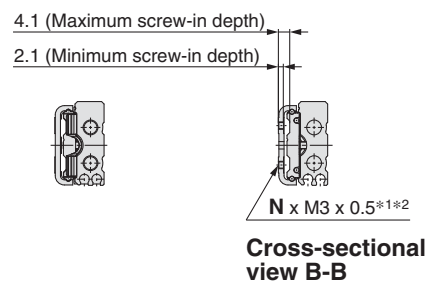
Dimensions: MXQ **6B** [Standard]

MXQ **6B**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

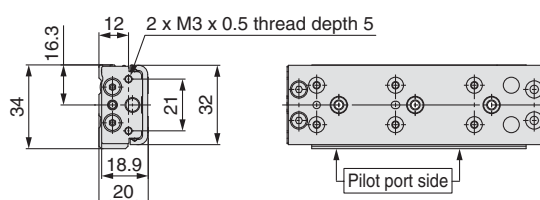
*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ6B-10Z	25	15	9	25	37	10	31	68.5	4	2	51	61
MXQ6B-20Z	25	22	16	28	40	17	34	78.5	4	2	61	71
MXQ6B-30Z	26	—	26	—	40	20	41	88.5	6	3	71	81
MXQ6B-40Z	32	14	27	31	55	26	51	104.5	6	3	87	97
MXQ6B-50Z	46	16	54	29	55	40	64	131.5	6	4	114	124
MXQ6B-75Z	50	15	56	30	55	20	86	156.5	6	4	116	126

MXQ **6BL**-□Z Symmetric type

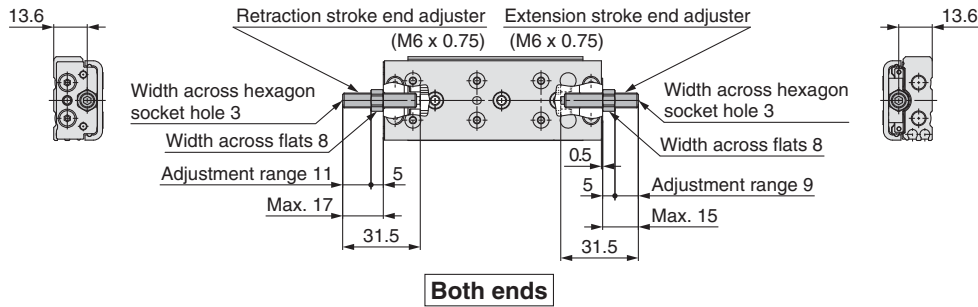


* Dimensions other than those listed above are the same as those for the standard type.

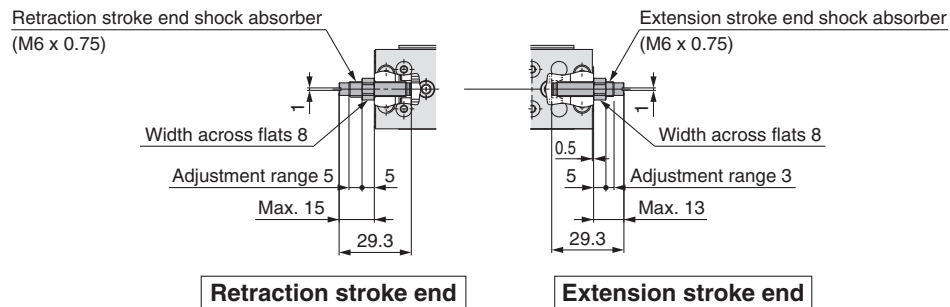
Dimensions: MXQ **6B** [Adjuster Option]

MXQ **6B**-□ With adjuster option (ø6)

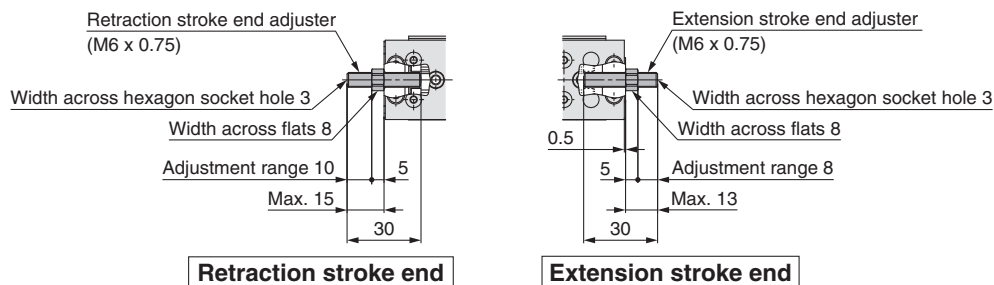
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

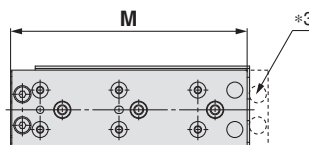


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6B**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ6B-10ZN	60
MXQ6B-20ZN	70
MXQ6B-30ZN	80
MXQ6B-40ZN	96
MXQ6B-50ZN	123
MXQ6B-75ZN	148

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

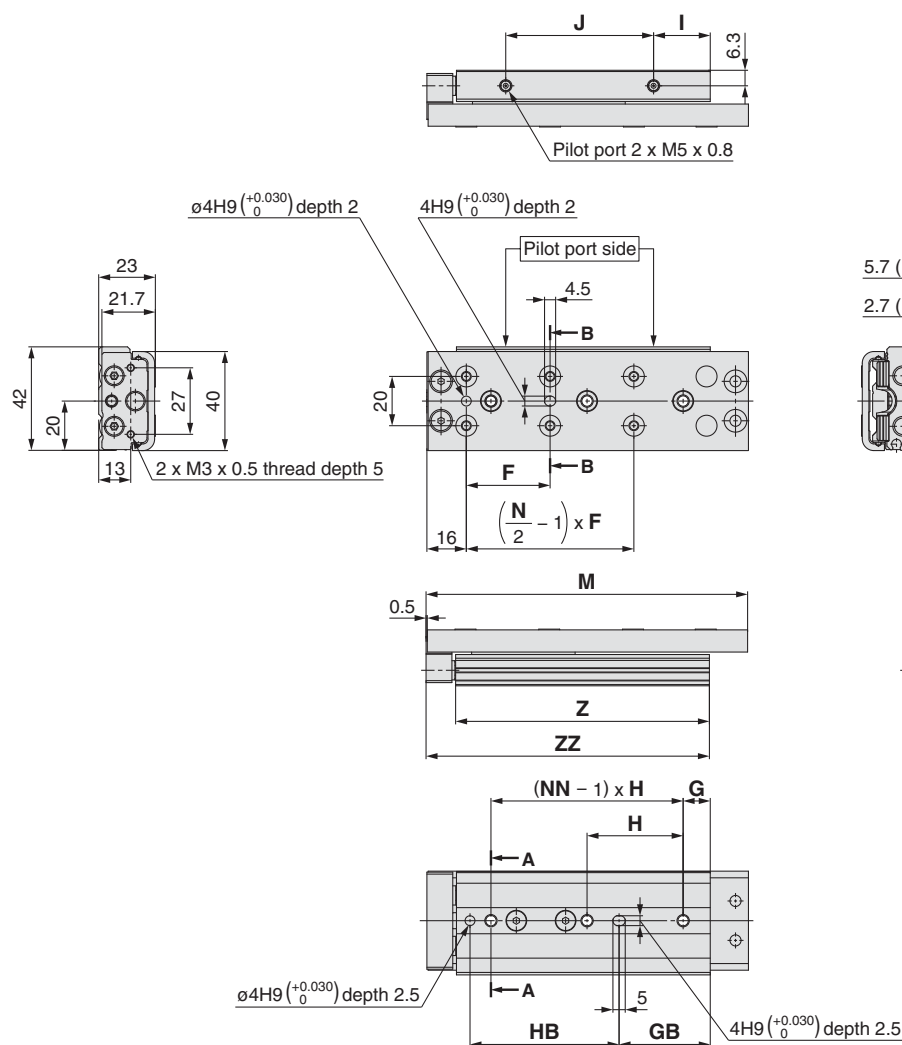
Auto Switch Mounting

Made to Order

Model Selection

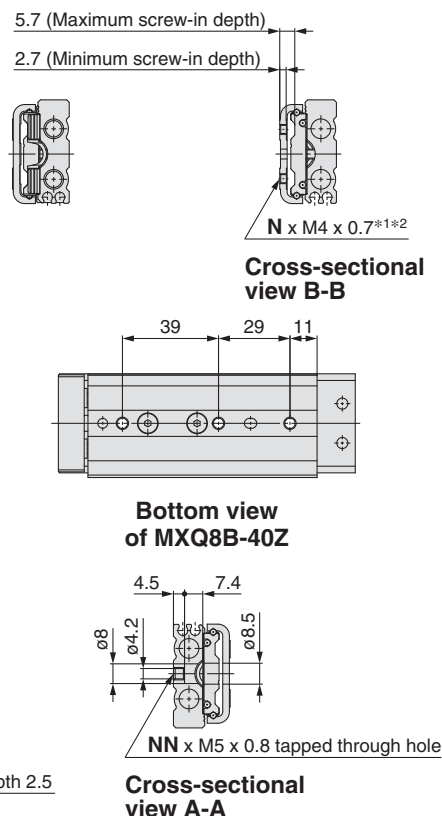
Dimensions: MXQ **8B** [Standard]

MXQ **8B**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

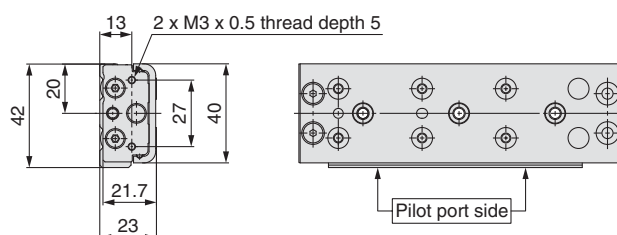


Dimensions

Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ8B-10Z	28	17	11	32	46	11	32	82.5	4	2	63	75
MXQ8B-20Z	28	19	11	32	48	13	32	92.5	4	2	65	77
MXQ8B-30Z	38	21	11	40	58	15	40	102.5	4	2	75	87
MXQ8B-40Z	34	—	27	—	60	23	50	120.5	6	3	93	105
MXQ8B-50Z	34	11	37	39	60	23	60	130.5	6	3	103	115
MXQ8B-75Z	36	25	41	36	100	42	85	174.5	8	4	147	159
MXQ8B-100Z	36	14	66	36	100	42	110	199.5	10	5	172	184

[mm]

MXQ **8BL**-□Z Symmetric type



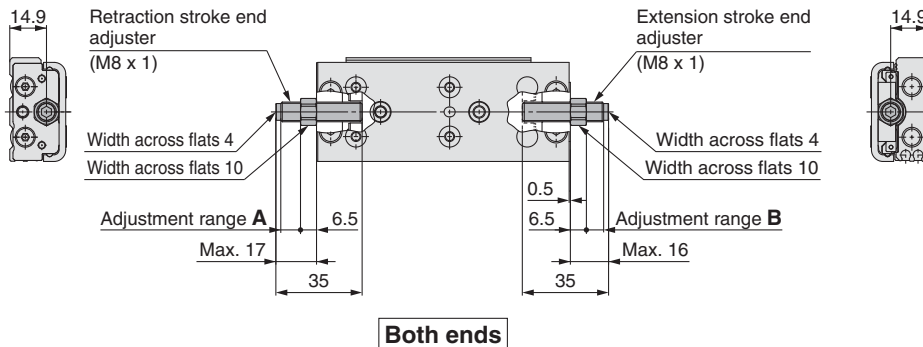
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **8B** [Adjuster Option]

MXQ **8B**-□ With adjuster option (ø8)

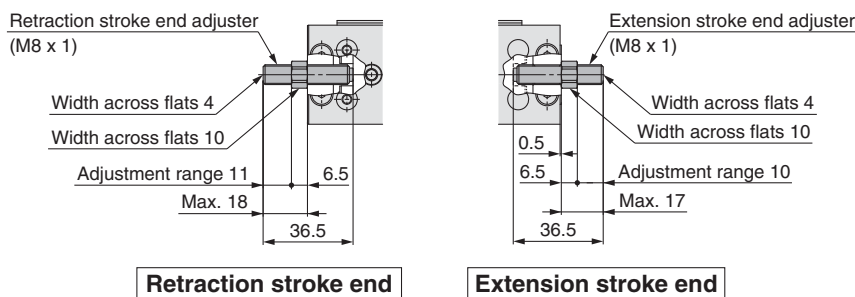
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

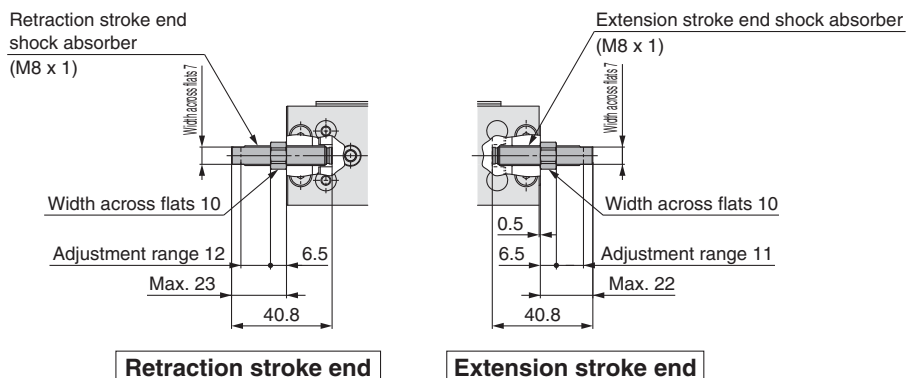


Dimensions	[mm]	
Adjuster option	A	B
Metal stopper with bumper (ZA, ZB, ZC, ZS)	8	7
Metal stopper (ZK, ZL, ZM, ZT)	10	9

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

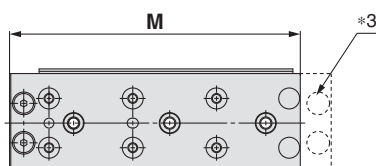


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8B**-□ **ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions	[mm]	
Model	M	
MXQ8B-10ZN	72	
MXQ8B-20ZN	82	
MXQ8B-30ZN	92	
MXQ8B-40ZN	110	
MXQ8B-50ZN	120	
MXQ8B-75ZN	164	
MXQ8B-100ZN	189	

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

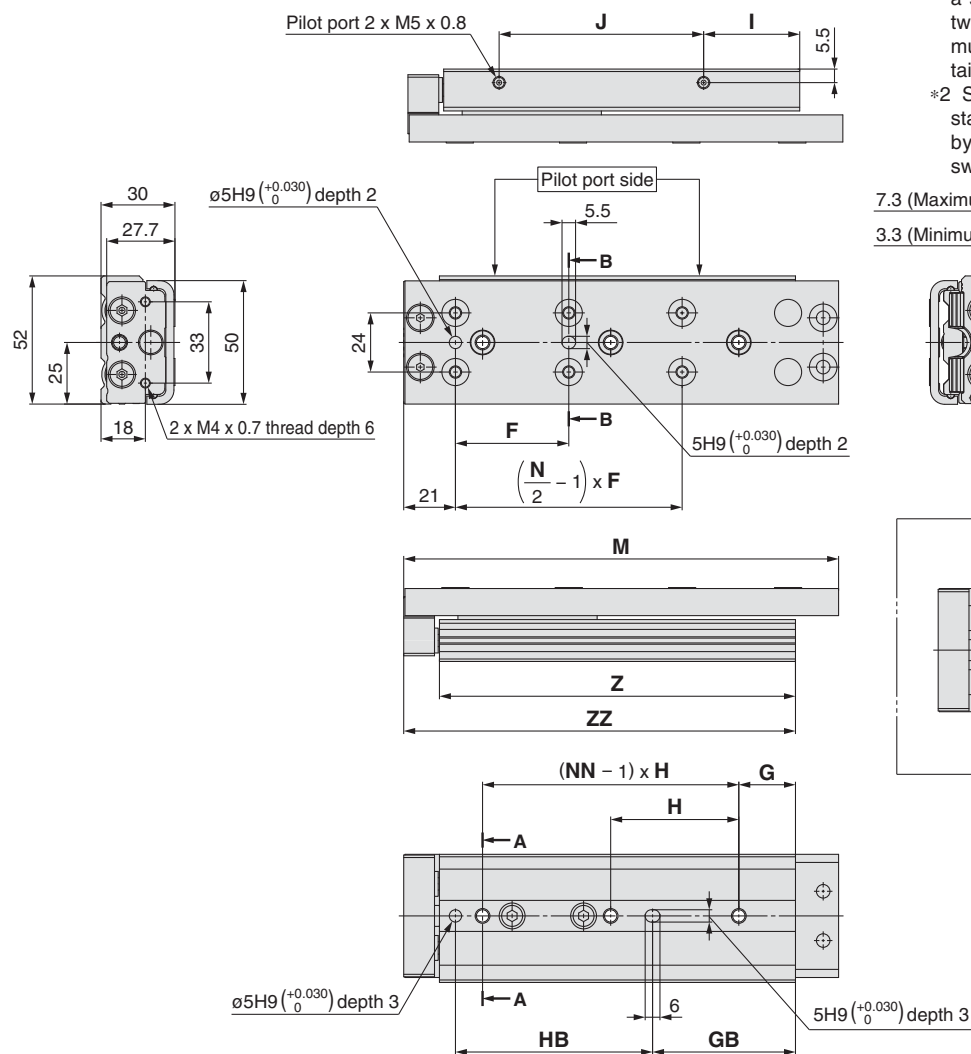
Auto Switch Mounting

Made to Order

Model Selection

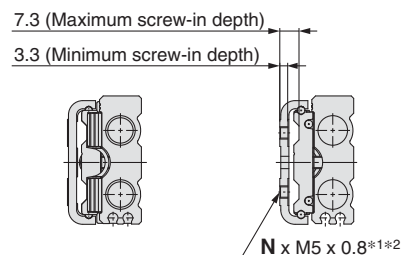
Dimensions: MXQ **12B** [Standard]

MXQ **12B**-□Z Standard type

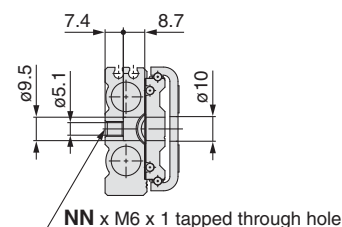
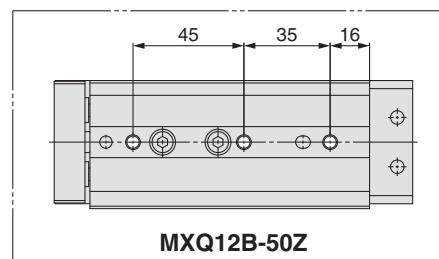


*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Cross-sectional view B-B

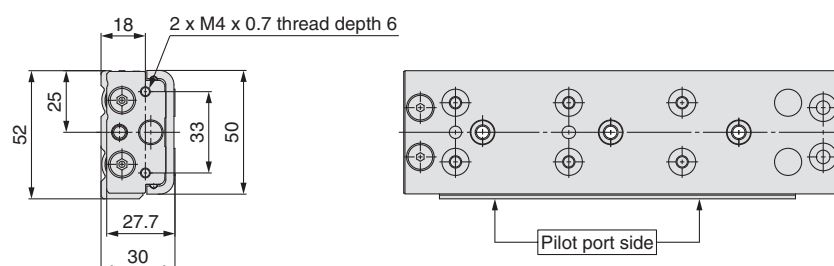


Cross-sectional view A-A

Dimensions

Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ12B-10Z	38	16	8	39	58	21	29	98.5	4	2	72.5	87
MXQ12B-20Z	38	20	12	39	58	25	29	108.5	4	2	76.5	91
MXQ12B-30Z	48	21	30	48	50	26.5	37.5	118.5	4	2	86.5	101
MXQ12B-40Z	58	28	17	58	80	33.5	47.5	135.5	4	2	103.5	118
MXQ12B-50Z	40	—	27	—	80	33	58	145.5	6	3	113.5	128
MXQ12B-75Z	46	23	58	52	80	39	83	176.5	6	3	144.5	159
MXQ12B-100Z	44	39	102	44	80	57	109	220.5	8	4	188.5	203
MXQ12B-125Z	44	20	127	44	80	57	134	245.5	10	5	213.5	228

MXQ **12BL**-□Z Symmetric type



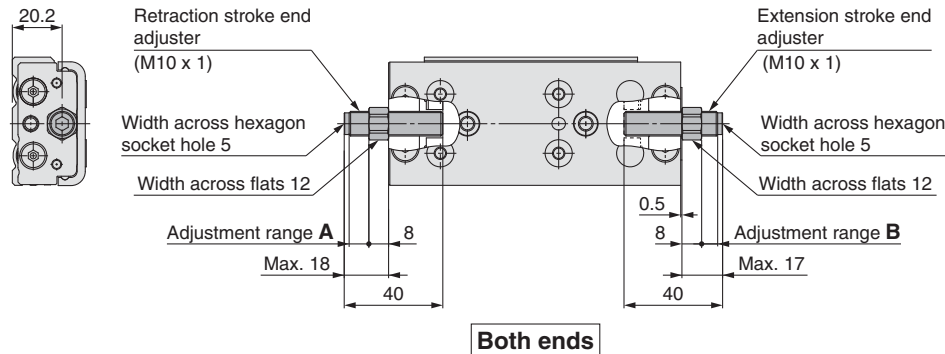
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **12B** [Adjuster Option]

MXQ 12B-□ With adjuster option (ø12)

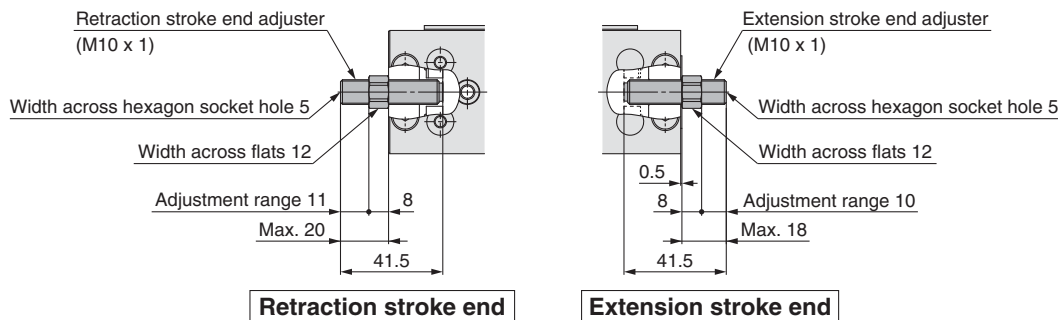
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

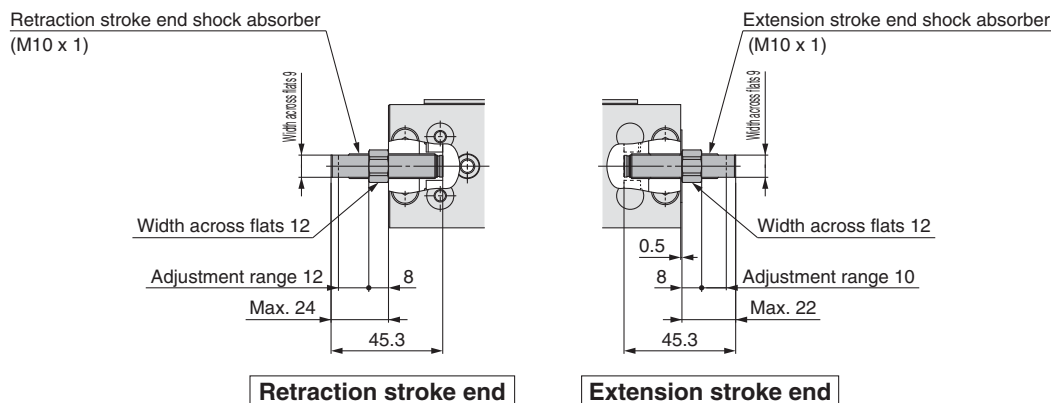


Adjuster option	[mm]	
Metal stopper with bumper (ZA, ZB, ZC, ZS)	A	B
	8	6
Metal stopper (ZK, ZL, ZM, ZT)	10	8

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

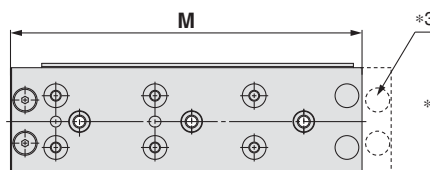


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12B-□ZN Shorter total length type



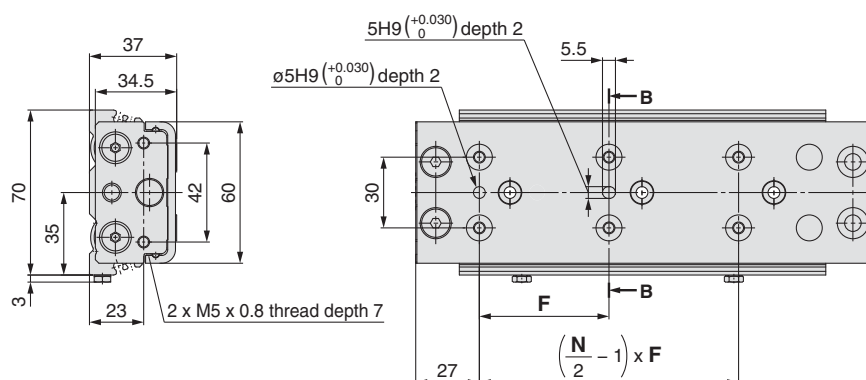
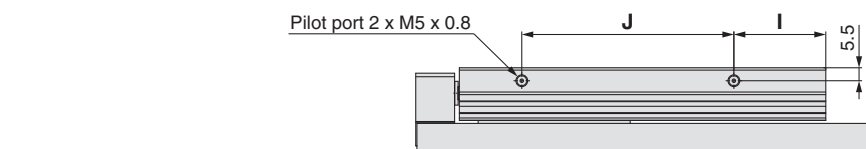
*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

Dimensions	[mm]
Model	M
MXQ12B-10ZN	85
MXQ12B-20ZN	95
MXQ12B-30ZN	105
MXQ12B-40ZN	122
MXQ12B-50ZN	132
MXQ12B-75ZN	163
MXQ12B-100ZN	207
MXQ12B-125ZN	232

* Dimensions other than those listed above are the same as those for the standard type.

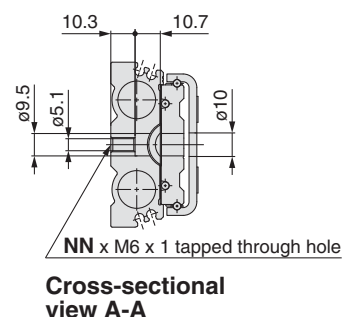
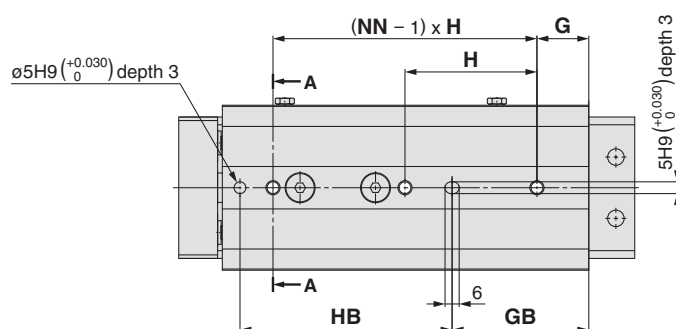
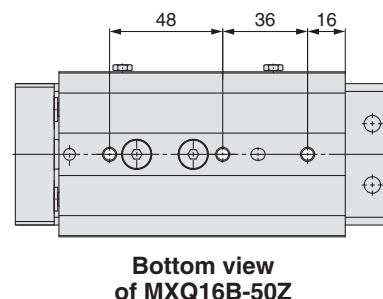
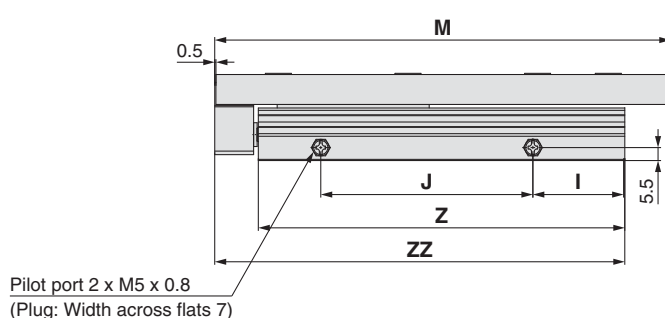
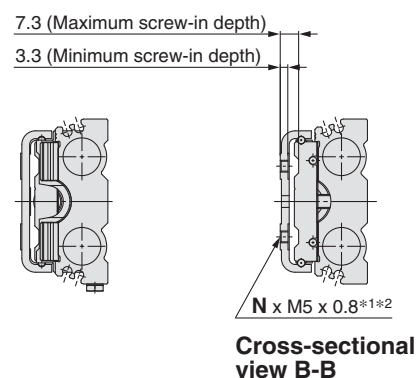
Dimensions: MXQ **16B** [Standard]

MXQ **16B**-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

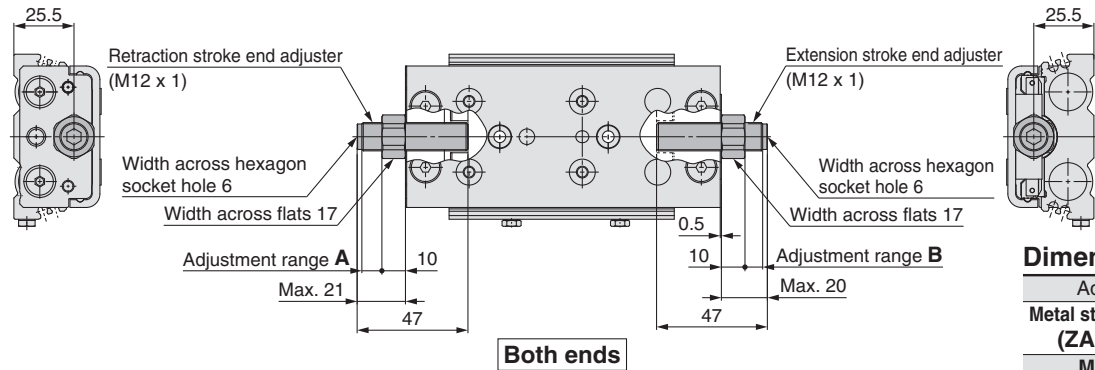
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ16B-10Z	45	18	8	46	70	40	18.5	113.5	4	2	85.5	104
MXQ16B-20Z	40	18	8	46	70	28.5	30	123.5	4	2	85.5	104
MXQ16B-30Z	48	28	18	46	70	22.5	46	133.5	4	2	95.5	114
MXQ16B-40Z	58	28	18	56	80	22.5	56	143.5	4	2	105.5	124
MXQ16B-50Z	42	—	34	—	80	35.5	59	159.5	6	3	121.5	140
MXQ16B-75Z	55	22	58	56	90	44.5	84	193.5	6	3	155.5	174
MXQ16B-100Z	50	16	108	56	90	66.5	112	266.5	8	4	205.5	224
MXQ16B-125Z	55	32	133	59	90	68.5	135	291.5	8	4	230.5	249
MXQ16B-150Z	62	48	158	62	90	68.5	160	316.5	8	4	255.5	274

Dimensions: MXQ **16B** [Adjuster Option]

MXQ 16B-□ With adjuster option (ø16)

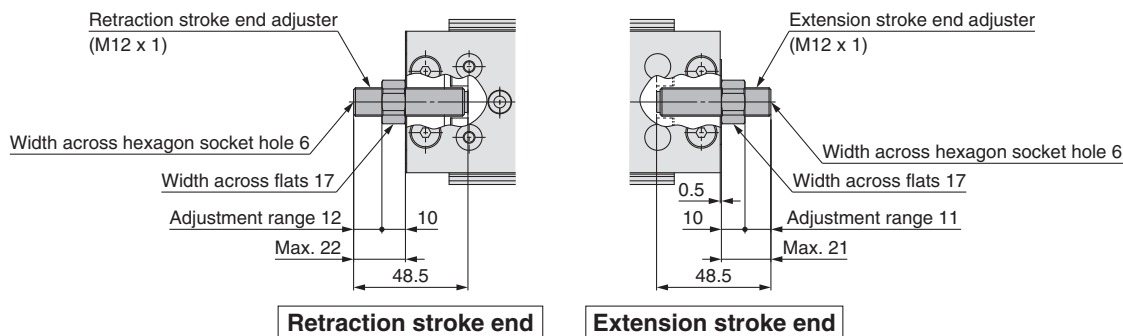
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

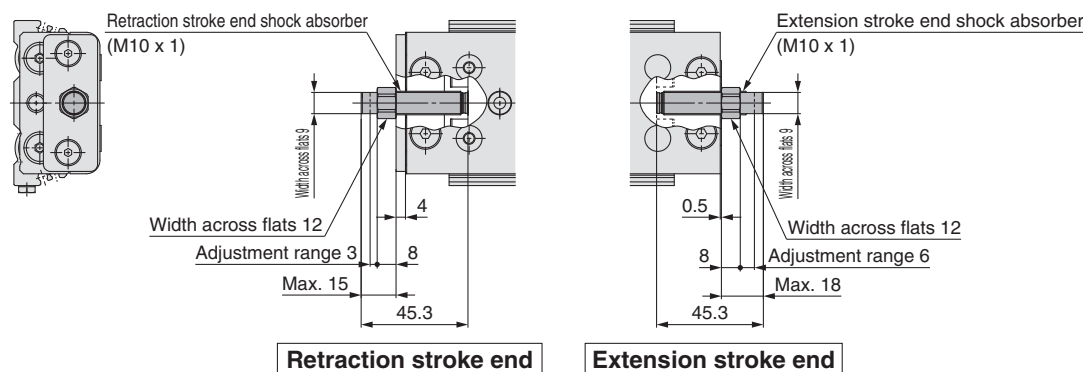


Adjuster option	[mm]	
Metal stopper with bumper (ZA, ZB, ZC, ZS)	A	B
	9	8
Metal stopper (ZK, ZL, ZM, ZT)	A	B
	10	9

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

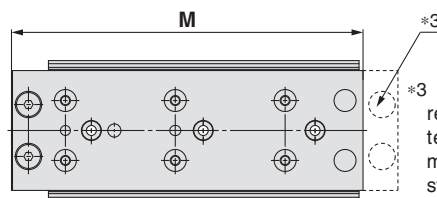


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 16B-□ZN Shorter total length type



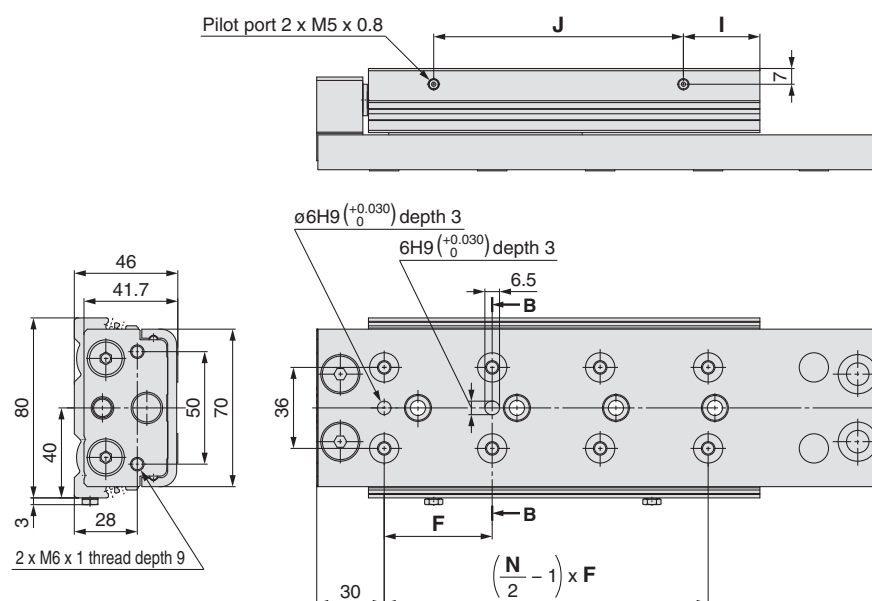
*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ16B-10ZN	96
MXQ16B-20ZN	106
MXQ16B-30ZN	116
MXQ16B-40ZN	126
MXQ16B-50ZN	142
MXQ16B-75ZN	176
MXQ16B-100ZN	249
MXQ16B-125ZN	274
MXQ16B-150ZN	299

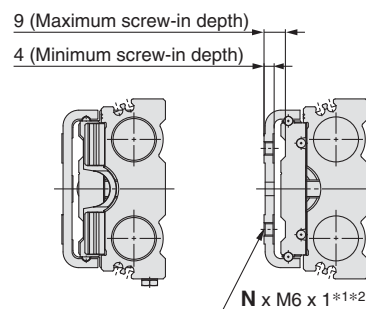
Dimensions: MXQ **20B** [Standard]

MXQ 20B-□Z Standard type

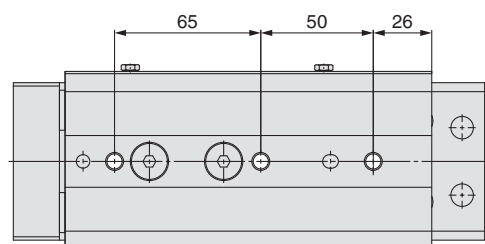
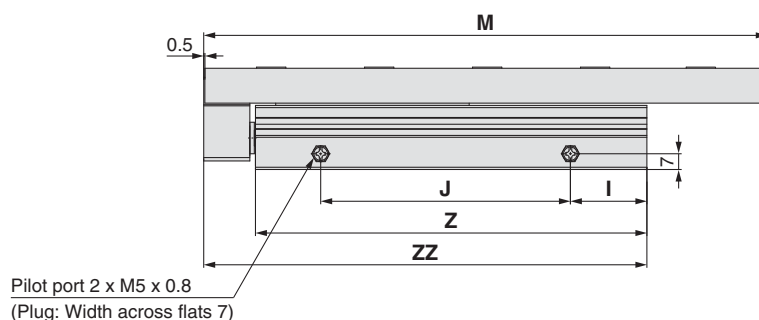


*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

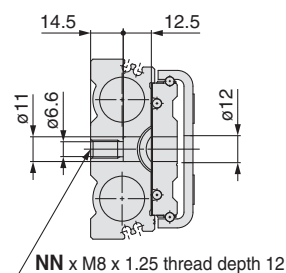
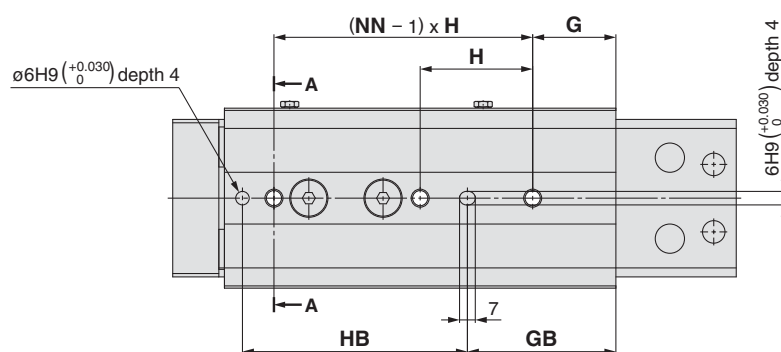
*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



**Cross-sectional
view B-B**



**Bottom view
of MXQ20B-75Z**



**Cross-sectional
view A-A**

Dimensions

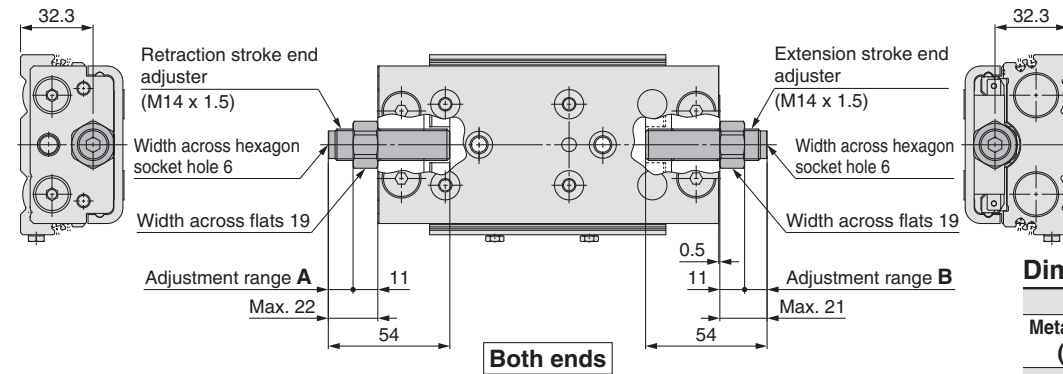
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ20B-10Z	55	18	7	55	80	30	36	131.5	4	2	95	118
MXQ20B-20Z	46	18	7	55	80	30	36	141.5	4	2	95	118
MXQ20B-30Z	55	28	17	55	80	34	42	151.5	4	2	105	128
MXQ20B-40Z	65	28	17	65	90	34	52	161.5	4	2	115	138
MXQ20B-50Z	75	36	20	80	110	47	62	184.5	4	2	138	161
MXQ20B-75Z	60	—	45	—	110	48	86	209.5	6	3	163	186
MXQ20B-100Z	48	20	46	44	120	34	111	250.5	8	4	174	197
MXQ20B-125Z	60	18	60	66	170	73	136	314.5	8	4	238	261
MXQ20B-150Z	65	43	85	66	170	73	161	339.5	8	4	263	286

Dimensions: MXQ **20B** [Adjuster Option]

MXQ **20B**-□ With adjuster option (ø20)

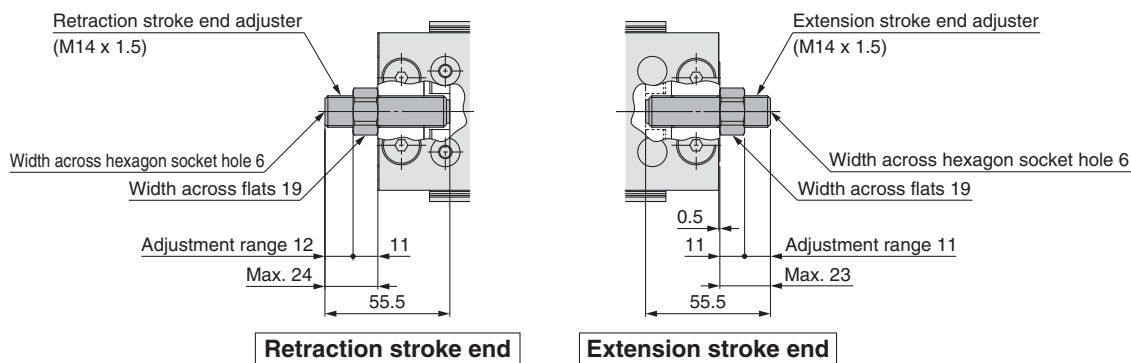
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

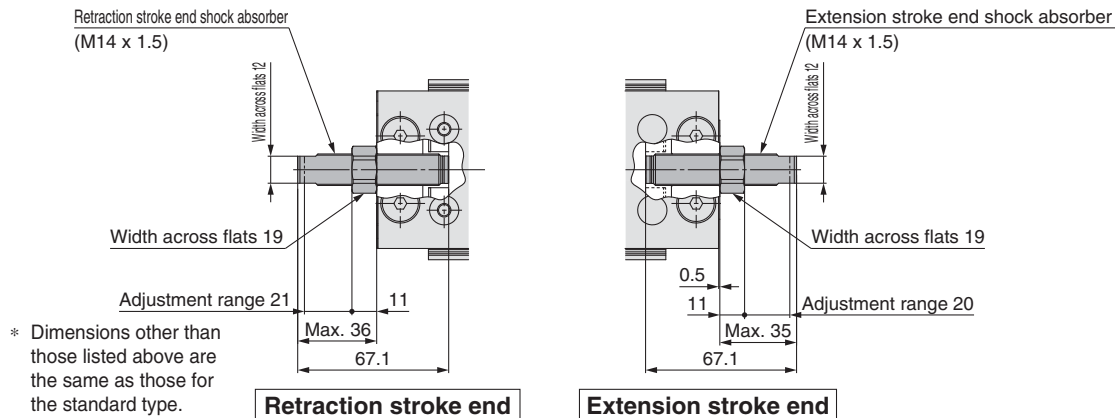


Adjuster option	[mm]	
	A	B
Metal stopper with bumper (ZA, ZB, ZC, ZS)	8	7
Metal stopper (ZK, ZL, ZM, ZT)	11	10

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

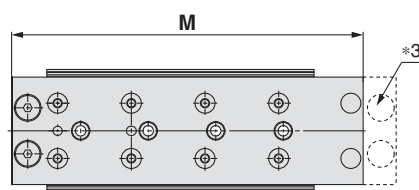


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **20B**-□ **ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ20B-10ZN	110
MXQ20B-20ZN	120
MXQ20B-30ZN	130
MXQ20B-40ZN	140
MXQ20B-50ZN	163
MXQ20B-75ZN	188
MXQ20B-100ZN	229
MXQ20B-125ZN	293
MXQ20B-150ZN	318

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Air Slide Table

Single Side-ported Type

MXQ□C Series

ø8, ø12

RoHS

How to Order

MXQ **12** **C** - **30** **ZA** **□** - **M9BW** **□** - **□**

1 2 3 4 5 6 7 8

1 Bore size	2 Body option		3 Standard stroke [mm]
	Standard type C	Symmetric type CL	
8			10, 20, 30, 40, 50, 75
12			10, 20, 30, 40, 50, 75, 100

5 Functional options	Symbol	Functional option
Nil	Nil	Without functional option
1	1	With buffer
2	2	With end lock
3	3	Axial piping
4	4	With buffer, end lock
5	5	With buffer, axial piping
6	6	Centralized adjuster
7	7	Centralized adjuster (Symmetric)
8	8	Buffer, Centralized adjuster
9	9	Buffer, Centralized adjuster (Symmetric)

7 Number of auto switches	Symbol	Number of auto switches
Nil	Nil	2
S	S	1
n	n	n

8 Made to order
For details, refer to the next page.

6 Auto switch	Symbol	Auto switch
Nil	Nil	Without auto switch

* For applicable auto switches, refer to the next page.

4 Adjuster options/Functional option combinations

Symbol	Adjuster type		Adjuster mounting position*1*6		Functional option combination									
					Nil	1	2	3	4	5	6	7	8	9
					Without functional option	*2*3 With buffer	With end lock	Axial piping	*2 With buffer, end lock	*2 With buffer, axial piping	Centralized adjuster	Centralized adjuster (Symmetric)	*2 Buffer, Centralized adjuster	*2 Buffer, Centralized adjuster (Symmetric)
Z	Without adjuster				○	○	○	○	○	○	×	×	×	×
ZA	Metal stopper with bumper		●	●	○	×	×	○	×	×	○	○	×	×
ZB			●	●	○	×	×	○	×	×	×	×	×	×
ZC			●	●	○	×	×	○	×	×	○	○	○	○
ZD			●	●	○	×	×	○	×	×	○	○	○	○
ZE	Rubber stopper		●	●	○	○	○	○	○	○	×	×	×	×
ZF			●	●	○	×	×	○	×	×	○	○	○	○
ZG			●	●	○	×	×	○	×	×	○	○	×	×
ZH			●	●	○	×	×	○	×	×	×	×	×	×
ZI	Shock absorber/RJ		●	●	○	×	×	○	×	×	○	○	○	○
ZJ			●	●	○	×	×	○	×	×	○	○	○	○
ZK			●	●	○	×	×	○	×	×	○	○	○	○
ZL			●	●	○	○	○	○	○	○	×	×	×	×
ZM	Metal stopper		●	●	○	×	×	○	×	×	○	○	○	○
ZN			●	●	○	○*5	×	○	×	○*5	×	×	×	×
ZP			●	●	○	×	×	○	×	×	×	×	×	×
ZQ			●	●	○	×	×	○	×	×	×	×	×	×
ZR	Shorter overall length type*4		●	●	○	×	×	○	×	×	×	×	×	×
ZS			●	●	○	×	×	○	×	×	×	×	×	×
ZT			●	●	○	×	×	○	×	×	×	×	×	×
ZU			●	●	○	×	×	○	×	×	×	×	×	×
ZV	Retraction stroke end adjuster		●	●	○	×	×	○	×	×	○	○	×	×
ZW			●	●	○	×	×	○	×	×	○	○	×	×
ZX			●	●	○	×	×	○	×	×	○	○	○	○
ZY			●	●	○	×	×	○	×	×	○	○	○	○
ZZ	Extension stroke end adjuster		●	●	○	×	×	○	×	×	○	○	○	○
ZZA			●	●	○	×	×	○	×	×	○	○	○	○
ZZB			●	●	○	×	×	○	×	×	○	○	○	○
ZZC			●	●	○	×	×	○	×	×	○	○	○	○
ZZD	Rubber stopper		●	●	○	×	×	○	×	×	○	○	○	○
ZZE			●	●	○	×	×	○	×	×	○	○	○	○
ZZF			●	●	○	×	×	○	×	×	○	○	○	○
ZZG			●	●	○	×	×	○	×	×	○	○	○	○
ZZH	Shock absorber/RJ		●	●	○	×	×	○	×	×	○	○	×	×
ZZI			●	●	○	×	×	○	×	×	○	○	×	×
ZZJ			●	●	○	×	×	○	×	×	○	○	×	×
ZZK			●	●	○	×	×	○	×	×	○	○	×	×
ZZL	Metal stopper		●	●	○	×	×	○	×	×	○	○	○	○
ZZM			●	●	○	×	×	○	×	×	○	○	○	○
ZZN			●	●	○	×	×	○	×	×	○	○	○	○
ZZO			●	●	○	×	×	○	×	×	○	○	○	○

- *1 ●: Shipped together with the product, but not assembled
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.
- *2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.
- *3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.

- *4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.
- *5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.
- *6 For details on the adjuster mounting position, refer to the next page.



Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load		
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	3-wire (PNP)			12 V		M9PV		M9P	●	●	●	○	○			
	2-wire			12 V		M9BV		M9B	●	●	●	○	○			
	Diagnostic indication (2-color indicator)			3-wire (NPN)	5 V, 12 V	M9NWV		M9NW	●	●	●	○	○	IC circuit		
	3-wire (PNP)			12 V	M9PWV	M9PW		●	●	●	○	○				
	2-wire			12 V	M9BWV	M9BW		●	●	●	○	○				
	Water resistant (2-color indicator)			3-wire (NPN)	5 V, 12 V	M9NAV*1		M9NA*1	○	○	●	○	○	IC circuit		
				3-wire (PNP)		M9PAV*1		M9PA*1	○	○	●	○	○			
				2-wire		12 V		M9BAV*1	M9BA*1	○	○	●	○		○	
Reed auto switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
			None	2-wire	24 V	12 V	100 V	A93V*2	A93	●	●	●	●	—	—	Relay, PLC
							100 V or less	A90V	A90	●	—	●	—	—	IC circuit	

*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

*2 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9NWM
 3 m L (Example) M9NWL
 5 m Z (Example) M9NWZ

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

* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

* Auto switches are shipped together, but not assembled.



Made to Order

(For details, refer to pages 127 to 156.)

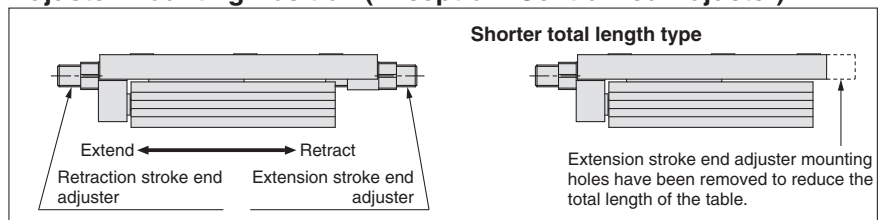
Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food processing equipment
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X39	Fluororubber seal
-X42	Anti-corrosive guide unit
-X45	EPDM seal
-X580	Low-speed specification (15 to 50 mm/s)
-X2128	Heat-resistant specification (−10 to 100°C)
-X2202	Extension stroke end adjuster fixed from the axial direction

Moisture Control Tube IDK Series

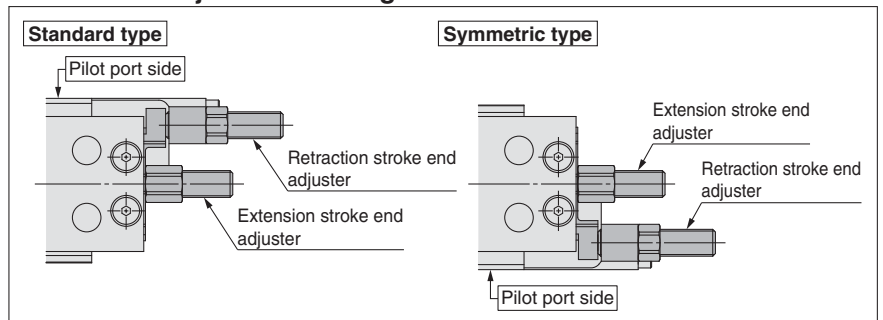


When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

Adjuster Mounting Position (Exception: Centralized Adjuster)



Centralized Adjuster Mounting Position



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Specifications

Bore size [mm]	8	12
Piping port size	M5 x 0.8	
Fluid	Air	
Action	Double acting	
Operating pressure	0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)	
Proof pressure	1.05 MPa	
Ambient and fluid temperatures	-10 to 60°C	
Operating speed range (Average operating speed)	50 to 500 mm/s (Metal stopper with bumper: 50 to 300 mm/s) (Metal stopper: 50 to 200 mm/s)	
Cushion (Without stroke adjuster)	Internal rubber bumper	
Cushion (With stroke adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper	
Lubrication	Non-lube	
Auto switch	Solid state auto switch, Reed auto switch (2-wire, 3-wire) 2-color indicator solid state auto switch (2-wire, 3-wire)	
Stroke length tolerance	+2 to 0 mm	

*1 Refer to page 70 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

Theoretical Output



The dual rod ensures an output twice that of current cylinders. [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	OUT	101	20	30	40	51	61	71
		IN	75	15	23	30	38	45	53
12	6	OUT	226	45	68	90	113	136	158
		IN	170	34	51	68	85	102	119

* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 70.

Weight

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ8C	140	150	170	200	260	280	—	—	—	-6	10	8	30	60	No addition
MXQ12C	280	290	320	370	400	550	620	—	—	-12	20	16	70	60	

Weight of Centralized Adjuster

Model	Standard stroke [mm]							Reduction only when the product comes with a retraction stroke end adjuster
	10	20	30	40	50	75	100	
MXQ8C	185	195	215	245	305	340	—	-10
MXQ12C	365	385	415	465	495	645	715	-20

Weight of Moving Parts

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ8C	68	76	85	97	116	138	—	—	—	-6	10	8	30	10	No addition
MXQ12C	143	154	168	192	206	263	300	—	—	-12	20	16	70	20	

Maximum Load Weight

Model	Without adjuster Internal rubber bumper	Adjuster option				
		Rubber stopper	Metal stopper with bumper	Shock absorber/RJ		Metal stopper
				Horizontal	Vertical	
MXQ8C	1	1	1	1		1
MXQ12C	2	2	2	1.5	1	2

[kg]

Allowable Kinetic Energy

Model	Without adjuster Internal rubber bumper	Adjuster option			
		Metal stopper with bumper	Rubber stopper	Shock absorber/RJ	Metal stopper
MXQ8C	0.04	0.018	0.06	0.2	0.009
MXQ12C	0.11	0.04	0.12	0.33	0.02

[J]

* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

Optional Specifications

With End Lock

Model	MXQ8C	MXQ12C
Operating pressure range [MPa]	0.35 to 0.7	
Holding force [N]	12	23

With Buffer Mechanism

Model	MXQ8C	MXQ12C
Operating speed range [mm/s]	50 to 500 (Horizontal mounting 50 to 300)	
Buffer stroke [mm]	5	10
Buffer stroke load [N]	Stroke at 0 [mm] Maximum stroke	9 15

Auto Switches Applicable to Buffer

Type	Model	Specifications	Electrical entry direction
Solid state auto switch	D-M9BV	With light, 2-wire	Vertical
	D-M9NV	With light, 3-wire, Output: NPN	
	D-M9PV	With light, 3-wire, Output: PNP	

Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

Metal Stopper with Bumper

Model	MXQ8C	MXQ12C
Max. absorbed energy [J]	0.018	0.04
Stroke absorption [mm]	2	2.8
Min. operating pressure of metal stopper with bumper*1*2 [MPa]	0.3	0.3
Reference) Full compression force of bumper [N]	20	42
Mounting screw size [mm]	M6 x 0.75	M8 x 1

*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

*2 Not available for ø6

Rubber Stopper

Model	MXQ8C	MXQ12C
Max. absorbed energy [J]	0.06	0.12
Mounting screw size [mm]	M6 x 0.75	M8 x 1

Shock Absorber/RJ

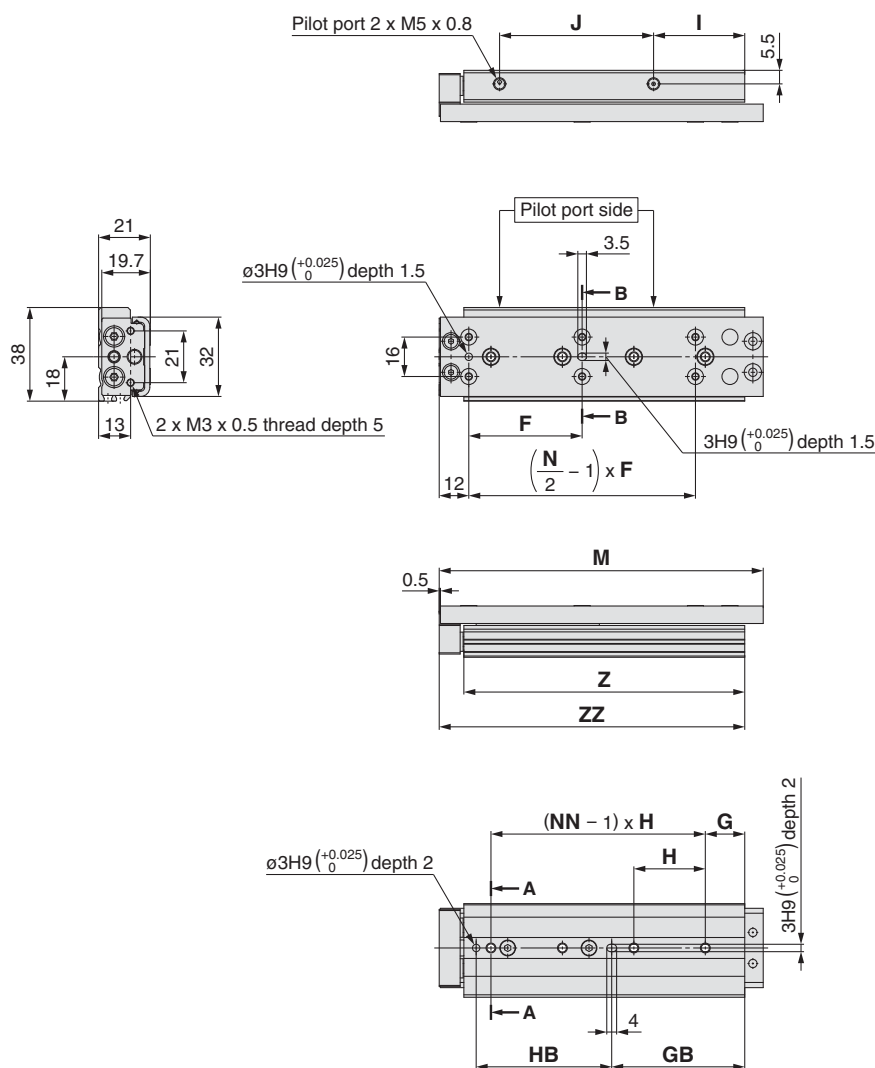
Model	MXQ8C	MXQ12C
Max. absorbed energy [J]	0.35	0.5
Stroke absorption [mm]	3	5
Collision speed [mm/s]	50 to 500	50 to 500
Max. operating frequency [cycle/min]	80	80
Max. allowable thrust [N]	150	245
Spring force (Extended) [N]	1.3	2.8
Spring force (Compressed) [N]	3.9	4.9
Mounting screw size [mm]	M6 x 0.75	M8 x 1

Metal Stopper

Model	MXQ8C	MXQ12C
Max. absorbed energy [J]	0.009	0.02
Mounting screw size [mm]	M6 x 0.75	M8 x 1

Dimensions: MXQ **8C** [Standard]

MXQ **8C**-□Z Standard type

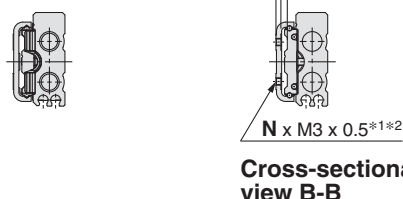


*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

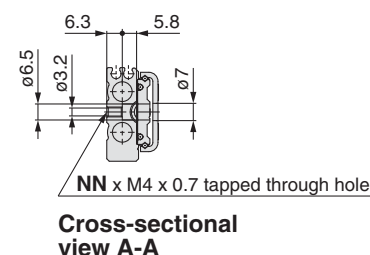
*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

4.1 (Maximum screw-in depth)

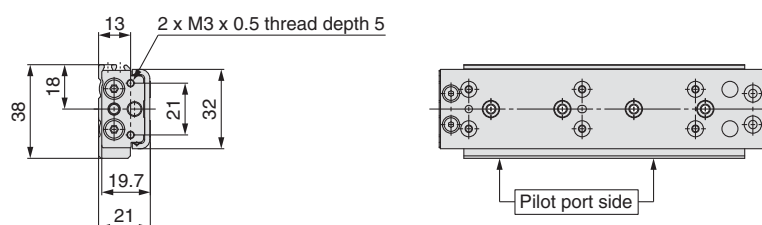
2.1 (Minimum screw-in depth)



Bottom view of MXQ8C-30Z



MXQ **8CL**-□Z Symmetric type



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

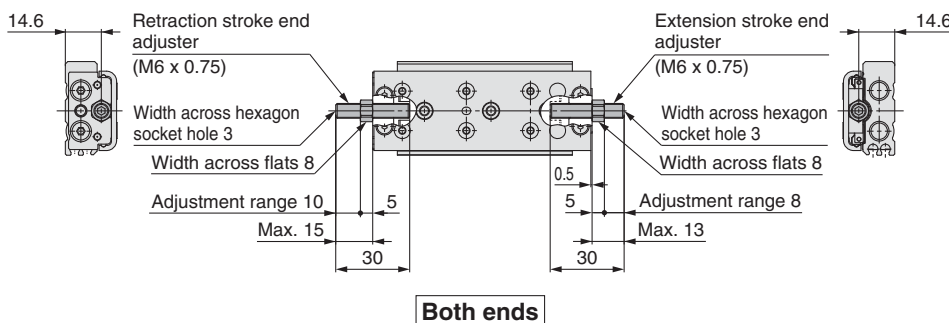
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ8C-10Z	25	15	9	25	37	10	26.5	68.5	4	2	51	61
MXQ8C-20Z	25	22	16	28	40	14	32.5	78.5	4	2	61	71
MXQ8C-30Z	26	—	26	—	40	14.5	42	88.5	6	3	71	81
MXQ8C-40Z	32	14	27	31	55	20	52.5	104.5	6	3	87	97
MXQ8C-50Z	46	16	54	29	55	37	62.5	131.5	6	4	114	124
MXQ8C-75Z	50	15	56	30	55	10	91.5	156.5	6	4	116	126

Dimensions: MXQ **8C** [Adjuster Option]

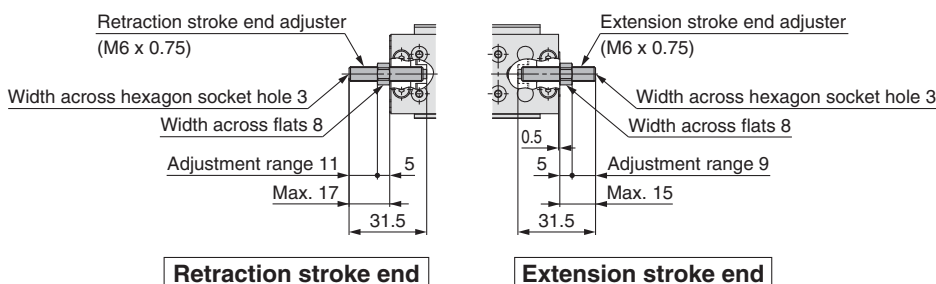
MXQ **8C**-□ With adjuster option (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

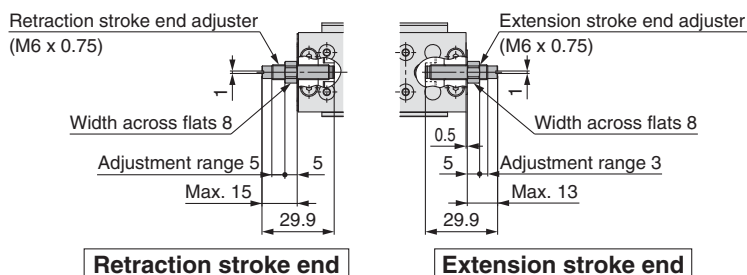
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

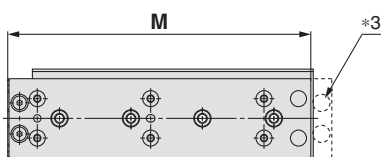


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ8C-10ZN	60
MXQ8C-20ZN	70
MXQ8C-30ZN	80
MXQ8C-40ZN	96
MXQ8C-50ZN	123
MXQ8C-75ZN	148

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

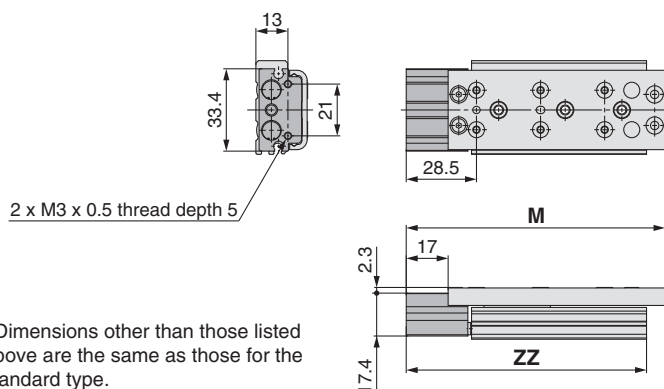
Made to Order

Model Selection

MXQ□C Series

Dimensions: MXQ **8C** [Functional Option]

MXQ **8C**-□□1 With buffer (ø8)

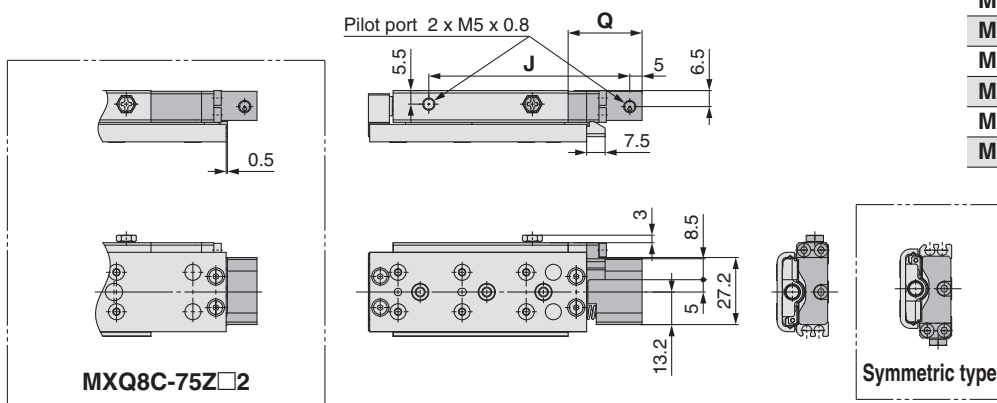


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8C-10Z□1	85	76.5	77.5
MXQ8C-20Z□1	95	86.5	87.5
MXQ8C-30Z□1	105	96.5	97.5
MXQ8C-40Z□1	121	112.5	113.5
MXQ8C-50Z□1	148	139.5	140.5
MXQ8C-75Z□1	173	164.5	142.5

MXQ **8C**-□□2 With end lock (ø8)



Dimensions [mm]

Model	J	Q
MXQ8C-10Z□2	61.5	30
MXQ8C-20Z□2	71.5	
MXQ8C-30Z□2	81.5	
MXQ8C-40Z□2	97.5	
MXQ8C-50Z□2	124.5	
MXQ8C-75Z□2	139.5	43

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C**-□□2 With end lock, extension stroke end adjuster (ø8)

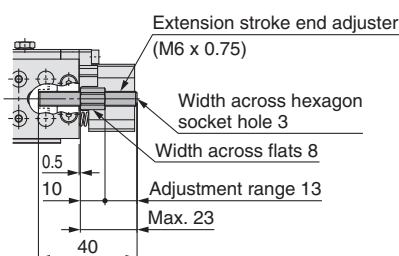
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT8-X28	MXQA-A887-X11
Rubber stopper: ZE	MXQA-AT8-X28	MXQA-A827-X11
Shock absorber/RJ: ZH	MXQA-JT8-X28	RJ0603N
Metal stopper: ZL	MXQA-DT8-X28	MXQA-A838-X11

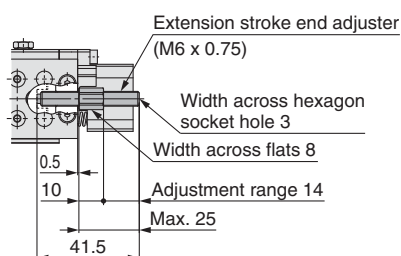
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

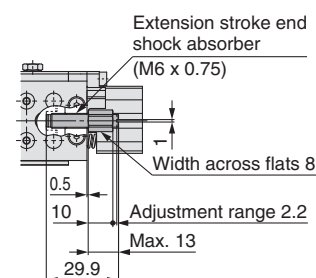
Metal stopper: **ZL**



Rubber stopper: **ZE**



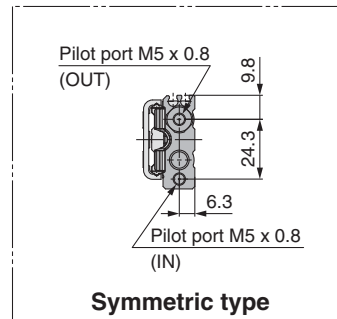
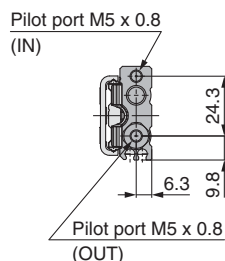
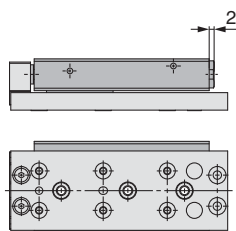
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

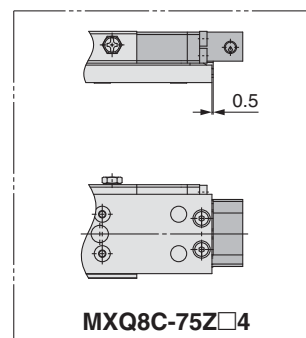
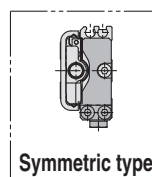
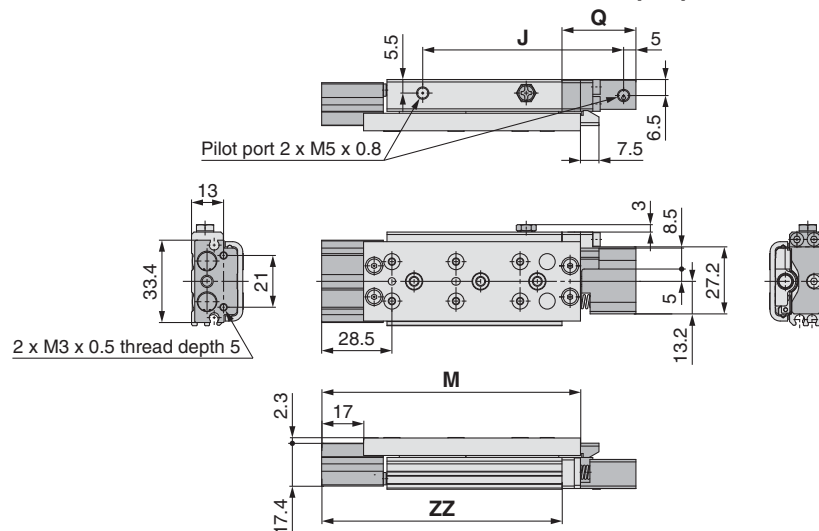
Dimensions: MXQ **8C** [Functional Option]

MXQ **8C**-□□**3** Axial piping (ø8)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C**-□□**4** With buffer, end lock (ø8)

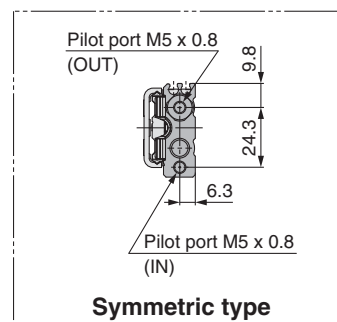
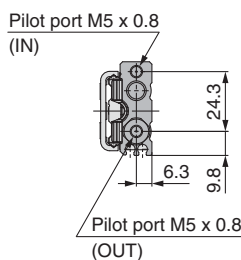
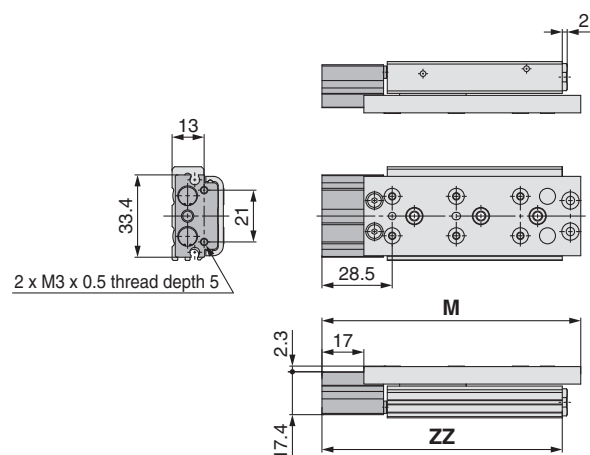


Dimensions

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
MXQ8C-10Z□4	61.5	30	85	76.5	77.5
MXQ8C-20Z□4	71.5		95	86.5	87.5
MXQ8C-30Z□4	81.5		105	96.5	97.5
MXQ8C-40Z□4	97.5		121	112.5	113.5
MXQ8C-50Z□4	124.5	43	148	139.5	140.5
MXQ8C-75Z□4	139.5		173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C**-□□**5** With buffer, axial piping (ø8)



Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8C-10Z□5	85	76.5	77.5
MXQ8C-20Z□5	95	86.5	87.5
MXQ8C-30Z□5	105	96.5	97.5
MXQ8C-40Z□5	121	112.5	113.5
MXQ8C-50Z□5	148	139.5	140.5
MXQ8C-75Z□5	173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

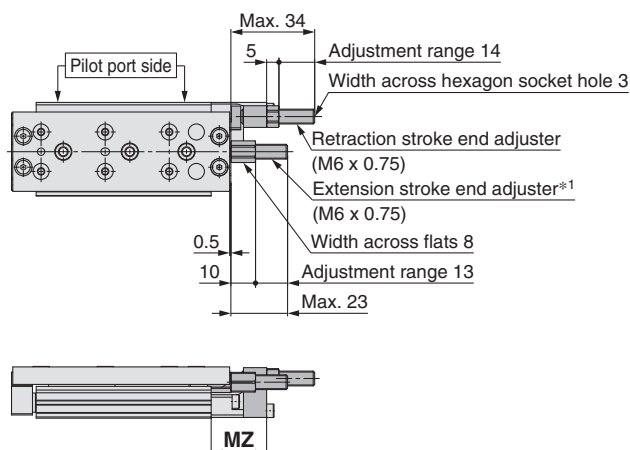
Dimensions: MXQ **8C** [Functional Option]

MXQ **8C**-□□**6** Centralized adjuster (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

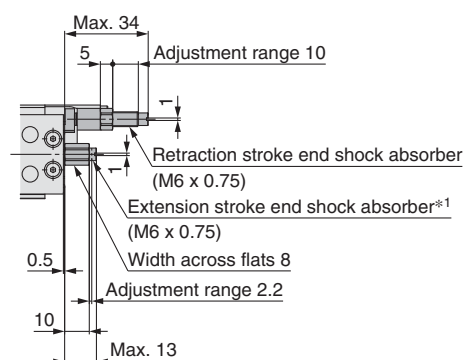
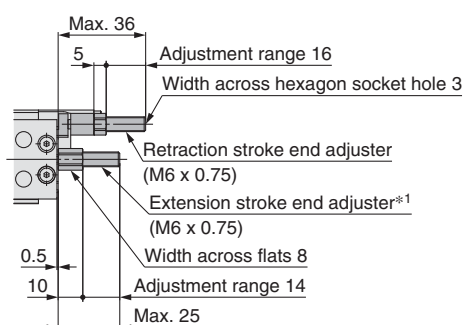
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ8C-10Z□6	22.5
MXQ8C-20Z□6	
MXQ8C-30Z□6	
MXQ8C-40Z□6	
MXQ8C-50Z□6	46.5
MXQ8C-75Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

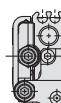
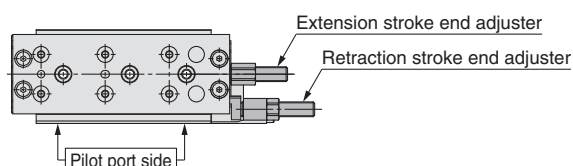
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8CL**-□□**7** Centralized adjuster / Symmetric type (ø8)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

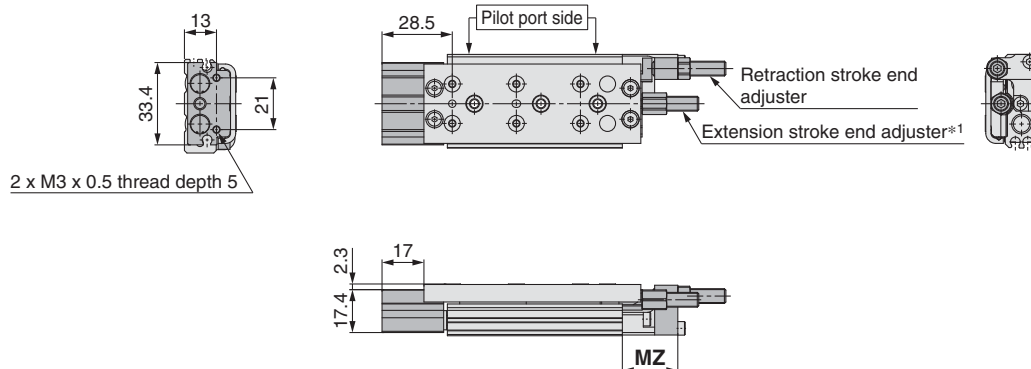


Dimensions: MXQ **8C** [Functional Option]

MXQ **8C**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

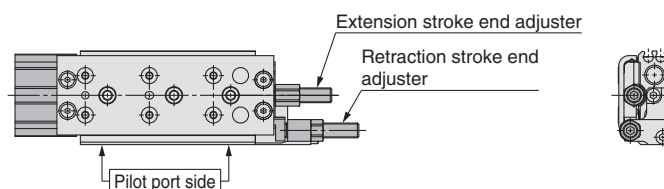


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	MZ
MXQ8C-10Z□8	22.5
MXQ8C-20Z□8	
MXQ8C-30Z□8	
MXQ8C-40Z□8	
MXQ8C-50Z□8	46.5
MXQ8C-75Z□8	

MXQ **8CL**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

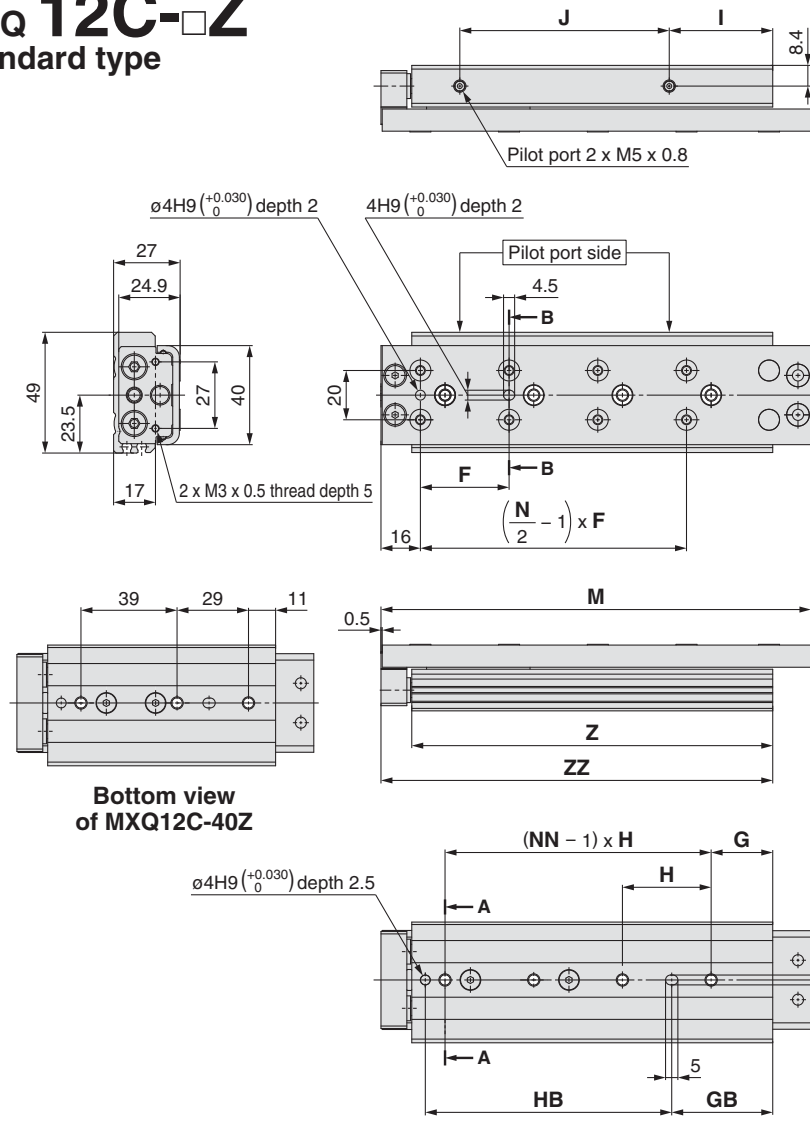
Auto Switch Mounting

Made to Order

Model Selection

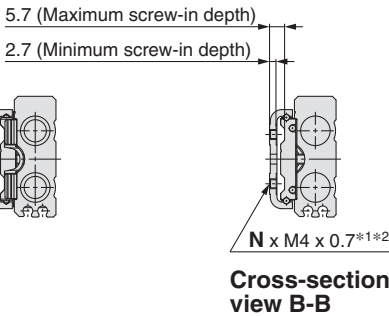
Dimensions: MXQ **12C** [Standard]

MXQ **12C**-□Z
Standard type

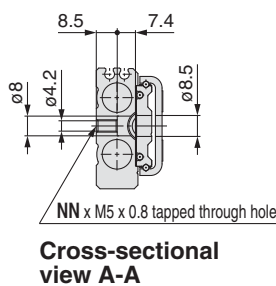


*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

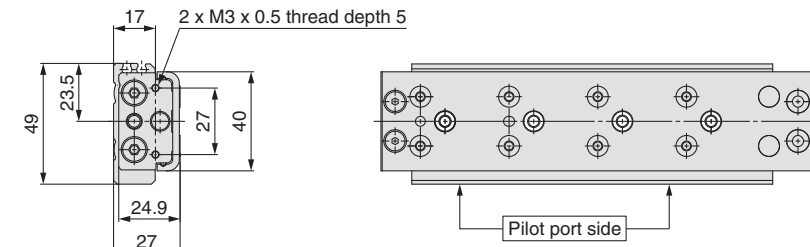


Cross-sectional view B-B



Cross-sectional view A-A

MXQ **12CL**-□Z
Symmetric type



* Dimensions other than those listed above are the same as those for the standard type.

