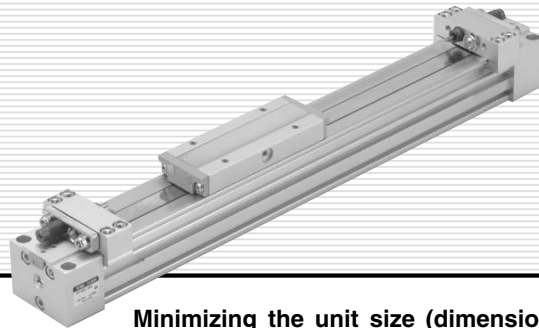


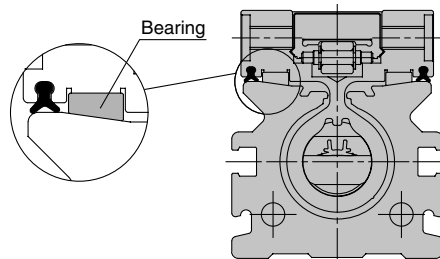
Series MY1B

Basic Type

ø10, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100



Minimizing the unit size (dimensions) and combination with other guides is possible.



MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

Data

Series MY1B Before Operation

Maximum Allowable Moment/Maximum Load Weight

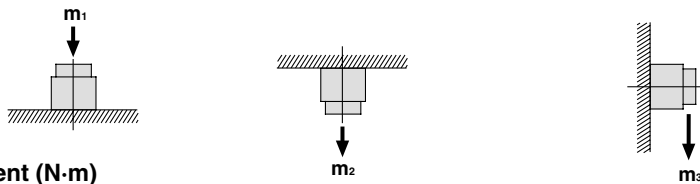
Model	Bore size (mm)	Maximum allowable moment (N·m)			Maximum load weight (kg)		
		M ₁	M ₂	M ₃	m ₁	m ₂	m ₃
MY1B	10	0.8	0.1	0.3	5.0	1.0	0.5
	16	2.5	0.3	0.8	15	3.0	1.7
	20	5.0	0.6	1.5	21	4.2	3.0
	25	10	1.2	3.0	29	5.8	5.4
	32	20	2.4	6.0	40	8.0	8.8
	40	40	4.8	12	53	10.6	14
	50	78	9.3	23	70	14	20
	63	160	19	48	83	16.6	29
	80	315	37	95	120	24	42
100	615	73	18	150	30	60	

The above values are the maximum allowable values for moment and load. Refer to each graph regarding the maximum allowable moment and maximum allowable load for a particular piston speed.

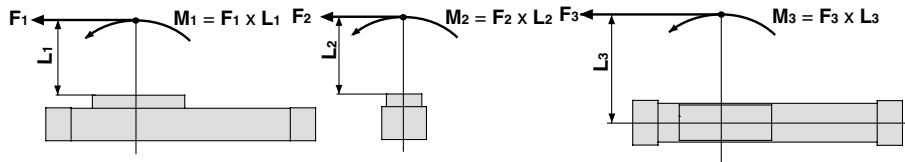
Caution on Design

We recommend installing an external shock absorber when the cylinder is combined with another guide (connection with floating bracket, etc.) and the maximum allowable load is exceeded, or when the operating speed is 1000 to 1500 mm/s for bore sizes ø16, ø50, ø63, ø80 and ø100.

Load weight (kg)



Moment (N·m)



<Calculation of guide load factor>

1. Maximum allowable load (1), static moment (2), and dynamic moment (3) (at the time of impact with stopper) must be examined for the selection calculations.

* To evaluate, use \bar{v}_a (average speed) for (1) and (2), and v (collision speed $v = 1.4 \bar{v}_a$) for (3). Calculate m_{max} for (1) from the maximum allowable load graph (m_1, m_2, m_3) and M_{max} for (2) and (3) from the maximum allowable moment graph (M_1, M_2, M_3).

$$\text{Sum of guide load factors } \Sigma \alpha = \frac{\text{Load weight [m]}}{\text{Maximum allowable load [m}_{max}\text{]}} + \frac{\text{Static moment [M]}^{(1)}}{\text{Allowable static moment [M}_{max}\text{]}} + \frac{\text{Dynamic moment [M}_E\text{]}^{(2)}}{\text{Allowable dynamic moment [M}_{E,max}\text{]}} \leq 1$$

Note 1) Moment caused by the load, etc., with cylinder in resting condition.

Note 2) Moment caused by the impact load equivalent at the stroke end (at the time of impact with stopper).

Note 3) Depending on the shape of the workpiece, multiple moments may occur. When this happens, the sum of the load factors ($\Sigma \alpha$) is the total of all such moments.

2. Reference formula [Dynamic moment at impact]

Use the following formulae to calculate dynamic moment when taking stopper impact into consideration.

m: Load weight (kg)

F: Load (N)

F_E: Load equivalent to impact (at impact with stopper) (N)

\bar{v}_a : Average speed (mm/s)

M: Static moment (N·m)

$v = 1.4 \bar{v}_a$ (mm/s) $F_E = 1.4 \bar{v}_a \cdot \delta \cdot m \cdot g$ (Note 4)

$\therefore M_E = \frac{1}{3} \cdot F_E \cdot L_1 = 4.57 \bar{v}_a \delta m L$ (Note 5)

v : Collision speed (mm/s)

L: Distance to the load's center of gravity (m)

M_E: Dynamic moment (N·m)

δ : Damper coefficient

With rubber bumper = 4/100

(MY1B10, MY1H10)

With air cushion = 1/100

With shock absorber = 1/100

g: Gravitational acceleration (9.8 m/s²)

Note 4) $1.4 \bar{v}_a \delta$ is a dimensionless coefficient for calculating impact force.

Note 5) Average load coefficient ($\frac{1}{3}$): This coefficient is for averaging the maximum load moment at the time of stopper impact according to service life calculations.

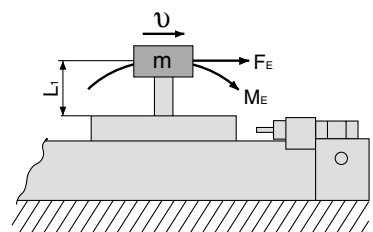
3. For detailed selection procedures, refer to pages 8-11-14 to 8-11-15.

Maximum Allowable Moment

Select the moment from within the range of operating limits shown in the graphs. Note that the maximum allowable load value may sometimes be exceeded even within the operating limits shown in the graphs. Therefore, also check the allowable load for the selected conditions.

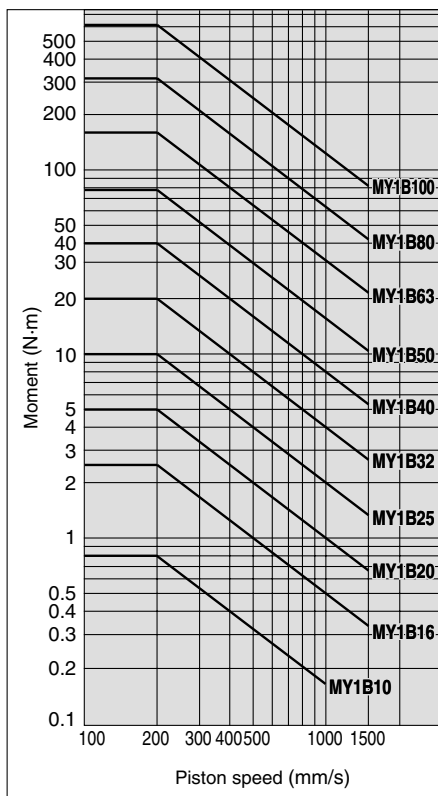
Maximum Load Weight

Select the load from within the range of limits shown in the graphs. Note that the maximum allowable moment value may sometimes be exceeded even within the operating limits shown in the graphs. Therefore, also check the allowable moment for the selected conditions.

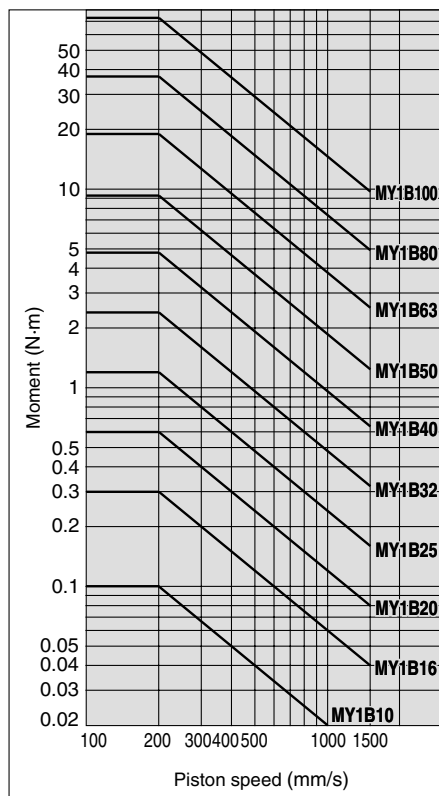


Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

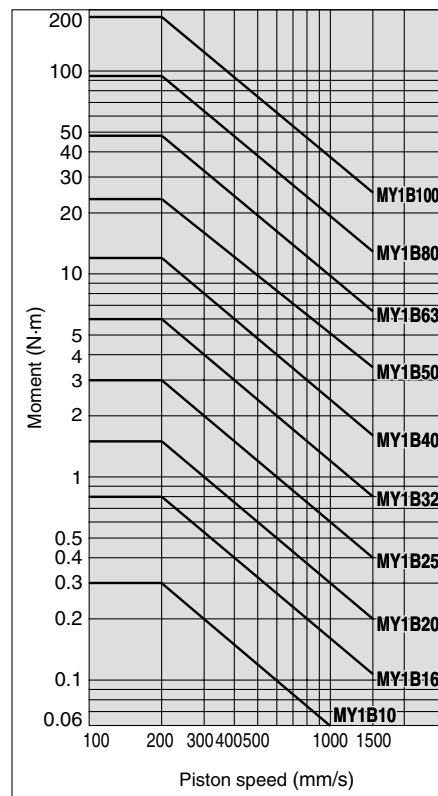
MY1B/M₁



MY1B/M₂



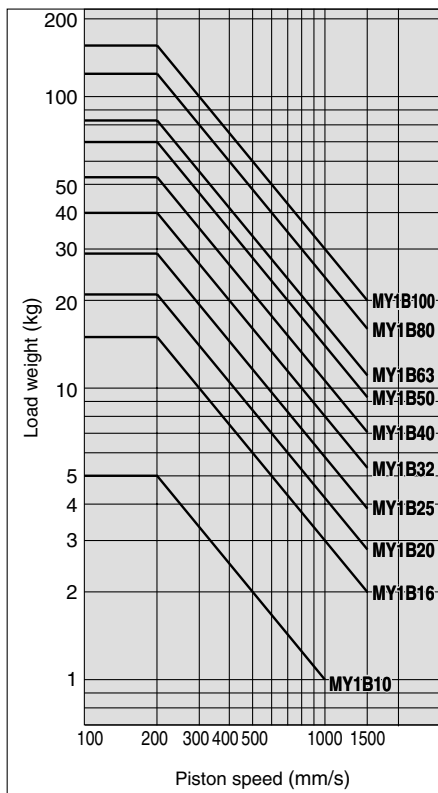
MY1B/M₃



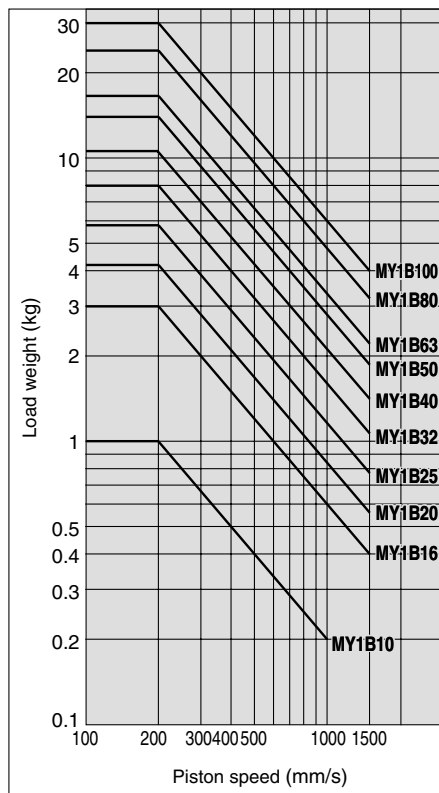
- MX
- MTS
- MY
- CY
- MG
- CX
- D-
- X
- 20-

Data

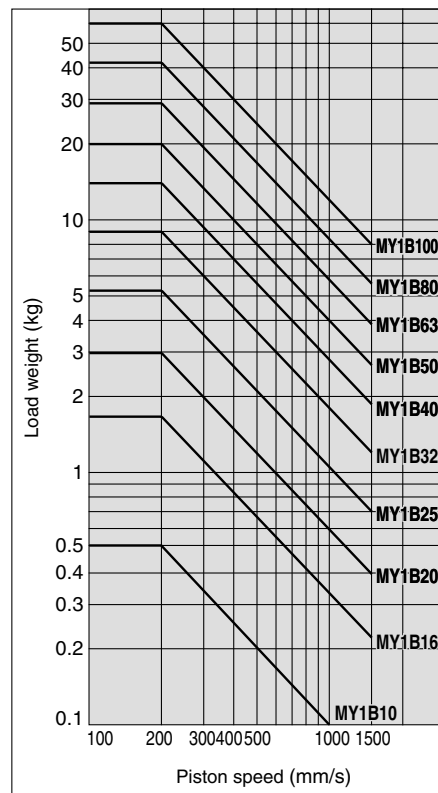
MY1B/m₁



MY1B/m₂



MY1B/m₃



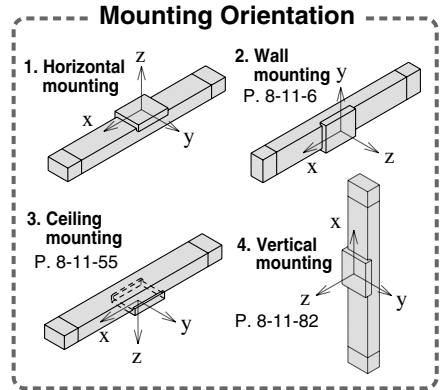
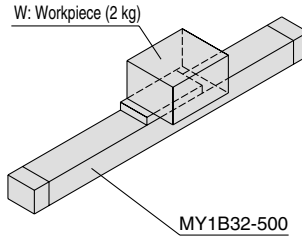
Model Selection

Following are the steps for selecting the most suitable Series MY1B to your application.

Calculation of Guide Load Factor

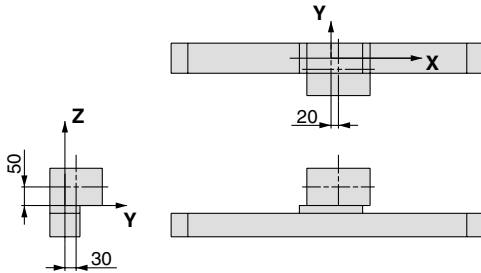
1. Operating Conditions

- Cylinder MY1B32-500
- Average operating speed v_a 300 mm/s
- Mounting orientation Horizontal mounting
- Cushion Air cushion
($\delta = 1/100$)



For actual examples of calculation for each orientation, refer to the pages above.

2. Load Blocking



Weight and Center of Gravity for Workpiece

Workpiece no.	Weight m	Center of gravity		
		X-axis	Y-axis	Z-axis
W	2 kg	20 mm	30 mm	50 mm

3. Calculation of Load Factor for Static Load

m₁: Weight

m_{1max} (from (1) of graph MY1B/ m_1) = 27 (kg).....

Load factor $\alpha_1 = m_1/m_{1max} = 2/27 = \mathbf{0.07}$

M₁: Moment

M_{1max} (from (2) of graph MY1B/ M_1) = 13 (N·m).....

$M_1 = m_1 \times g \times X = 2 \times 9.8 \times 20 \times 10^{-3} = 0.39$ (N·m)

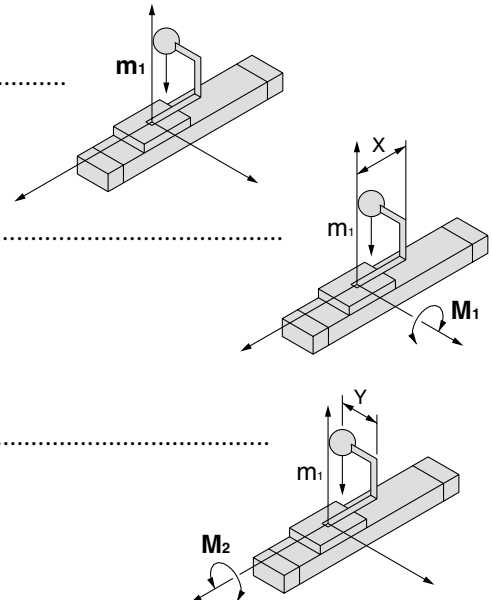
Load factor $\alpha_2 = M_1/M_{1max} = 0.39/13 = \mathbf{0.03}$

M₂: Moment

M_{2max} (from (3) of graph MY1B/ M_2) = 1.6 (N·m).....

