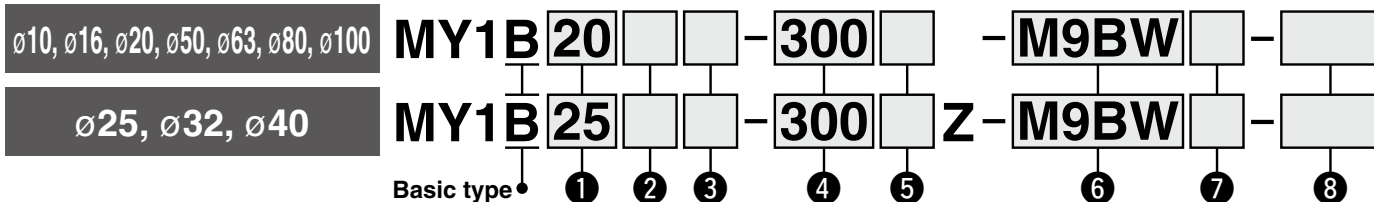


Mechanically Jointed Rodless Cylinder Basic Type

MY1B Series

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

How to Order



1 Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

2 Port thread type

Symbol	Type	Bore size
Nil	M thread	ø10, ø16, ø20
	Rc	ø25, ø32, ø40, ø50, ø63, ø80, ø100
TN	NPT	ø50, ø63, ø80, ø100
TF	G	ø100

3 Piping

Nil	Standard type
G	Centralized piping type

* For ø10, only G is available.

4 Cylinder stroke [mm]

Bore size	Standard stroke*1	Long stroke	Maximum manufacturable stroke
10, 16	100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000	Strokes of 2001 to 3000 mm (1 mm increments) exceeding the standard stroke	3000
20, 25, 32, 40, 50, 63, 80, 100	*1 The stroke can be manufactured in 1 mm increments from 1 mm stroke.	Strokes of 2001 to 5000 mm (1 mm increments) exceeding the standard stroke	5000

Ordering example

* Long stroke can be ordered the same as the standard stroke. MY1B20-3000L-M9BW

* Please be advised that with a stroke of 49 mm or less, there are cases where auto switch mounting is not possible, and the performance of the air cushion may decline.

5 Stroke adjustment unit symbol

For stroke adjustment units, refer to page 18.

6 Auto switch

Nil	ø10	Without auto switch (Built-in magnet for reed switch)
		Without auto switch (Built-in magnet for solid state switch) (Made to order: -X1810)
	ø16 to ø100	Without auto switch (Built-in magnet)

* Refer to the table below for the applicable auto switch model.

Applicable auto switches vary depending on the bore size. Select an applicable one referring to the table below.

7 Number of auto switches

Nil	2
S	1
n	n

8 Made to Order Made to Order Common Specifications (For details, refer to page 114.)

Symbol	Specifications
-XB22	Shock absorber soft type RJ series mounted
-XC67*1	NBR rubber lining in dust seal band
-X168	Helical insert thread specifications
-X1810	Magnet for ø10 solid state auto switch specifications

*1 Only ø16, ø20, ø50, and ø63 are available for the -XC67.

Applicable Auto Switches/Refer to the Web 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)					
							ø10 to ø40	ø50 to ø100	ø10 to ø40	ø50 to ø100									
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	—	M9NV [Y69A]*3	M9N [Y59A]*3	●	●	●	○	○	—	IC circuit				
				3-wire (PNP)			M9PV [Y7PV]*3	M9P [Y7P]*3	●	●	○	○							
				2-wire			M9BV [Y69B]*3	M9B [Y59B]*3	●	●	○	○							
				3-wire (NPN)			M9NV [Y7NWV]*3	M9NW [Y7NW]*3	●	●	○	○							
				3-wire (PNP)			M9PV [Y7PWV]*3	M9PW [Y7PW]*3	●	●	○	○							
				2-wire			M9BV [Y7BWW]*3	M9BW [Y7BW]*3	●	●	○	○							
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	—	M9NAV [—]*1,3	M9NA [—]*1,3	○	○	●	○	○	—	IC circuit				
				3-wire (PNP)			M9PAV [—]*1,3	M9PA [—]*1,3	○	○	●	○							
				2-wire			M9BAV [—]*1,3	M9BA [Y7BA]*1,3	○	○	●	○							
				—			—	—	—	—	—	—							
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	A96V	—	A96	Z76	●	—	●	—	—	IC circuit			
				No			2-wire	100 V	A93V*2	—	A93	Z73	●	●	●	●	—	—	Relay, PLC
								100 V or less	A90V	—	A90	Z80	●	—	●	—	—	—	IC circuit