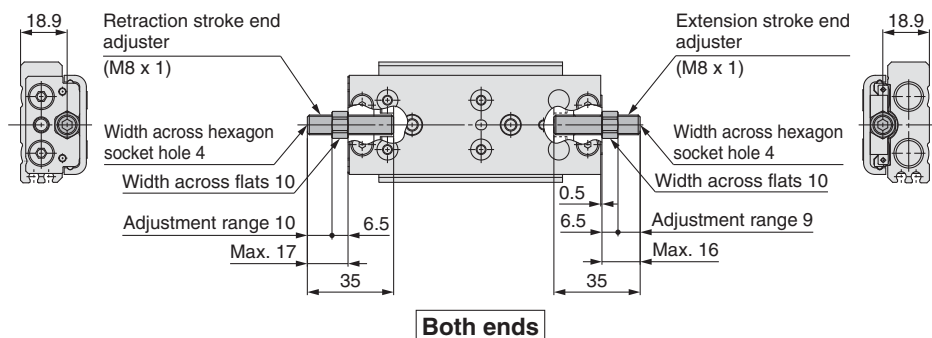
Dimensions												[mm]
Model	F	G	GB	H	HB	I	J	M	N	NN	Z	ZZ
MXQ12C-10Z	28	17	11	32	46	11	32	82.5	4	2	62.5	75
MXQ12C-20Z	28	19	11	32	48	13	32	92.5	4	2	64.5	77
MXQ12C-30Z	38	21	11	40	58	15	40	102.5	4	2	74.5	87
MXQ12C-40Z	34	—	27	—	60	23	50	120.5	6	3	92.5	105
MXQ12C-50Z	34	11	37	39	60	23	60	130.5	6	3	102.5	115
MXQ12C-75Z	36	25	41	36	100	42	85	174.5	8	4	146.5	159
MXQ12C-100Z	36	14	66	36	100	42	110	199.5	10	5	171.5	184

Dimensions: MXQ **12C** [Adjuster Option]

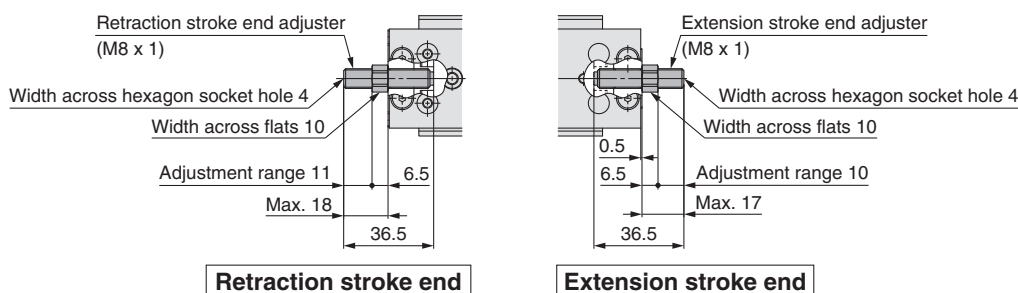
MXQ **12C**-□ With adjuster option (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

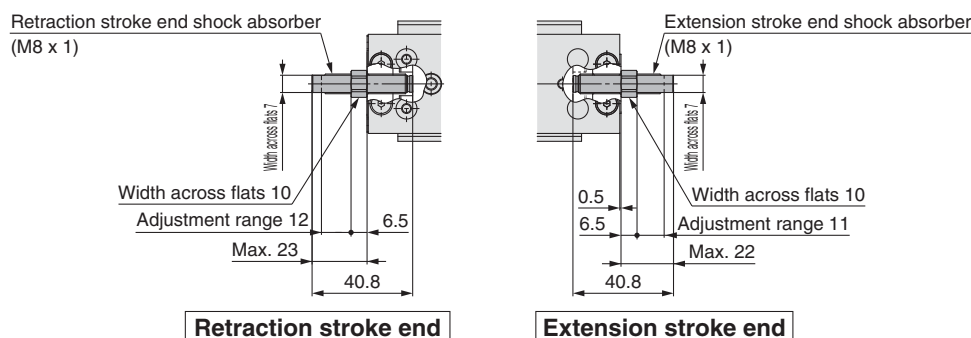
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

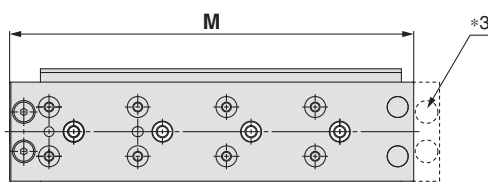


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12C**-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ12C-10ZN	72
MXQ12C-20ZN	82
MXQ12C-30ZN	92
MXQ12C-40ZN	110
MXQ12C-50ZN	120
MXQ12C-75ZN	164
MXQ12C-100ZN	189

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

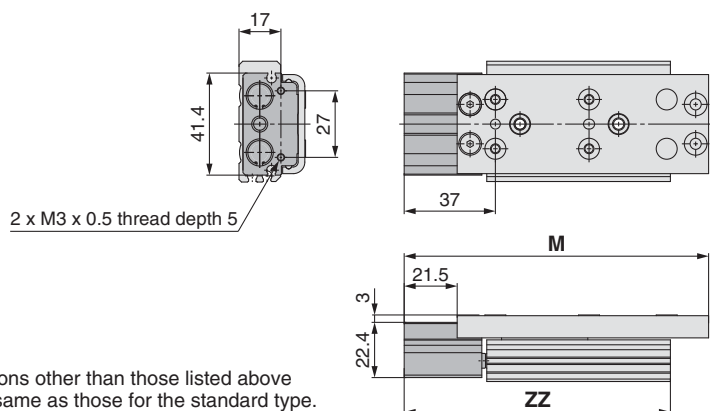
Made to Order

Model Selection

MXQ□C Series

Dimensions: MXQ **12C** [Functional Option]

MXQ **12C**-□□1 With buffer (ø12)

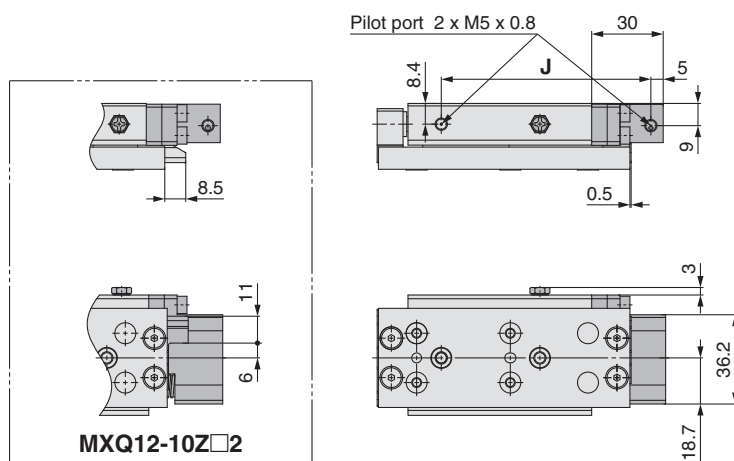


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12C-10Z□1	103.5	93	96
MXQ12C-20Z□1	113.5	103	98
MXQ12C-30Z□1	123.5	113	108
MXQ12C-40Z□1	141.5	131	126
MXQ12C-50Z□1	151.5	141	136
MXQ12C-75Z□1	195.5	185	180
MXQ12C-100Z□1	220.5	210	205

MXQ **12C**-□□2 With end lock (ø12)



Dimensions

Model	J
MXQ12C-10Z□2	68
MXQ12C-20Z□2	70
MXQ12C-30Z□2	80
MXQ12C-40Z□2	98
MXQ12C-50Z□2	108
MXQ12C-75Z□2	152
MXQ12C-100Z□2	177

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12C**-□□2 With end lock, extension stroke end adjuster (ø12)

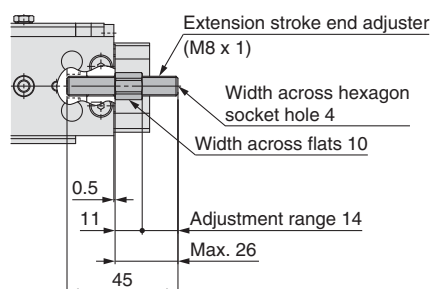
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT12-X28	MXQA-A1287-X11
Rubber stopper: ZE	MXQA-AT12-X28	MXQA-A1227-X11
Shock absorber/RJ: ZH	MXQA-JT12-X28	RJ0805U-X2300
Metal stopper: ZL	MXQA-DT12-X28	MXQA-A1238-X11

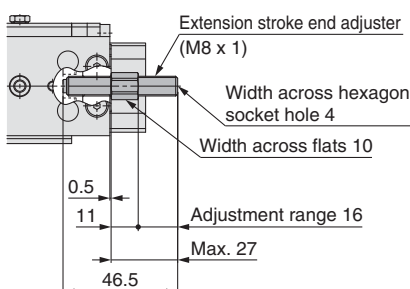
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

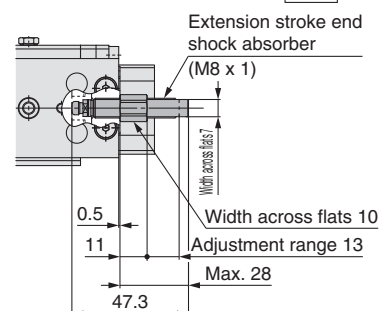
Metal stopper: **ZL**



Rubber stopper: **ZE**



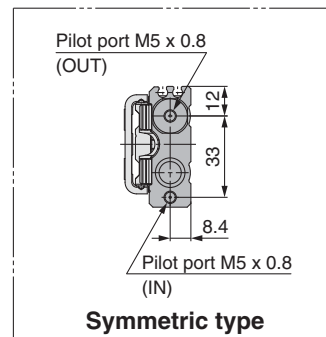
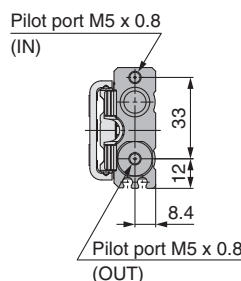
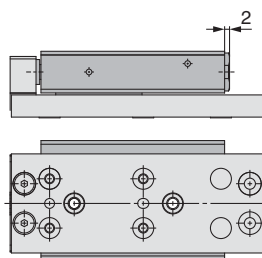
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

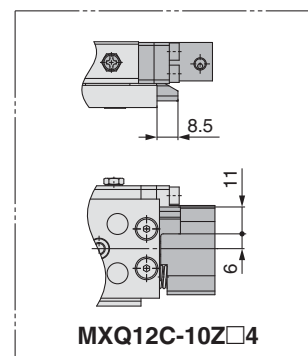
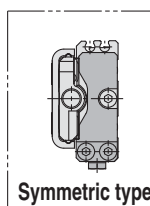
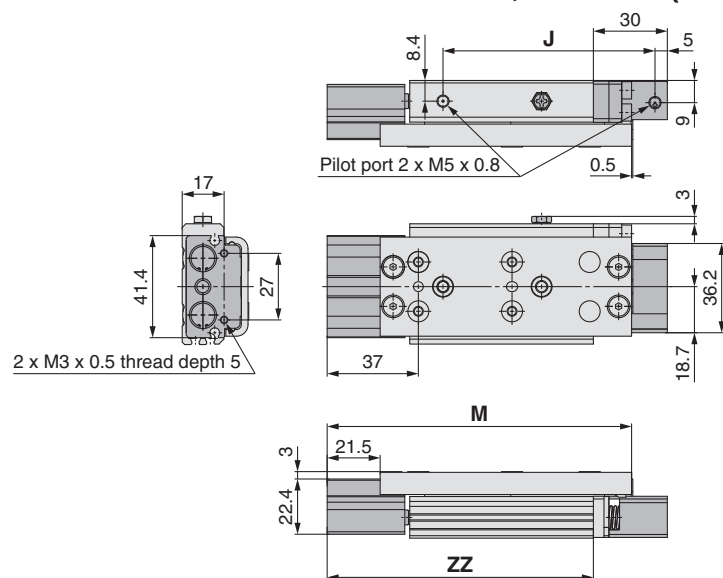
Dimensions: MXQ **12C** [Functional Option]

MXQ **12C**-□□**3** Axial piping (ø12)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12C**-□□**4** With buffer, end lock (ø12)

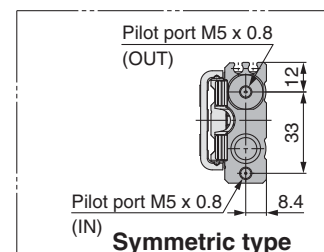
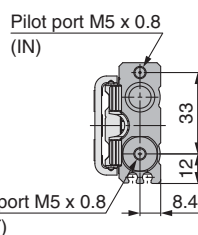
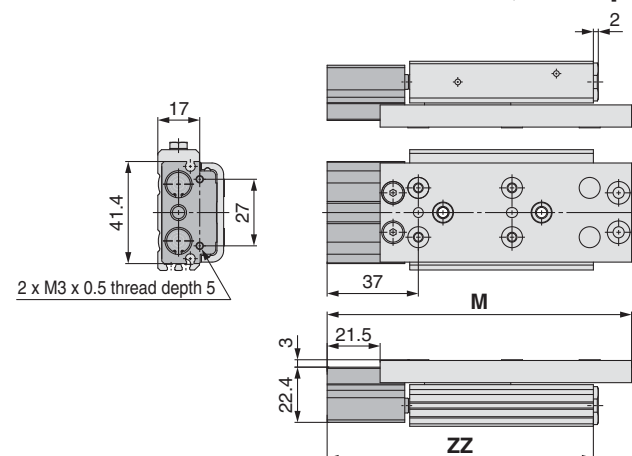


Dimensions

Model	J	Standard type	Shorter total length type	ZZ
		M	M	
MXQ12C-10Z□4	68	103.5	93	96
MXQ12C-20Z□4	70	113.5	103	98
MXQ12C-30Z□4	80	123.5	113	108
MXQ12C-40Z□4	98	141.5	131	126
MXQ12C-50Z□4	108	151.5	141	136
MXQ12C-75Z□4	152	195.5	185	180
MXQ12C-100Z□4	177	220.5	210	205

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12C**-□□**5** With buffer, axial piping (ø12)



Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12C-10Z□5	103.5	93	96
MXQ12C-20Z□5	113.5	103	98
MXQ12C-30Z□5	123.5	113	108
MXQ12C-40Z□5	141.5	131	126
MXQ12C-50Z□5	151.5	141	136
MXQ12C-75Z□5	195.5	185	180
MXQ12C-100Z□5	220.5	210	205

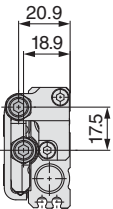
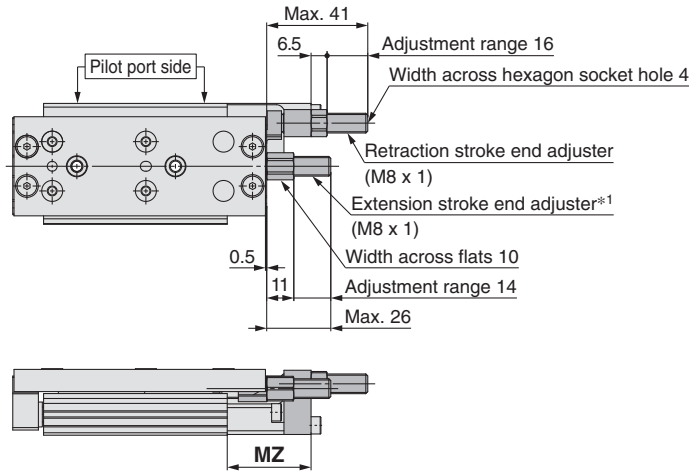
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **12C** [Functional Option]

MXQ **12C-□□6** Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end
Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

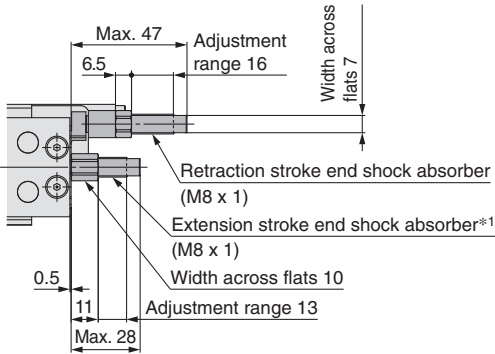
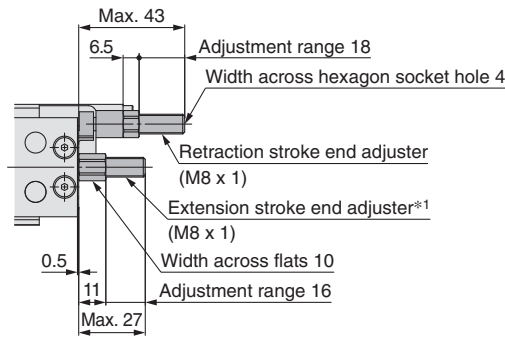
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ12C-10Z□6	26
MXQ12C-20Z□6	34
MXQ12C-30Z□6	
MXQ12C-40Z□6	
MXQ12C-50Z□6	
MXQ12C-75Z□6	
MXQ12C-100Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

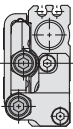
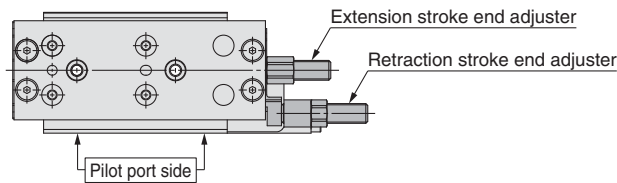
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12CL-□□7** Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

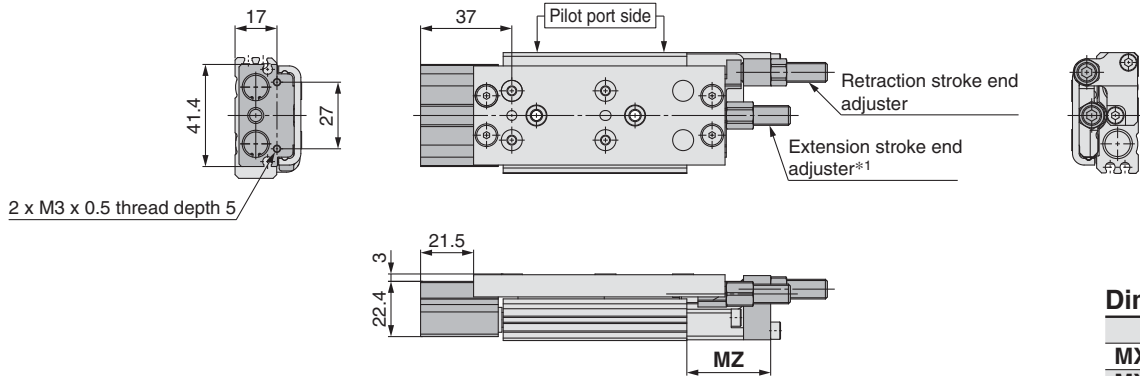


Dimensions: MXQ **12C** [Functional Option]

MXQ **12C**-□□**8** Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

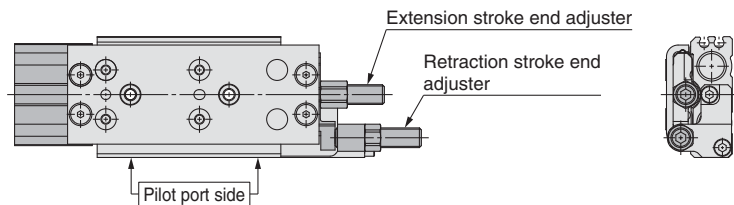


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	MZ
MXQ12C-10Z□8	26
MXQ12C-20Z□8	34
MXQ12C-30Z□8	
MXQ12C-40Z□8	
MXQ12C-50Z□8	
MXQ12C-75Z□8	34
MXQ12C-100Z□8	

MXQ **12CL**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Air Slide Table Height Interchangeable Type **MXQ Series** ø6, ø8, ø12, ø16, ø20, ø25

RoHS

How to Order

MXQ **12** **30** **ZA** **M9BW**

1 2 3 4 5 6 7 8

1 Bore size	2 Body option		3 Standard stroke [mm]
	Standard type Nil	Symmetric type L	
6			10, 20, 30, 40, 50
8			10, 20, 30, 40, 50, 75
12			10, 20, 30, 40, 50, 75, 100
16		—*1	10, 20, 30, 40, 50, 75, 100, 125
20			10, 20, 30, 40, 50, 75, 100, 125, 150
25			10, 20, 30, 40, 50, 75, 100, 125, 150*

*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type. Only the adjuster part of the centralized adjuster is symmetric.

* The operating speed range of the stroke marked with an asterisk (*) is 50 to 300 mm/s. (Without stroke adjuster)

5 Functional options

Symbol	Functional option
Nil	Without functional option
1	With buffer
2	With end lock
3	Axial piping
4	With buffer, end lock
5	With buffer, axial piping
6	Centralized adjuster
7	Centralized adjuster (Symmetric)
8	Buffer, Centralized adjuster
9	Buffer, Centralized adjuster (Symmetric)

7 Number of auto switches

Nil	2
S	1
n	n

8 Made to order

For details, refer to the next page.

6 Auto switch

Nil	Without auto switch
-----	---------------------

* For applicable auto switches, refer to the next page.

4 Adjuster options/Functional option combinations

Symbol	Adjuster type*9		Adjuster mounting position*1*8		Functional option combination									
					Nil	1	2	3	4	5	6	7	8	9
					Without functional option	*2*3 With buffer	With end lock	Axial piping *6	With buffer, end lock *2	With buffer, axial piping *2*6	Centralized adjuster	*7 Centralized adjuster (Symmetric)	*2 Buffer, Centralized adjuster	*2*7 Buffer, Centralized adjuster (Symmetric)
Z	Without adjuster				○	○	○	○	○	○	×	×	×	×
ZA			●	●	○	×	×	○	×	×	○	○	×	×
ZB	Metal stopper with bumper		●		○	×	○	○	×	×	×	×	×	×
ZC				●	○	×	×	○	×	×	○	○	○	○
ZD	Rubber stopper		●	●	○	×	×	○	×	×	○	○	○	○
ZE			●		○	○	○	○	○	○	×	×	×	×
ZF				●	○	×	×	○	×	×	○	○	○	○
ZG			●	●	○	×	×	○	×	×	○	○	×	×
ZH	Shock absorber/RJ		●		○	×	○	○	×	×	×	×	×	×
ZJ				●	○	×	×	○	×	×	○	○	○	○
ZK			●	●	○	×	×	○	×	×	○	○	○	○
ZL	Metal stopper		●		○	○	○	○	○	○	×	×	×	×
ZM				●	○	×	×	○	×	×	○	○	○	○
ZN	Shorter total length type*4	Without adjuster			○	○*5	×	○	×	○*5	×	×	×	×
ZP		Rubber stopper	●		○	×	×	○	×	×	×	×	×	×
ZQ		Shock absorber/RJ	●		○	×	×	○	×	×	×	×	×	×
ZS		Metal stopper with bumper	●		○	×	×	○	×	×	×	×	×	×
ZT		Metal stopper	●		○	×	×	○	×	×	×	×	×	×
ZBF	Metal stopper with bumper	Rubber stopper	●	●	○	×	×	○	×	×	○	○	×	×
ZBJ		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	×	×
ZBM		Metal stopper	●	●	○	×	×	○	×	×	○	○	×	×
ZEC		Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	○	○
ZEJ		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	○	○
ZEM	Rubber stopper	Metal stopper	●	●	○	×	×	○	×	×	○	○	○	○
ZHC		Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	×	×
ZHF		Rubber stopper	●	●	○	×	×	○	×	×	○	○	×	×
ZHM		Shock absorber/RJ	●	●	○	×	×	○	×	×	○	○	×	×
ZLJ		Metal stopper	●	●	○	×	×	○	×	×	○	○	○	○
ZLZ	Extension stroke end adjuster	Metal stopper with bumper	●	●	○	×	×	○	×	×	○	○	○	○
ZLF		Rubber stopper	●	●	○	×	×	○	×	×	○	○	○	○
ZLJ	Shock absorber/RJ		●	●	○	×	×	○	×	×	○	○	○	○

*1 ●: Shipped together with the product, but not assembled
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.

*3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.

*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

*5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.

*6 For ø16 to ø25, the piping ports on both sides cannot be used.

*7 For ø16 to ø25, only the centralized adjuster is symmetric.

*8 For details on the adjuster mounting position, refer to the next page.

*9 The metal stopper with bumper option is not available for ø6.



Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load		
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	Diagnostic indication (2-color indicator)			3-wire (PNP)		12 V		M9PV	M9P	●	●	●	○	○		
				2-wire		12 V		M9BV	M9B	●	●	●	○	○		
				3-wire (NPN)		5 V, 12 V		M9NWV	M9NW	●	●	●	○	○	IC circuit	
	Water resistant (2-color indicator)			3-wire (PNP)		12 V		M9PWV	M9PW	●	●	●	○	○		
				2-wire		12 V		M9BWV	M9BW	●	●	●	○	○		
				3-wire (NPN)		5 V, 12 V		M9NAV*1	M9NA*1	○	○	●	○	○	IC circuit	
				3-wire (PNP)				M9PAV*1	M9PA*1	○	○	●	○	○		
				2-wire				12 V	M9BAV*1	M9BA*1	○	○	●	○		
Reed auto switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
			None	2-wire	24 V	12 V	100 V	A93V*2	A93	●	●	●	●	—	—	—
						100 V or less		A90V	A90	●	—	●	—	—	IC circuit	

*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance. A water-resistant type cylinder is recommended for use in an environment which requires water resistance.
 *2 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9NWM
 3 m L (Example) M9NWL
 5 m Z (Example) M9NWZ

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

* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

* Auto switches are shipped together, but not assembled.



Made to Order

(For details, refer to pages 127 to 156.)

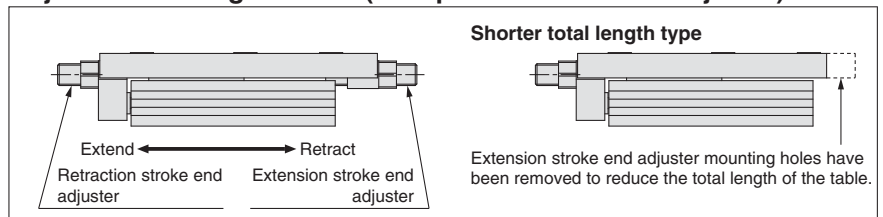
Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food processing equipment
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X39	Fluororubber seal
-X42	Anti-corrosive guide unit
-X45	EPDM seal
-X580	Low-speed specification (15 to 50 mm/s)
-X2100	End plate compatible with the current MXQ series
-X2128	Heat-resistant specification (−10 to 100°)
-X2200	Side adjuster specification
-X2201	Combined use of shock absorber + metal stopper
-X2202	Extension stroke end adjuster fixed from the axial direction

Moisture Control Tube IDK Series

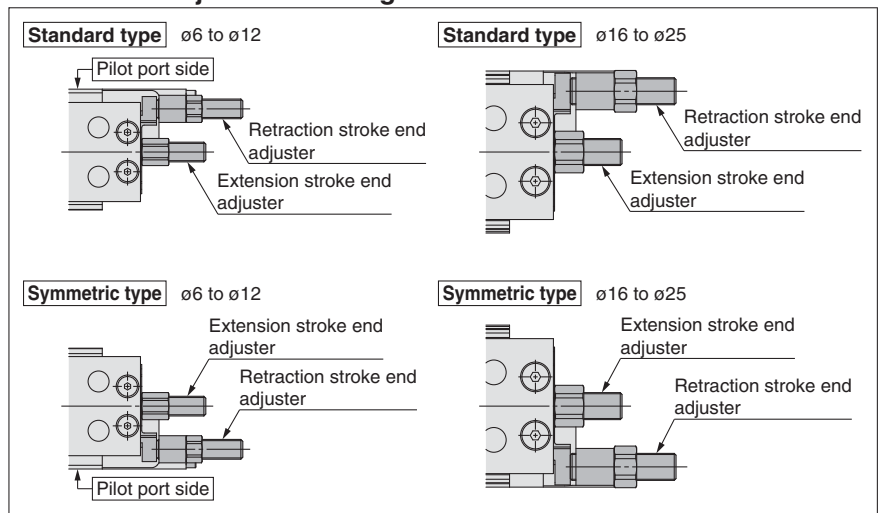


When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

Adjuster Mounting Position (Exception: Centralized Adjuster)



Centralized Adjuster Mounting Position



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

Specifications

Bore size [mm]	6	8	12	16	20	25
Piping port size	M5 x 0.8					
Fluid	Air					
Action	Double acting					
Operating pressure	0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)					
Proof pressure	1.05 MPa					
Ambient and fluid temperatures	-10 to 60°C					
Operating speed range (Average operating speed)	50 to 500 mm/s (Metal stopper with bumper: 50 to 300 mm/s) (Metal stopper: 50 to 200 mm/s) * in the standard stroke table on page 83: 50 to 300 mm/s					
Cushion (Without stroke adjuster)	Internal rubber bumper					
Cushion (With stroke adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper					
Lubrication	Non-lube					
Auto switch	Solid state auto switch, Reed auto switch (2-wire, 3-wire) 2-color indicator solid state auto switch (2-wire, 3-wire)					
Stroke length tolerance	+2 to 0 mm					

*1 Refer to page 86 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

Weight

[g]

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6	120	120	160	180	190	—	—	—	—	−6	10	8	30	40	No addition
MXQ8	150	180	190	230	310	350	—	—	—	−6	10	8	30	60	
MXQ12	290	310	340	400	430	590	670	—	—	−12	20	16	70	80	
MXQ16	500	520	570	650	690	840	1,100	1,200	—	−21	40	30	120	150	
MXQ20	870	870	900	990	1,100	1,300	1,700	2,000	2,100	−33	70	50 (80)	190	400	
MXQ25	1,400	1,400	1,500	1,600	1,900	2,100	2,300	3,000	3,300	−60	110	80	310	700	

* Value in () is the additional weight of the shock absorber.

Weight of Centralized Adjuster

[g]										
Model	Standard stroke [mm]									Reduction only when the product comes with a retraction stroke end adjuster
	10	20	30	40	50	75	100	125	150	
MXQ6	160	165	210	230	240	—	—	—	—	−10
MXQ8	195	225	235	275	355	410	—	—	—	−10
MXQ12	375	405	435	495	525	685	765	—	—	−20
MXQ16	660	690	740	820	860	1,010	1,270	1,370	—	−40
MXQ20	1,140 (−60)	1,170 (−60)	1,200 (−60)	1,290 (−60)	1,400 (−60)	1,600 (−60)	2,050 (−60)	2,350 (−60)	2,450 (−60)	−60 (−25)
MXQ25	1,880	1,920	2,020	2,120	2,420	2,620	2,930	3,630	3,930	−100

* Value in () is the additional weight of the shock absorber.

Weight of Moving Parts

[9]

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6	61	66	80	89	97	—	—	—	—	−6	10	8	30	10	No addition
MXQ8	68	76	85	97	116	138	—	—	—	−6	10	8	30	10	
MXQ12	143	154	168	192	206	263	300	—	—	−12	20	16	70	20	
MXQ16	240	257	277	309	329	389	469	520	—	−21	40	30	120	35	
MXQ20	408	410	437	464	503	588	747	815	882	−33	70	50 (80)	190	65	
MXQ25	674	681	721	761	836	935	1,078	1,284	1,384	−60	110	80	310	110	

* Value in () is the additional weight of the shock absorber.

Theoretical Output



The dual rod ensures an output twice that of current cylinders. [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	
6	3	OUT	57	11	17	23	29	34	40	
		IN	42	8	13	17	21	25	29	
8	4	OUT	101	20	30	40	51	61	71	
		IN	75	15	23	30	38	45	53	
12	6	OUT	226	45	68	90	113	136	158	
		IN	170	34	51	68	85	102	119	
16	6	OUT	402	80	121	161	201	241	281	
		IN	346	69	104	138	173	207	242	
20	8	OUT	628	126	188	251	314	377	440	
		IN	528	106	158	211	264	317	369	
25	10	OUT	982	196	295	393	491	589	687	
		IN	825	165	247	330	412	495	577	

* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 86.

Maximum Load Weight

Model	Without adjuster	Adjuster option				
	Internal rubber bumper	Rubber stopper	Metal stopper with bumper	Shock absorber/RJ	Metal stopper	
MXQ6	0.6	0.6	—	0.6	0.6	
MXQ8	1	1	1	1	1	
MXQ12	2	2	2	1.5	1	2
MXQ16	4	4	4	4	2.5	4
MXQ20	6	6	6	6		6
MXQ25	9	9	9	9	6	9

[kg]

Allowable Kinetic Energy

Model	Without adjuster	Adjuster option				
	Internal rubber bumper	Metal stopper with bumper	Rubber stopper	Shock absorber/RJ	Metal stopper	
MXQ6	0.03	—	0.06	0.175	0.009	
MXQ8	0.04	0.018	0.06	0.2	0.009	
MXQ12	0.11	0.04	0.12	0.33	0.02	
MXQ16	0.12	0.08	0.2	0.76	0.04	
MXQ20	0.24	0.12	0.4	1.47	0.06	
MXQ25	0.39	0.18	0.6	1.73	0.09	

[J]

* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

Optional Specifications

With End Lock

Model	MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Operating pressure range [MPa]	0.35 to 0.7					
Holding force [N]	12	12	23	45	70	110

With Buffer Mechanism

Model		MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Operating speed range [mm/s]		50 to 500 (Horizontal mounting 50 to 300)					
Buffer stroke [mm]		5			10		
Buffer stroke	Stroke at 0 [mm]	3	5	9	16	25	40
load [N]	Maximum stroke	6	8	15	24	38	59

Auto Switches Applicable to Buffer

Type	Model	Specifications	Electrical entry direction
Solid state auto switch	D-M9BV	With light, 2-wire	Vertical
	D-M9NV	With light, 3-wire, Output: NPN	
	D-M9PV	With light, 3-wire, Output: PNP	

Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

Metal Stopper with Bumper

Model	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Max. absorbed energy [J]	0.018	0.04	0.08	0.12	0.18
Stroke absorption [mm]	2	2.8	3.6	4.4	5.5
Min. operating pressure of metal stopper with bumper*1*2 [MPa]	0.3	0.3	0.2	0.2	0.2
Reference) Full compression force of bumper [N]	20	42	65	97	154
Mounting screw size [mm]	M6 x 0.75	M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

*2 Not available for ø6

Rubber Stopper

Model	MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Max. absorbed energy [J]	0.06		0.12	0.2	0.4	0.6
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

Shock Absorber/RJ

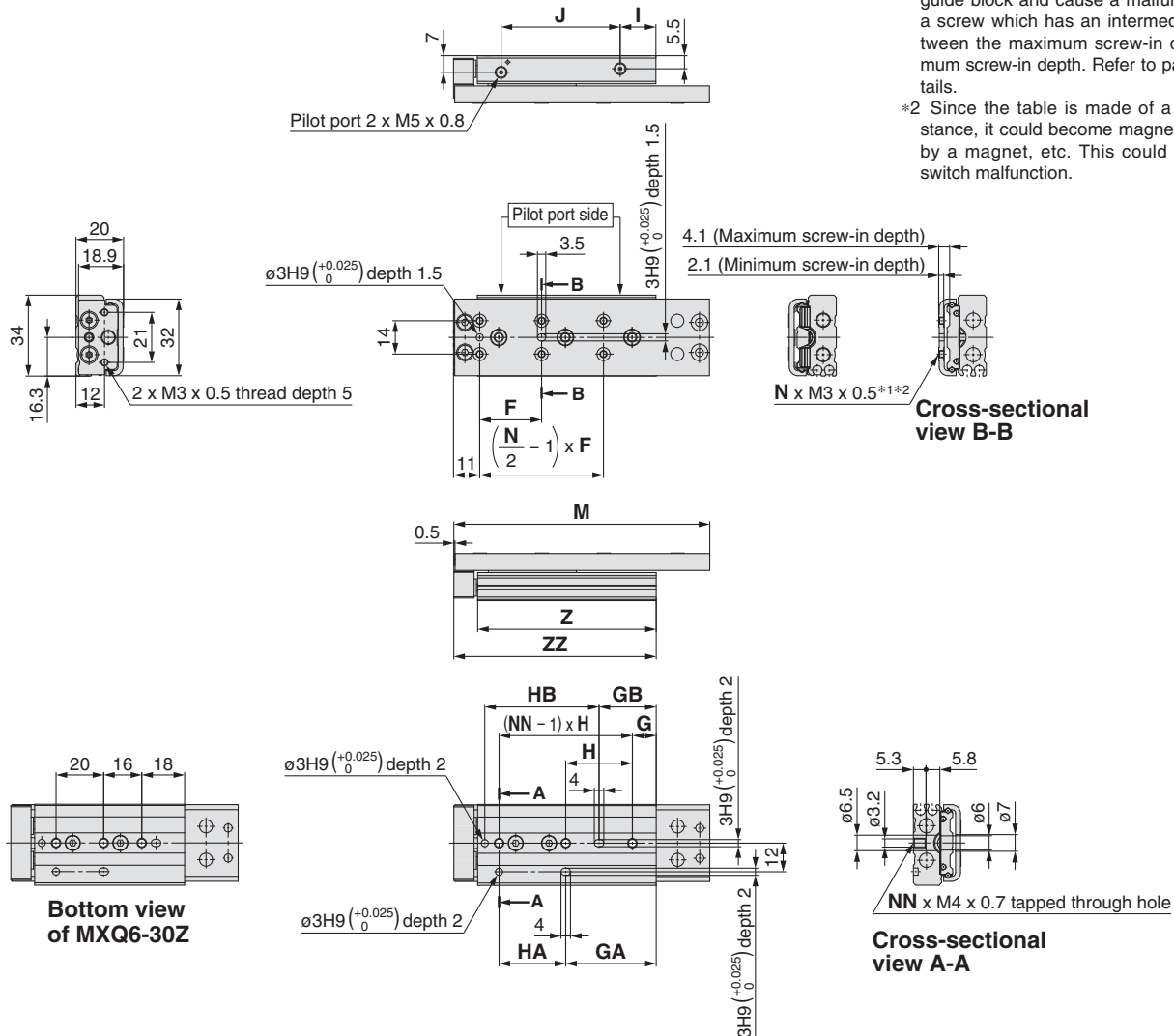
Model	MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Max. absorbed energy [J]	0.35		0.5	1.5	3	3.7
Stroke absorption [mm]	3		5	6	7	10
Collision speed [mm/s]	50 to 500					
Max. operating frequency [cycle/min]	80		80	70		45
Max. allowable thrust [N]	150		245	422		814
Spring force (Extended) [N]	1.3		2.8	5.4		6.4
Spring force (Compressed) [N]	3.9		4.9	8		15
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1		M14 x 1.5

Metal Stopper

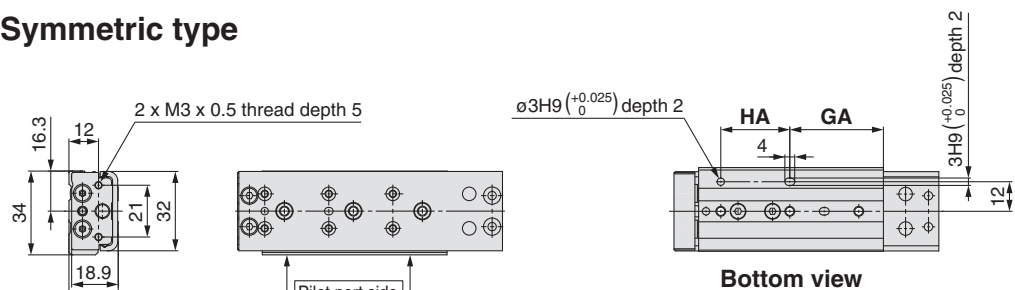
Model	MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Max. absorbed energy [J]	0.009		0.02	0.04	0.06	0.09
Mounting screw size [mm]	M6 x 0.75		M8 x 1	M10 x 1	M12 x 1	M14 x 1.5

Dimensions: MXQ **6** [Standard]

MXQ **6**-□**Z** Standard type



MXQ **6L**-□**Z** Symmetric type



* Dimensions other than those listed above are the same as those for the standard type.

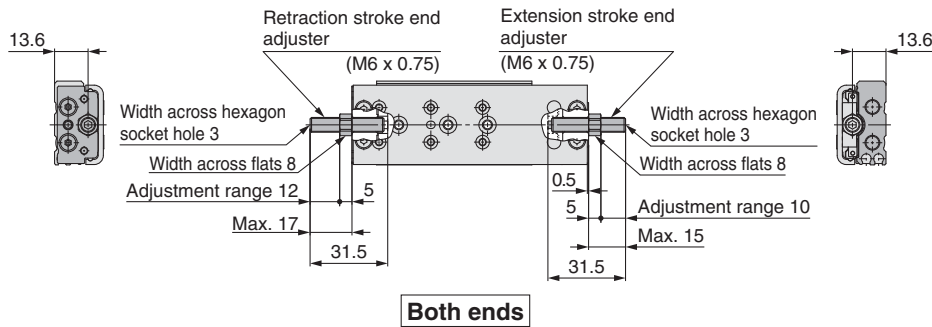
Dimensions

Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ6-10Z	22	18	25	9	23	16	38	10	30	64.5	4	2	50	60
MXQ6-20Z	25	15	15	9	26	26	38	10	30	74.5	4	2	50	60
MXQ6-30Z	21	—	34	12	—	20	48	13	40	95.5	6	3	63	73
MXQ6-40Z	26	10	38	24	28	28	48	15	50	107.5	6	3	75	85
MXQ6-50Z	27	20	48	34	28	28	48	15	60	117.5	6	3	85	95

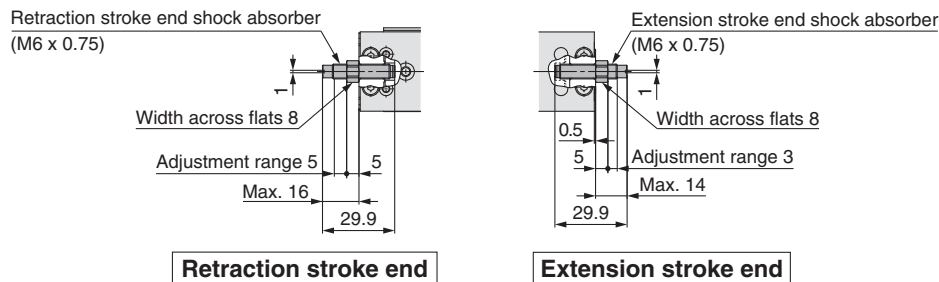
Dimensions: MXQ **6** [Adjuster Option]

MXQ 6-□□ With adjuster option (ø6)

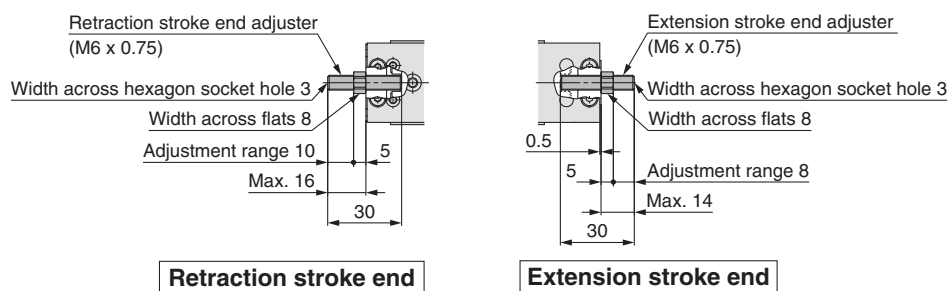
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

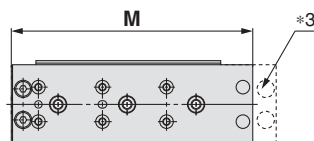


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 6-□**ZN** Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ6-10ZN	55
MXQ6-20ZN	65
MXQ6-30ZN	86
MXQ6-40ZN	98
MXQ6-50ZN	108

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

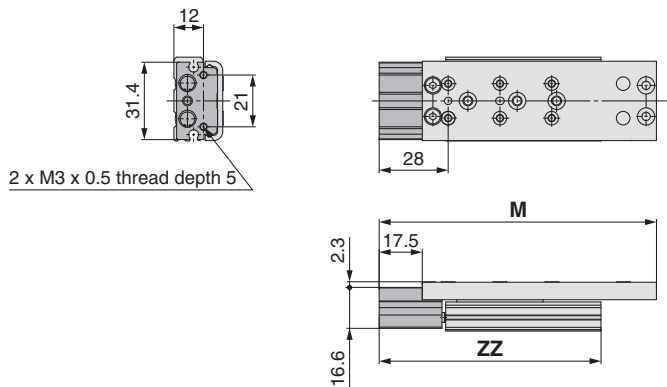
Made to Order

Model Selection

MXQ Series

Dimensions: MXQ **6** [Functional Option]

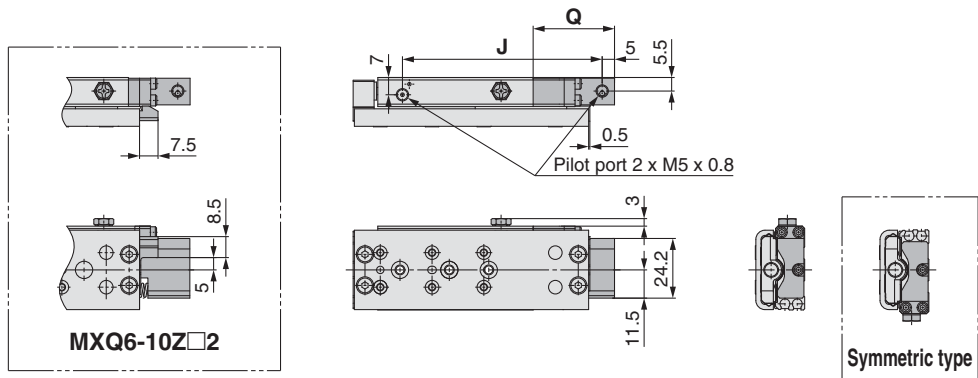
MXQ 6-□□1 With buffer (ø6)



Dimensions [mm]			
Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ6-10Z□1	81.5	72	77
MXQ6-20Z□1	91.5	82	
MXQ6-30Z□1	112.5	103	90
MXQ6-40Z□1	124.5	115	102
MXQ6-50Z□1	134.5	125	112

* Dimensions other than those listed above are the same as those for the standard type.

MXQ 6-□□2 With end lock (ø6)



Dimensions [mm]		
Model	J	Q
MXQ6-10Z□2	60	25
MXQ6-20Z□2		
MXQ6-30Z□2	81	33
MXQ6-40Z□2	93	
MXQ6-50Z□2	103	

* Dimensions other than those listed above are the same as those for the standard type.

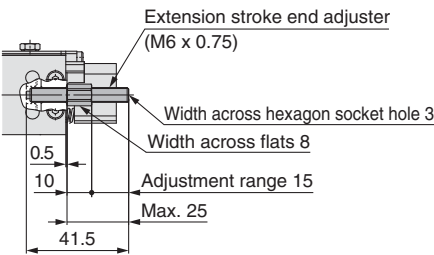
MXQ 6-□□2 With end lock, extension stroke end adjuster (ø6)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

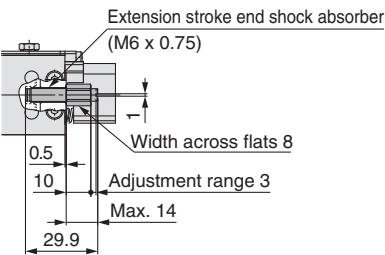
Type	Adjuster part no.	Single adjustment bolt part no.*1
Rubber stopper: ZE	MXQA-AT8-X28	MXQA-A827-X11
Shock absorber/RJ: ZH	MXQA-JT8-X28	RJ0603N
Metal stopper: ZL	MXQA-DT8-X28	MXQA-A838-X11

*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

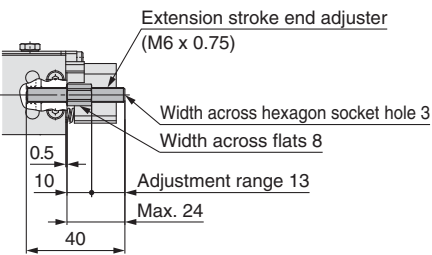
Rubber stopper: **ZE**



Shock absorber/RJ: **ZH**



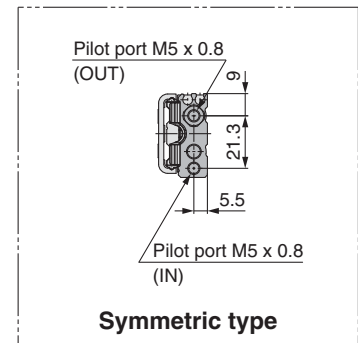
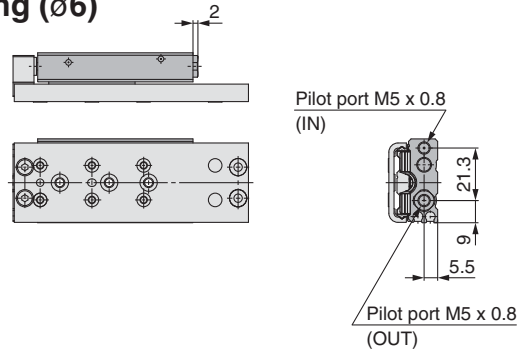
Metal stopper: **ZL**



* Dimensions other than those listed above are the same as those for the standard type.

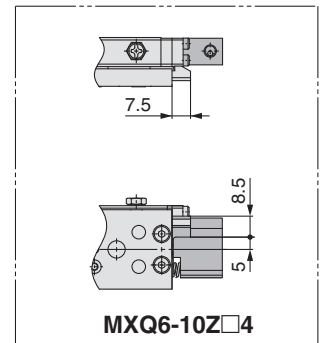
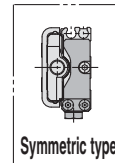
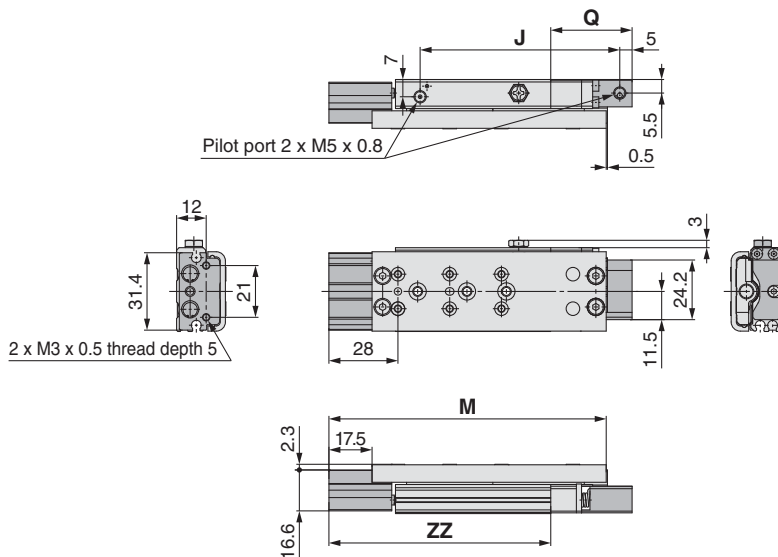
Dimensions: MXQ **6** [Functional Option]

MXQ **6-□□3** Axial piping (ø6)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6-□□4** With buffer, end lock (ø6)

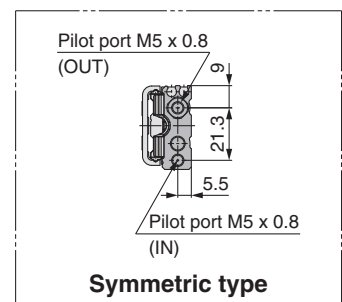
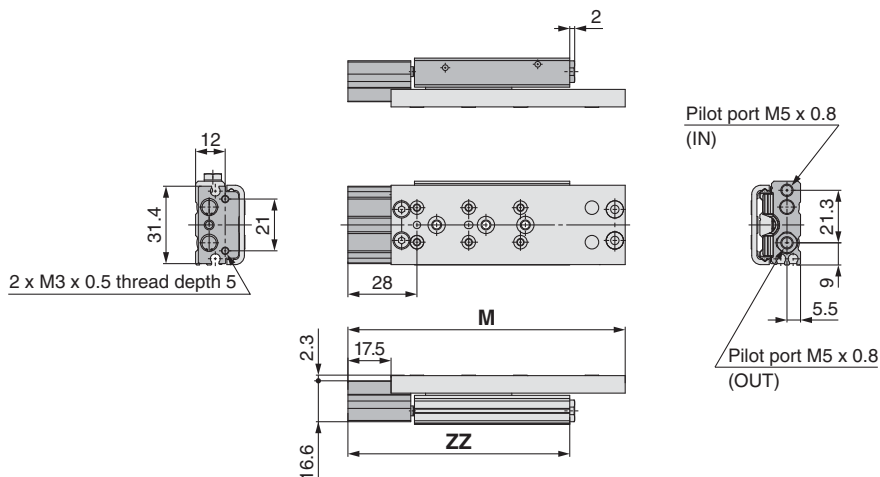


Dimensions

Model	J	Q	Standard type		ZZ
			M	Shorter total length type M	
MXQ6-10Z□4	60	25	81.5	72	77
MXQ6-20Z□4			91.5	82	
MXQ6-30Z□4	81	33	112.5	103	90
MXQ6-40Z□4	93		124.5	115	102
MXQ6-50Z□4	103		134.5	125	112

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6-□□5** With buffer, axial piping (ø6)



Dimensions

Model	Standard type		ZZ
	M	Shorter total length type M	
MXQ6-10Z□5	81.5	72	77
MXQ6-20Z□5	91.5	82	
MXQ6-30Z□5	112.5	103	90
MXQ6-40Z□5	124.5	115	102
MXQ6-50Z□5	134.5	125	112

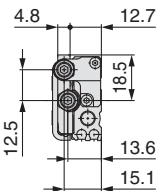
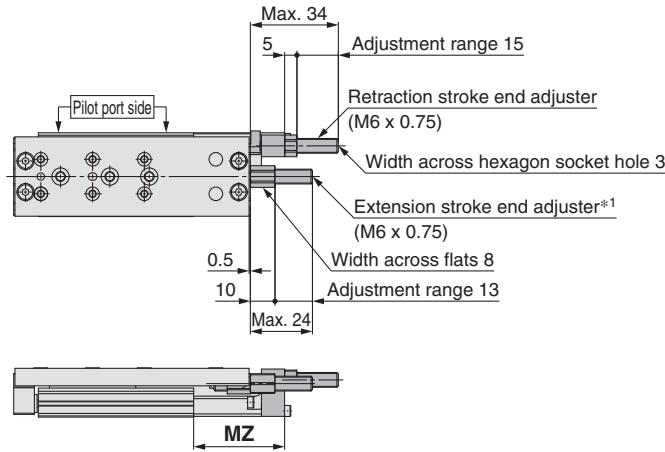
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **6** [Functional Option]

MXQ 6-□□6 Centralized adjuster (ø6)

Metal stopper **ZK**: Both ends,
ZM: Retraction stroke end

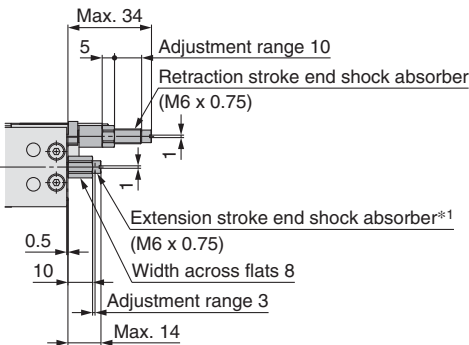
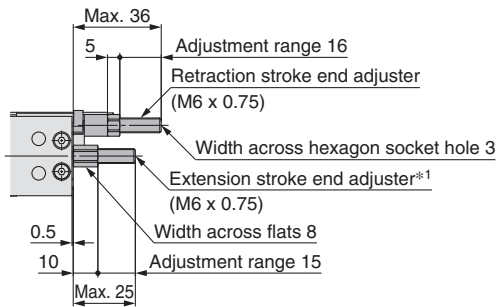
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ6-10Z□6	18.9
MXQ6-20Z□6	28.9
MXQ6-30Z□6	
MXQ6-40Z□6	36.9
MXQ6-50Z□6	

Rubber stopper **ZD**: Both ends,
ZF: Retraction stroke end

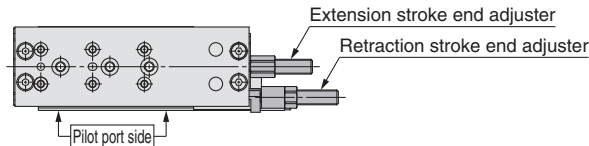
Shock absorber/RJ **ZG**: Both ends,
ZJ: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 6L-□□7 Centralized adjuster / Symmetric type (ø6)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

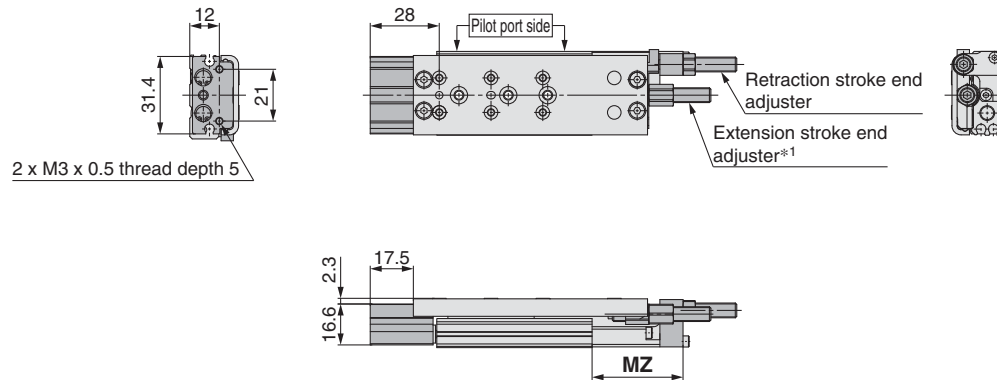


Dimensions: MXQ **6** [Functional Option]

MXQ 6-□□8 Buffer, Centralized adjuster (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

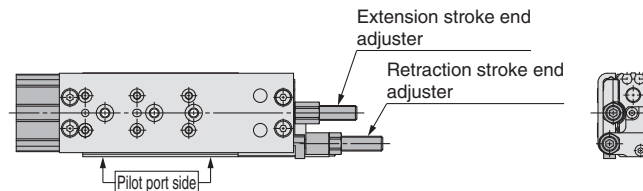


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	MZ
MXQ6-10Z□8	18.9
MXQ6-20Z□8	28.9
MXQ6-30Z□8	
MXQ6-40Z□8	36.9
MXQ6-50Z□8	

MXQ 6L-□□9 Buffer, Centralized adjuster / Symmetric type (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

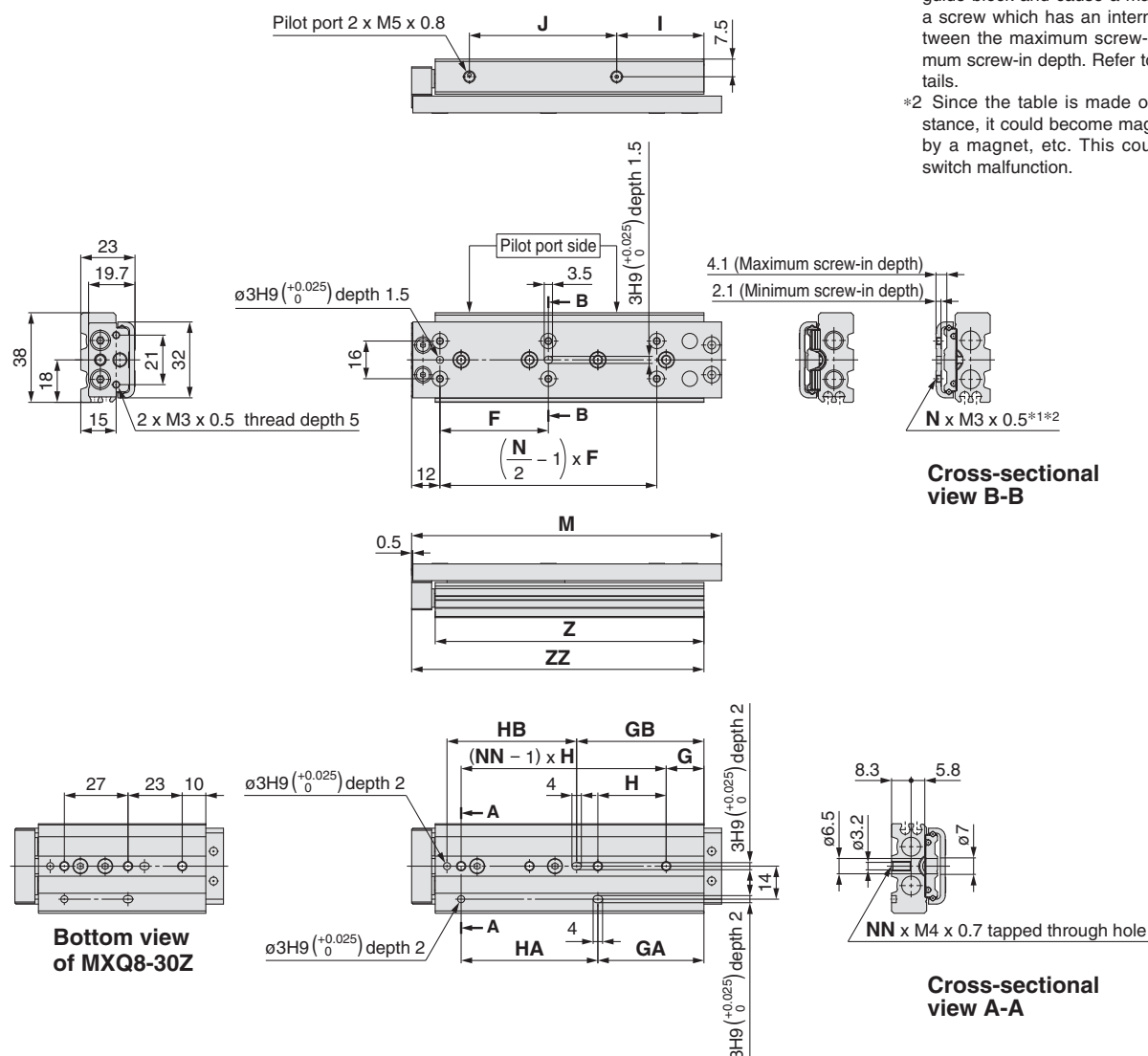
Auto Switch
Mounting

Made to Order

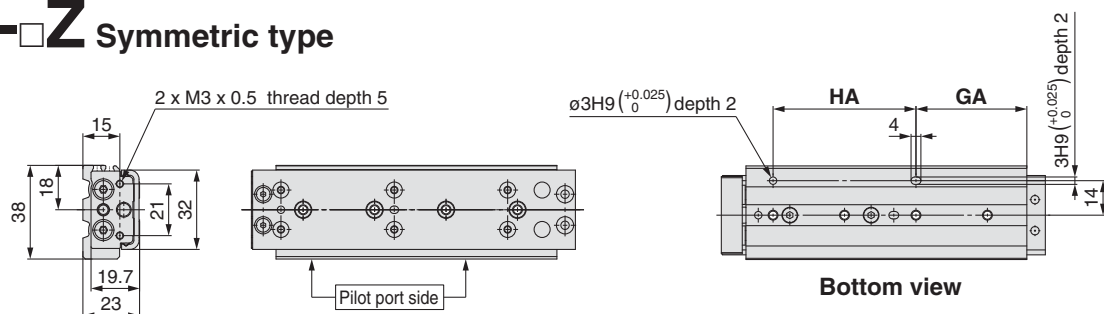
Model Selection

Dimensions: MXQ 8 [Standard]

MXQ 8-□Z Standard type



MXQ 8L-□Z Symmetric type



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

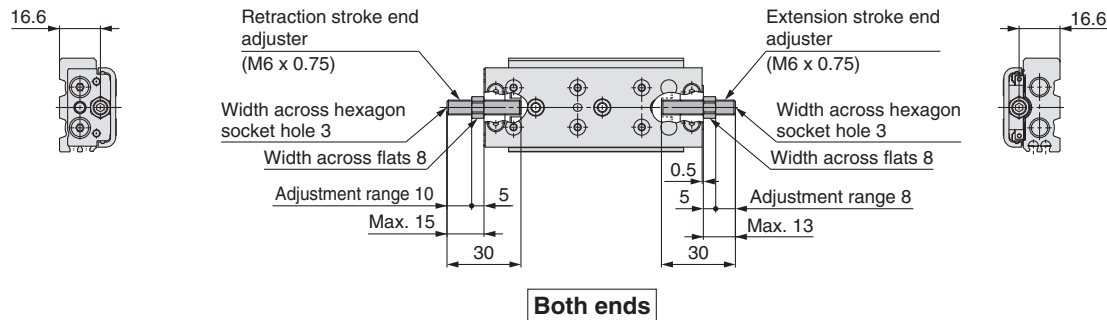
Dimensions														[mm]
Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ8-10Z	25	15	21	9	25	19	37	10	26.5	68.5	4	2	51	61
MXQ8-20Z	25	22	22	16	28	28	40	14	32.5	78.5	4	2	61	71
MXQ8-30Z	26	—	33	26	—	27	40	14.5	42	88.5	6	3	71	81
MXQ8-40Z	32	14	45	27	31	31	55	20	52.5	104.5	6	3	87	97
MXQ8-50Z	46	16	45	54	29	58	55	37	62.5	131.5	6	4	114	124
MXQ8-75Z	50	15	45	56	30	60	55	10	91.5	156.5	6	4	116	126

Dimensions: MXQ **8** [Adjuster Option]

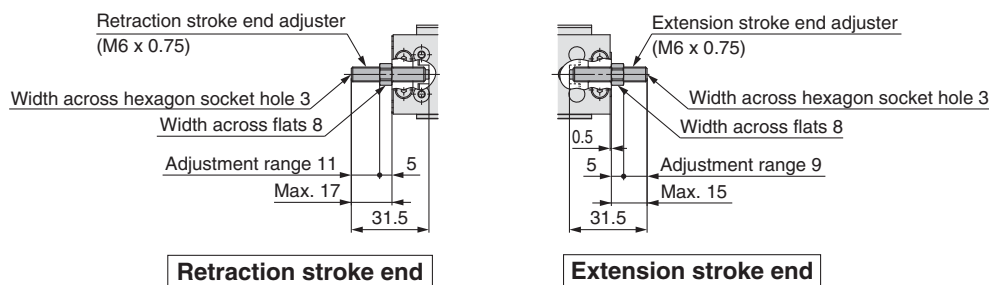
MXQ **8**-□ □ With adjuster option (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

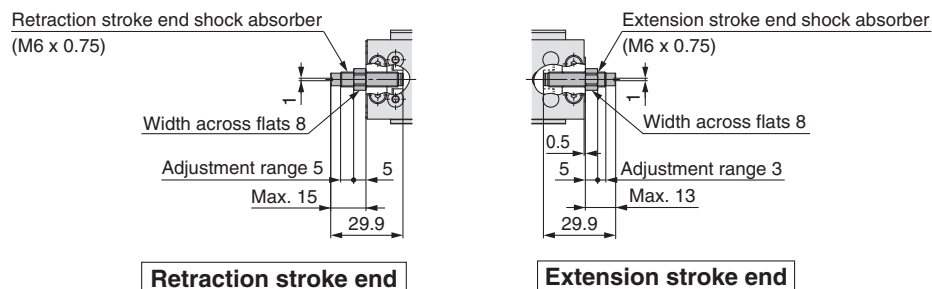
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

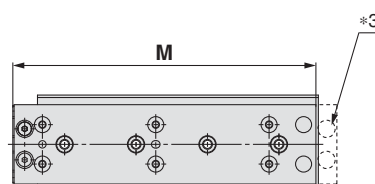


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8**-□ **ZN** Shorter total length type



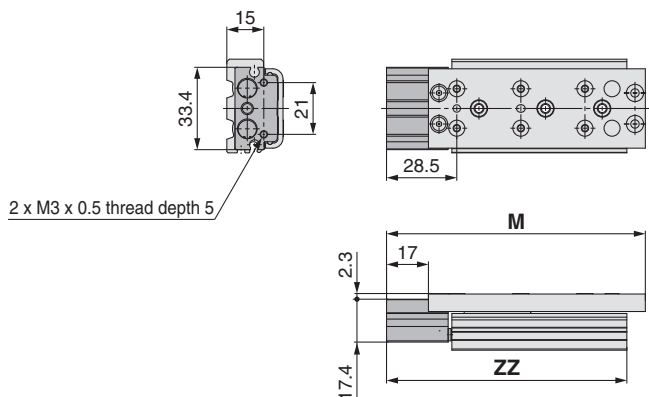
*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

Dimensions [mm]	
Model	M
MXQ8-10ZN	60
MXQ8-20ZN	70
MXQ8-30ZN	80
MXQ8-40ZN	96
MXQ8-50ZN	123
MXQ8-75ZN	148

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **8** [Functional Option]

MXQ **8-□□1** With buffer (ø8)

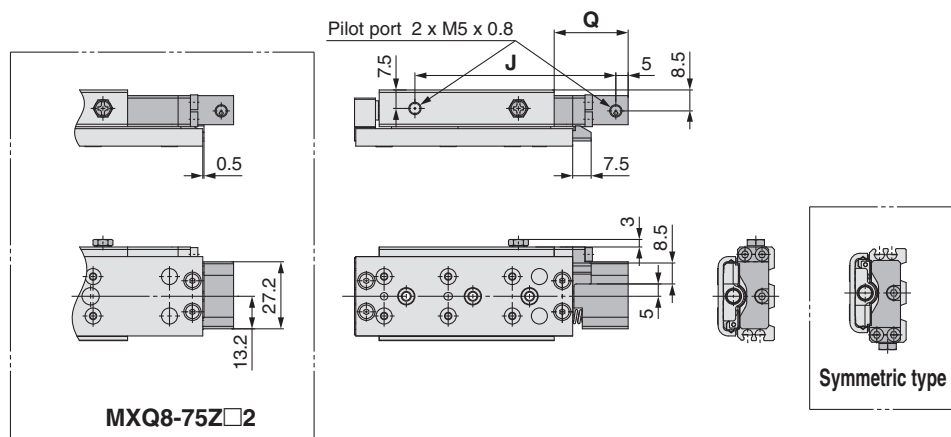


Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8-10Z□1	85	76.5	77.5
MXQ8-20Z□1	95	86.5	87.5
MXQ8-30Z□1	105	96.5	97.5
MXQ8-40Z□1	121	112.5	113.5
MXQ8-50Z□1	148	139.5	140.5
MXQ8-75Z□1	173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8-□□2** With end lock (ø8)



Dimensions [mm]

Model	J	Q
MXQ8-10Z□2	61.5	30
MXQ8-20Z□2	71.5	
MXQ8-30Z□2	81.5	
MXQ8-40Z□2	97.5	
MXQ8-50Z□2	124.5	
MXQ8-75Z□2	139.5	43

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8-□□2** With end lock, extension stroke end adjuster (ø8)

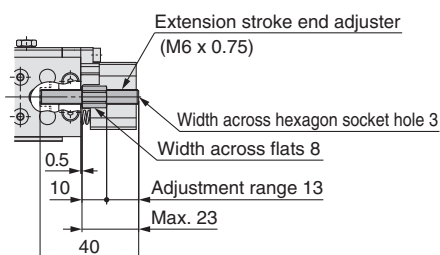
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT8-X28	MXQA-A887-X11
Rubber stopper: ZE	MXQA-AT8-X28	MXQA-A827-X11
Shock absorber/RJ: ZH	MXQA-JT8-X28	RJ0603N
Metal stopper: ZL	MXQA-DT8-X28	MXQA-A838-X11

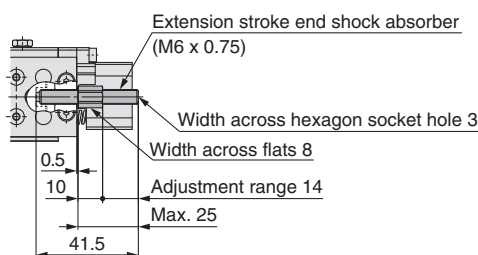
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

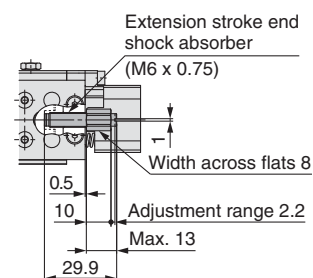
Metal stopper: **ZL**



Rubber stopper: **ZE**



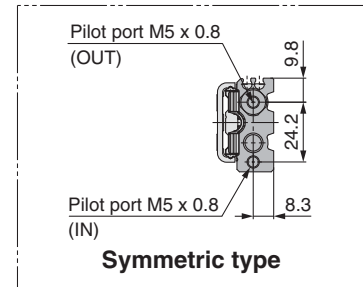
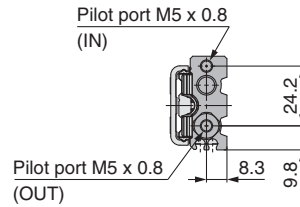
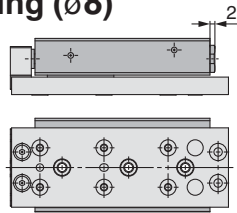
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

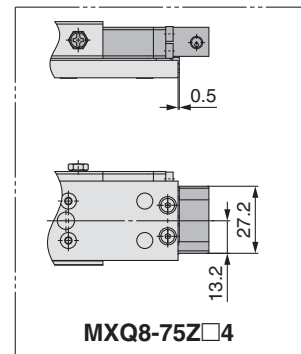
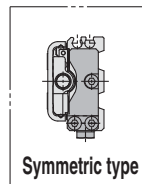
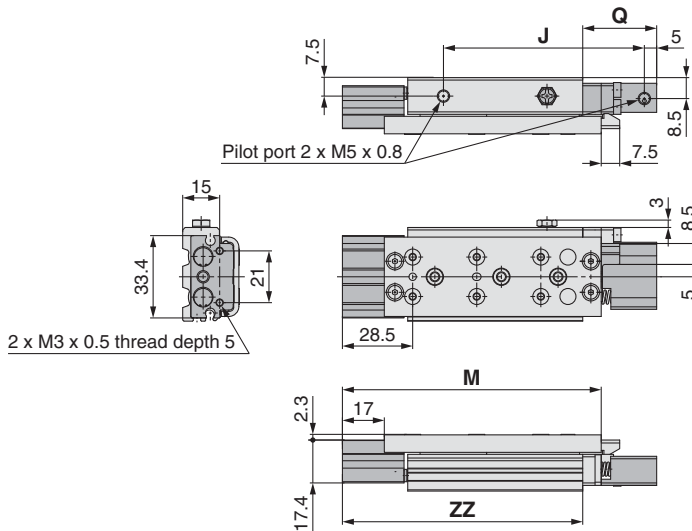
Dimensions: MXQ **8** [Functional Option]

MXQ 8-□□**3** Axial piping (ø8)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 8-□□**4** With buffer, end lock (ø8)

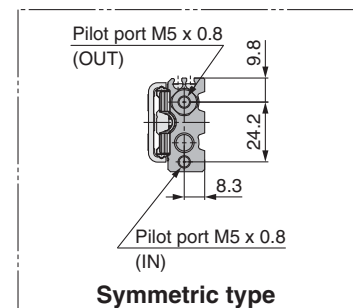
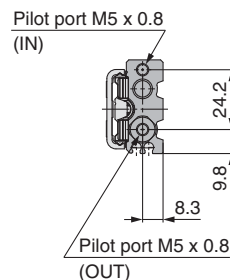
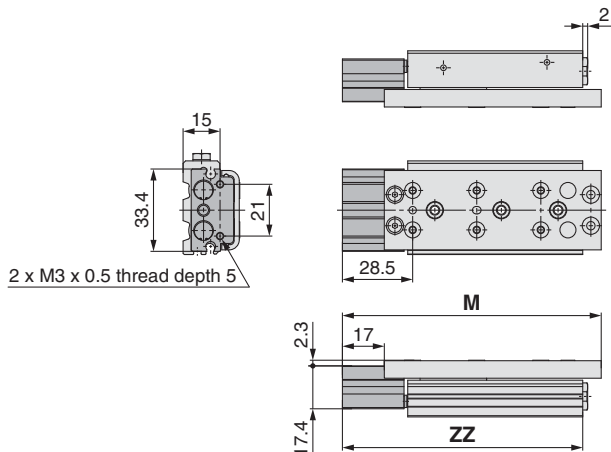


Dimensions

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
MXQ8-10Z□4	61.5	30	85	76.5	77.5
MXQ8-20Z□4	71.5		95	86.5	87.5
MXQ8-30Z□4	81.5		105	96.5	97.5
MXQ8-40Z□4	97.5		121	112.5	113.5
MXQ8-50Z□4	124.5		148	139.5	140.5
MXQ8-75Z□4	139.5	43	173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

MXQ 8-□□**5** With buffer, axial piping (ø8)



Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ8-10Z□5	85	76.5	77.5
MXQ8-20Z□5	95	86.5	87.5
MXQ8-30Z□5	105	96.5	97.5
MXQ8-40Z□5	121	112.5	113.5
MXQ8-50Z□5	148	139.5	140.5
MXQ8-75Z□5	173	164.5	142.5

* Dimensions other than those listed above are the same as those for the standard type.

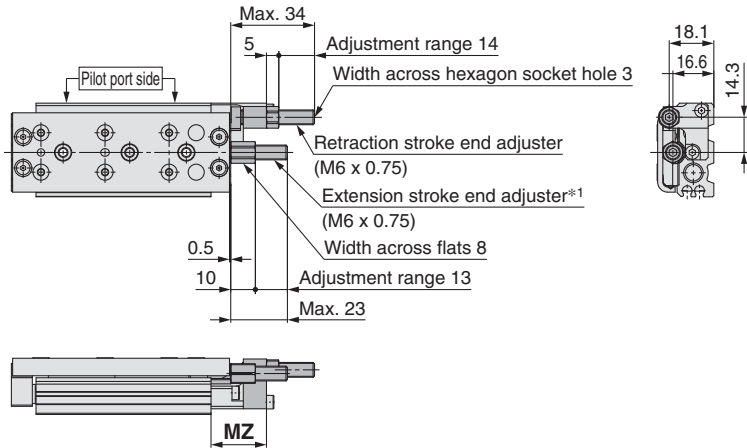
Dimensions: MXQ **8** [Functional Option]

MXQ 8-□□**6** Centralized adjuster (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

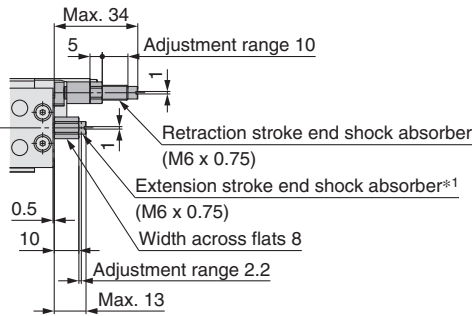
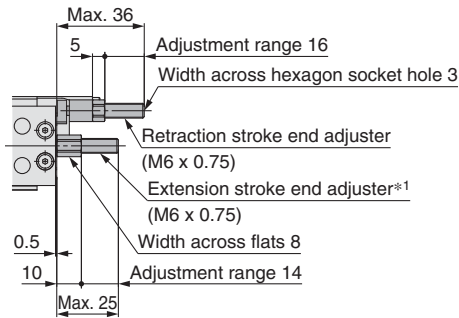
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ8-10Z□6	22.5
MXQ8-20Z□6	
MXQ8-30Z□6	
MXQ8-40Z□6	
MXQ8-50Z□6	
MXQ8-75Z□6	46.5

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

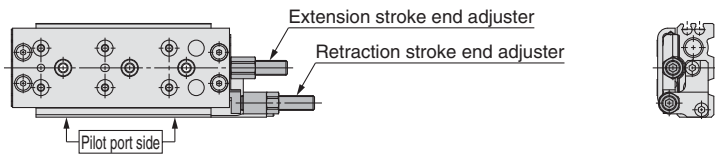
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 8L-□□**7** Centralized adjuster / Symmetric type (ø8)

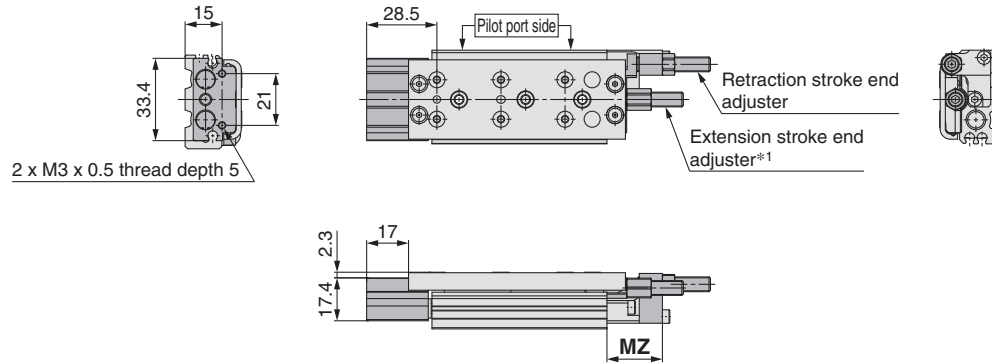
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



Dimensions: MXQ **8** [Functional Option]

MXQ **8**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.