$M_2 = m_1 \times g \times Y = 2 \times 9.8 \times 30 \times 10^{-3} = 0.59$ (N·m)

Load factor $\alpha_3 = M_2/M_{2max} = 0.59/1.6 = \mathbf{0.37}$



4. Calculation of Load Factor for Dynamic Moment

Equivalent load F_E at impact

$$F_E = 1.4 \nu a \times \delta \times m \times g = 1.4 \times 300 \times \frac{1}{100} \times 2 \times 9.8 = 82.3 \text{ (N)}$$

M_{1E} : Moment

$M_{1E\max}$ (from (4) of graph MY1B/ M_1 where $1.4 \nu a = 420 \text{ mm/s}$) = 9.5 (N·m).....

$$M_{1E} = \frac{1}{3} \times F_E \times Z = \frac{1}{3} \times 82.3 \times 50 \times 10^{-3} = 1.37 \text{ (N·m)}$$

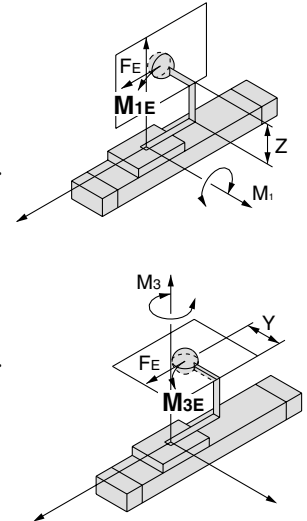
$$\text{Load factor } \alpha_4 = M_{1E}/M_{1E\max} = 1.37/9.5 = 0.14$$

M_{3E} : Moment

$M_{3E\max}$ (from (5) of graph MY1B/ M_3 where $1.4 \nu a = 420 \text{ mm/s}$) = 2.9 (N·m).....

$$M_{3E} = \frac{1}{3} \times F_E \times Y = \frac{1}{3} \times 82.3 \times 30 \times 10^{-3} = 0.82 \text{ (N·m)}$$

$$\text{Load factor } \alpha_5 = M_{3E}/M_{3E\max} = 0.82/2.9 = 0.28$$



MX

MTS

MY

CY

MG

CX

D-

-X

20-

Data

5. Sum and Examination of Guide Load Factors

$$\Sigma \alpha = \alpha_1 + \alpha_2 + \alpha_3 + \alpha_4 + \alpha_5 = 0.89 \leq 1$$

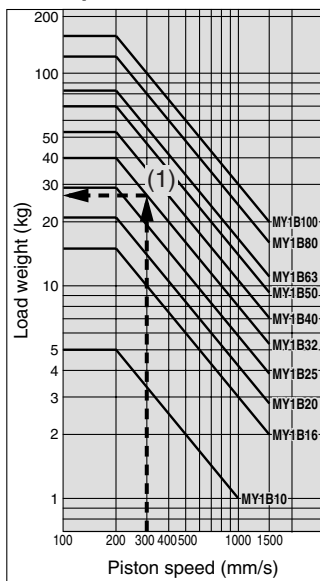
The above calculation is within the allowable value, and therefore the selected model can be used.

Select a shock absorber separately.

In an actual calculation, when the total sum of guide load factors $\Sigma \alpha$ in the formula above is more than 1, consider either decreasing the speed, increasing the bore size, or changing the product series. This calculation can be easily made using the "SMC Pneumatics CAD System".

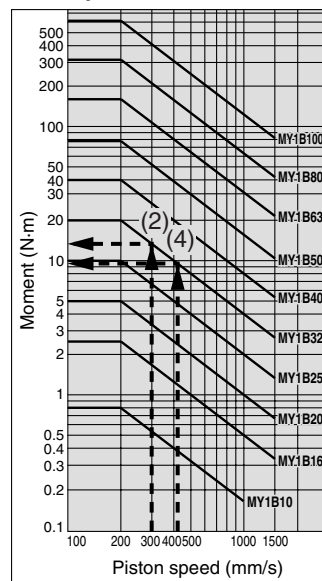
Load Weight

MY1B/ m_1

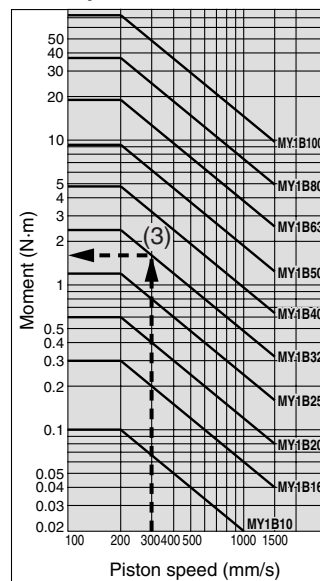


Allowable Moment

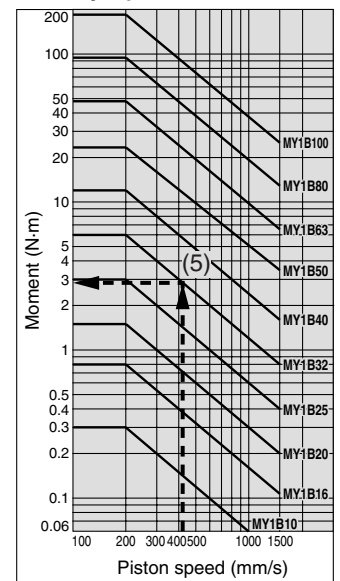
MY1B/ M_1



MY1B/ M_2



MY1B/ M_3



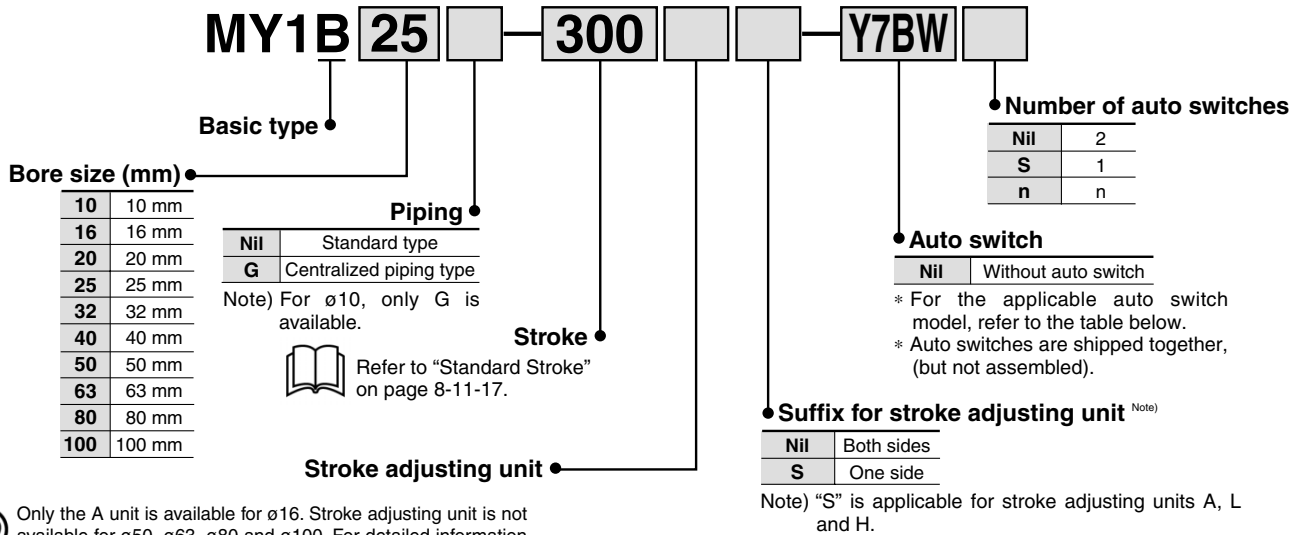


Mechanically Jointed Rodless Cylinder Basic Type

Series MY1B

ø10, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order



Only the A unit is available for ø16. Stroke adjusting unit is not available for ø50, ø63, ø80 and ø100. For detailed information on stroke adjusting unit specifications, refer to page 8-11-17.

Nil	Without adjusting unit
A	With adjusting bolt
L	With low load shock absorber + Adjusting bolt
H	With high load shock absorber + Adjusting bolt
AL	With one A unit and one L unit
AH	With one A unit and one H unit each
LH	With one L unit and one H unit each

Shock Absorbers for L and H Units

Bore size (mm)	10	20	25	32	40
L unit	—	RB0806	RB1007	RB1412	
H unit	RB0805	RB1007	RB1412	RB2015	

Applicable Auto Switch/Refer to page 8-30-1 for further information on auto switches. For ø10, ø16, ø20

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length (m)*			Pre-wire connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)	IC circuit		Relay, PLC	
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	A93V	A93	●	●	—	—	—	Relay, PLC
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				M9PV	M9P	●	●	○	○		
				2-wire				M9BV	M9B	●	●	○	○	—	
				3-wire (NPN)				F9NWV	F9NW	●	●	○	○	IC circuit	
				3-wire (PNP)				F9PWV	F9PW	●	●	○	○	—	
				2-wire				F9BWV	F9BW	●	●	○	○	—	

For ø25, ø32, ø40, ø50, ø63, ø80, ø100

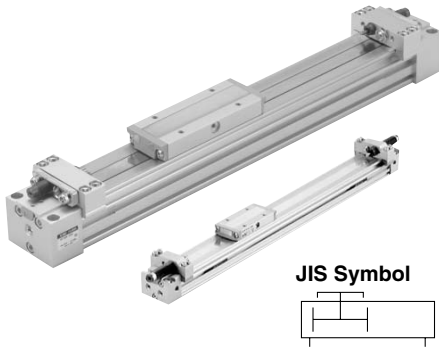
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length (m)*			Pre-wire connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)	IC circuit		Relay, PLC	
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	—	Z76	●	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	—	Z73	●	●	—	—	—	Relay, PLC
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	Y69A	Y59A	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				Y7PV	Y7P	●	●	○	○		
				2-wire				Y69B	Y59B	●	●	○	○	—	
				3-wire (NPN)				Y7NWV	Y7NW	●	●	○	○	IC circuit	
				3-wire (PNP)				Y7PWV	Y7PW	●	●	○	○	—	
				2-wire				Y7BWV	Y7BW	●	●	○	○	—	

* Lead wire length symbols: 0.5 m.....Nil (Example) A93
3 m.....L (Example) Y59BL
5 m.....Z (Example) F9NWZ

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

- There are other applicable auto switches than listed above. For details, refer to page 8-11-101.
- For details about auto switches with pre-wire connector, refer to page 8-30-52.

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B



Specifications

Bore size (mm)	10	16	20	25	32	40	50	63	80	100	
Fluid	Air										
Action	Double acting										
Operating pressure range	0.2 to 0.8 MPa					0.1 to 0.8 MPa					
Proof pressure	1.2 MPa										
Ambient and fluid temperature	5 to 60°C										
Cushion	Rubber bumper					Air cushion					
Lubrication	Non-lube										
Stroke length tolerance	1000 or less $+1.8_0^{+2.8}$ 1001 to 3000 $+2.8_0^{+4.8}$					2700 or less $+1.8_0^{+2.8}$, 2701 to 5000 $+2.8_0^{+4.8}$					
Piping Port size	Front/Side port	M5 x 0.8			Rc 1/8		Rc 1/4	Rc 3/8		Rc 1/2	
	Bottom port	ø4			ø5	ø6	ø8	ø10	ø11	ø16	ø18

Stroke Adjusting Unit Specifications

Bore size (mm)	10			16			20			25			32			40		
Unit symbol	A	H	A	A	L	H	A	L	H	A	L	H	A	L	H			
Configuration	With adjusting bolt	RB 0805 with adjusting bolt	With adjusting bolt	With adjusting bolt	RB 0806 with adjusting bolt	RB 0807 with adjusting bolt	With adjusting bolt	RB 1007 with adjusting bolt	RB 1412 with adjusting bolt	With adjusting bolt	RB 1412 with adjusting bolt	RB 2015 with adjusting bolt	With adjusting bolt	RB 1412 with adjusting bolt	RB 2015 with adjusting bolt			
Fine stroke adjustment range (mm)	0 to -5		0 to -5.6		0 to -6			0 to -11.5			0 to -12			0 to -16				
Stroke adjustment range	When exceeding the stroke fine adjustment range: Utilize a made-to-order specifications "-X416" and "-X417".																	

Shock Absorber Specifications

Model	RB 0805	RB 0806	RB 1007	RB 1412	RB 2015	
Max. energy absorption (J)	1.0	2.9	5.9	19.6	58.8	
Stroke absorption (mm)	5	6	7	12	15	
Max. collision speed (mm/s)	1000	1500	1500	1500	1500	
Max. operating frequency(cycle/min)	80	80	70	45	25	
Spring force (N)	Extended	1.96	1.96	4.22	6.86	8.34
	Retracted	3.83	4.22	6.86	15.98	20.50
Operating temperature range (°C)	5 to 60					

Piston Speed

Bore size (mm)		10	16 to 100
Without stroke adjusting unit		100 to 500 mm/s	100 to 1000 mm/s
Stroke adjusting unit	A unit	100 to 200 mm/s	100 to 1000 mm/s ⁽¹⁾
	L unit and H unit	100 to 1000 mm/s	100 to 1500 mm/s ⁽²⁾

Note 1) Be aware that when the stroke adjusting range is increased by manipulating the adjusting bolt, the air cushion capacity decreases. Also, when exceeding the air cushion stroke ranges on page 8-11-20, the piston speed should be 100 to 200 mm per second.

Note 2) The piston speed is 100 to 1000 mm/s for centralized piping.

Note 3) Use at a speed within the absorption capacity range. Refer to page 8-11-19.



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

Symbol	Specifications
-XB11	Long stroke type
-XC18	NPT finish piping port
-XC67	NBR rubber lining in dust seal band
-X168	Helical insert thread specifications
-X416	Holder mounting bracket I
-X417	Holder mounting bracket II

Standard Stroke

Bore size (mm)	Standard stroke (mm)*	Maximum manufacturable stroke (mm)
10, 16	100, 200, 300, 400, 500, 600, 700	3000
20, 25, 32, 40, 50, 63, 80, 100	800, 900, 1000, 1200, 1400, 1600, 1800, 2000	5000

* Strokes are manufacturable in 1 mm increments, up to the maximum stroke. However, when exceeding a 2000 mm stroke, specify "-XB11" at the end of the model number.

Series MY1B

Theoretical Output

(N)

Bore size (mm)	Piston area (mm ²)	Operating pressure (MPa)							
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	
10	78	15	23	31	39	46	54	62	
16	200	40	60	80	100	120	140	160	
20	314	62	94	125	157	188	219	251	
25	490	98	147	196	245	294	343	392	
32	804	161	241	322	402	483	563	643	
40	1256	251	377	502	628	754	879	1005	
50	1962	392	588	784	981	1177	1373	1569	
63	3115	623	934	1246	1557	1869	2180	2492	
80	5024	1004	1507	2009	2512	3014	3516	4019	
100	7850	1570	2355	3140	3925	4710	5495	6280	

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

Weight

(kg)

Bore size (mm)	Basic weight	Additional weight per each 50mm of stroke	Side support weight (per set)	Stroke adjusting unit weight (per unit)		
			Type A and B	A unit weight	L unit weight	H unit weight
10	0.15	0.04	0.003	0.01	—	0.02
16	0.61	0.06	0.01	0.04	—	—
20	1.06	0.10	0.02	0.05	0.05	0.10
25	1.33	0.12	0.02	0.06	0.10	0.18
32	2.65	0.18	0.02	0.12	0.21	0.40
40	3.87	0.27	0.04	0.23	0.32	0.49
50	7.78	0.44	0.04	—	—	—
63	13.10	0.70	0.08	—	—	—
80	20.70	1.18	0.17	—	—	—
100	35.70	1.97	0.17	—	—	—

Calculation: (Example) MY1B25-300A

- Basic weight 1.33 kg
- Cylinder stroke 300 stroke
- Additional weight 0.12/50 stroke
1.33 + 0.12 x 300/50 + 0.06 x 2 ≒ 2.17 kg
- Weight of A unit 0.06 kg

Option

Stroke Adjusting Unit Part No.