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

Please contact SMC regarding water-resistant types with the above model numbers.

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

*3 D-M9□□ type cannot be mounted on ø50. Select auto switches in brackets.

* For details on auto switch mounting brackets and part numbers, refer to page 112.

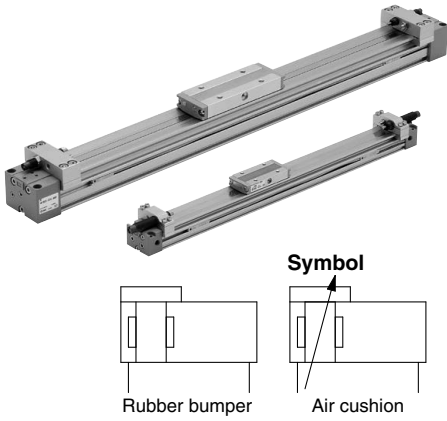
* Lead wire length symbols: 0.5 m Nil (Example) M9NW 3 m L (Example) M9NWL
1 m M (Example) M9NWM 5 m Z (Example) M9NWX

* 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 112 for details.

* Auto switches are shipped together with the product but do not come assembled.

Mechanically Jointed Rodless Cylinder **MY1B Series**



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	0.15 to 0.8 MPa	0.1 to 0.8 MPa							
Proof pressure	1.2 MPa									
Ambient and fluid temperatures	5 to 60°C									
Cushion	Rubber bumper		Air cushion							
Lubrication	Non-lube									
Stroke length tolerance	1000 or less $^{+1.8}_0$ 1001 to 3000 $^{+2.8}_0$		2700 or less $^{+1.8}_0$, 2701 to 5000 $^{+2.8}_0$							
Piping port size	Front/Side port	M5 x 0.8			1/8	1/4	3/8	1/2		
	Bottom port	ø4			ø6	ø8	ø10	ø18		

Piston Speed

Bore size [mm]	10	16	20 to 40	50 to 100
Without stroke adjustment unit	100 to 500 mm/s	100 to 1000 mm/s		
Stroke adjustment 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 1000 mm/s	100 to 1500 mm/s*2

*1 Be aware that when the stroke adjustment range is increased with the adjustment bolt, the air cushion capacity decreases.

Also, when exceeding the air cushion stroke ranges on page 20, the piston speed should be 100 to 200 mm/s.

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

* Use at a speed within the absorption capacity range. Refer to page 20.

* Due to the construction of this product, it may have more fluctuation in operating speed compared to a rod type air cylinder. For applications that require constant speed, select the equipment corresponding to the required level.

Stroke Adjustment Unit Specifications

Bore size [mm]		10		16		20			25			32			40				
Unit symbol		A	H	A	L	A	L	H	A	L	H	A	L	H	A	L	H		
Configuration Shock absorber model	With adjustment bolt	RB 0805 + with adjustment bolt	With adjustment bolt	RJ 0604 (without adjustment bolt)	With adjustment bolt	RB 0806 + with adjustment bolt	RB 1007 + with adjustment bolt	With adjustment bolt	RB 1007 + with adjustment bolt	RB 1412 + with adjustment bolt	With adjustment bolt	RB 1412 + with adjustment bolt	RB 2015 + with adjustment bolt	With adjustment bolt	RB 1412 + with adjustment bolt	RB 2015 + with adjustment bolt	With adjustment bolt		
	Stroke adjustment range by intermediate fixing spacer [mm]	Without spacer		0 to -5		0 to -5.6		0 to -6			0 to -11.5			0 to -12			0 to -16		
	With short spacer	—		-5.6 to -11.2		-6 to -12			-11.5 to -23			-12 to -24			-16 to -32				
With long spacer	—		-11.2 to -16.8		-12 to -18			-23 to -34.5			-24 to -36			-32 to -48					

* Intermediate fixing spacer is not available for ø10.