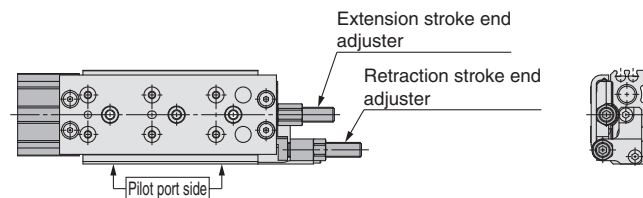
* Dimensions other than those listed above are the same as those for the standard type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

Dimensions [mm]	
Model	MZ
MXQ8-10Z□8	22.5
MXQ8-20Z□8	
MXQ8-30Z□8	
MXQ8-40Z□8	
MXQ8-50Z□8	46.5
MXQ8-75Z□8	

MXQ **8L**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

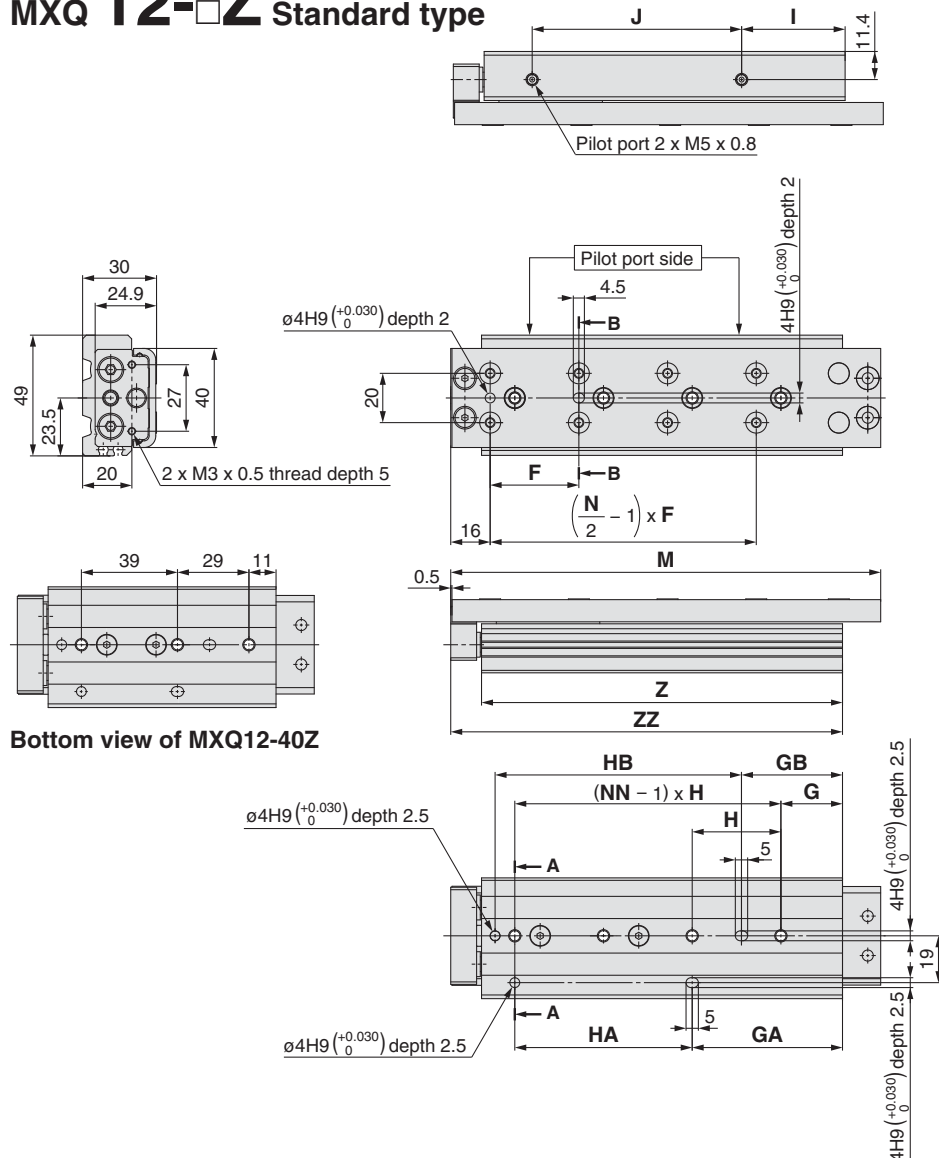
Auto Switch Mounting

Made to Order

Model Selection

Dimensions: MXQ **12** [Standard]

MXQ **12**-□**Z** Standard type

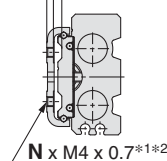
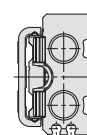


*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

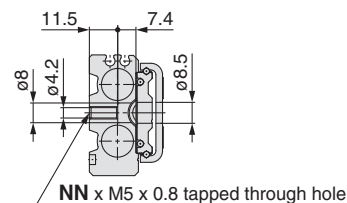
5.7 (Maximum screw-in depth)

2.7 (Minimum screw-in depth)



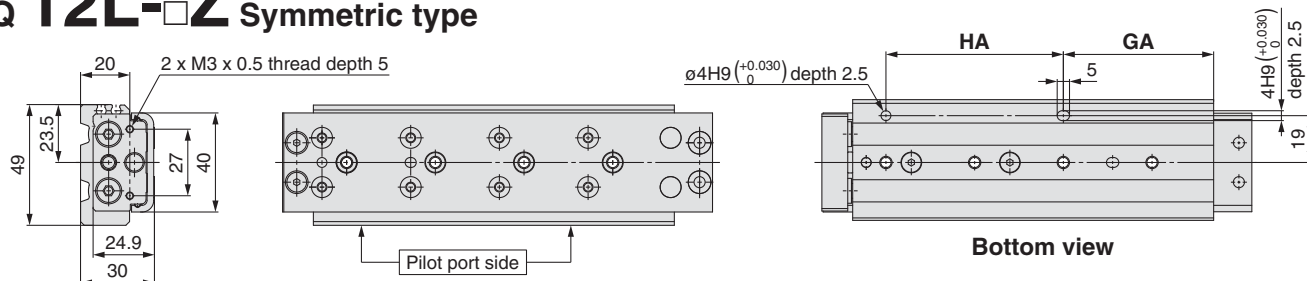
Cross-sectional view B-B

Bottom view of MXQ12-40Z



Cross-sectional view A-A

MXQ **12L**-□**Z** Symmetric type



* Dimensions other than those listed above are the same as those for the standard type.

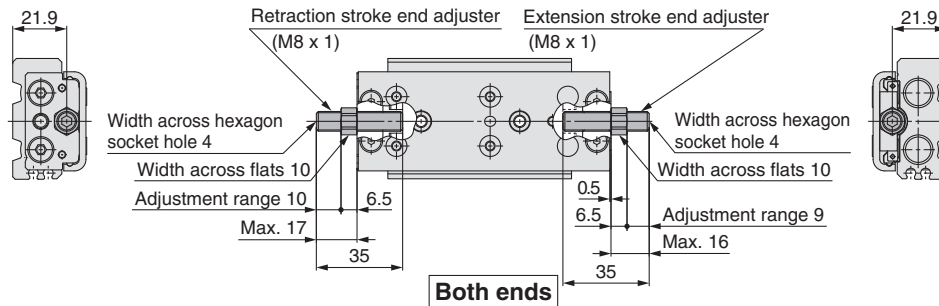
Dimensions

Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ12-10Z	28	17	17	11	32	32	46	11	32	82.5	4	2	62.5	75
MXQ12-20Z	28	19	19	11	32	32	48	13	32	92.5	4	2	64.5	77
MXQ12-30Z	38	21	21	11	40	40	58	15	40	102.5	4	2	74.5	87
MXQ12-40Z	34	—	40	27	—	39	60	23	50	120.5	6	3	92.5	105
MXQ12-50Z	34	11	50	37	39	39	60	23	60	130.5	6	3	102.5	115
MXQ12-75Z	36	25	61	41	36	72	100	42	85	174.5	8	4	146.5	159
MXQ12-100Z	36	14	86	66	36	72	100	42	110	199.5	10	5	171.5	184

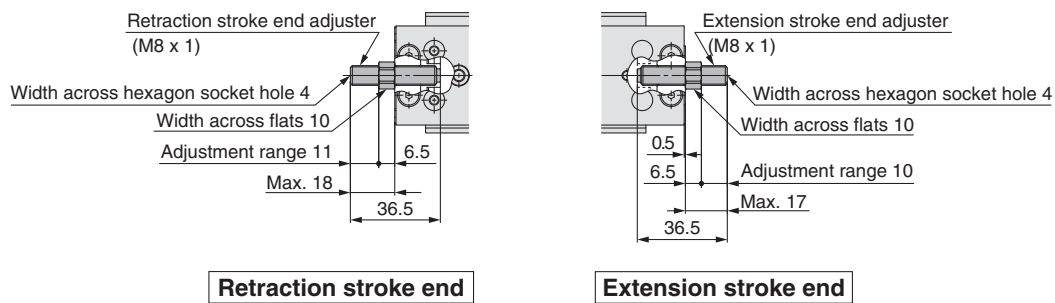
Dimensions: MXQ **12** [Adjuster Option]

MXQ 12-□ □ With adjuster option (ø12)

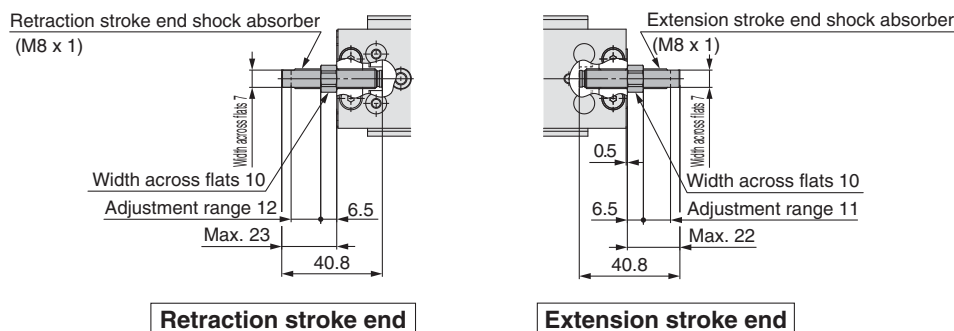
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

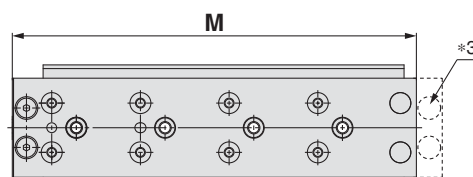


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12-□ ZN Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ12-10ZN	72
MXQ12-20ZN	82
MXQ12-30ZN	92
MXQ12-40ZN	110
MXQ12-50ZN	120
MXQ12-75ZN	164
MXQ12-100ZN	189

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

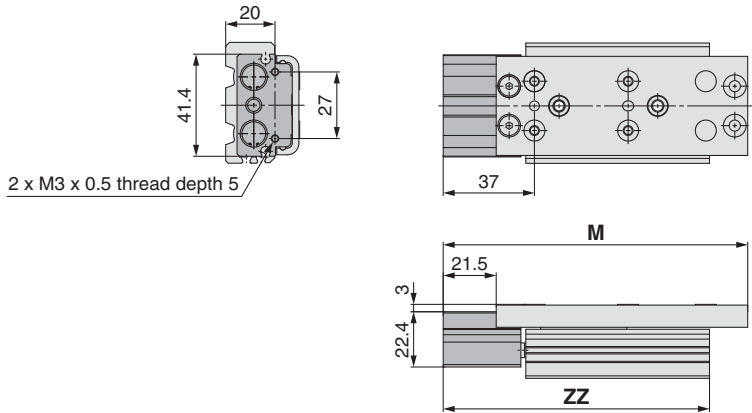
Auto Switch Mounting

Made to Order

Model Selection

Dimensions: MXQ **12** [Functional Option]

MXQ **12**-□□**1** With buffer (ø12)

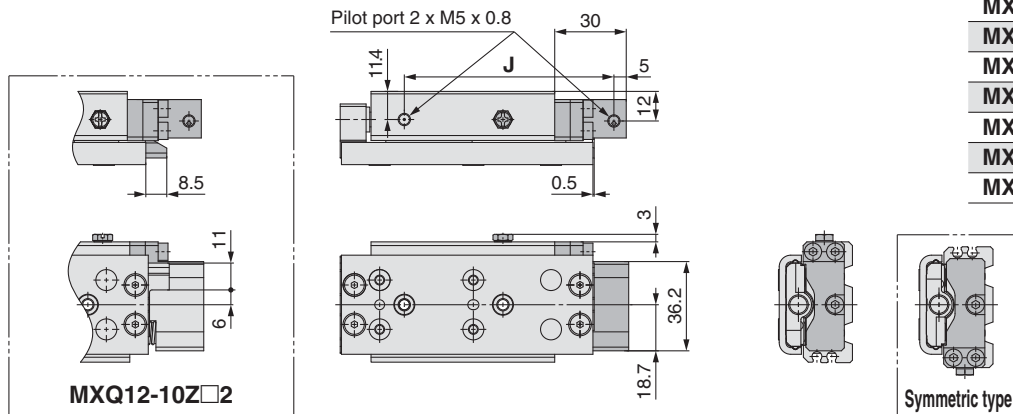


Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12-10Z□1	103.5	93	96
MXQ12-20Z□1	113.5	103	98
MXQ12-30Z□1	123.5	113	108
MXQ12-40Z□1	141.5	131	126
MXQ12-50Z□1	151.5	141	136
MXQ12-75Z□1	195.5	185	180
MXQ12-100Z□1	220.5	210	205

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12**-□□**2** With end lock (ø12)



Dimensions [mm]

Model	J
MXQ12-10Z□2	68
MXQ12-20Z□2	70
MXQ12-30Z□2	80
MXQ12-40Z□2	98
MXQ12-50Z□2	108
MXQ12-75Z□2	152
MXQ12-100Z□2	177

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **12**-□□**2** With end lock, extension stroke end adjuster (ø12)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT12-X28	MXQA-A1287-X11
Rubber stopper: ZE	MXQA-AT12-X28	MXQA-A1227-X11
Shock absorber/RJ: ZH	MXQA-JT12-X28	RJ0805U-X2300
Metal stopper: ZL	MXQA-DT12-X28	MXQA-A1238-X11

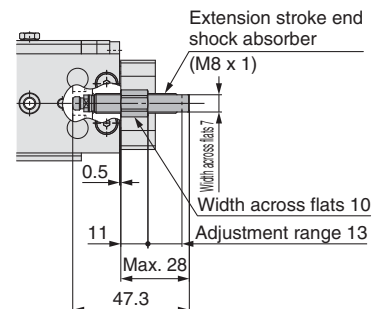
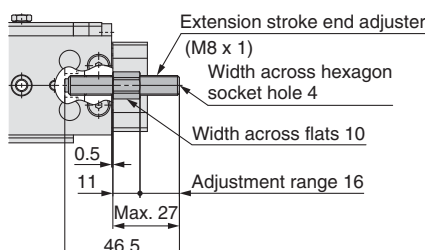
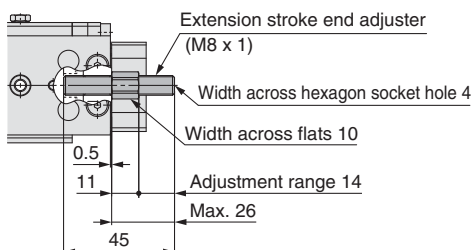
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

Metal stopper: **ZL**

Rubber stopper: **ZE**

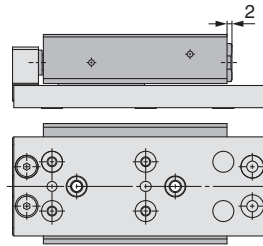
Shock absorber/RJ: **ZH**

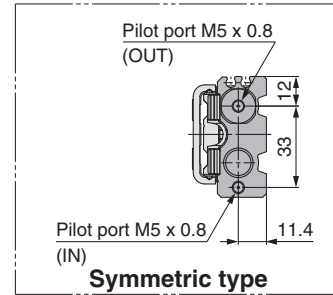


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **12** [Functional Option]

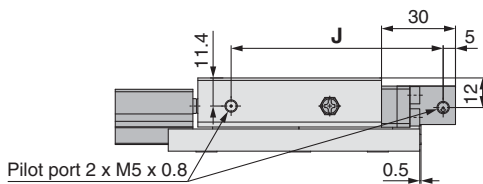
MXQ 12-□□3 Axial piping (ø12)


Pilot port M5 x 0.8
(IN)

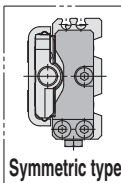
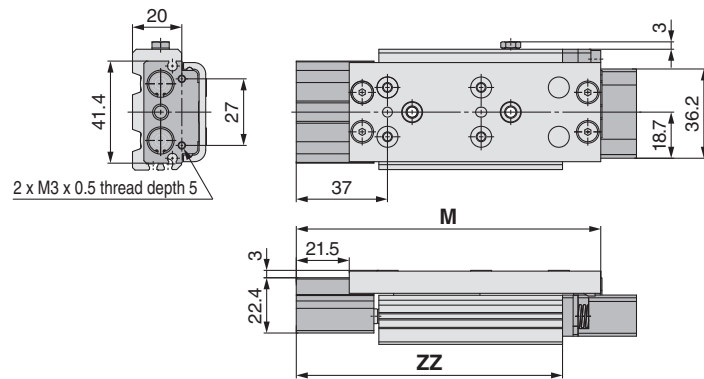
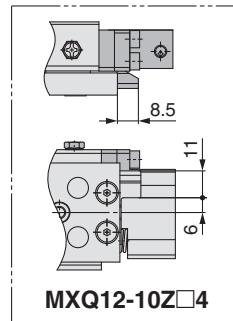
Pilot port M5 x 0.8
(OUT)


* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12-□□4 With buffer, end lock (ø12)



Pilot port 2 x M5 x 0.8

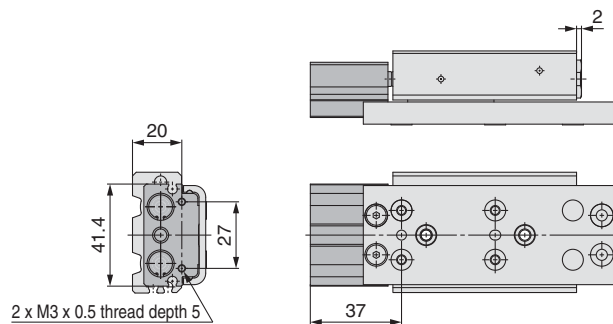


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

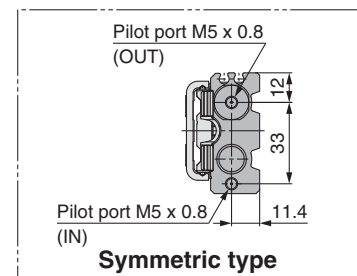
Model	J	Standard type	Shorter total length type	ZZ
		M	M	
MXQ12-10Z□4	68	103.5	93	96
MXQ12-20Z□4	70	113.5	103	98
MXQ12-30Z□4	80	123.5	113	108
MXQ12-40Z□4	98	141.5	131	126
MXQ12-50Z□4	108	151.5	141	136
MXQ12-75Z□4	152	195.5	185	180
MXQ12-100Z□4	177	220.5	210	205

MXQ 12-□□5 With buffer, axial piping (ø12)



2 x M3 x 0.5 thread depth 5

Pilot port M5 x 0.8
(IN)

Pilot port M5 x 0.8
(OUT)


Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ12-10Z□5	103.5	93	96
MXQ12-20Z□5	113.5	103	98
MXQ12-30Z□5	123.5	113	108
MXQ12-40Z□5	141.5	131	126
MXQ12-50Z□5	151.5	141	136
MXQ12-75Z□5	195.5	185	180
MXQ12-100Z□5	220.5	210	205

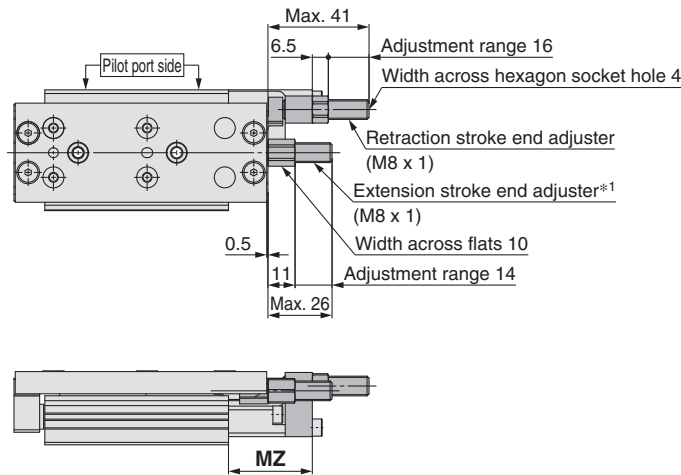
* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **12** [Functional Option]

MXQ 12-□□6 Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end
Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

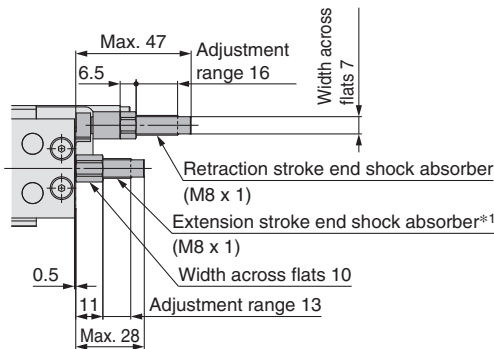
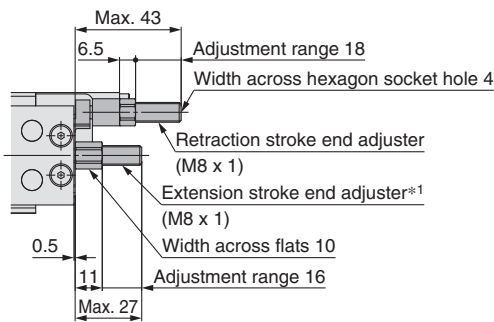
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ12-10Z□6	26
MXQ12-20Z□6	34
MXQ12-30Z□6	
MXQ12-40Z□6	
MXQ12-50Z□6	
MXQ12-75Z□6	
MXQ12-100Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

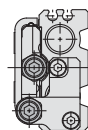
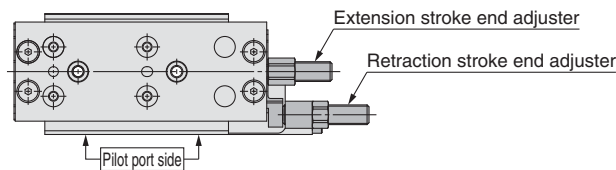
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12L-□□7 Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

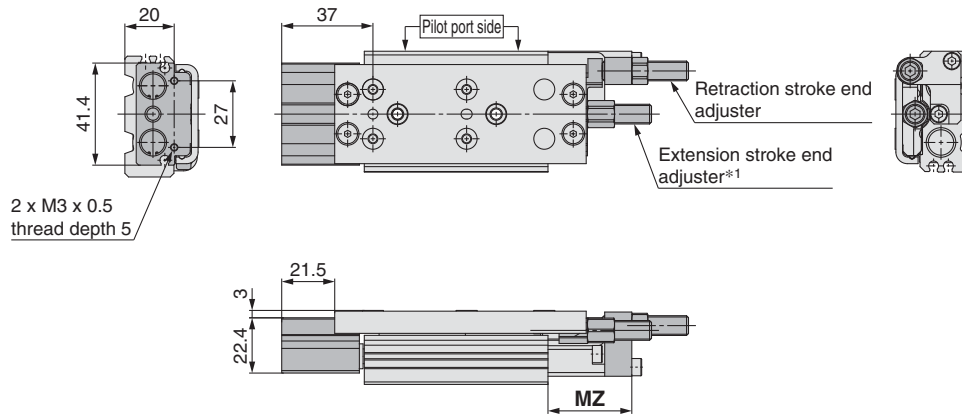


Dimensions: MXQ **12** [Functional Option]

MXQ 12-□□8 Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

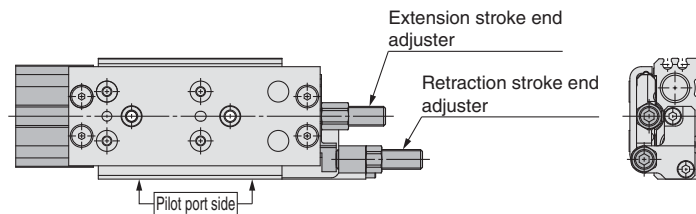


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	MZ
MXQ12-10Z□8	26
MXQ12-20Z□8	34
MXQ12-30Z□8	
MXQ12-40Z□8	
MXQ12-50Z□8	
MXQ12-75Z□8	
MXQ12-100Z□8	

MXQ 12L-□□9 Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

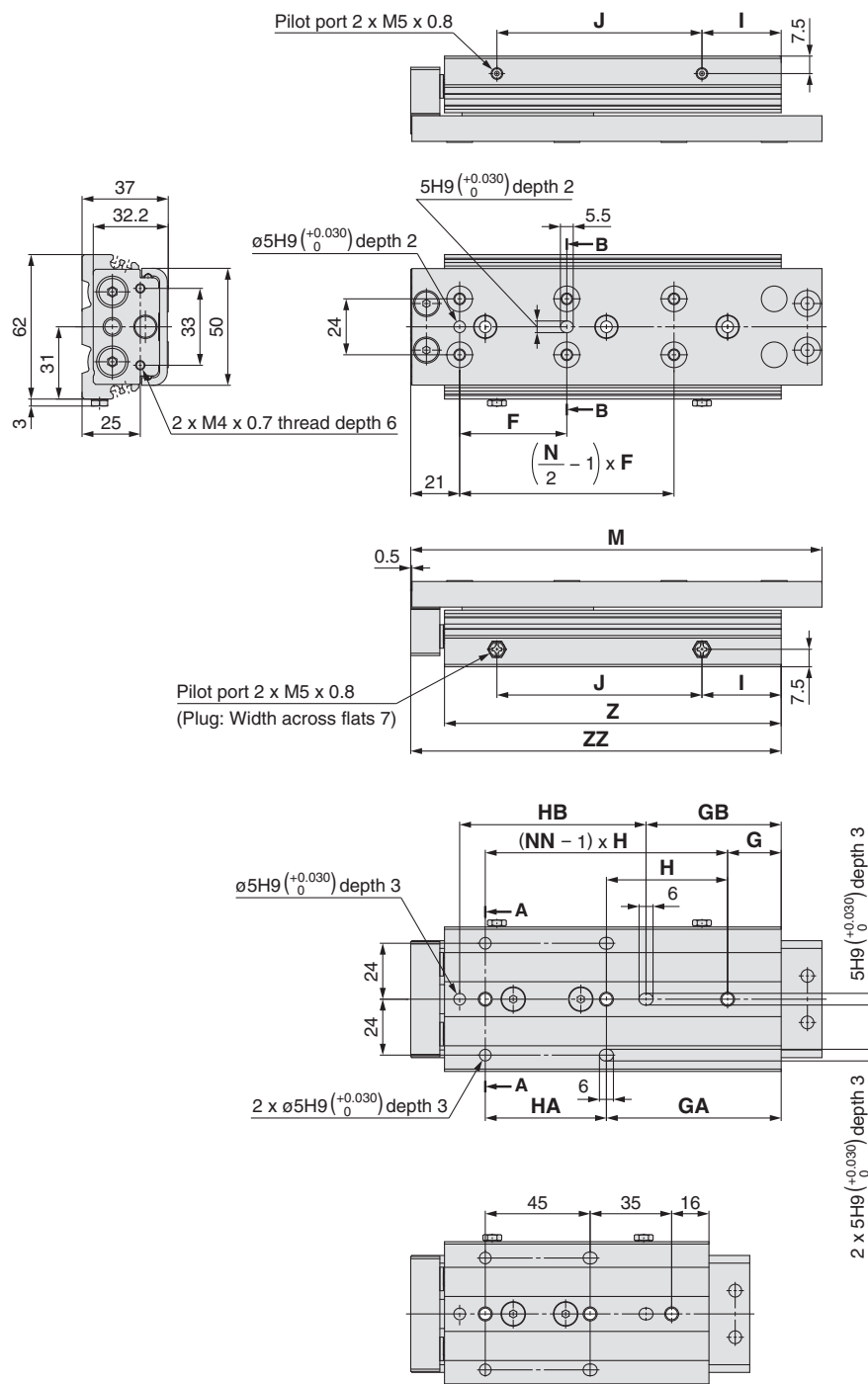
Auto Switch
Mounting

Made to Order

Model Selection

Dimensions: MXQ **16** [Standard]

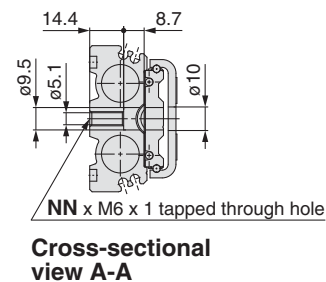
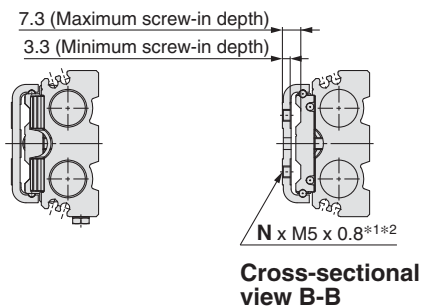
MXQ **16**-□**Z** Standard type



Bottom view of MXQ16-50Z

*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

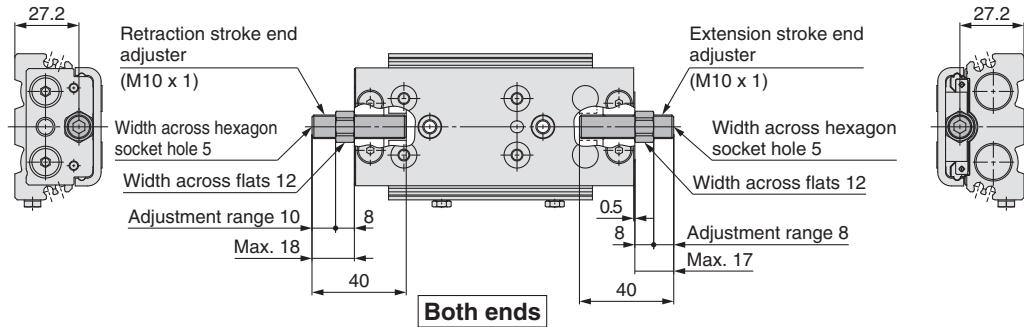
Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ16-10Z	38	16	16	8	39	39	58	22	28	98.5	4	2	72.5	87
MXQ16-20Z	38	20	20	12	39	39	58	15	39	108.5	4	2	76.5	91
MXQ16-30Z	48	21	21	30	48	48	50	16	48	118.5	4	2	86.5	101
MXQ16-40Z	58	28	28	17	58	58	80	23	58	135.5	4	2	103.5	118
MXQ16-50Z	40	—	51	27	—	45	80	28	63	145.5	6	3	113.5	128
MXQ16-75Z	46	23	75	58	52	52	80	34	88	176.5	6	3	144.5	159
MXQ16-100Z	44	39	83	102	44	88	80	53	113	220.5	8	4	188.5	203
MXQ16-125Z	44	20	108	127	44	88	80	53	138	245.5	10	5	213.5	228

Dimensions: MXQ **16** [Adjuster Option]

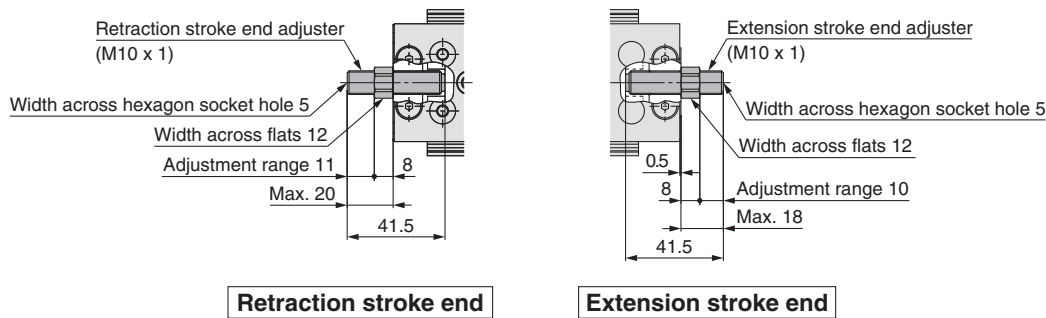
MXQ 16-□□ With adjuster option (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

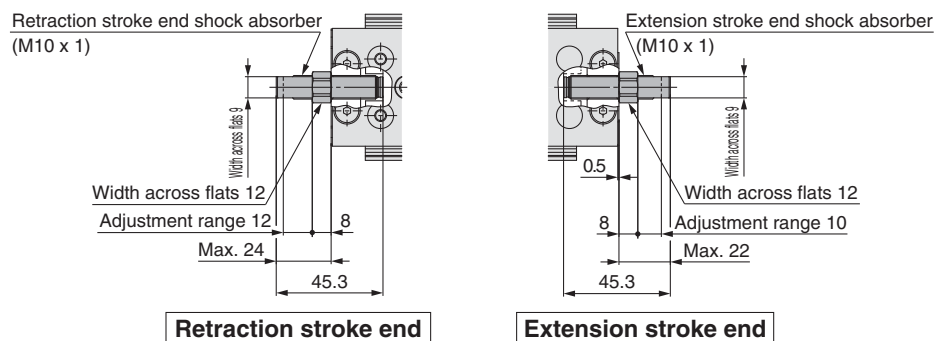
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZN**: Retraction stroke end (Shorter total length type)



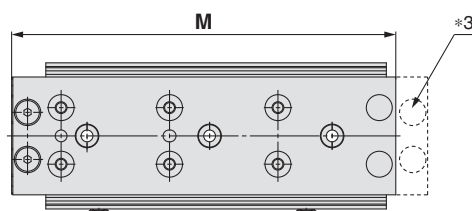
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



MXQ 16-□ZN Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ16-10ZN	85
MXQ16-20ZN	95
MXQ16-30ZN	105
MXQ16-40ZN	122
MXQ16-50ZN	132
MXQ16-75ZN	163
MXQ16-100ZN	207
MXQ16-125ZN	232

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

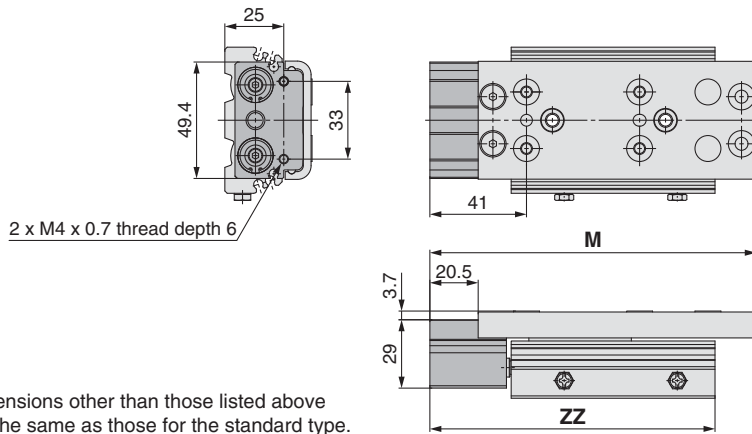
Auto Switch Mounting

Made to Order

Model Selection

Dimensions: MXQ **16** [Functional Option]

MXQ 16-□□1 With buffer (ø16)

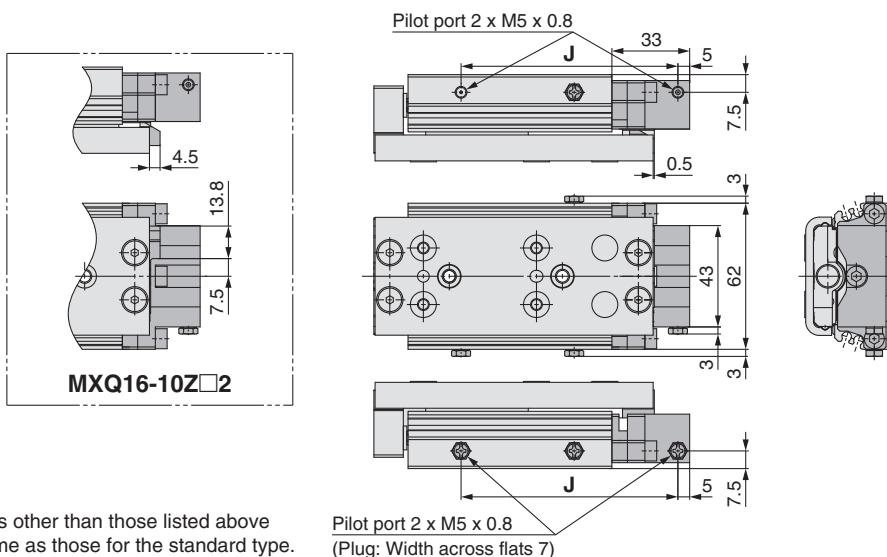


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ16-10Z□1	118.5	105	107
MXQ16-20Z□1	128.5	115	111
MXQ16-30Z□1	138.5	125	121
MXQ16-40Z□1	155.5	142	138
MXQ16-50Z□1	165.5	152	148
MXQ16-75Z□1	196.5	183	179
MXQ16-100Z□1	240.5	227	223
MXQ16-125Z□1	265.5	252	248

MXQ 16-□□2 With end lock (ø16)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	J
MXQ16-10Z□2	78
MXQ16-20Z□2	82
MXQ16-30Z□2	92
MXQ16-40Z□2	109
MXQ16-50Z□2	119
MXQ16-75Z□2	150
MXQ16-100Z□2	194
MXQ16-125Z□2	219

MXQ 16-□□2 With end lock, extension stroke end adjuster (ø16)

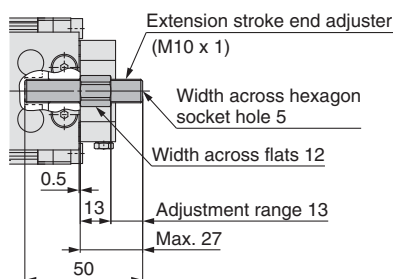
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT16-X28	MXQA-A1687-X11
Rubber stopper: ZE	MXQA-AT16-X28	MXQA-A1627-X11
Shock absorber/RJ: ZH	MXQA-JT16-X28	RJ1006U-X2300
Metal stopper: ZL	MXQA-DT16-X28	MXQA-A1638-X11

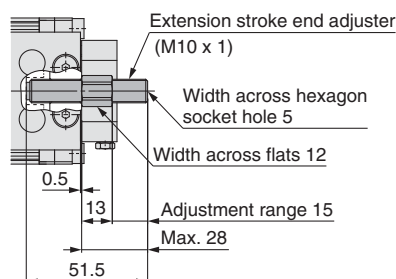
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

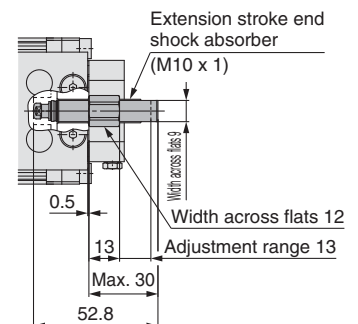
Metal stopper: **ZL**



Rubber stopper: **ZE**



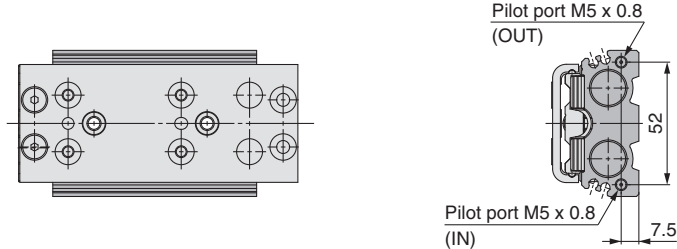
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

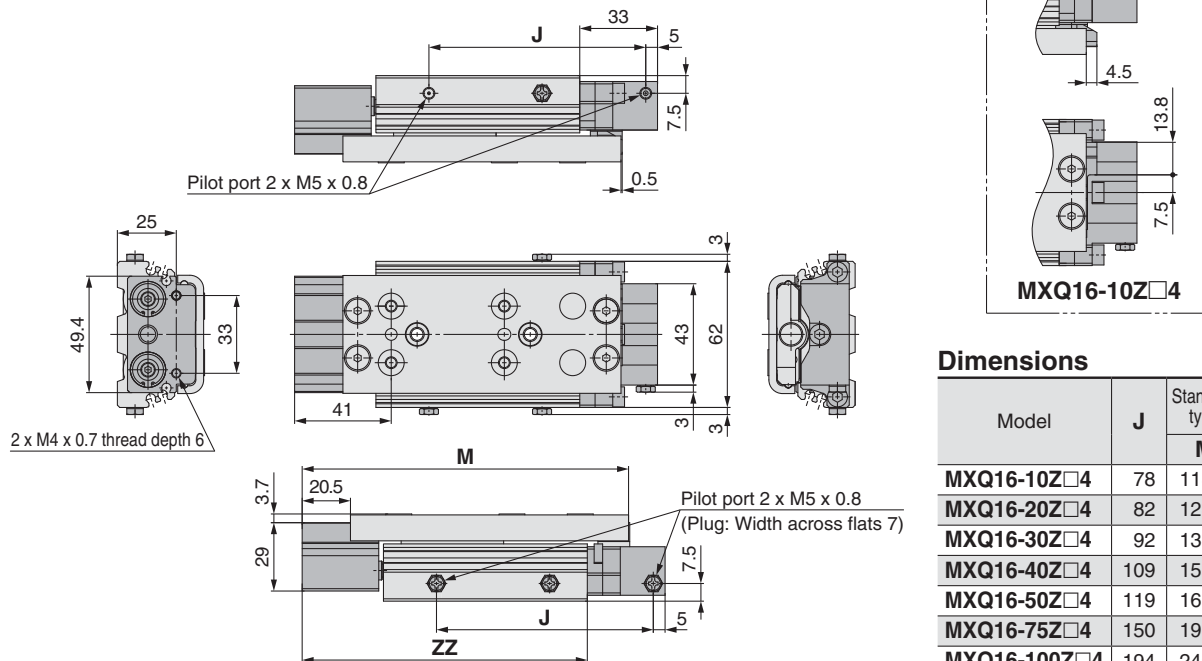
Dimensions: MXQ **16** [Functional Option]

MXQ 16-□□3 Axial piping (ø16)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 16-□□4 With buffer, end lock (ø16)

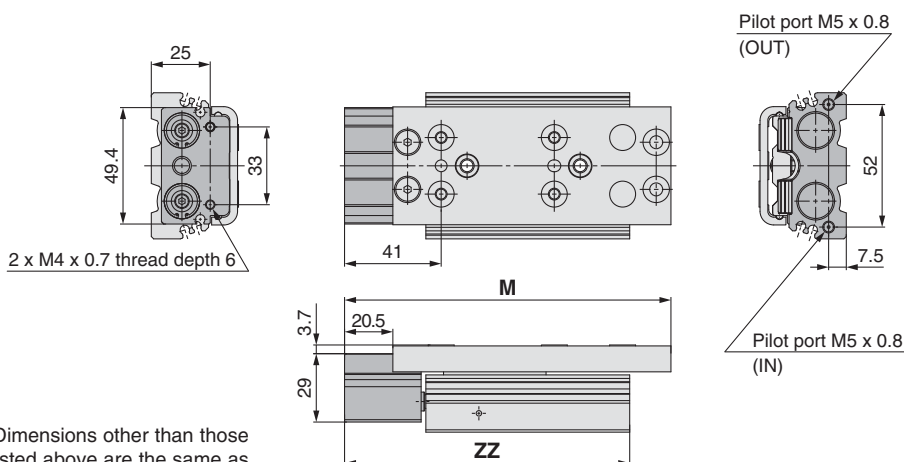


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	J	Standard type	Shorter total length type	ZZ
		M	M	
MXQ16-10Z□4	78	118.5	105	107
MXQ16-20Z□4	82	128.5	115	111
MXQ16-30Z□4	92	138.5	125	121
MXQ16-40Z□4	109	155.5	142	138
MXQ16-50Z□4	119	165.5	152	148
MXQ16-75Z□4	150	196.5	183	179
MXQ16-100Z□4	194	240.5	227	223
MXQ16-125Z□4	219	265.5	252	248

MXQ 16-□□5 With buffer, axial piping (ø16)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ16-10Z□5	118.5	105	107
MXQ16-20Z□5	128.5	115	111
MXQ16-30Z□5	138.5	125	121
MXQ16-40Z□5	155.5	142	138
MXQ16-50Z□5	165.5	152	148
MXQ16-75Z□5	196.5	183	179
MXQ16-100Z□5	240.5	227	223
MXQ16-125Z□5	265.5	252	248

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

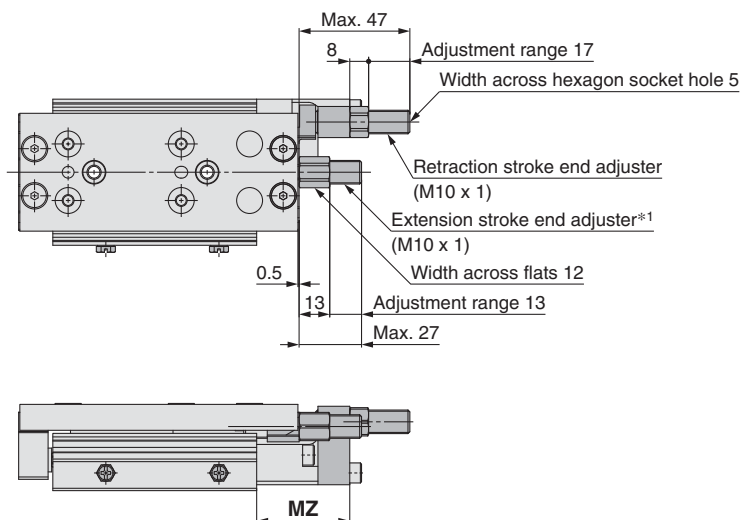
Dimensions: MXQ **16** [Functional Option]

MXQ 16-□□6 Centralized adjuster (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

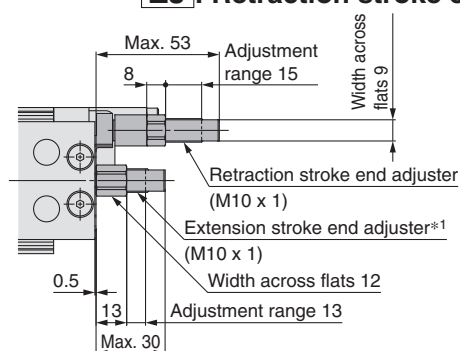
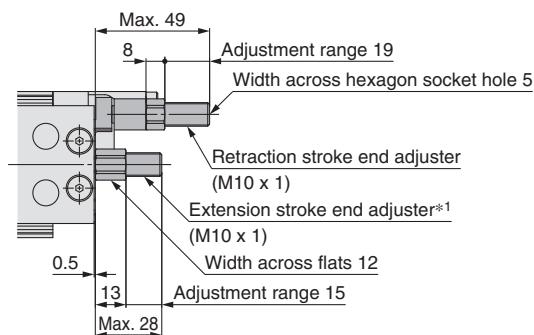
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ16-10Z□6	33.5
MXQ16-20Z□6	39.5
MXQ16-30Z□6	
MXQ16-40Z□6	
MXQ16-50Z□6	
MXQ16-75Z□6	
MXQ16-100Z□6	
MXQ16-125Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

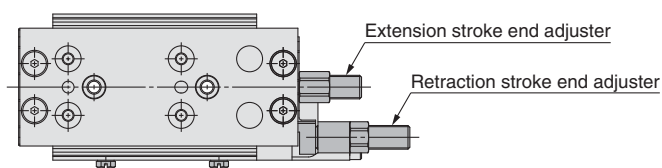


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 16-□□7 Centralized adjuster / Symmetric type (ø16)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



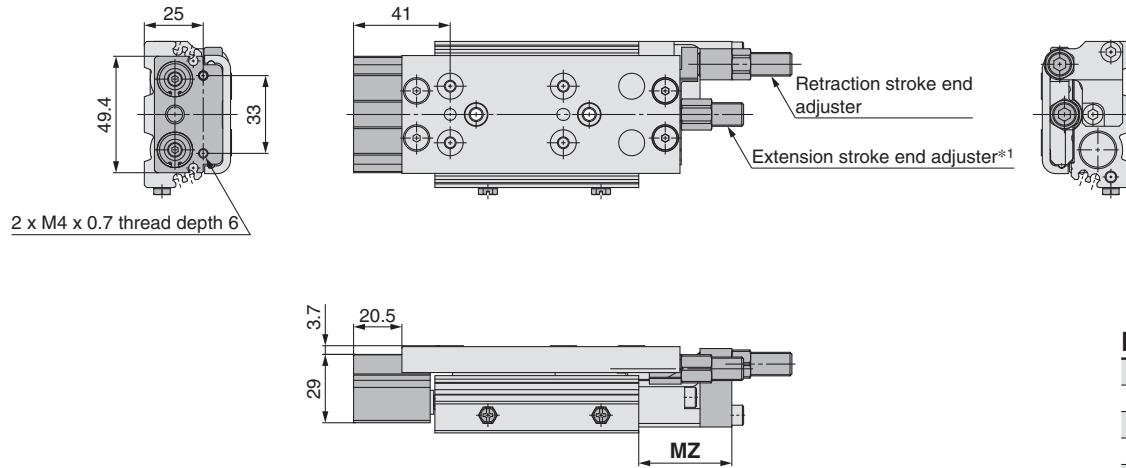
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **16** [Functional Option]

MXQ 16-□□8 Buffer, Centralized adjuster (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

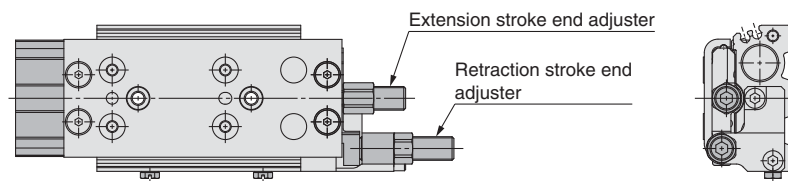


Dimensions [mm]	
Model	MZ
MXQ16-10Z□8	33.5
MXQ16-20Z□8	39.5
MXQ16-30Z□8	
MXQ16-40Z□8	
MXQ16-50Z□8	
MXQ16-75Z□8	
MXQ16-100Z□8	39.5
MXQ16-125Z□8	

- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 16-□□9 Buffer, Centralized adjuster / Symmetric type (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

20 [Standard]

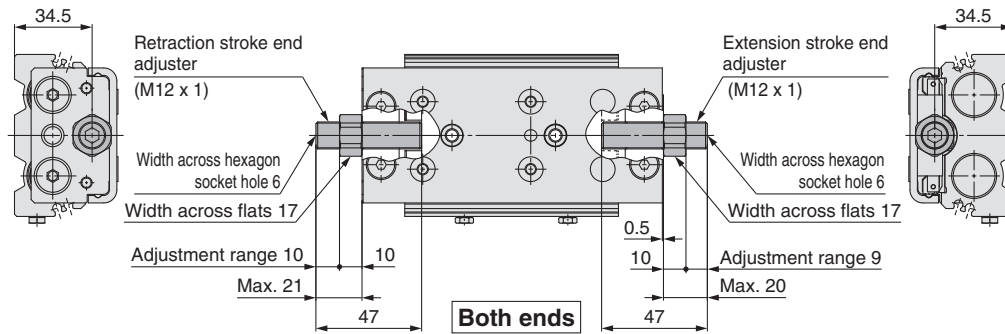


Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ20-10Z	45	18	14	8	46	50	70	24.5	34	113.5	4	2	85	104
MXQ20-20Z	40	18	14	8	46	50	70	24.5	34	123.5	4	2	85	104
MXQ20-30Z	48	28	24	18	46	50	70	22.5	46	133.5	4	2	95	114
MXQ20-40Z	58	28	28	18	56	56	80	22.5	56	143.5	4	2	105	124
MXQ20-50Z	42	—	52	34	—	48	80	30.5	64	159.5	6	3	121	140
MXQ20-75Z	55	22	78	58	56	56	90	38.5	90	193.5	6	3	155	174
MXQ20-100Z	50	16	72	108	56	112	90	63.5	115	266.5	8	4	205	224
MXQ20-125Z	55	32	91	133	59	118	90	63.5	140	291.5	8	4	230	249
MXQ20-150Z	62	48	110	158	62	124	90	63.5	165	316.5	8	4	255	274

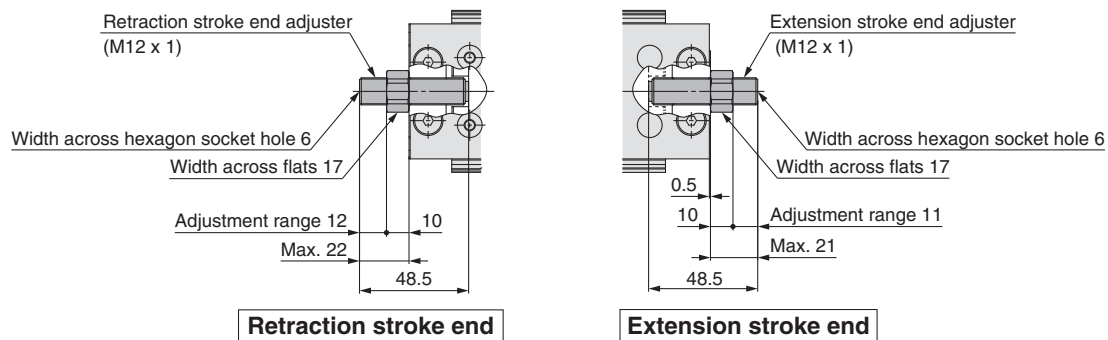
Dimensions: MXQ **20** [Adjuster Option]

MXQ 20-□□ With adjuster option (ø20)

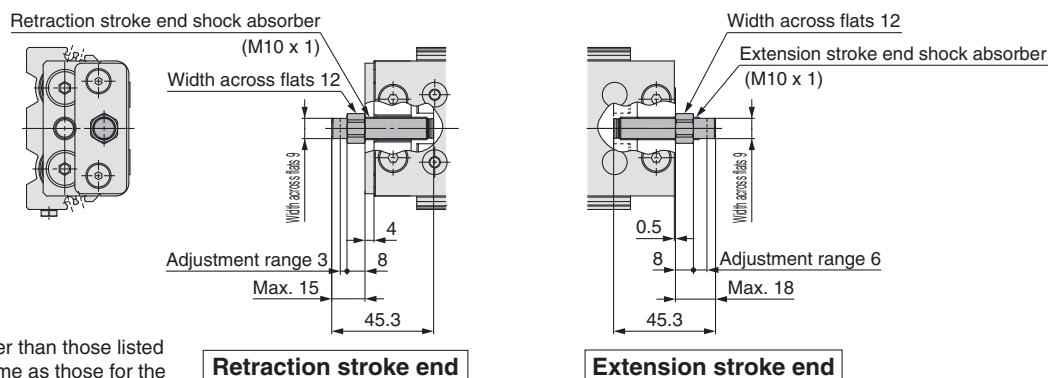
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

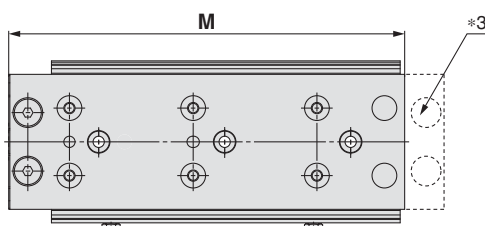


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 20-□ZN Shorter total length type



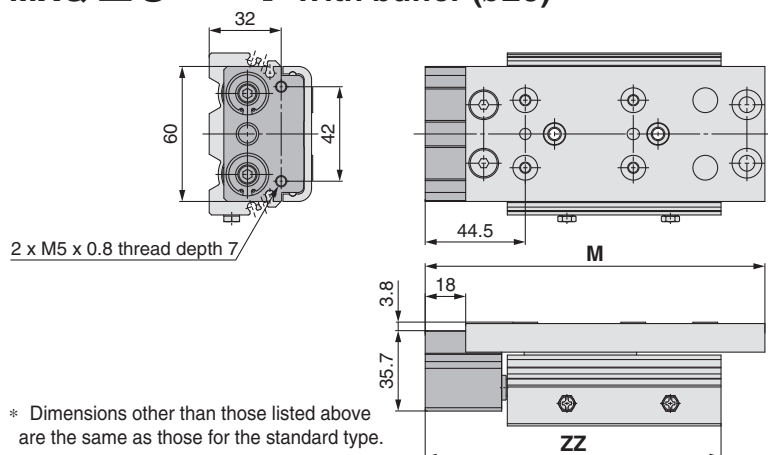
*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ20-10ZN	96
MXQ20-20ZN	106
MXQ20-30ZN	116
MXQ20-40ZN	126
MXQ20-50ZN	142
MXQ20-75ZN	176
MXQ20-100ZN	249
MXQ20-125ZN	274
MXQ20-150ZN	299

Dimensions: MXQ **20** [Functional Option]

MXQ 20-□□1 With buffer (ø20)

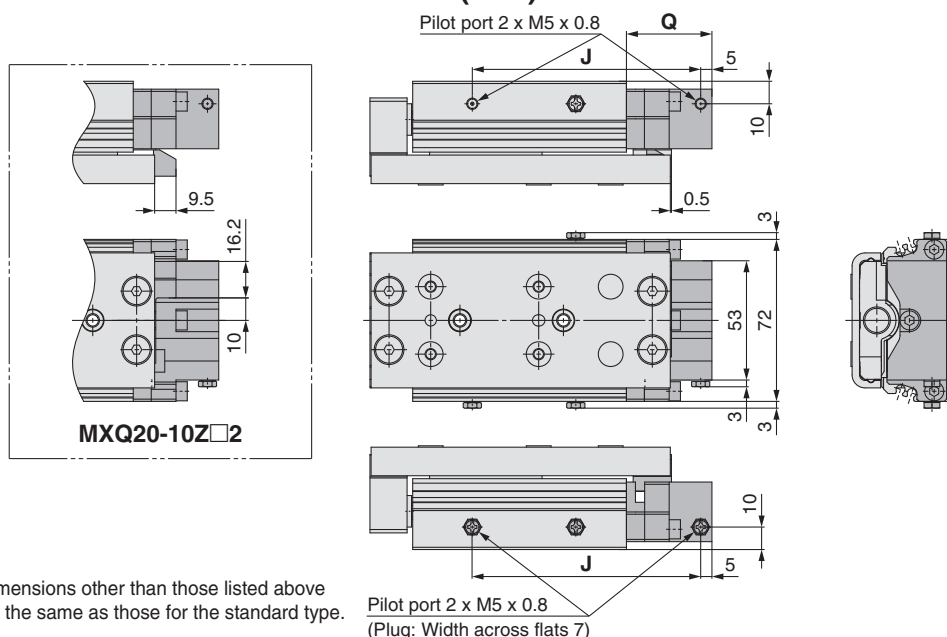


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ20-10Z□1	131	113.5	121.5
MXQ20-20Z□1	141	123.5	
MXQ20-30Z□1	151	133.5	131.5
MXQ20-40Z□1	161	143.5	141.5
MXQ20-50Z□1	177	159.5	157.5
MXQ20-75Z□1	211	193.5	191.5
MXQ20-100Z□1	284	266.5	241.5
MXQ20-125Z□1	309	291.5	266.5
MXQ20-150Z□1	334	316.5	291.5

MXQ 20-□□2 With end lock (ø20)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

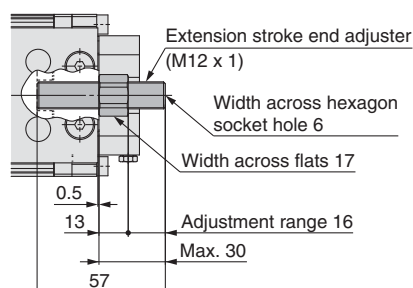
Model	J	Q
MXQ20-10Z□2	91.5	38
MXQ20-20Z□2		
MXQ20-30Z□2		
MXQ20-40Z□2	101.5	
MXQ20-50Z□2	111.5	
MXQ20-75Z□2	127.5	
MXQ20-100Z□2	161.5	61
MXQ20-125Z□2	234.5	
MXQ20-150Z□2	259.5	
	284.5	

MXQ 20-□□2 With end lock,
extension stroke end adjuster (ø20)

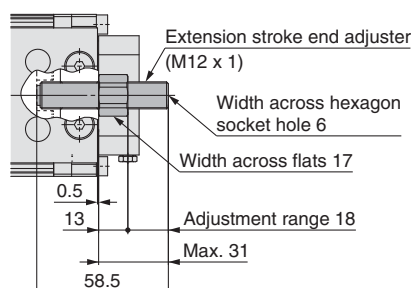
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Metal stopper with bumper: ZB

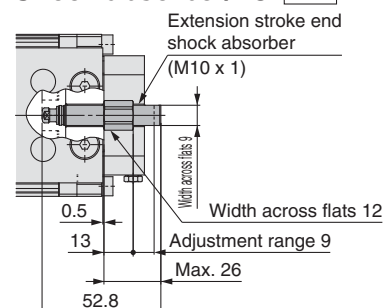
Metal stopper: **ZL**



Rubber stopper: **ZE**



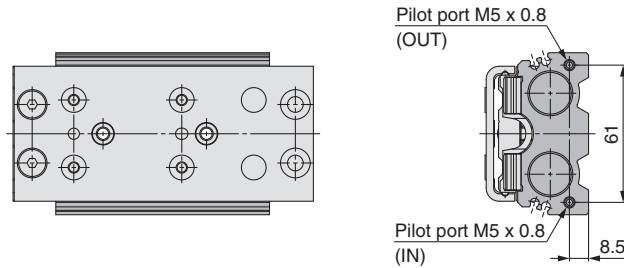
Shock absorber/RJ: ZH



* Dimensions other than those listed above are the same as those for the standard type.

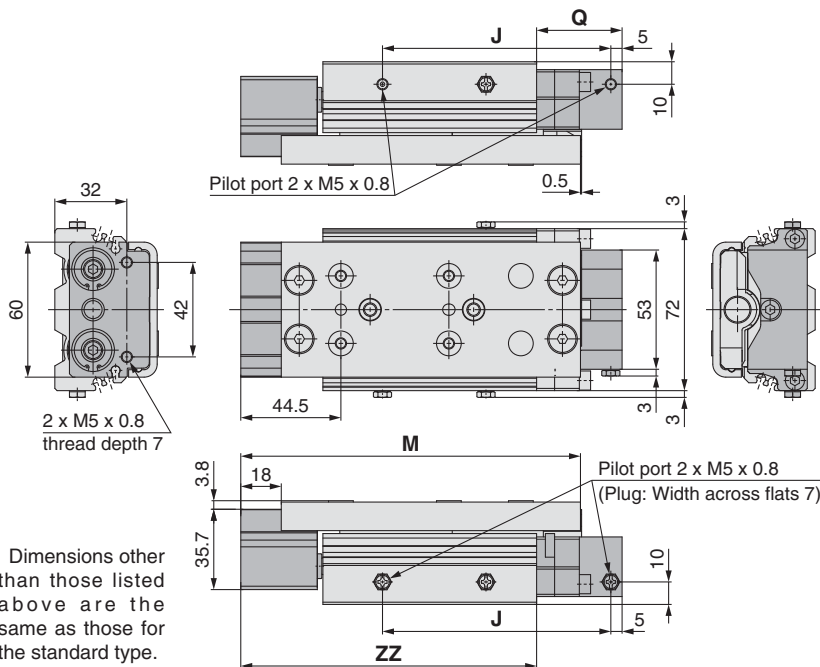
Dimensions: MXQ **20** [Functional Option]

MXQ **20-□□3** Axial piping (ø20)

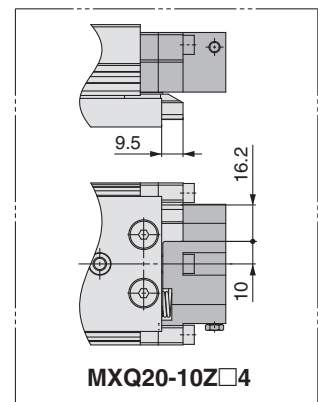


* Dimensions other than those listed above are the same as those for the standard type.

MXQ **20-□□4** With buffer, end lock (ø20)



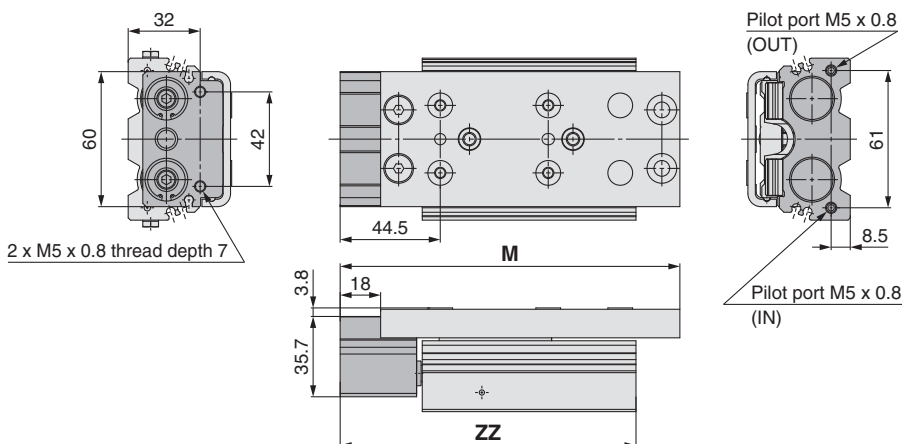
* Dimensions other than those listed above are the same as those for the standard type.



Dimensions

Model	J	Q	Standard type	Shorter total length type	ZZ
			M	M	
MXQ20-10Z□4	91.5	38	131	113.5	121.5
MXQ20-20Z□4			141	123.5	
MXQ20-30Z□4			151	133.5	131.5
MXQ20-40Z□4			161	143.5	141.5
MXQ20-50Z□4			177	159.5	157.5
MXQ20-75Z□4	161.5	61	211	193.5	191.5
MXQ20-100Z□4			284	266.5	241.5
MXQ20-125Z□4			309	291.5	266.5
MXQ20-150Z□4			334	316.5	291.5

MXQ **20-□□5** With buffer, axial piping (ø20)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ20-10Z□5	131	113.5	121.5
MXQ20-20Z□5	141	123.5	
MXQ20-30Z□5	151	133.5	131.5
MXQ20-40Z□5	161	143.5	141.5
MXQ20-50Z□5	177	159.5	157.5
MXQ20-75Z□5	211	193.5	191.5
MXQ20-100Z□5	284	266.5	241.5
MXQ20-125Z□5	309	291.5	266.5
MXQ20-150Z□5	334	316.5	291.5

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

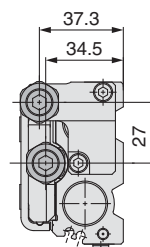
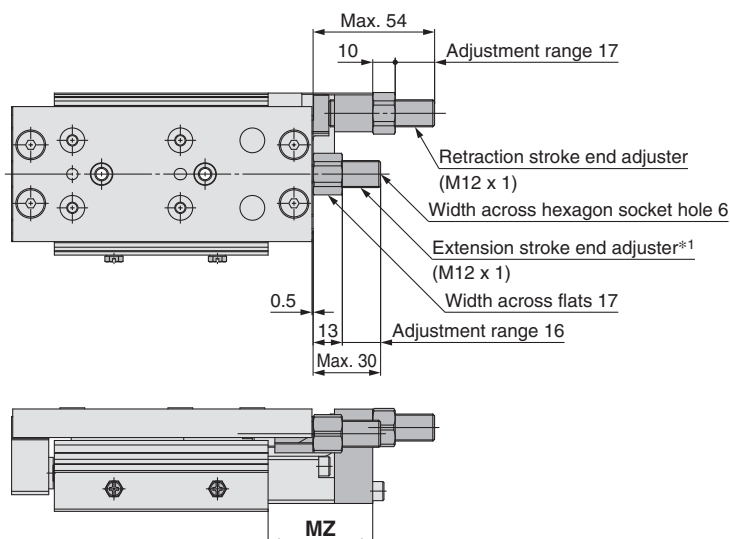
Dimensions: MXQ **20** [Functional Option]

MXQ 20-□□6 Centralized adjuster (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

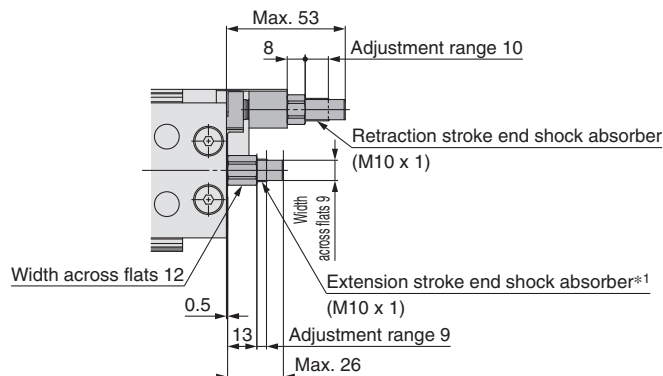
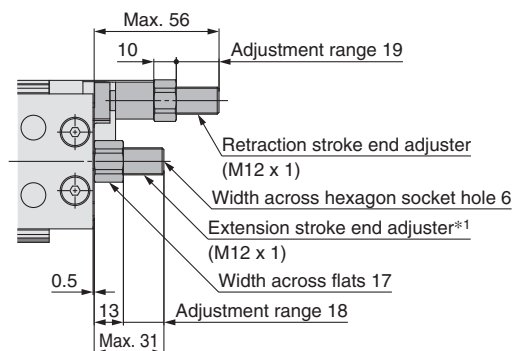
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ20-10Z□6	36.5
MXQ20-20Z□6	46.5
MXQ20-30Z□6	
MXQ20-40Z□6	
MXQ20-50Z□6	
MXQ20-75Z□6	69.5
MXQ20-100Z□6	
MXQ20-125Z□6	
MXQ20-150Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

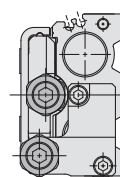
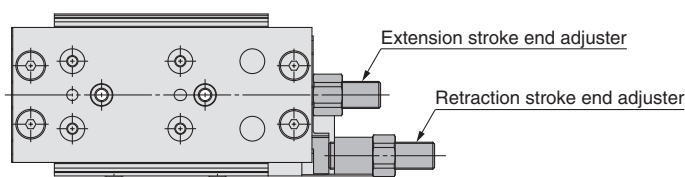


* Dimensions other than those listed above are the same as those for the standard type.

* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 20-□□7 Centralized adjuster / Symmetric type (ø20)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



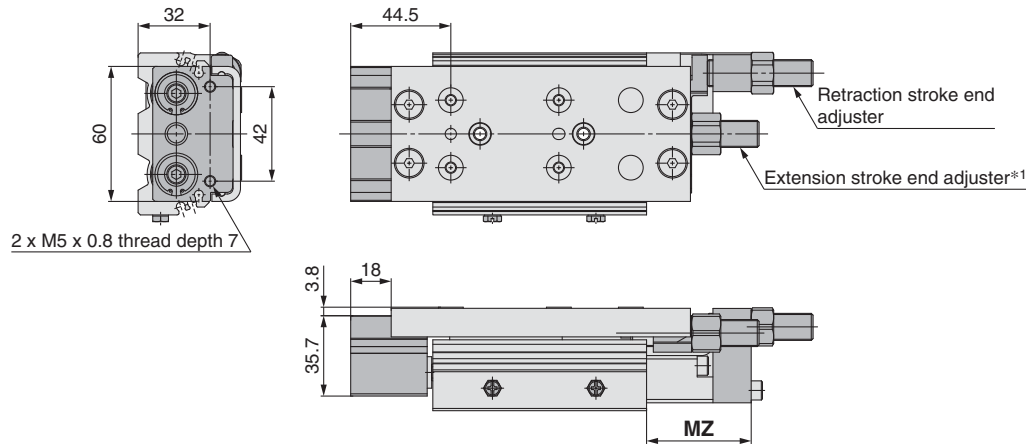
* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **20** [Functional Option]

MXQ 20-□□8 Buffer, Centralized adjuster (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

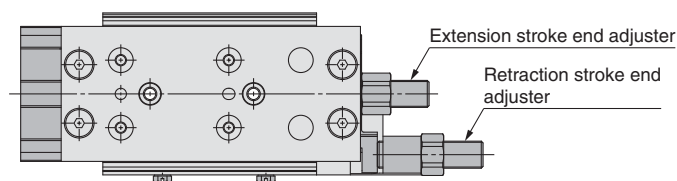


Dimensions [mm]	
Model	MZ
MXQ20-10Z□8	36.5
MXQ20-20Z□8	46.5
MXQ20-30Z□8	
MXQ20-40Z□8	
MXQ20-50Z□8	
MXQ20-75Z□8	69.5
MXQ20-100Z□8	
MXQ20-125Z□8	
MXQ20-150Z□8	

- * Dimensions other than those listed above are the same as those for the standard type.
- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

MXQ 20-□□9 Buffer, Centralized adjuster / Symmetric type (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- * In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

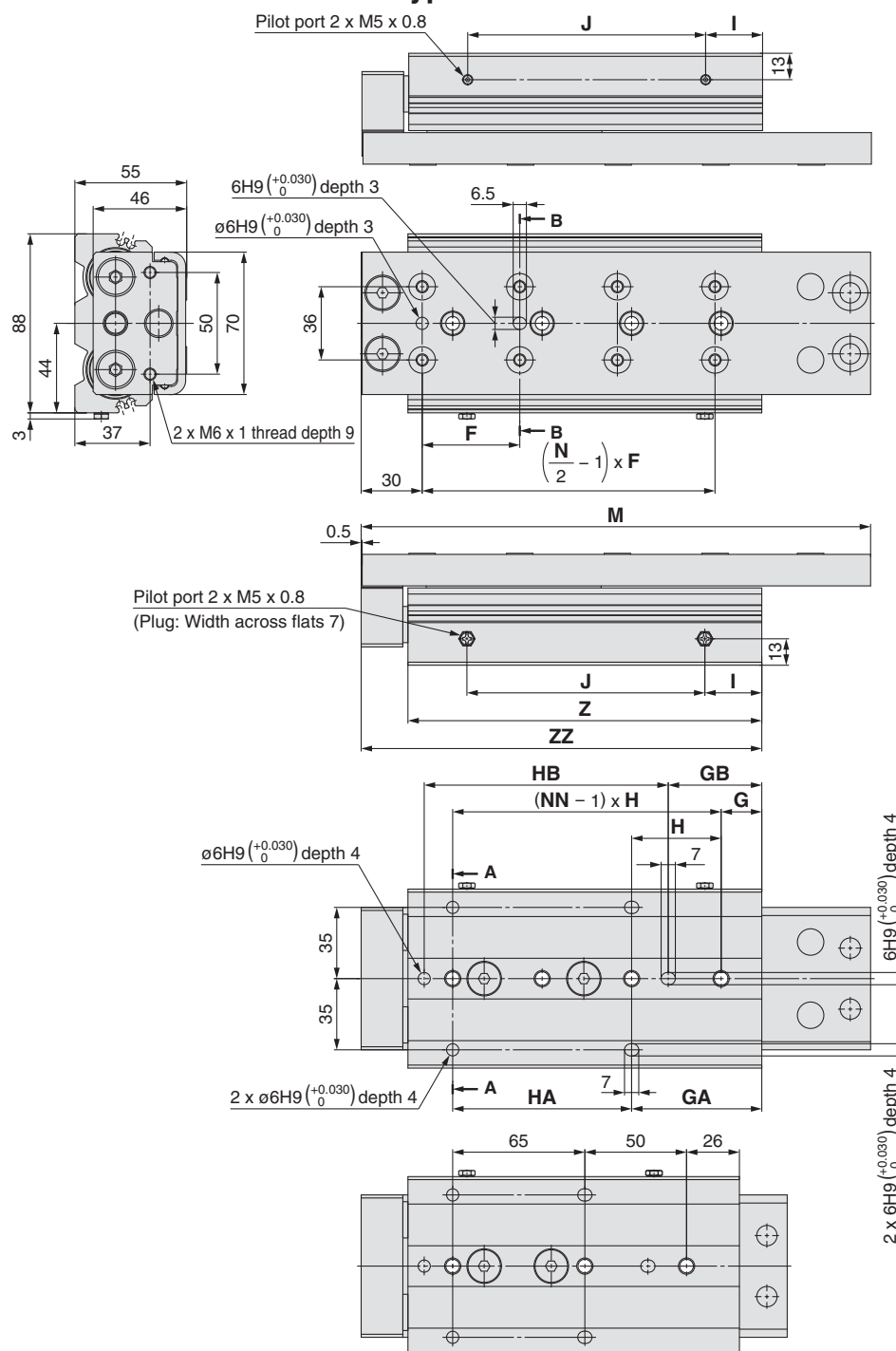
Auto Switch
Mounting

Made to Order

Model Selection

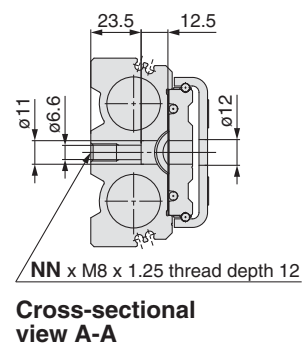
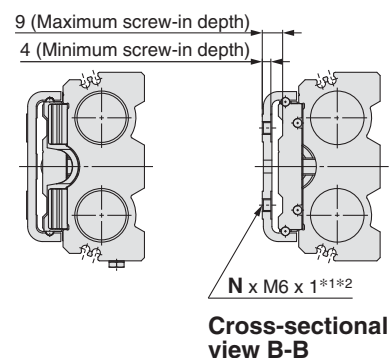
Dimensions: MXQ **25** [Standard]

MXQ 25-□Z Standard type



*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Dimensions

Bottom view of MXQ25-75Z

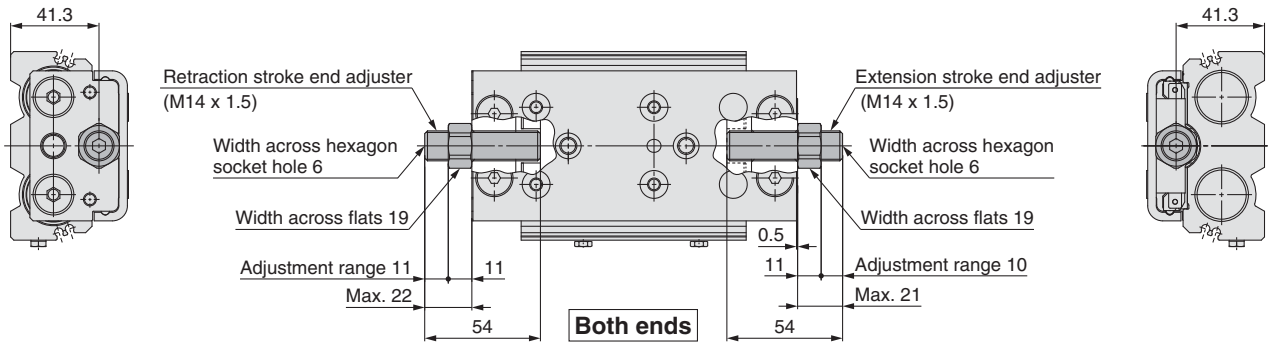
Model	F	G	GA	GB	H	HA	HB	I	J	M	N	NN	Z	ZZ
MXQ25-10Z	55	18	18	7	55	55	80	30	36	131.5	4	2	95	118
MXQ25-20Z	46	18	18	7	55	55	80	30	36	141.5	4	2	95	118
MXQ25-30Z	55	28	28	17	55	55	80	22	54	151.5	4	2	105	128
MXQ25-40Z	65	28	28	17	65	65	90	22	64	161.5	4	2	115	138
MXQ25-50Z	75	36	36	20	80	80	110	43	66	184.5	4	2	138	161
MXQ25-75Z	60	—	76	45	—	65	110	42	92	209.5	6	3	163	186
MXQ25-100Z	48	20	64	46	44	88	120	28	117	250.5	8	4	174	197
MXQ25-125Z	60	18	84	60	66	132	170	67	142	314.5	8	4	238	261
MXQ25-150Z	65	43	109	85	66	132	170	66	168	339.5	8	4	263	286

Dimensions: MXQ **25** [Adjuster Option]

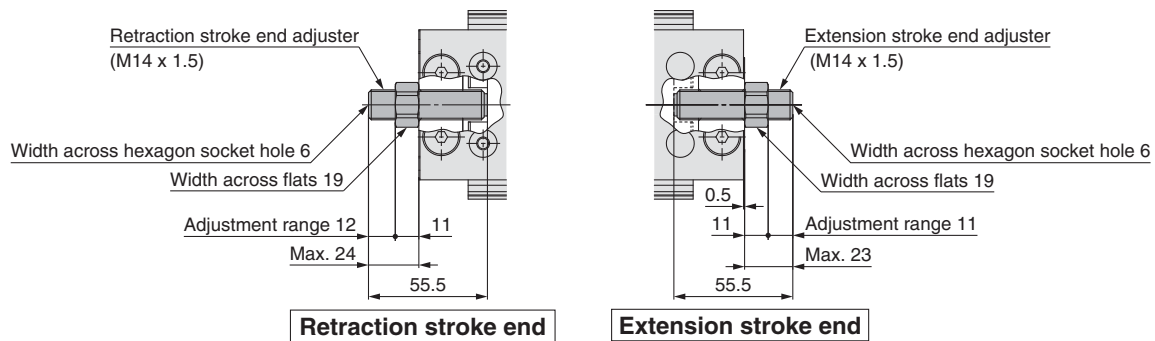
MXQ 25-□ □ With adjuster option (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

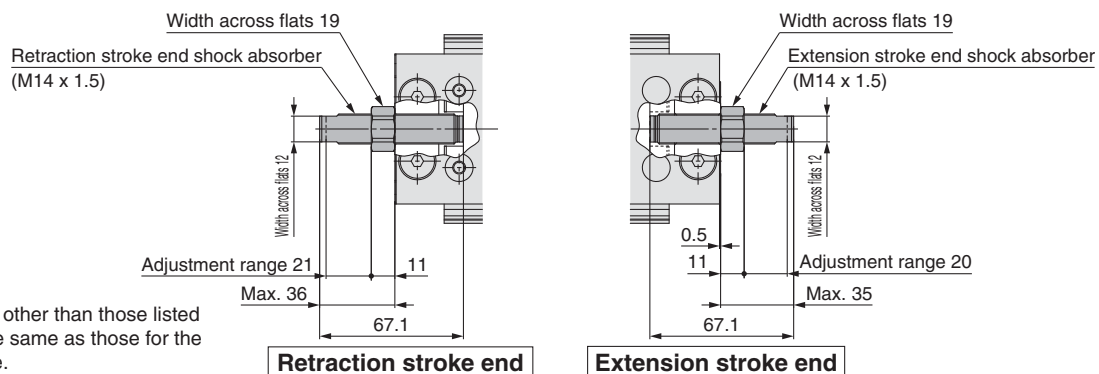
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

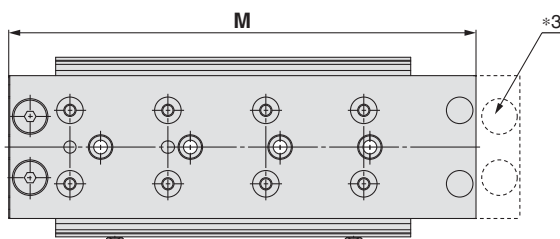


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 25-□ ZN Shorter total length type



*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	M
MXQ25-10ZN	110
MXQ25-20ZN	120
MXQ25-30ZN	130
MXQ25-40ZN	140
MXQ25-50ZN	163
MXQ25-75ZN	188
MXQ25-100ZN	229
MXQ25-125ZN	293
MXQ25-150ZN	318

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

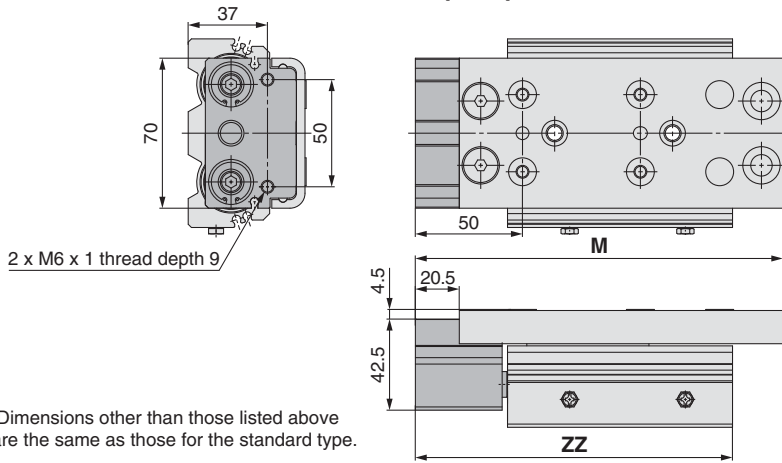
Auto Switch Mounting

Made to Order

Model Selection

Dimensions: MXQ **25** [Functional Option]

MXQ **25**-□□**1** With buffer (ø25)

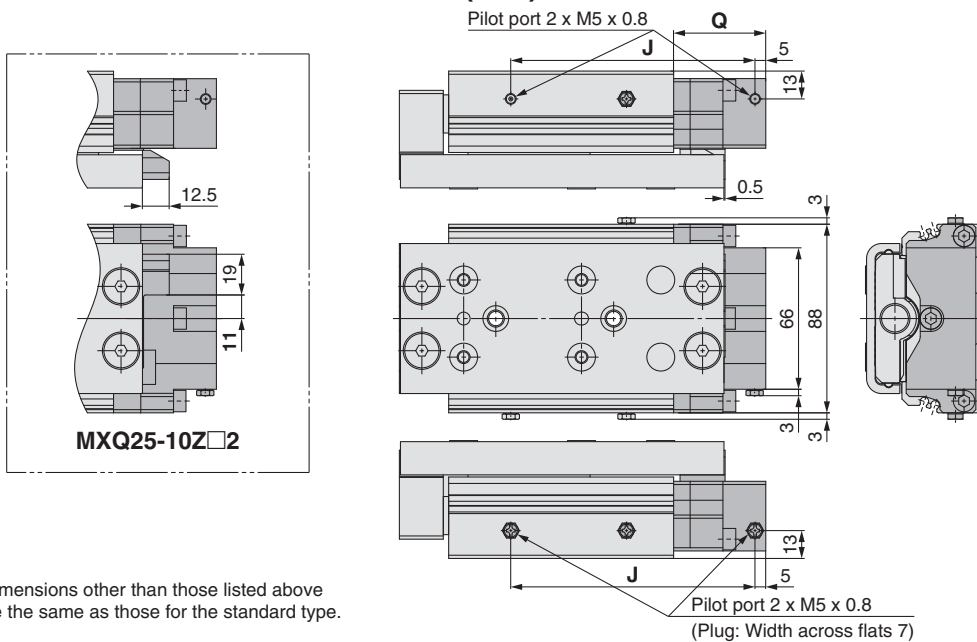


Dimensions [mm]

Model	Standard type	Shorter total length type	ZZ
	M	M	
MXQ25-10Z□1	151.5	130	138
MXQ25-20Z□1	161.5	140	
MXQ25-30Z□1	171.5	150	148
MXQ25-40Z□1	181.5	160	158
MXQ25-50Z□1	204.5	183	181
MXQ25-75Z□1	229.5	208	206
MXQ25-100Z□1	270.5	249	217
MXQ25-125Z□1	334.5	313	281
MXQ25-150Z□1	359.5	338	306

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25**-□□**2** With end lock (ø25)



Dimensions [mm]

Model	J	Q
MXQ25-10Z□2	109	48
MXQ25-20Z□2	104	43
MXQ25-30Z□2	114	
MXQ25-40Z□2	124	
MXQ25-50Z□2	147	
MXQ25-75Z□2	172	73
MXQ25-100Z□2	213	
MXQ25-125Z□2	277	
MXQ25-150Z□2	302	

* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25**-□□**2** With end lock, extension stroke end adjuster (ø25)

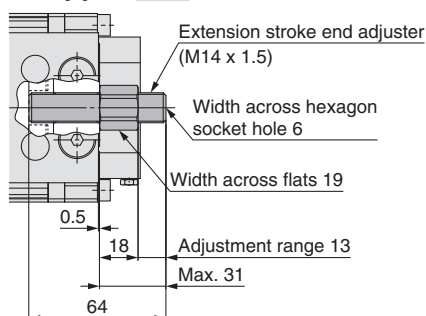
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

Type	Adjuster part no.	Single adjustment bolt part no.*1
Metal stopper with bumper: ZB	MXQA-CT25-X28	MXQA-A2587-X11
Rubber stopper: ZE	MXQA-AT25-X28	MXQA-A2527-X11
Shock absorber/RJ: ZH	MXQA-JT25-X28	RJ1410U-X2300
Metal stopper: ZL	MXQA-DT25-X28	MXQA-A2538-X11

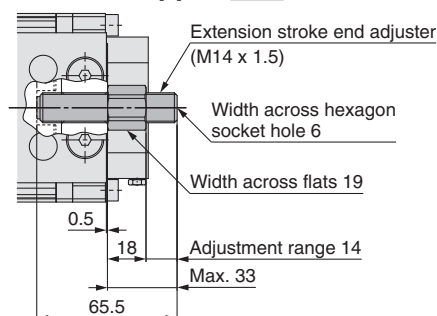
*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Metal stopper with bumper: **ZB**

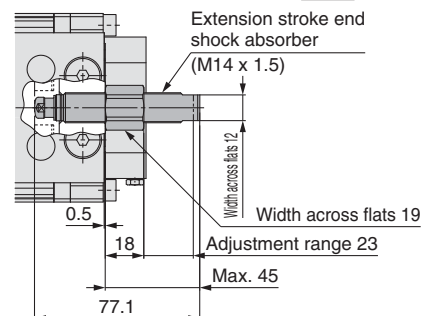
Metal stopper: **ZL**



Rubber stopper: **ZE**



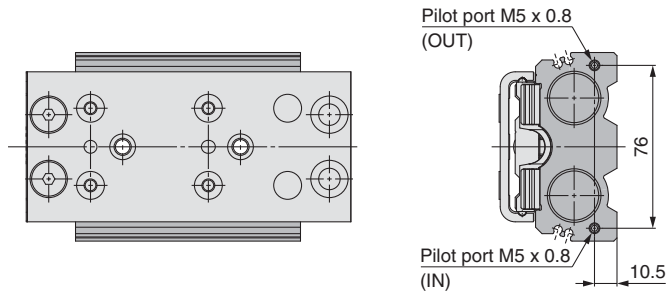
Shock absorber/RJ: **ZH**



* Dimensions other than those listed above are the same as those for the standard type.