Bore size (mm)	10	16	20	25	32
A unit	MY-A10A	MY-A16A	MY-A20A	MY-A25A	MY-A32A
L unit	—	—	MY-A20L	MY-A25L	MY-A32L
H unit	MY-A10H	—	MY-A20H	MY-A25H	MY-A32H

Bore size (mm)	40
A unit	MY-A40A
L unit	MY-A40L
H unit	MY-A40H

Side Support Part No.

Bore size (mm)	10	16	20	25	32
Side support A	MY-S10A	MY-S16A	MY-S20A	MY-S25A	
Side support B	MY-S10B	MY-S16B	MY-S20B	MY-S25B	

Bore size (mm)	40	50	63	80	100
Side support A	MY-S32A		MY-S50A	MY-S63A	
Side support B	MY-S32B		MY-S50B	MY-S63B	

For details about dimensions, etc., refer to page 8-11-27.

Cushion Capacity

Cushion Selection

<Rubber bumper>

Rubber bumpers are a standard feature on MY1B10.

Since the stroke absorption of rubber bumpers is short, when adjusting the stroke with an A unit, install an external shock absorber.

The load and speed range which can be absorbed by a rubber bumper is inside the rubber bumper limit line of the graph.

<Air cushion>

Air cushions are a standard feature on mechanically jointed rodless cylinders. (Except $\phi 10$.)

The air cushion mechanism is incorporated to prevent excessive impact of the piston at the stroke end during high speed operation. The purpose of air cushion, thus, is not to decelerate the piston near the stroke end.

The ranges of load and speed that air cushions can absorb are within the air cushion limit lines shown in the graphs.

<Stroke adjusting unit with shock absorber>

Use this unit when operating with a load or speed exceeding the air cushion limit line, or when cushioning is required outside of the effective air cushion stroke range due to stroke adjustment.

L unit

Use this unit when cushioning is necessary outside of the effective air cushion range even if the load and speed are within the air cushion limit line, or when the cylinder is operated in a load and speed range above the air cushion limit line and below the L unit limit line.

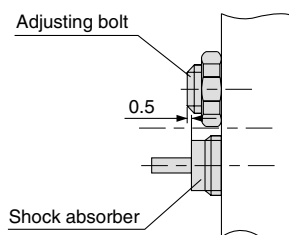
H unit

Use this unit when the cylinder is operated in a load and speed range above the L unit limit line and below the H unit limit line.

⚠ Caution

1. Refer to the figure below when using the adjusting bolt to perform stroke adjustment.

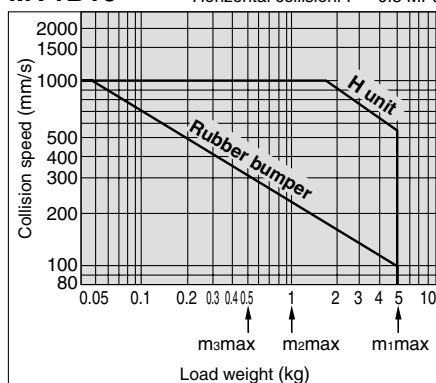
When the effective stroke of the shock absorber decreases as a result of stroke adjustment, the absorption capacity decreases dramatically. Secure the adjusting bolt at the position where it protrudes approximately 0.5 mm from the shock absorber.



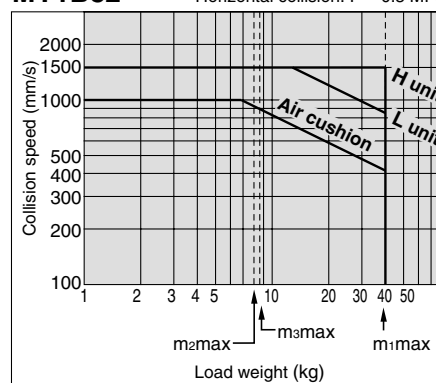
2. Do not use a shock absorber together with air cushion.

Absorption Capacity of Rubber Bumper, Air Cushion and Stroke Adjusting Units

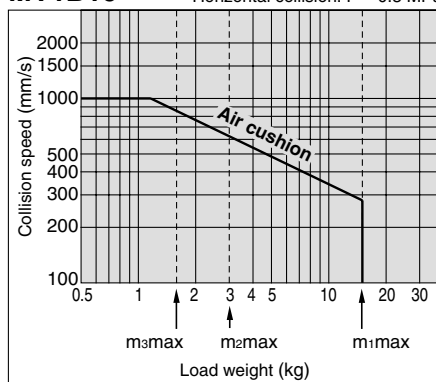
MY1B10 Horizontal collision: P = 0.5 MPa



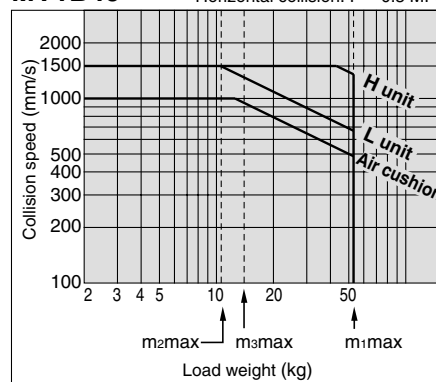
MY1B32 Horizontal collision: P = 0.5 MPa



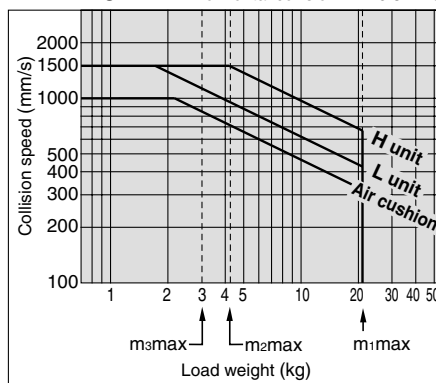
MY1B16 Horizontal collision: P = 0.5 MPa



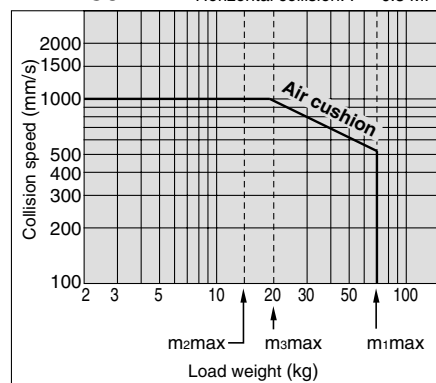
MY1B40 Horizontal collision: P = 0.5 MPa



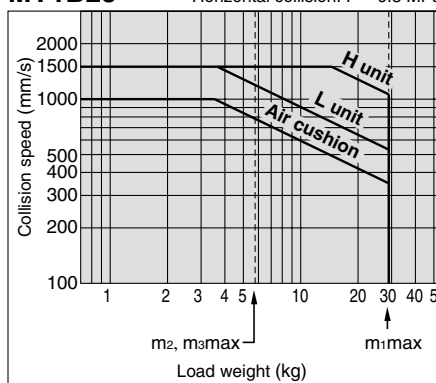
MY1B20 Horizontal collision: P = 0.5 MPa



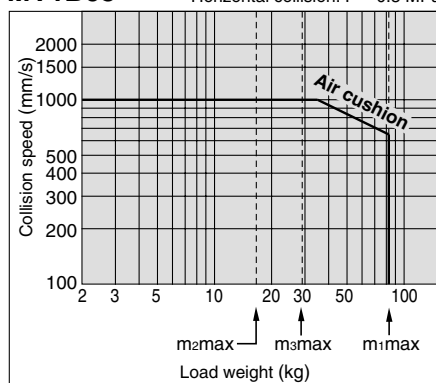
MY1B50 Horizontal collision: P = 0.5 MPa



MY1B25 Horizontal collision: P = 0.5 MPa



MY1B63 Horizontal collision: P = 0.5 MPa



MX

MTS

MY

CY

MG

CX

D-

-X

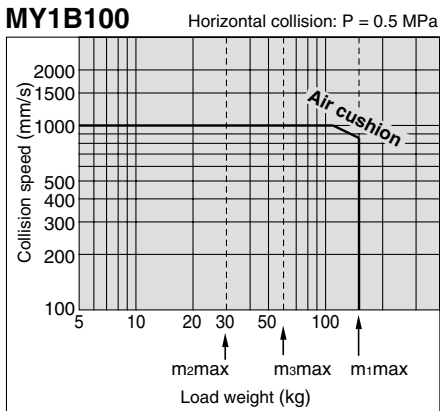
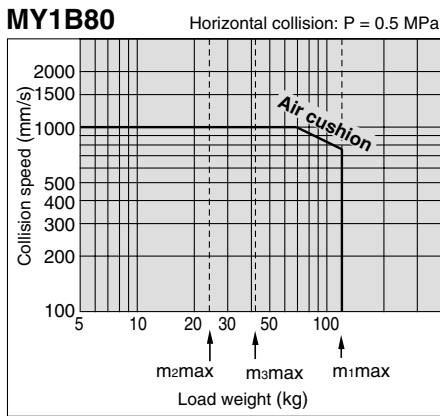
20-

Data

Series MY1B

Cushion Capacity

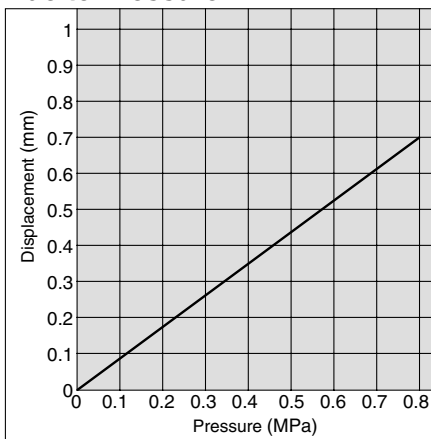
Rubber Bumper/Air Cushion Stroke Adjustment Unit Absorption Capacity



Air Cushion Stroke

Bore size (mm)	Cushion stroke
16	12
20	15
25	15
32	19
40	24
50	30
63	37
80	40
100	40

Rubber Bumper (ø10 only) Positive Stroke from One End Due to Pressure



Tightening Torque for Stroke Adjusting Unit Holding Bolts

Bore size (mm)	Unit	Tightening torque (N·m)
10	A	0.3
	H	
16	A	0.6
	H	
20	A	1.5
	L	
25	A	3.0
	H	
32	A	5.0
	L	
40	A	10
	L	
	H	

Tightening Torque for Stroke Adjusting Unit Lock Plate Holding Bolts

Bore size (mm)	Unit	Tightening torque (N·m)
20	H	1.2
	L	
25	H	3.3
	L	
32	H	10
	L	
40	L	3.3
	H	

Calculation of Absorbed Energy for Stroke Adjusting Unit with Shock Absorber

Type of impact	Horizontal collision	Vertical (Downward)	Vertical (Upward)
Kinetic energy E ₁		$\frac{1}{2} m \cdot v^2$	
Thrust energy E ₂	F · s	F _s + m · g · s	F _s - m · g · s
Absorbed energy E	E ₁ + E ₂		

Symbol

v: Speed of impact object (m/s)

F: Cylinder thrust (N)

s: Shock absorber stroke (m)

m: Weight of impact object (kg)

g: Gravitational acceleration (9.8 m/s²)

Note) The speed of the impact object is measured at the time of impact with the shock absorber.

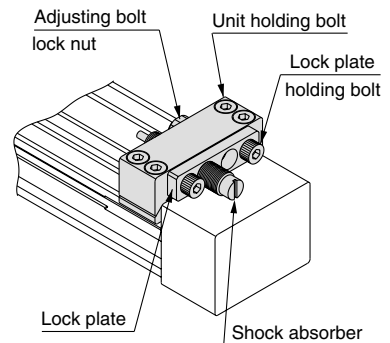
⚠ Precautions

Be sure to read before handling. For Safety Instructions and Actuator Precautions, refer to pages 8-34-3 to 8-34-6.

⚠ Caution

Use caution not to get your hands caught in the unit.

- When using a product with stroke adjusting unit, the space between the slide table (slider) and the stroke adjusting unit becomes narrow at the stroke end, causing a danger of hands getting caught. Install a protective cover to prevent direct contact with the human body.



<Fastening of unit>

The unit can be secured by evenly tightening the four unit holding bolts.

⚠ Caution

Do not operate with the stroke adjusting unit fixed in an intermediate position.

When the stroke adjusting unit is fixed in an intermediate position, slippage can occur depending on the amount of energy released at the time of an impact. In such cases, the use of the adjusting bolt mounting brackets, available per made-to-order specifications -X416 and -X417, is recommended. (Except ø10)

For other lengths, please consult with SMC (Refer to "Tightening Torque for Stroke Adjusting Unit Holding Bolts".)

<Stroke adjustment with adjusting bolt> Loosen the adjusting bolt lock nut, and adjust the stroke from the lock plate side using a hexagon wrench. Retighten the lock nut.

<Stroke adjustment with shock absorber>

Loosen the two lock plate holding bolts, turn the shock absorber and adjust the stroke. Then, uniformly tighten the lock plate holding bolts to secure the shock absorber.

Take care not to over-tighten the holding bolts. (Except ø10 and ø20 L unit.) (Refer to "Tightening Torque for Stroke Adjusting Unit Lock Plate Holding Bolts".)

Note)

Although the lock plate may slightly bend due to tightening of the lock plate holding bolt, this does not affect the shock absorber and locking function.

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Centralized Piping Type $\phi 10$

Refer to page 8-11-9 regarding centralized piping port variations.

MY1B10G — Stroke

MX

MTS

MY

CY

MG

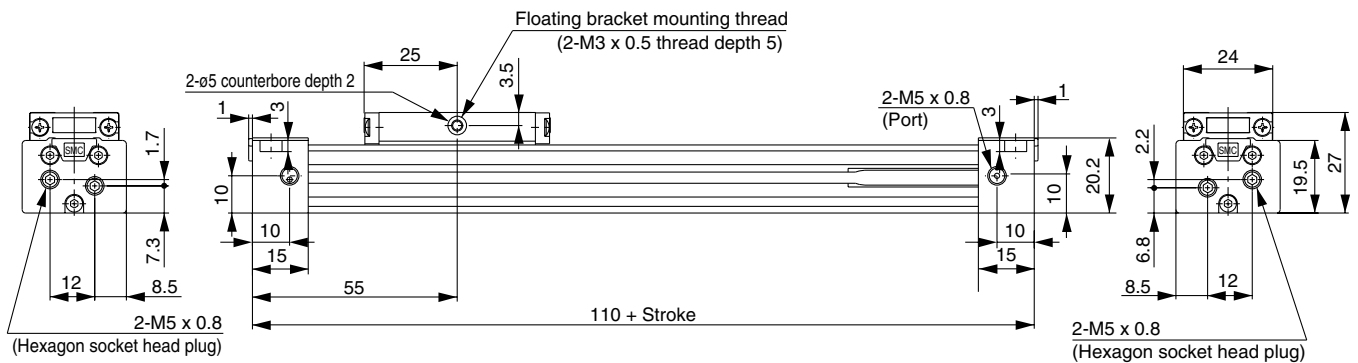
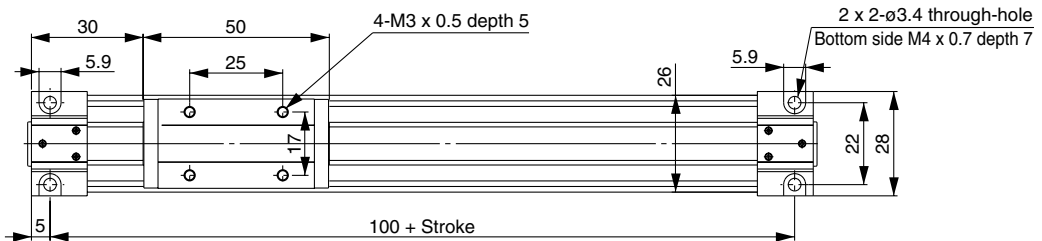
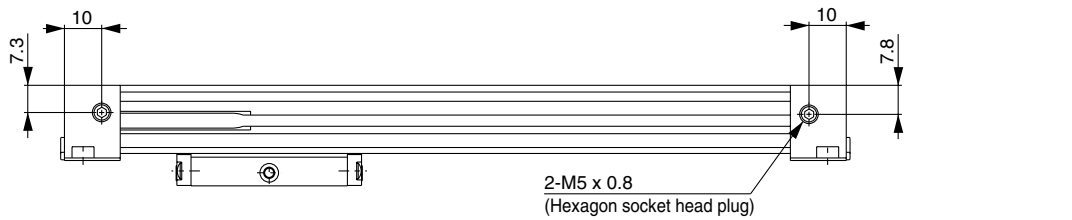
CX