* Stroke adjustment range is applicable for one side when mounted on a cylinder.

Stroke Adjustment Unit Symbol

		Right side stroke adjustment unit									
		Without unit	A: With adjustment bolt		L: With low load shock absorber + Adjustment bolt		H: With high load shock absorber + Adjustment bolt				
			With short spacer	With long spacer	With short spacer	With long spacer	With short spacer	With long spacer	With short spacer	With long spacer	
Left side stroke adjustment unit	Without unit	Nil	SA	SA6	SA7	SL	SL6	SL7	SH	SH6	SH7
	A: With adjustment bolt	AS	A	AA6	AA7	AL	AL6	AL7	AH	AH6	AH7
	With short spacer	A6S	A6A	A6	A6A7	A6L	A6L6	A6L7	A6H	A6H6	A6H7
	With long spacer	A7S	A7A	A7A6	A7	A7L	A7L6	A7L7	A7H	A7H6	A7H7
L: With low load shock absorber + Adjustment bolt	Without unit	LS	LA	LA6	LA7	L	LL6	LL7	LH	LH6	LH7
	With short spacer	L6S	L6A	L6A6	L6A7	L6L	L6	L6L7	L6H	L6H6	L6H7
	With long spacer	L7S	L7A	L7A6	L7A7	L7L	L7L6	L7	L7H	L7H6	L7H7
H: With high load shock absorber + Adjustment bolt	Without unit	HS	HA	HA6	HA7	HL	HL6	HL7	H	HH6	HH7
	With short spacer	H6S	H6A	H6A6	H6A7	H6L	H6L6	H6L7	H6H	H6	H6H7
	With long spacer	H7S	H7A	H7A6	H7A7	H7L	H7L6	H7L7	H7H	H7H6	H7

* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

For details on spacers and stroke adjustment units, refer to "Accessory Brackets (Option)" on page 33.

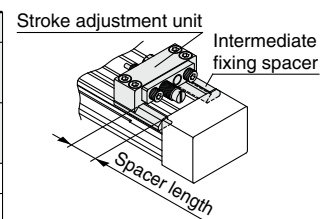
* For precautions, refer to page 121.

Accessory Brackets (Option)

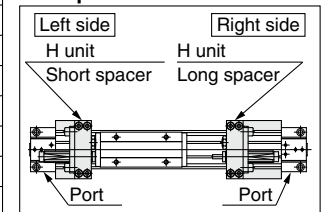
Stroke adjustment unit	p. 33
Side support	p. 34
Floating bracket	p. 35 to 37

Refer to pages 109 to 112 for the specifications with auto switch.

Stroke adjustment unit mounting diagram



Example of H6H7 attachment



Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions

MY1B Series

Shock Absorbers for L and H Units

Model	Stroke adjustment unit	Bore size [mm]					
		10	16	20	25	32	40
Standard (Shock absorber/RB series)	L	—	RJ0604*1	RB0806	RB1007	RB1412	
	H	RB0805	—	RB1007	RB1412	RB2015	
Shock absorber/soft type RJ series mounted (-XB22)	L	—	—	RJ0806H	RJ1007H	RJ1412H	
	H	RJ0805	—	RJ1007H	RJ1412H	—	—

- *1 The $\phi 16$ standard model uses an RJ series soft type shock absorber.
- * The shock absorber service life is different from that of the MY1B cylinder depending on operating conditions. Refer to the RB/RJ Series Specific Product Precautions for the replacement period.
- * Shock absorber soft type RJ series mounted (-XB22) is made-to-order common specifications. For details, refer to page 115.