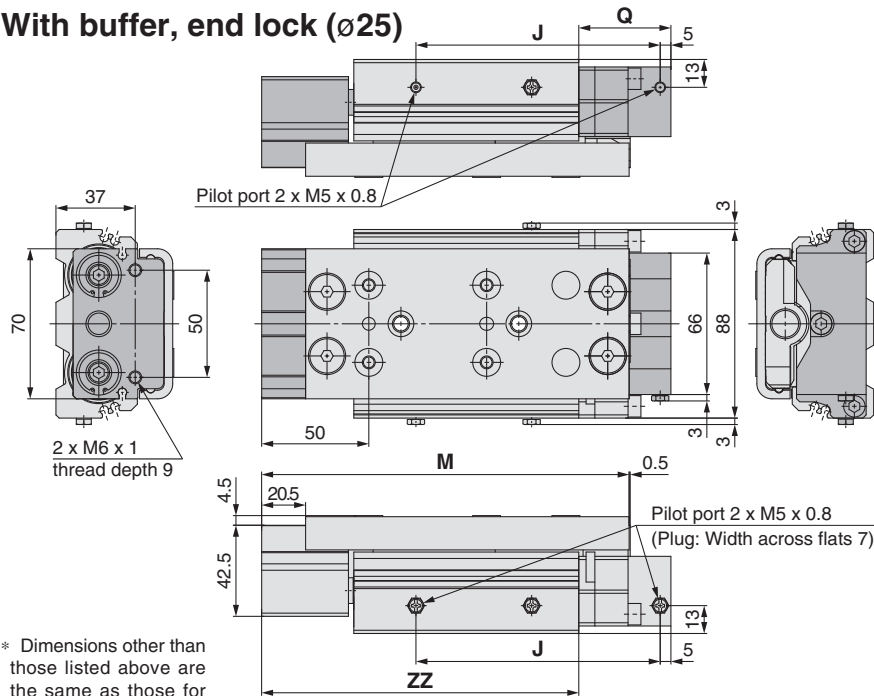
Dimensions: MXQ **25** [Functional Option]

MXQ **25-□□3** Axial piping (ø25)

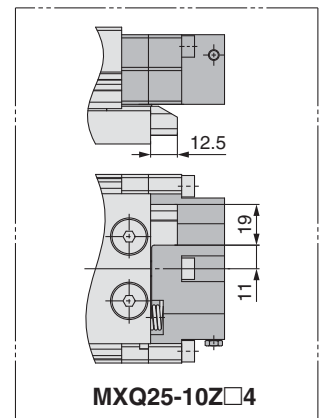


* Dimensions other than those listed above are the same as those for the standard type.

MXQ **25-□□4** With buffer, end lock (ø25)



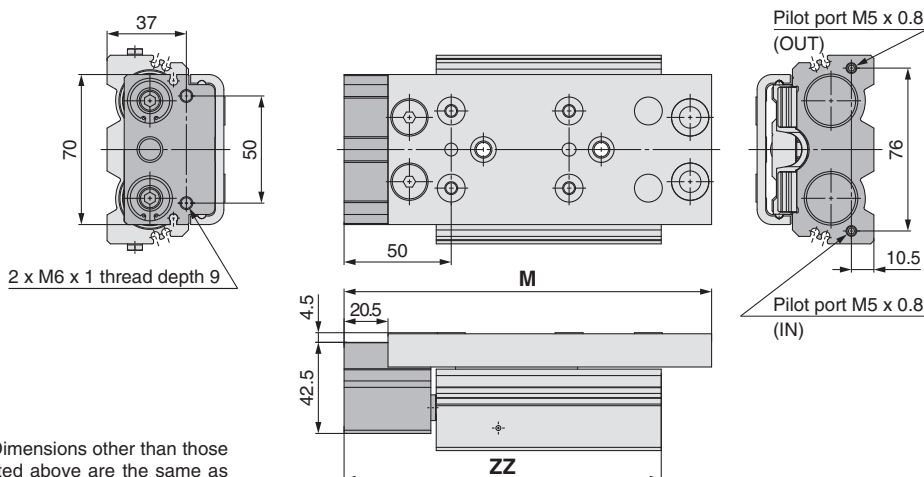
* Dimensions other than those listed above are the same as those for the standard type.



Dimensions

Model	J	Q	Standard type		ZZ
			M	Shorter total length type	
MXQ25-10Z□4	109	48	151.5	130	138
MXQ25-20Z□4	104		161.5	140	
MXQ25-30Z□4	114		171.5	150	148
MXQ25-40Z□4	124	43	181.5	160	158
MXQ25-50Z□4	147		204.5	183	181
MXQ25-75Z□4	172		229.5	208	206
MXQ25-100Z□4	213		270.5	149	217
MXQ25-125Z□4	277	73	334.5	313	281
MXQ25-150Z□4	302		359.5	338	306

MXQ **25-□□5** With buffer, axial piping (ø25)



* Dimensions other than those listed above are the same as those for the standard type.

Dimensions

Model	Standard type		ZZ
	M	Shorter total length type	
MXQ25-10Z□5	151.5	130	138
MXQ25-20Z□5	161.5	140	
MXQ25-30Z□5	171.5	150	148
MXQ25-40Z□5	181.5	160	158
MXQ25-50Z□5	204.5	183	181
MXQ25-75Z□5	229.5	208	206
MXQ25-100Z□5	270.5	149	217
MXQ25-125Z□5	334.5	313	281
MXQ25-150Z□5	359.5	338	306

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

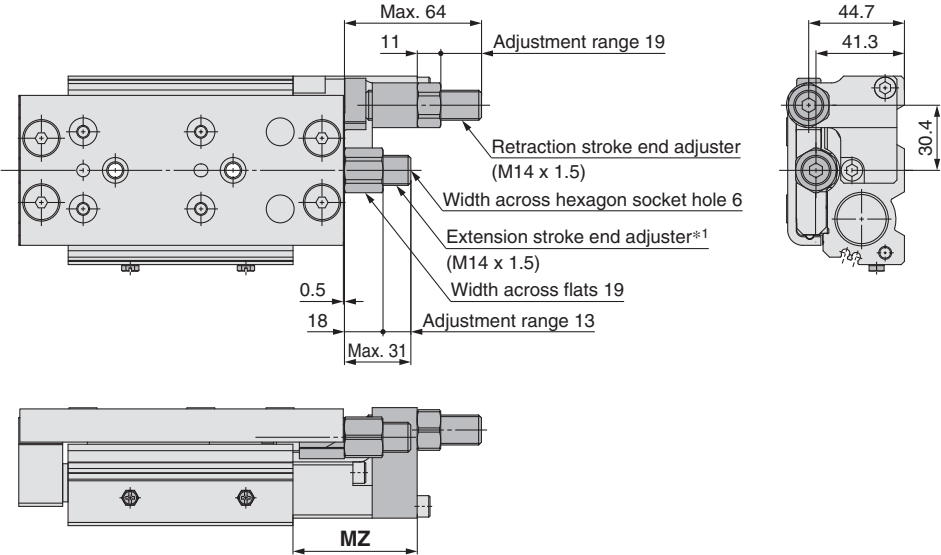
Dimensions: MXQ **25** [Functional Option]

MXQ 25-□□6 Centralized adjuster (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

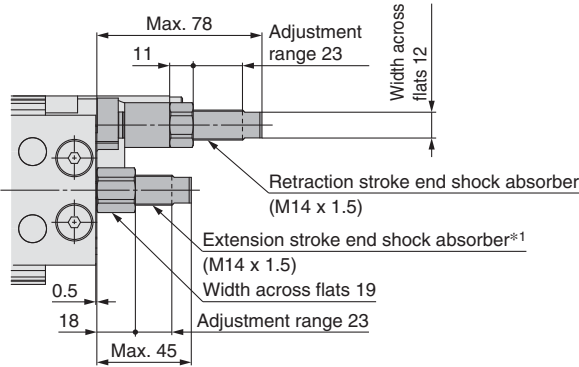
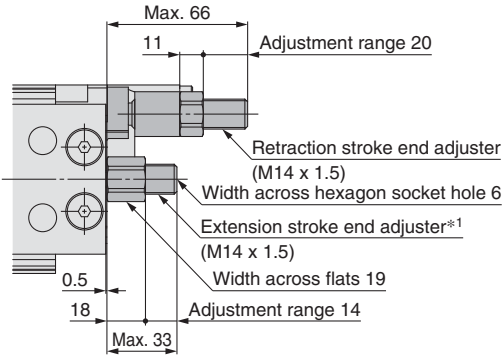
*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



Dimensions [mm]	
Model	MZ
MXQ25-10Z□6	48
MXQ25-20Z□6	58
MXQ25-30Z□6	
MXQ25-40Z□6	
MXQ25-50Z□6	
MXQ25-75Z□6	88
MXQ25-100Z□6	
MXQ25-125Z□6	
MXQ25-150Z□6	

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

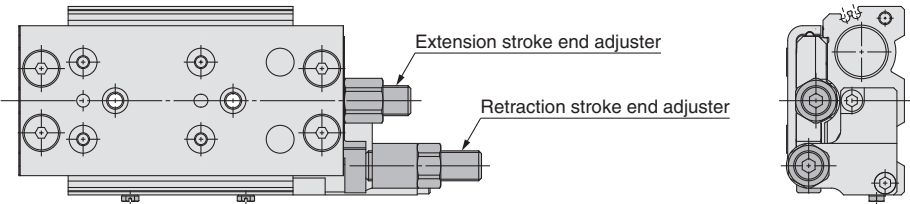
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



* Dimensions other than those listed above are the same as those for the standard type.

MXQ 25-□□7 Centralized adjuster / Symmetric type (ø25)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

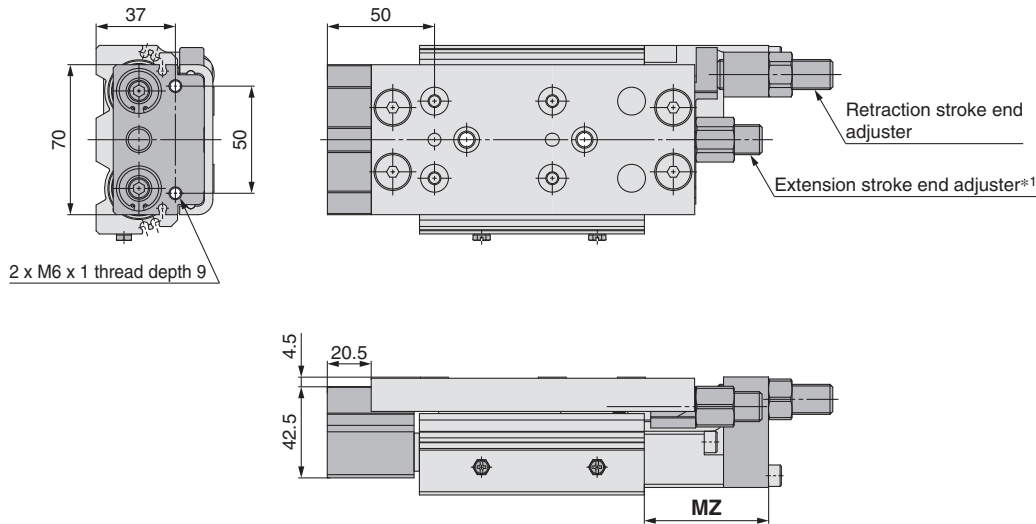


Dimensions: MXQ **25** [Functional Option]

MXQ 25-□□8 Buffer, Centralized adjuster (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

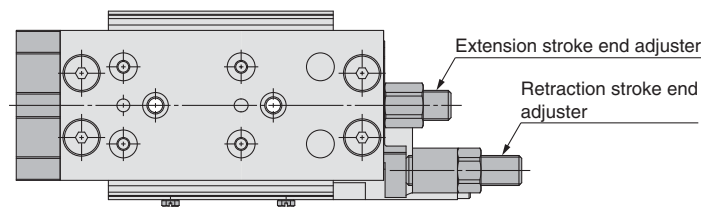


* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]	
Model	MZ
MXQ25-10Z□8	48
MXQ25-20Z□8	58
MXQ25-30Z□8	
MXQ25-40Z□8	
MXQ25-50Z□8	
MXQ25-75Z□8	
MXQ25-100Z□8	88
MXQ25-125Z□8	
MXQ25-150Z□8	

MXQ 25-□□9 Buffer, Centralized adjuster / Symmetric type (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

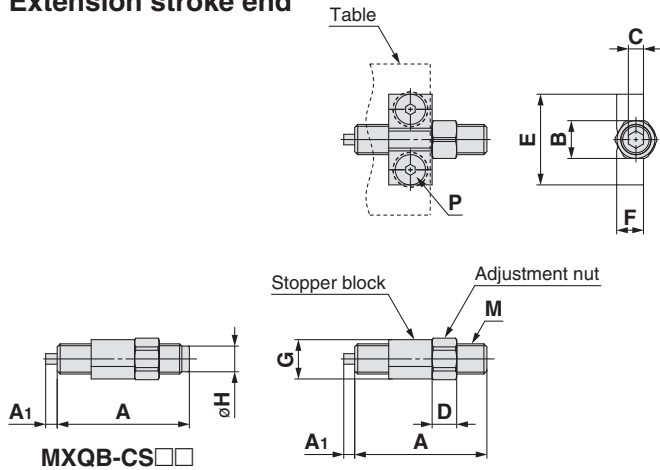
Made to Order

Model Selection

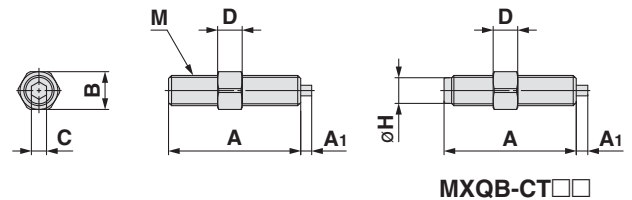
Common Adjuster Options

Metal Stopper with Bumper

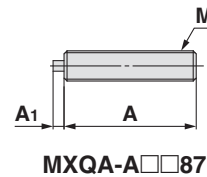
Extension stroke end



Retraction stroke end



Single metal stopper with bumper



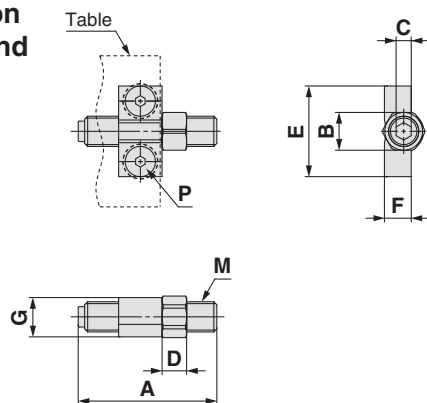
Model	Adjuster part no.				A	A1	B	C	D	E	F	G	M (Fine pitch)	P*2	øH
	Extension stroke end	Retraction stroke end	Single metal stopper with bumper*1												
MXQ8(A, C)	—	MXQA-CS8	MXQA-CT8	MXQA-A887	30	2	8	3	5	18	5.8	8.3	M6 x 0.75	M3 x 6	—
MXQ12(A, C)	—	MXQA-CS12	MXQA-CT12	MXQA-A1287	35	2.8	10	4	6.5	24	7.1	10.4	M8 x 1	M4 x 8	—
MXQ16(A)	—	MXQA-CS16	MXQA-CT16	MXQA-A1687	40	3.6	12	5	8	29.4	9.2	12.6	M10 x 1	M5 x 10	—
MXQ20(A)	—	MXQA-CS20	MXQA-CT20	MXQA-A2087	47	4.4	17	6	10	36	11.2	16.2	M12 x 1	M6 x 12	—
MXQ25(A)	—	MXQA-CS25	MXQA-CT25	MXQA-A2587	54	5.5	19	6	11	44	13.5	19.3	M14 x 1.5	M8 x 16	—
—	MXQ8B	MXQB-CS8	MXQB-CT8	MXQB-A887	35	2	10	4	6.5	24	7.1	10.4	M8 x 1	M4 x 8	6.8
—	MXQ12B	MXQB-CS12	MXQB-CT12	MXQB-A1287	40	2.8	12	5	8	29.4	9.2	12.6	M10 x 1	M5 x 10	8.8
—	MXQ16B	MXQB-CS16	MXQB-CT16	MXQB-A1687	47	3.6	17	6	10	36	11.2	16.2	M12 x 1	M6 x 12	10.8
—	MXQ20B	MXQB-CS20	MXQB-CT20	MXQB-A2087	54	4.4	19	6	11	44	13.5	19.3	M14 x 1.5	M8 x 16	12.3

*1 Single metal stopper with bumper: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw

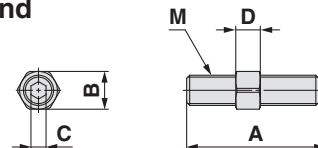
*2 Size of the hexagon socket flat countersunk head cap screw

Rubber Stopper

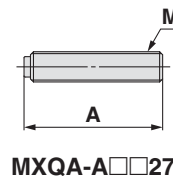
Extension stroke end



Retraction stroke end



Single rubber stopper



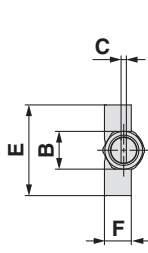
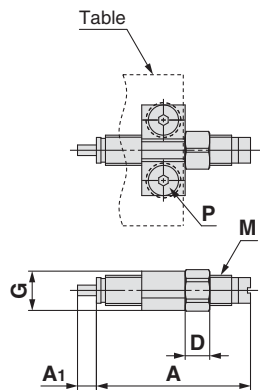
Model	Adjuster part no.			A	B	C	D	E	F	G	M (Fine pitch)	P*2
	Extension stroke end	Retraction stroke end	Single rubber stopper*1									
MXQ6(A)	MXQA-AS8	MXQA-AT8	MXQA-A827	31.5	8	3	5	18	5.8	8.3	M6 x 0.75	M3 x 6
MXQ6B												
MXQ8(A, C)	MXQA-AS12	MXQA-AT12	MXQA-A1227	36.5	10	4	6.5	24	7.1	10.4	M8 x 1	M4 x 8
MXQ8B												
MXQ16(A)	MXQA-AS16	MXQA-AT16	MXQA-A1627	41.5	12	5	8	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ12B												
MXQ20(A)	MXQA-AS20	MXQA-AT20	MXQA-A2027	48.5	17	6	10	36	11.2	16.2	M12 x 1	M6 x 12
MXQ16B												
MXQ25(A)	MXQA-AS25	MXQA-AT25	MXQA-A2527	55.5	19	6	11	44	13.5	19.3	M14 x 1.5	M8 x 16
MXQ20B												

*1 Single rubber stopper: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw

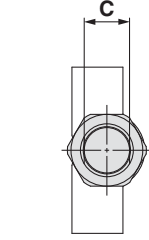
*2 Size of the hexagon socket flat countersunk head cap screw

Shock Absorber/RJ

Extension stroke end

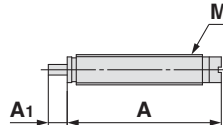


MXQA-JS8



MXQA-JS12 to JS25

Shock absorber only

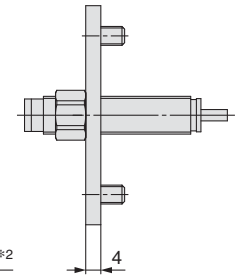
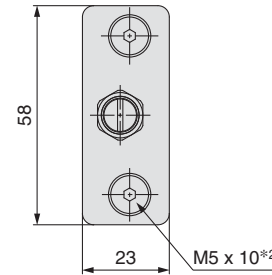
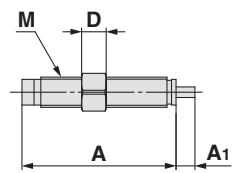
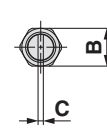


RJ□□□□(H)N

Retraction stroke end



MXQA-JT12 to JT25 MXQA-JT8



MXQA-JT20P*3

Model	Adjuster part no.			A	A1	B	C	D	E	F	G	M (Fine pitch)	P*2
	Extension stroke end	Retraction stroke end	Shock absorber only*1										
MXQ6(A)	MXQA-JS8	MXQA-JT8	RJ0603N	29.9	3.4	8	1	5	18	5.8	8.3	M6 x 0.75	M3 x 6
MXQ6B													
MXQ8(A, C)													
MXQ12(A, C)	MXQA-JS12	MXQA-JT12	RJ0805N	40.8	5	10	7	6.5	24	7.1	10.4	M8 x 1	M4 x 8
MXQ8B													
MXQ16(A)													
MXQ12B	MXQA-JS16	MXQA-JT16	RJ1006N	45.3	6	12	9	8	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ20(A)													
MXQ16B													
MXQ25(A)	MXQA-JS20	MXQA-JT20P	RJ1007HN	45.3	7	12	9	8	36	11.2	16.2	M10 x 1	M6 x 12
MXQ20B													
MXQ25(A)	MXQA-JS25	MXQA-JT25	RJ1410N	67.1	10	19	12	11	44	13.5	19.3	M14 x 1.5	M8 x 16
MXQ20B													

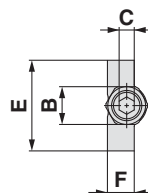
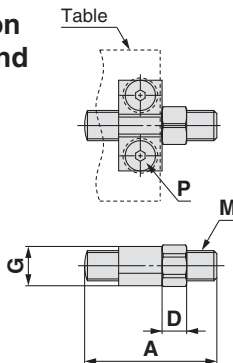
*1 Shock absorber only: A single unit of the shock absorber without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

*3 Since the retraction stroke end shock absorber of the MXQ20(A) and MXQ16B has a different thread size from that of the product, use the mounting plate to mount the shock absorber. For this reason, the part number will differ from other sizes. (The part number has a "P" suffix.)

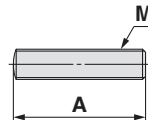
Metal Stopper

Extension stroke end



Retraction stroke end

Metal stopper only



MXQA-A□□38

Model	Adjuster part no.			A	B	C	D	E	F	G	M (Fine pitch)	P*2
	Extension stroke end	Retraction stroke end	Metal stopper only*1									
MXQ6(A)	MXQA-DS8	MXQA-DT8	MXQA-A838	30	8	3	5	18	5.8	8.3	M6 x 0.75	M3 x 6
MXQ6B												
MXQ8(A, C)												
MXQ12(A, C)	MXQA-DS12	MXQA-DT12	MXQA-A1238	35	10	4	6.5	24	7.1	10.4	M8 x 1	M4 x 8
MXQ8B												
MXQ16(A)												
MXQ12B	MXQA-DS16	MXQA-DT16	MXQA-A1638	40	12	5	8	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ20(A)												
MXQ16B												
MXQ25(A)	MXQA-DS20	MXQA-DT20	MXQA-A2038	47	17	6	10	36	11.2	16.2	M12 x 1	M6 x 12
MXQ20B												
MXQ25(A)	MXQA-DS25	MXQA-DT25	MXQA-A2538	54	19	6	11	44	13.5	19.3	M14 x 1.5	M8 x 16
MXQ20B												

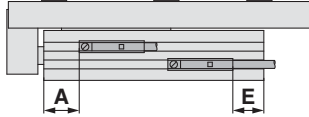
*1 Metal stopper only: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

MXQ Series Auto Switch Mounting

Auto Switch Proper Mounting Position (Detection at stroke end)

* Adjust the auto switch after confirming the operating conditions in the actual setting.



Solid State Auto Switch: D-M9□/M9□W

[mm]

Model	A stroke									E stroke									
	10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150	
MXQ6(A)	18	7.4	7.4	7.4	7.4	—	—	—	—	0	0.6	3.6	5.6	5.6	—	—	—	—	
MXQ8(A, C)	13.9	13.9	13.9	13.9	13.9	13.9	—	—	—	5.1	5.1	5.1	11.1	28.1	5.1	—	—	—	
MXQ12(A, C)	26.5	16.5	16.5	16.5	16.5	16.5	16.5	—	—	4.1	6.1	6.1	14.1	14.1	33.1	33.1	—	—	
MXQ16(A)	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	—	20	14	14	21	21	27	46	46	—	
MXQ20(A)	32.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	20.9	21.9	21.9	21.9	27.9	36.9	61.9	61.9	61.9	
MXQ25(A)	34.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	28.7	27.7	27.7	27.7	40.7	40.7	42.7	65.4	65.7	
MXQ6B	18	7.4	7.4	7.4	7.4	7.4	—	—	—	1	11.6	11.6	17.6	34.6	11.6	—	—	—	
MXQ8B	29	13.9	13.9	13.9	13.9	13.9	13.9	—	—	2	9.1	9.1	17.1	17.1	36.1	36.1	—	—	
MXQ12B	26.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	—	14	18	18	25	25	31	50	50	—	
MXQ16B	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	32.9	22.9	22.9	22.9	28.9	37.9	62.9	62.9	62.9	
MXQ20B	32.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	30.8	31.8	31.8	31.8	44.8	44.8	30.8	69.8	69.8	

Solid State Auto Switch: D-M9□V/M9□WV

[mm]

Model	A stroke									E stroke									
	10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150	
MXQ6(A)	18	7.4	7.4	7.4	7.4	—	—	—	—	2	2.6	5.6	7.6	7.6	—	—	—	—	
MXQ8(A, C)	13.9	13.9	13.9	13.9	13.9	13.9	—	—	—	7.1	7.1	7.1	13.1	30.1	7.1	—	—	—	
MXQ12(A, C)	26.5	16.5	16.5	16.5	16.5	16.5	16.5	—	—	6.1	8.1	8.1	16.1	16.1	35.1	35.1	—	—	
MXQ16(A)	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	—	22	16	16	23	23	29	48	48	—	
MXQ20(A)	32.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	22.9	23.9	23.9	23.9	29.9	38.9	63.9	63.9	63.9	
MXQ25(A)	34.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	30.7	29.7	29.7	29.7	42.7	42.7	28.7	67.7	67.7	
MXQ6B	18	7.4	7.4	7.4	7.4	7.4	—	—	—	3	13.6	13.6	19.6	36.6	13.6	—	—	—	
MXQ8B	29	13.9	13.9	13.9	13.9	13.9	13.9	—	—	4	11.1	11.1	19.1	19.1	38.1	38.1	—	—	
MXQ12B	26.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	—	16	20	20	27	27	33	52	52	—	
MXQ16B	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	34.9	24.9	24.9	24.9	30.9	30.9	64.9	64.9	64.9	
MXQ20B	32.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	32.9	33.8	33.8	33.8	46.8	46.8	32.8	71.8	71.8	

Reed Auto Switch: D-A9□/A9□V

[mm]

Model	A stroke										E stroke									
	10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150		
MXQ6(A)	14	3.4	3.4	3.4	3.4	—	—	—	—	4 (1.5)	4.6 (2)	7.6 (5.1)	9.6 (7.1)	9.6 (7.1)	—	—	—	—		
MXQ8(A, C)	9.9	9.9	9.9	9.9	9.9	9.9	—	—	—	9.1 (6.6)	9.1 (6.6)	9.1 (6.6)	15.1 (12.6)	32.1 (29.6)	9.1 (6.6)	—	—	—		
MXQ12(A, C)	22.5	12.5	12.5	12.5	12.5	12.5	12.5	—	—	8.1 (5.6)	10.1 (7.6)	10.1 (7.6)	18.1 (15.6)	18.1 (15.6)	37.1 (34.6)	37.1 (34.6)	—	—		
MXQ16(A)	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	—	24 (21.5)	18 (15.5)	18 (15.5)	25 (22.5)	25 (22.5)	31 (28.5)	50 (47.5)	50 (47.5)	—		
MXQ20(A)	28.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	24.9 (22.4)	25.9 (23.4)	25.9 (23.4)	25.9 (23.4)	31.9 (29.4)	40.9 (38.4)	65.9 (63.4)	65.9 (63.4)	65.9 (63.4)		
MXQ25(A)	30.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	32.7 (30.2)	31.7 (30.2)	31.7 (30.2)	31.7 (30.2)	44.7 (42.2)	44.7 (42.2)	46.7 (44.2)	69.4 (66.9)	69.7 (67.2)		
MXQ6B	14	3.4	3.4	3.4	3.4	3.4	—	—	—	5 (2.5)	15.6 (13.1)	15.6 (13.1)	21.6 (19.1)	38.6 (36.1)	15.6 (13.1)	—	—	—		
MXQ8B	25	9.9	9.9	9.9	9.9	9.9	9.9	—	—	6 (3.5)	13.1 (10.6)	13.1 (10.6)	21.1 (18.6)	21.1 (18.6)	40.1 (37.6)	40.1 (37.6)	—	—		
MXQ12B	22.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	—	18 (15.5)	22 (19.5)	22 (19.5)	29 (26.5)	29 (26.5)	35 (32.5)	54 (51.5)	54 (51.5)	—		
MXQ16B	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	36.9 (34.4)	26.9 (24.4)	26.9 (24.4)	26.9 (24.4)	32.9 (30.4)	41.9 (39.4)	66.9 (64.4)	66.9 (64.4)	66.9 (64.4)		
MXQ20B	28.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	34.8 (32.3)	35.8 (33.3)	35.8 (33.3)	35.8 (33.3)	48.8 (46.3)	48.8 (46.3)	34.8 (32.3)	73.8 (71.3)	73.8 (71.3)		

(): Denotes the values of D-A93.

Auto Switch Mounting

⚠ Caution

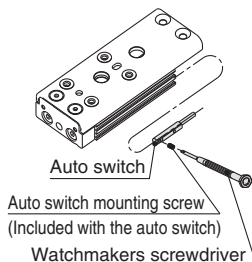
■ Tightening torque

Tightening Torque of Auto Switch Mounting Screw [N·m]

Auto switch model	Tightening torque
D-M9□(V)/M9□W(V)/M9□	0.05 to 0.15
D-A9□(V)	0.10 to 0.20

■ Auto switch mounting tool

When tightening the auto switch mounting screw (included with the auto switch), use a watchmakers screwdriver with a handle diameter of about 5 to 6 mm.



Operating Range

[mm]

Auto switch model	Applicable bore size					
	6	8	12	16	20	25
D-M9□(V)/M9□W(V)/M9□	2.5	2.5	3	4	4.5	5
D-A9□(V)	4.5	5	6	7	8	9

* Values which include hysteresis are for reference purposes only. They are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

Other than the applicable auto switches listed in “How to Order,” the following auto switches are also mountable.

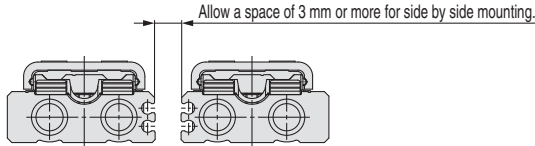
Normally closed (NC = b contact) solid state auto switches (D-F9G/ F9H) and solid state auto switch (D-F8) are also available. For details, refer to the **Web Catalog** or **Best Pneumatics Catalog**.

Caution on Mounting Auto Switches

⚠ Caution

1. Allow a space of 3 mm or more if a standard type and symmetric type are used side by side.

Otherwise, the auto switches may malfunction.



2. Note that an auto switch with a functional option centralized adjuster may not be able to be installed in some places because of the adjustment block. Use the method listed below. In the case of a stroke that is not indicated by [x] in the table below, it is possible to use the auto switch after inserting it from the end plate side.

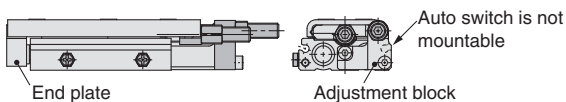
- 1) Install the auto switch in another auto switch groove.
- 2) First, remove the adjustment block unit, and then insert the switch.
(For details on the removal method of the adjustment block unit, refer to "How to Remove the Adjustment Block Unit.")
- 3) Replace the auto switch with a D-F8□ auto switch.

Double-ported type										
Model	Stroke									
	10	20	30	40	50	75	100	125	150	
MXQ6A-Z□□(6, 7, 8, 9)	×	×	○	○	○	○	○	○	○	○
MXQ8A-Z□□(6, 7, 8, 9)	×	×	○	○	○	○	○	○	○	○
MXQ12A-Z□□(6, 7, 8, 9)	×	×	○	○	○	○	○	○	○	○
MXQ16A-Z□□(6, 7, 8, 9)	×	×	○	○	○	○	○	○	○	○
MXQ20A-Z□□(6, 7, 8, 9)	×	×	○	○	○	○	○	○	○	○
MXQ25A-Z□□(6, 7, 8, 9)	○	○	○	○	○	○	○	○	○	○

Height interchangeable type										
Model	Stroke									
	10	20	30	40	50	75	100	125	150	
MXQ6(L)-Z□□(6, 7, 8, 9)	○	○	○	○	○	○	○	○	○	○
MXQ8(L)-Z□□(6, 7, 8, 9)	○	○	○	○	○	○	○	○	○	○
MXQ12(L)-Z□□(6, 7, 8, 9)	○	○	○	○	○	○	○	○	○	○
MXQ16-Z□□(6, 7, 8, 9)	×	○	○	○	○	○	○	○	○	○
MXQ20-Z□□(6, 7, 8, 9)	×	○	○	○	○	○	○	○	○	○
MXQ25-Z□□(6, 7, 8, 9)	○	○	○	○	○	○	○	○	○	○

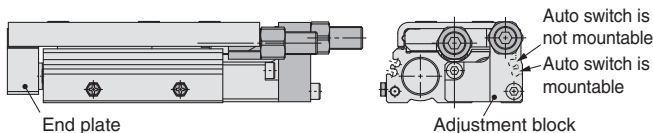
MXQ6A, 8A, 12A

10, 20 mm stroke



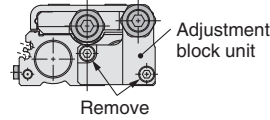
MXQ16(A), 20(A)

10 mm stroke



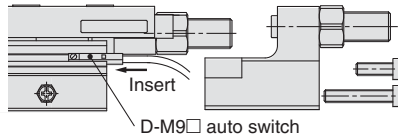
How to Remove the Adjustment Block Unit

1. Remove the hexagon socket head cap screws shown in the drawing.



Model	Hexagon socket head cap screw		
	Screw size [mm]	Width across hexagon socket hole [mm]	Tightening torque [N·m]
MXQ6□□-SZ□(6, 7, 8, 9)	M2.5	2	0.36
MXQ8□□-SZ□(6, 7, 8, 9)	M3	2.5	0.63
MXQ12□□-SZ□(6, 7, 8, 9)	M4	3	1.5
MXQ16□□-SZ□(6, 7, 8, 9)	M5	4	3
MXQ20□□-SZ□(6, 7, 8, 9)	M5	4	3

2. Insert the D-M9□ auto switch.



3. Apply locking adhesive to the female thread of the body, and then install the adjustment block unit once again.

* For the tightening torque and other values, refer to the table in item 1.



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

MXQ Series

Made to Order

Please contact SMC for detailed specifications, delivery, and prices.



Made to Order

Symbol	Specifications	Double-ported type	Low thrust with high rigidity type	Single side-ported type	Height interchangeable type	Page
		MXQ□A	MXQ□B	MXQ□C	MXQ□	
-X7	PTFE grease	●	●	●	●	128
-X9	Grease for food processing equipment	●	●	●	●	128
-X11	Long adjustment bolt (10 mm longer adjustment range)	●	●	●	●	128
-X12	Long adjustment bolt (20 mm longer adjustment range)	●	●	●	●	129
-X28	Long adjustment nut and bolt	●	●	●	●	130
-X33	Without built-in auto switch magnet	●	●	●	●	131
-X39	Fluororubber seal	●	●	●	●	131
-X42	Anti-corrosive guide unit	●	●	●	●	131
-X45	EPDM seal	●	●	●	●	131
-X580	Low-speed specification (15 to 50 mm/s)	●	●	●	●	131
-X2100	End plate compatible with the current MXQ series				●	132
-X2128	Heat-resistant specification (−10°C to 100°C)	●	●	●	●	132
-X2192	Dual stroke specification	● ^{*1}			●	133
-X2200	Side adjuster specification				●	141
-X2201	Combined use of shock absorber + metal stopper				●	147
-X2202	Extension stroke end adjuster fixed from the axial direction	●	●	●	●	153

*1 Excludes ø6

1 PTFE Grease

Symbol
-X7

PTFE grease is used for all parts to which grease is applied.

MXQ **Standard model no.** - X7

Specifications

PTFE grease

Bore size [mm]	6, 8, 12, 16, 20, 25
----------------	----------------------

* Dimensions and specifications other than the above are the same as the standard type.

2 Grease for Food Processing Equipment

Symbol
-X9

Grease for food is used for all parts to which grease is applied.

MXQ **Standard model no.** - X9

Specifications

Grease for food processing equipment

Bore size [mm]	6, 8, 12, 16, 20, 25
----------------	----------------------

* Dimensions and specifications other than the above are the same as the standard type.

Caution

- Do not use in a food contact environment.
- Do not use in a liquid splash environment, e.g. water, detergent, liquid chemicals.

<Not installable>

Food zone.....An environment where food which will be sold as merchandise directly touches the cylinder's components

Splash zone.....An environment where food which will not be sold as merchandise directly touches the cylinder's components

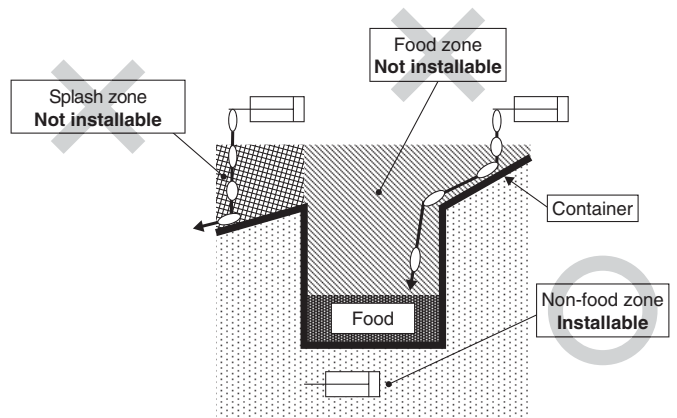
<Installable>

Non-food zone ...An environment where there is no contact with food

Warning

Precautions

Be aware that smoking cigarettes, etc., after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.



3 Long Adjustment Bolt (10 mm longer adjustment range)

Symbol
-X11

Metal stopper with bumper, Rubber stopper: The stroke adjustment range has been increased by 10 mm compared with the standard product by making the adjustment bolt longer.

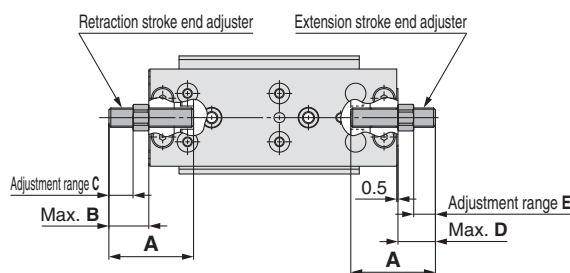
Shock absorber/RJ: The adjustment range has been increased though the use of a cap bracket mounted at the rod end of the shock absorber.

*1 Refer to the table below for the shock absorber unit applicable to "-X11."

* "-X11" is not available for products with end locks or centralized adjusters. Please consult with SMC when a product with a 10 mm longer adjustment range is required.

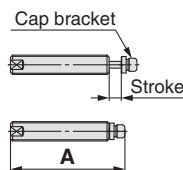
MXQ	Standard model no.	Standard adjuster model no.	Standard adjustment bolt model no.*1	- X11
				Long adjustment bolt (10 mm longer adjustment range)

Dimensions



RJ-X2300

A cap bracket is mounted to lengthen the A dimension.



Metal Stopper

Model	A	B	C	D	E
MXQ6(A)	—	40	25	20	18
MXQ8(A, C)	MXQ6B	45	27	20	19
MXQ12(A, C)	MXQ8B	50	28	20	18
MXQ16(A)	MXQ12B	57	31	20	19
MXQ20(A)	MXQ16B	64	32	21	20

Metal Stopper with Bumper

Model	A	B	C	D	E
MXQ8(A, C)	—	40	25	20	18
MXQ12(A, C)	MXQ8B	45	27	20	19
MXQ16(A)	MXQ12B	50	28	20	18
MXQ20(A)	MXQ16B	57	31	20	19
MXQ25(A)	MXQ20B	64	32	21	20

* "-X11" is not available for the MXQ6(A, B).

Rubber Stopper

Model	A	B	C	D	E
MXQ6(A)	—	41.5	27	22	20
MXQ8(A, C)	MXQ6B	41.5	27	21	19
MXQ12(A, C)	MXQ8B	46.5	28	21	20
MXQ16(A)	MXQ12B	51.5	30	21	20
MXQ20(A)	MXQ16B	58.5	32	22	21
MXQ25(A)	MXQ20B	65.5	34	22	21

Shock Absorber/RJ

Model	A	B	C	D	E	Applicable shock absorber unit model
MXQ12(A, C)	MXQ8B	47.3	29	19	18	RJ0805U-X2300
MXQ16(A)	MXQ12B	52.8	31	19	18	RJ1006U-X2300
MXQ20(A)	MXQ16B	52.8	23	11	26	RJ1007HU-X2300
MXQ25(A)	MXQ20B	77.1	46	31	45	RJ1410U-X2300

* "-X11" is not available for the MXQ6(A, B) and MXQ8(A, C).

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster or shock absorber. Refer to the full view of the standard product for details.

4 Long Adjustment Bolt (20 mm longer adjustment range)

Symbol
-X12

The stroke adjustment range has been increased by 20 mm compared with the standard product by making the adjustment bolt longer. For the adjustment range, refer to the table below.

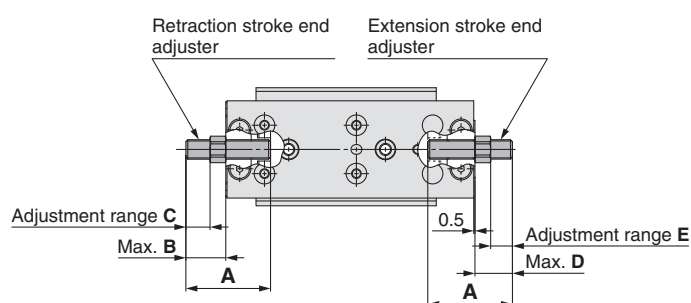
* "-X12" is not available for the shock absorber (RJ).

* "-X12" is not available for products with end locks or centralized adjusters. Please consult with SMC when a product with a 20 mm longer adjustment range is required.

MXQ	Standard model no.	- X12
	Standard adjuster model no.	
	Standard adjustment bolt model no.	

● Long adjustment bolt (20 mm longer adjustment range)

Dimensions



Metal Stopper with Bumper

[mm]

Model	A	B	C	D	E
MXQ8(A, C)	—	50	35	30	33
MXQ12(A, C)	MXQ8B	55	37	30	36
MXQ16(A)	MXQ12B	60	38	30	37
MXQ20(A)	MXQ16B	67	41	30	40
MXQ25(A)	MXQ20B	74	42	31	41

"-X12" is not available for the MXQ6(A, B).

Rubber Stopper

[mm]

Model	A	B	C	D	E
MXQ6(A)	—	51.5	37	32	35
MXQ8(A, C)	MXQ6B	51.5	37	31	35
MXQ12(A, C)	MXQ8B	56.5	38	31	37
MXQ16(A)	MXQ12B	61.5	40	31	38
MXQ20(A)	MXQ16B	68.5	42	32	41
MXQ25(A)	MXQ20B	75.5	44	32	43

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster. Refer to the full view of the standard product for details.

Metal Stopper

[mm]

Model	A	B	C	D	E
MXQ6(A)	—	50	35	30	33
MXQ8(A, C)	MXQ6B	55	37	30	36
MXQ12(A, C)	MXQ8B	60	38	30	37
MXQ16(A)	MXQ12B	67	41	30	40
MXQ20(A)	MXQ16B	74	42	31	41
MXQ25(A)	MXQ20B	74	42	31	41

5 Long Adjustment Nut and Bolt

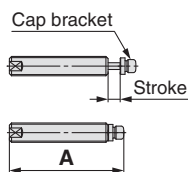
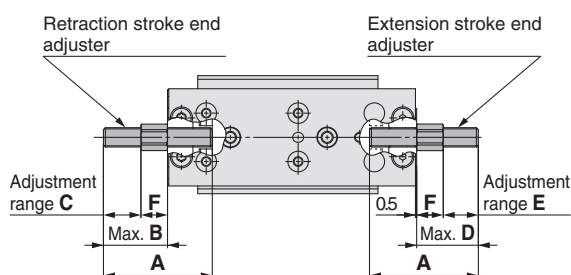
Symbol
-X28

Easier stroke adjustment with the longer overall lengths of the adjustment nut, adjustment bolt, and shock absorber
This is used for the extension stroke end adjuster of the end lock mechanism and the extension stroke end adjuster of the centralized adjuster specification.

MXQ	Standard model no.*1	- X28
	Standard adjuster model no.	

● Long adjustment nut and bolt

Dimensions



RJ□-X2300

A cap bracket is mounted to lengthen the A dimension.

Metal Stopper with Bumper

[mm]

Model	A	B	C	D	E	F
MXQ8(A, C)	—	40	25	15	23	13
MXQ12(A, C)	—	45	27	16	26	15
MXQ16(A)	—	50	28	15	27	14
MXQ20(A)	—	57	31	17	30	16
MXQ25(A)	—	64	32	14	31	13
—	MXQ8B	45	27	16	26	15
—	MXQ12B	50	28	15	27	14
—	MXQ16B	57	31	17	30	16
—	MXQ20B	64	32	14	31	13

The MXQ6(A, B) is not available.

Rubber Stopper

[mm]

Model	A	B	C	D	E	F
MXQ6(A)	—	41.5	27	17	25	15
MXQ8(A, C)	MXQ6B	41.5	27	16	25	14
MXQ12(A, C)	MXQ8B	46.5	28	17	27	16
MXQ16(A)	MXQ12B	51.5	30	16	28	15
MXQ20(A)	MXQ16B	58.5	32	19	31	18
MXQ25(A)	MXQ20B	65.5	34	15	33	15

Shock Absorber/RJ

[mm]

Model	A	B	C	D	E	F	Applicable part no. (Shock absorber only)
MXQ6(A)	—	29.9	16	3	14	3	10
MXQ8(A, C)	MXQ6B	29.9	15	3	13	2.2	10
MXQ12(A, C)	MXQ8B	47.3	29	15	29	13	11
MXQ16(A)	MXQ12B	52.8	31	14	30	13	13
MXQ20(A)	MXQ16B	52.8	23	8	26	9	13
MXQ25(A)	MXQ20B	77.1	46	24	45	24	18

For the MXQ6(A, B) and MXQ8(A, C), only the adjustment nut is long.

Metal Stopper

[mm]

Model	A	B	C	D	E	F
MXQ6(A)	—	40	26	16	24	14
MXQ8(A, C)	MXQ6B	45	27	16	26	15
MXQ12(A, C)	MXQ8B	50	28	15	27	14
MXQ16(A)	MXQ12B	57	31	17	30	16
MXQ20(A)	MXQ16B	64	32	14	31	13
MXQ25(A)	MXQ20B	77.1	46	24	45	24

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster or shock absorber. Refer to the full view of the standard product for details.

*1 The extension stroke end adjuster (-X28) of the end lock is already used for the standard product. The product number suffix (-X28) is not required.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

6 Without Built-in Auto Switch Magnet Symbol -X33

This product does not have a magnet for an auto switch.
It is suitable for applications where magnetic force is not acceptable.

MXQ Standard model no. – X33
● Without built-in auto switch magnet

Specifications

Bore size [mm]	6, 8, 12, 16, 20, 25
Auto switch	Not mountable

* Dimensions and specifications other than the above are the same as the standard type.

7 Fluororubber Seal Symbol -X39

This specification changes the materials for the piston seal, rod seal, and O-rings to fluororubber.

MXQ Standard model no. – X39
● Fluororubber seal

Specifications

Bore size [mm]	6, 8, 12, 16, 20, 25
Seal material	Fluororubber

* Dimensions and specifications other than the above are the same as the standard type.

8 Anti-corrosive Guide Unit Symbol -X42

Martensitic stainless steel is used for the table and guide block.
Use this treatment if more effective anti-corrosiveness is necessary.
Table and guide block are given anti-corrosive treatment.

MXQ Standard model no. – X42
● Anti-corrosive guide unit

Specifications

Bore size [mm]	6, 8, 12, 16, 20, 25
Surface treatment	Special anti-corrosive treatment*1

*1 Special anti-corrosive treatment makes the table and the guide block black.

* Dimensions and specifications other than the above are the same as the standard type.

9 EPDM Seal Symbol -X45

This specification changes the materials for the piston seal, rod seal, and O-rings to EPDM.

MXQ Standard model no. – X45
● EPDM seal

Specifications

Bore size [mm]	6, 8, 12, 16, 20, 25
Seal material	EPDM
Grease	PTFE grease

* Dimensions and specifications other than the above are the same as the standard type.

⚠ Warning

Precautions

Be aware that smoking cigarettes, etc., after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

10 Low-speed Specification (15 to 50 mm/s) Symbol -X580

Stick-slip phenomenon can be prevented, and smooth operation can be achieved even at lower driving speeds between 15 to 50 mm/s.

MXQ Standard model no. – X580
● Low speed

* Operate without lubrication from a pneumatic system lubricator.

Specifications

Bore size [mm]	6, 8, 12, 16, 20, 25
Operating speed range (Average operating speed)	15 to 50 mm/s
Applicable adjuster type	Rubber stopper, Metal stopper

* Dimensions and specifications other than the above are the same as the standard type.

11 End Plate Compatible with the Current MXQ Series

Symbol
-X2100

Dimensions for mounting a workpiece on the end plate are the same as those of the current MXQ series.

How to Order

MXQ 12 L - 10 ZB M9BWL - X2100

Bore size • Same as the standard product

Body options •

Nil	Height interchangeable type
L	Height interchangeable type (Symmetric)

Adjuster options •

Functional options

Nil	Standard
2	With end lock
3	Axial piping
6	Centralized adjuster
7	Centralized adjuster (Symmetric)

Compatible end plate mounting

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

* Applicable auto switches are the same as the standard product.

Symbol	Adjuster type		Adjuster mounting position*3	
	Extension stroke end	Retraction stroke end	Extension stroke end	Retraction stroke end
Z	Without adjuster			
ZA *1	Metal stopper with bumper*2		○	○
ZB			○	○
ZC *1			○	○
ZD *1	Rubber stopper		○	○
ZE			○	○
ZF *1			○	○
ZG *1	Shock absorber/RJ		○	○
ZH			○	○
ZJ *1			○	○
ZK *1	Metal stopper		○	○
ZL			○	○
ZM *1			○	○
ZN	Shorter total length type (without adjuster)			
ZBF *1	Metal stopper with bumper*2	Rubber stopper	○	○
ZBJ *1		Shock absorber/RJ	○	○
ZBM *1		Metal stopper	○	○
ZEC *1	Rubber stopper	Metal stopper with bumper*2	○	○
ZEJ *1		Shock absorber/RJ	○	○
ZEM *1		Metal stopper	○	○
ZHC *1	Shock absorber/RJ	Metal stopper with bumper*2	○	○
ZHF *1		Rubber stopper	○	○
ZHM *1		Metal stopper	○	○
ZLC *1	Metal stopper	Metal stopper with bumper*2	○	○
ZLF *1		Rubber stopper	○	○
ZLJ *1		Shock absorber/RJ	○	○

*1 Only for use with a centralized adjuster

*2 Not available for ø6

*3 Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

Adjuster Options/Functional Option Combinations

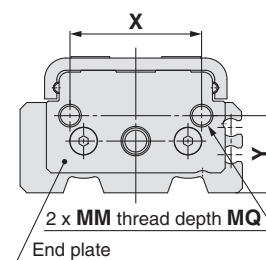
Adjuster option	Nil	2	3	6	7
ZA, ZD, ZG, ZK, ZC, ZF, ZJ, ZM, ZBF, ZBJ, ZBM, ZEC, ZEJ, ZEM, ZHC, ZHF, ZHM, ZLC, ZLF, ZLJ	×	×	×	○	○
ZB, ZH	○	○	○	×	×
ZE, ZL	○	○	○	×	×
ZN	○	×	○	×	×

Specifications

Series	Height interchangeable type	
Bore size [mm]	6, 8, 12, 16, 20, 25	
Adjuster mounting position	Standard	Extension stroke end adjuster
	Centralized adjuster	Adjuster on both ends, Retraction stroke end adjuster
Functional option type	Without functional option (Standard), With end lock, Axial piping, Centralized adjuster, Centralized adjuster (Symmetric)	

* Specifications other than the above are the same as the standard type.

Dimensions (Dimensions other than those shown below are the same as the standard type.)



Series	X	Y	MM	MQ
MXQ6	20	11	M3 x 0.5	5
MXQ8	24	13	M4 x 0.7	6
MXQ12	29	17	M5 x 0.8	6
MXQ16	29	23	M6 x 1	10
MXQ20	35	28	M6 x 1	13
MXQ25	44	33.5	M8 x 1.25	15

* There are no mounting holes in the center of the end plate.

12 Heat-resistant Specification (−10 to 100°C)

Symbol
-X2128

Seal material and grease have been changed so that the product can be used at temperatures between −10 up to 100°C.

MXQ Standard model no. - X2128

• Heat-resistant specification

* Magnet is built-in, but when using an auto switch, the acceptable temperature range becomes −10 to 60°C.

* It is not possible to order a model with an auto switch.

* For lubrication, specialized grease GR-F is recommended.

Specifications

Ambient temperature	−10°C to 100°C (No freezing)
Seal material	Fluororubber
Grease	Heat-resistant grease (GR-F)
Applicable adjuster type	Metal stopper

* Specifications other than the above are the same as the standard type.

Warning

Precautions

Be aware that smoking cigarettes, etc. after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

13 Dual Stroke Specification

Two cylinders can be integrated by connecting them in line, and the cylinder stroke can be controlled in two stages in both directions.

How to Order

MXQ 12 A - 15 - 25 - ZA - M9BWL - X2192 • Dual stroke

Bore size

8
12
16
20
25

Body option

A Double-ported type

Auto switch

Nil Without auto switch (Built-in magnet)

* Applicable auto switches are the same as the standard product.

Adjuster options

Specifications

Series	Double-ported type
Bore size [mm]	8, 12, 16, 20, 25
Max. stroke [mm]	50

* Specifications other than the above are the same as the standard type.

	A stroke	B-A stroke
5		15
		25
		35
		45
10		10
		20
		30
		40
15		15
		25
		35
20		20
		30
25		25

Adjuster options

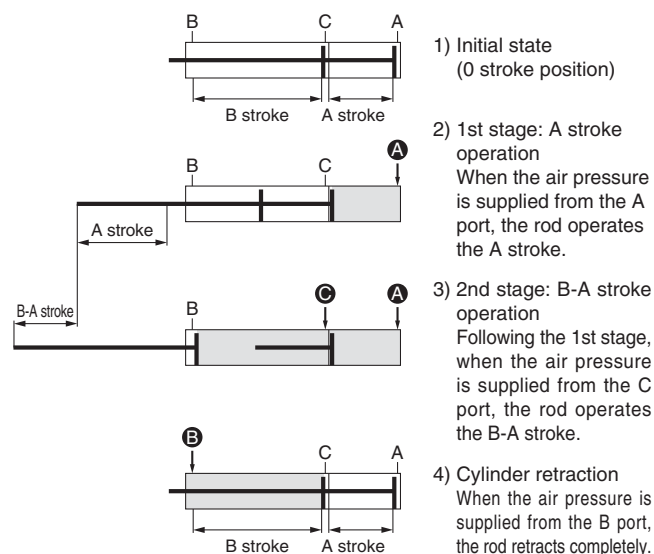
Symbol	Adjuster type*2*3		Adjuster mounting position*1	
	Extension stroke end	Retraction stroke end	Extension stroke end	Retraction stroke end
Z	Without adjuster			
ZA			●	●
ZB	Metal stopper with bumper		●	
ZC				●
ZD			●	●
ZE	Rubber stopper		●	
ZF				●
ZG			●	●
ZH	Shock absorber/RJ		●	
ZJ				●
ZK			●	●
ZL	Metal stopper		●	
ZM				●
ZBF	Metal stopper	Rubber stopper	●	●
ZBM	Stopper with bumper	Shock absorber/RJ	●	●
ZEC		Metal stopper	●	●
ZEJ	Rubber stopper	Metal stopper with bumper	●	●
ZEM		Shock absorber/RJ	●	●
ZHC		Metal stopper	●	●
ZHF	Shock absorber/RJ	Metal stopper with bumper	●	●
ZHM		Rubber stopper	●	●
ZLC		Metal stopper	●	●
ZLF	Metal stopper	Metal stopper with bumper	●	●
ZLJ		Rubber stopper	●	●
		Shock absorber/RJ	●	●

*1 ●: Shipped together with the product, but not assembled. Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

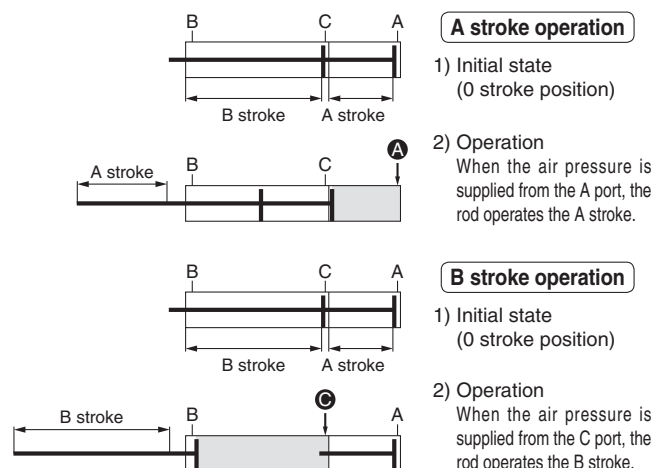
*2 The shock absorbers on both ends and the extension stroke end adjuster are not available for ø8. Only the retraction stroke end adjuster is available.

*3 When the extension stroke end adjuster is to be mounted afterward, order the -X2202 (Extension stroke end adjuster fixed from the axial direction).

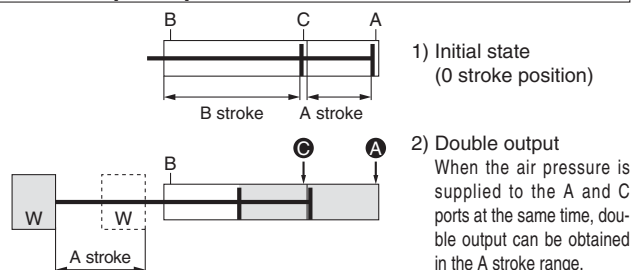
Functional description of dual stroke cylinder



A stroke or B stroke operation can be made individually.



Double output is possible.



Precautions

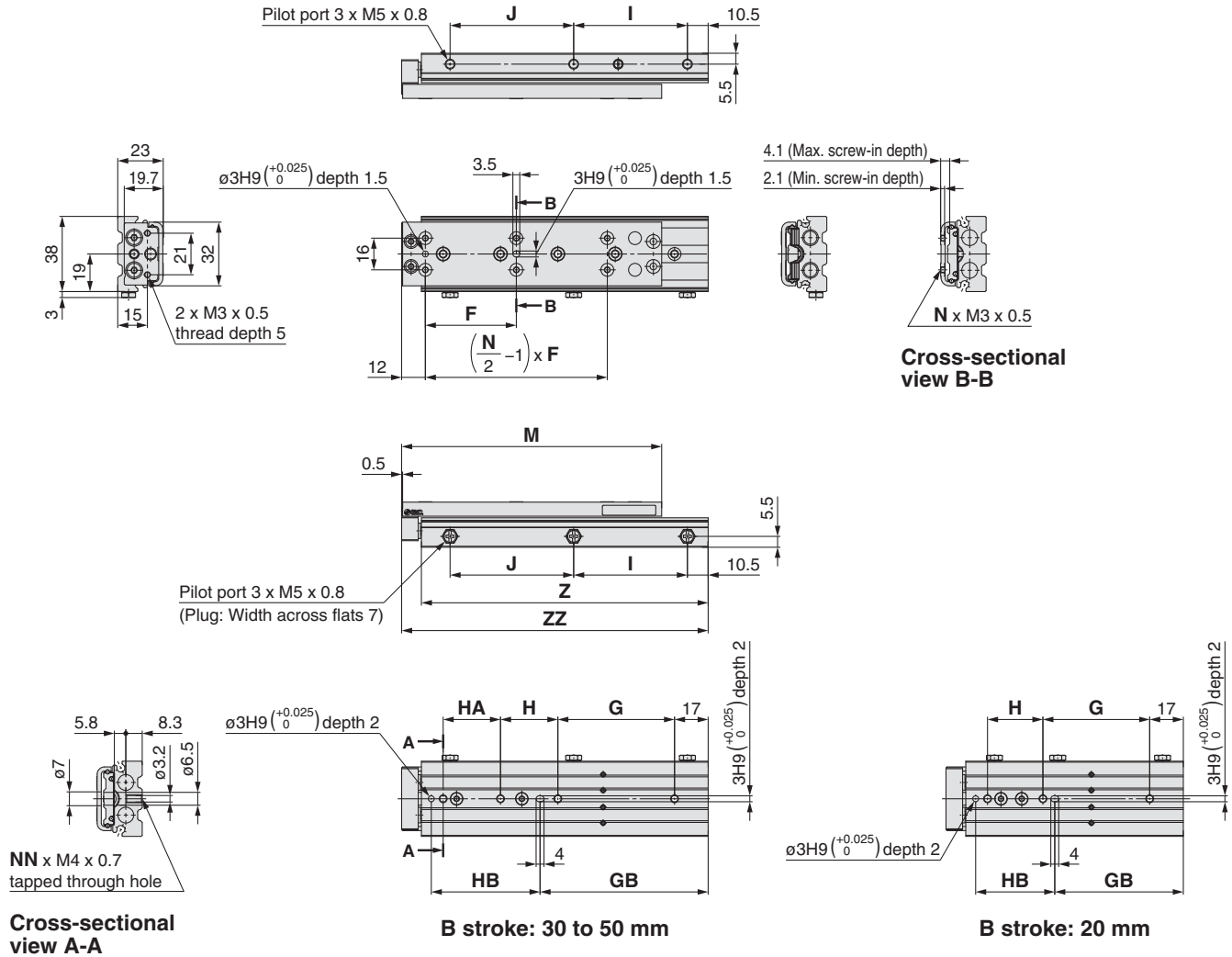
Caution

- Do not supply air until the cylinder is fixed with the attached bolt.
- If air is supplied before securing the cylinder, the cylinder could lurch, posing a risk of bodily injury or damage to the peripheral equipment.
- Adjustment can be performed by the stroke adjusters at the positions of the extension stroke end and the retraction stroke end, but not at the center position.

Symbol
-X2192

Dimensions

MXQ8A-□-□Z-X2192



Dimensions/Weights

Stroke A	Stroke B	Model	Dimension [mm]													Weight [g]		
																Standard type	Additional weight of adjuster option	
			F	N	G	H	HA	NN	GB	HB	I	J	M	Z	ZZ		Extension stroke end	Retraction stroke end
5	20	MXQ8A-5-15Z□-X2192	25	4	54	28	—	3	65	40	52.5	32.5	78.5	110	120	230	15	8
10		MXQ8A-10-10Z□-X2192																
5	30	MXQ8A-5-25Z□-X2192	26	6	52	23	27	4	85	40	63	42	88.5	130	140	270		
10		MXQ8A-10-20Z□-X2192																
15		MXQ8A-15-15Z□-X2192																
5	40	MXQ8A-5-35Z□-X2192	32	6	40	31	31	4	70	55	52.5	52.5	104.5	130	140	280		
10		MXQ8A-10-30Z□-X2192																
15		MXQ8A-15-25Z□-X2192																
20		MXQ8A-20-20Z□-X2192																
5	50	MXQ8A-5-45Z□-X2192	46	6	59	29	29	4	85	55	57.5	62.5	131.5	145	155	330		
10		MXQ8A-10-40Z□-X2192																
15		MXQ8A-15-35Z□-X2192																
20		MXQ8A-20-30Z□-X2192																
25		MXQ8A-25-25Z□-X2192																

* The first stage stroke adjustment cannot be performed.

* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

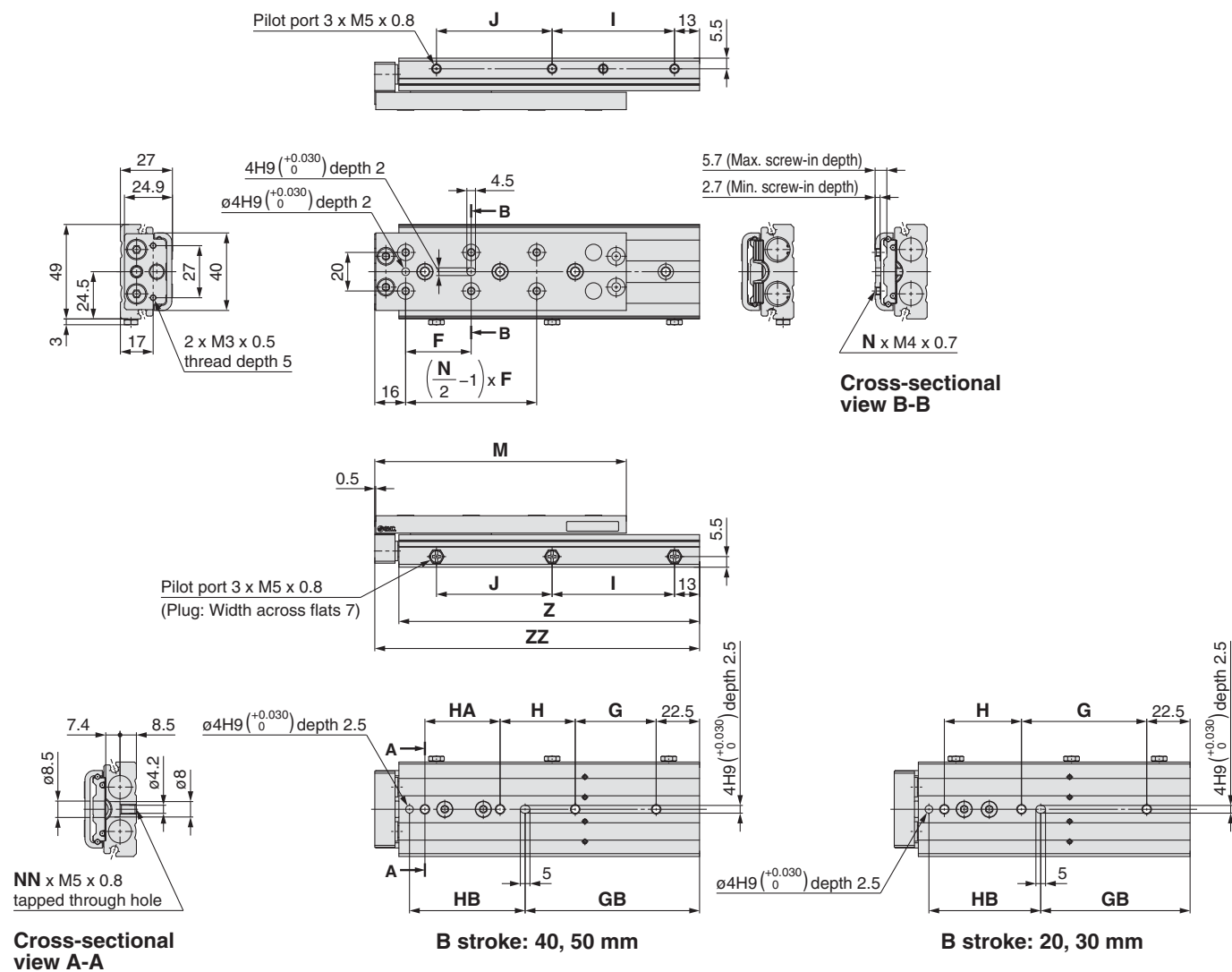
Made to Order

Model Selection

13 Dual Stroke Specification

Dimensions

MXQ12A-□-□Z-X2192



Dimensions/Weights

Stroke A	Stroke B	Model	Dimension [mm]													Weight [g]		
																Standard type	Additional weight of adjuster option	
			F	N	G	H	HA	NN	GB	HB	I	J	M	Z	ZZ		Extension stroke end	Retraction stroke end
5	20	MXQ12A-5-15Z□-X2192	28	4	53	32	—	3	67.5	48	56.5	32	92.5	121	133.5	420	30 (25)*1	16
10		MXQ12A-10-10Z□-X2192																
5	30	MXQ12A-5-25Z□-X2192	38	4	65	40	—	3	77.5	58	68.5	40	102.5	141	153.5	480		
10		MXQ12A-10-20Z□-X2192																
15		MXQ12A-15-15Z□-X2192																
5	40	MXQ12A-5-35Z□-X2192	34	6	37	29	39	4	75.5	60	58.5	50	120.5	141	153.5	490		
10		MXQ12A-10-30Z□-X2192																
15		MXQ12A-15-25Z□-X2192																
20		MXQ12A-20-20Z□-X2192																
5	50	MXQ12A-5-45Z□-X2192	34	6	42	39	39	4	90.5	60	63.5	60	130.5	156	168.5	530		
10		MXQ12A-10-40Z□-X2192																
15		MXQ12A-15-35Z□-X2192																
20		MXQ12A-20-30Z□-X2192																
25		MXQ12A-25-25Z□-X2192																

*1 Value in () is the additional weight of the shock absorber.

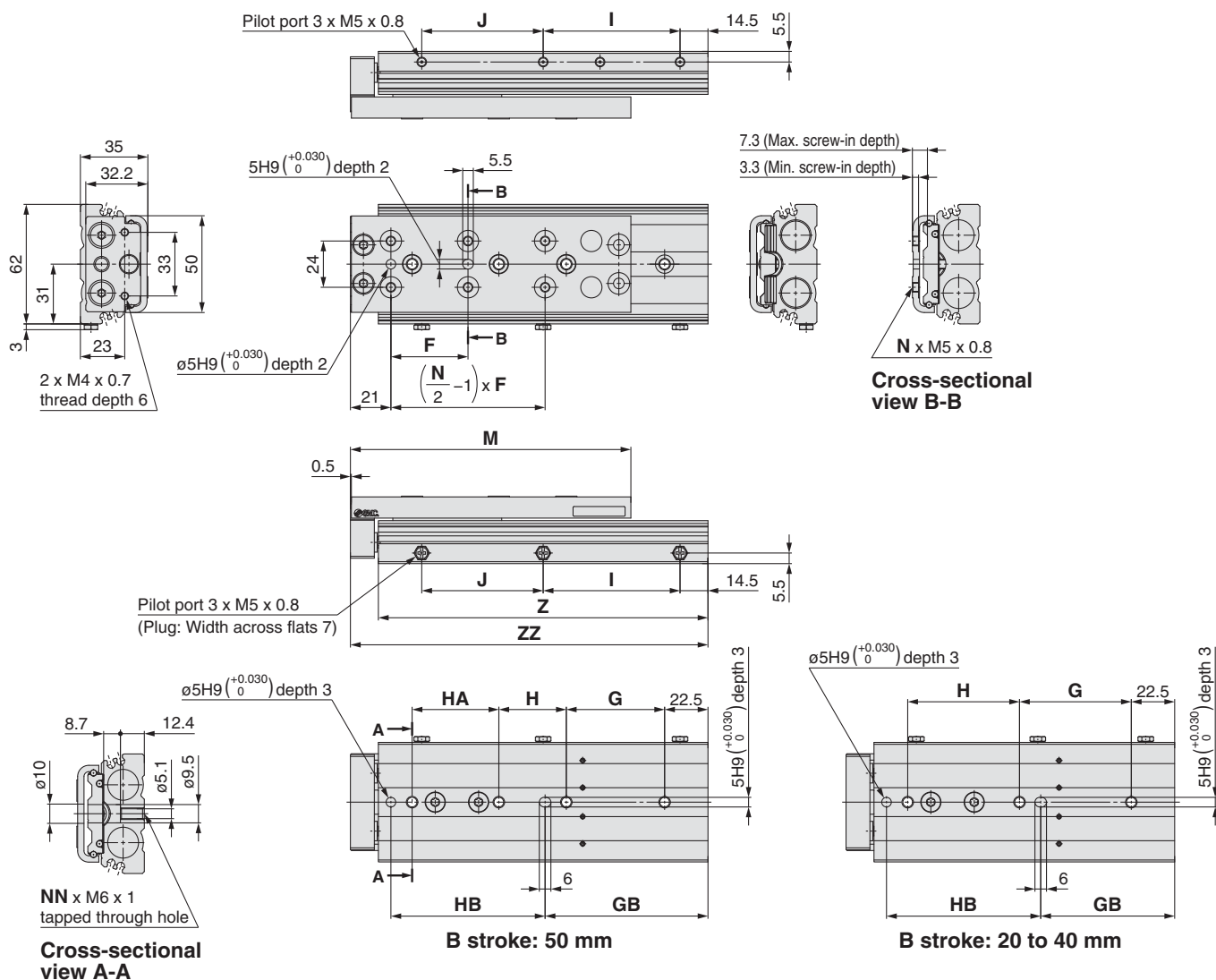
* The first stage stroke adjustment cannot be performed.

* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Symbol
-X2192

Dimensions

MXQ16A-□-□Z-X2192



Dimensions/Weights

Stroke A	Stroke B	Model	Dimension [mm]													Weight [g]		
			F	N	G	H	HA	NN	GB	HB	I	J	M	Z	ZZ	Standard type	Additional weight of adjuster option	
5	20	MXQ16A-5-15Z□-X2192	38	4	57	39	—	3	71.5	58	60	39	108.5	136	150.5	760	50 (40)*1	30
10	20	MXQ16A-10-10Z□-X2192	38	4	57	39	—	3	71.5	58	60	39	108.5	136	150.5	760		
5	30	MXQ16A-5-25Z□-X2192	48	4	68	48	—	3	99.5	50	71	48	118.5	156	170.5	830		
10	30	MXQ16A-10-20Z□-X2192	48	4	68	48	—	3	99.5	50	71	48	118.5	156	170.5	830		
15	30	MXQ16A-15-15Z□-X2192	48	4	68	48	—	3	99.5	50	71	48	118.5	156	170.5	820		
5	40	MXQ16A-5-35Z□-X2192	58	4	58	58	—	3	69.5	80	61	58	135.5	156	170.5	860		
10	40	MXQ16A-10-30Z□-X2192	58	4	58	58	—	3	69.5	80	61	58	135.5	156	170.5	860		
15	40	MXQ16A-15-25Z□-X2192	58	4	58	58	—	3	69.5	80	61	58	135.5	156	170.5	860		
20	40	MXQ16A-20-20Z□-X2192	58	4	58	58	—	3	69.5	80	61	58	135.5	156	170.5	850		
5	50	MXQ16A-5-45Z□-X2192	40	6	51	35	45	4	84.5	80	71	63	145.5	171	185.5	920		
10	50	MXQ16A-10-40Z□-X2192	40	6	51	35	45	4	84.5	80	71	63	145.5	171	185.5	920		
15	50	MXQ16A-15-35Z□-X2192	40	6	51	35	45	4	84.5	80	71	63	145.5	171	185.5	910		
20	50	MXQ16A-20-30Z□-X2192	40	6	51	35	45	4	84.5	80	71	63	145.5	171	185.5	910		
25	50	MXQ16A-25-25Z□-X2192	40	6	51	35	45	4	84.5	80	71	63	145.5	171	185.5	910		

*1 Value in () is the additional weight of the shock absorber.

* The first stage stroke adjustment cannot be performed.

* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

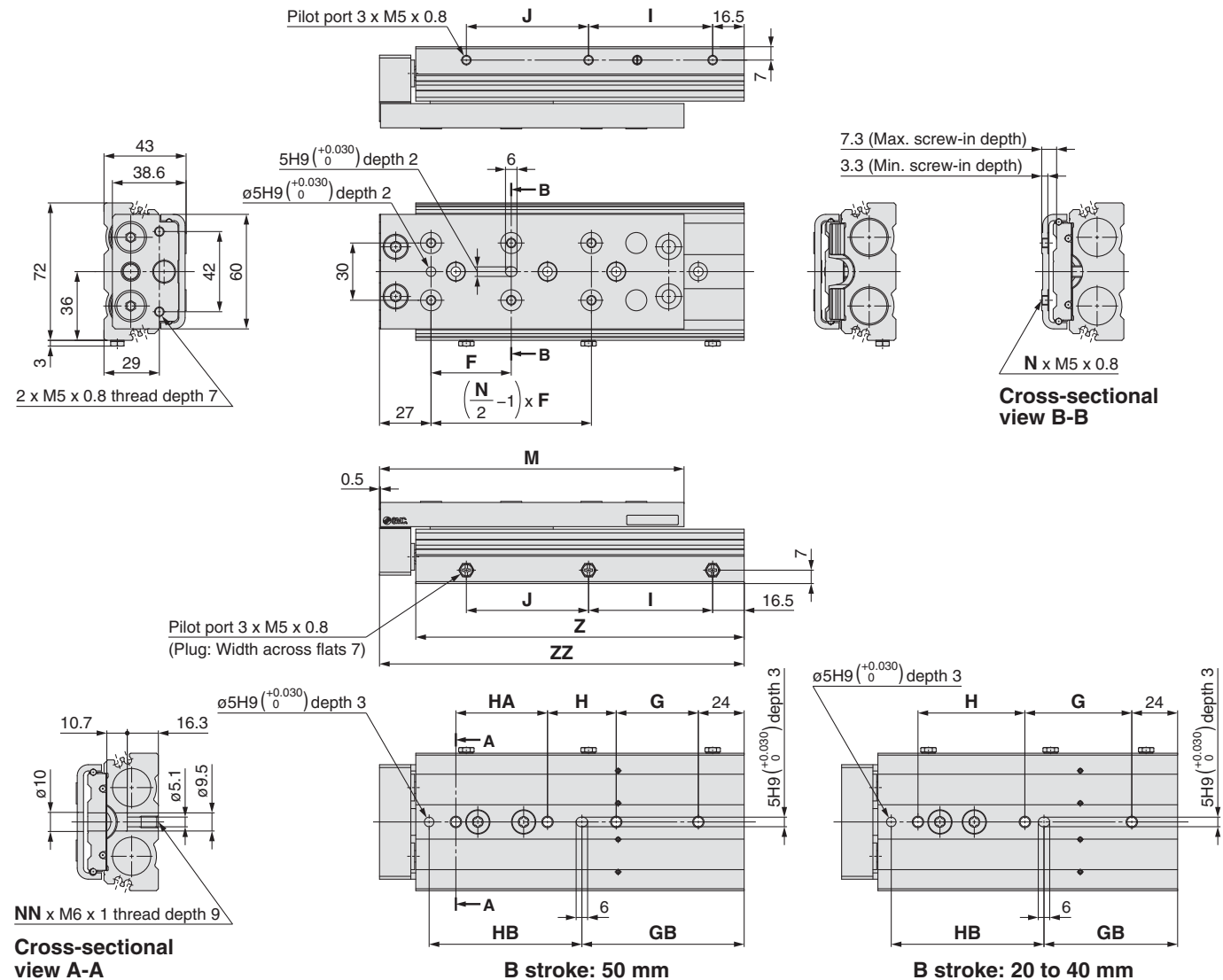
Made to Order

Model Selection

13 Dual Stroke Specification

Dimensions

MXQ20A-□-□Z-X2192



Dimensions/Weights

Stroke A	Stroke B	Model	Dimension [mm]													Weight [g]		
																Standard type	Additional weight of adjuster option	
			F	N	G	H	HA	NN	GB	HB	I	J	M	Z	ZZ		Extension stroke end	Retraction stroke end
5	20	MXQ20A-5-15Z□-X2192	40	4	46	46	—	3	60	70	60	34	123.5	137	156	1200	85 (55)*1	50 (80)*1
10		MXQ20A-10-10Z□-X2192																
5	30	MXQ20A-5-25Z□-X2192	48	4	66	46	—	3	80	70	68	46	133.5	157	176	1300		
10		MXQ20A-10-20Z□-X2192																
15		MXQ20A-15-15Z□-X2192																
5	40	MXQ20A-5-35Z□-X2192	58	4	56	56	—	3	70	80	58	56	143.5	157	176	1300		
10		MXQ20A-10-30Z□-X2192																
15		MXQ20A-15-25Z□-X2192																
20		MXQ20A-20-20Z□-X2192																
5	50	MXQ20A-5-45Z□-X2192	42	6	43	36	48	4	85	80	65	64	159.5	172	191	1500		
10		MXQ20A-10-40Z□-X2192																
15		MXQ20A-15-35Z□-X2192																
20		MXQ20A-20-30Z□-X2192																
25		MXQ20A-25-25Z□-X2192																

*1 Value in () is additional weight of the shock absorber.