D-

-X

20-

Data

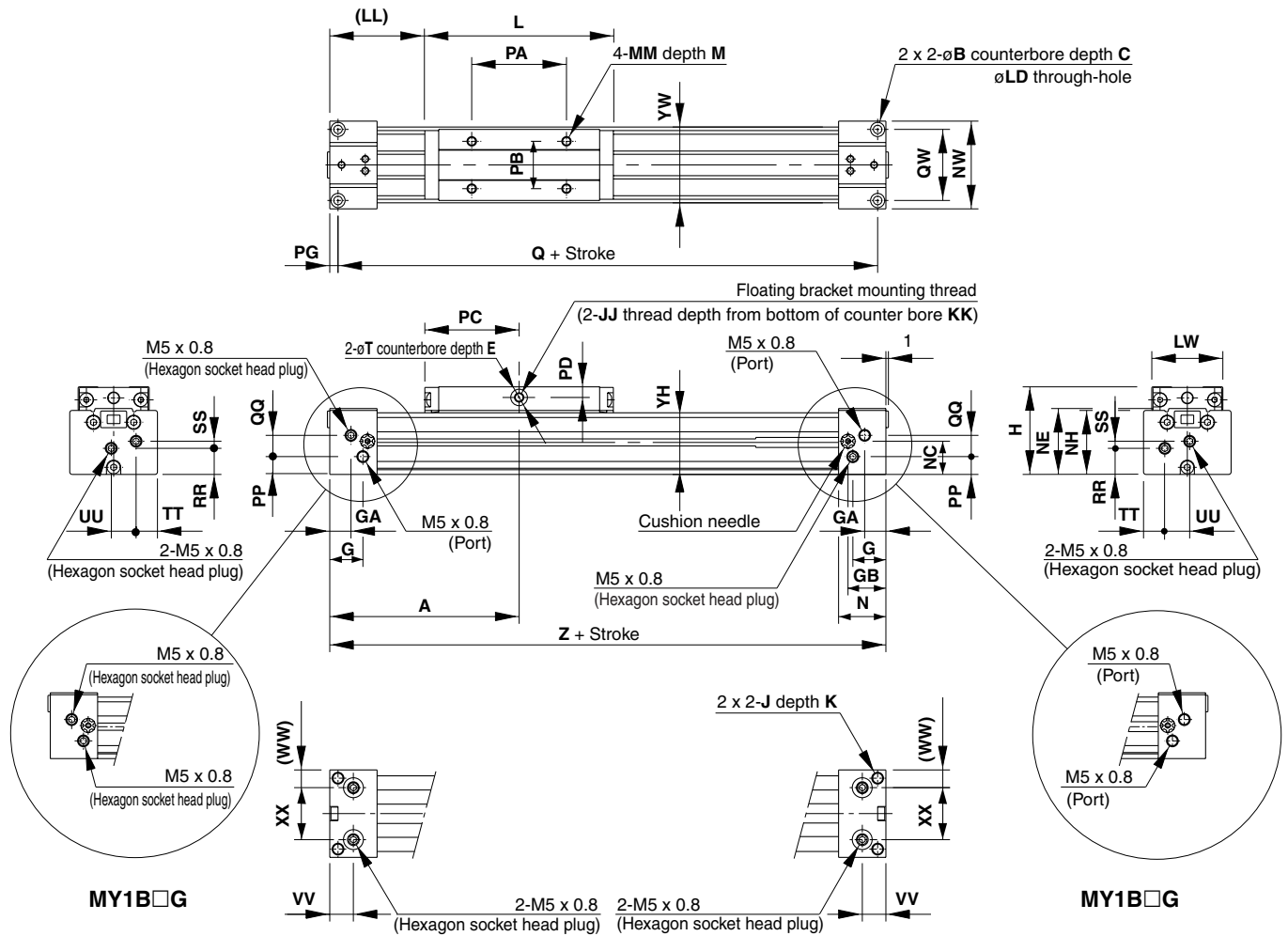


Series MY1B

Standard Type/Centralized Piping Type $\phi 16, \phi 20$

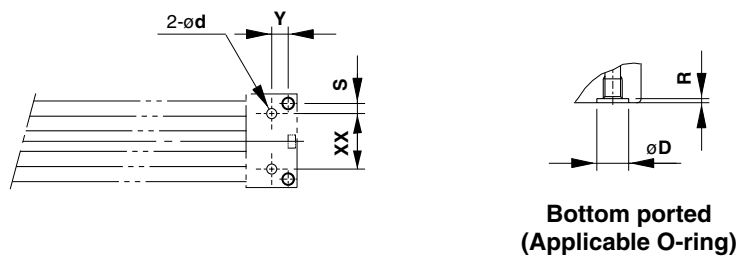
Refer to page 8-11-9 regarding centralized piping port variations.

MY1B16□/20□ — Stroke



Model	A	B	C	E	G	GA	GB	H	J	JJ	K	KK	L	LD	LL	LW	M	MM	N	NC	NE
MY1B16□	80	6	3.5	2	14	9	16	37	M5 x 0.8	M4 x 0.7	10	6.5	80	3.5	40	30	6	M4 x 0.7	20	14	27.8
MY1B20□	100	7.5	4.5	2	12.5	12.5	17.5	46	M6 x 1	M4 x 0.7	12	10	100	4.5	50	37	8	M5 x 0.8	25	17.5	34

Model	NH	NW	PA	PB	PC	PD	PG	PP	Q	QQ	QW	RR	SS	T	TT	UU	VV	WW	XX	YH	YW	Z
MY1B16□	27	37	40	20	40	4.5	3.5	7.5	153	9	30	11	3	7	9	10.5	10	7.5	22	26	32	160
MY1B20□	33.5	45	50	25	50	5	4.5	11.5	191	11	36	14.5	5	8	10.5	12	12.5	10.5	24	32.5	40	200



Hole Size for Centralized Piping on the Bottom

Model	WX	Y	S	d	D	R	Applicable O-ring
MY1B16□	22	6.5	4	4	8.4	1.1	C6
MY1B20□	24	8	6	4	8.4	1.1	

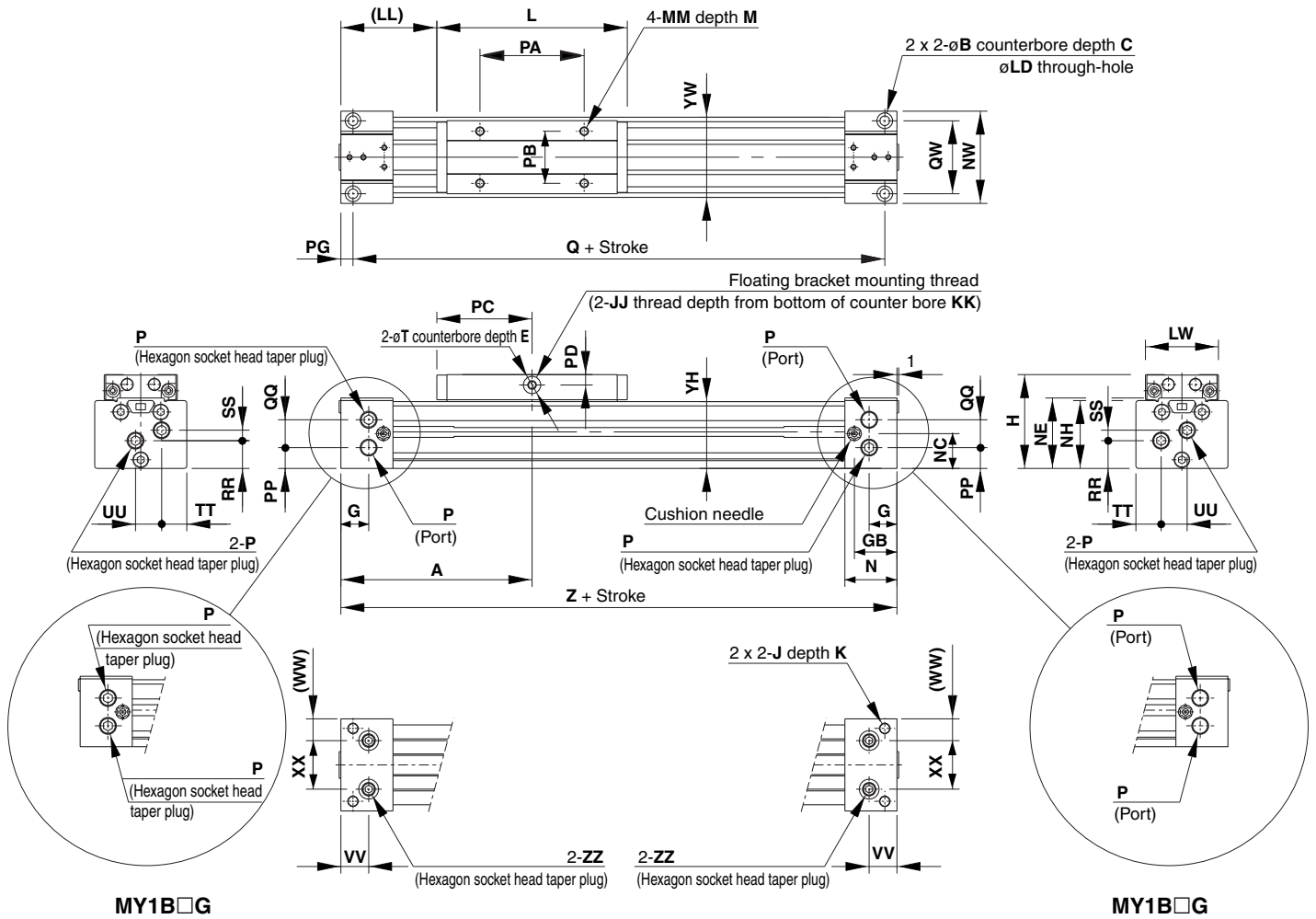
(Machine the mounting side to the dimensions below.)

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Standard Type/Centralized Piping Type $\phi 25$, $\phi 32$, $\phi 40$

Refer to page 8-11-9 regarding centralized piping port variations.

MY1B25□/32□/40□ — Stroke



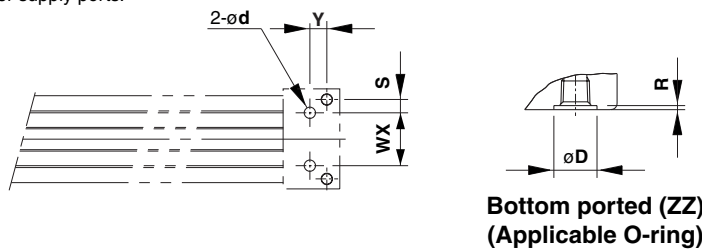
MY1B□G

MY1B□G

Model	A	B	C	E	G	GB	H	J	JJ	K	KK	L	LD	LL	LW	M	MM	N	NC	NE	NH	NW
MY1B25□	110	9	5.5	2	16	24.5	54	M6 x 1	M5 x 0.8	9.5	9	110	5.6	55	42	9	M5 x 0.8	30	20	40.5	39	53
MY1B32□	140	11	6.6	2	19	30	68	M8 x 1.25	M5 x 0.8	16	10	140	6.8	70	52	12	M6 x 1	37	25	50	49	64
MY1B40□	170	14	8.5	2	23	36.5	84	M10 x 1.5	M6 x 1	15	13	170	8.6	85	64	12	M6 x 1	45	30.5	63	61.5	75

Model	P	PA	PB	PC	PD	PP	Q	QQ	QW	RR	SS	T	TT	UU	VV	WW	XX	YH	YW	Z	ZZ
MY1B25□	Rc 1/8	60	30	55	6	12	206	16	42	16	6	10	14.5	15	16	12.5	28	38.5	46	220	Rc 1/16
MY1B32□	Rc 1/8	80	35	70	10	17	264	16	51	23	4	10	16	16	19	16	32	48	55	280	Rc 1/16
MY1B40□	Rc 1/4	100	40	85	12	18.5	322	24	59	27	10.5	14	20	22	23	19.5	36	60.5	67	340	Rc 1/8

"P" indicates cylinder supply ports.



Hole Size for Centralized Piping on the Bottom

Model	WX	Y	S	d	D	R	Applicable O-ring
MY1B25□	28	9	7	6	11.4	1.1	C9
MY1B32□	32	11	9.5	6	11.4	1.1	
MY1B40□	36	14	11.5	8	13.4	1.1	

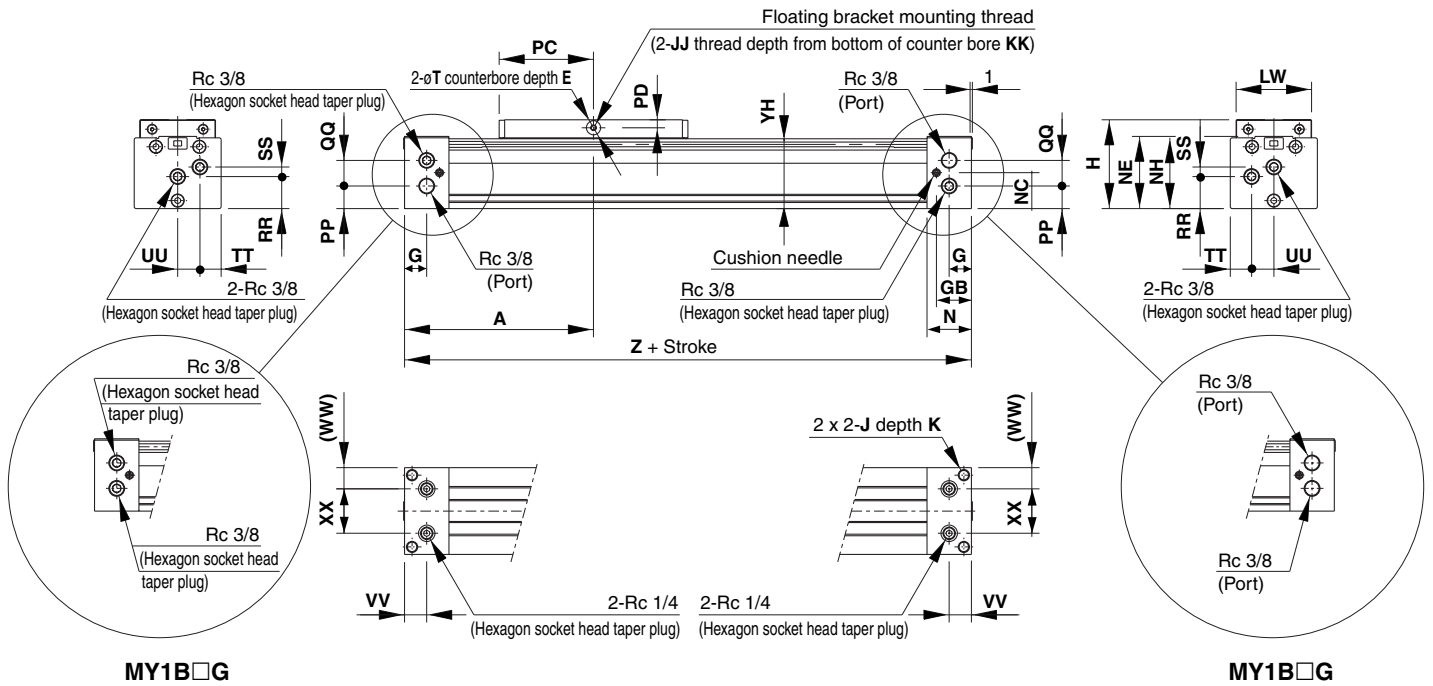
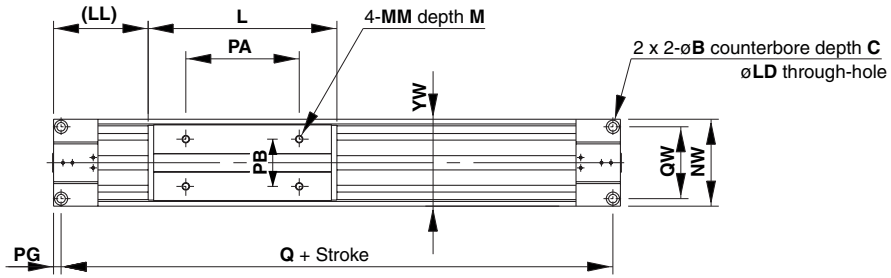
(Machine the mounting side to the dimensions below.)

Series MY1B

Standard Type/Centralized Piping Type $\phi 50, \phi 63$

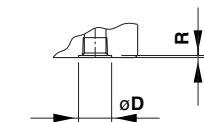
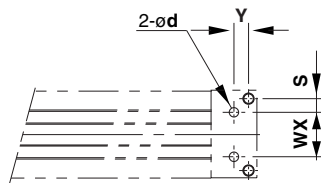
Refer to page 8-11-9 regarding centralized piping port variations.