Shock Absorber Specifications

Model	RJ 0604	RB 0805	RB 0806	RB 1007	RB 1412	RB 2015	
Max. absorbed energy [J]	0.5	1.0	2.9	5.9	19.6	58.8	
Stroke absorption [mm]	4	5	6	7	12	15	
Max. collision speed [mm/s]	1000	1000	1500	1500	1500	1500	
Max. operating frequency [cycle/min]	80	80	80	70	45	25	
Spring force [N]	Extended	1.3	1.96	1.96	4.22	6.86	8.34
	Retracted	3.9	3.83	4.22	6.86	15.98	20.50
Operating temperature range [°C]	5 to 60						

- * The shock absorber service life is different from that of the MY1B cylinder depending on operating conditions. Refer to the RB series Specific Product Precautions for the replacement period.

Theoretical Output

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	

* Theoretical output [N] = Pressure [MPa] x Piston area [mm²]

Weight

Bore size [mm]	Basic weight	Additional weight per each 50 mm of stroke	Weight of moving parts	Side support bracket weight (per set)	Stroke adjustment unit weight (per unit)		
					Type A and B	A unit weight	L unit weight
10	0.15	0.04	0.03	0.003	0.01	—	0.02
16	0.61	0.06	0.07	0.01	0.04	0.04	—
20	1.06	0.10	0.14	0.02	0.05	0.05	0.10
25	1.14	0.11	0.21	0.02	0.06	0.10	0.18
32	2.28	0.17	0.47	0.02	0.12	0.21	0.40
40	3.11	0.25	0.91	0.04	0.23	0.32	0.49
50	7.78	0.44	1.40	0.04	—	—	—
63	13.10	0.70	2.20	0.08	—	—	—
80	20.70	1.18	4.80	0.17	—	—	—
100	35.70	1.97	8.20	0.17	—	—	—

Calculation: (Example) **MY1B20-300A**

- Basic weight1.06 kg
- Cylinder stroke300 mm stroke
- Additional weight ...0.10/50 mm stroke 1.06 + 0.10 x 300/50 + 0.05 x 2 = 1.76 kg
- Weight of A unit0.05 kg

⚠ Precautions

For details on the MY1B Series Mechanically Jointed Rodless Cylinder, refer to “Specific Product Precautions” on pages 119 to 122.

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 with high kinetic energy at the stroke end. 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.

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

<Stroke adjustment unit with shock absorber>

Use this unit when operating with a load and 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 required 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

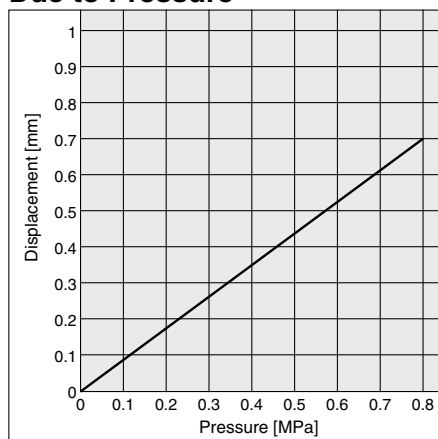
Use this unit when the cylinder is operated in a load and speed range above the L unit limit line and below the H unit limit line.

* For details on stroke adjustment using the adjustment bolt, refer to page 121.