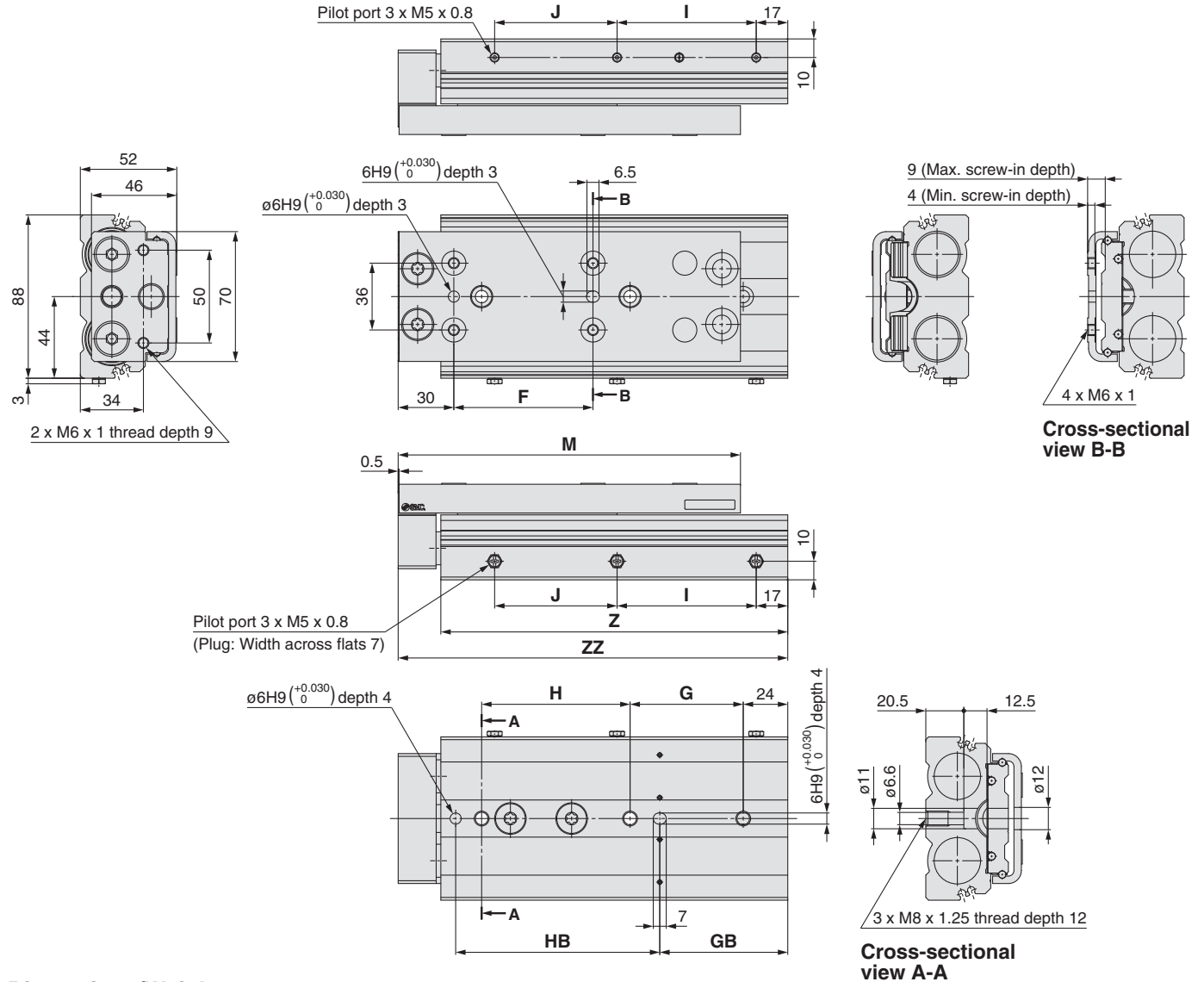
* The first stage stroke adjustment cannot be performed.

* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Symbol
-X2192

Dimensions

MXQ25A-□-□Z-X2192



Dimensions/Weights

Stroke A	Stroke B	Model	Dimension [mm]										Weight [g]		
													Standard type	Additional weight of adjuster option	
			F	G	H	GB	HB	I	J	M	Z	ZZ		Extension stroke end	Retraction stroke end
5	20	MXQ25A-5-15Z□-X2192	46	51	55	64	80	70	36	141.5	152	175	135 (120)*1	80	
10		MXQ25A-10-10Z□-X2192													
5	30	MXQ25A-5-25Z□-X2192	55	71	55	84	80	72	54	151.5	172	195			2200
10		MXQ25A-10-20Z□-X2192													
15		MXQ25A-15-15Z□-X2192													
5	40	MXQ25A-5-35Z□-X2192	65	61	65	74	90	62	64	161.5	172	195			2100
10		MXQ25A-10-30Z□-X2192													
15		MXQ25A-15-25Z□-X2192													
20		MXQ25A-20-20Z□-X2192													
5	50	MXQ25A-5-45Z□-X2192	75	61	80	69	110	75	66	184.5	187	210			2500
10		MXQ25A-10-40Z□-X2192													
15		MXQ25A-15-35Z□-X2192													
20		MXQ25A-20-30Z□-X2192													
25		MXQ25A-25-25Z□-X2192													

*1 Value in () is the additional weight of the shock absorber.

* The first stage stroke adjustment cannot be performed.

* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

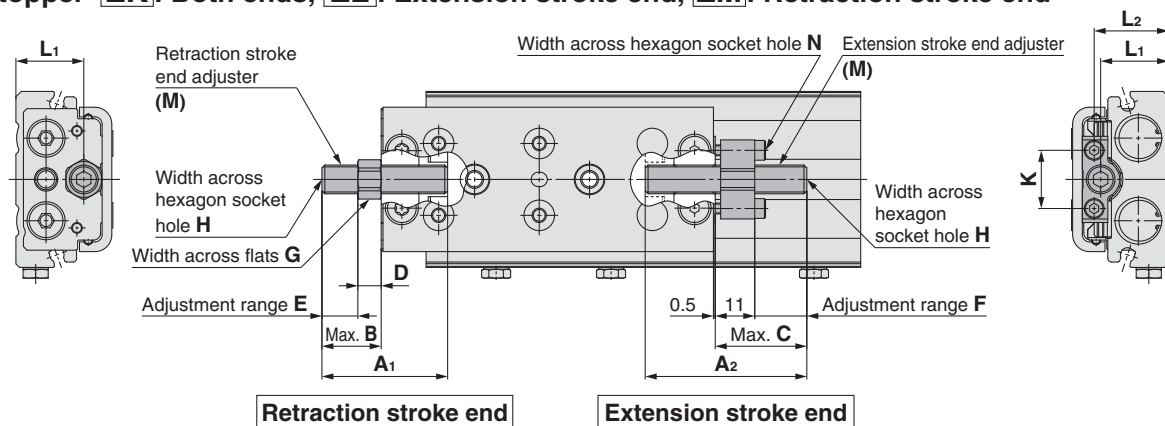
13 Dual Stroke Specification

Dimensions

MXQ□□A-□□Z-X2192 With adjuster option

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end

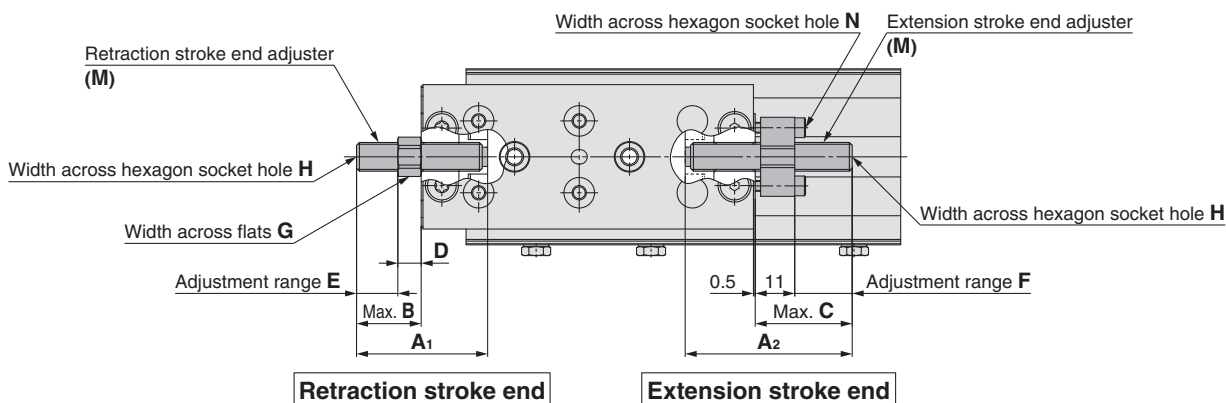
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end



Metal Stopper with Bumper/Metal Stopper

Model	A ₁	A ₂	B	C	D	E	F	G	H	K	L ₁	L ₂	M	N	Metal stopper with bumper Adjuster part no.		Metal stopper Adjuster part no.	
															Extension stroke end adjuster	Retraction stroke end adjuster	Extension stroke end adjuster	Retraction stroke end adjuster
MXQ8A-□-X2192	30	40	15	23	5	10	12	8	3	13	16.6	18.2	M6 x 0.75	2.5	MXQA-CS8-X2202	MXQA-CT8	MXQA-DS8-X2202	MXQA-DT8
MXQ12A-□-X2192	35	45	17	26	6.5	10	14	10	4	16.2	18.9	20.7	M8 x 1	2.5	MXQA-CS12-X2202	MXQA-CT12	MXQA-DS12-X2202	MXQA-DT12
MXQ16A-□-X2192	40	50	18	27	8	10	15	12	5	20	25.2	26.9	M10 x 1	3	MXQA-CS16-X2202	MXQA-CT16	MXQA-DS16-X2202	MXQA-DT16
MXQ20A-□-X2192	47	57	21	30	10	10	18	17	6	27	31.5	34.1	M12 x 1	4	MXQA-CS20-X2202	MXQA-CT20	MXQA-DS20-X2202	MXQA-DT20
MXQ25A-□-X2192	54	64	22	31	11	11	20	19	6	27	38.3	40.8	M14 x 1.5	5	MXQA-CS25-X2202	MXQA-CT25	MXQA-DS25-X2202	MXQA-DT25

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end



Rubber Stopper

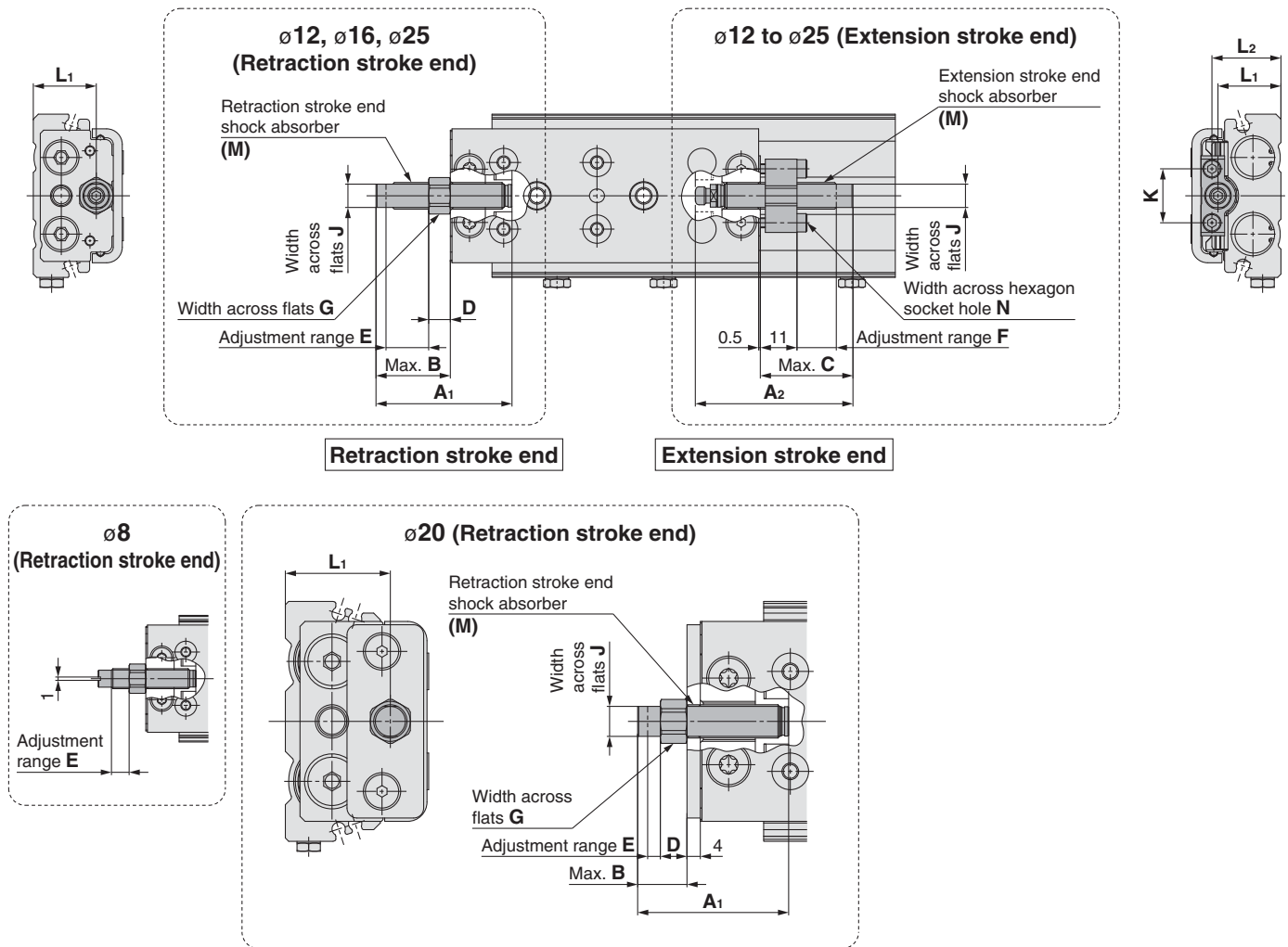
Model	A ₁	A ₂	B	C	D	E	F	G	H	K	L ₁	L ₂	M	N	Adjuster part no.	
															Extension stroke end adjuster	Retraction stroke end adjuster
MXQ8A-□-X2192	31.5	41.5	17	25	5	11	13	8	3	13	16.6	18.2	M6 x 0.75	2.5	MXQA-AS8-X2202	MXQA-AT8
MXQ12A-□-X2192	36.5	46.5	18	27	6.5	11	16	10	4	16.2	18.9	20.7	M8 x 1	2.5	MXQA-AS12-X2202	MXQA-AT12
MXQ16A-□-X2192	41.5	51.5	20	28	8	11	17	12	5	20	25.2	26.9	M10 x 1	3	MXQA-AS16-X2202	MXQA-AT16
MXQ20A-□-X2192	48.5	58.5	22	31	10	12	20	17	6	27	31.5	34.1	M12 x 1	4	MXQA-AS20-X2202	MXQA-AT20
MXQ25A-□-X2192	55.5	65.5	24	33	11	12	21	19	6	27	38.3	40.8	M14 x 1.5	5	MXQA-AS25-X2202	MXQA-AT25

Symbol
-X2192

Dimensions

MXQ□□A-□□Z□-X2192 With adjuster option

Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end



Shock Absorber/RJ

Model	A ₁	A ₂	B	C	D	E	F	G	J	K	L ₁	L ₂	M	N	Adjuster part no.	
															Extension stroke end adjuster	Retraction stroke end adjuster
MXQ8A-□-X2192	29.3	—	15	—	5	5	—	8	—	—	—	—	M6 x 0.75	—	—*1	MXQA-JT8
MXQ12A-□-X2192	40.8	47.3	23	29	6.5	12	11	10	7	16.2	18.9	20.7	M8 x 1	2.5	MXQA-JS12-X2202	MXQA-JT12
MXQ16A-□-X2192	45.3	52.8	24	30	8	12	11	12	9	20	25.2	26.9	M10 x 1	3	MXQA-JS16-X2202	MXQA-JT16
MXQ20A-□-X2192	45.3	52.8	15	26	8	3	6	12	9	27	31.5	34.1	M10 x 1	4	MXQA-JS20-X2202	MXQA-JT20P
MXQ25A-□-X2192	67.1	77.1	36	45	11	21	25	19	12	27	38.3	40.8	M14 x 1.5	5	MXQA-JS25-X2202	MXQA-JT25

*1 Both ends and extension stroke end options are not available for ø8.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

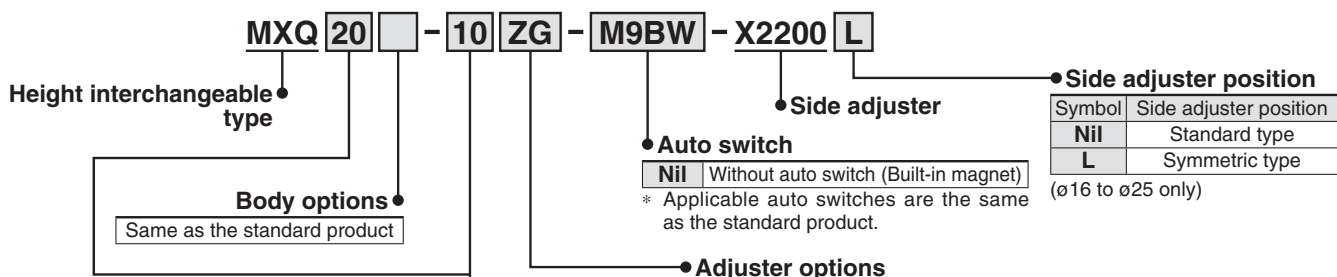
Made to Order

Model Selection

14 Side Adjuster Specification

Specifications in which the extension stroke end adjuster is installed on the side of the body

How to Order



Specifications

Series	Height interchangeable type
--------	-----------------------------

* Specifications other than the above are the same as the standard type.

Symbol	Adjuster type*1		Adjuster mounting position	
	Extension stroke end	Retraction stroke end	Extension stroke end	Retraction stroke end
ZA	Metal stopper with bumper		●	●
ZB			●	●
ZD			●	●
ZE	Rubber stopper		●	●
ZG			●	●
ZH	Shock absorber/RJ		●	●
ZBF	Metal stopper with bumper	Rubber stopper	●	●
ZBJ		Shock absorber/RJ	●	●
ZEC	Rubber stopper	Metal stopper with bumper	●	●
ZEJ		Shock absorber/RJ	●	●
ZHC	Shock absorber/RJ	Metal stopper with bumper	●	●
ZHF	Shock absorber/RJ	Rubber stopper	●	●

*1 The metal stopper with bumper option is not available for ø6.

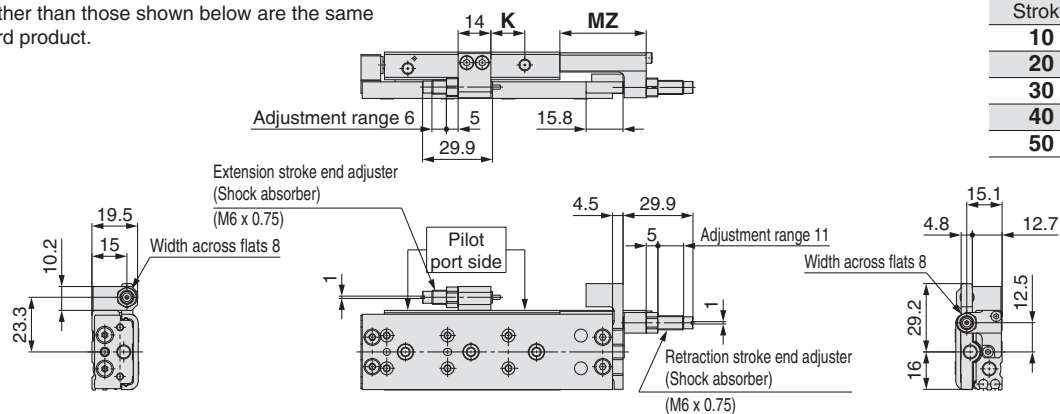
Dimensions

Standard type/MXQ6- ZG-X2200: Shock absorber/RJ

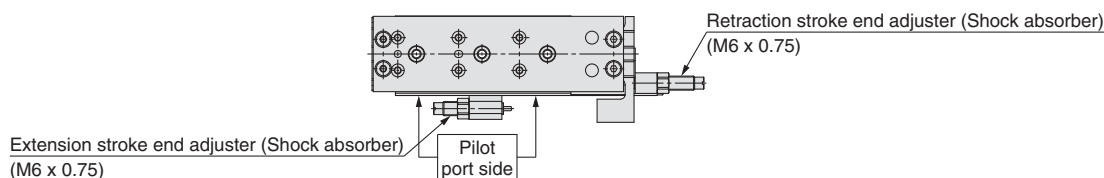
* Dimensions other than those shown below are the same as the standard product.

Dimensions

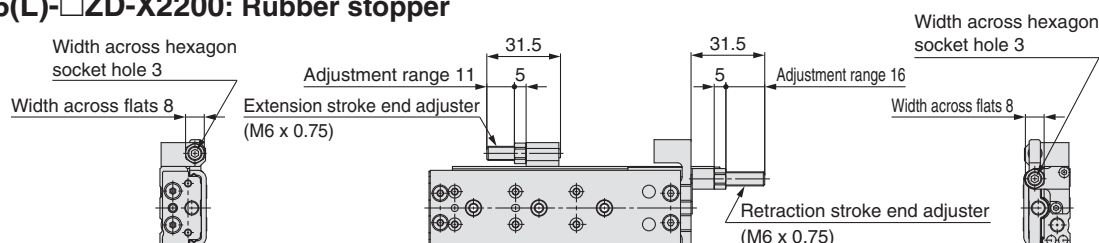
Stroke	K	MZ
10	7.5	18.9
20	7.5	28.9
30	6.5	36.9
40	14.5	36.9
50	24.5	36.9



Symmetric type/MXQ6L- ZG-X2200: Shock absorber/RJ



MXQ6(L)- ZD-X2200: Rubber stopper



Dimensions

Standard type/MXQ8-□ZG-X2200: Shock absorber/RJ

* Dimensions other than those shown below are the same as the standard product.

Dimensions

Stroke	K	MZ	Extension stroke end adjuster adjustment range		
			Metal stopper with bumper L ₁	Rubber stopper L ₁	Shock absorber L ₁
10	5.5	22.5	9	10	5
20	10.5	22.5	10	11	6
30	20	22.5	10	11	6
40	24.5	22.5	10	11	6
50	17.5	22.5	10	11	6
75	46.5	46.5	10	11	6

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

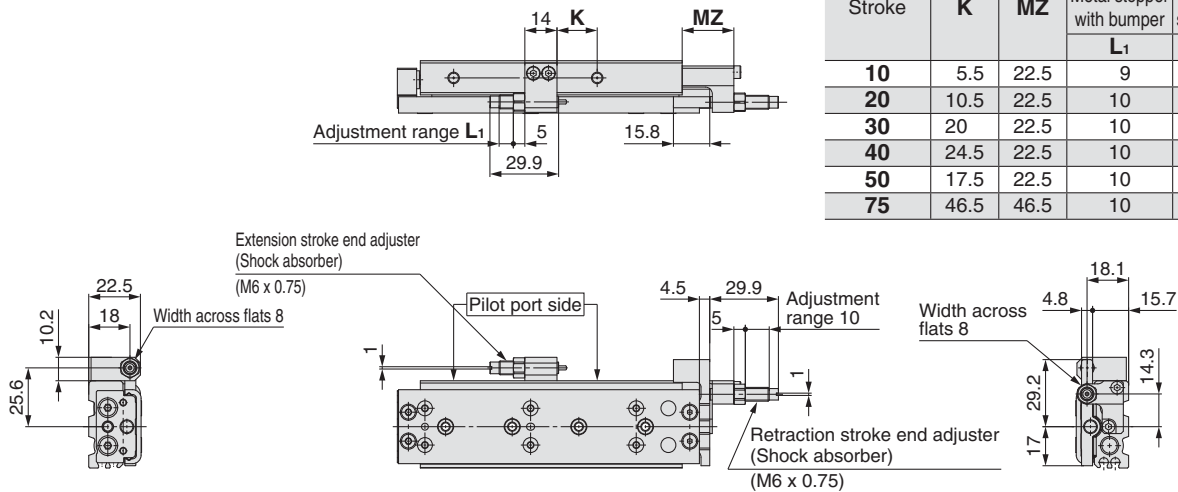
Height interchangeable type
MXQ□

Common Adjuster Options

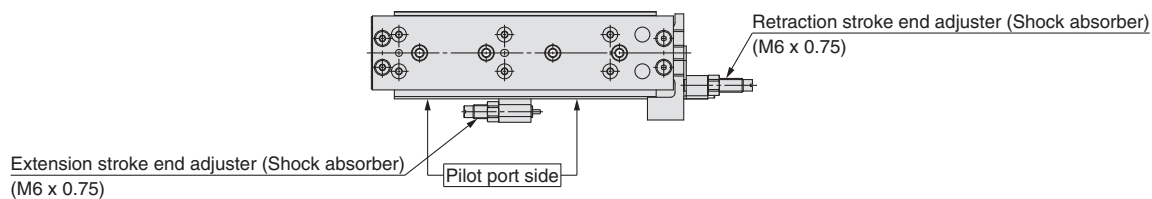
Auto Switch Mounting

Made to Order

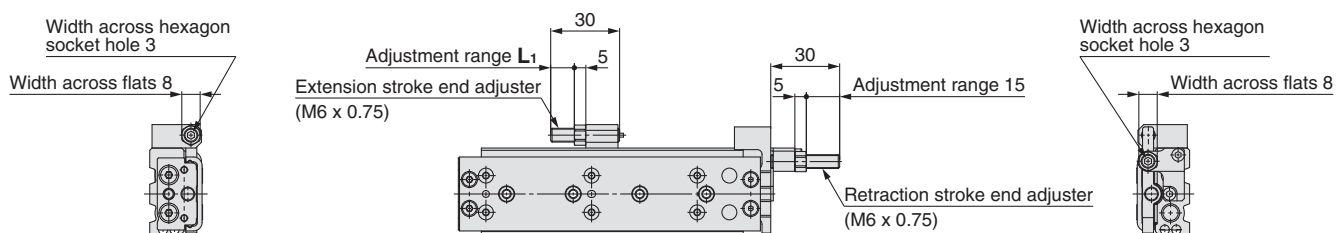
Model Selection



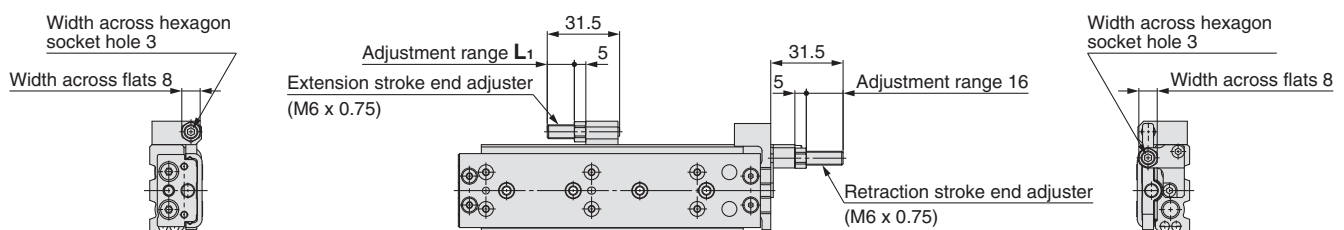
Symmetric type/MXQ8L-□ZG-X2200: Shock absorber/RJ



MXQ8(L)-□ZA-X2200: Metal stopper with bumper



MXQ8(L)-□ZD-X2200: Rubber stopper

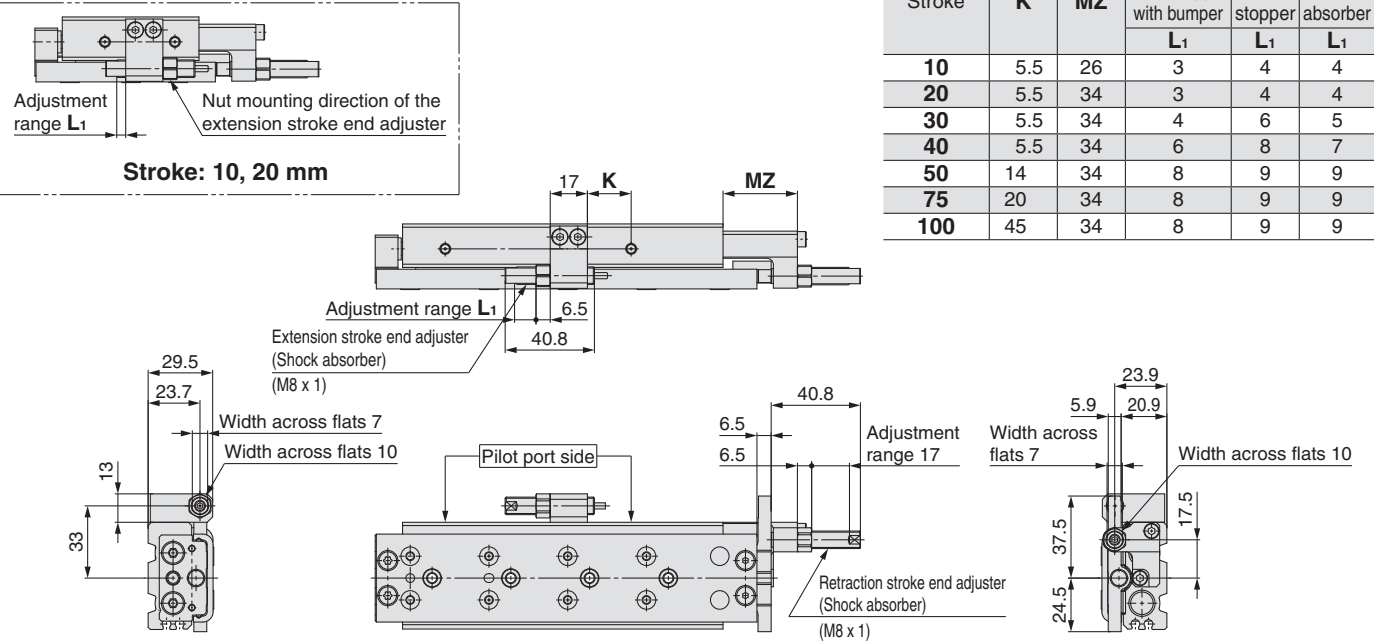


14 Side Adjuster Specification

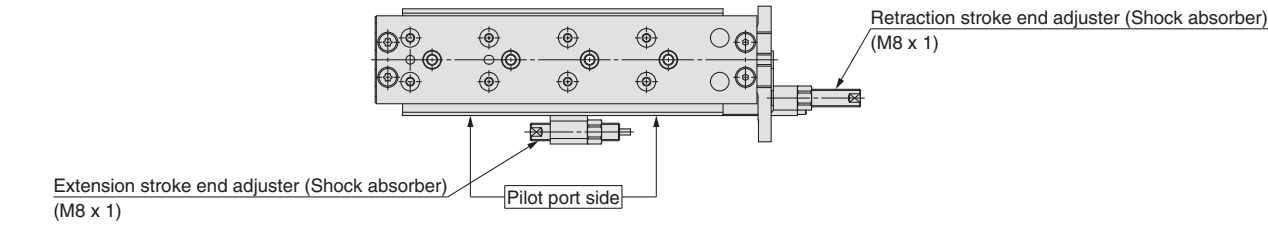
Dimensions

Standard type/MXQ12-□ZG-X2200: Shock absorber/RJ

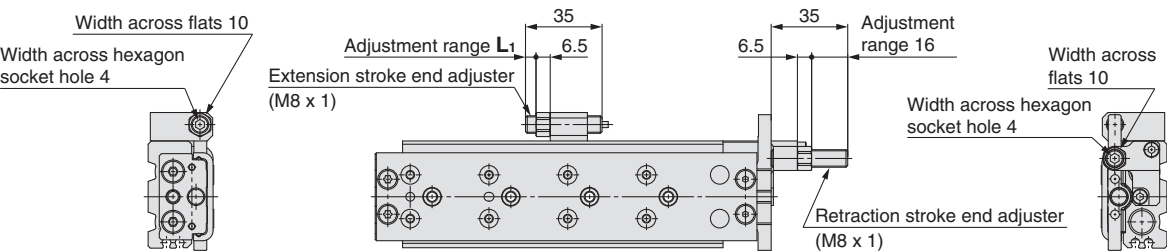
* Dimensions other than those shown below are the same as the standard product.



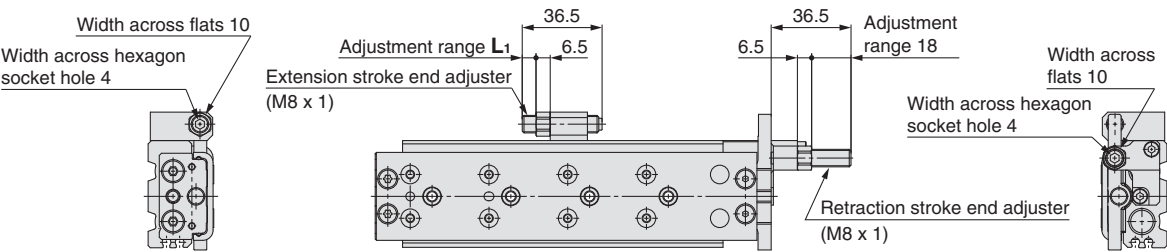
Symmetric type/MXQ12L-□ZG-X2200: Shock absorber/RJ



MXQ12(L)-□ZA-X2200: Metal stopper with bumper



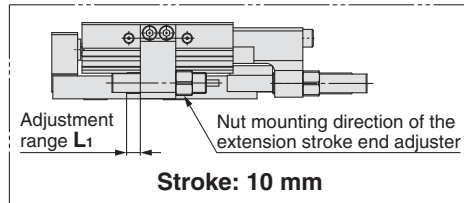
MXQ12(L)-□ZD-X2200: Rubber stopper



Dimensions

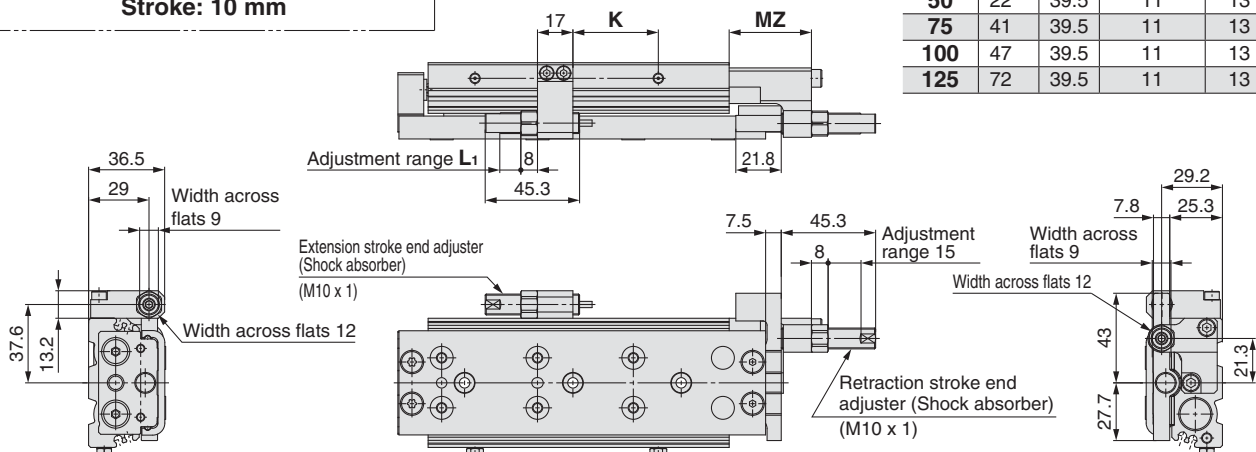
Standard type/MXQ16-□ZG-X2200: Shock absorber/RJ

* Dimensions other than those shown below are the same as the standard product.



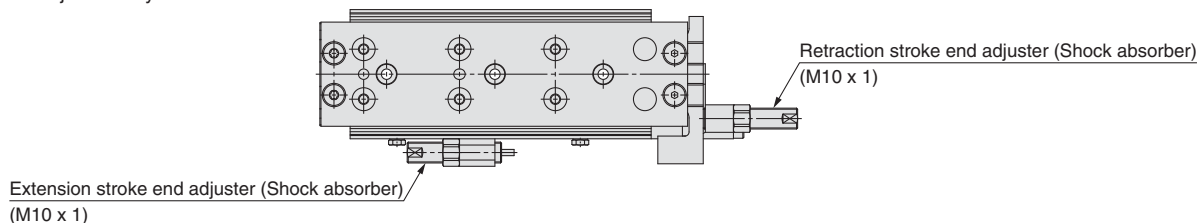
Dimensions

Stroke	K	MZ	Extension stroke end adjuster adjustment range		
			Metal stopper with bumper	Rubber stopper	Shock absorber
			L_1	L_1	L_1
10	5.5	33.5	8	9	6
20	5.5	39.5	11	12	9
30	14	39.5	11	13	10
40	17	39.5	11	13	10
50	22	39.5	11	13	10
75	41	39.5	11	13	10
100	47	39.5	11	13	10
125	72	39.5	11	13	10

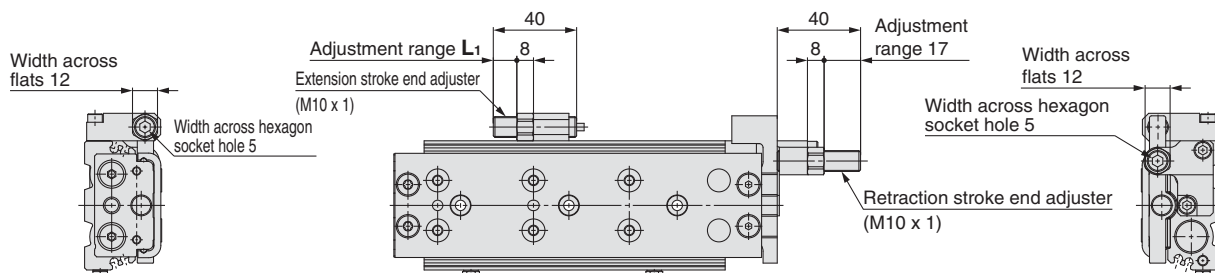


Symmetric type/MXQ16-□ZG-X2200L: Shock absorber/RJ

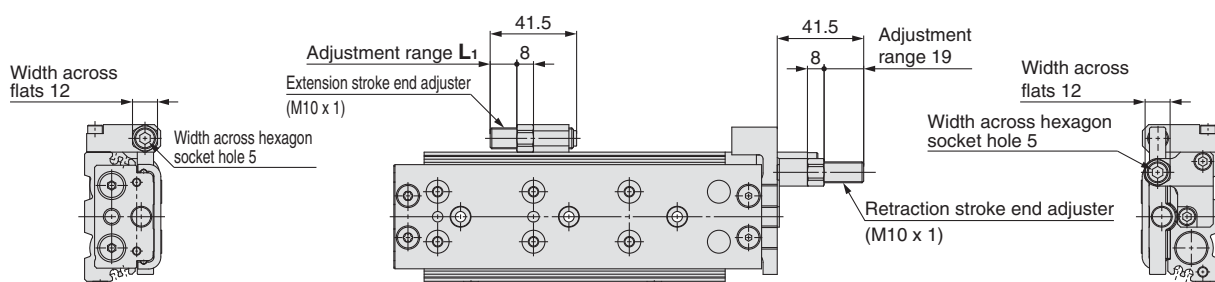
* Only the side adjuster is symmetric.



MXQ16-□ZA-X2200(L): Metal stopper with bumper



MXQ16-□ZD-X2200(L): Rubber stopper



14 Side Adjuster Specification

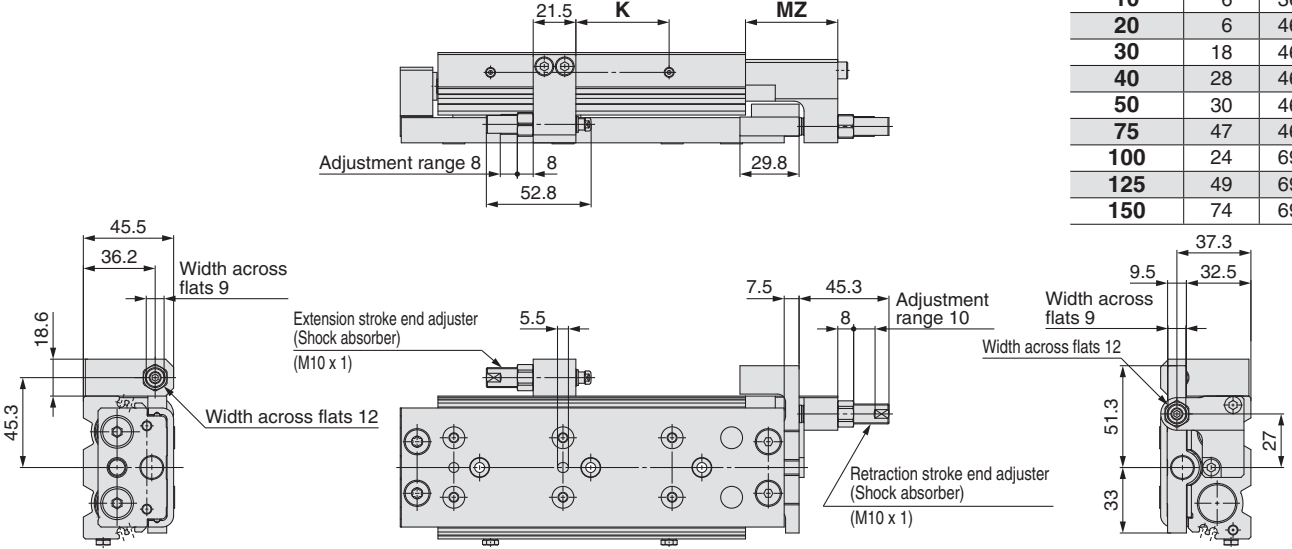
Dimensions

Standard type/MXQ20-□ZG-X2200: Shock absorber/RJ

* Dimensions other than those shown below are the same as the standard product.

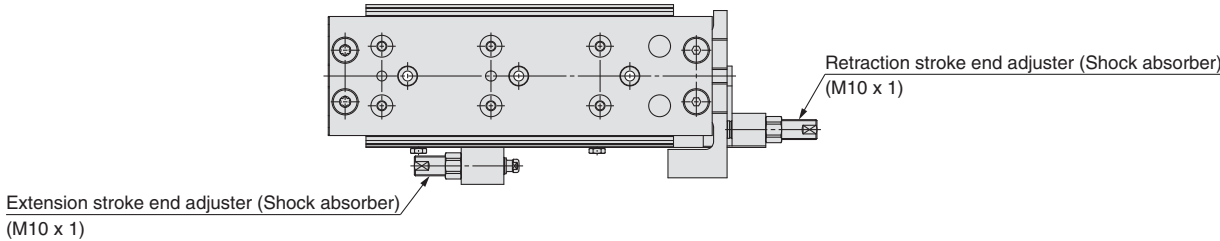
Dimensions

Stroke	K	MZ
10	6	36.5
20	6	46.5
30	18	46.5
40	28	46.5
50	30	46.5
75	47	46.5
100	24	69.5
125	49	69.5
150	74	69.5

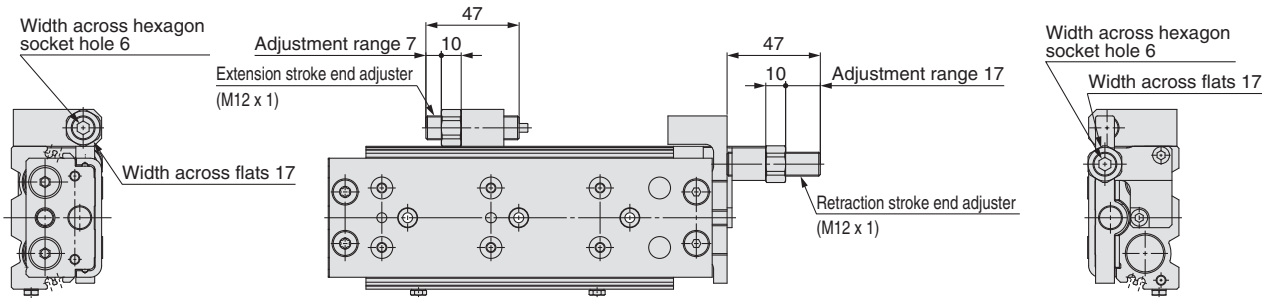


Symmetric type/MXQ20-□ZG-X2200L: Shock absorber/RJ

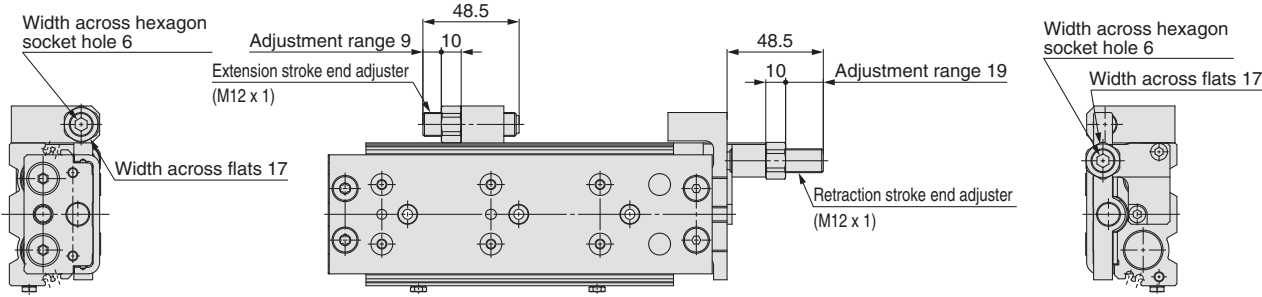
* Only the side adjuster is symmetric.



MXQ20-□ZA-X2200(L): Metal stopper with bumper



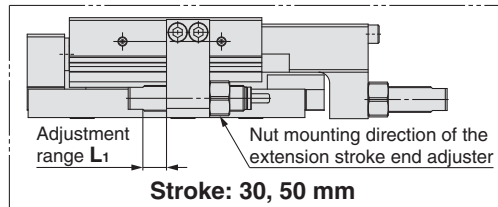
MXQ20-□ZD-X2200(L): Rubber stopper



Symbol
-X2200

Dimensions

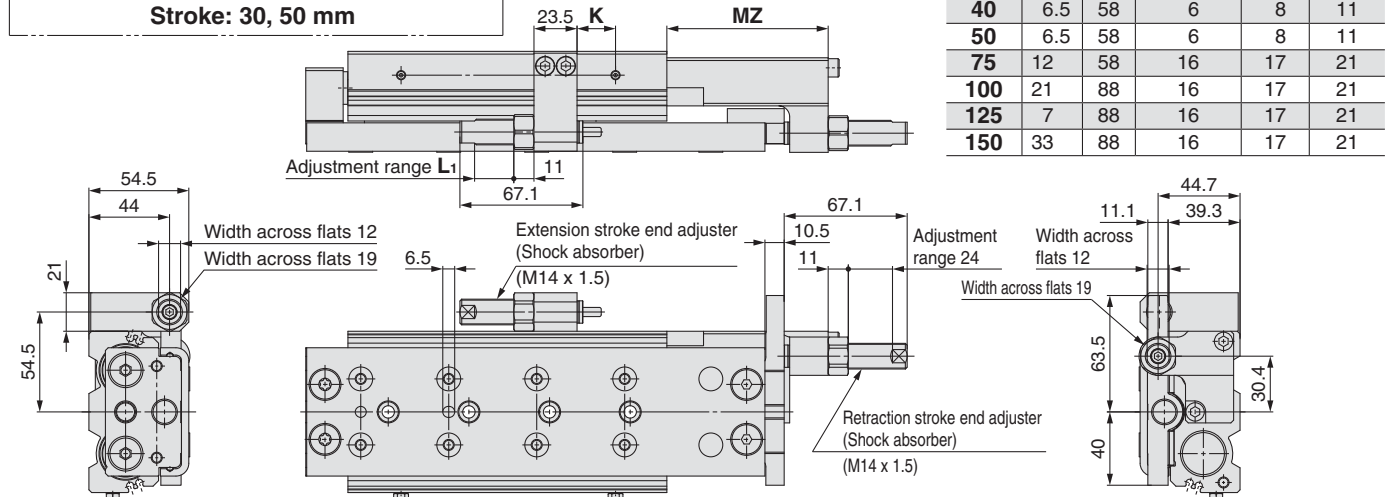
Standard type/MXQ25-□ZG-X2200: Shock absorber/RJ



* Dimensions other than those shown below are the same as the standard product.

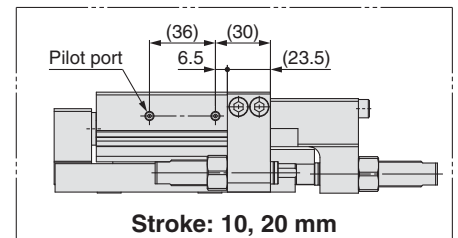
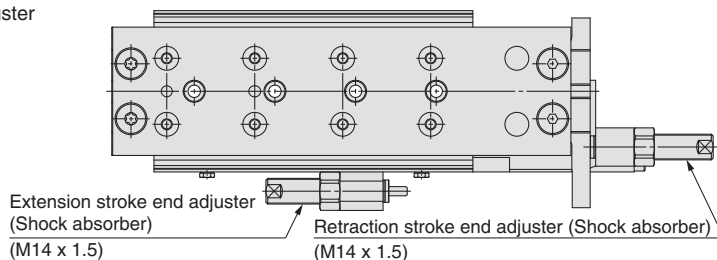
Dimensions

Stroke	K	MZ	Extension stroke end adjuster adjustment range		
			Metal stopper with bumper L_1	Rubber stopper L_1	Shock absorber L_1
10	—*1	48	15	16	20
20	—*1	58	15	16	20
30	6.5	58	7	9	12
40	6.5	58	6	8	11
50	6.5	58	6	8	11
75	12	58	16	17	21
100	21	88	16	17	21
125	7	88	16	17	21
150	33	88	16	17	21

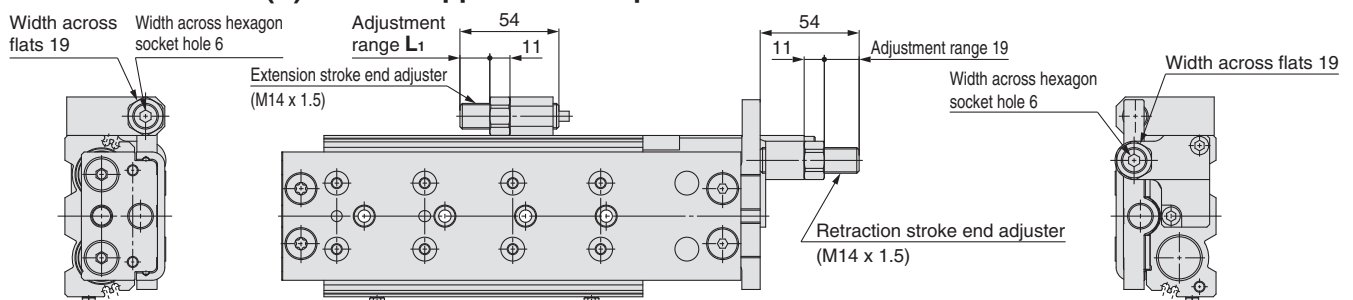


Symmetric type/MXQ25-□ZG-X2200L: Shock absorber/RJ

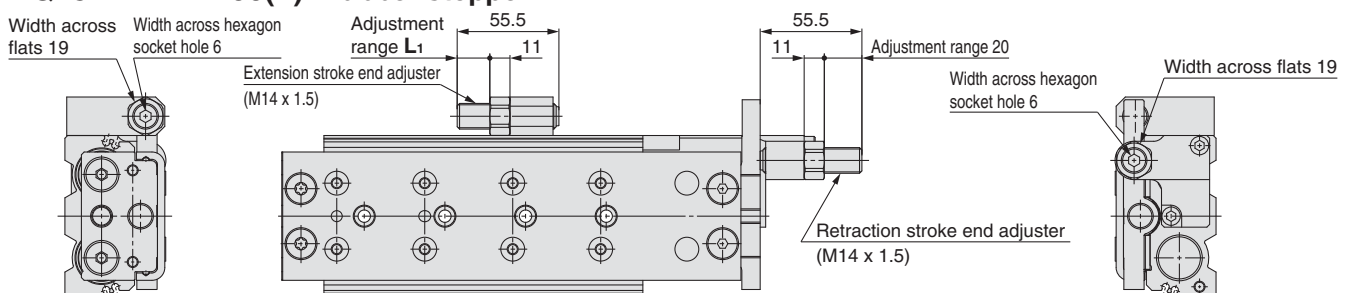
* Only the side adjuster is symmetric.



MXQ25-□ZA-X2200(L): Metal stopper with bumper



MXQ25-□ZD-X2200(L): Rubber stopper



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

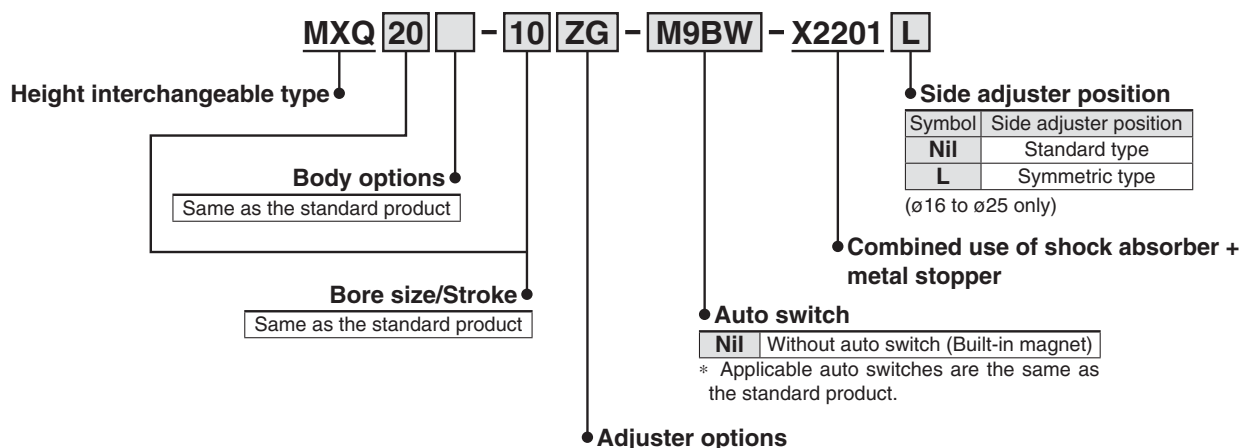
Made to Order

Model Selection

15 Combined Use of Shock Absorber + Metal Stopper

These are specifications in which shock absorbers and metal stoppers are used in combination with the extension stroke end adjuster and the retraction stroke end adjuster. The shock absorbers absorb energy, and the metal stoppers are used for positioning.

How to Order



Specifications

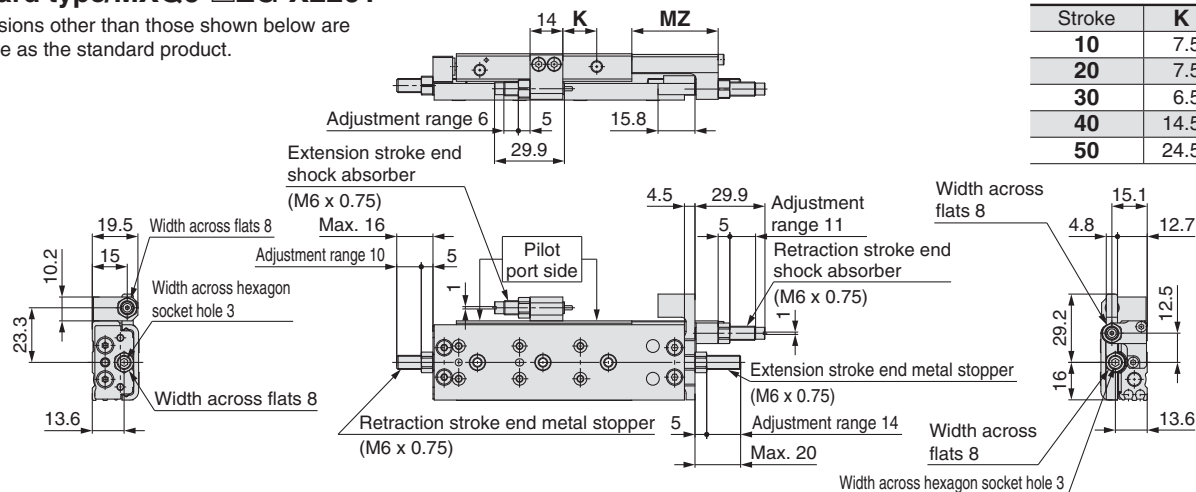
Series	Height interchangeable type
--------	-----------------------------

* Specifications other than the above are the same as the standard type.

Dimensions

Standard type/MXQ6-□ZG-X2201

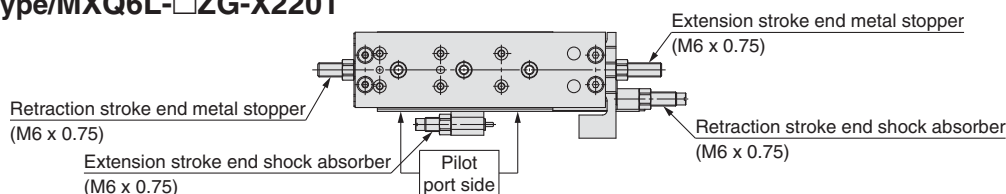
* Dimensions other than those shown below are the same as the standard product.



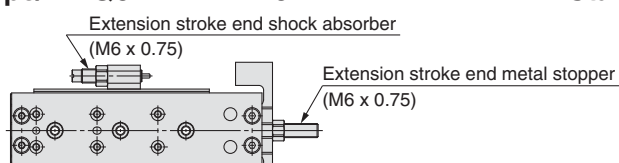
Dimensions

Stroke	K	MZ
10	7.5	18.9
20	7.5	28.9
30	6.5	36.9
40	14.5	36.9
50	24.5	36.9

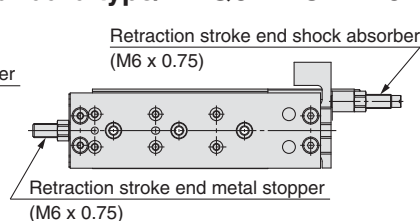
Symmetric type/MXQ6L-□ZG-X2201



Standard type/MXQ6-□ZH-X2201



Standard type/MXQ6-□ZJ-X2201



Symbol
-X2201

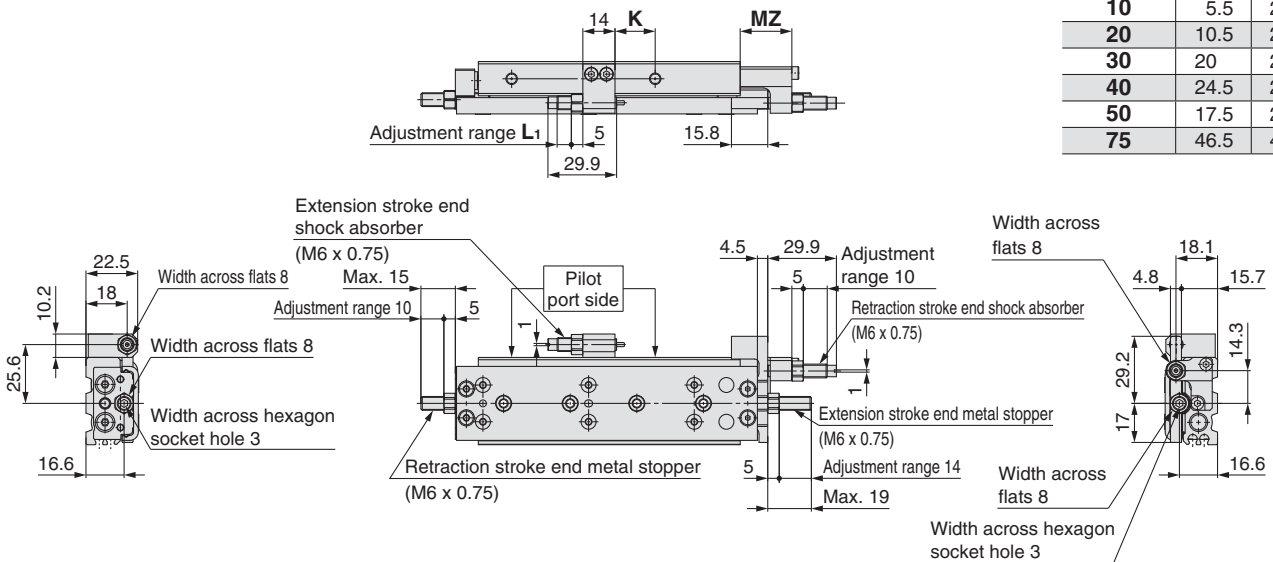
Dimensions

Standard type/MXQ8-□ZG-X2201

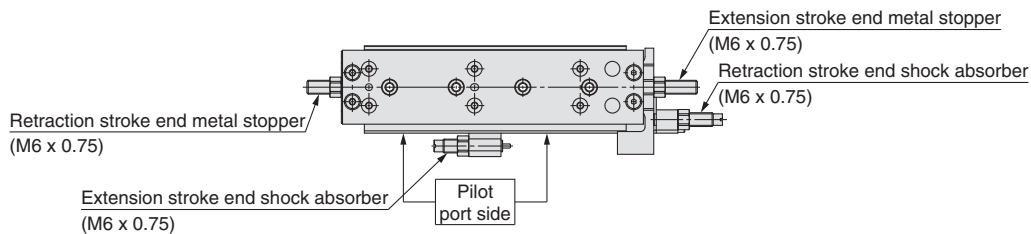
* Dimensions other than those shown below are the same as the standard product.

Dimensions

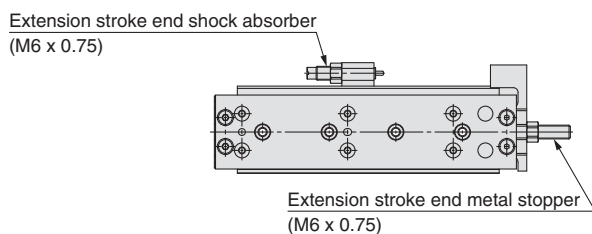
Stroke	K	MZ
10	5.5	22.5
20	10.5	22.5
30	20	22.5
40	24.5	22.5
50	17.5	22.5
75	46.5	46.5



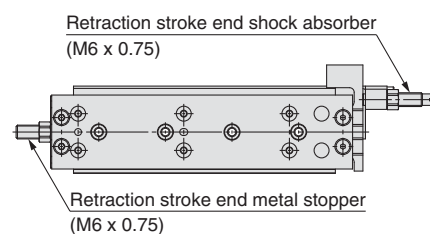
Symmetric type/MXQ8L-□ZG-X2201



Standard type/MXQ8-□ZH-X2201



Standard type/MXQ8-□ZJ-X2201



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

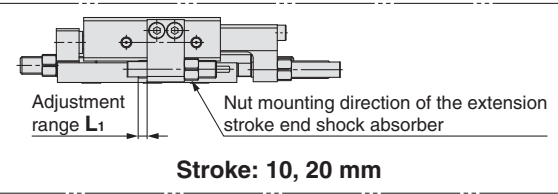
Model Selection

15 Combined Use of Shock Absorber + Metal Stopper

Dimensions

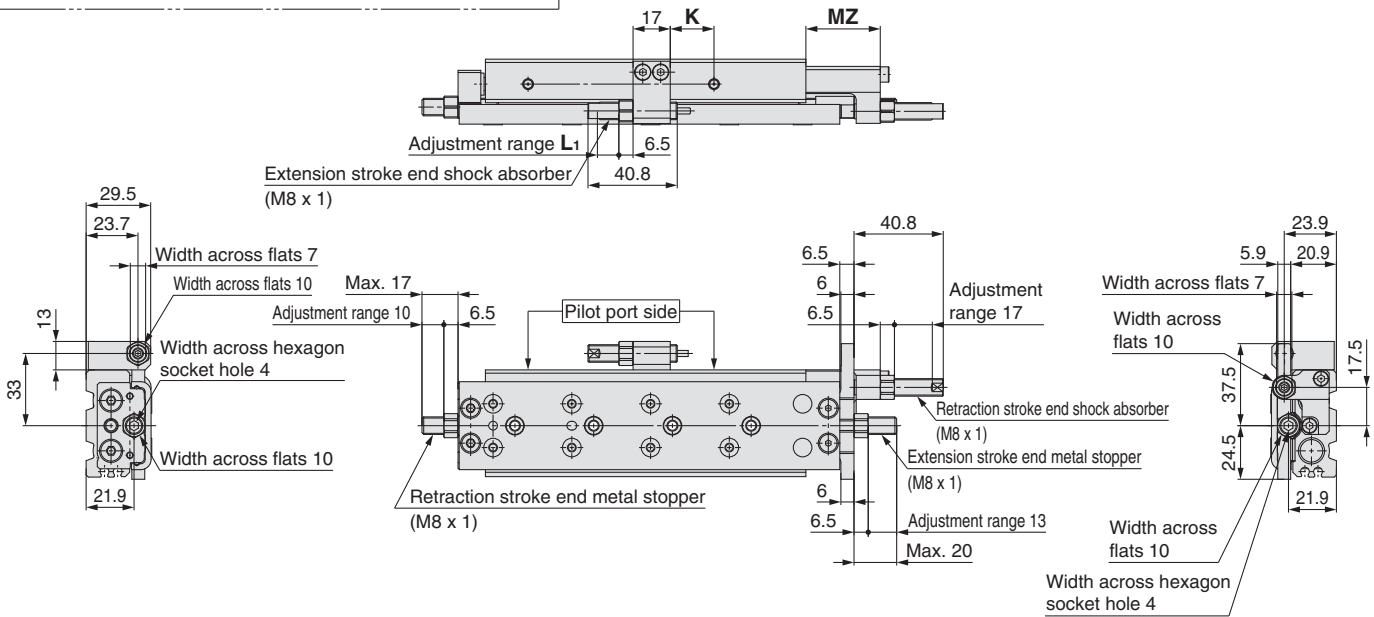
Standard type/MXQ12-□ZG-X2201

* Dimensions other than those shown below are the same as the standard product.

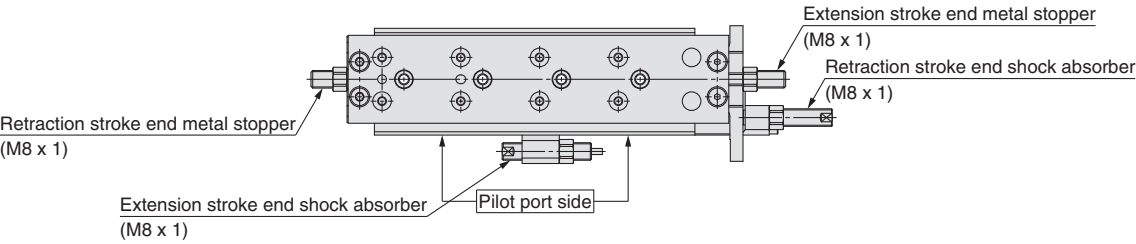


Dimensions

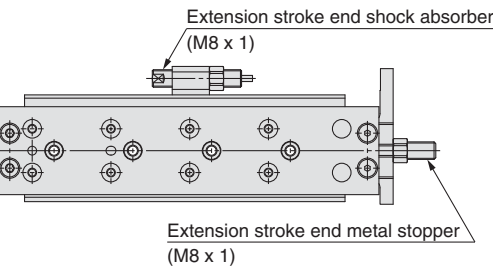
Stroke	K	MZ	L1
10	5.5	26	4
20	5.5	34	4
30	5.5	34	5
40	5.5	34	7
50	14	34	9
75	20	34	9
100	45	34	9



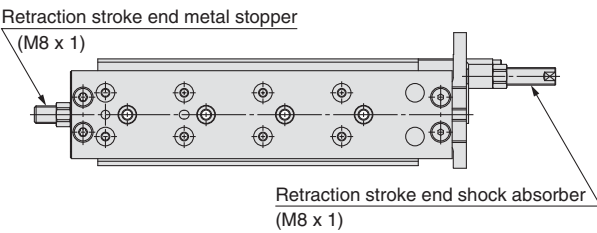
Symmetric type/MXQ12L-□ZG-X2201



Standard type/MXQ12-□ZH-X2201



Standard type/MXQ12-□ZJ-X2201

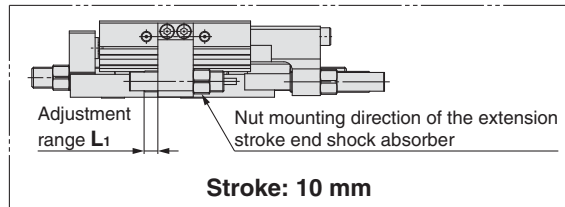


Symbol
-X2201

Dimensions

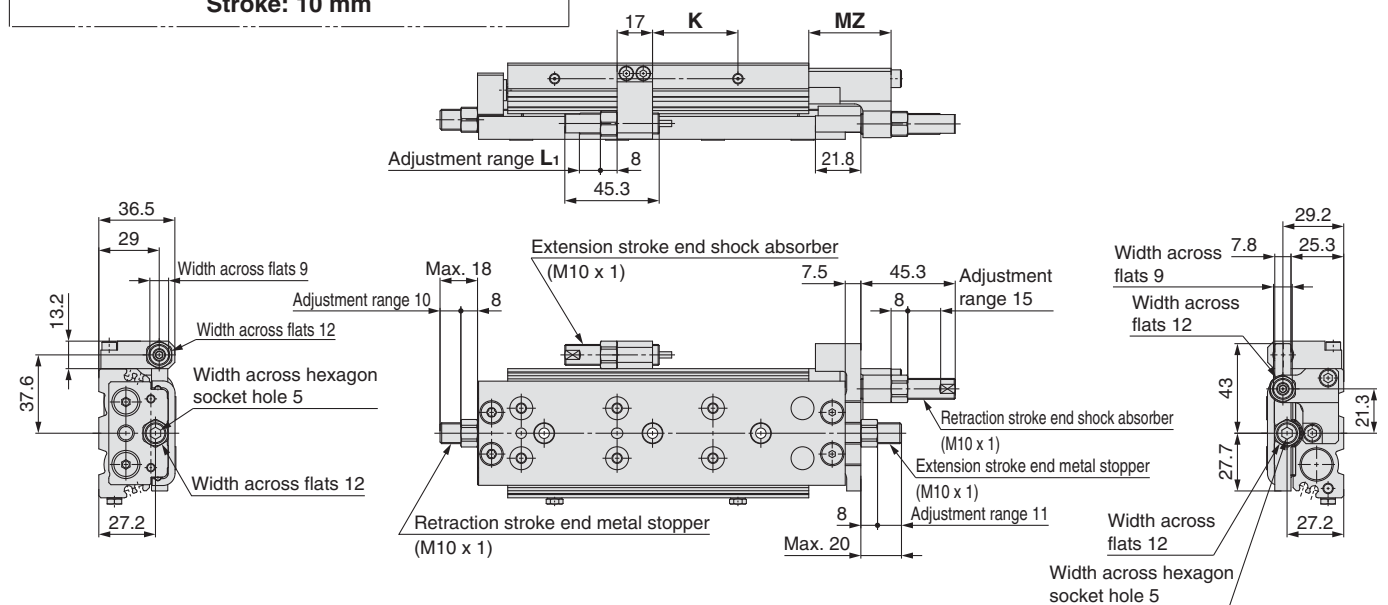
Standard type/MXQ16-□ZG-X2201

* Dimensions other than those shown below are the same as the standard product.



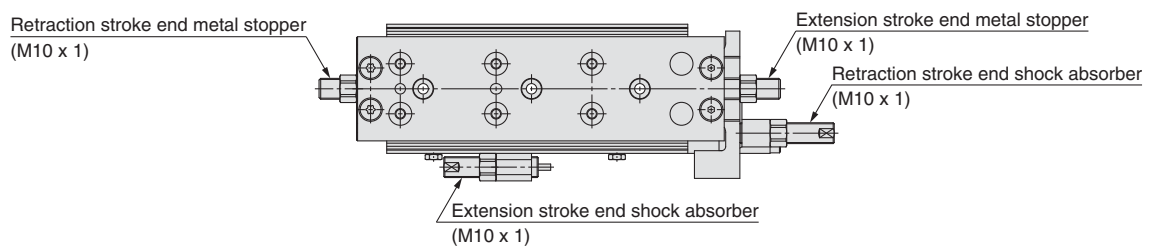
Dimensions

Stroke	K	MZ	L_1
10	5.5	33.5	6
20	5.5	39.5	9
30	14	39.5	10
40	17	39.5	10
50	22	39.5	10
75	41	39.5	10
100	47	39.5	10
125	72	39.5	10

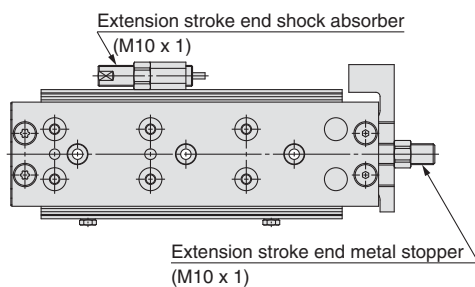


Symmetric type/MXQ16L-□ZG-X2201

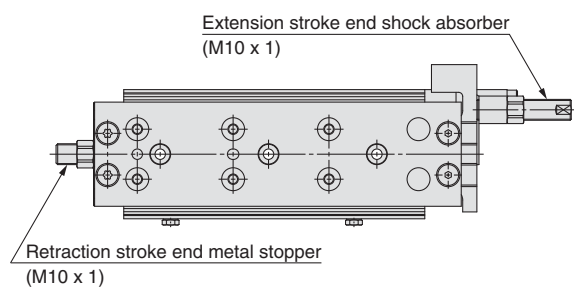
* Only the adjuster part is symmetric.



Standard type/MXQ16-□ZH-X2201



Standard type/MXQ16-□ZJ-X2201



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

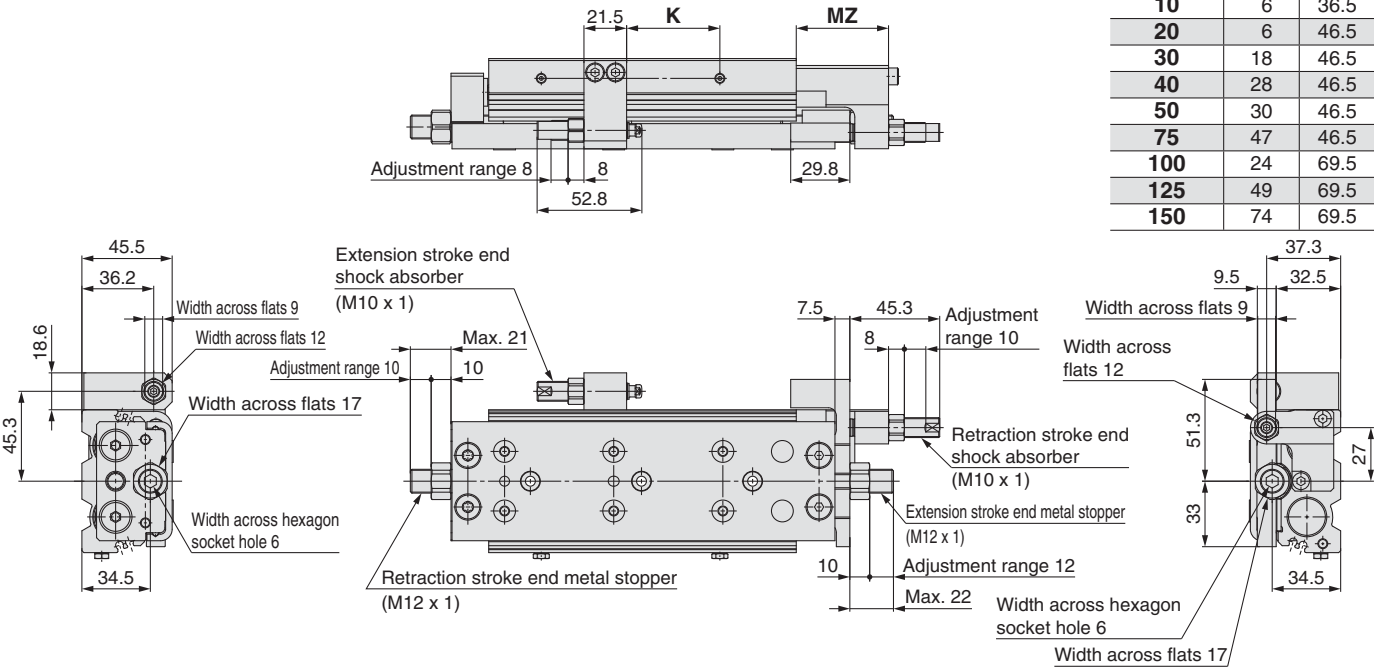
Model Selection

15 Combined Use of Shock Absorber + Metal Stopper

Dimensions

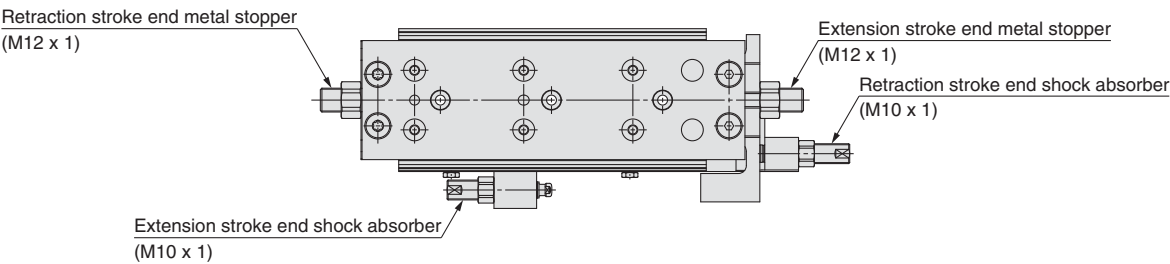
Standard type/MXQ20-□ZG-X2201

* Dimensions other than those shown below are the same as the standard product.

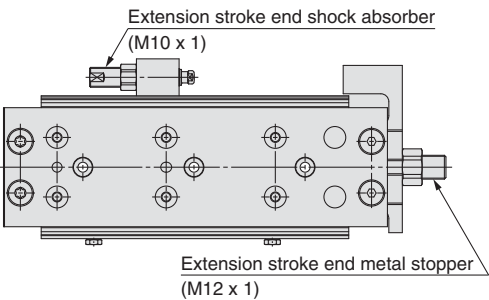


Symmetric type/MXQ20L-□ZG-X2201

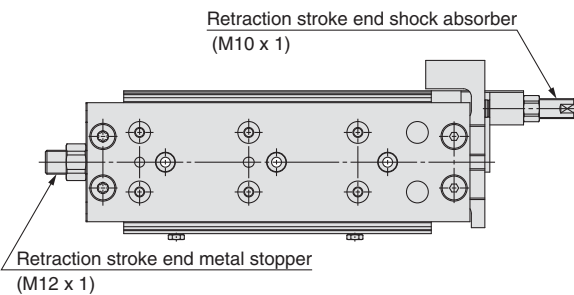
* Only the adjuster part is symmetric.



Standard type/MXQ20-□ZH-X2201



Standard type/MXQ20-□ZJ-X2201

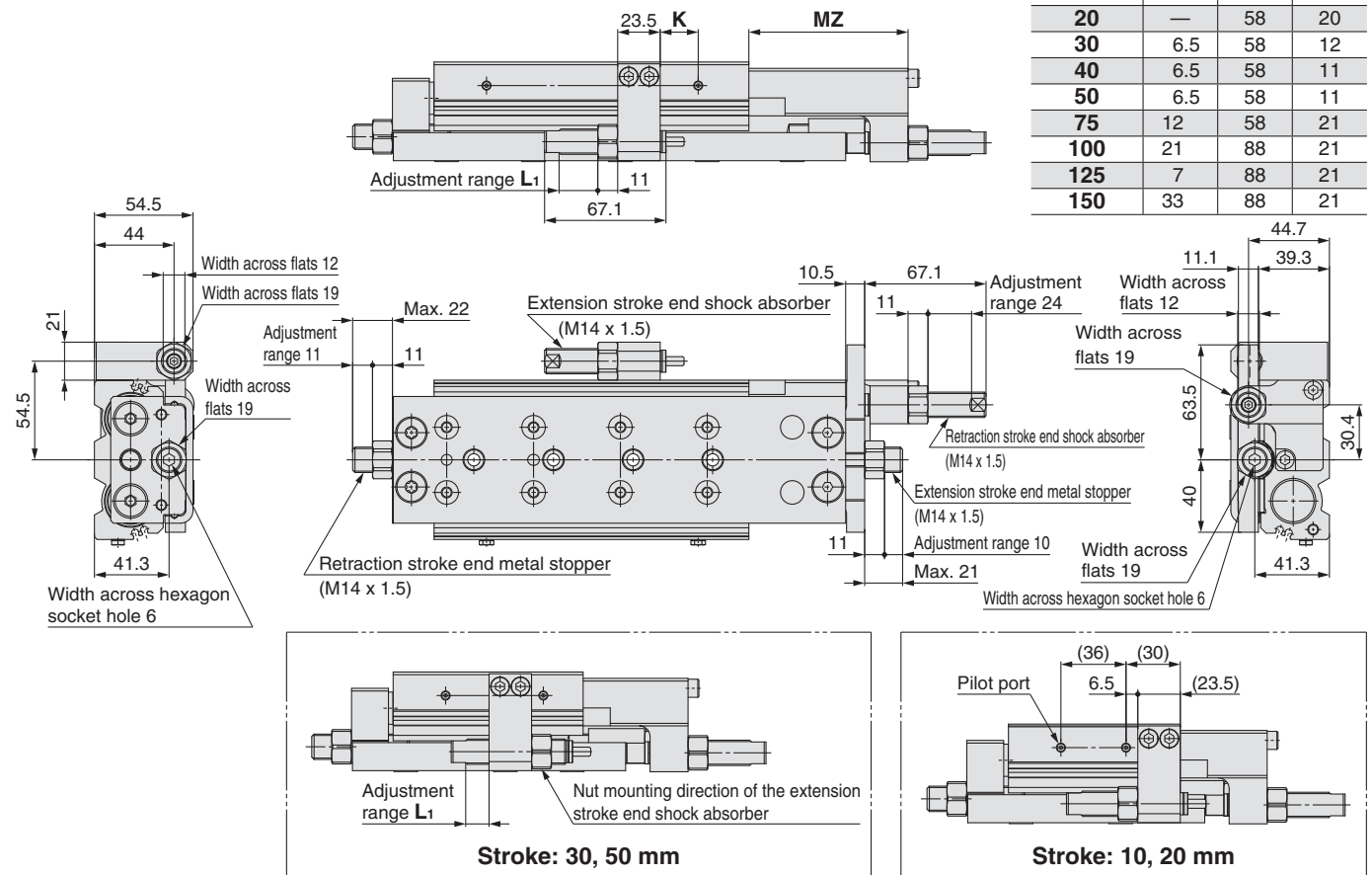


Symbol
-X2201

Dimensions

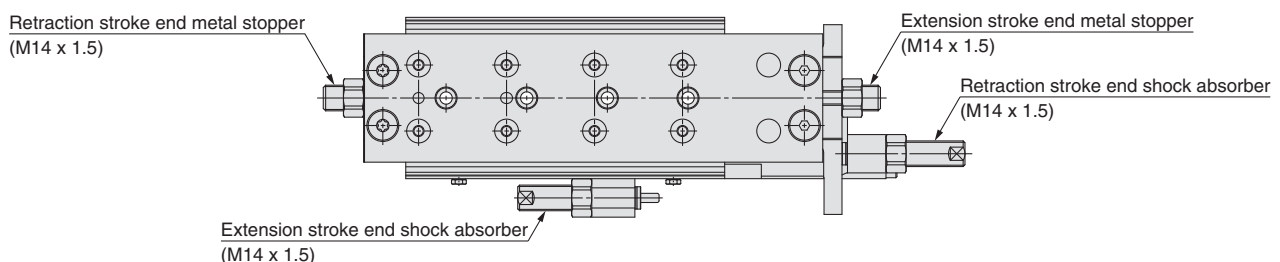
Standard type/MXQ25-□ZG-X2201

* Dimensions other than those shown below are the same as the standard product.