MY1B50□/63□ — Stroke



Model	A	B	C	E	G	GB	H	J	JJ	K	KK	L	LD	LL	LW	M	MM	N	NC	NE
MY1B50□	200	14	8.5	3	23.5	37	94	M12 x 1.75	M6 x 1	25	17	200	9	100	80	14	M8 x 1.25	47	38	76.5
MY1B63□	230	17	10.5	3	25	39	116	M14 x 2	M8 x 1.25	28	24	230	11	115	96	16	M8 x 1.25	50	51	100

Model	NH	NW	PA	PB	PC	PD	PG	PP	Q	QQ	QW	RR	SS	T	TT	UU	VV	WW	XX	YH	YW	Z
MY1B50□	75	92	120	50	100	8.5	8	24	384	27	76	34	10	15	22.5	23.5	23.5	22.5	47	74	92	400
MY1B63□	95	112	140	60	115	9.5	10	37.5	440	29.5	92	44.5	13.5	16	27	29	25	28	56	94	112	460



Bottom ported
(Applicable O-ring)

Hole Size for Centralized Piping on the Bottom

Model	WX	Y	S	d	D	R	Applicable O-ring
MY1B50□	47	15.5	14.5	10	17.5	1.1	C15
MY1B63□	56	15	18	10	17.5	1.1	

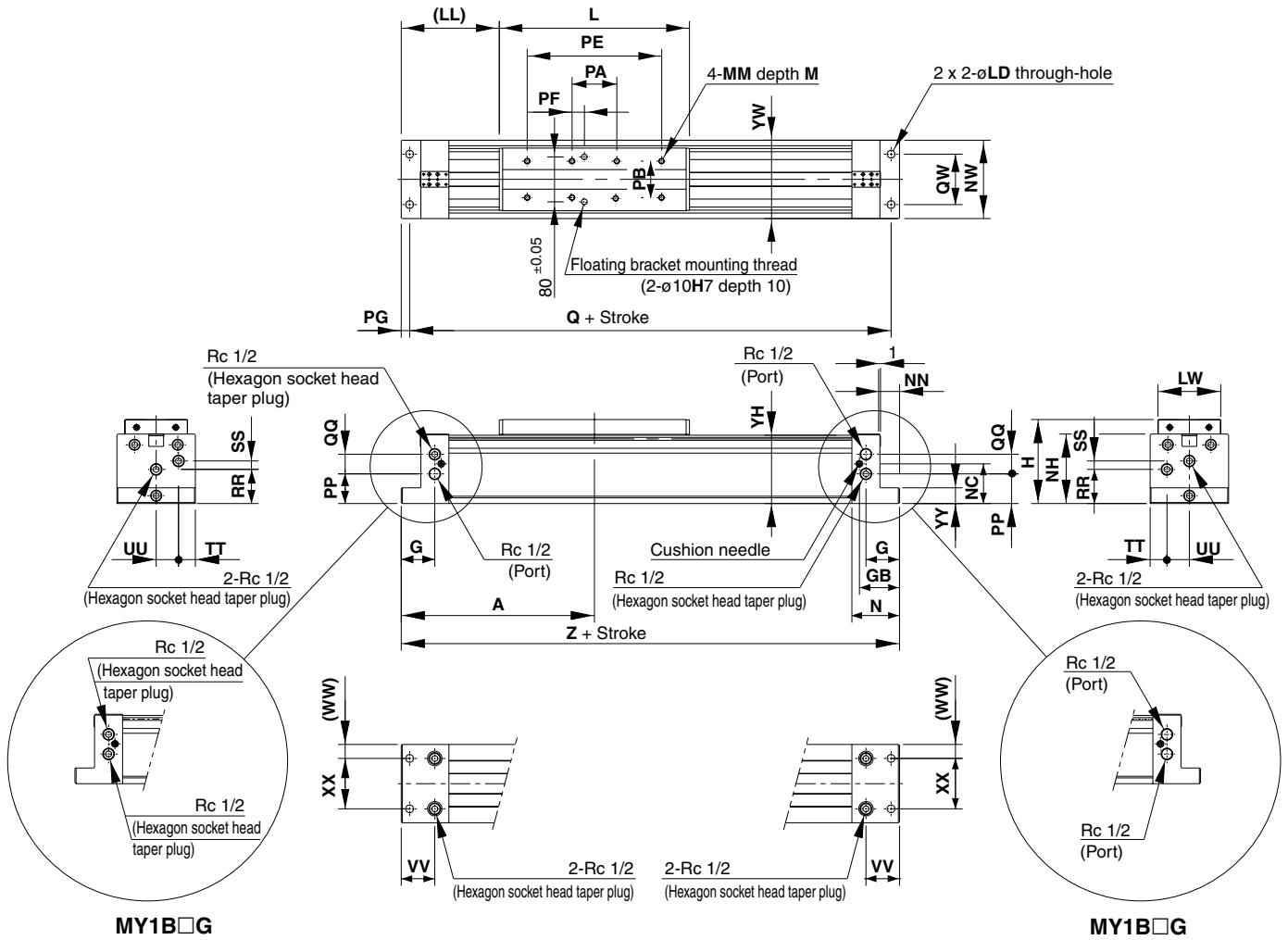
(Machine the mounting side to the dimensions below.)

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Standard Type/Centralized Piping Type $\phi 80, \phi 100$

Refer to page 8-11-9 regarding centralized piping port variations.

MY1B80□/100□ — Stroke



MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

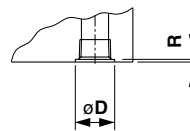
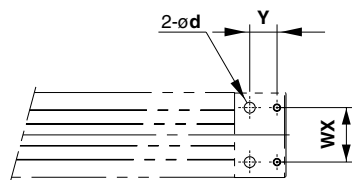
Data

Model	A	G	GB	H	L	LD	LL	LW	M	MM	N	NC	NH	NN	NW	PA	PB	PE
MY1B80□	345	60	71.5	150	340	14	175	112	20	M10 x 1.5	85	65	124	35	140	80	65	240
MY1B100□	400	70	79.5	190	400	18	200	140	25	M12 x 1.75	95	85	157	45	176	120	85	280

(mm)

Model	PF	PG	PP	Q	QQ	QW	RR	SS	TT	UU	VV	WW	XX	YH	YW	YY	Z
MY1B80□	22	15	53	660	35	90	61	15	30	40	60	25	90	122	140	28	690
MY1B100□	42	20	69	760	38	120	75	20	40	48	70	28	120	155	176	35	800

(mm)



Bottom ported
(Applicable O-ring)

Hole Size for Centralized Piping on the Bottom

Model	WX	Y	d	D	R	Applicable O-ring
MY1B80□	90	45	18	26	1.8	P22
MY1B100□	120	50	18	26	1.8	

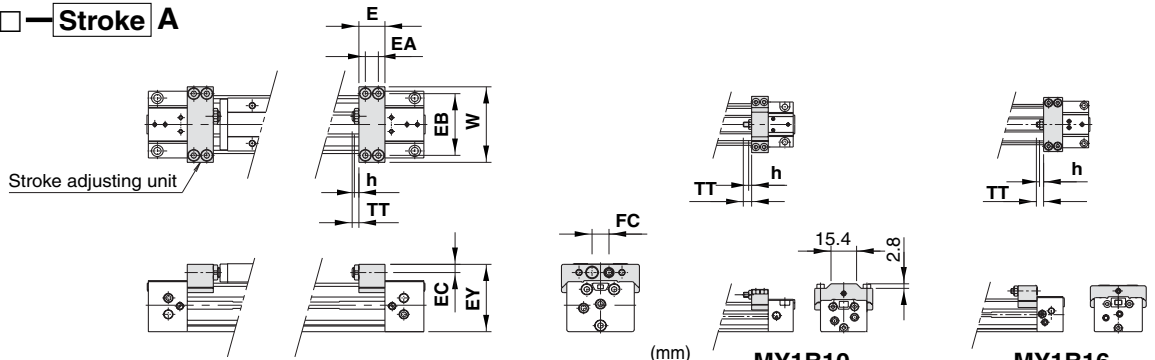
(Machine the mounting side to the dimensions below.)

Series MY1B

Stroke Adjusting Unit

With adjusting bolt

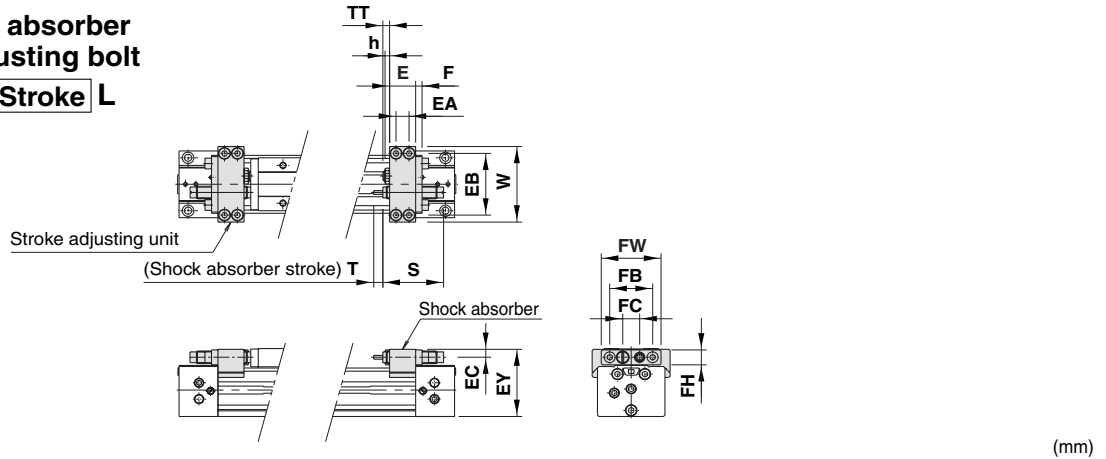
MY1B Bore size □ — Stroke A



Applicable bore size	E	EA	EB	EC	EY	FC	h	TT	W
MY1B10	10	5	28	3.3	26.3	—	1.8	5 (Max. 10)	35
MY1B16	14.6	7	34.4	4.2	36.5	—	2.4	5.4 (Max. 11)	43
MY1B20	19	9	43	5.8	45.6	13	3.2	6 (Max. 12)	53
MY1B25	20	10	49	6.5	53.5	13	3.5	5 (Max. 16.5)	60
MY1B32	25	12	61	8.5	67	17	4.5	8 (Max. 20)	74
MY1B40	31	15	76	9.5	81.5	17	4.5	9 (Max. 25)	94

With low load shock absorber + Adjusting bolt

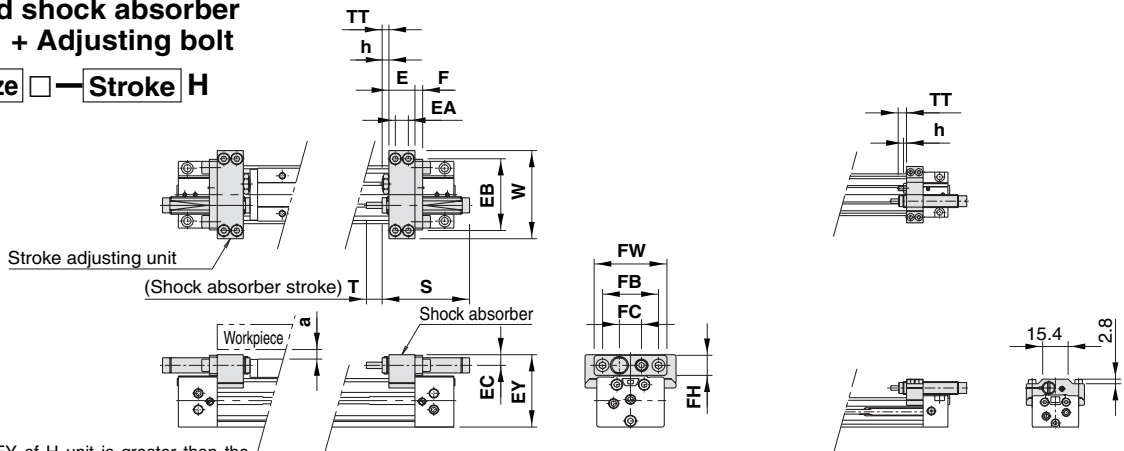
MY1B Bore size □ — Stroke L



Applicable bore size	E	EA	EB	EC	EY	F	FB	FC	FH	FW	h	S	T	TT	W	Shock absorber model
MY1B20	19	9	43	5.8	45.6	4	—	13	—	—	3.2	40.8	6	6 (Max. 12)	53	RB0806
MY1B25	20	10	49	6.5	53.5	6	33	13	12	46	3.5	46.7	7	5 (Max. 16.5)	60	RB1007
MY1B32	25	12	61	8.5	67	6	43	17	16	56	4.5	67.3	12	8 (Max. 20)	74	RB1412
MY1B40	31	15	76	9.5	81.5	6	43	17	16	56	4.5	67.3	12	9 (Max. 25)	94	RB1412

With high load shock absorber + Adjusting bolt

MY1B Bore size □ — Stroke H

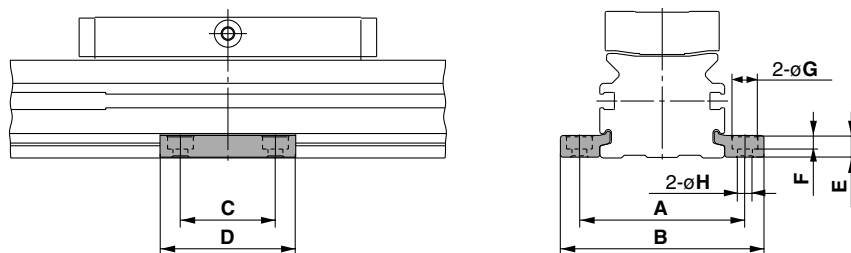


* Since the dimension EY of H unit is greater than the table top height (dimension H), when a workpiece is loaded that is larger than the full length (dimension L) of the slide table allow a clearance of size "a" or larger at the workpiece side.

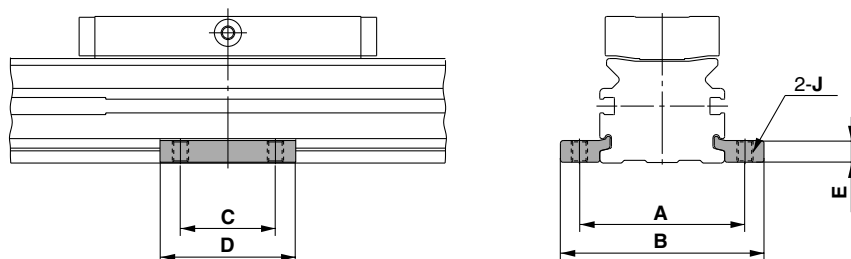
Applicable bore size	E	EA	EB	EC	EY	F	FB	FC	FH	FW	h	S	T	TT	W	Shock absorber model	a
MY1B10	10	5	28	5.5	29.8	—	—	8	—	—	1.8	40.8	5	5 (Max. 10)	35	RB0805	3.5
MY1B20	20	10	49	6.5	47.5	6	33	13	12	46	3.5	46.7	7	5 (Max. 11)	60	RB1007	2.5
MY1B25	20	10	57	8.5	57.5	6	43	17	16	56	4.5	67.3	12	5 (Max. 16.5)	70	RB1412	4.5
MY1B32	25	12	74	11.5	73	8	57	22	22	74	5.5	73.2	15	8 (Max. 20)	90	RB2015	6
MY1B40	31	15	82	12	87	8	57	22	22	74	5.5	73.2	15	9 (Max. 25)	100	RB2015	4

Side Support

Side support A MY-S□A



Side support B MY-S□B

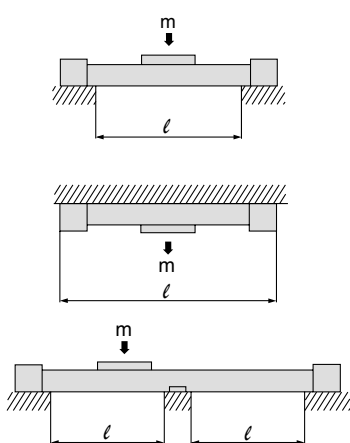


Model	Applicable bore size	A	B	C	D	E	F	G	H	J
MY-S10 ^A _B	MY1B10	35	43.6	12	21	3.6	1.8	6.5	3.4	M4 x 0.7
MY-S16 ^A _B	MY1B16	43	53.6	15	26	4.9	3	6.5	3.4	M4 x 0.7
MY-S20 ^A _B	MY1B20	53	65.6	25	38	6.4	4	8	4.5	M5 x 0.8
MY-S25 ^A _B	MY1B25	61	75	35	50	8	5	9.5	5.5	M6 x 1
	MY1B32	70	84							
MY-S32 ^A _B	MY1B40	87	105	45	64	11.7	6	11	6.6	M8 x 1.25
	MY1B50	113	131							
MY-S50 ^A _B	MY1B63	136	158	55	80	14.8	8.5	14	9	M10 x 1.5
MY-S63 ^A _B	MY1B80	170	200	70	100	18.3	10.5	17.5	11.5	M12 x 1.75
	MY1B100	206	236							

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

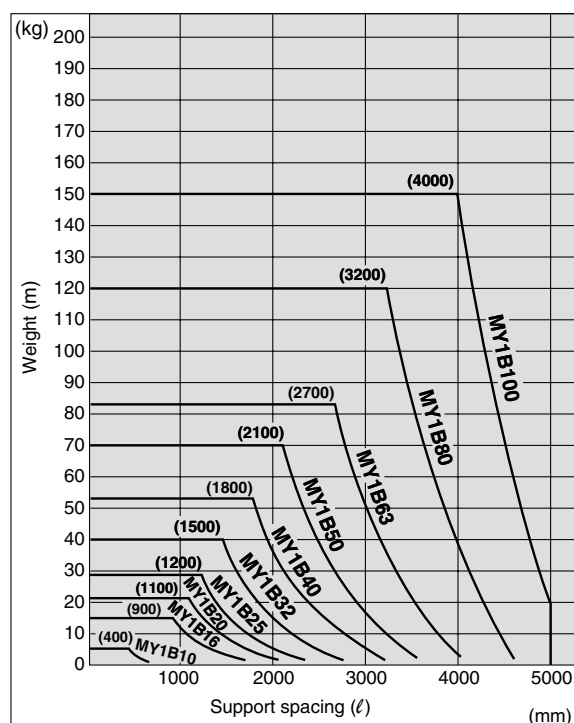
Guide for Side Support Application

For long stroke operation, the cylinder tube may be deflected depending on its own weight and the load weight. In such a case, use a side support in the middle section. The spacing (ℓ) of the support must be no more than the values shown in the graph on the right.



⚠ Caution

- If the cylinder mounting surfaces are not measured accurately, using a side support may cause poor operation. Therefore, be sure to level the cylinder tube when mounting. Also, for long stroke operation involving vibration and impact, use of a side support is recommended even if the spacing value is within the allowable limits shown in the graph.
- Support brackets are not for mounting; use them solely for providing support.



Series MY1B

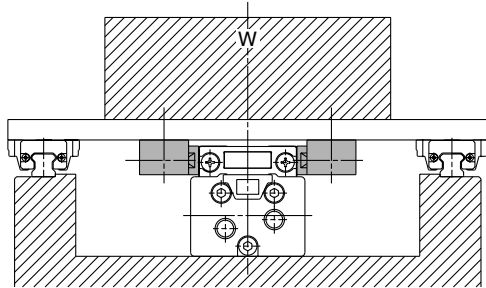
Floating Bracket

Facilitates connection to other guide systems.

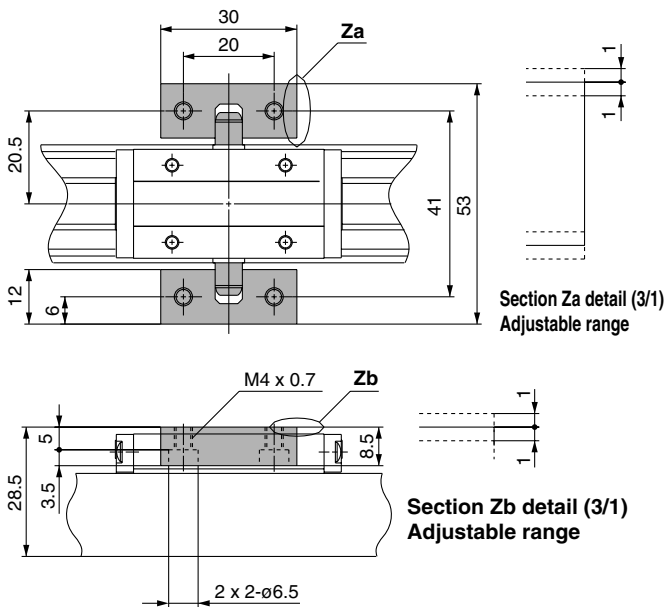
Applicable bore size



Application Example



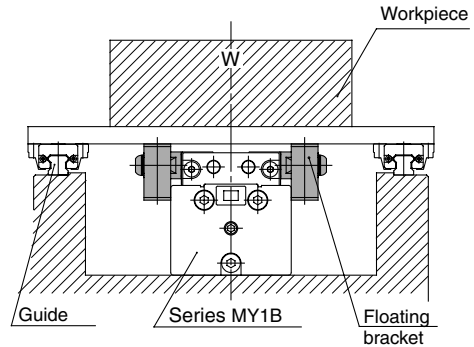
Mounting Example



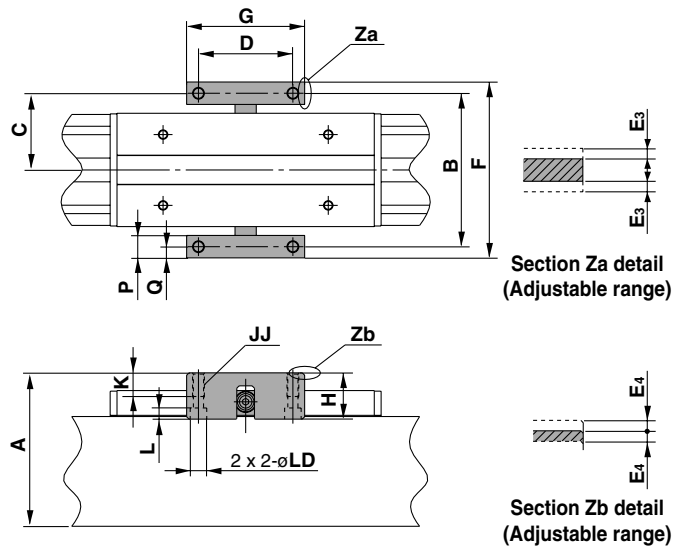
Applicable bore size

ø16, ø20

Application Example



Mounting Example

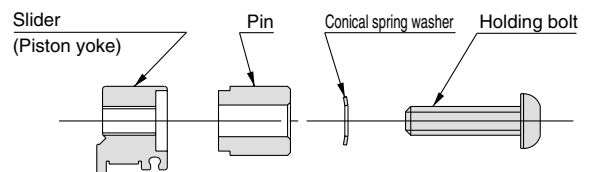


(mm)

Model	Applicable bore size	A	B	C	D	F	G	H
MY-J16	MY1B16□	45	45	22.5	30	52	38	18
MY-J20	MY1B20□	55	52	26	35	59	50	21

Model	Applicable bore size	JJ	K	L	P	Q	E ₃	E ₄	LD
MY-J16	MY1B16□	M4 x 0.7	10	4	7	3.5	1	1	6
MY-J20	MY1B20□	M4 x 0.7	10	4	7	3.5	1	1	6

Installation of Holding Bolts



Tightening Torque for Holding Bolts

(N·m)

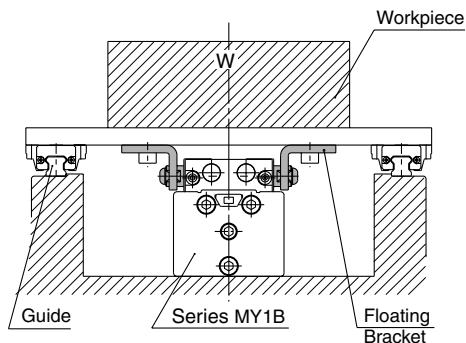
Model	Tightening torque	Model	Tightening torque	Model	Tightening torque
MY-J10	0.6	MY-J25	3	MY-J50	5
MY-J16	1.5	MY-J32	5	MY-J63	13
MY-J20	1.5	MY-J40	5		

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Applicable bore size

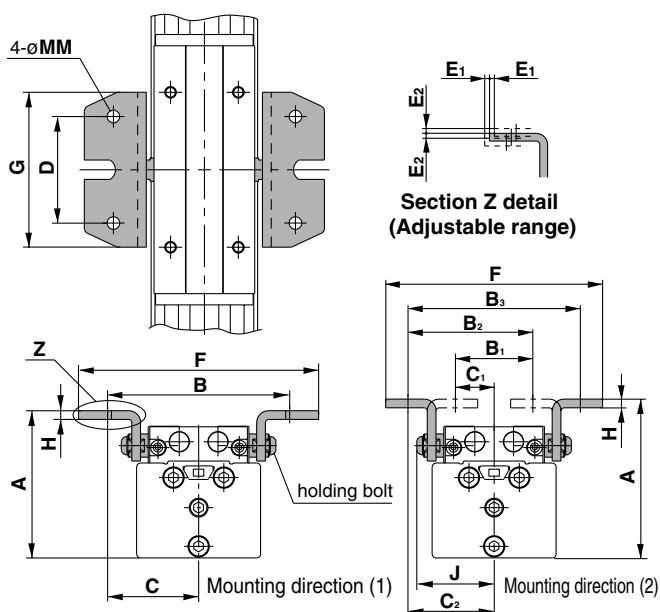
ø25, ø32, ø40

Application Example



Mounting Example

One set of brackets can be mounted in two directions for compact combinations.



Model	Applicable bore size	Common					Mounting direction (2)			
		D	G	H	J	MM	A	B	C	F
MY-J25	MY1B25□	40	60	3.2	35	5.5	63	78	39	100
MY-J32	MY1B32□	55	80	4.5	40	6.5	76	94	47	124
MY-J40	MY1B40□	74	100	4.5	47	6.5	92	112	56	144

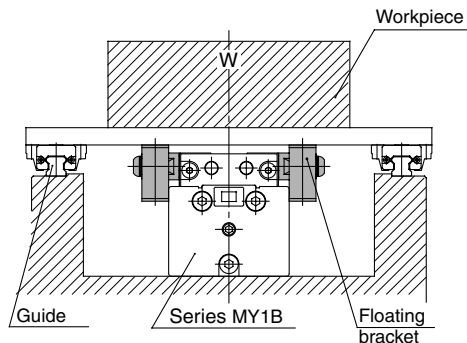
Model	Applicable bore size	Mounting direction (1)					Adjustable range			
		A	B ₁	B ₂	B ₃	C ₁	C ₂	F	E ₁	E ₂
MY-J25	MY1B25□	65	28	53	78	14	39	96	1	1
MY-J32	MY1B32□	82	40	64	88	20	44	111	1	1
MY-J40	MY1B40□	98	44	76	108	22	54	131	1	1

Note) One set of floating brackets consists of one right piece and one left piece.

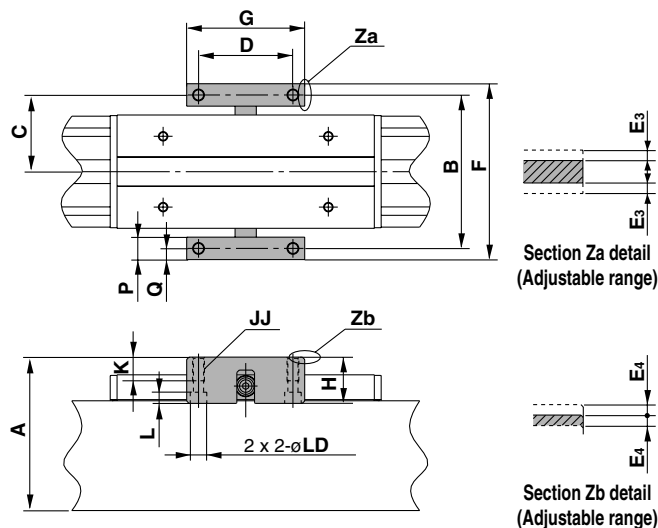
Applicable bore size

ø50, ø63

Application Example



Mounting Example



Model	Applicable bore size	A	B	C	D	F	G	H
MY-J50	MY1B50□	110	110	55	70	126	90	37
MY-J63	MY1B63□	131	130	65	80	149	100	37

Model	Applicable bore size	JJ	K	L	P	Q	E ₃	E ₄	LD
MY-J50	MY1B50□	M8 x 1.25	20	7.5	16	8	2.5	2.5	11
MY-J63	MY1B63□	M10 x 1.5	20	9.5	19	9.5	2.5	2.5	14

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

Series MY1B

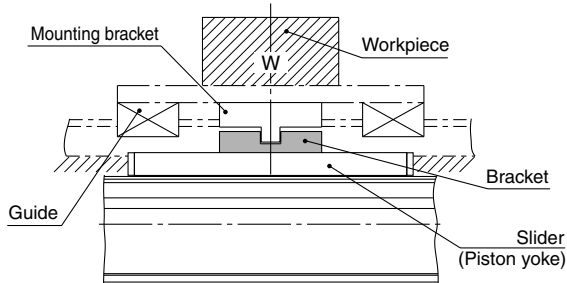
Floating Bracket

Facilitates connection to other guide systems.

Applicable bore size

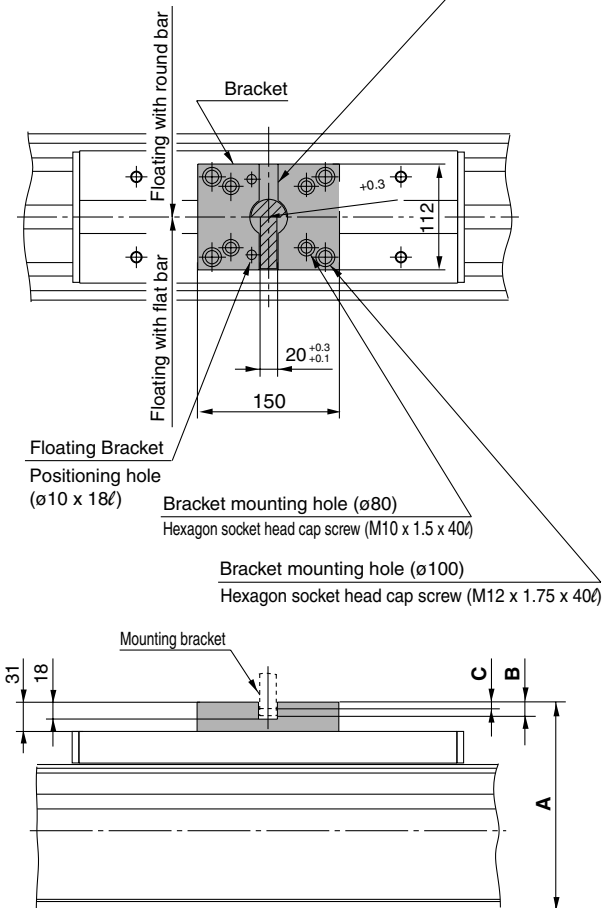
ø80, ø100

Application Example



Mounting Example

Support bracket mounting area is heat treated at HRC40 or above.



Hexagon Socket Head Cap Screw Tightening Torque (N·m)

Model	Applicable bore size	A	B (max)	C (min)	Model	Tightening torque
MY-J 80	MY1B80□	181	15	9	MY-J80	25
MY-J100	MY1B100□	221	15	9	MY-J100	44

- Note) • Flat bar or round bar mounting are possible for the support bracket (slanted lines) mounted by the customer.
 • The floating bracket is shipped together with (4) hexagon socket head cap screws and (2) parallel pins at the time of shipment.
 • "B" and "C" indicate the allowable mounting dimensions for the support bracket (flat bar or round bar).
 • Consider support brackets with dimensions that allow the floating mechanism to function properly.

Floating Bracket Operating Precautions

⚠ Caution

Make sure that the amount of divergence from the external guide is within the adjustable range.