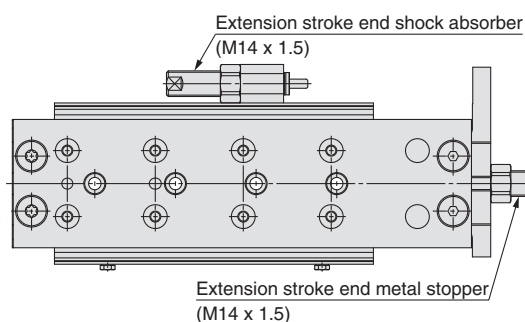


Symmetric type/MXQ25L-□ZG-X2201

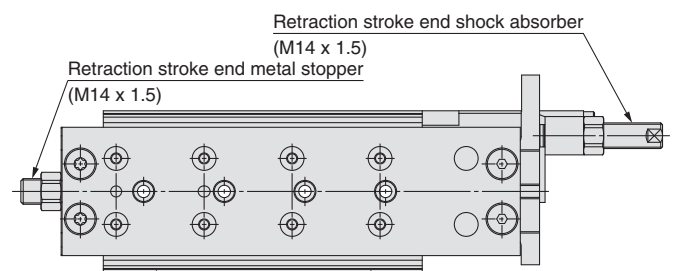
* Only the adjuster part is symmetric.



Standard type/MXQ25-□ZH-X2201



Standard type/MXQ25-□ZJ-X2201



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

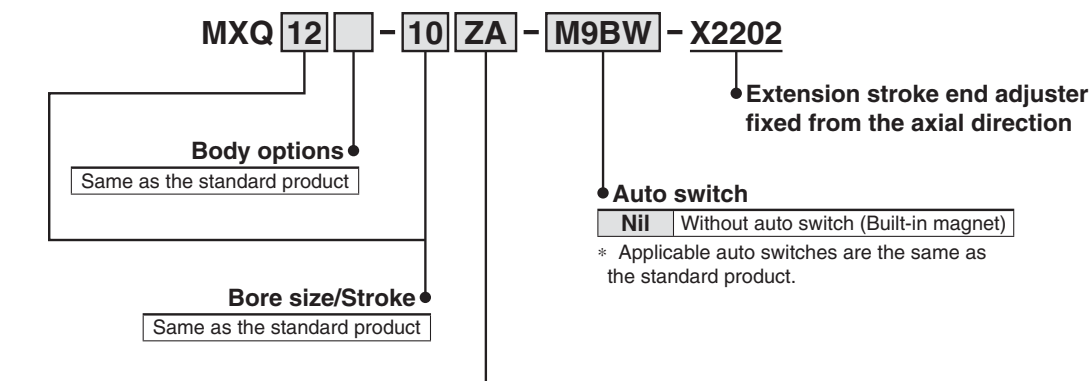
Made to Order

Model Selection

16 Extension Stroke End Adjuster Fixed from the Axial Direction

This product has been designed to enable the method of locking the extension stroke end adjuster to be fixed from the axial direction using a hexagon wrench.

How to Order



● Adjuster options

Symbol	Adjuster type*2*3*4	Adjuster mounting position*1	
		Extension stroke end	Retraction stroke end
ZA	Metal stopper with bumper	●	●
ZB		●	●
ZD	Rubber stopper	●	●
ZE		●	●
ZG	Shock absorber/RJ	●	●
ZH		●	●
ZK	Metal stopper	●	●
ZL		●	●

*1 ●: Shipped together with the product, but not assembled

Without any symbol for the adjuster mounting position:
The adjuster can be mounted afterward.

*2 The metal stopper with bumper option is not available for the MXQ6(A, B).

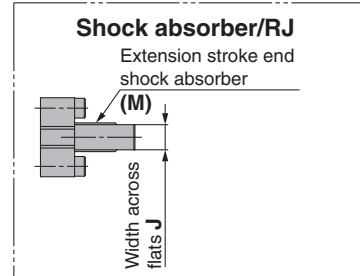
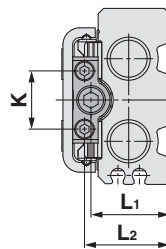
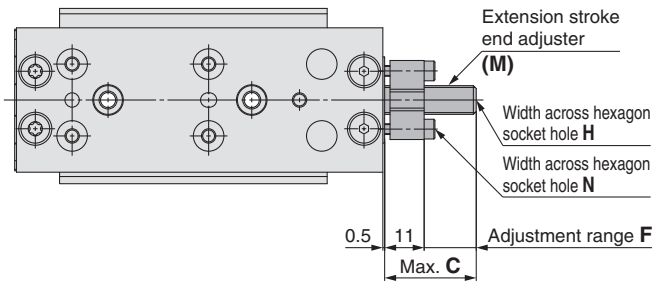
*3 The shock absorber option is not available for the MXQ6(A, B) and MXQ8(A, C).

*4 When the product comes with adjusters on both ends, the retraction stroke end is standard.

Symbol	Adjuster type*2*3*4		Adjuster mounting position	
	Extension stroke end	Retraction stroke end	Extension stroke end	Retraction stroke end
ZBF	Metal stopper with bumper	Rubber stopper	●	●
ZBJ		Shock absorber/RJ	●	●
ZBM		Metal stopper	●	●
ZEC	Rubber stopper	Metal stopper with bumper	●	●
ZEJ		Shock absorber/RJ	●	●
ZEM		Metal stopper	●	●
ZHC	Shock absorber/RJ	Metal stopper with bumper	●	●
ZHF		Rubber stopper	●	●
ZHM		Metal stopper	●	●
ZLC	Metal stopper	Metal stopper with bumper	●	●
ZLF		Rubber stopper	●	●
ZLJ		Shock absorber/RJ	●	●

Symbol
-X2202

Dimensions



Metal Stopper with Bumper

Model	C	F	H	K	L ₁	L ₂	M	N
MXQ8, MXQ8A	23	12	3	13	16.6	18.2	M6 x 0.75	2.5
MXQ8C					14.6	16.2		
MXQ12	26	14	4	16.2	21.9	23.7	M8 x 1	2.5
MXQ12A, MXQ12C					18.9	20.7		
MXQ16	27	15	5	20	27.2	28.9	M10 x 1	3
MXQ16A					25.2	26.9		
MXQ20	30	18	6	27	34.5	37.1	M12 x 1	4
MXQ20A					31.5	34.1		
MXQ25	31	20	6	27	41.3	43.8	M14 x 1.5	5
MXQ25A					38.3	40.8		
MXQ8B	26	12	4	16.2	14.9	16.7	M8 x 1	2.5
MXQ12B	27	13	5	20	20.2	21.9	M10 x 1	3
MXQ16B	30	16	6	27	25.5	28.1	M12 x 1	4
MXQ20B	31	17	6	27	32.3	34.8	M14 x 1.5	5

Rubber Stopper

Model	C	F	H	K	L ₁	L ₂	M	N
MXQ6	25	14	3	13	13.6	15.2	M6 x 0.75	2.5
MXQ6A					16.6	18.2		
MXQ8, MXQ8A	25	13	3	13	16.6	18.2	M6 x 0.75	2.5
MXQ8C					14.6	16.2		
MXQ12	27	16	4	16.2	21.9	23.7	M8 x 1	2.5
MXQ12A, MXQ12C					18.9	20.7		
MXQ16	28	17	5	20	27.2	28.9	M10 x 1	3
MXQ16A					25.2	26.9		
MXQ20	31	20	6	27	34.5	37.1	M12 x 1	4
MXQ20A					31.5	34.1		
MXQ25	33	21	6	27	41.3	43.8	M14 x 1.5	5
MXQ25A					38.3	40.8		
MXQ6B	25	13	3	13	13.6	15.2	M6 x 0.75	2.5
MXQ8B	27	16	4	16.2	14.9	16.7	M8 x 1	2.5
MXQ12B	28	17	5	20	20.2	21.9	M10 x 1	3
MXQ16B	31	20	6	27	25.5	28.1	M12 x 1	4
MXQ20B	33	21	6	27	32.3	34.8	M14 x 1.5	5

Shock Absorber/RJ

Model	C	F	J	K	L ₁	L ₂	M	N
MXQ12	29	11	7	16.2	21.9	23.7	M8 x 1	2.5
MXQ12A, MXQ12C					18.9	20.7		
MXQ16	30	11	9	20	27.2	28.9	M10 x 1	3
MXQ16A					25.2	26.9		
MXQ20	26	6	9	27	34.5	37.1	M10 x 1	4
MXQ20A					31.5	34.1		
MXQ25	45	25	12	27	41.3	43.8	M14 x 1.5	5
MXQ25A					38.3	40.8		
MXQ8B	28	11	7	16.2	14.9	16.7	M8 x 1	2.5
MXQ12B	30	11	9	20	20.2	21.9	M10 x 1	3
MXQ16B	26	7	9	27	25.5	28.1	M10 x 1	4
MXQ20B	45	25	12	27	32.3	34.8	M14 x 1.5	5

Metal Stopper

Model	C	F	H	K	L ₁	L ₂	M	N
MXQ6	24	12	3	13	13.6	15.2	M6 x 0.75	2.5
MXQ6A					16.6	18.2		
MXQ8, MXQ8A	23	12	3	13	16.6	18.2	M6 x 0.75	2.5
MXQ8C					14.6	16.2		
MXQ12	26	14	4	16.2	21.9	23.7	M8 x 1	2.5
MXQ12A, MXQ12C					18.9	20.7		
MXQ16	27	15	5	20	27.2	28.9	M10 x 1	3
MXQ16A					25.2	26.9		
MXQ20	30	18	6	27	34.5	37.1	M12 x 1	4
MXQ20A					31.5	34.1		
MXQ25	31	20	6	27	41.3	43.8	M14 x 1.5	5
MXQ25A					38.3	40.8		
MXQ6B	23	12	3	13	13.6	15.2	M6 x 0.75	2.5
MXQ8B	26	14	4	16.2	14.9	16.7	M8 x 1	2.5
MXQ12B	27	15	5	20	20.2	21.9	M10 x 1	3
MXQ16B	30	18	6	27	25.5	28.1	M12 x 1	4
MXQ20B	31	20	6	27	32.3	34.8	M14 x 1.5	5

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

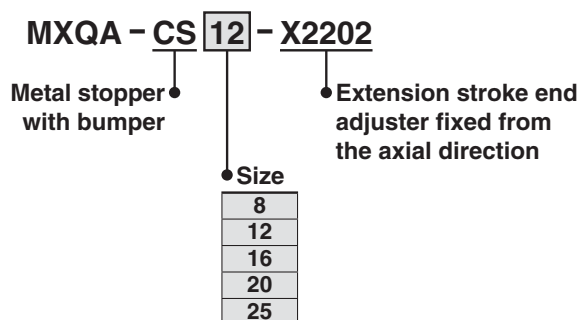
Model Selection

16 Extension Stroke End Adjuster Fixed from the Axial Direction (Order an extension stroke end adjuster as a single unit.)

This product has been designed to enable the method of locking the extension stroke end adjuster to be fixed from the axial direction using a hexagon wrench.

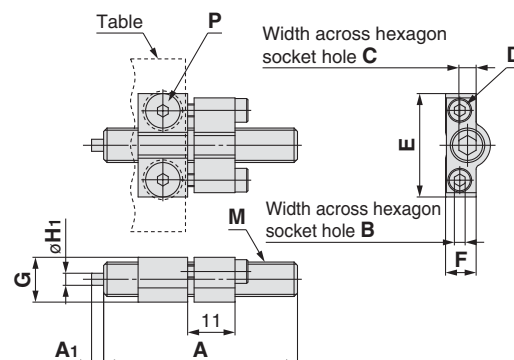
Stroke Adjusters (Accessories)

How to Order



Dimensions

Metal stopper with bumper



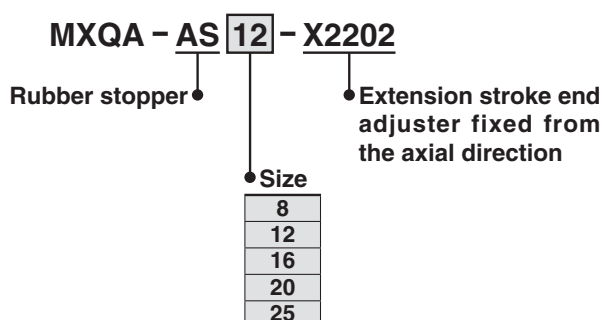
Metal Stopper with Bumper

Model	Adjuster part no.	A	A ₁	B	C	D*1	E	F	G	øH ₁	M (Fine pitch)	P*2
MXQ8(L, A, C, CL)	MXQA-CS8-X2202	40	2	2.5	3	M3 x 12	18	5.8	8.3	2	M6 x 0.75	M3 x 6
MXQ12(L, A, C, CL)	MXQA-CS12-X2202	45	2.8	2.5	4	M3 x 12	24	7.1	10.4	2.8	M8 x 1	M4 x 8
MXQ16(A)	MXQA-CS16-X2202	50	3.6	3	5	M4 x 12	29.4	9.2	12.6	3.6	M10 x 1	M5 x 10
MXQ20(A)	MXQA-CS20-X2202	57	4.4	4	6	M5 x 12	36	11.2	16.2	4.4	M12 x 1	M6 x 12
MXQ25(A)	MXQA-CS25-X2202	64	5.5	5	6	M6 x 12	44	13.5	19.3	5.5	M14 x 1.5	M8 x 16

*1 Size of the hexagon socket head cap screw

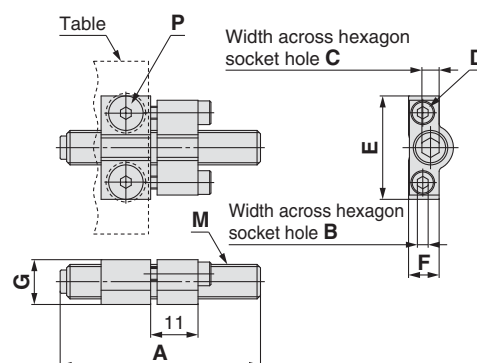
*2 Size of the hexagon socket flat countersunk head cap screw

How to Order



Dimensions

Rubber stopper



Rubber Stopper

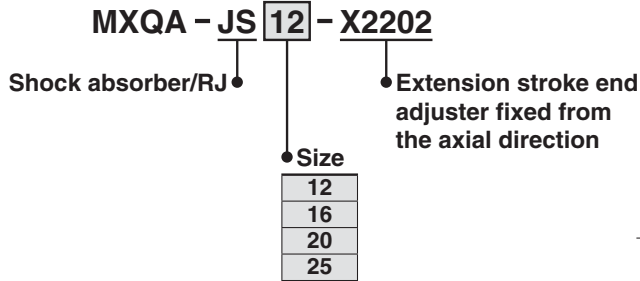
Model	Adjuster part no.	A	B	C	D*1	E	F	G	M (Fine pitch)	P*2
MXQ6(L, A)	MXQA-AS8-X2202	41.5	2.5	3	M3 x 12	18	5.8	8.3	M6 x 0.75	M3 x 6
MXQ8(L, A, C, CL)	MXQ6B(L)	46.5	2.5	4	M3 x 12	24	7.1	10.4	M8 x 1	M4 x 8
MXQ12(L, A, C, CL)	MXQ8B(L)	51.5	3	5	M4 x 12	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ16(A)	MXQ12B(L)	58.5	4	6	M5 x 12	36	11.2	16.2	M12 x 1	M6 x 12
MXQ20(A)	MXQ16B	65.5	5	6	M6 x 12	44	13.5	19.3	M14 x 1.5	M8 x 16

*1 Size of the hexagon socket head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

Symbol
-X2202

How to Order



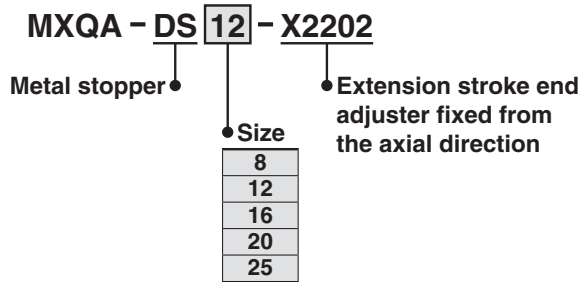
Shock Absorber/RJ

Model		Adjuster part no.	Single shock absorber part no.	A	A ₁	B	C	D*1	E	F	G	M (Fine pitch)	P*2
MXQ12(L, A, C, CL)	MXQ8B(L)	MXQA-JS12-X2202	RJ0805U-X2300	47.3	5	2.5	7	M3 x 12	24	7.1	10.4	M8 x 1	M4 x 8
MXQ16(A)	MXQ12B(L)	MXQA-JS16-X2202	RJ1006U-X2300	52.8	6	3	9	M4 x 12	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ20(A)	MXQ16B	MXQA-JS20-X2202	RJ1007HU-X2300	52.8	7	4	9	M5 x 12	36	11.2	16.2	M12 x 1	M6 x 12
MXQ25(A)	MXQ20B	MXQA-JS25-X2202	RJ1410U-X2300	77.1	10	5	12	M6 x 12	44	13.5	19.3	M14 x 1.5	M8 x 16

*1 Size of the hexagon socket head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

How to Order



Metal Stopper

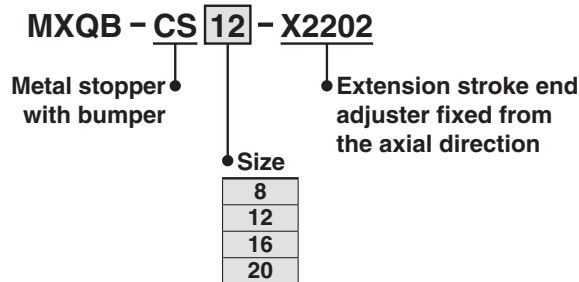
Model		Adjuster part no.	A	B	C	D*1	E	F	G	M (Fine pitch)	P*2
MXQ6(L, A)		MXQA-DS8-X2202	40	2.5	3	M3 x 12	18	5.8	8.3	M6 x 0.75	M3 x 6
MXQ8(L, A, C, CL)	MXQ6B(L)										
MXQ12(L, A, C, CL)	MXQ8B(L)	MXQA-DS12-X2202	45	2.5	4	M3 x 12	24	7.1	10.4	M8 x 1	M4 x 8
MXQ16(A)	MXQ12B(L)	MXQA-DS16-X2202	50	3	5	M4 x 12	29.4	9.2	12.6	M10 x 1	M5 x 10
MXQ20(A)	MXQ16B	MXQA-DS20-X2202	57	4	6	M5 x 12	36	11.2	16.2	M12 x 1	M6 x 12
MXQ25(A)	MXQ20B	MXQA-DS25-X2202	64	5	6	M6 x 12	44	13.5	19.3	M14 x 1.5	M8 x 16

*1 Size of the hexagon socket head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

Low thrust with high rigidity type

How to Order



Metal Stopper with Bumper

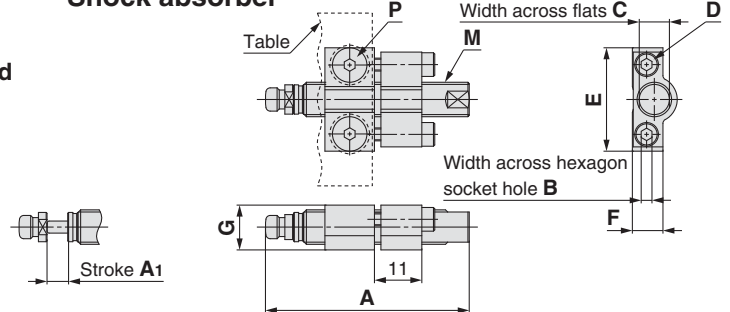
Model	Adjuster part no.	A	A ₁	B	C	D*1	E	F	G	øH ₁	øH ₂	M (Fine pitch)	P*2
MXQ8B(L)	MXQB-CS8-X2202	45	2.8	2.5	4	M3 x 12	24	7.1	10.4	2.8	6.8	M8 x 1	M4 x 8
MXQ12B(L)	MXQB-CS12-X2202	50	3.6	3	5	M4 x 12	29.4	9.2	12.6	3.6	8.8	M10 x 1	M5 x 10
MXQ16B	MXQB-CS16-X2202	57	4.4	4	6	M5 x 12	36	11.2	16.2	4.4	10.8	M12 x 1	M6 x 12
MXQ20B	MXQB-CS20-X2202	64	5.5	5	6	M6 x 12	44	13.5	19.3	5.5	12.3	M14 x 1.5	M8 x 16

*1 Size of the hexagon socket head cap screw

*2 Size of the hexagon socket flat countersunk head cap screw

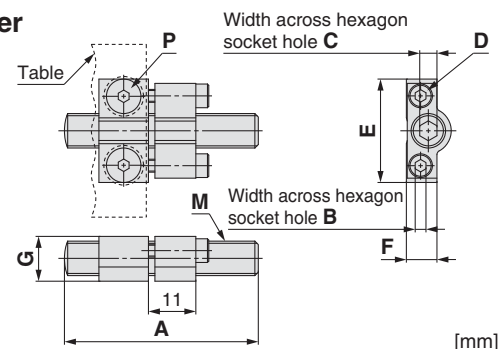
Dimensions

Shock absorber



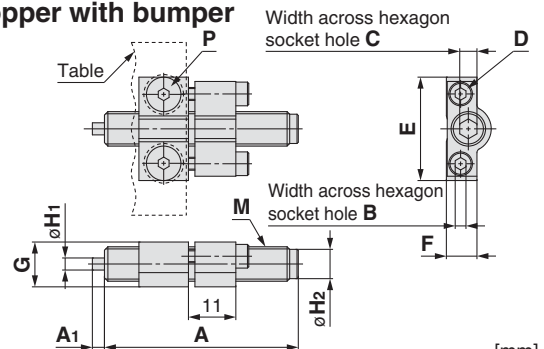
Dimensions

Metal stopper



Dimensions

Metal stopper with bumper



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

MXQ Series

Model Selection

Model Selection Software is available.
For details, refer to Model Selection
Software on the **SMC website**.

Guidelines for Model Selection 1

Model selection criteria	Body type	Bore size	Dimensions [mm]			Weight [g] (Compared at 50 stroke)	Thrust [N] (0.5 MPa, OUT direction)	Allowable moment [N·m] (Compared at 50 stroke)		
			Height	Width	Table width			Pitch	Yaw	Roll
When an air slide table without preset piping directions is required (The piping direction can be set when mounting to application.) * $\phi 16$, $\phi 20$, $\phi 25$: Standard type, Low thrust with high rigidity type (excluding $\phi 25$): Double piping direction type	Double-ported type (MXQ□A)	$\phi 6$	23	34	32	210	29	6	6	13
		$\phi 8$	23	38	32	270	51	10	10	18
		$\phi 12$	27	49	40	400	113	10	10	19
		$\phi 16$	35	62	50	670	201	16	16	33
		$\phi 20$	43	72	60	1,100	314	21	21	49
		$\phi 25$	52	88	70	1,900	491	41	41	82
For applications which require more guide rigidity than thrust	Low thrust with high rigidity type (MXQ□B)	$\phi 6$	20	34	32	230	29	10	10	18
		$\phi 8$	23	42	40	330	51	10	10	19
		$\phi 12$	30	52	50	580	113	16	16	33
		$\phi 16$	37	70	60	920	201	21	21	49
		$\phi 20$	46	80	70	1,600	314	41	41	82
• When a lower height is required • When two indicator LEDs need to be observed on one side (including short stroke)	Single side-ported type (MXQ□C)	$\phi 8$	21	38	32	260	51	10	10	18
		$\phi 12$	27	49	40	400	113	10	10	19
To replace the current type (Mounting dimensions and height are interchangeable.)	Height interchangeable type (MXQ□)	$\phi 6$	20	34	32	190	29	6	6	13
		$\phi 8$	23	38	32	310	51	10	10	18
		$\phi 12$	30	49	40	430	113	10	10	19
		$\phi 16$	37	62	50	690	201	16	16	33
		$\phi 20$	46	72	60	1,100	314	21	21	49
		$\phi 25$	55	88	70	1,900	491	41	41	82

Guidelines for Model Selection 2

Model Variations

Guide size (Width)	Double-ported type MXQ□A		Low thrust with high rigidity type MXQ□B			Single side-ported type MXQ□C			Height interchangeable type MXQ□		
	Bore size		Bore size	Standard type	Symmetric type (L)	Bore size	Standard type	Symmetric type (L)	Bore size	Standard type	Symmetric type (L)
32(1) ^{*1}	$\phi 6$		—	—	—	—	—	—	$\phi 6$		
32(2)	$\phi 8$		$\phi 6$			$\phi 8$			$\phi 8$		
40	$\phi 12$		$\phi 8$			$\phi 12$			$\phi 12$		
50	$\phi 16$		$\phi 12$			—	—	—	$\phi 16$		
60	$\phi 20$		$\phi 16$			—	—	—	$\phi 20$		
70	$\phi 25$		$\phi 20$			—	—	—	$\phi 25$		

*1 There are two rigidity types of actuator tables for width 32.

Selection Conditions

There are two model selection methods according to the usage. The model selection procedures are shown below.

The following is a simplified selection procedure using the graphs for when an MXQ is mounted onto a static table. When using the product mounted to an electric actuator, etc., it is necessary to perform model selection using another method as the product can be influenced by the acceleration of the electric actuator. For details, refer to Model Selection Software on the SMC website.

Application		Transfer					Pressing	
Workpiece mounting position Overhang								
		Table mounting	End plate mounting	Table mounting	End plate mounting			
		L1: Distance from the center of the table to the center of gravity of the workpiece L2: Distance from the top surface of the table to the center of gravity of the workpiece L3: Distance from the end of the body to the center of gravity of the workpiece in the Z direction					L1: Distance from the center of the table to the pressing part L2: Distance from the top surface of the table to the pressing part	
Stroke adjuster		Without adjuster	Metal stopper with bumper	Rubber stopper	Shock absorber/RJ	Metal stopper		
Selection graph	Double-ported type	Page 162	Page 168	Page 173	Page 179	Page 185	Page 191	
	Single side-ported type							
	Height interchangeable type	Page 165	Page 171	Page 176	Page 182	Page 188	Page 192	

For Transfer

Model Selection Steps

- Necessary conditions**
 - Equipment to be used
 - Overhang
 - Adjuster type
 - Load mass
 - Average speed
- Select a graph.**

Select the applicable graph (from page 162) by body configuration and stroke adjuster type. When the extension stroke end and retraction stroke end use different adjuster types, check each adjuster graph to see if the adjuster can be used.
- Determine the overhang.**

Determine the overhang at the workpiece mounting positions L1, L2, and L3.
* Positional relationships among L1, L2, and L3 do not change regardless of the body mounting direction.
- Check the overhang.**

Check the overhang for L1max, L2max, and L3max during transfer.

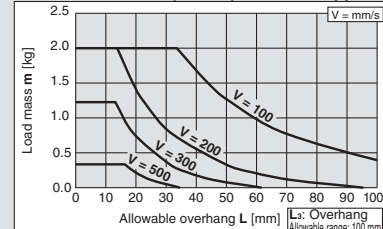
 - L1max: Check the overhang from the cross point of the load mass and driving speed.
 - L2max: a: When mounted to the table
Check the allowable overhang from the cross point of the load mass and driving speed.
b: When mounted to the end plate
The allowable overhang is found by multiplying the allowable overhang by 1/2 (coefficient*1).
 - L3max: It is possible to use within the "Allowable overhang range" in the selection graph if it is within the allowable range of the load mass and driving speed

*1 Coefficient varies depending on the model and stroke. Refer to page 159 for details.
- Overhang in the operating conditions**

Precautions for Metal Stopper with Bumper

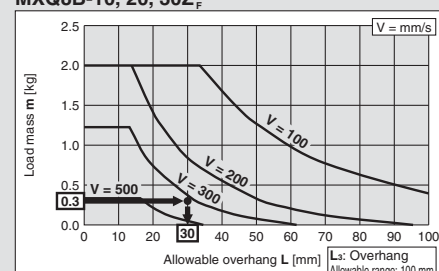
When a metal stopper with bumper is used in a vertical position, thrust larger than "the operating load mass + full compression force of metal stopper with bumper" is required. This needs to be considered when adjusting the operating pressure and selecting the cylinder size.
* The metal stopper with bumper may not be fully compressed due to lack of thrust.

MXQ8B-10, 20, 30Z(D, E, F) Rubber stopper



Application		Transfer	
Workpiece mounting position			
		Table mounting	End plate mounting
	Overhang	L1: Distance from the center of the table to the center of gravity of the workpiece L2: Distance from the top surface of the table to the center of gravity of the workpiece L3: Distance from the end of the body to the center of gravity of the workpiece in the Z direction	

MXQ8B-10, 20, 30Z


Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

This product can be used with the overhang required (L1, L2, L3 of No.3) if it is within the allowable overhang range (L1max, L2max, L3max of No.4).

* When the required overhang exceeds the allowable overhang, review the overhang, load mass, driving speed, etc., and reconfirm that they are acceptable.

For Pressing

Model Selection Steps

Precautions for Metal Stopper with Bumper

When a metal stopper with bumper is used in a vertical position, thrust larger than “the operating load mass + full compression force of metal stopper with bumper” is required. This needs to be considered when adjusting the operating pressure and selecting the cylinder size.

* The metal stopper with bumper may not be fully compressed due to lack of thrust.

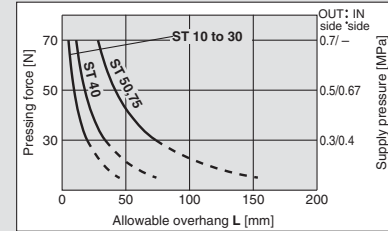
1 Necessary conditions

- Equipment to be used
- Required pressing force or operating pressure
- Overhang

2 Select a graph.

Select the applicable graph by body configuration (from page 191).

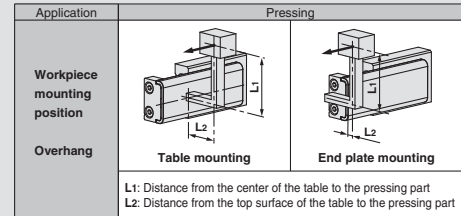
MXQ 8^A-□Z



3 Determine the overhang.

Determine the overhang at L1 and L2.

* Positional relationships between L1 and L2 do not change regardless of the body mounting direction.



4 Check the allowable pressing force.

Confirm the allowable pressing force Nmax with the overhang.

Nmax: ① When mounted to the table

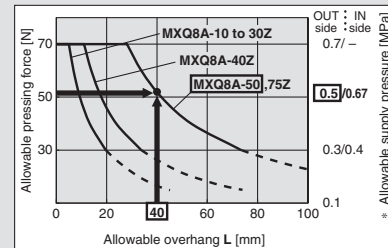
Determine the allowable pressing force with the cross point of the overhang at L1 and L2 and stroke.

② When mounted to the end plate

The allowable valve is found by multiplying the allowable pressing force by 1/2 (coefficient*1).

*1 Coefficient varies depending on the model and stroke. Refer below for details.

MXQ 8^A-□Z



* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.

5 Allowable pressing force in the operating conditions

This product can be used with the pressing force required if it is within the allowable pressing force range.

* When the required pressing force exceeds the allowable pressing force, review the operating pressing force, operating pressure, overhang, etc., and reconfirm that they are acceptable.

6 Check the allowable supply pressure.

The allowable supply pressure can be confirmed with the selection graph.

* Coefficient for the allowable overhang and the allowable pressing force of the models shown below is 1/4.

Model	Stroke
MXQ8(A, C)	50, 75
MXQ12(A, C)	75, 100
MXQ16(A)	100, 125
MXQ20(A)	100, 125, 150
MXQ25(A)	125, 150
MXQ6B	50, 75
MXQ8B	75, 100
MXQ12B	100, 125
MXQ16B	100, 125, 150
MXQ20B	125, 150

Selection Example 1 (Transfer, Table Mounting)

Selection conditions

Selected model: **MXQ8B-30ZEJ**

Load mass: 0.3 kg

Average operating speed: Extension stroke end: 300 mm/s

* Average operating speed: Speed calculated by dividing the stroke by the time from starting operation until reaching the end

Overhang: **L1 = 20, L2 = 20, L3 = 50**

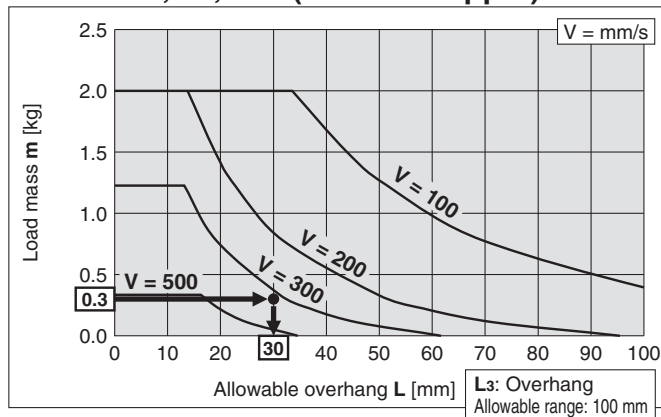
Stroke adjuster: Extension stroke end: Rubber stopper
Retraction stroke end: Shock absorber

Selection method

Determine the extension stroke end (rubber stopper).

- Find the max. overhang of **L1, L2, and L3** from the selection graph.
L1, L2: Use the graph to find the **L** when the speed is 300 mm/s and load mass is $m = 0.3$ kg. **L = 30 mm** → **L1, L2 max. overhang = 30 mm**
L3: Check the allowable overhang range shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, L3** are lower than the max. overhang.
L1 = 20 mm and L2 = 20 mm OK (L1, L2 max. overhang = 30 mm),

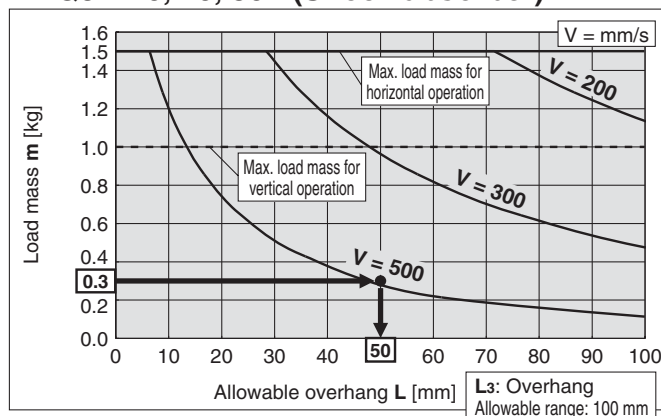
MXQ8B-10, 20, 30Z (Rubber stopper)



Determine the retraction stroke end (shock absorber).

- Find the max. overhang of **L1, L2, and L3** from the selection graph.
L1, L2: Use the graph to find the **L** when the speed is 500 mm/s and load mass is $m = 0.3$ kg. **L = 50 mm** → **L1, L2 max. overhang = 50 mm**
L3: Check the allowable overhang range shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, and L3** are lower than the max. overhang.
L1 = 20 mm and L2 = 20 mm OK (L1, L2 max. overhang = 50 mm),
L3 = 50 mm OK (L3 max. overhang = 100 mm)

MXQ8B-10, 20, 30Z (Shock absorber)



Therefore, the **MXQ8B-30ZEJ** can be used.

Selection Example 2 (Transfer, End Plate Mounting)

Selection conditions

Selected model: **MXQ8B-30ZD**

Load mass: 0.3 kg

Average operating speed: 300 mm/s

* Average operating speed: Speed calculated by dividing the stroke by the time from starting operation until reaching the end

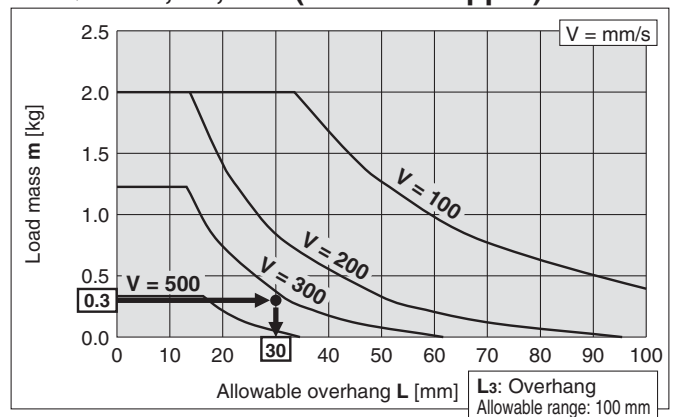
Overhang: **L1 = 20, L2 = 10, L3 = 50**

Stroke adjuster: Extension stroke end: Rubber stopper
Retraction stroke end: Rubber stopper

Selection method

- Find the max. overhang of **L1, L2, and L3** from the selection graph.
L1: Use the graph to find the **L** when the speed is 300 mm/s and load mass is $m = 0.3$ kg. **L = 30 mm** → **L1 max. overhang = 30 mm**
L2: Use the graph to find the **L** when the speed is 300 mm/s and load mass is $m = 0.3$ kg and multiply it by 1/2.
L = 30 mm → **L2 max. overhang = 30 mm/2 = 15 mm**
* For end plate mounting, **L2** is 1/2 of the **L** which is found from the graph.
L3: Confirm that this value is lower than the max. overhang shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, and L3** are lower than the max. overhang.
L1 = 20 mm OK (L1 max. overhang = 30 mm)
L2 = 10 mm OK (L2 max. overhang = 15 mm)
L3 = 50 mm OK (L3 max. overhang = 100 mm)

MXQ8B-10, 20, 30Z (Rubber stopper)



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

Selection Example 3 (Pressing, Table Mounting)

Selection conditions

Selected model: **MXQ8B-50Z**

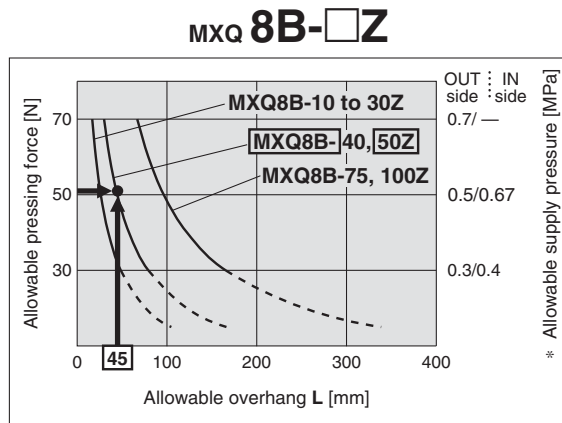
Operating direction: OUT

Operating pressure: 0.5 MPa (Pressing force: 51 N)

Overhang: **L1 = 20, L2 = 30**

Selection method

- Find the max. overhang of **L1** and **L2** from the selection graph.
Find the **L** at an operating pressure of 0.5 MPa from the graph.
L1, L2 max. overhang = 45 mm
 - Confirm that **L1** and **L2** are lower than the max. overhang.
L1 = 20 mm and L2 = 30 mm OK (L1, L2 max. overhang = 45 mm)
- Therefore, the **MXQ8B-50Z** can be used with a supply pressure of 0.5 MPa.



* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.

Selection Example 4 (Pressing, End Plate Mounting)

Selection conditions

Selected model: **MXQ8B-50Z**

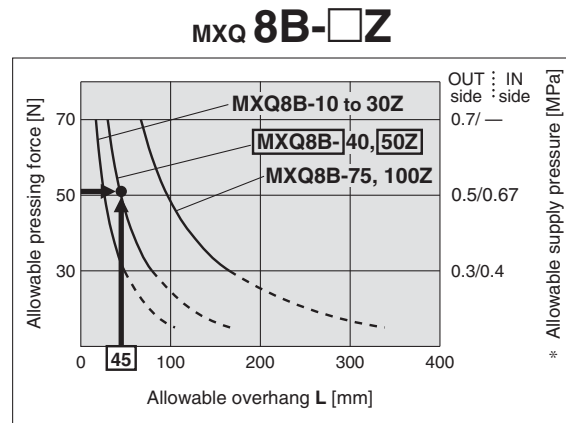
Operating direction: OUT

Operating pressure: 0.5 MPa (Pressing force: 50 N)

Overhang: **L1 = 20, L2 = 10**

Selection method

- Find the max. overhang of **L1** and **L2** from the selection graph.
L1: Find the **L** at an operating pressure of 0.5 MPa from the graph, and multiply it by 1/2. **L1 max. overhang = 22.5 mm**
L2: Find an **L** at an operating pressure of 0.5 MPa from the graph, and multiply it by 1/2. **L2 max. overhang = 22.5 mm**
* For end plate mounting, **L1** and **L2** are 1/2 of the **L** which is found from the graph.
- Confirm that **L1** and **L2** are lower than the max. overhang.
L1 = 20 mm OK (L1 max. overhang = 22.5 mm)
L2 = 10 mm OK (L2 max. overhang = 22.5 mm)



* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.

⚠ Caution

1. Operate loads within the range of the operating limits.

Select a model according to the model selection steps.

If the product is used outside of the operating limits, adverse effects such as play at the guide, degraded accuracy, and shortened product life may result.

2. If an intermediate stop is performed by an external stopper, be careful of ejection when restarting.

If lurching occurs, damage can result. If a slide table is stopped at an intermediate position by an external stopper and then moved forwards, after the slide table is returned to the back to retract the stopper, supply pressure to the opposite port to operate the slide table.

3. Do not use the product in such a way that excessive external force or impact force is applied to it.

Malfunction or damage to the table may result.

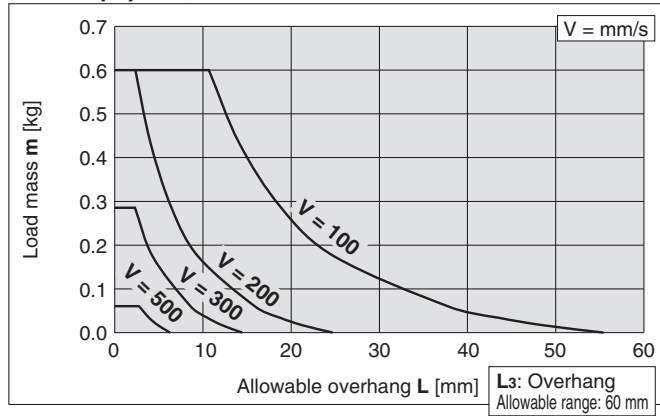
Although the table has adequate strength, if it is damaged, protect your hands with gloves. Otherwise, injury may result.

MXQ **6A**-□Z□, MXQ **6**-□Z□ (Height interchangeable type)
 MXQ **8^A**-□Z□, MXQ **8**-□Z□ (Height interchangeable type)

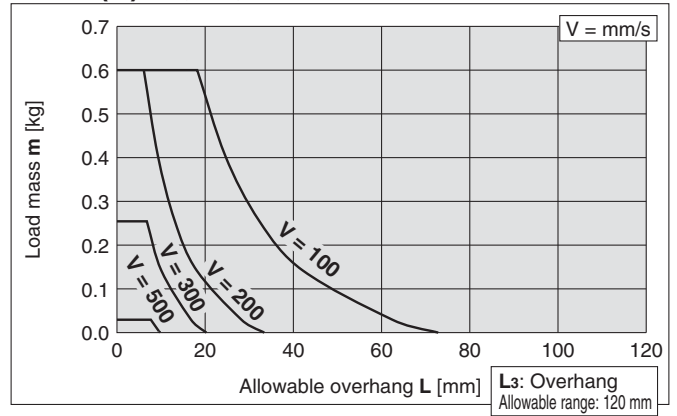
For Transfer/
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)
 L₁, L₂: Check from the cross point of the load mass and driving speed.
 L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

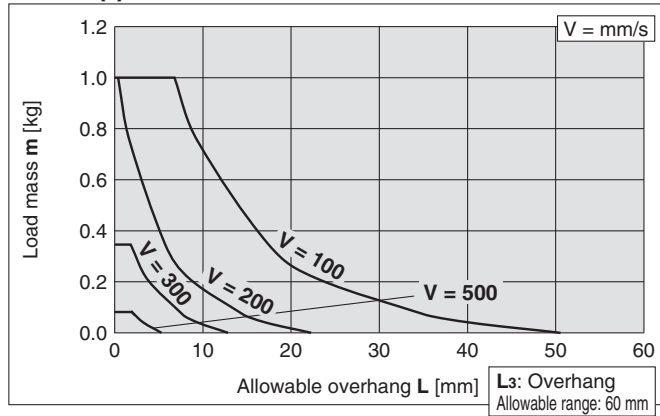
MXQ6(A)-10, 20Z□



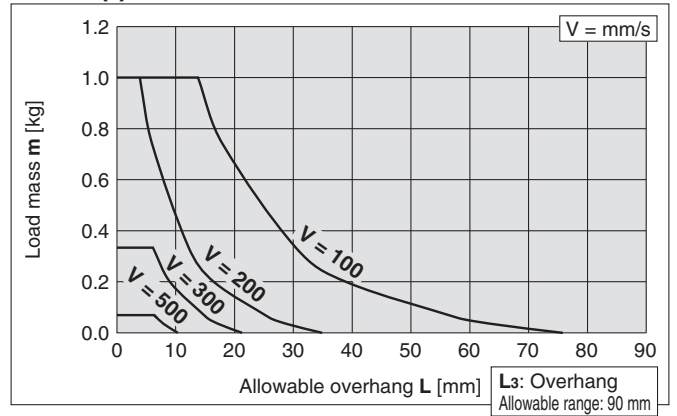
MXQ6(A)-30, 40, 50Z□



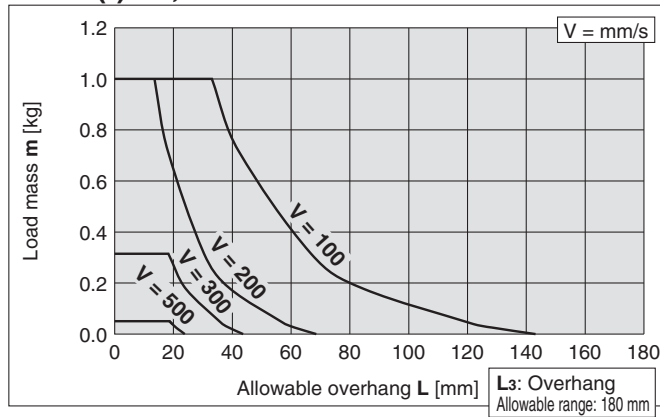
MXQ8(⌘)-10, 20, 30Z□



MXQ8(⌘)-40Z□



MXQ8(⌘)-50, 75Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

MXQ Series

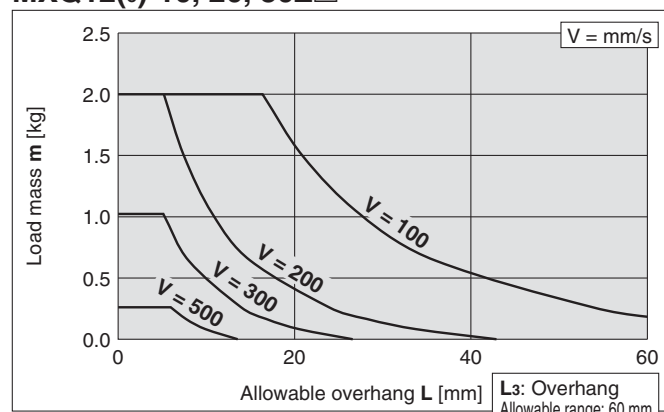
MXQ 12^A-□Z□, MXQ 12-□Z□ (Height interchangeable type)

MXQ 16A-□Z□, MXQ 16-□Z□ (Height interchangeable type)

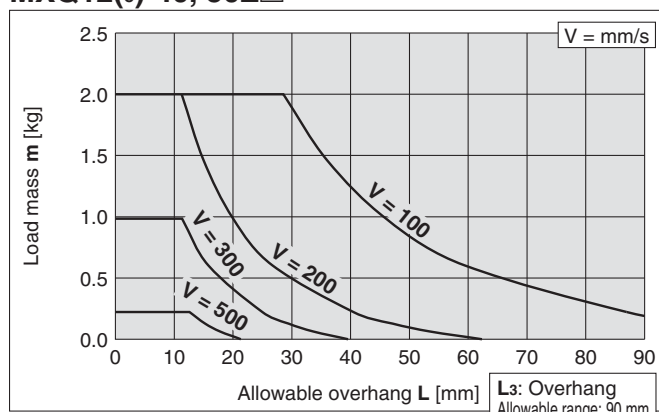
For Transfer/
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

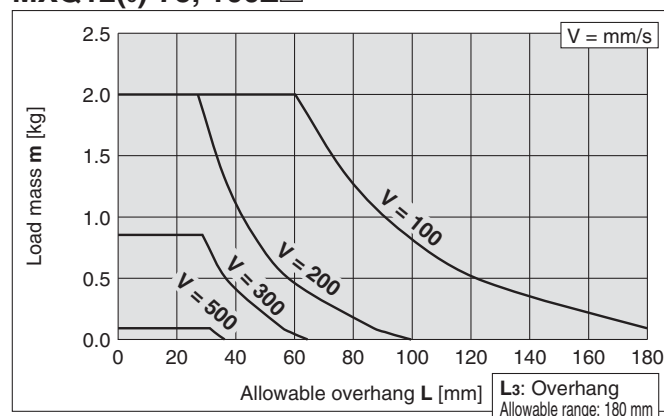
MXQ12(Δ)-10, 20, 30Z□



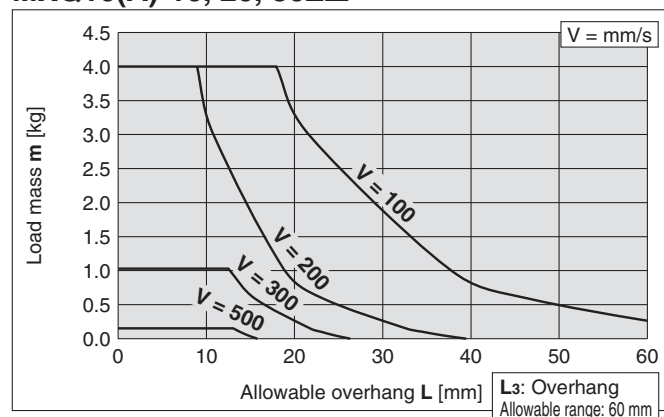
MXQ12(Δ)-40, 50Z□



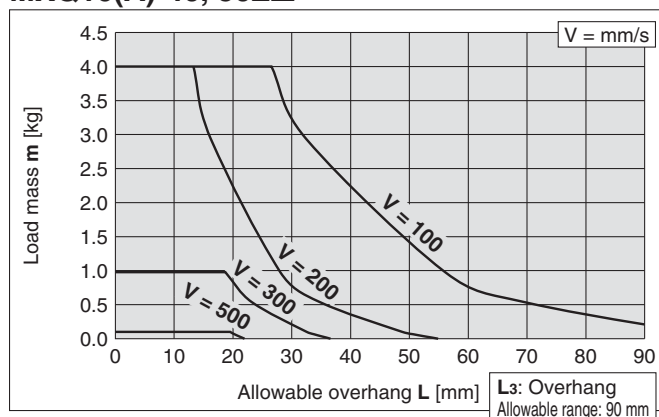
MXQ12(Δ)-75, 100Z□



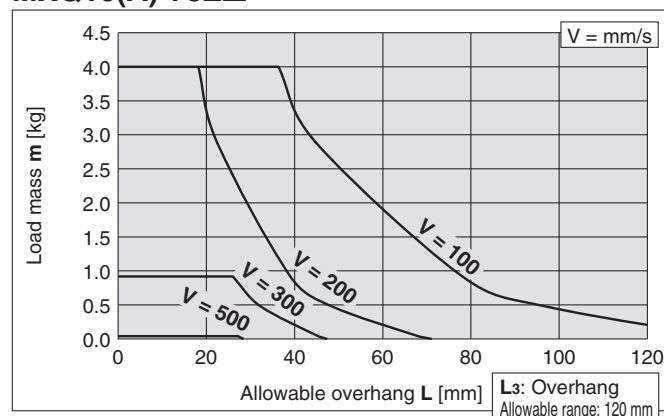
MXQ16(A)-10, 20, 30Z□



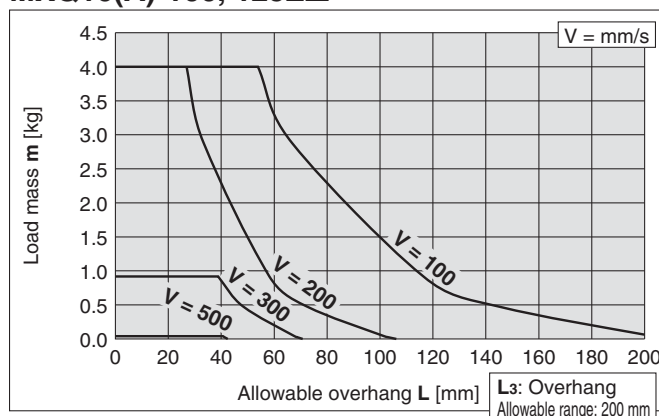
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□

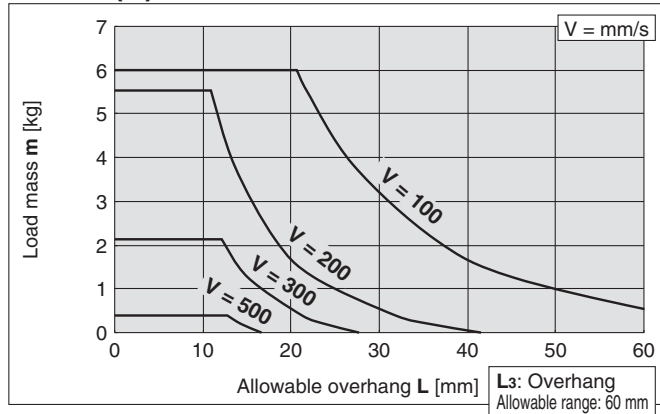


MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)
 MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

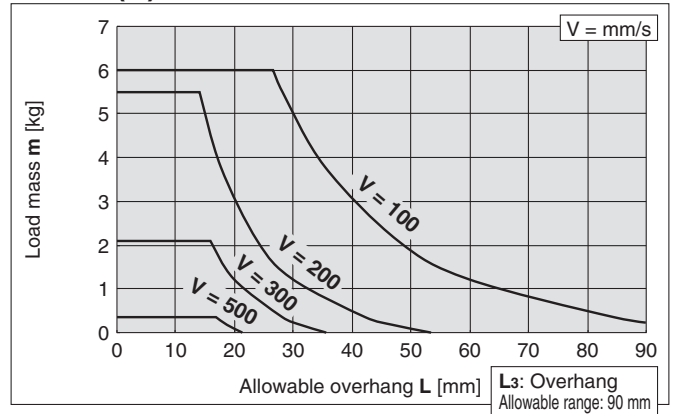
For Transfer/
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

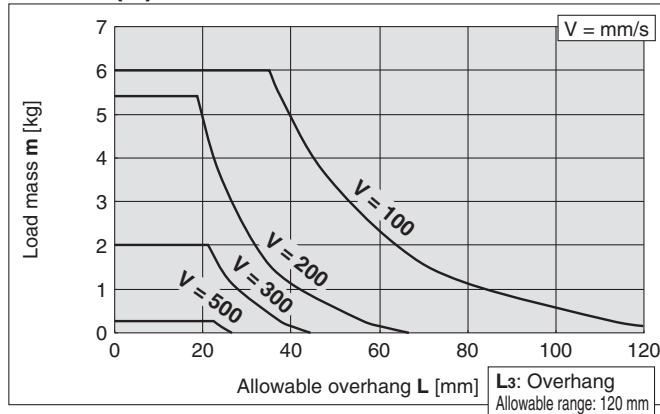
MXQ20(A)-10, 20, 30, 40Z□



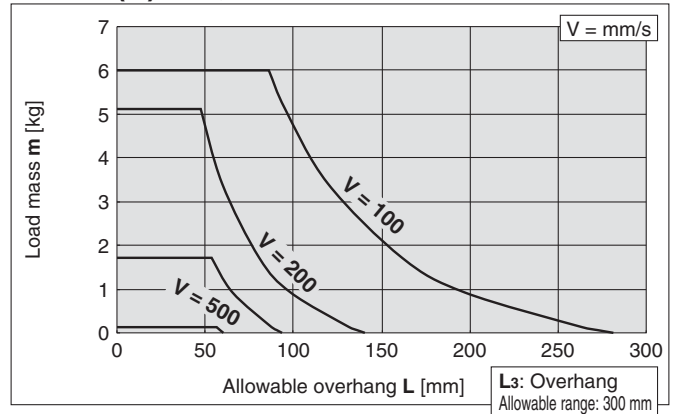
MXQ20(A)-50Z□



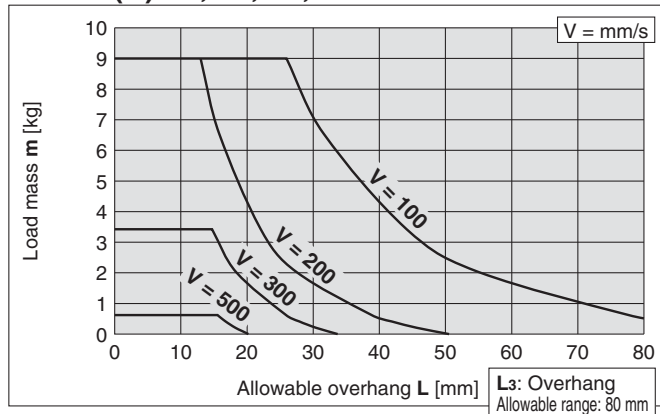
MXQ20(A)-75Z□



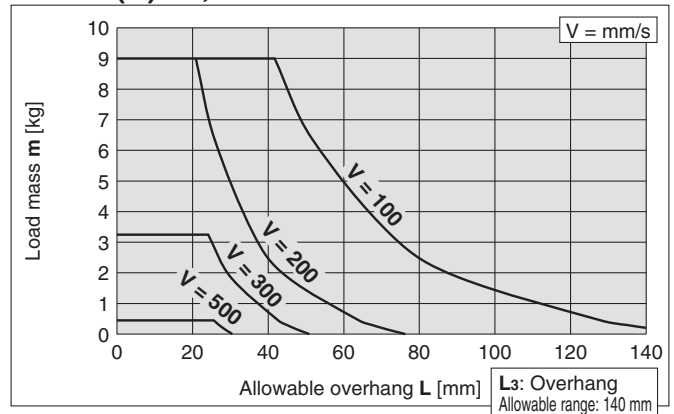
MXQ20(A)-100, 150Z□



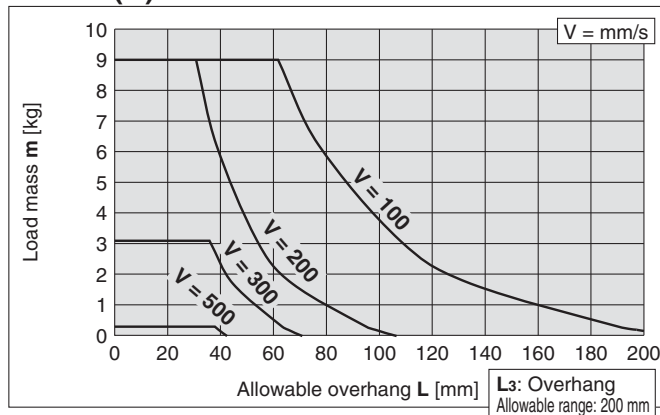
MXQ25(A)-10, 20, 30, 40Z□



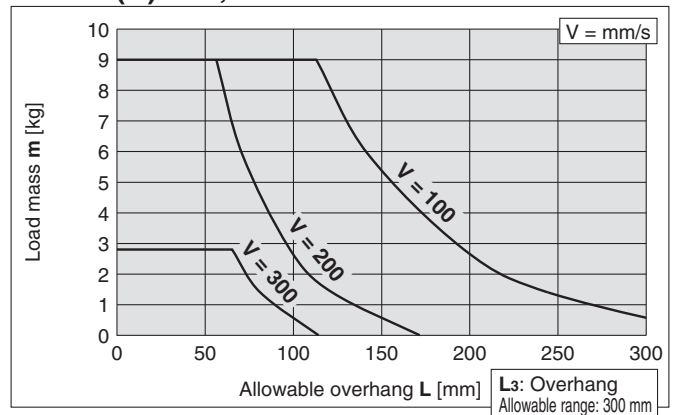
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



MXQ25(A)-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

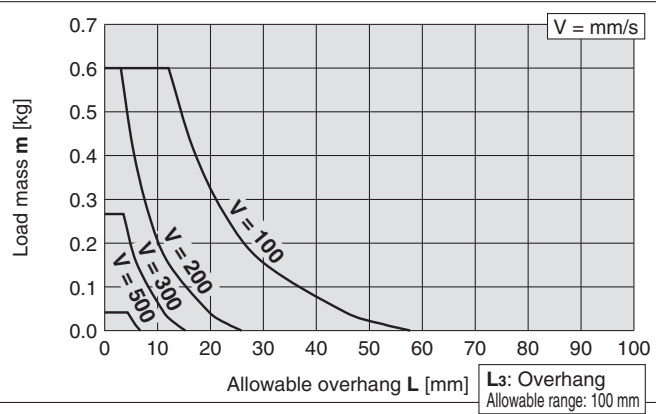
Made to Order

Model Selection

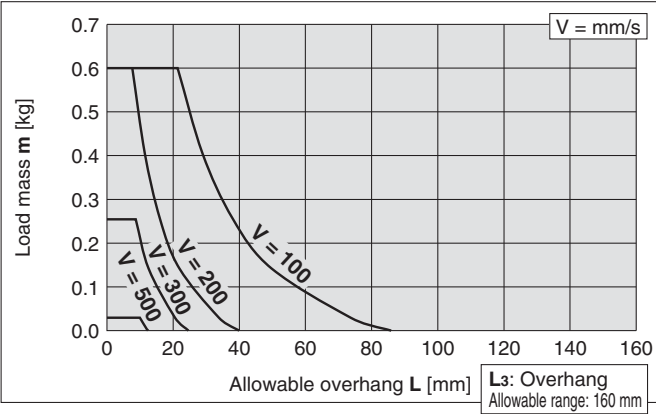
MXQ 6B-□Z□/For Transfer/Without Adjuster

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

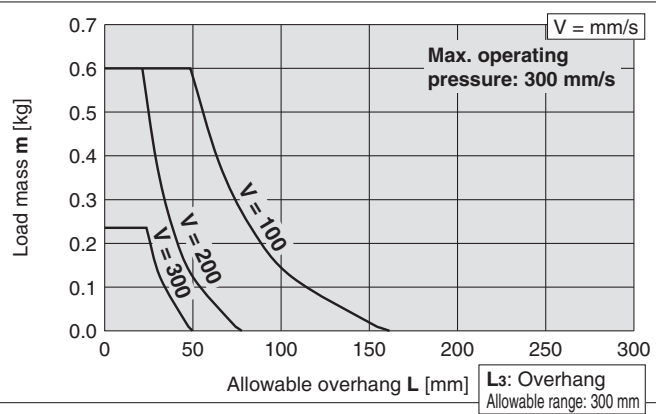
MXQ6B-10, 20, 30Z□



MXQ6B-40Z□



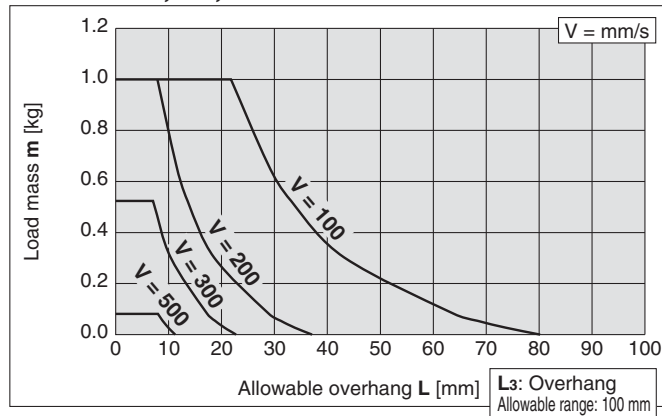
MXQ6B-50, 75Z□



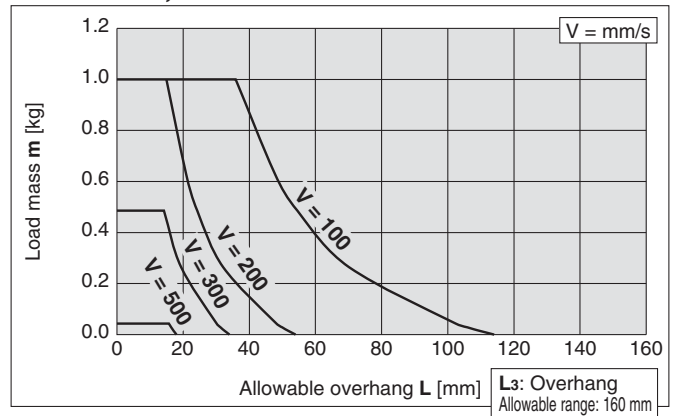
Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

MXQ 8B-□Z□, MXQ 12B-□Z□ / For Transfer/ Without Adjuster

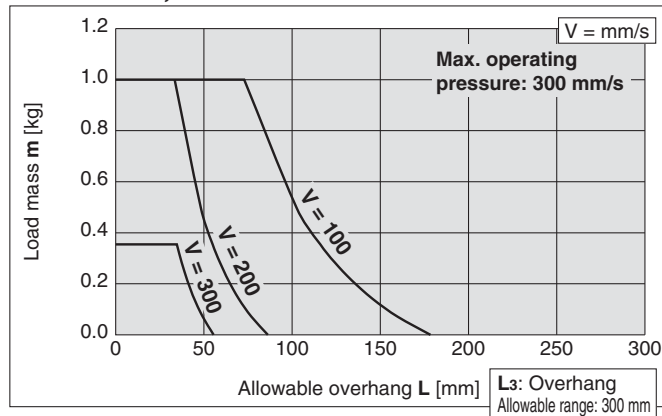
MXQ8B-10, 20, 30Z□



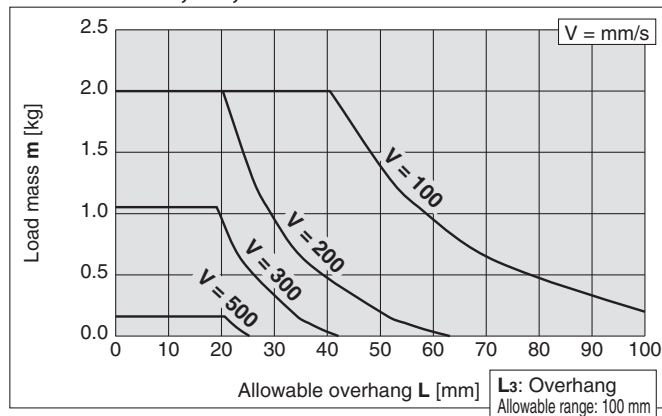
MXQ8B-40, 50Z□



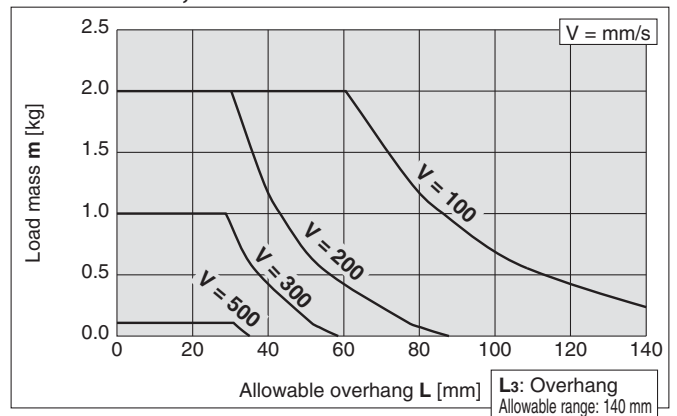
MXQ8B-75, 100Z□



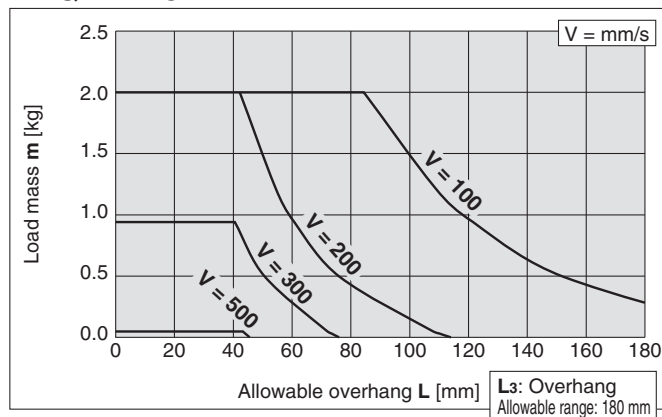
MXQ12B-10, 20, 30Z□



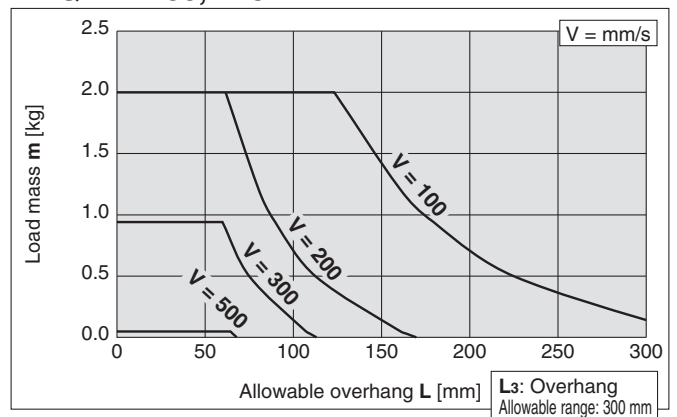
MXQ12B-40, 50Z□



MXQ12B-75Z□



MXQ12B-100, 125Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

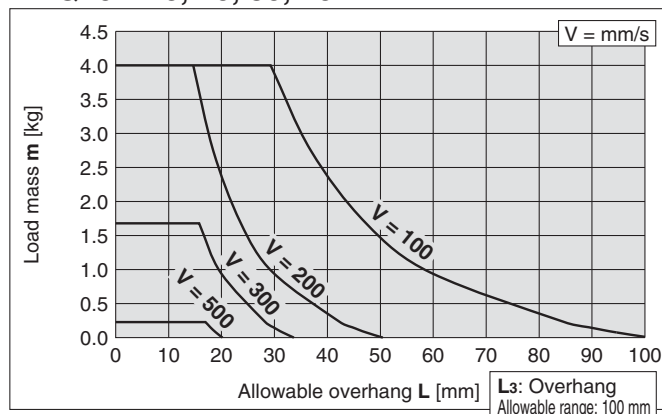
Model Selection

MXQ 16B-□Z□, MXQ 20B-□Z□

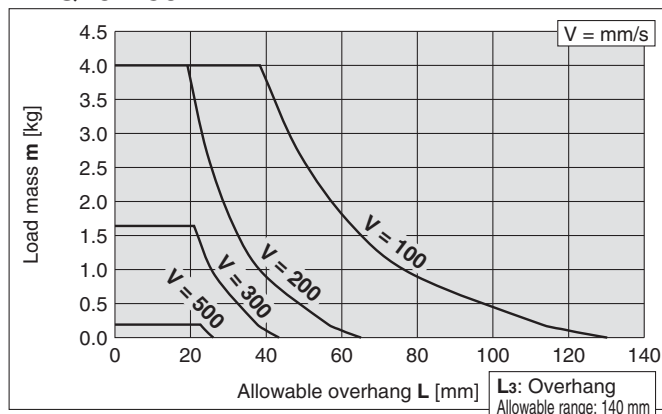
For Transfer/
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

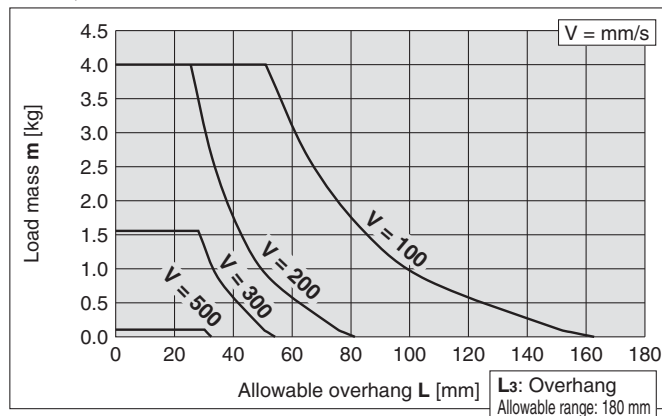
MXQ16B-10, 20, 30, 40Z□



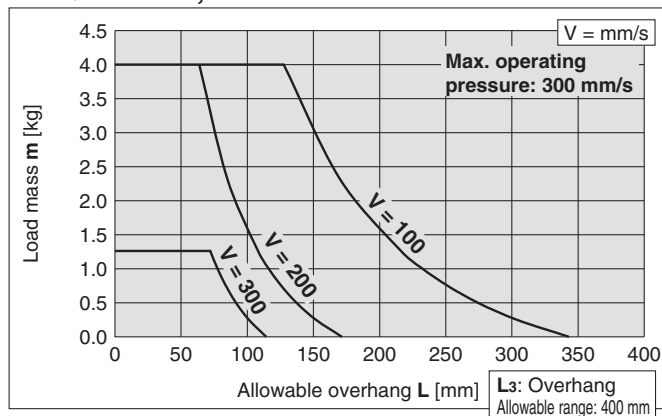
MXQ16B-50Z□



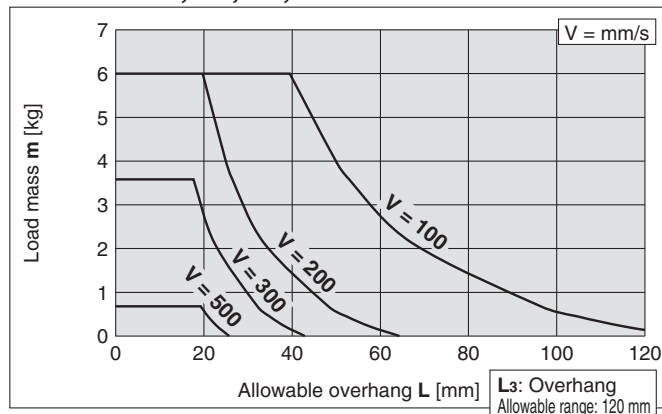
MXQ16B-75Z□



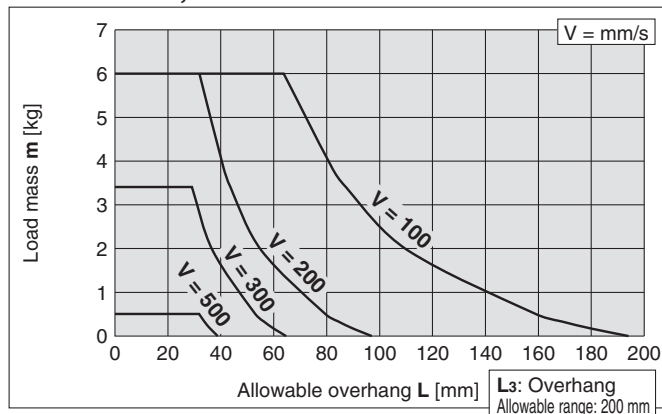
MXQ16B-100, 150Z□



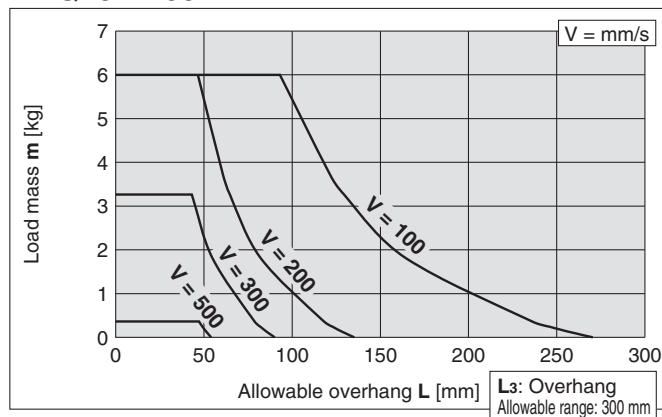
MXQ20B-10, 20, 30, 40Z□



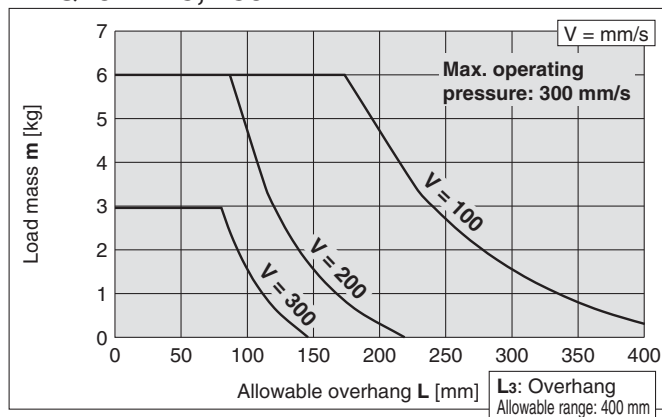
MXQ20B-50, 75Z□



MXQ20B-100Z□



MXQ20B-125, 150Z□

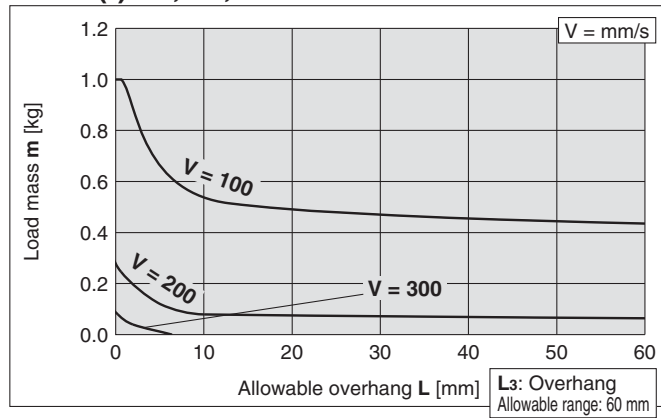


Determine the overhang. (Refer to page 158 for details.)
 L₁, L₂: Check from the cross point of the load mass and driving speed.
 L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

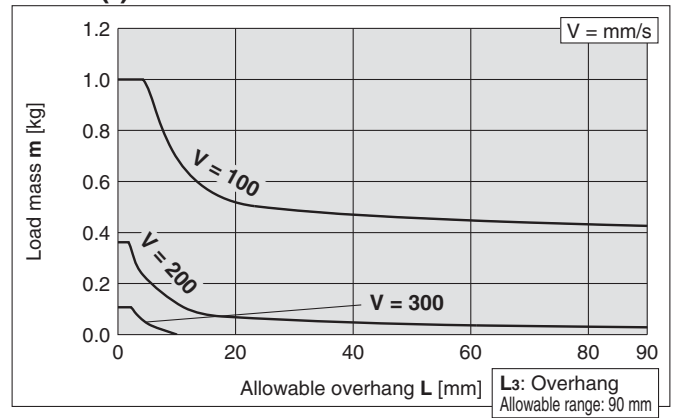
MXQ 8^A_C-□Z□, MXQ 8-□Z□ (Height interchangeable type)

For Transfer/
Metal Stopper with Bumper

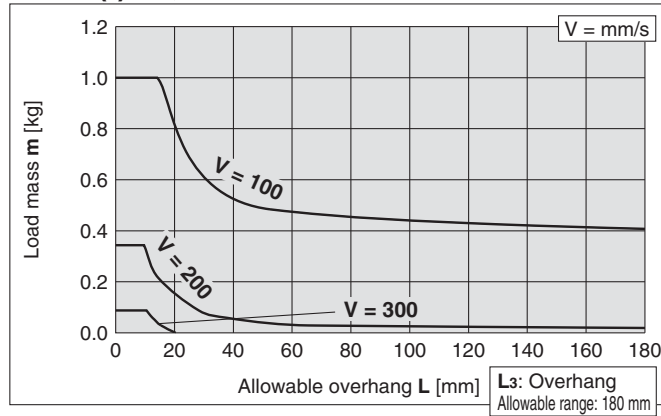
MXQ8(8)-10, 20, 30Z□



MXQ8(8)-40Z□



MXQ8(8)-50, 75Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

MXQ Series

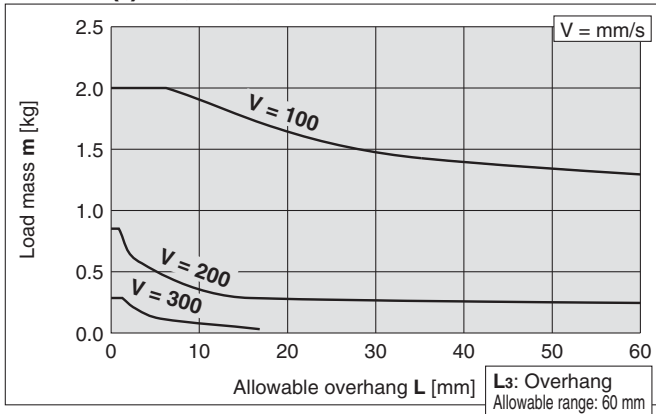
MXQ 12^A-□Z□, MXQ 12-□Z□ (Height interchangeable type)

MXQ 16A-□Z□, MXQ 16-□Z□ (Height interchangeable type)