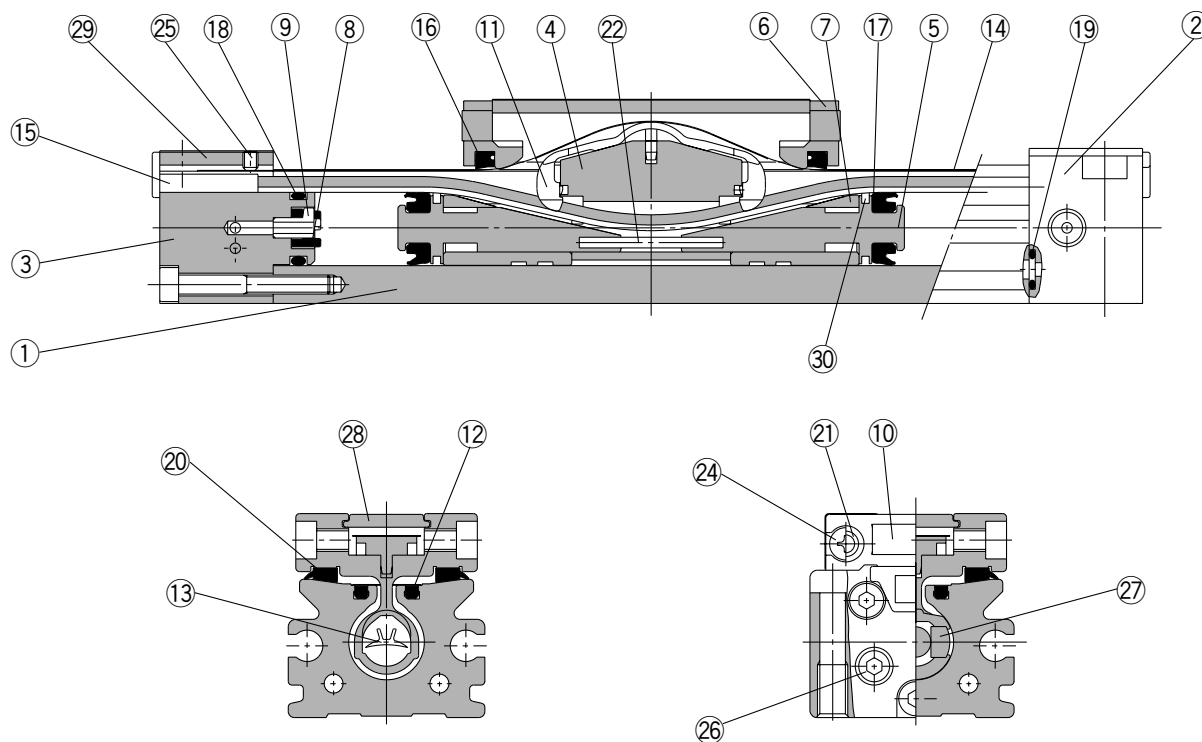
Using the floating bracket facilitates connection to an external guide. However, with a rod type guide, etc., the amount of displacement is large and the floating bracket may not be able to absorb the variation. Check the amount of displacement and mount the floating bracket within the adjustable range.

When the displacement amount exceeds the adjustable range, use a separate floating mechanism.

Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Construction: ø10

Centralized piping type: MY1B10G



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

Component Parts

No.	Description	Material	Note
①	Cylinder tube	Aluminum alloy	Hard anodized
②	Head cover WR	Aluminum alloy	Painted
③	Head cover WL	Aluminum alloy	Painted
④	Piston yoke	Aluminum alloy	Hard anodized
⑤	Piston	Aluminum alloy	Chromated
⑥	End Cover	Special resin	
⑦	Wear ring	Special resin	
⑧	Bumper	Polyurethane rubber	
⑨	Holder	Stainless steel	
⑩	Stopper	Carbon steel	Nickel plated
⑪	Belt separator	Special resin	
⑫	Seal magnet	Rubber magnet	

No.	Description	Material	Note
⑮	Belt clamp	Special resin	
⑳	Bearing	Special resin	
㉑	Spacer	Chromium molybdenum steel	Nickel plated
㉒	Spring pin	Stainless steel	
㉓	Hexagon socket head cap screw	Chromium molybdenum steel	Nickel plated
㉔	Round head Phillips screw	Carbon steel	Nickel plated
㉕	Hexagon socket head set screw	Carbon steel	Black zinc chromated
㉖	Hexagon socket head plug	Carbon steel	Nickel plated
㉗	Magnet	Rare earth magnet	
㉘	Top plate	Stainless steel	
㉙	Head plate	Stainless steel	
㉚	Felt	Felt	

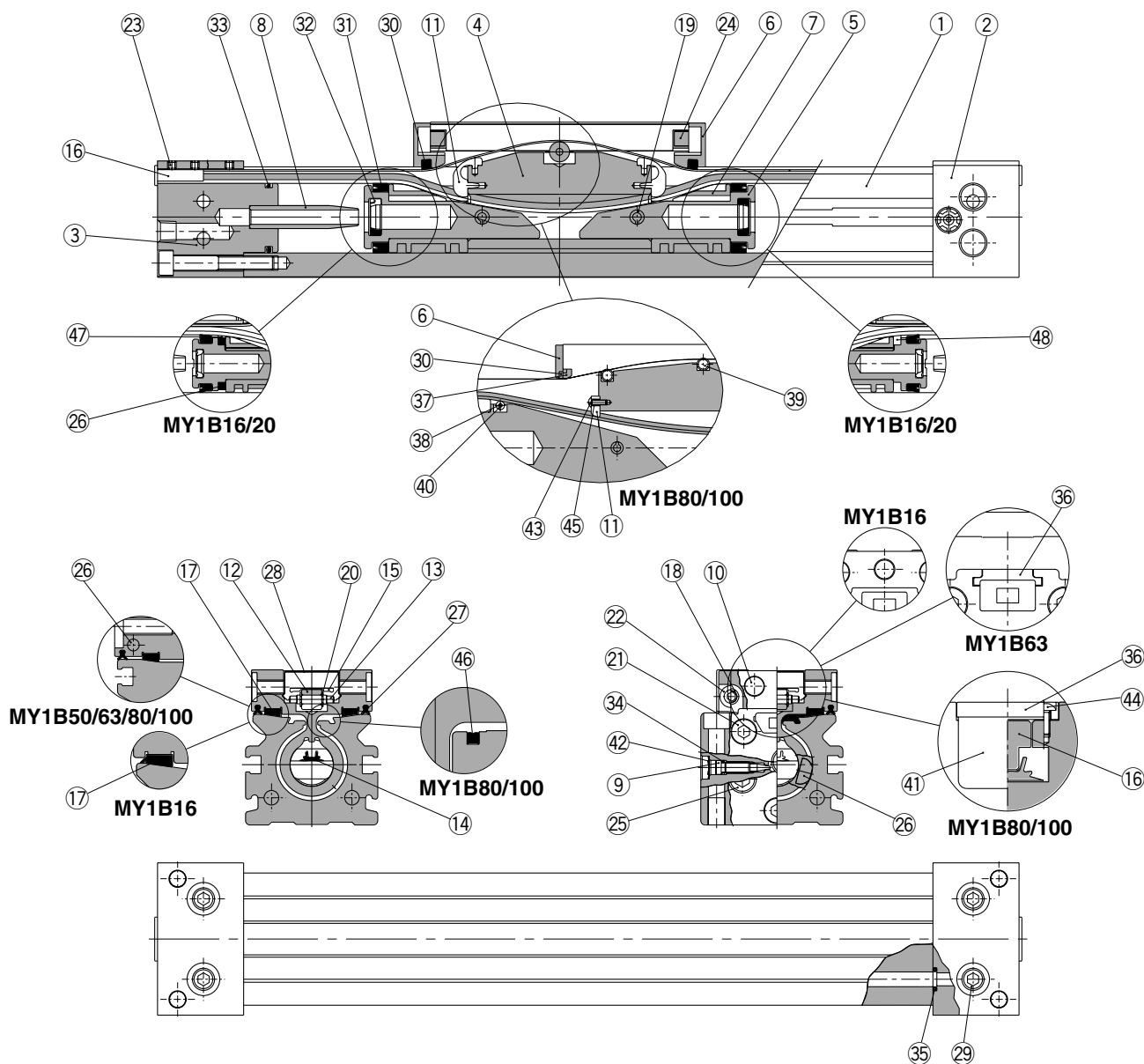
Seal List

No.	Description	Material	Qty.	MY1B10
⑬	Seal belt	Special resin	1	MY10-16A-Stroke
⑭	Dust seal band	Stainless steel	1	MY10-16B-Stroke
⑯	Scraper	NBR	2	MYB10-15AR0597
⑰	Piston seal	NBR	2	GM10
⑱	Tube gasket	NBR	2	P7
⑲	O-ring	NBR	4	ø5.33 x ø3.05 x ø1.14

Series MY1B

Construction: $\varnothing 16$ to $\varnothing 100$

MY1B16 to 100



Mechanically Jointed Rodless Cylinder Basic Type Series MY1B

Construction: ø16 to ø100

MY1B16 to 100

Component Parts

No.	Description	Material	Note
①	Cylinder tube	Aluminum alloy	Hard anodized
②	Head cover WR	Aluminum alloy	Painted
③	Head cover WL	Aluminum alloy	Painted
④	Piston yoke	Aluminum alloy	Hard anodized
⑤	Piston	Aluminum alloy	Chromated
⑥	End cover	Special resin	
		Carbon steel	Nickel plated (ø80, ø100)
⑦	Wear ring	Special resin	
⑧	Cushion ring	Brass	
⑨	Cushion needle	Rolled steel	Nickel plated
⑩	Stopper	Carbon steel	Nickel plated
⑪	Belt separator	Special resin	
⑫	Guide roller	Special resin	
⑬	Guide roller shaft	Stainless steel	
⑯	Belt clamp	Special resin	
		Aluminum alloy	Chromated (ø80, ø100)
⑰	Bearing	Special resin	
⑱	Spacer	Stainless steel	
⑲	Spring pin	Carbon tool steel	Black zinc chromated
⑳	Type E snap ring	Cold rolled special steel strip	
㉑	Hexagon socket head cap screw	Chromium molybdenum steel	Nickel plated
㉒	Hexagon socket button head screw	Chromium molybdenum steel	Nickel plated
㉓	Hexagon socket head set screw	Chromium molybdenum steel	Black zinc chromated/ Nickel plated
㉔	Double round parallel key	Carbon steel	(ø16 to ø40)
㉕	Hexagon socket head taper plug	Carbon steel	Nickel plated

No.	Description	Material	Note
㉖	Magnet	Rare earth magnet	
㉘	Top cover	Stainless steel	
㉙	Hexagon socket head taper plug	Carbon steel	Nickel plated
㉚	Head plate	Aluminum alloy	Hard anodized (ø63 to ø100)
㉛	Backup plate	Special resin	(ø63 to ø100)
㉜	Guide roller B	Special resin	(ø80, ø100)
㉝	Guide roller A	Stainless steel	(ø80, ø100)
㉞	Guide roller shaft B	Stainless steel	(ø80, ø100)
㉟	Side cover	Aluminum alloy	Hard anodized (ø80, ø100)
㊱	Type CR snap ring	Spring steel	
㊲	Hexagon socket button head screw	Chromium molybdenum steel	Nickel plated (ø80, ø100)
㊳	Hexagon socket button head screw	Chromium molybdenum steel	Nickel plated (ø80, ø100)
㊴	Spacer B	Stainless steel	(ø80, ø100)
㊵	Seal magnet	Rubber magnet	(ø80, ø100)
㊶	Felt A	Felt	(ø16, ø20)
㊷	Felt B	Felt	(ø16, ø20)

MX

MTS

MY CY MG CX

D-

-X

20-

Data

Seal List

No.	Description	Material	Qty.	MY1B16	MY1B20	MY1B25	MY1B32	MY1B40
⑭	Seal belt	Special resin	1	MY16-16A-Stroke	MY20-16A-Stroke	MY25-16A-Stroke	MY32-16A-Stroke	MY40-16A-Stroke
⑮	Dust seal band	Stainless steel	1	MY16-16B-Stroke	MY20-16B-Stroke	MY25-16B-Stroke	MY32-16B-Stroke	MY40-16B-Stroke
㉗	Side scraper	Special resin	2		MYB20-15CA7164B	MYB25-15BA5900B	MYB32-15BA5901B	MYB40-15BA5902B
⑳	Scraper	NBR	2	MYB16-15AA7163	MYB20-15AA7164	MYB25-15AA5900	MYB32-15AA5901	MYB40-15AA5902
㉠	Piston seal	NBR	2	GM Y16	GM Y20	GM Y25	GM Y32	GM Y40
㉡	Cushion seal	NBR	2	MYB16-15-A7163	MYB20-15-A7164	RCS-8	RCS-10	RCS-12
㉢	Tube gasket	NBR	2	P12	P16	TMY-25	TMY-32	TMY-40
㉣	O-ring	NBR	2	ø4 x ø1.8 x ø1.1	ø4 x ø1.8 x ø1.1	ø5.1 x ø3 x ø1.05	ø7.15 x ø3.75 x ø1.7	ø7.15 x ø3.75 x ø1.7
㉤	O-ring	NBR	4	ø6.2 x ø3 x ø1.6	ø7 x ø4 x ø1.5	P-5	P-6	C-9

No.	Description	Material	Qty.	MY1B50	MY1B63	MY1B80	MY1B100
⑭	Seal belt	Special resin	1	MY50-16A-Stroke	MY63-16A-Stroke	MY80-16A-Stroke	MY100-16A-Stroke
⑮	Dust seal band	Stainless steel	1	MY50-16B-Stroke	MY63-16B-Stroke	MY80-16B-Stroke	MY100-16B-Stroke
㉗	Side scraper	Special resin	2	MYB50-15CA7165B	MYB63-15CA7166B	MYB80-15CK2470B	MYB100-15CK2471B
⑳	Scraper	NBR	2	MYB50-15AA7165	MYB63-15AA7166	MYB80-15AK2470	MYB100-15AK2471
㉠	Piston seal	NBR	2	GM Y50	GM Y63	GM Y80	GM Y100
㉡	Cushion seal	NBR	2	MC-16	MC-20	MC-25	MC-30
㉢	Tube gasket	NBR	2	P44	P53	P70	P90
㉣	O-ring	NBR	2	ø8.3 x ø4.5 x ø1.9	C-4	C-6	C-6
㉤	O-ring	NBR	4	C-12.5	C-14	P22	P24

Note) Two types of dust seal band are available. Verify the type to use, since the part number varies depending on the treatment of the hexagon socket head set screw ㉓.

(A) Black zinc chromated → MY□□-16B-Stroke (B) Nickel plated → MY□□-16BW-Stroke

Series MY1

Auto Switch

D-A90(V), D-A93(V), D-A96(V)



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	10	16	20	25	32	40	50	63	80	100
MY1B (Basic type)	●	●	●							
MY1M (Slide bearing type)		●	●							
MY1C (Cam follower guide type)		●	●							
MY1H (High precision guide type)	●	●	●							

D-Z73, D-Z76, D-Z80



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	16	20	25	32	40	50	63	80	100	
MY1B (Basic type)			●	●	●	●	●	●	●	●
MY1M (Slide bearing type)			●	●	●	●	●	●	●	●
MY1C (Cam follower guide type)			●	●	●	●	●	●	●	●
MY1H (High precision guide type)			●	●	●					
MY1HT (High rigidity/High precision guide type)						●	●			

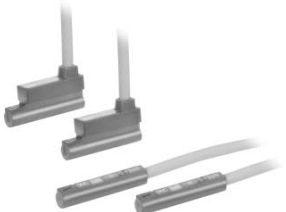
D-M9N(V), D-M9P(V), D-M9B(V)



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	10	16	20	25	32	40	50	63	80	100
MY1B (Basic type)	●	●	●							
MY1M (Slide bearing type)		●	●							
MY1C (Cam follower guide type)		●	●							
MY1H (High precision guide type)	●	●	●							

D-F9NW(V), D-F9PW(V), D-F9BW(V)



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	10	16	20	25	32	40	50	63	80	100
MY1B (Basic type)	●	●	●							
MY1M (Slide bearing type)		●	●							
MY1C (Cam follower guide type)		●	●							
MY1H (High precision guide type)	●	●	●							

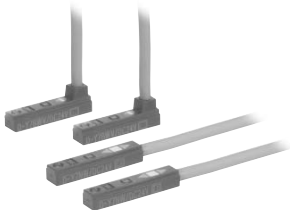
D-Y59^A_B, D-Y69^A_B, D-Y7P(V)



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	16	20	25	32	40	50	63	80	100	
MY1B (Basic type)			●	●	●	●	●	●	●	●
MY1M (Slide bearing type)			●	●	●	●	●	●	●	●
MY1C (Cam follower guide type)			●	●	●	●	●	●	●	●
MY1H (High precision guide type)			●	●	●					
MY1HT (High rigidity/High precision guide type)						●	●			

D-Y7NW(V), D-Y7PW(V), D-Y7BW(V)



Applicable cylinder series

Applicable cylinder series	Bore size (mm)									
	16	20	25	32	40	50	63	80	100	
MY1B (Basic type)			●	●	●	●	●	●	●	●
MY1M (Slide bearing type)			●	●	●	●	●	●	●	●
MY1C (Cam follower guide type)			●	●	●	●	●	●	●	●
MY1H (High precision guide type)			●	●	●					
MY1HT (High rigidity/High precision guide type)						●	●			

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

Type	Model	Electrical entry (Fetching direction)	Features
Reed switch	D-A90	Grommet (In-line)	Without indicator light
	D-Z80	Grommet (In-line)	

- Normally closed (NC = b contact), solid state switch (D-F9G/F9H/Y7G/Y7H type) are also available. For details, refer to page 8-30-31- to 8-30-32.
- D-A90 cannot be mounted on Series MY1HT.

MX

MTS

MY

CY

MG

CX

D-

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20-

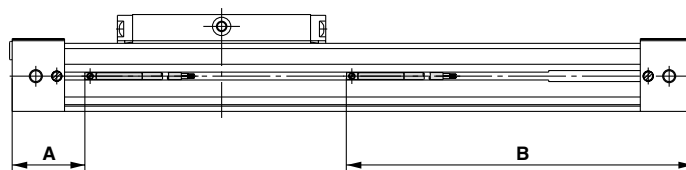
Data

Series MY1

Proper Auto Switch Mounting Position (Detection at stroke end) D-A9□(V)

Note) The operating range is a guide including hysteresis, but is not guaranteed. (Assuming approximately 30% dispersion.) There may be varied substantially depending on the surrounding environment.

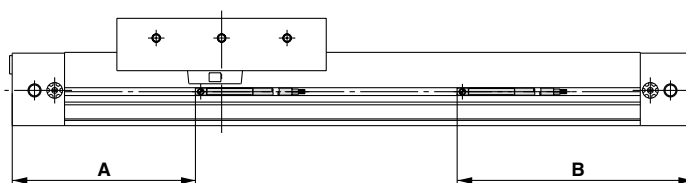
MY1B (Basic type)



(mm)

Mounting position	ø10	ø16	ø20
A	20	27	35
B	90	133	165
Operating range l (Note)	6	6.5	8.5

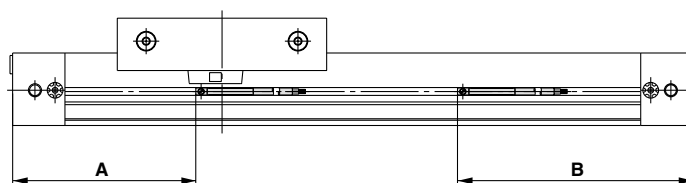
MY1M (Slide bearing guide type)



(mm)

Mounting position	ø16	ø20
A	70	90
B	90	110
Operating range l (Note)	11	7.5

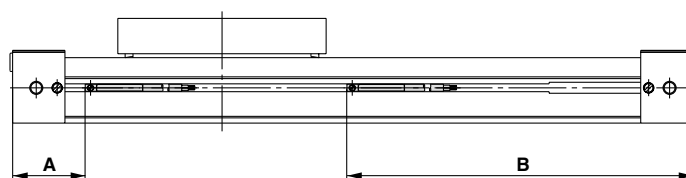
MY1C (Cam follower guide type)



(mm)

Mounting position	ø16	ø20
A	70	90
B	90	110
Operating range l (Note)	11	7.5

MY1H (High precision guide type)



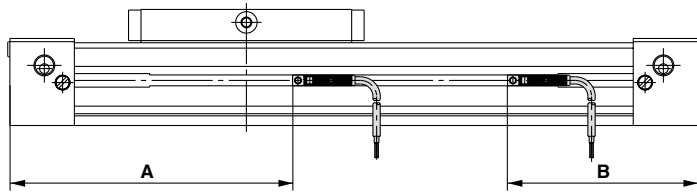
(mm)

Mounting position	ø10	ø16	ø20
A	20	27	35
B	90	133	165
Operating range l (Note)	11	6.5	8.5

Proper Auto Switch Mounting Position (Detection at stroke end) D-Z7□, D-Z80

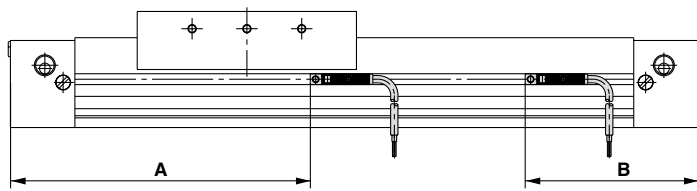
(Note) The operating range is a guide including hysteresis, but is not guaranteed. (Assuming approximately 30% dispersion). There may be varied substantially depending on the surrounding environment.

MY1B (Basic type)



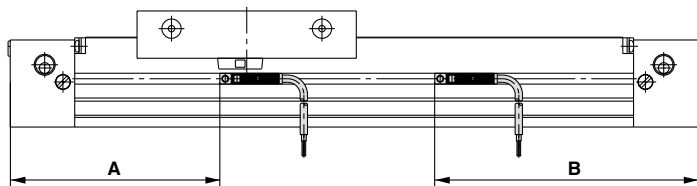
(mm)							
Mounting position	ø25	ø32	ø40	ø50	ø63	ø80	ø100
A	131.5	180	216	272.5	317.5	484.5	569.5
B	88.5	100	124	127.5	142.5	205.5	230.5
Operating range <i>ℓ</i> (Note)	8.5	11.5	11.5	11.5	11.5	11.5	11.5

MY1M (Slide bearing guide type)



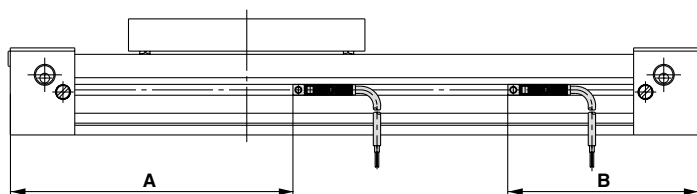
(mm)					
Mounting position	ø25	ø32	ø40	ø50	ø63
A	139.5	184.5	229.5	278.5	323.5
B	80.5	95.5	110.5	121.5	136.5
Operating range <i>ℓ</i> (Note)	12	12	12	11.5	11.5

MY1C (Cam follower guide type)



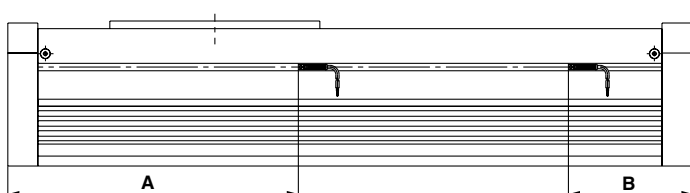
(mm)					
Mounting position	ø25	ø32	ø40	ø50	ø63
A	97.5	127.5	157.5	278.5	323.5
B	122.5	152.5	182.5	121.5	136.5
Operating range <i>ℓ</i> (Note)	12	12	12	11.5	11.5

MY1H (High precision guide type)



(mm)			
Mounting position	ø25	ø32	ø40
A	131.5	180	216
B	88.5	100	124
Operating range <i>ℓ</i> (Note)	8.5	11.5	11.5

MY1HT (High rigidity/High precision guide type)



(mm)		
Mounting position	ø50	ø63
A	290.5	335.5
B	123.5	138.5
Operating range <i>ℓ</i> (Note)	11	11

MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

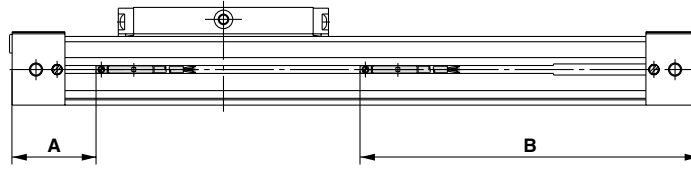
Data

Series MY1

Proper Auto Switch Mounting Position (Detection at stroke end) D-M9□, D-M9□V, D-F9□W, D-F9□WV

Note) The operating range is a guide including hysteresis, but is not guaranteed. (assuming approximately 30% dispersion.) There may be varied substantially depending on the surrounding environment.

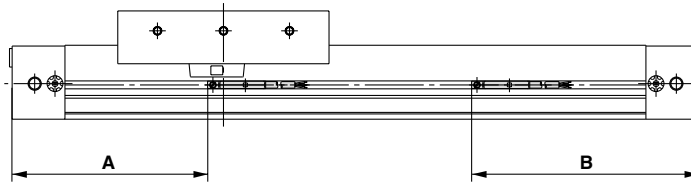
MY1B (Basic type)



Mounting position	ø10	ø16	ø20
A	24	31	39
B	86	129	161
Operating range ℓ ^{Note)}	3 (2.5)	4 (3)	5 (3.5)

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

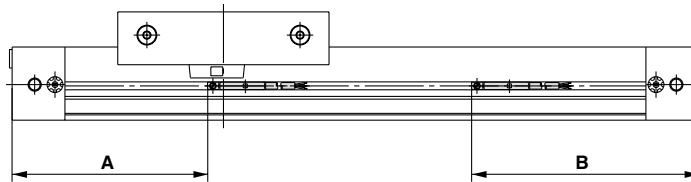
MY1M (Slide bearing guide type)



Mounting position	ø16	ø20
A	74	94
B	86	106
Operating range ℓ ^{Note)}	8.5 (6.5)	6.5 (7)

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

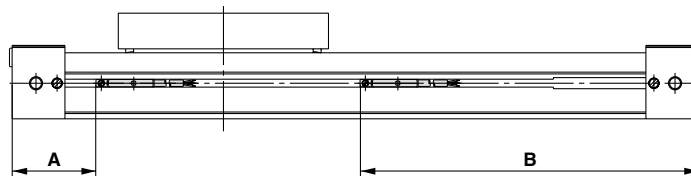
MY1C (Cam follower guide type)



Mounting position	ø16	ø20
A	74	94
B	86	106
Operating range ℓ ^{Note)}	8.5 (6.5)	6.5 (7)

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

MY1H (High precision guide type)



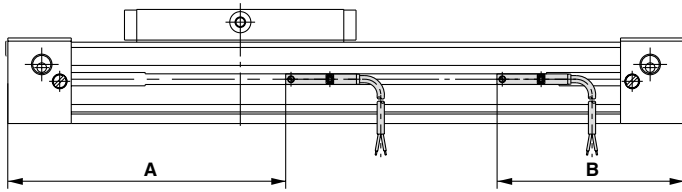
Mounting position	ø10	ø16	ø20
A	24	31	39
B	86	129	161
Operating range ℓ ^{Note)}	3 (2)	4 (3)	5 (3.5)

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

Proper Auto Switch Mounting Position (Detection at stroke end) D-Y59□, D-Y69□, D-Y7P, D-Y7PV

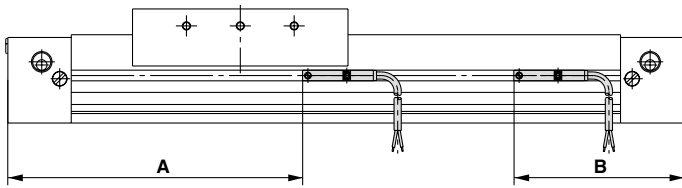
Note) The operating range is a guide including hysteresis, but is not guaranteed. (Assuming approximately 30% dispersion.) There may be varied substantially depending on the surrounding environment.

MY1B (Basic type)



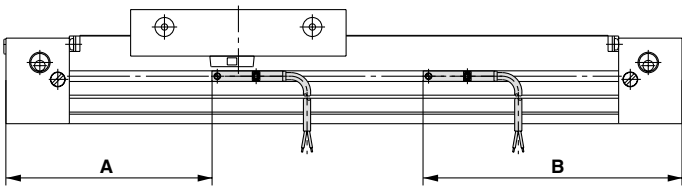
(mm)							
Mounting position	ø25	ø32	ø40	ø50	ø63	ø80	ø100
A	131.5	180	216	272.5	317.5	484.5	569.5
B	88.5	100	124	127.5	142.5	205.5	230.5
Operating range l (Note)	6	9	10	3.5	3.5	3.5	3.5

MY1M (Slide bearing guide type)



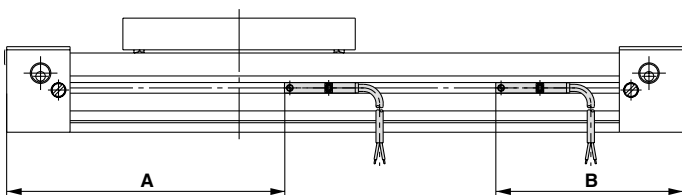
(mm)					
Mounting position	ø25	ø32	ø40	ø50	ø63
A	139.5	184.5	229.5	278.5	323.5
B	80.5	95.5	110.5	121.5	136.5
Operating range l (Note)	5	5	5	5.5	5.5

MY1C (Cam follower guide type)



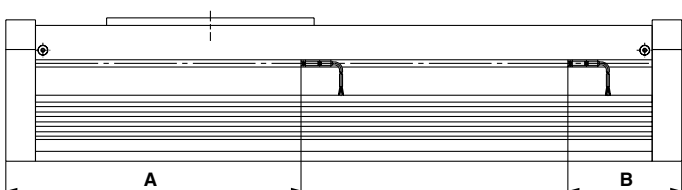
(mm)					
Mounting position	ø25	ø32	ø40	ø50	ø63
A	97.5	127.5	157.5	278.5	323.5
B	122.5	152.5	182.5	121.5	136.5
Operating range l (Note)	5	5	5	5.5	5.5

MY1H (High precision guide type)



(mm)			
Mounting position	ø25	ø32	ø40
A	131.5	180	216
B	88.5	100	124
Operating range l (Note)	6	9	10

MY1HT (High rigidity/High precision guide type)



(mm)		
Mounting position	ø50	ø63
A	290.5	335.5
B	123.5	138.5
Operating range l (Note)	5	5

MX□

MTS

MY□

CY□

MG□

CX□

D-

-X

20-

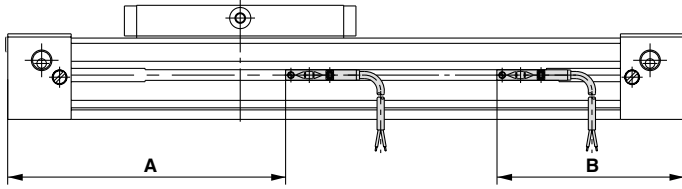
Data

Series MY1

Proper Auto Switch Mounting Position (Detection at stroke end) D-Y7□W, D-Y7□WV

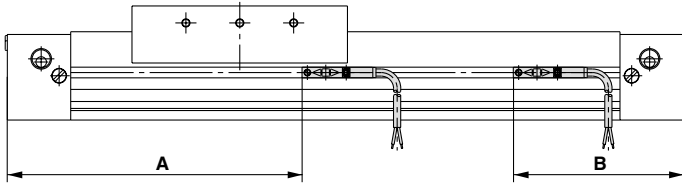
Note) The operating range is a guide including hysteresis, but is not guaranteed. (Assuming approximately 30% dispersion.) There may be varied substantially depending on the surrounding environment.

MY1B (Basic type)



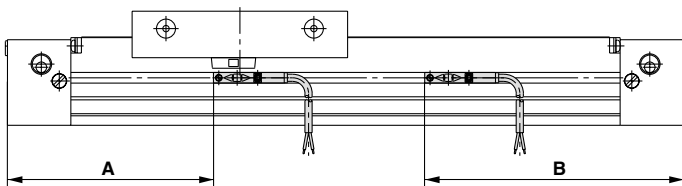
Mounting position	ø25	ø32	ø40	ø50	ø63	ø80	ø100
A	131.5	180	216	272.5	317.5	484.5	569.5
B	88.5	100	124	127.5	142.5	205.5	230.5
Operating range ℓ (Note)	6	9	10	3.5	3.5	3.5	3.5

MY1M (Slide bearing guide type)



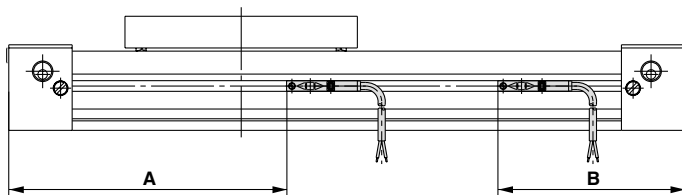
Mounting position	ø25	ø32	ø40	ø50	ø63
A	139.5	184.5	229.5	278.5	323.5
B	80.5	95.5	110.5	121.5	136.5
Operating range ℓ (Note)	5	5	5	5.5	5.5

MY1C (Cam follower guide type)



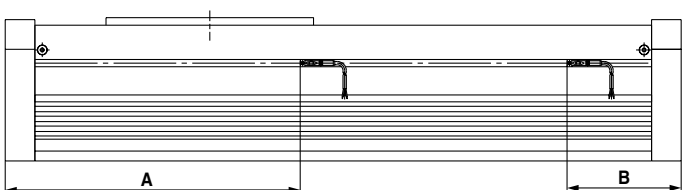
Mounting position	ø25	ø32	ø40	ø50	ø63
A	97.5	127.5	157.5	278.5	323.5
B	122.5	152.5	182.5	121.5	136.5
Operating range ℓ (Note)	5	5	5	5.5	5.5

MY1H (High precision guide type)



Mounting position	ø25	ø32	ø40
A	131.5	180	216
B	88.5	100	124
Operating range ℓ (Note)	6	9	10

MY1HT (High rigidity/High precision guide type)



Mounting position	ø50	ø63
A	290.5	335.5
B	123.5	138.5
Operating range ℓ (Note)	5	5