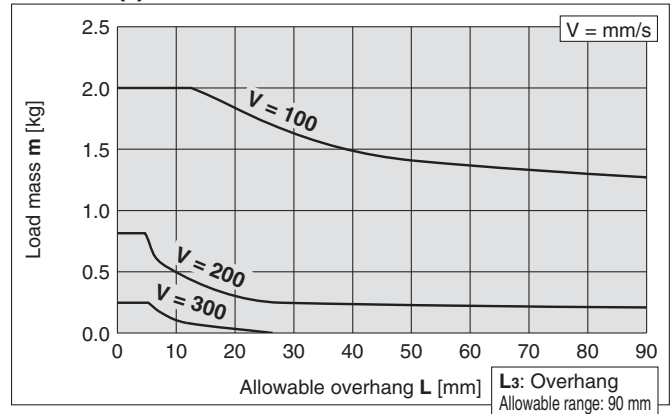
For Transfer/
Metal Stopper with Bumper

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

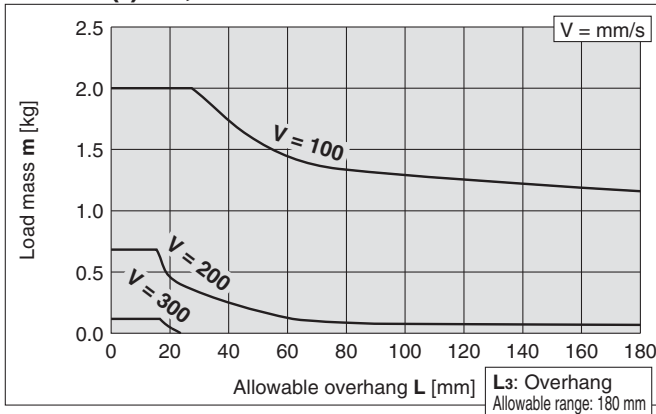
MXQ12(⌘)-10, 20, 30Z□



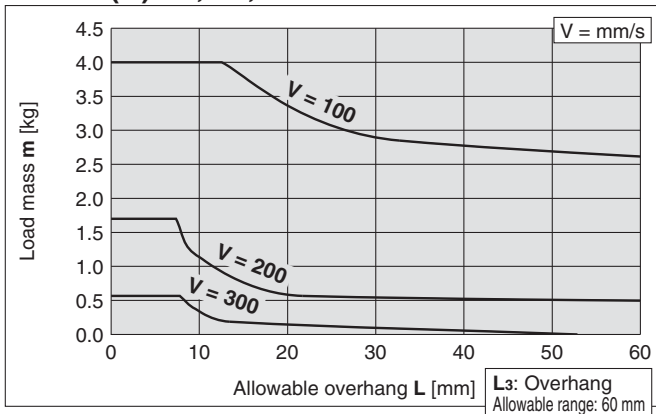
MXQ12(⌘)-40, 50Z□



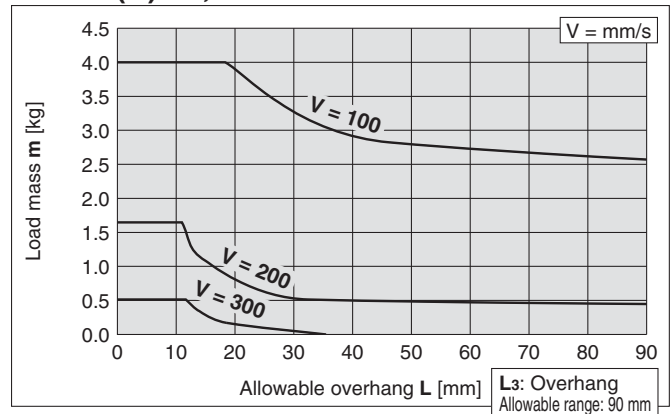
MXQ12(⌘)-75, 100Z□



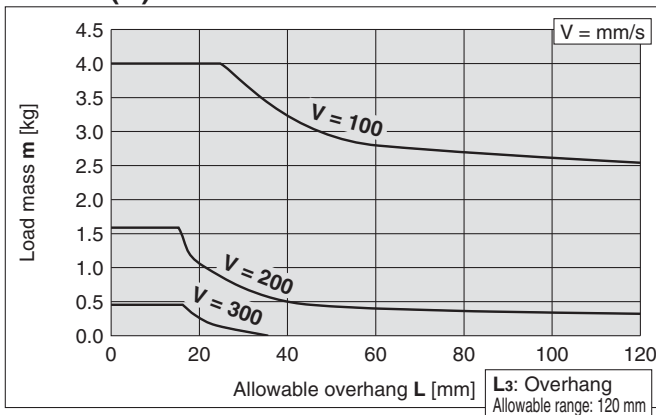
MXQ16(A)-10, 20, 30Z□



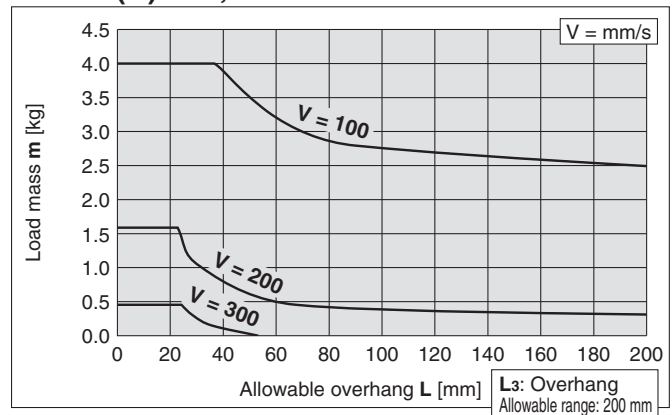
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□

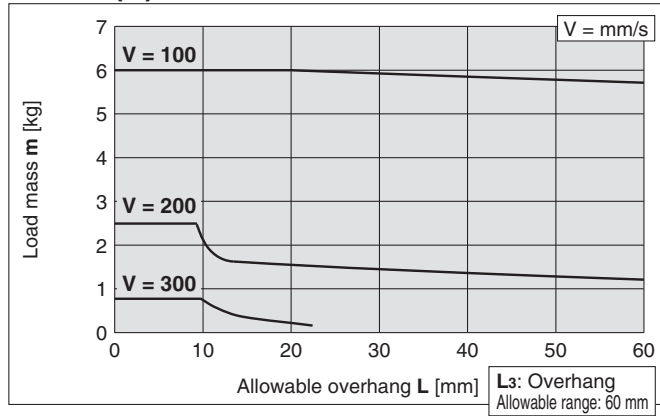


MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)
MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

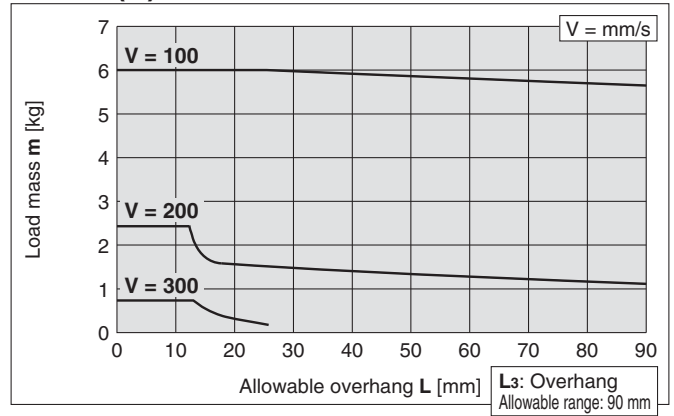
For Transfer/
Metal Stopper with Bumper

Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

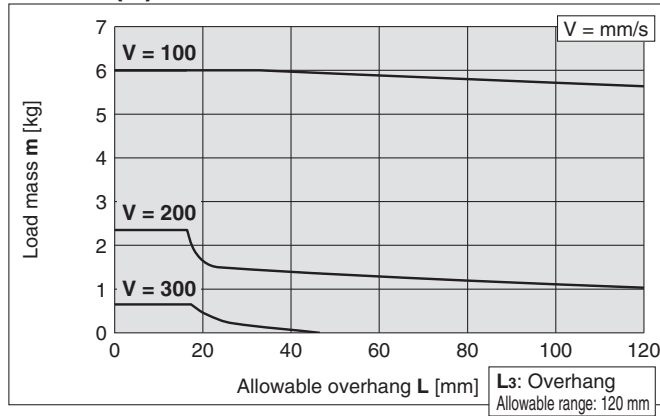
MXQ20(A)-10, 20, 30, 40Z□



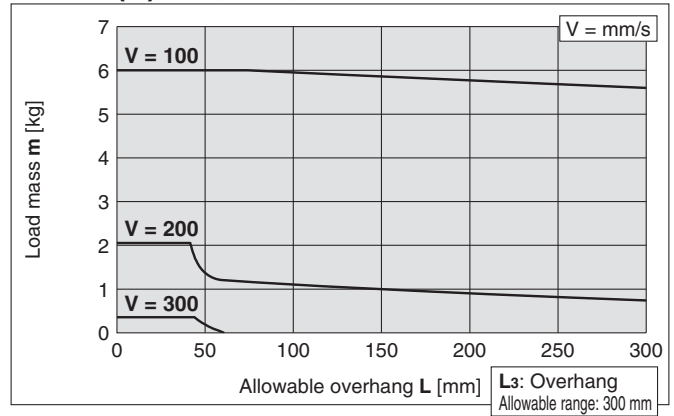
MXQ20(A)-50Z□



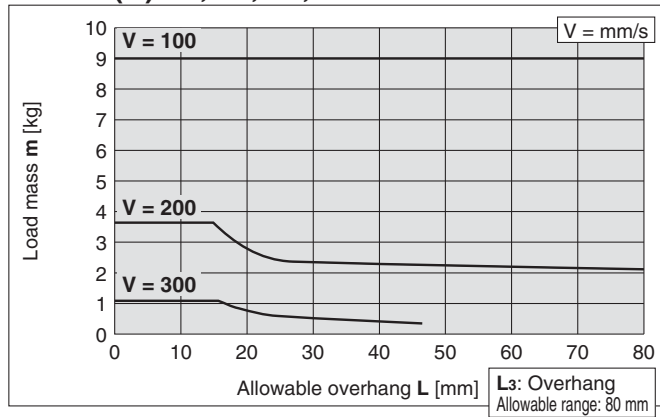
MXQ20(A)-75Z□



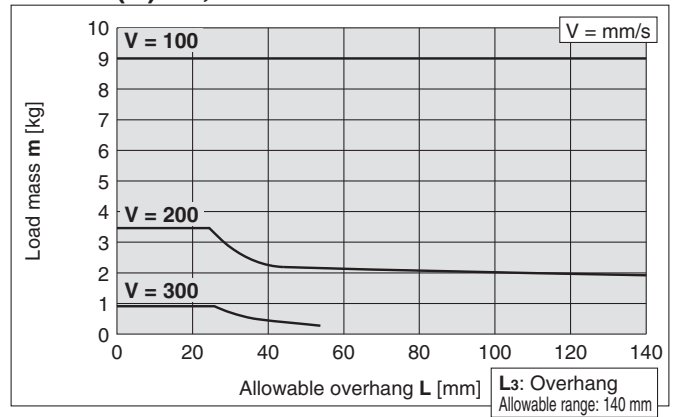
MXQ20(A)-100, 125, 150Z□



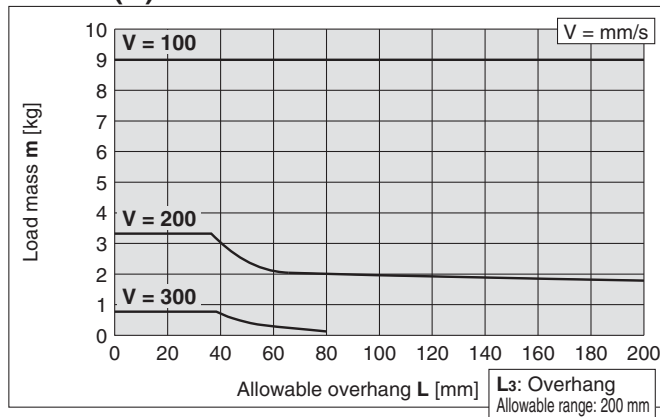
MXQ25(A)-10, 20, 30, 40Z□



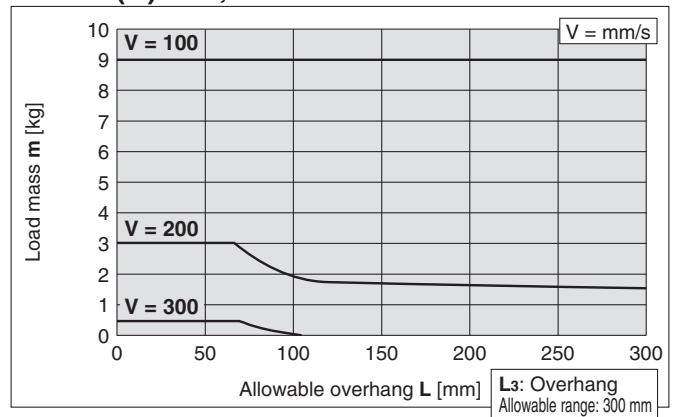
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



MXQ25(A)-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

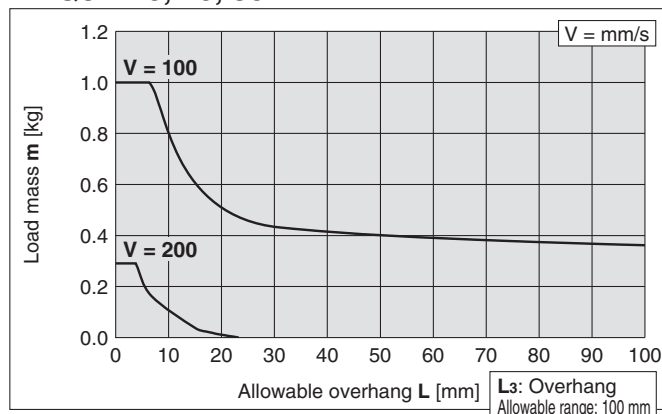
Model Selection

MXQ 8B-□Z□, MXQ 12B-□Z□

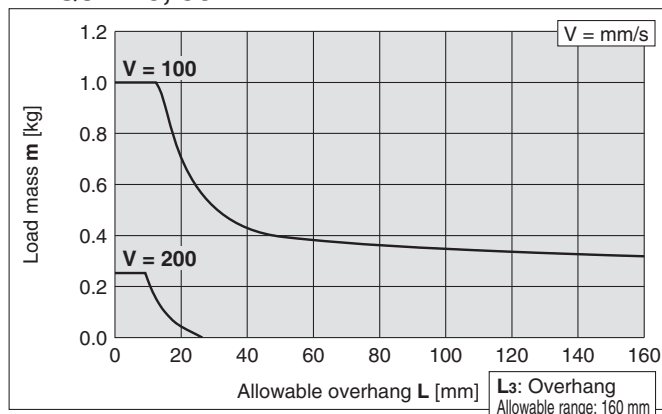
For Transfer/
Metal Stopper with Bumper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

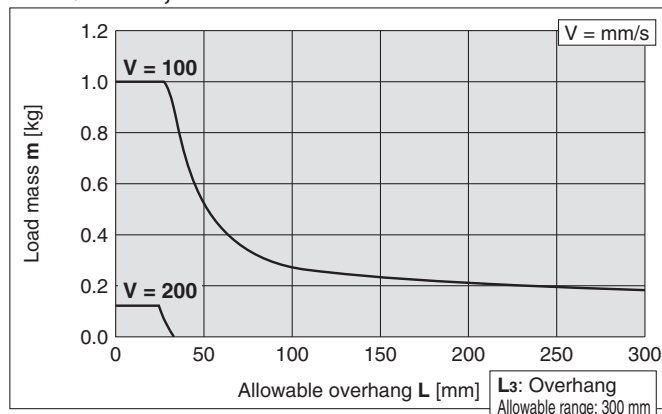
MXQ8B-10, 20, 30Z□



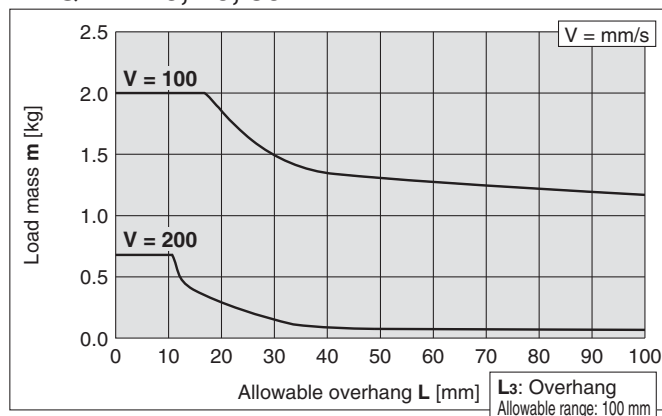
MXQ8B-40, 50Z□



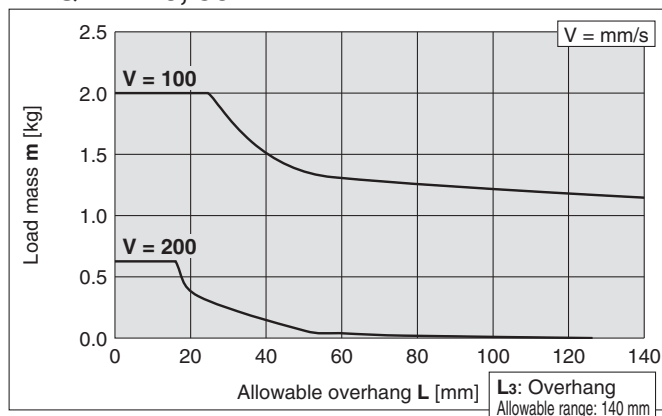
MXQ8B-75, 100Z□



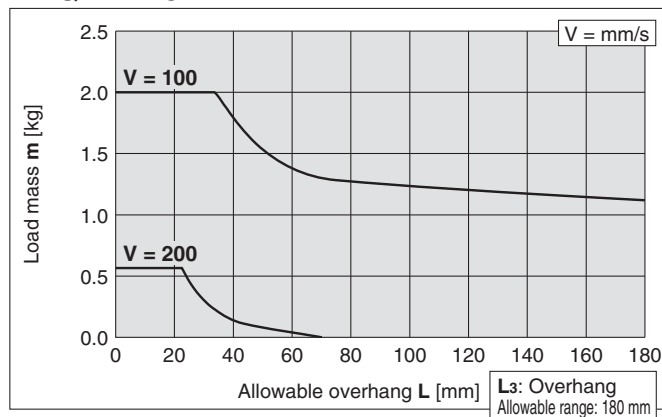
MXQ12B-10, 20, 30Z□



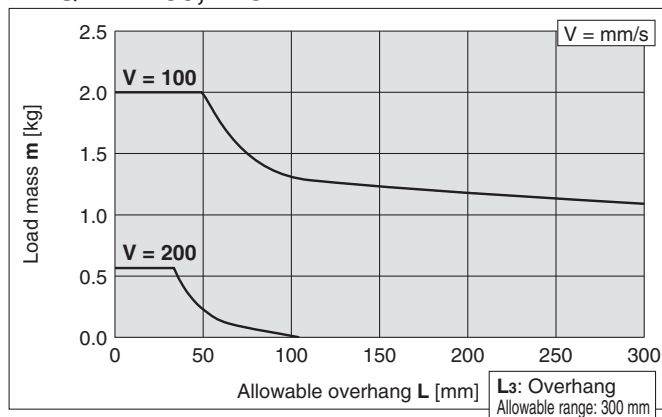
MXQ12B-40, 50Z□



MXQ12B-75Z□



MXQ12B-100, 125Z□

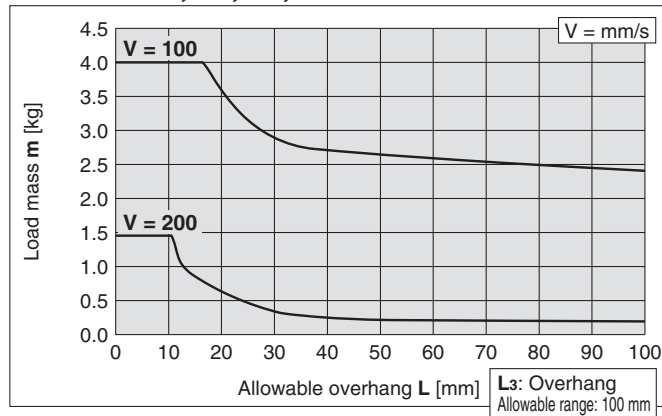


Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

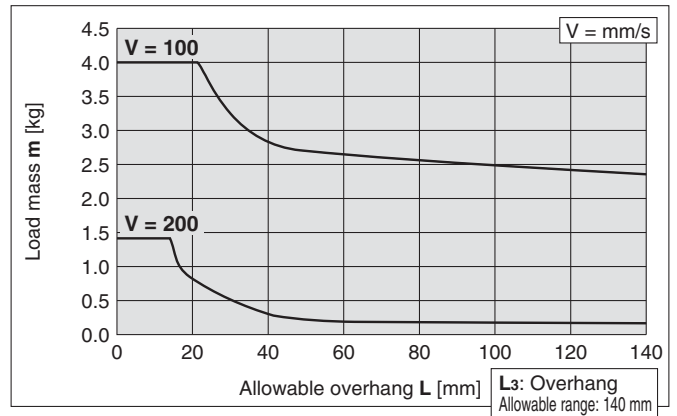
MXQ 16B-□Z□, MXQ 20B-□Z□

For Transfer/
Metal Stopper with Bumper

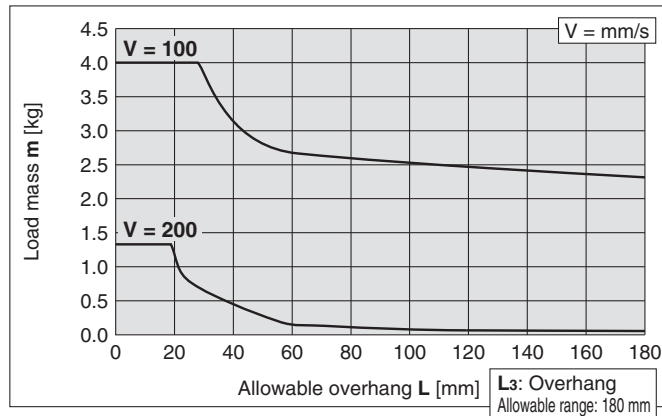
MXQ16B-10, 20, 30, 40Z□



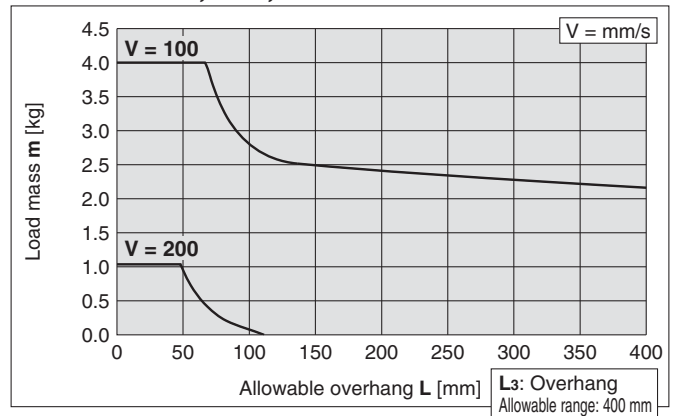
MXQ16B-50Z□



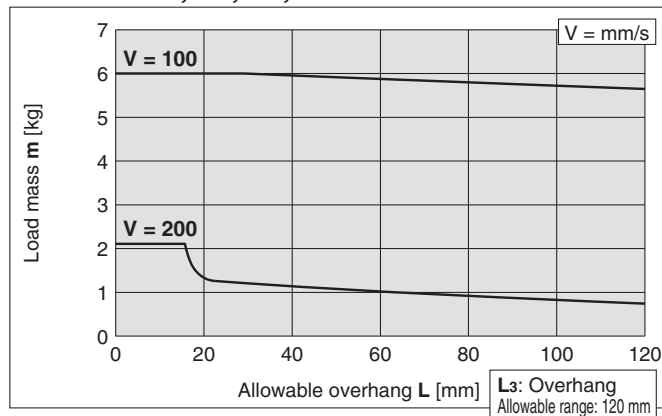
MXQ16B-75Z□



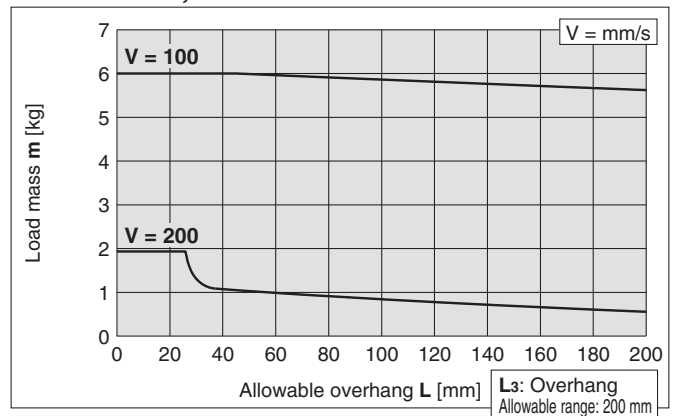
MXQ16B-100, 125, 150Z□



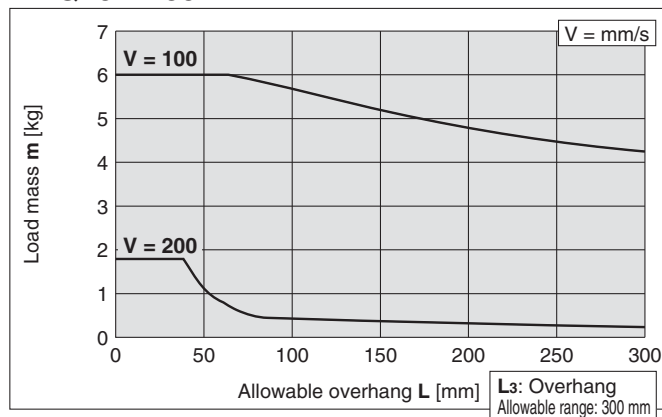
MXQ20B-10, 20, 30, 40Z□



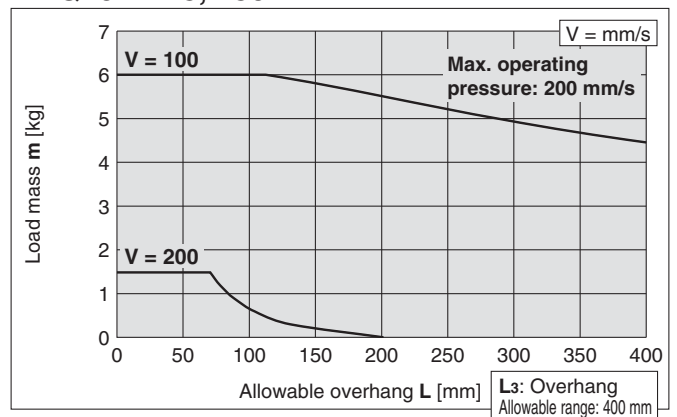
MXQ20B-50, 75Z□



MXQ20B-100Z□



MXQ20B-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

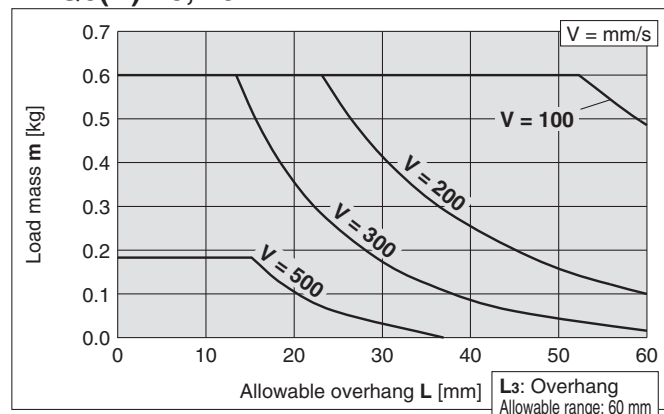
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8^AC-□Z□, MXQ 8-□Z□ (Height interchangeable type)

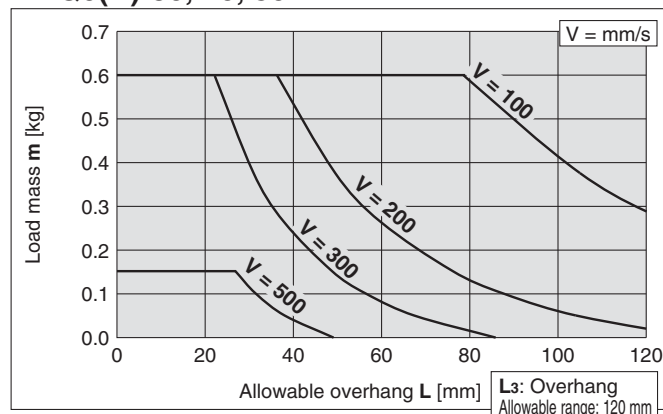
For Transfer/
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

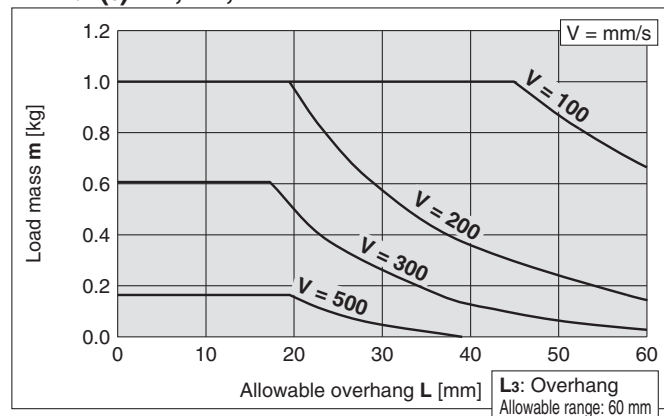
MXQ6(A)-10, 20Z□



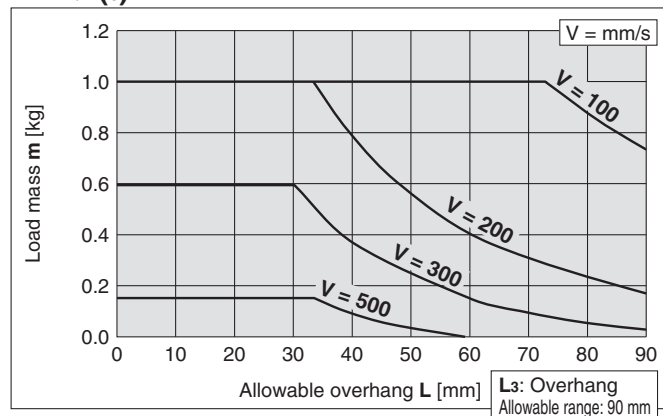
MXQ6(A)-30, 40, 50Z□



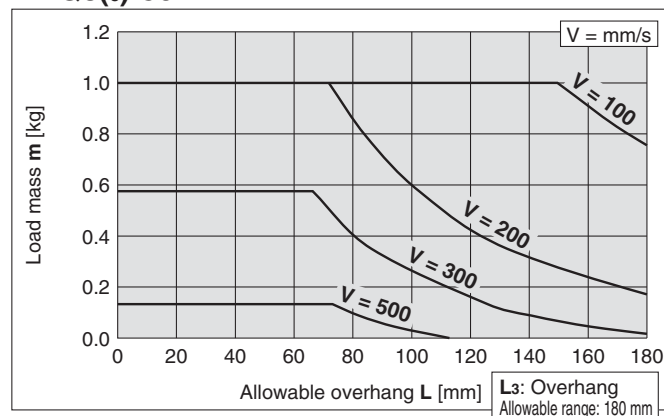
MXQ8(Δ)-10, 20, 30Z□



MXQ8(Δ)-40Z□



MXQ8(Δ)-50Z□

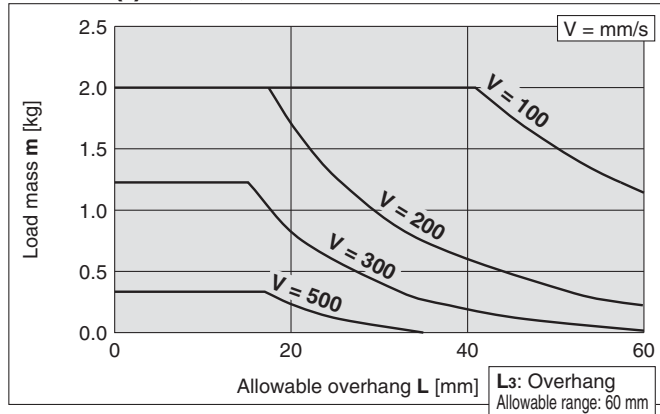


MXQ 12^A-□Z□, MXQ 12-□Z□ (Height interchangeable type)
 MXQ 16A-□Z□, MXQ 16-□Z□ (Height interchangeable type)

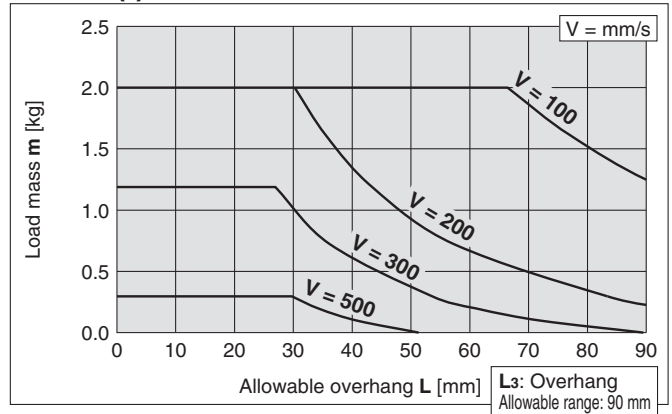
For Transfer/
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

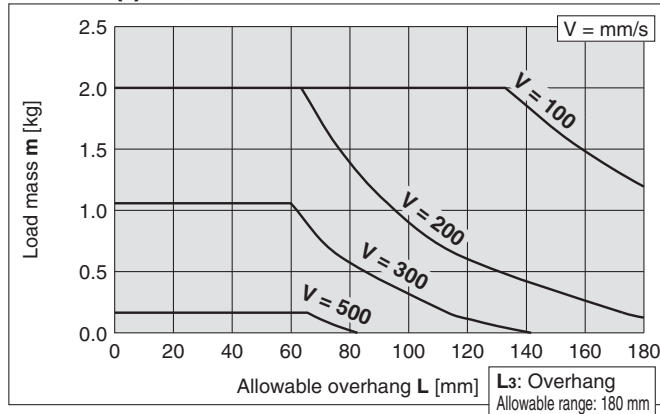
MXQ12(Δ)-10, 20, 30Z□



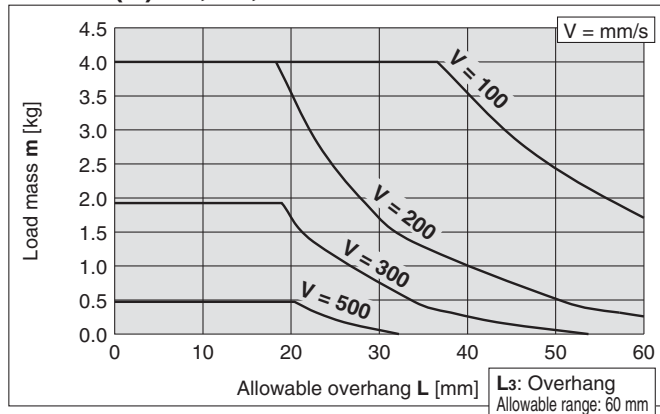
MXQ12(Δ)-40, 50Z□



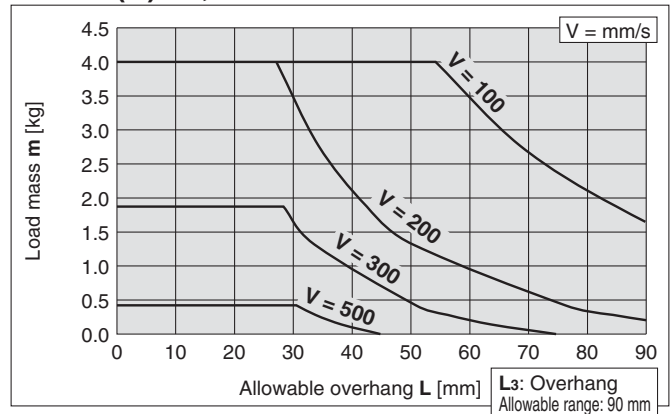
MXQ12(Δ)-75, 100Z□



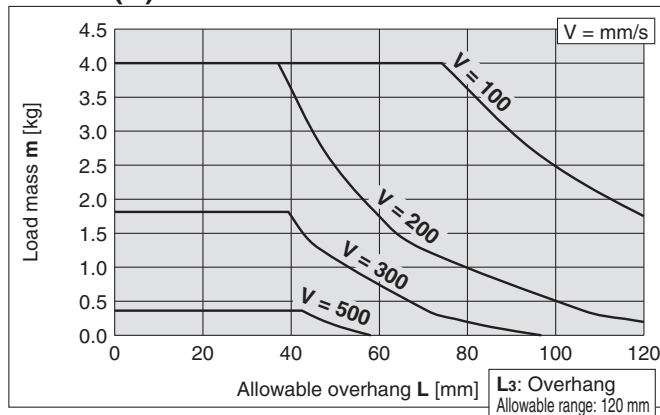
MXQ16(A)-10, 20, 30Z□



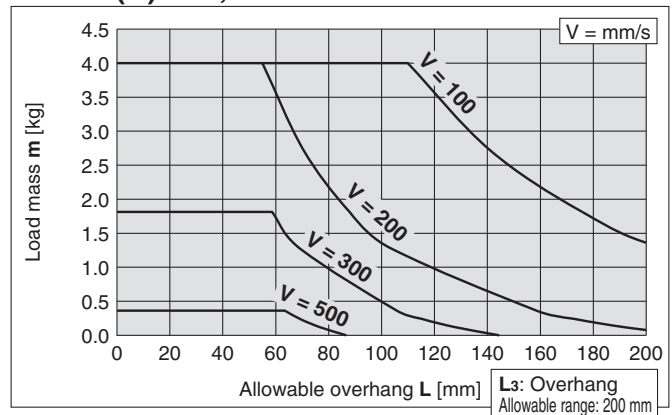
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

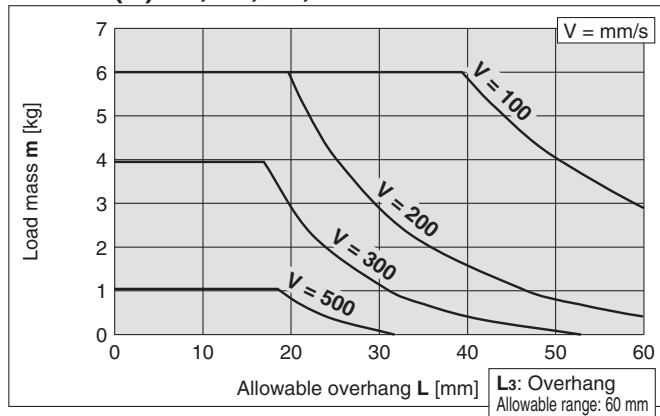
MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)

MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

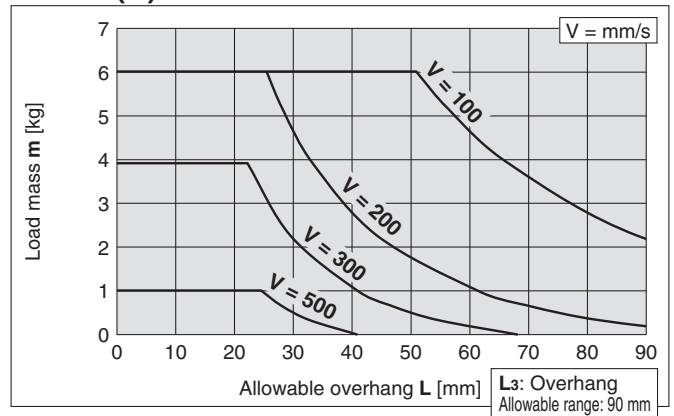
For Transfer/
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

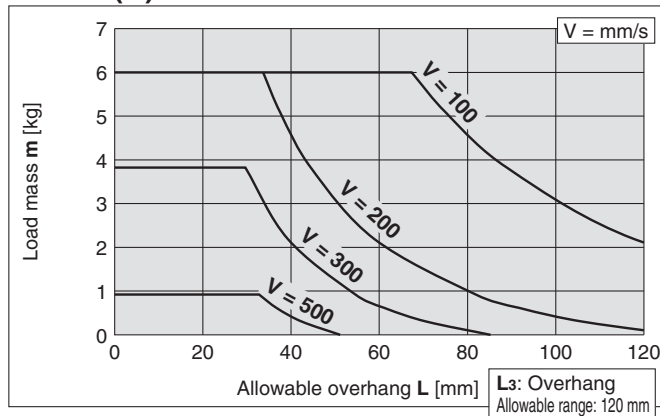
MXQ20(A)-10, 20, 30, 40Z□



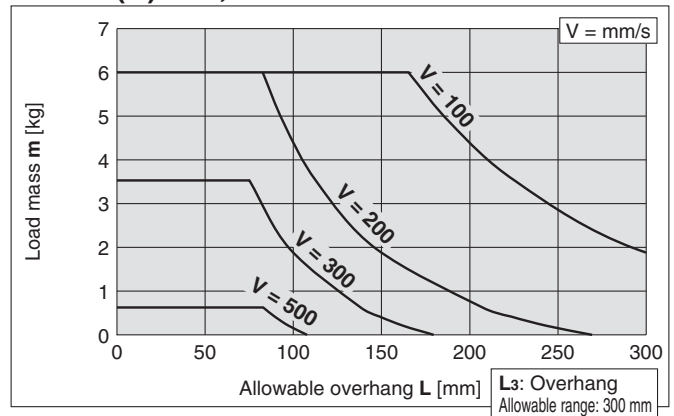
MXQ20(A)-50Z□



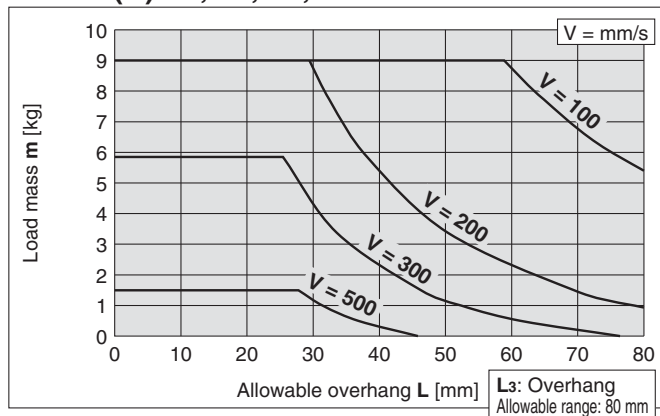
MXQ20(A)-75Z□



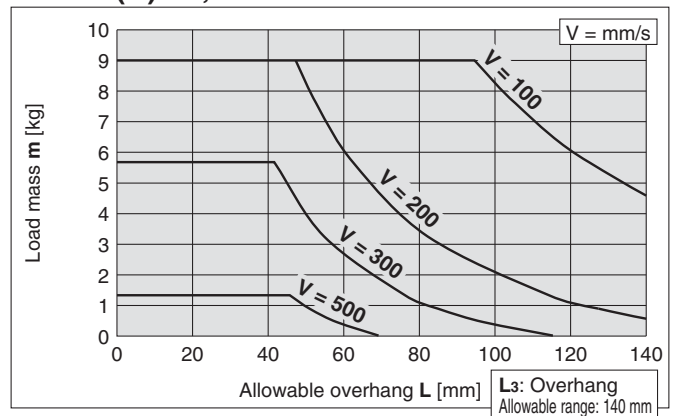
MXQ20(A)-100, 150Z□



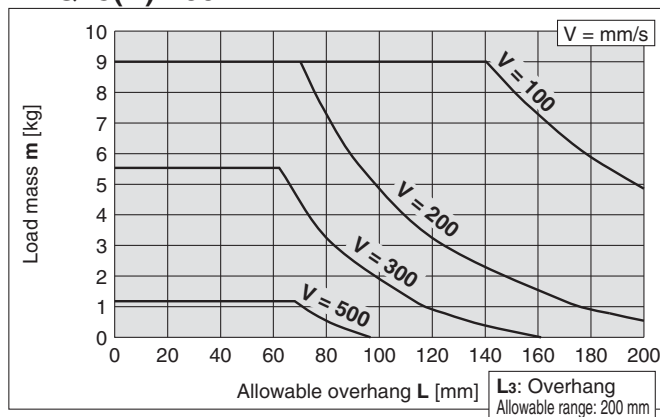
MXQ25(A)-10, 20, 30, 40Z□



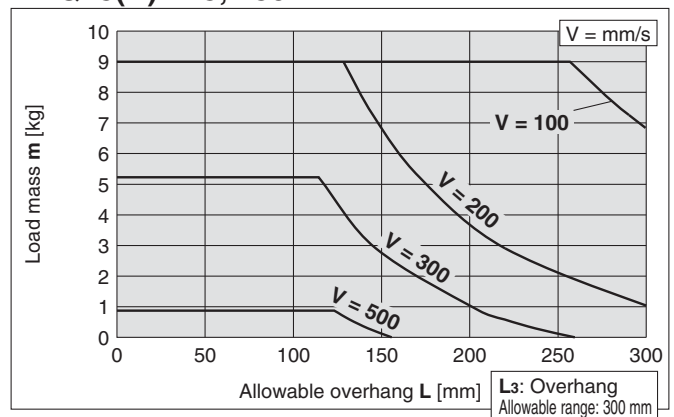
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



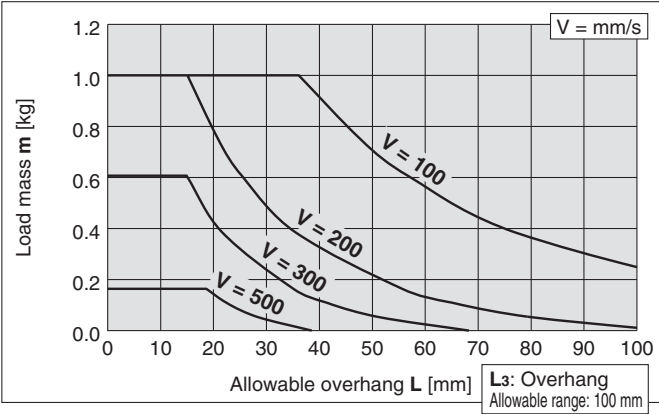
MXQ25(A)-125, 150Z□



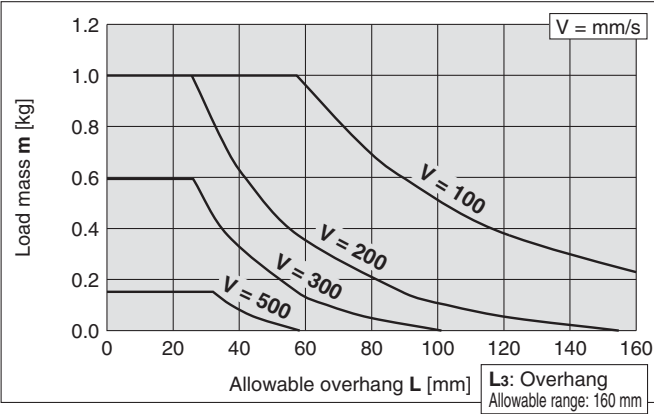
Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range"
in the selection graph if the load mass and driving
speed values are within the allowable range

MXQ 6B-□Z□/For Transfer/Rubber Stopper

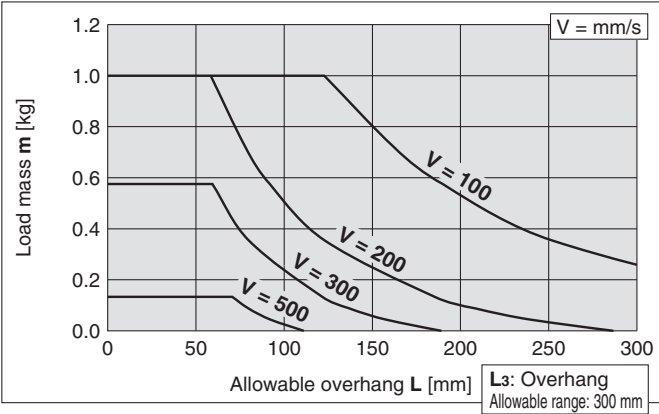
MXQ6B-10, 20, 30Z□



MXQ6B-40Z□



MXQ6B-50, 75Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

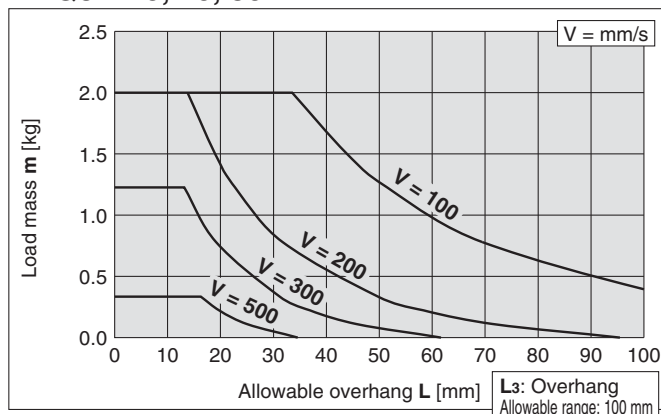
Model Selection

MXQ 8B-□Z□, MXQ 12B-□Z□

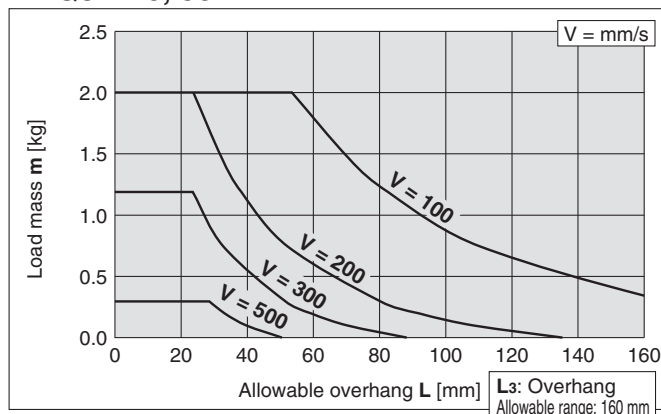
For Transfer/
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

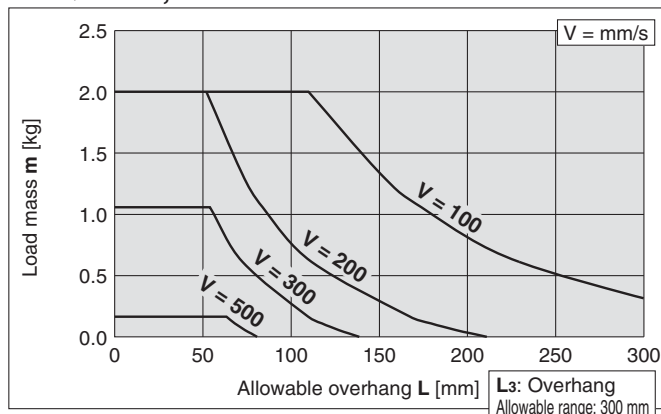
MXQ8B-10, 20, 30Z□



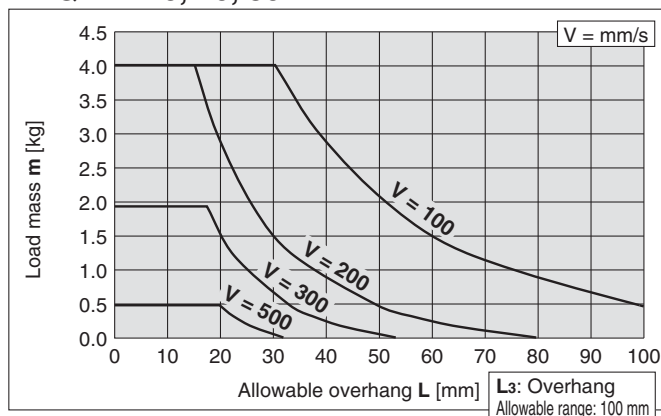
MXQ8B-40, 50Z□



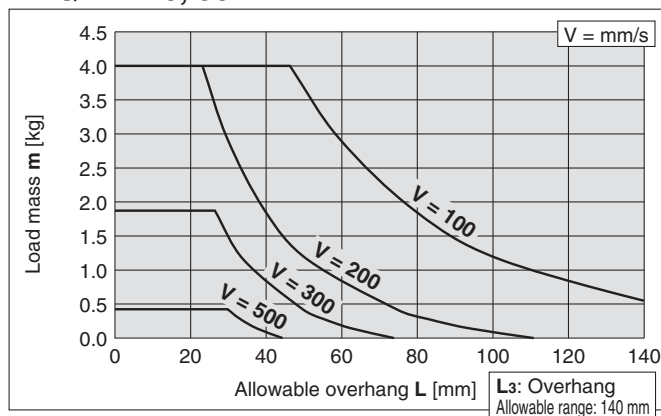
MXQ8B-75, 100Z□



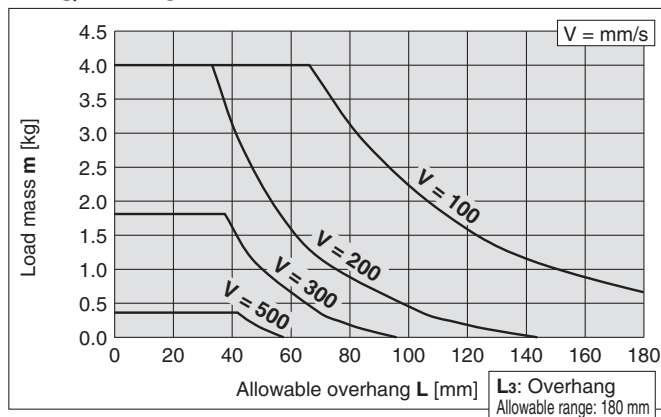
MXQ12B-10, 20, 30Z□



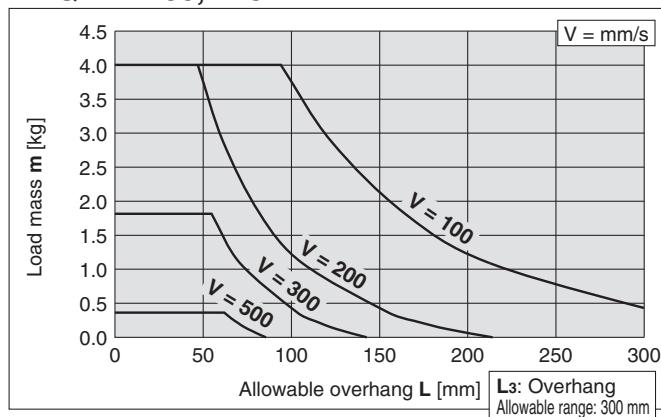
MXQ12B-40, 50Z□



MXQ12B-75Z□



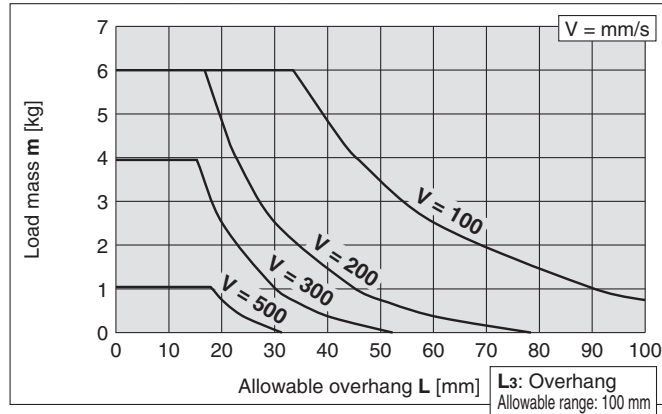
MXQ12B-100, 125Z□



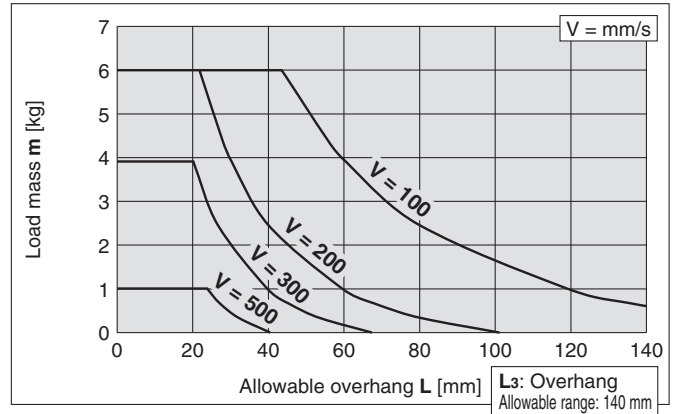
Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

MXQ 16B-□Z□, MXQ 20B-□Z□ / For Transfer/ Rubber Stopper

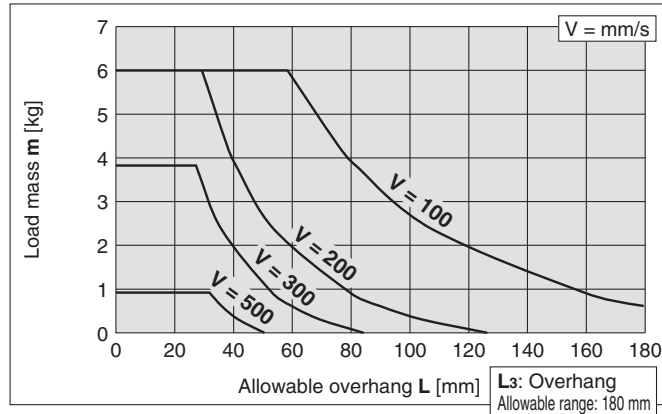
MXQ16B-10, 20, 30, 40Z□



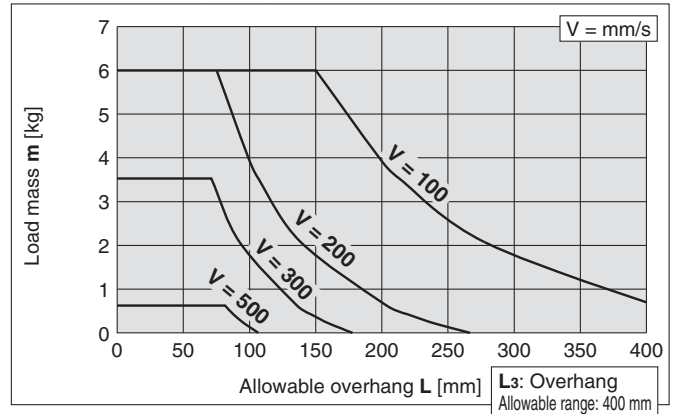
MXQ16B-50Z□



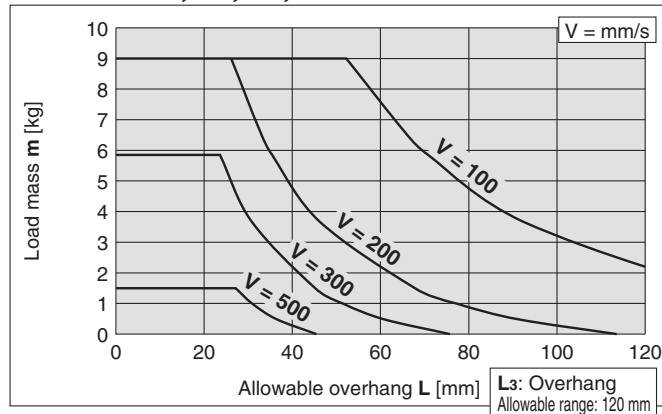
MXQ16B-75Z□



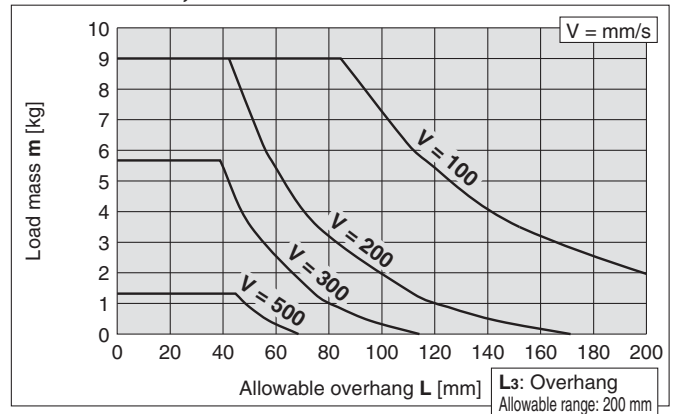
MXQ16B-100, 125, 150Z□



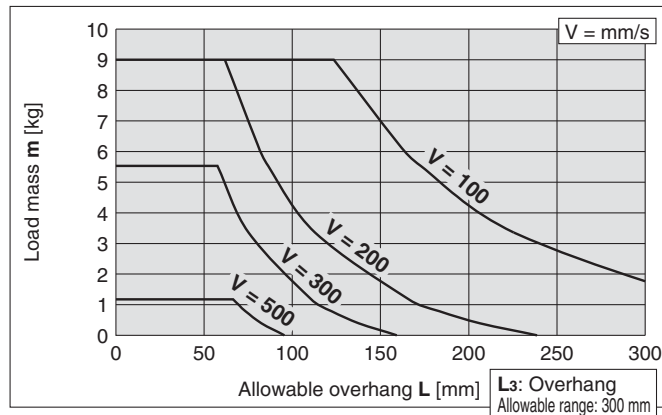
MXQ20B-10, 20, 30, 40Z□



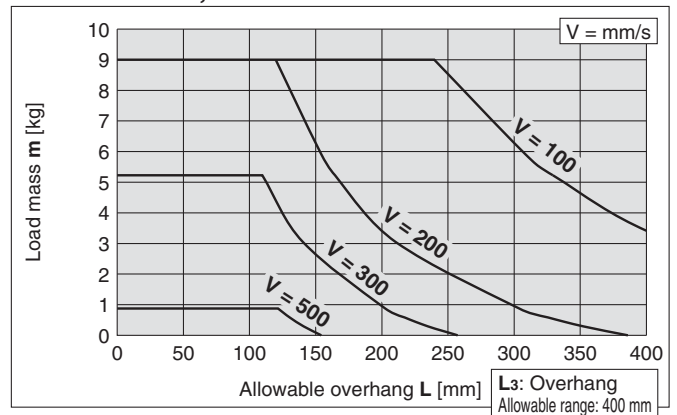
MXQ20B-50, 75Z□



MXQ20B-100Z□



MXQ20B-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

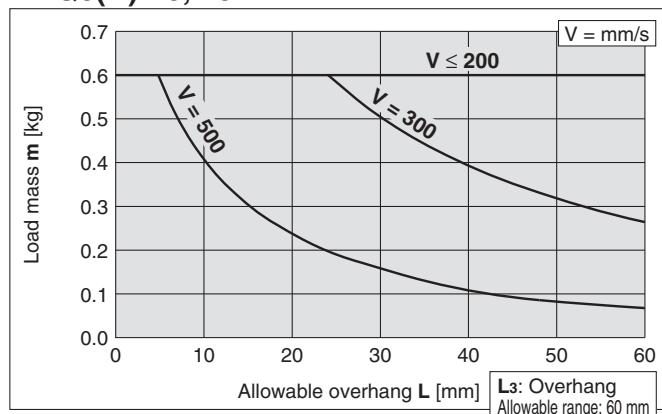
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8^AC-□Z□, MXQ 8-□Z□ (Height interchangeable type)

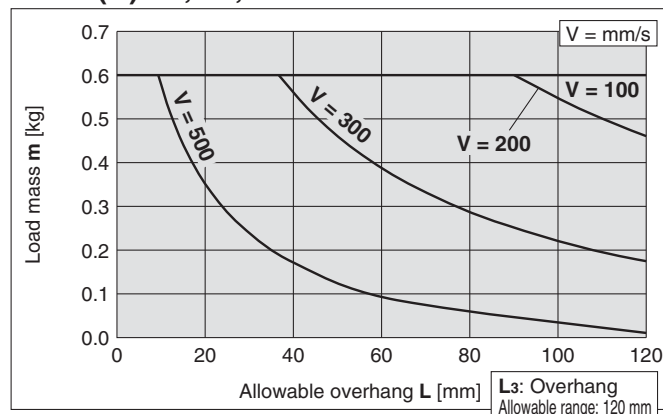
For Transfer/
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

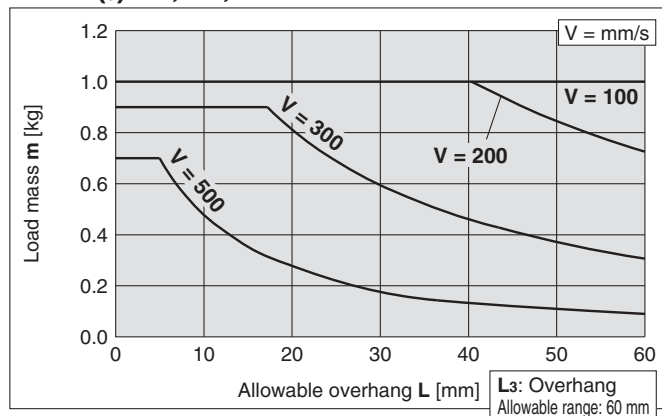
MXQ6(A)-10, 20Z□



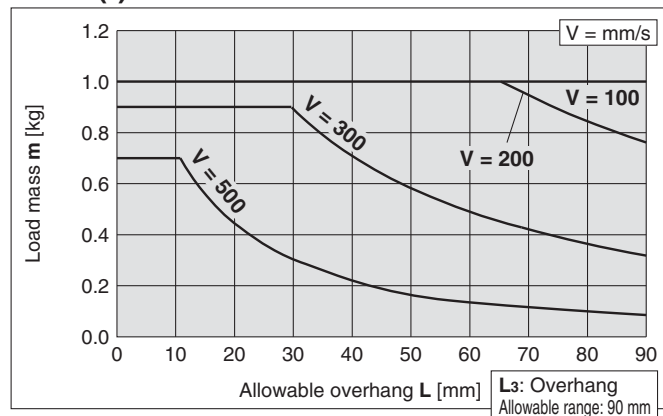
MXQ6(A)-30, 40, 50Z□



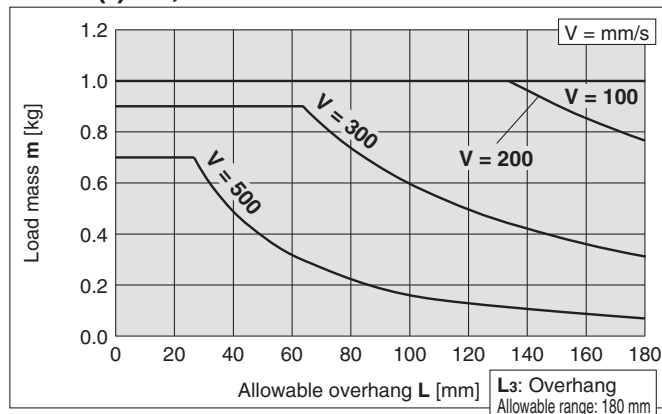
MXQ8(Δ)-10, 20, 30Z□



MXQ8(Δ)-40Z□



MXQ8(Δ)-50, 75Z□

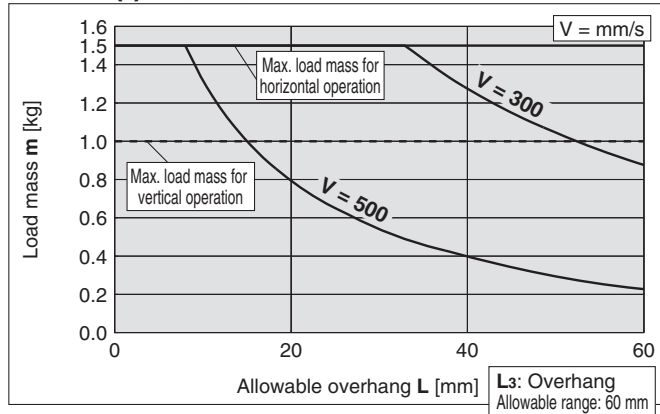


MXQ 12^A-□Z□, MXQ 12-□Z□ (Height interchangeable type)
 MXQ 16A-□Z□, MXQ 16-□Z□ (Height interchangeable type)

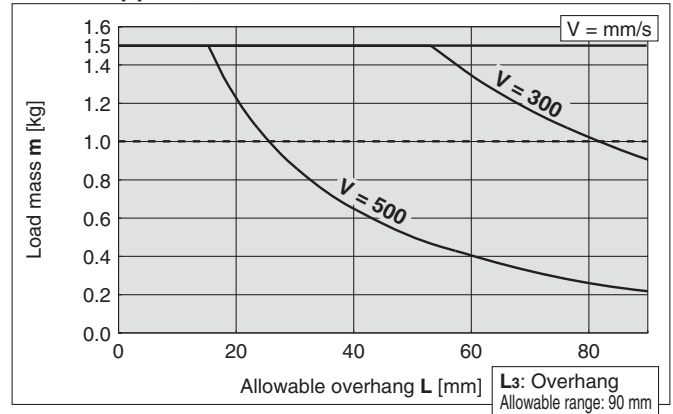
For Transfer/
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

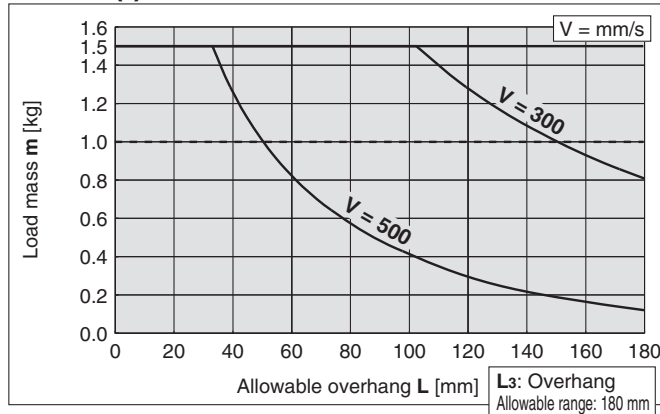
MXQ12(ε)-10, 20, 30Z□



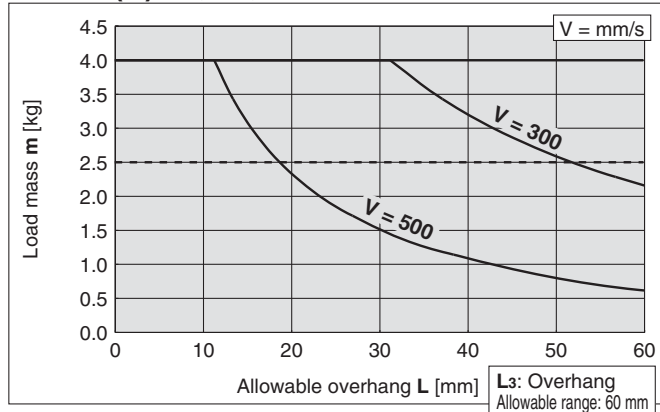
MXQ12(ε)-40, 50Z□



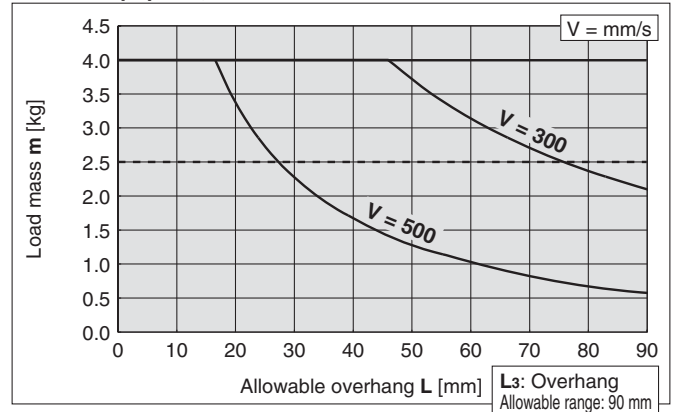
MXQ12(ε)-75, 100Z□



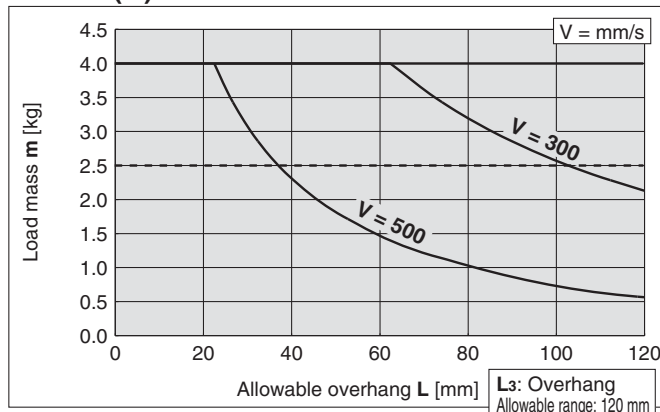
MXQ16(A)-10, 20, 30Z□



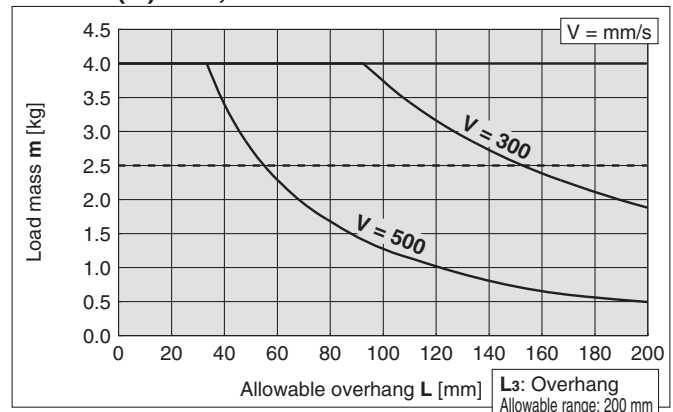
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

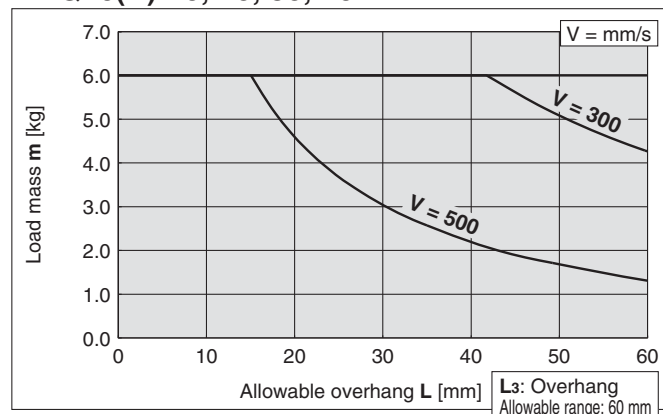
MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)

MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

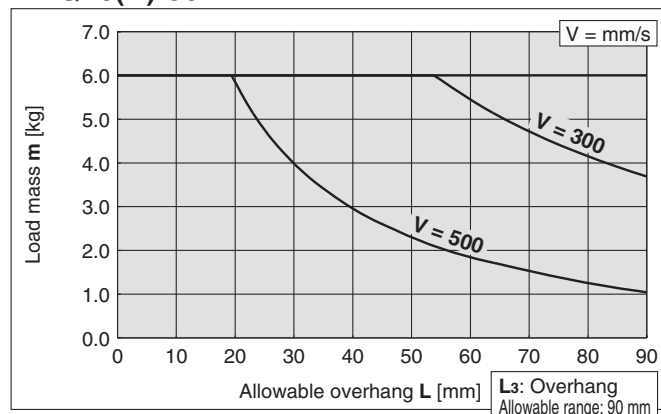
For Transfer/
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)
L1, L2: Check from the cross point of the load mass and driving speed.
L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

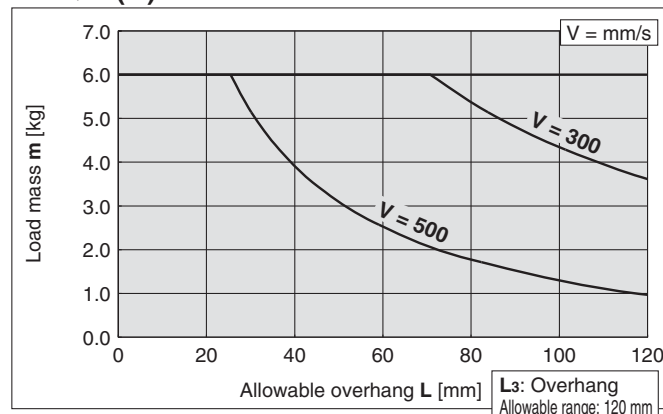
MXQ20(A)-10, 20, 30, 40Z□



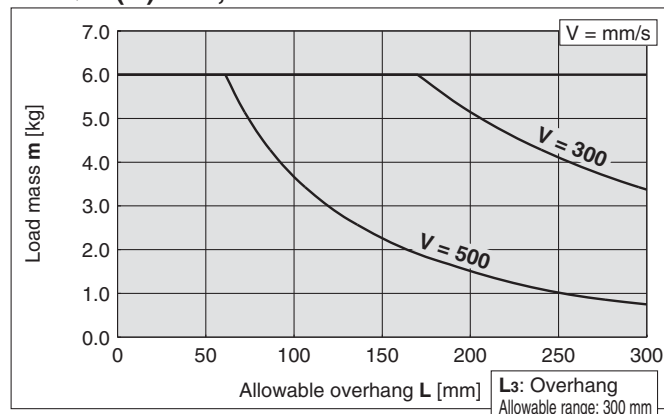
MXQ20(A)-50Z□



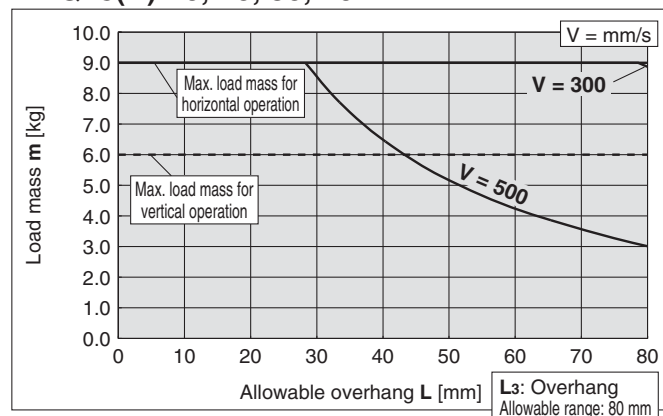
MXQ20(A)-75Z□



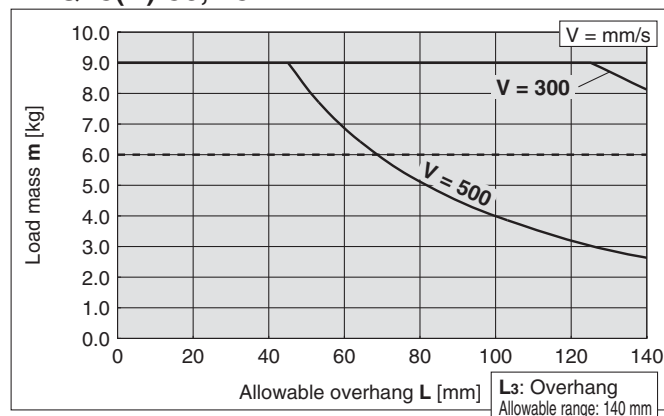
MXQ20(A)-100, 150Z□



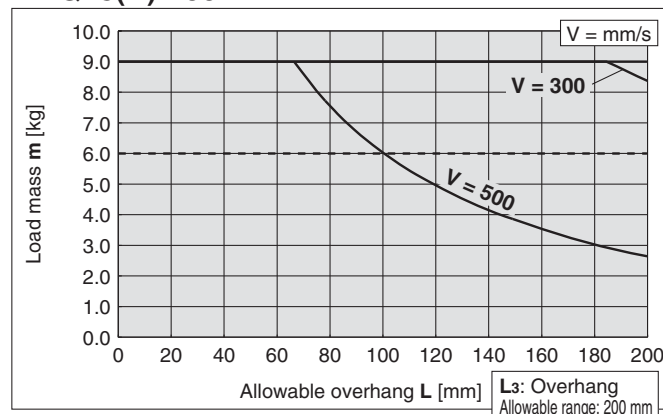
MXQ25(A)-10, 20, 30, 40Z□



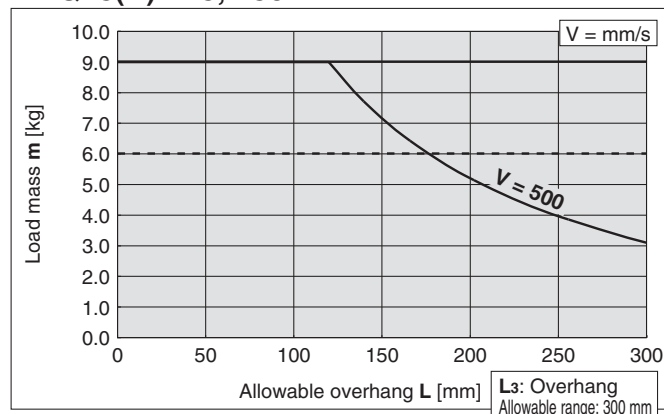
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



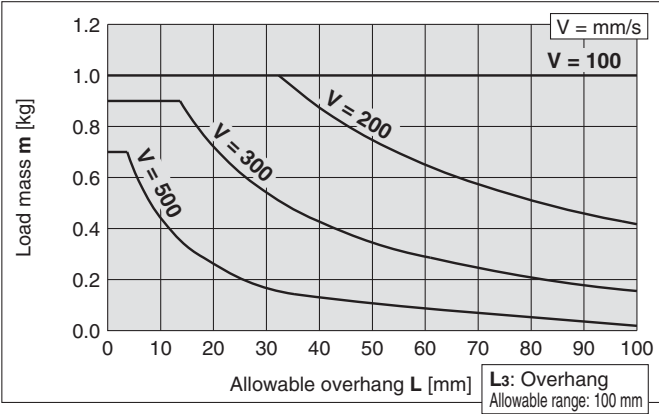
MXQ25(A)-125, 150Z□



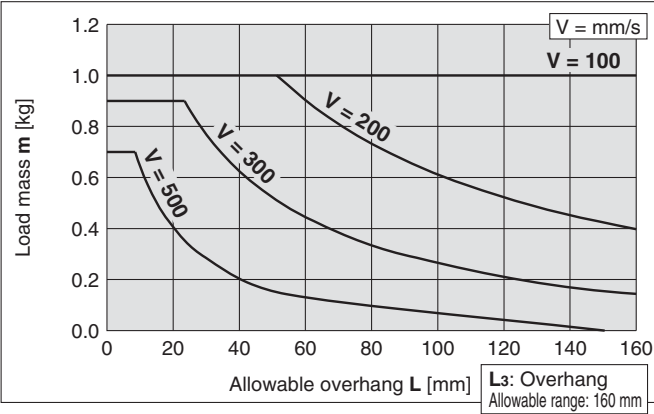
Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

MXQ 6B-□Z□/For Transfer/Shock Absorber/RJ

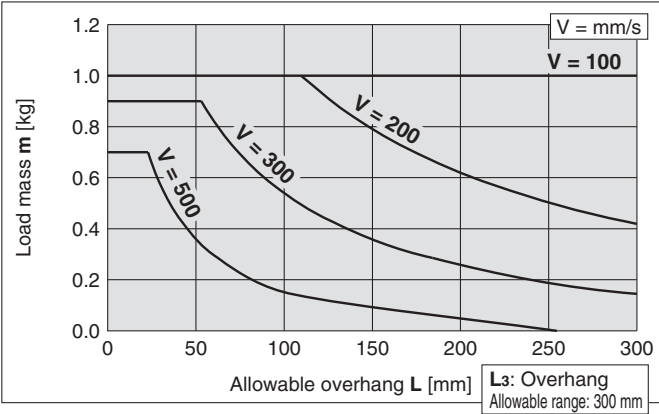
MXQ6B-10, 20, 30Z□



MXQ6B-40Z□



MXQ6B-50, 75Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

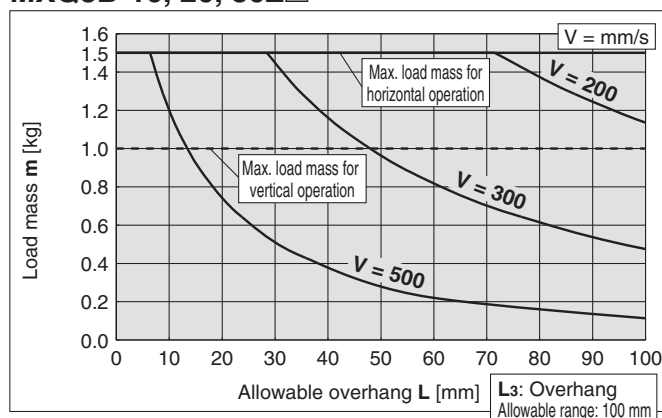
Model Selection

MXQ 8B-□Z□, MXQ 12B-□Z□

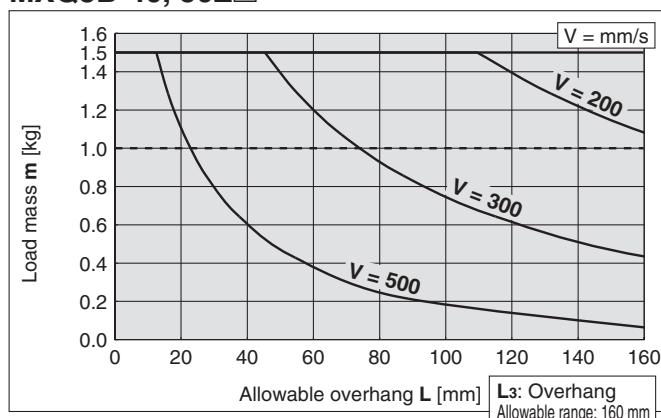
For Transfer/
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

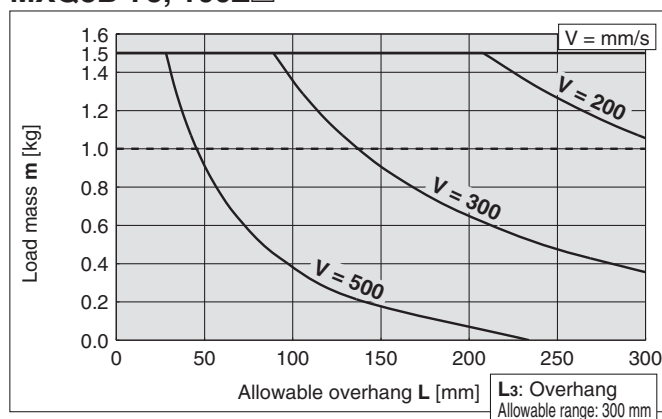
MXQ8B-10, 20, 30Z□



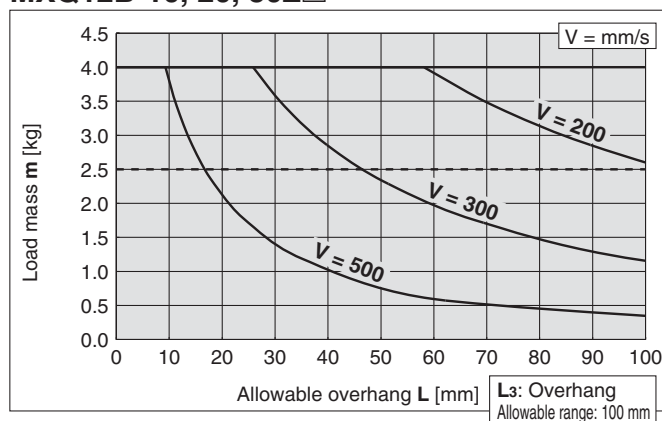
MXQ8B-40, 50Z□



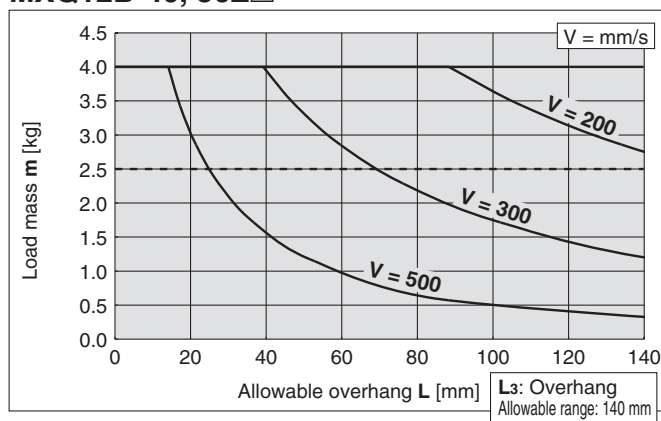
MXQ8B-75, 100Z□



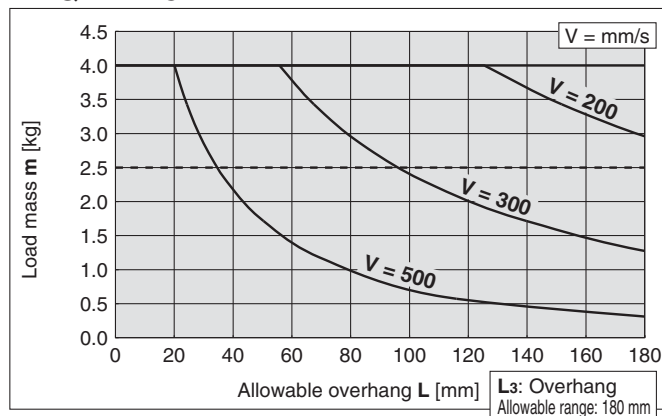
MXQ12B-10, 20, 30Z□



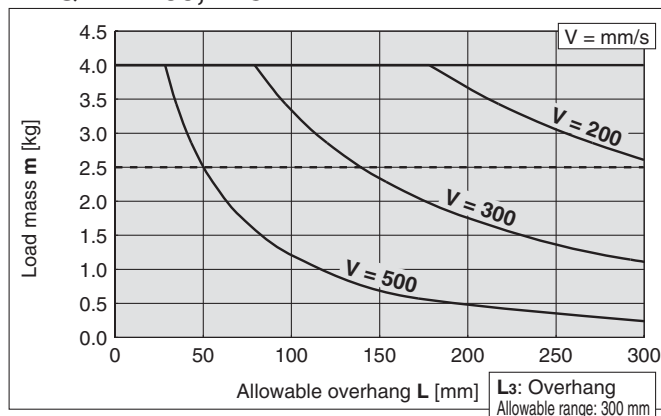
MXQ12B-40, 50Z□



MXQ12B-75Z□



MXQ12B-100, 125Z□

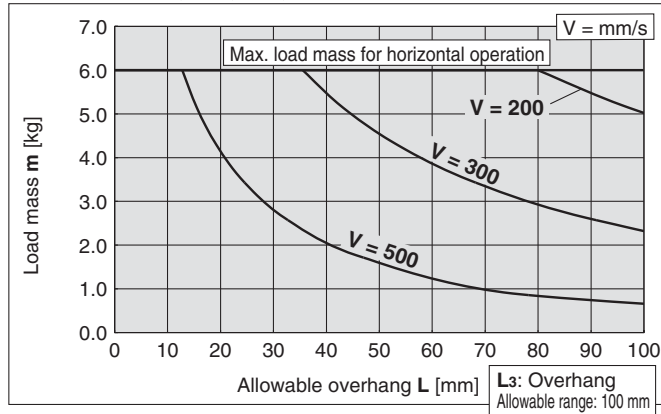


Determine the overhang. (Refer to page 158 for details.)
 L1, L2: Check from the cross point of the load mass and driving speed.
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

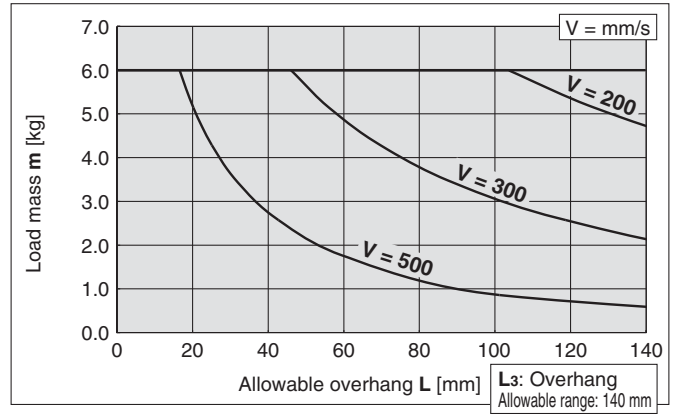
MXQ 16B-□Z□, MXQ 20B-□Z□

For Transfer/
Shock Absorber/RJ

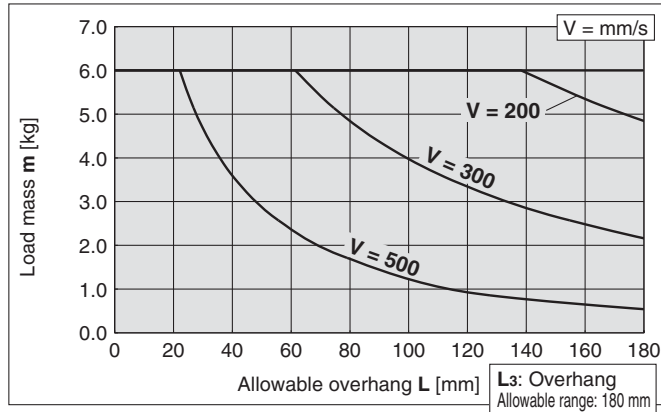
MXQ16B-10, 20, 30, 40Z□



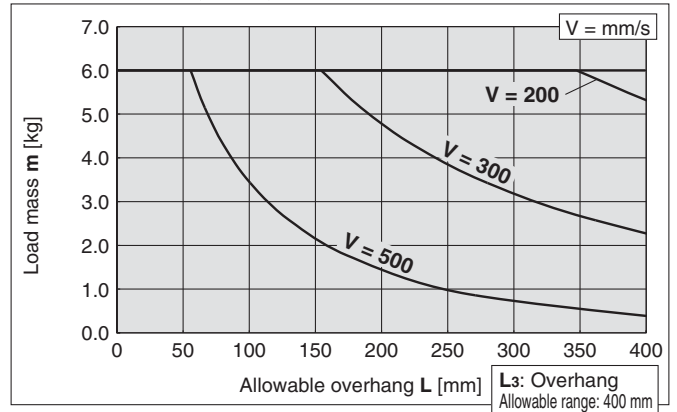
MXQ16B-50Z□



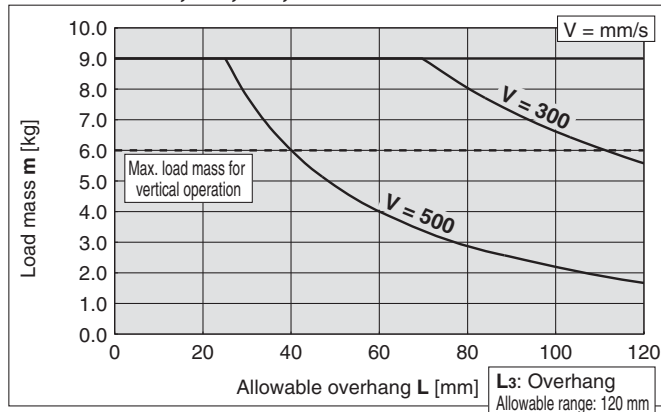
MXQ16B-75Z□



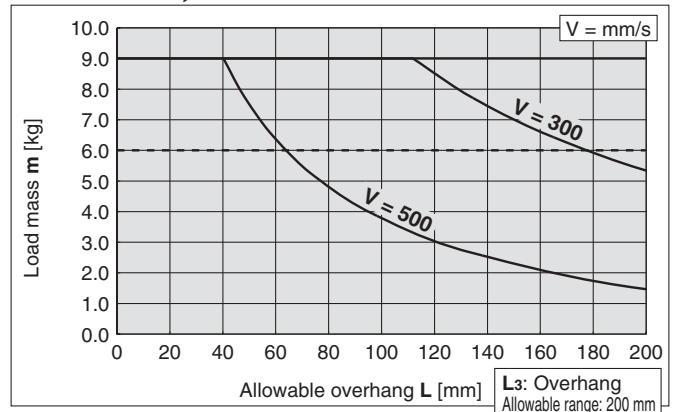
MXQ16B-100, 125, 150Z□



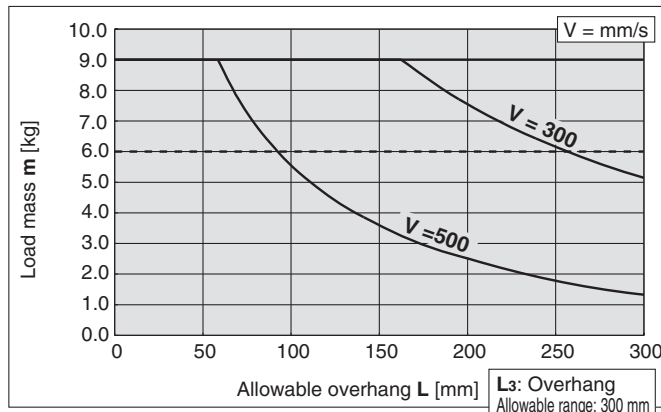
MXQ20B-10, 20, 30, 40Z□



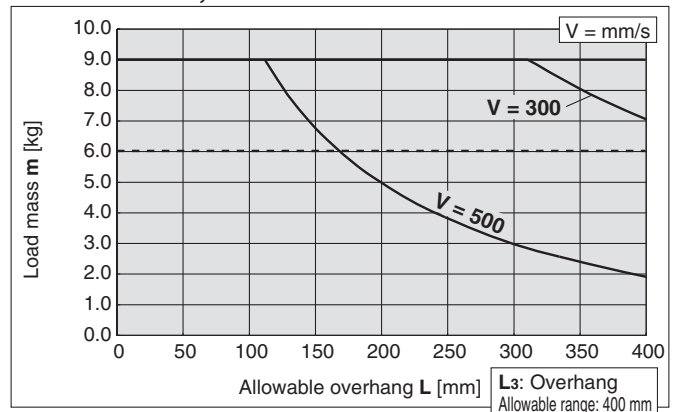
MXQ20B-50, 75Z□



MXQ20B-100Z□



MXQ20B-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

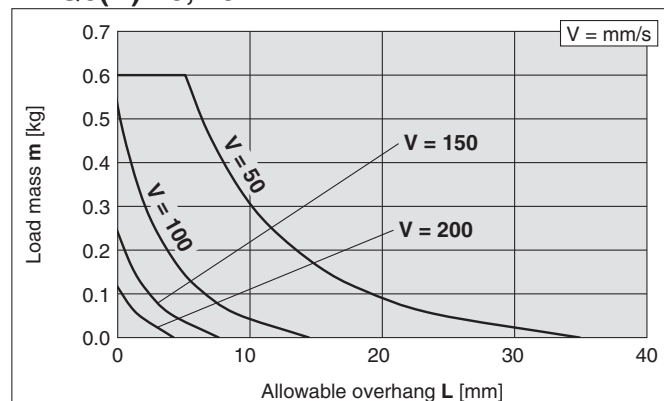
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8^A-□Z□, MXQ 8-□Z□ (Height interchangeable type)

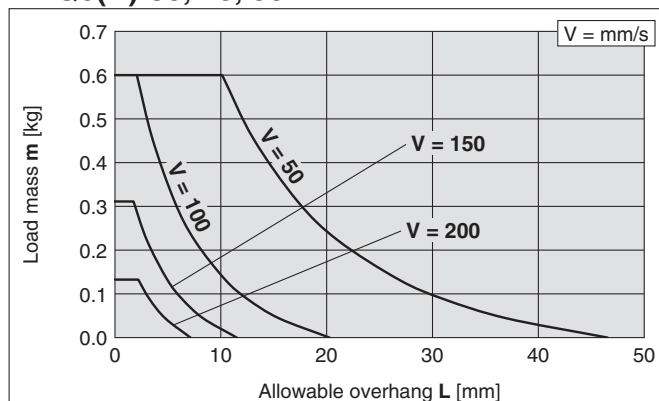
For Transfer/
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

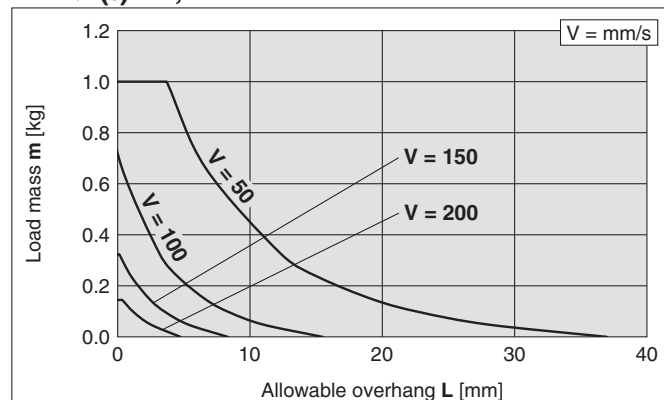
MXQ6(A)-10, 20Z□



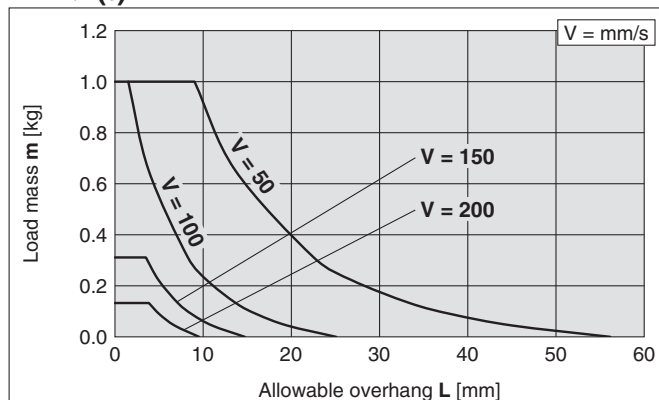
MXQ6(A)-30, 40, 50Z□



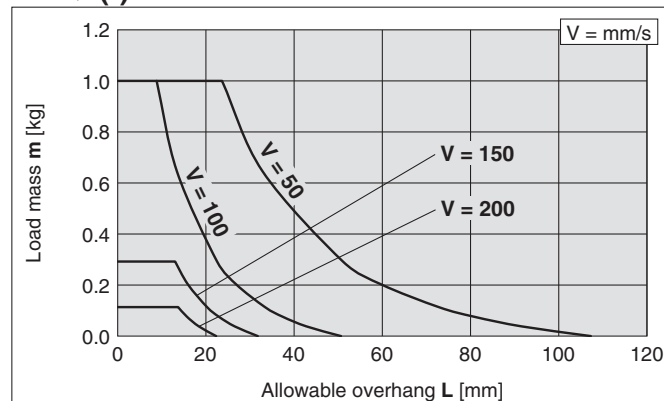
MXQ8(Δ)-10, 20Z□



MXQ8(Δ)-40Z□



MXQ8(Δ)-50Z□

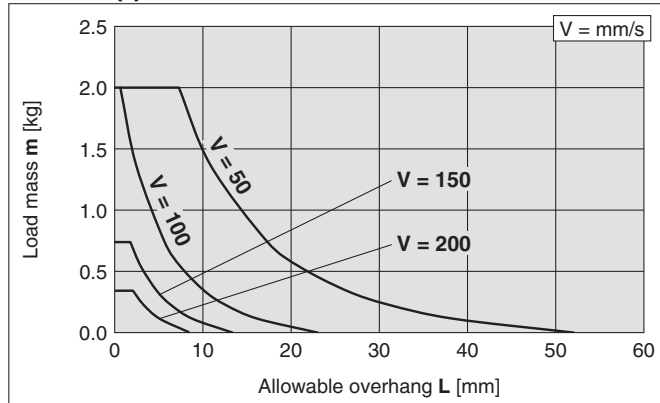


MXQ 12^A-□Z□, MXQ 12-□Z□ (Height interchangeable type)
 MXQ 16A-□Z□, MXQ 16-□Z□ (Height interchangeable type)

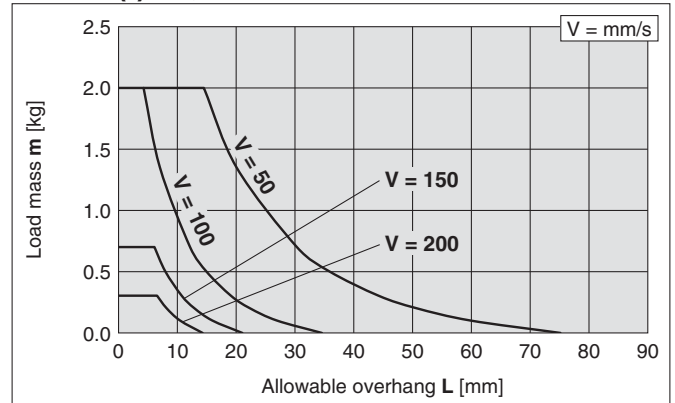
For Transfer/
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)
 L₁, L₂: Check from the cross point of the load mass and driving speed.
 L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

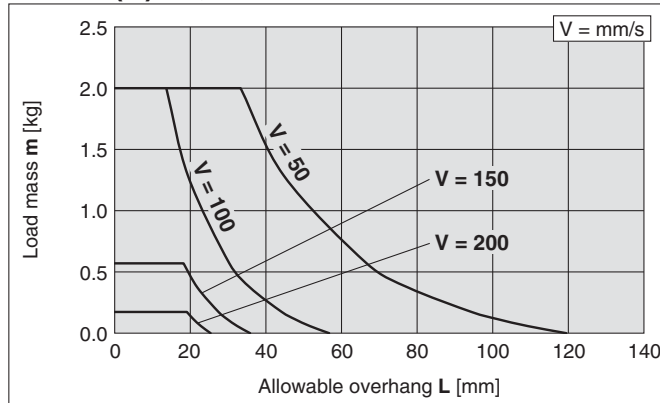
MXQ12(Δ)-10, 20, 30Z□



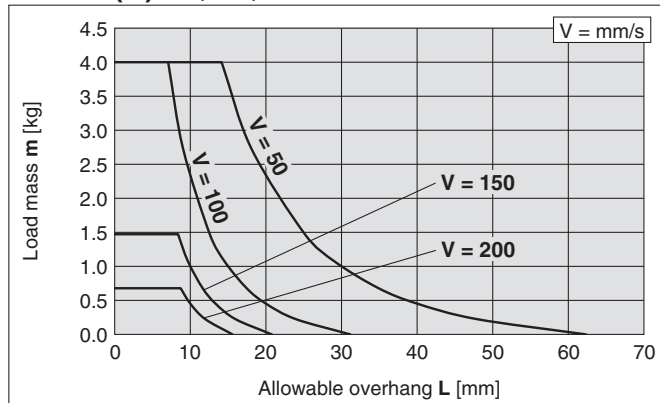
MXQ12(Δ)-40, 50Z□



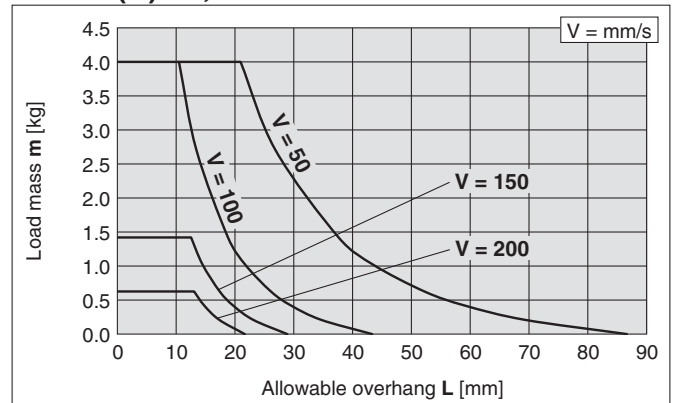
MXQ12(A)-75, 100Z□



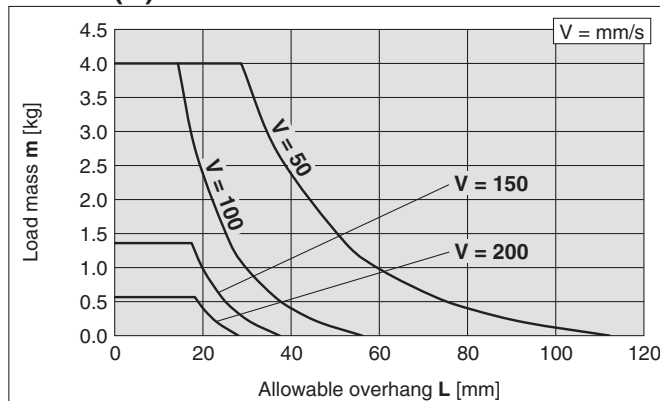
MXQ16(A)-10, 20, 30Z□



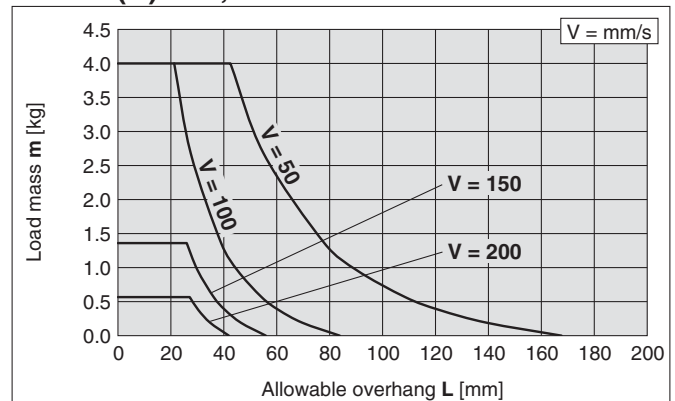
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection

MXQ Series

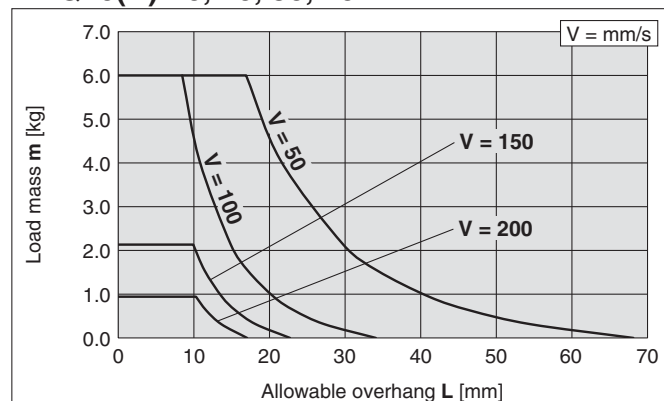
MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)

MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

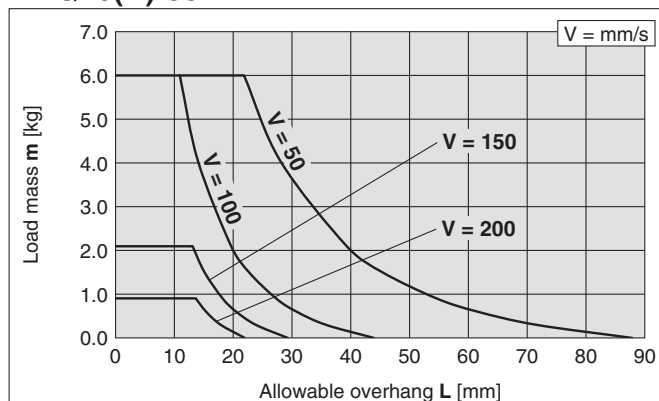
For Transfer/
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

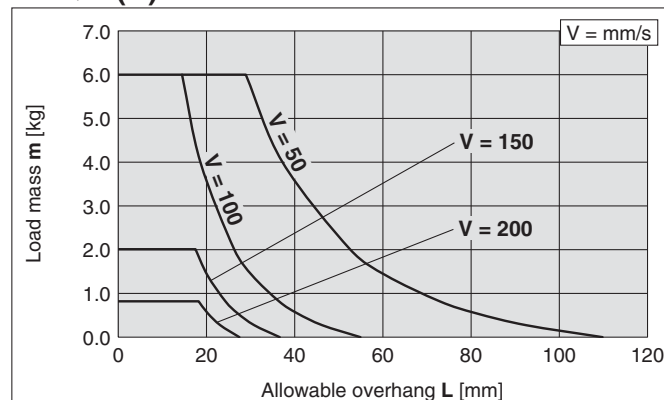
MXQ20(A)-10, 20, 30, 40Z□



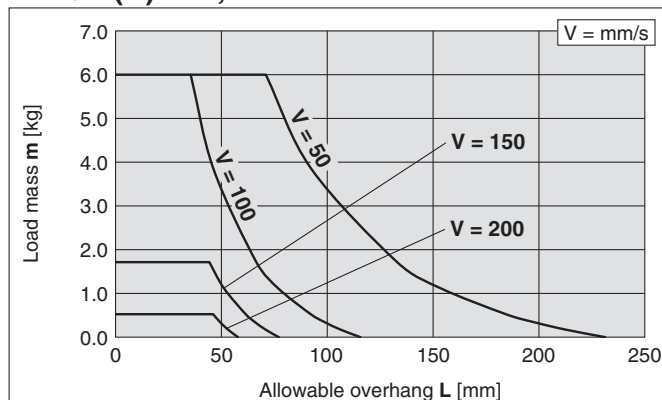
MXQ20(A)-50Z□



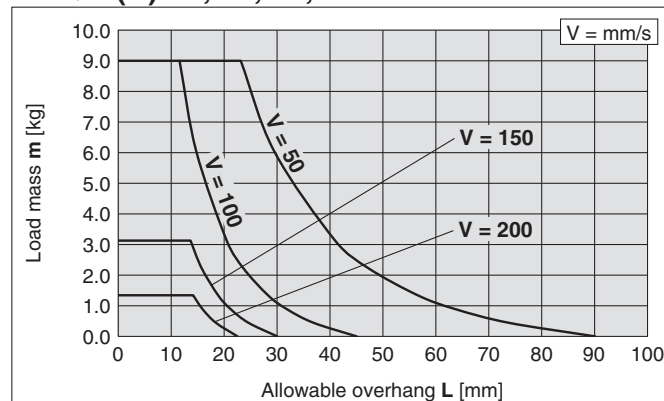
MXQ20(A)-75Z□



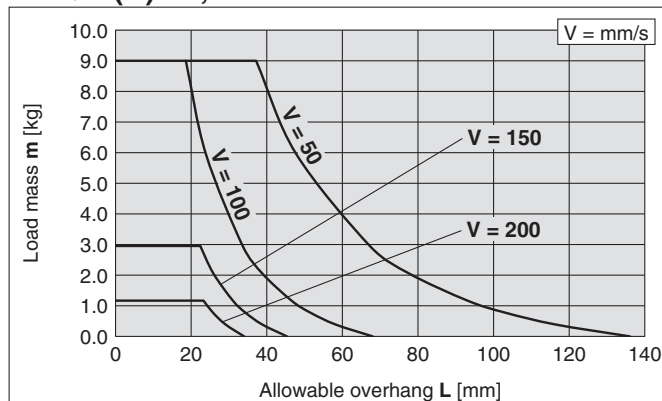
MXQ20(A)-100, 150Z□



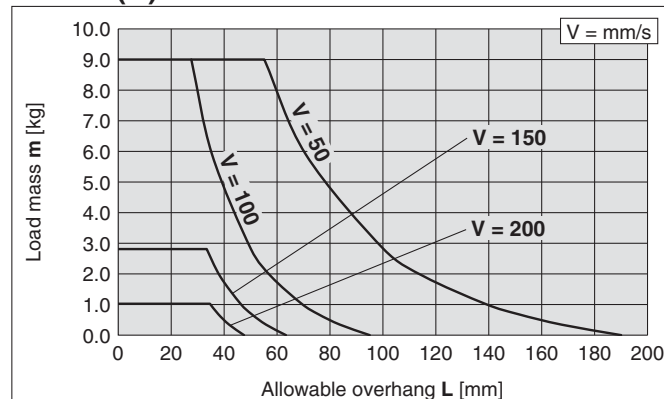
MXQ25(A)-10, 20, 30, 40Z□



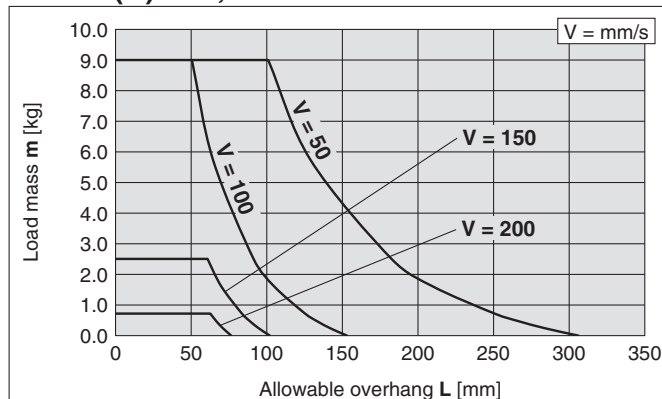
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



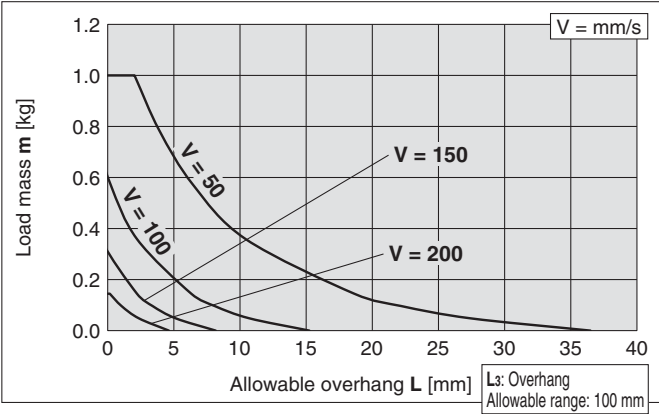
MXQ25(A)-125, 150Z□



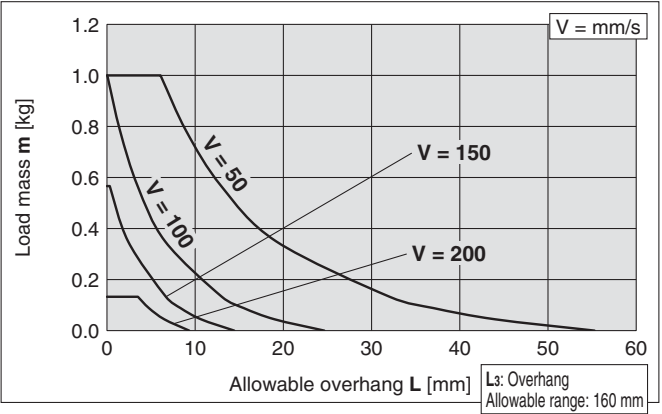
Determine the overhang. (Refer to page 158 for details.)
 L₁, L₂: Check from the cross point of the load mass and driving speed.
 L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

MXQ 6B-□Z□/For Transfer/Metal Stopper

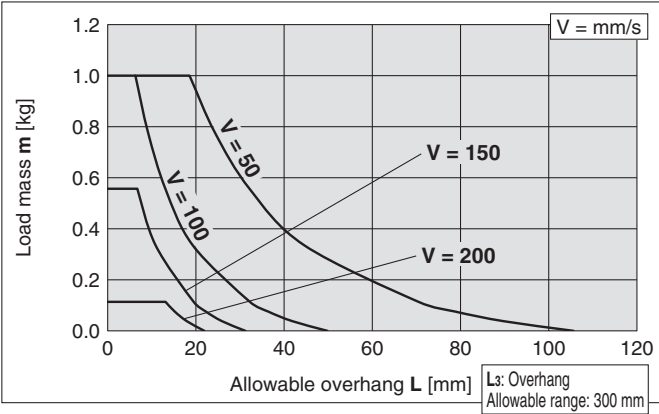
MXQ6B-10, 20, 30Z□



MXQ6B-40Z□



MXQ6B-50, 75Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

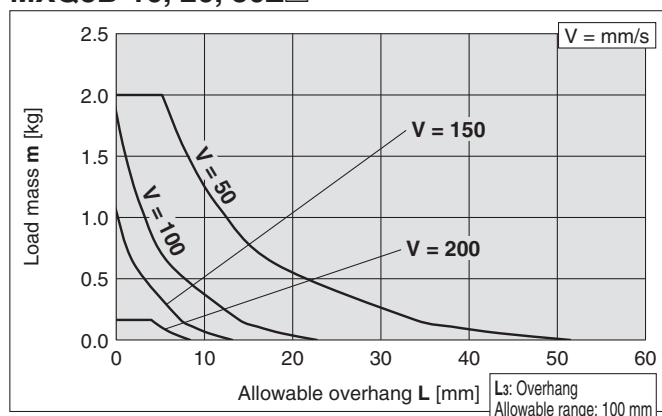
Model Selection

MXQ 8B-□Z□, MXQ 12B-□Z□

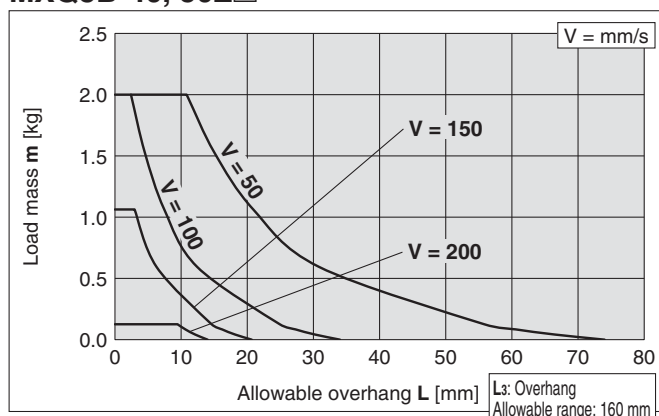
For Transfer/
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)
L₁, L₂: Check from the cross point of the load mass and driving speed.
L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

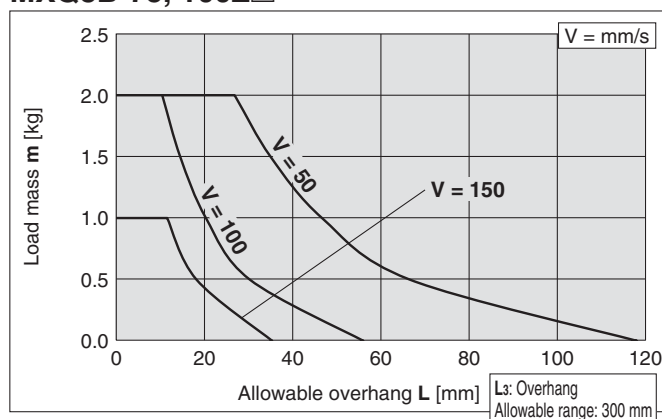
MXQ8B-10, 20, 30Z□



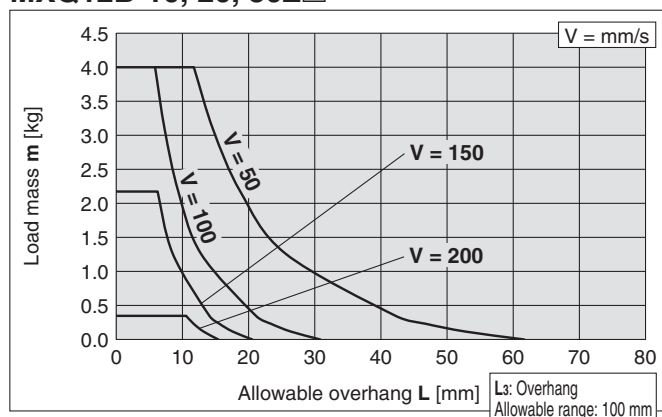
MXQ8B-40, 50Z□



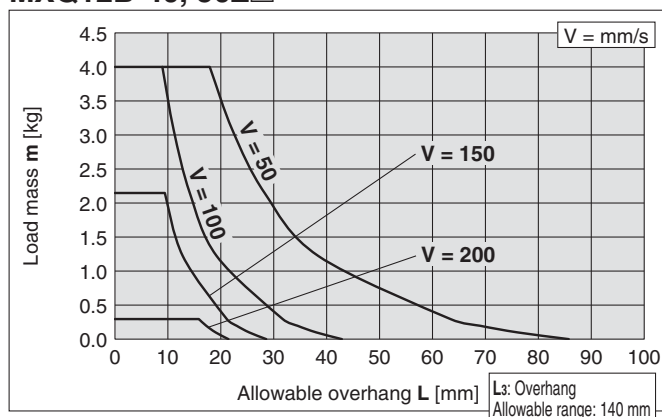
MXQ8B-75, 100Z□



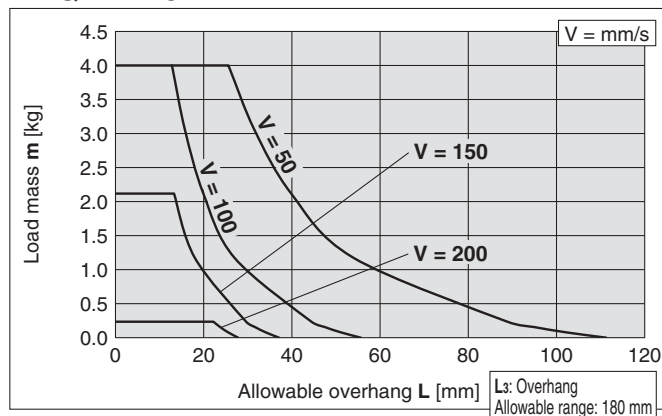
MXQ12B-10, 20, 30Z□



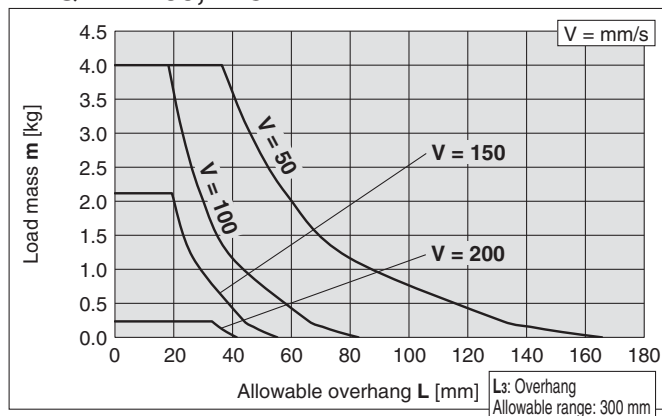
MXQ12B-40, 50Z□



MXQ12B-75Z□



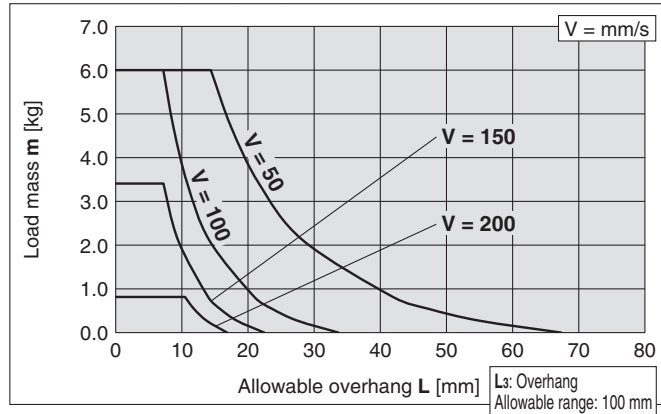
MXQ12B-100, 125Z□



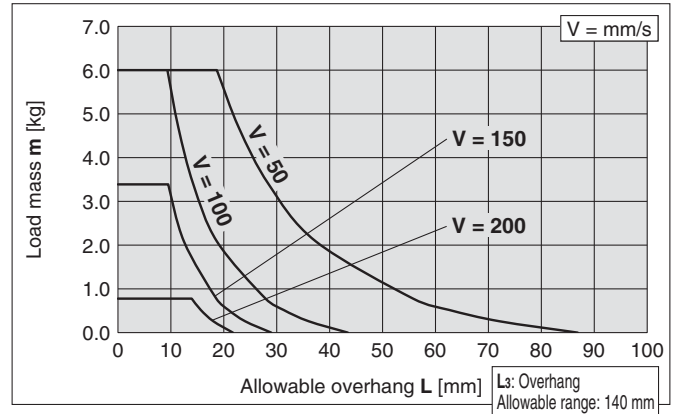
Determine the overhang. (Refer to page 158 for details.)
 L₁, L₂: Check from the cross point of the load mass and driving speed.
 L₃: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

MXQ 16B-□Z□, MXQ 20B-□Z□ / For Transfer/ Metal Stopper

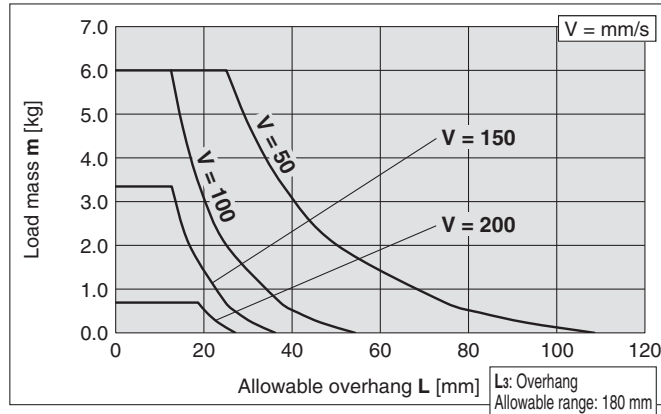
MXQ16B-10, 20, 30, 40Z□



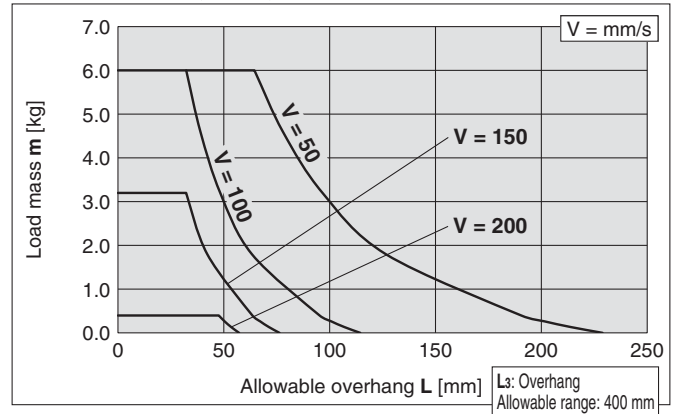
MXQ16B-50Z□



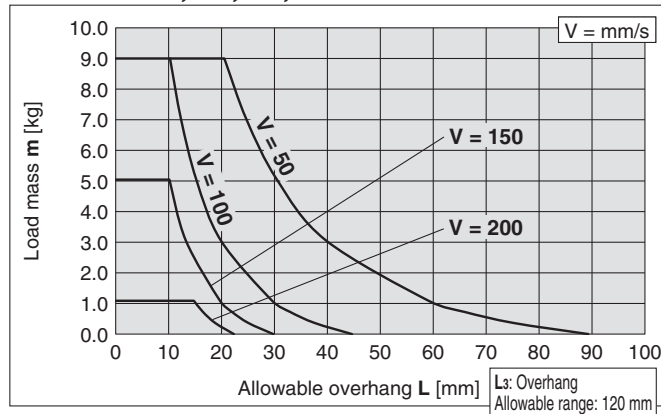
MXQ16B-75Z□



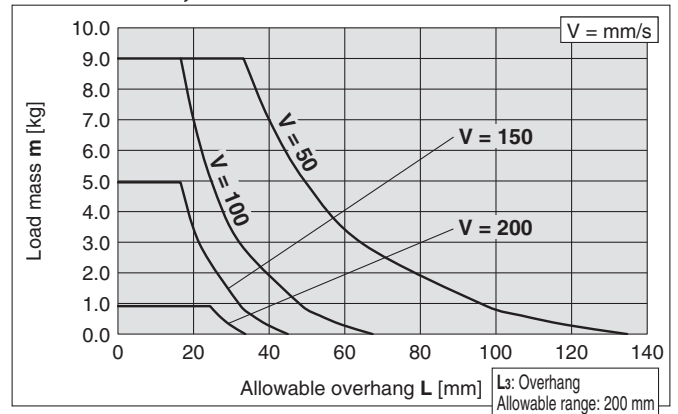
MXQ16B-100, 125, 150Z□



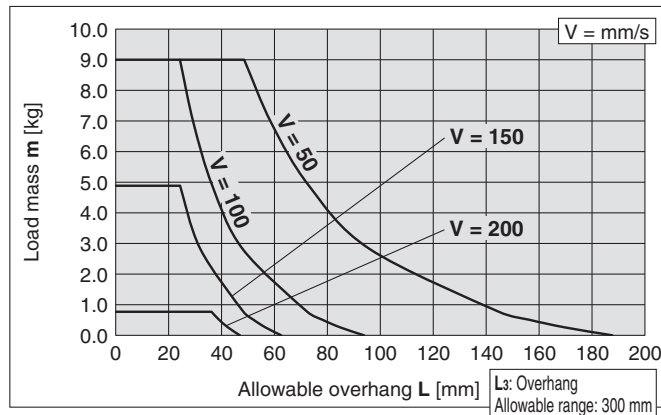
MXQ20B-10, 20, 30, 40Z□



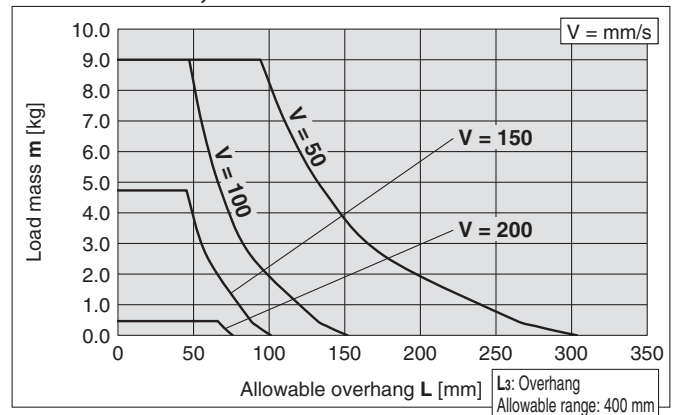
MXQ20B-50, 75Z□



MXQ20B-100Z□



MXQ20B-125, 150Z□



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

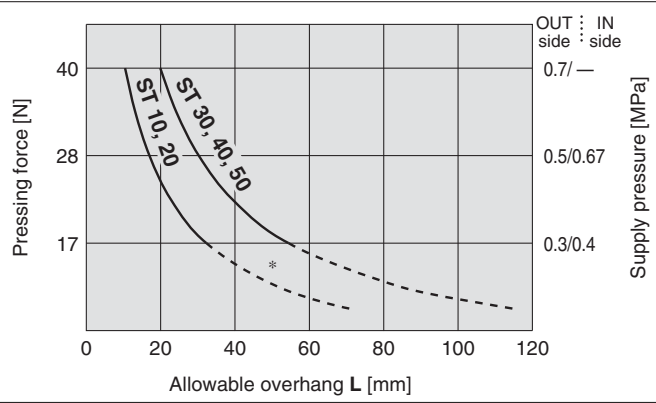
Made to Order

Model Selection

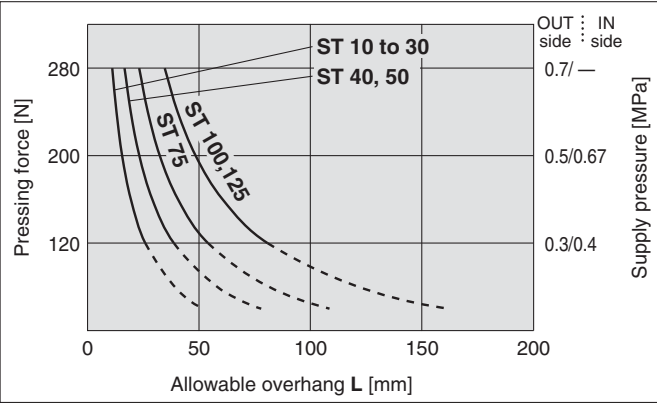
Double-ported Type, Single Side-ported Type, Height Interchangeable Type/For Pressing

Determine the overhang. (Refer to page 159 for details.)

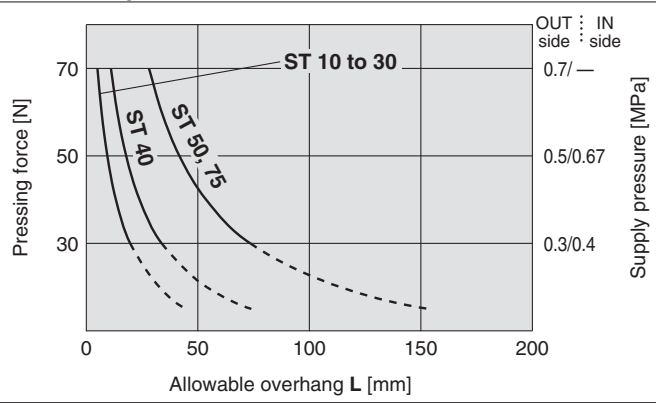
MXQ6A-□Z



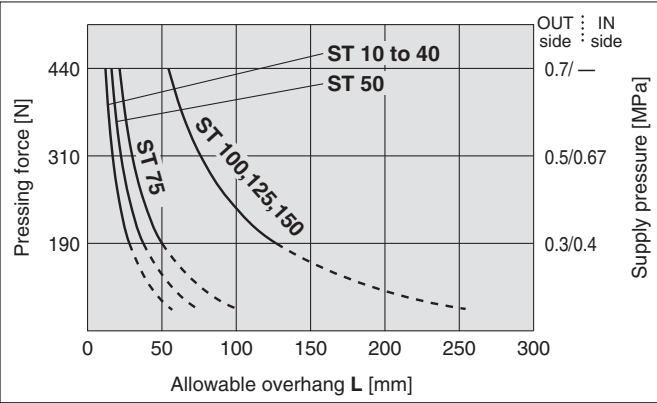
MXQ16A-□Z



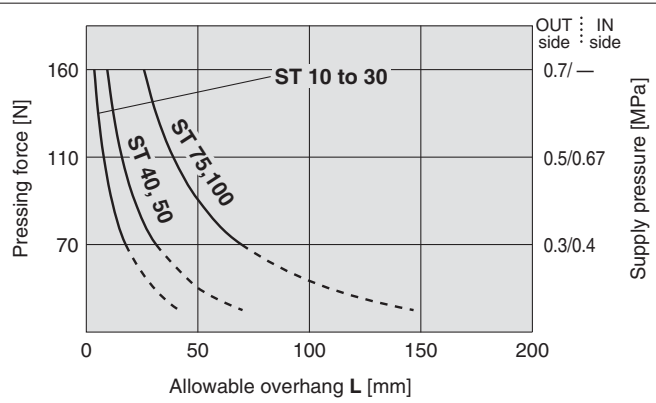
MXQ8A_C-□Z



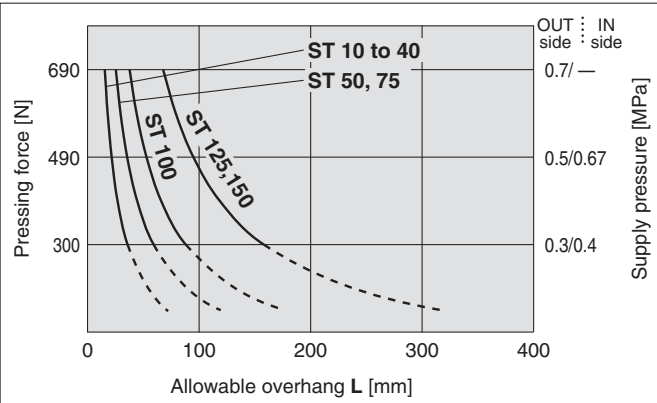
MXQ20A-□Z



MXQ12A_C-□Z



MXQ25A-□Z

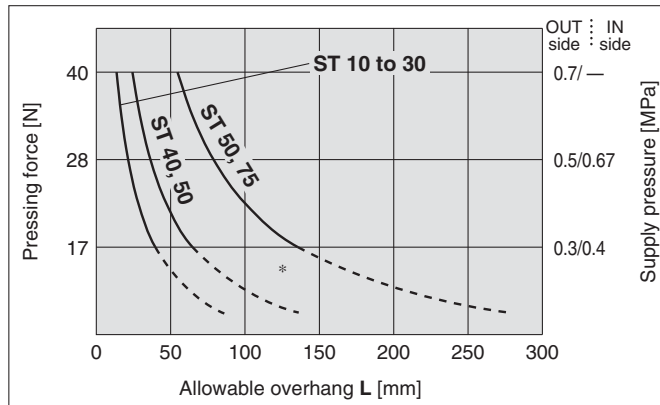


* Pressing forces that fall in the dotted line portion of the graphs are reference values as pressing forces may vary.
* ST = Stroke

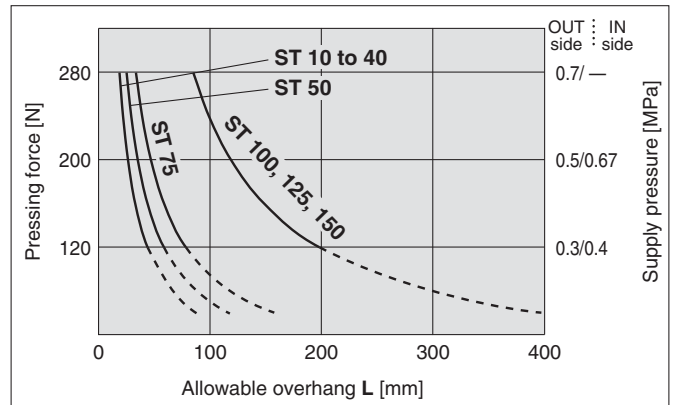
Determine the overhang. (Refer to page 159 for details.)

Low Thrust with High Rigidity Type/For Pressing

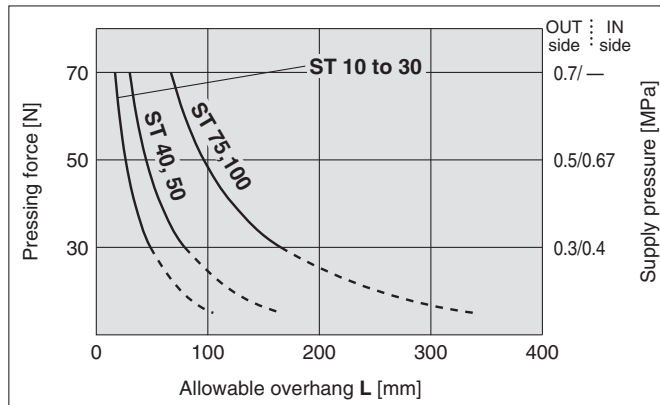
MXQ6B-□Z



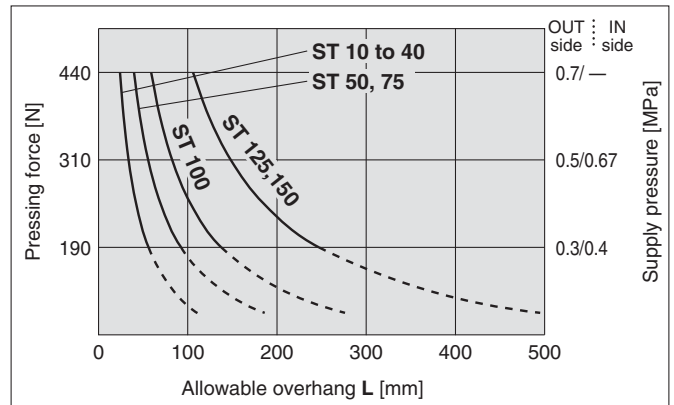
MXQ16B-□Z



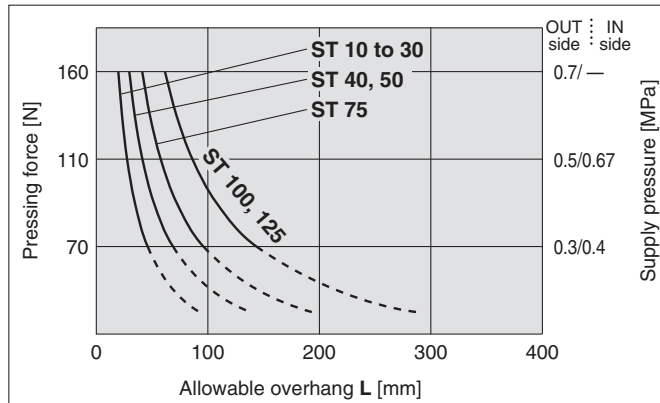
MXQ8B-□Z



MXQ20B-□Z



MXQ12B-□Z



* Pressing forces that fall in the dotted line portion of the graphs are reference values as pressing force may vary.
* ST = Stroke

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

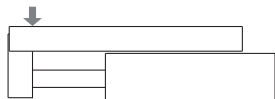
Made to Order

Model Selection

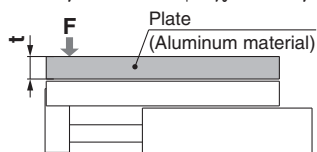
Table Deflection (Reference Values)

Table displacement due to pitch moment load

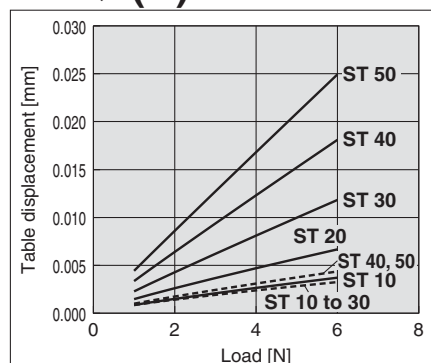
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



The dotted line shown in the graph below shows the displacement of the portion indicated by the arrow when the plate jig is mounted by the customer.



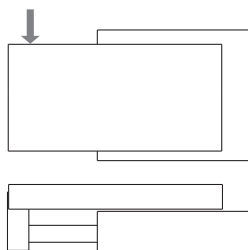
MXQ6(A)-□Z



(Plate size: $t = 8$)

Table displacement due to yaw moment load

Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



MXQ6(A)-□Z

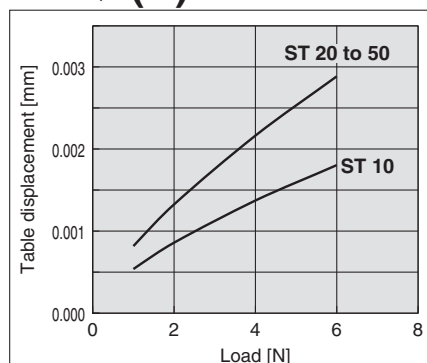
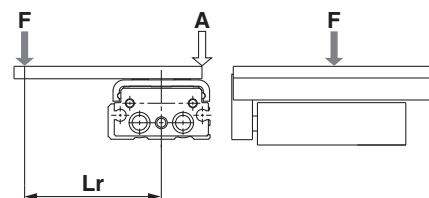


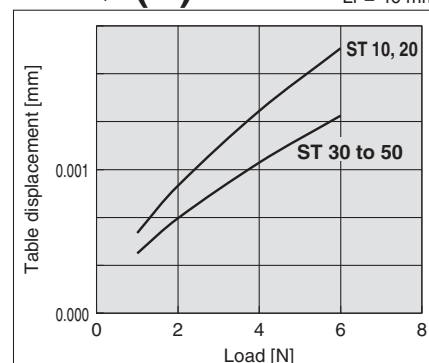
Table displacement due to roll moment load

Displacement of part A when a load is applied to part F with the air slide table retracted

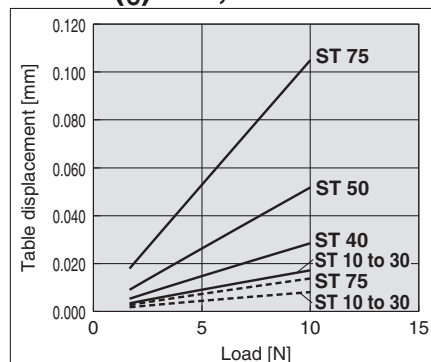


MXQ6(A)-□Z

$L_r = 40$ mm

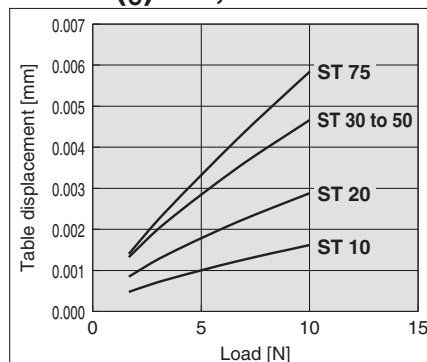


MXQ8(A)-□Z, MXQ6B-□Z



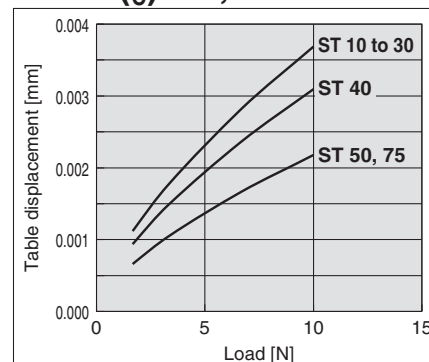
(Plate size: $t = 8$)

MXQ8(A)-□Z, MXQ6B-□Z

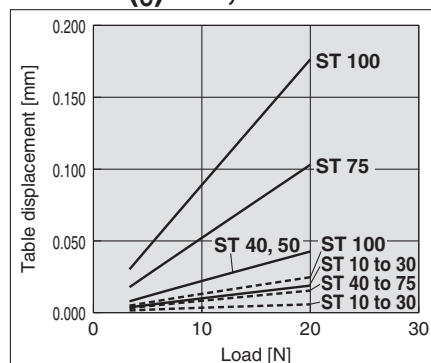


MXQ8(A)-□Z, MXQ6B-□Z

$L_r = 70$ mm

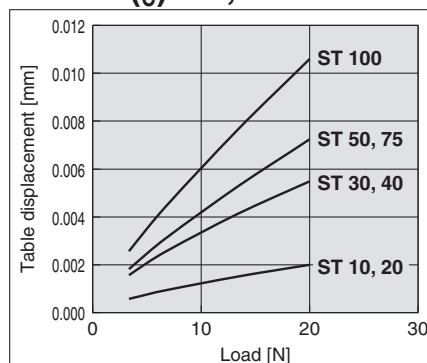


MXQ12(A)-□Z, MXQ8B-□Z



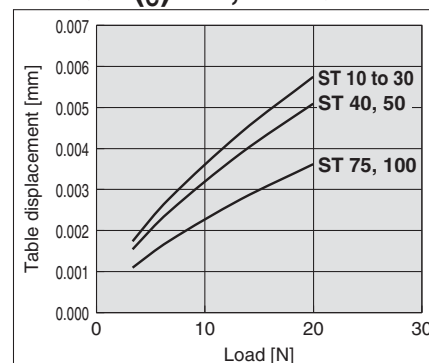
(Plate size: $t = 10$)

MXQ12(A)-□Z, MXQ8B-□Z



MXQ12(A)-□Z, MXQ8B-□Z

$L_r = 90$ mm

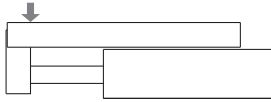


* ST = Stroke

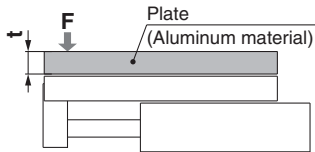
Table Deflection (Reference Values)

Table displacement due to pitch moment load

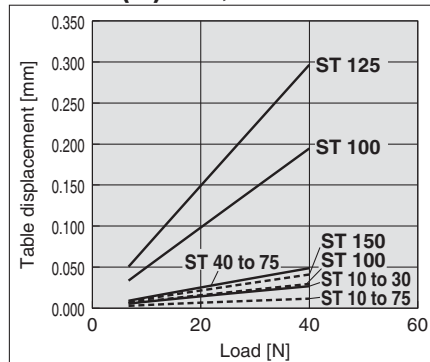
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



The dotted line shown in the graph below shows the displacement of the portion indicated by the arrow when the plate jig is mounted by the customer.

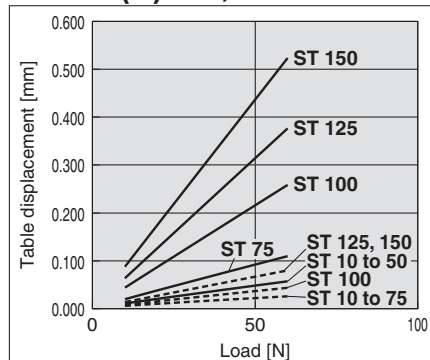


MXQ16(A)-□Z, MXQ12B-□Z



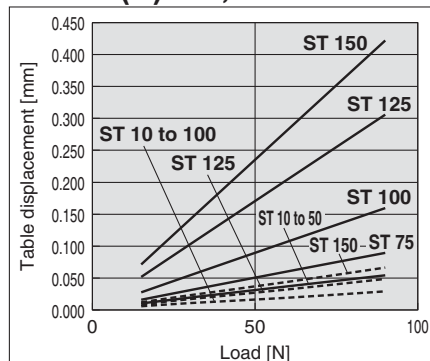
(Plate size: $t = 12$)

MXQ20(A)-□Z, MXQ16B-□Z



(Plate size: $t = 12$)

MXQ25(A)-□Z, MXQ20B-□Z

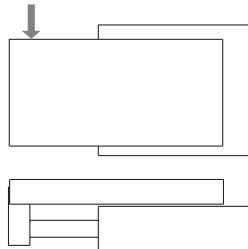


* ST = Stroke

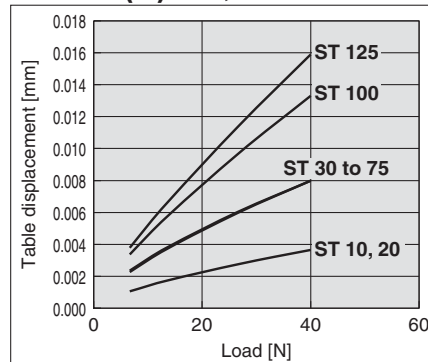
(Plate size: $t = 15$)

Table displacement due to yaw moment load

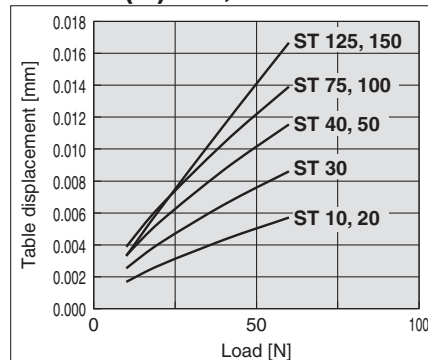
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



MXQ16(A)-□Z, MXQ12B-□Z



MXQ20(A)-□Z, MXQ16B-□Z



MXQ25(A)-□Z, MXQ20B-□Z

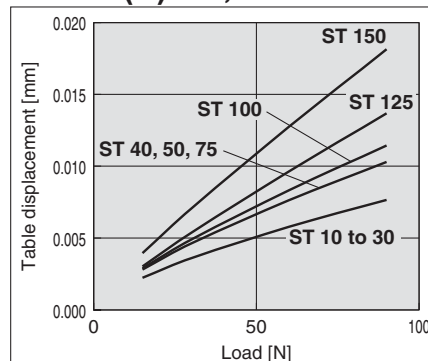
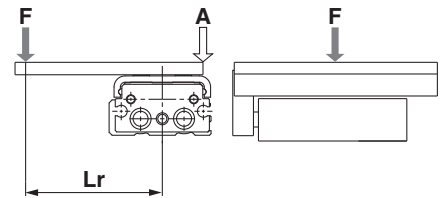
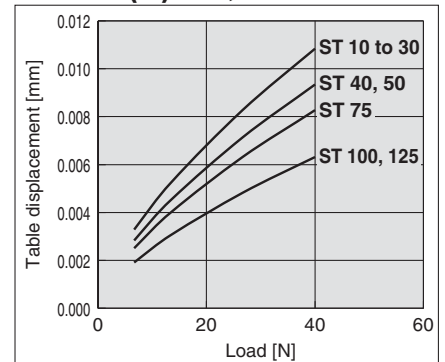


Table displacement due to roll moment load

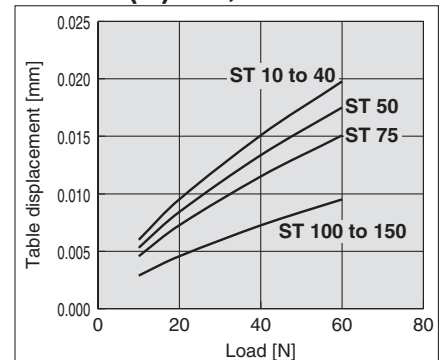
Displacement of part A when a load is applied to part F with the air slide table retracted



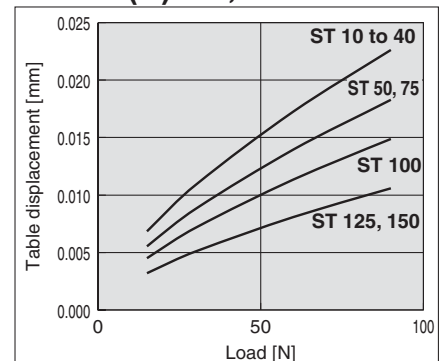
MXQ16(A)-□Z, MXQ12B-□Z



MXQ20(A)-□Z, MXQ16B-□Z



MXQ25(A)-□Z, MXQ20B-□Z



Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster
Options

Auto Switch
Mounting

Made to Order

Model Selection



MXQ Series

Specific Product Precautions 1

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

Mounting

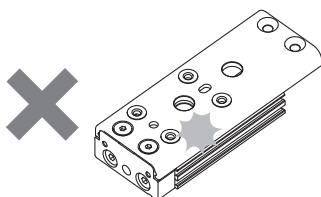
⚠ Caution

1. Do not scratch or dent the mounting side of the body, table, or end plate.

This can cause a loss of parallelism in the mounting surfaces, vibration in the guide unit, increased operating resistance, etc.

2. Do not scratch or dent the transfer surface of the rail or guide.

This could result in looseness, increased operating resistance, etc.



3. Do not apply excessive impact or loads when a workpiece is mounted.

If an external force over the allowable moment is applied, looseness of the guide unit or increased operating resistance may occur.

4. Flatness of mounting surface should be 0.02 mm or less.

Poor parallelism of the workpiece mounted on the body, the base, and other parts can cause vibration in the guide unit, increased operating resistance, etc.

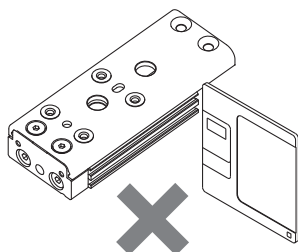
5. Select the proper connection when connecting with a load which has external support and/or a guide mechanism on the outside, and align it properly.

6. Avoid contact with the body during operation.

Hands, etc., may get caught in the stroke adjuster. Install a cover as a safety measure if there are instances when anyone will be near the slide table during operation.

7. Keep away from objects which are influenced by magnets.

As the body magnets are built-in, do not allow close contact with magnetic disks, magnetic cards, or magnetic tapes. Data may be erased.



8. Do not touch a magnet to the table section.

Since the table is made from a magnetic substance, it could become magnetized if put in contact with a magnet, etc.

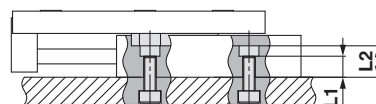
This could cause auto switches, etc., to malfunction.

9. When mounting the body, use screws of the appropriate length and do not exceed the maximum tightening torque.

Tightening with a torque above the limit could cause a malfunction.

Whereas, tightening insufficiently could result in misalignment or dropping.

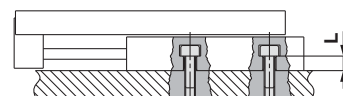
1. Body tapped



⚠ Caution Types other than the MXQ20(A) and MXQ25(A) have through tapped holes. Use bolts that are at least 0.5 mm shorter than the maximum screw-in depth (L2). If long bolts are used, they may touch the end plate and cause a malfunction, etc.

Model	Bolt	Max. tightening torque [N·m]	Screw-in depth L1 [mm]	Max. screw-in depth L2 [mm]
MXQ6	M4 x 0.7	2.1	5	8
MXQ8	M4 x 0.7	2.1	8	11
MXQ12	M5 x 0.8	4.4	11	15
MXQ16	M6 x 1	7.4	14	19
MXQ20	M6 x 1	7.4	9	
MXQ25	M8 x 1.25	18	12	
MXQ6A	M4 x 0.7	2.1	8	11
MXQ8A	M4 x 0.7	2.1	8	11
MXQ12A	M5 x 0.8	4.4	8	12
MXQ16A	M6 x 1	7.4	12	17
MXQ20A	M6 x 1	7.4	9	
MXQ25A	M8 x 1.25	18	12	
MXQ6B	M4 x 0.7	2.1	5	8
MXQ8B	M5 x 0.8	4.4	4	9
MXQ12B	M6 x 1	7.4	7	12
MXQ16B	M6 x 1	7.4	10	15
MXQ20B	M8 x 1.25	18	14	20
MXQ8C	M4 x 0.7	2.1	6	9
MXQ12C	M5 x 0.8	4.4	8	12

2. Through hole



Model	Bolt	Max. tightening torque [N·m]	L [mm]
MXQ6	M3 x 0.5	1.1	5.3
MXQ8	M3 x 0.5	1.1	8.3
MXQ12	M4 x 0.7	2.7	11.5
MXQ16	M5 x 0.8	5.4	14.4
MXQ20	M5 x 0.8	5.4	19.3
MXQ25	M6 x 1	9.2	23.5
MXQ6A	M3 x 0.5	1.1	8.3
MXQ8A	M3 x 0.5	1.1	8.3
MXQ12A	M4 x 0.7	2.7	8.5
MXQ16A	M5 x 0.8	5.4	12.4
MXQ20A	M5 x 0.8	5.4	16.3
MXQ25A	M6 x 1	9.2	20.5
MXQ6B	M3 x 0.5	1.1	5.3
MXQ8B	M4 x 0.7	2.7	4.5
MXQ12B	M5 x 0.8	5.4	7.4
MXQ16B	M5 x 0.8	5.4	10.3
MXQ20B	M6 x 1	9.2	14.5
MXQ8C	M3 x 0.5	1.1	6.3
MXQ12C	M4 x 0.7	2.7	8.5



MXQ Series

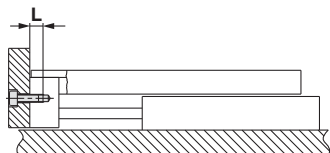
Specific Product Precautions 2

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

Mounting

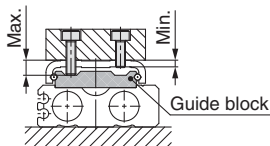
⚠ Caution

3. Front mounting



Model	Bolt	Max. tightening torque [N·m]	Max. screw-in depth L [mm]
MXQ6(A)	—	M3 x 0.5	0.9
MXQ8(A, C)	MXQ6B	M3 x 0.5	0.9
MXQ12(A, C)	MXQ8B	M3 x 0.5	0.9
MXQ16(A)	MXQ12B	M4 x 0.7	2.1
MXQ20(A)	MXQ16B	M5 x 0.8	4.4
MXQ25(A)	MXQ20B	M6 x 1	7.4

4. Top mounting



⚠ Caution In order to prevent the workpiece fixing bolt from hitting the table, use a bolt of a length at least 0.5 mm shorter than the maximum screw-in depth. If long bolts are used, they may touch the guide block and cause a malfunction, etc.

Model		Bolt	Max. tightening torque [N·m]	Screw-in depth [mm]	
				Max.	Min.
MXQ6(A)	—	M3 x 0.5	1.1	4.1	2.1
MXQ8(A, C)	MXQ6B	M3 x 0.5	1.1	4.1	2.1
MXQ12(A, C)	MXQ8B	M4 x 0.7	2.7	5.7	2.7
MXQ16(A)	MXQ12B	M5 x 0.8	5.4	7.3	3.3
MXQ20(A)	MXQ16B	M5 x 0.8	5.4	7.3	3.3
MXQ25(A)	MXQ20B	M6 x 1	9.2	9	4

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

11. When the adjuster is mounted, a moment is generated by the cylinder thrust, causing displacement of the table end at stop.
The displacement amount may vary depending on the supply pressure, mounting orientation, or model. For details, please contact your SMC sales representative.

Mounting

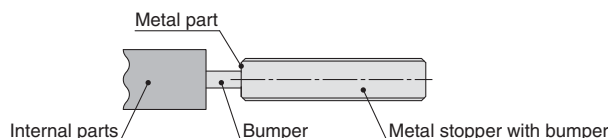
⚠ Caution

12. When using a metal stopper with bumper, use it at the minimum operating pressure level by taking the full compression force into consideration.

When using a metal stopper with bumper, the cylinder output decreases by the full compression of the bumper. If the output has no allowance, the bumper will not be fully compressed to the metal, causing the stop position to be unstable. When selecting a model, pay attention to the cylinder output. (Refer to the table below.)

In particular, when mounted upward in the vertical direction, not only the full compression force of the bumper, but also the workpiece mass should be taken into consideration.

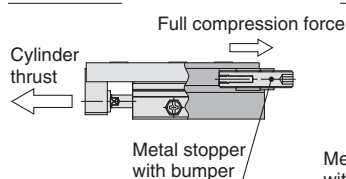
- Horizontal: Cylinder output > Full compression force of bumper
- Vertical: Cylinder output > Full compression force of bumper + (Workpiece mass + Mass of product moving parts)



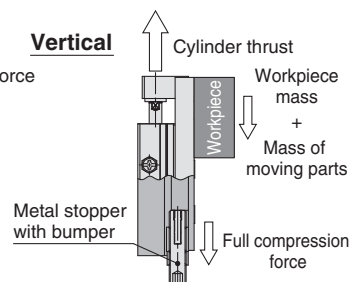
Bore size [mm]	Min. operating pressure of metal stopper with bumper [MPa]	Reference) Full compression force [N]
8	0.3	20
12	0.3	42
16	0.2	65
20	0.2	97
25	0.2	154

* Not available for ø6

Horizontal



Vertical





MXQ Series

Specific Product Precautions 3

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

Operating Environment

⚠ Caution

1. **Do not use in environments where the product could be exposed to liquids, such as cutting oil, etc.**

Using in an environment where the product could be exposed to cutting oil, coolant, oil, etc., could result in looseness, increased operating resistance, air leakage, etc.

2. **Do not use in environments where the product could be exposed directly to foreign matter, such as powder dust, blown dust, cutting chips, spatter, etc.**

This could result in looseness, increased operating resistance, air leakage, etc. Please consult with SMC regarding use in this kind of environment.

3. **Do not use in direct sunlight.**

4. **When there are heat sources in the surrounding area, block them off.**

When there are heat sources in the surrounding area, radiated heat may cause the product's temperature to rise and exceed the operating temperature range. Block off the heat with a cover, etc.

5. **Do not subject the product to excessive vibration and/or impact.**

Please consult with SMC regarding use in this kind of environment, as this can cause damage or a malfunction.

Although the table has adequate strength, if it is damaged, do not touch it with bare hands as the product may be razor-sharp. Serious injury may result.

6. **Use caution for the anti-corrosiveness of the linear guide section.**

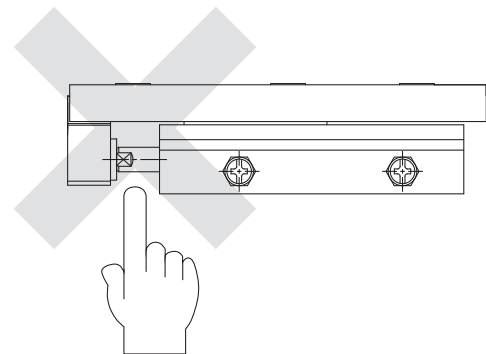
Martensitic stainless steel is used for the table and guide block. However, the anti-corrosiveness of this steel is inferior to that of austenitic stainless steel. In particular, rust may be generated in environments where waterdrops are likely to adhere due to condensation, etc.

Other

⚠ Warning

1. **Do not put hands or fingers between the table and bracket.**

Never put hands or fingers in the gap between the table and bracket when retracted. Doing so will result in injury to the hands, or fingers.



⚠ Caution

1. **Do not disassemble or modify the product.**
2. **Performance stability**

The piston speed in the specification table shows the average speed. The actual speed of this product may vary slightly during the stroke depending on the operating conditions, such as the change of load resistance and pressure.

If a stable operation at low speed is necessary, please contact your local SMC sales office.

Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “**Caution**,” “**Warning**” or “**Danger**.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

 **Caution:** **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

 **Warning:** **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

 **Danger:** **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

*1) ISO 4414: Pneumatic fluid power – General rules relating to systems.
ISO 4413: Hydraulic fluid power – General rules relating to systems.
IEC 60204-1: Safety of machinery – Electrical equipment of machines.
(Part 1: General requirements)
ISO 10218-1: Manipulating industrial robots – Safety.
etc.

Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.
3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

Caution

1. The product is provided for use in manufacturing industries.

The product herein described is basically provided for peaceful use in manufacturing industries.

If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.
If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”.

Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)
Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

*2) Vacuum pads are excluded from this 1 year warranty.

A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

Caution

SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

Revision History

- | | |
|------------------|---|
| Edition B | * Excerpted from pages 35 to 163 of Best Pneumatics No. 3 (Ver. 5)
* Cylinder with stable lubrication function (Lube-retainer) has been added to page 5. RZ |
| Edition C | * The centralized adjuster is available as standard.
* Made to order (Dual stroke specification, Side adjuster specification, Combined use of shock absorber + metal stopper, etc.) options have been added.
* Number of pages has been increased from 132 to 200. VR |

 **Safety Instructions** Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.

SMC Corporation

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D-G

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