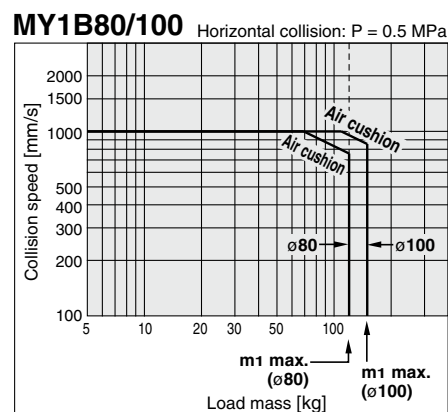
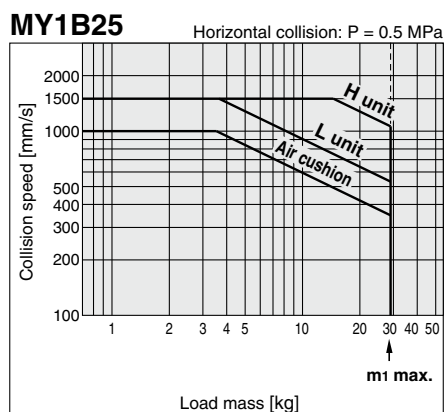
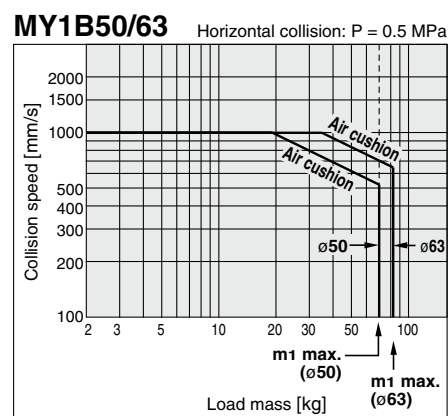
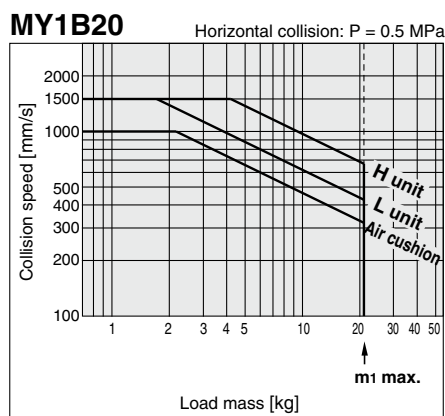
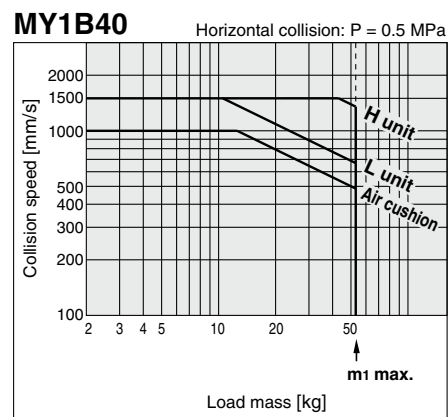
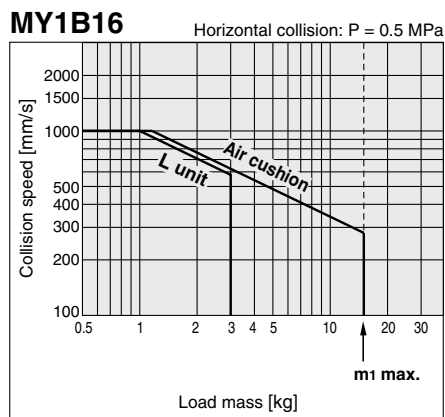
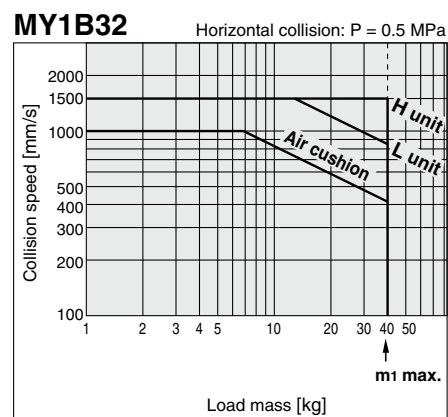
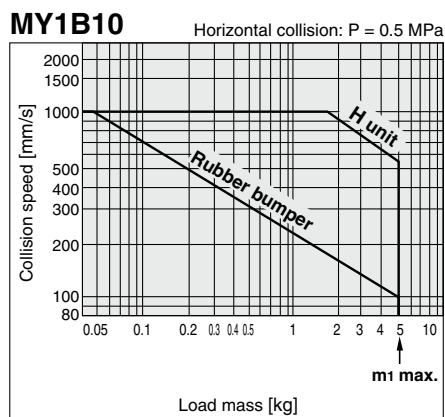
Air Cushion Stroke

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

Rubber Bumper ($\phi 10$ only) Positive Stroke from One End Due to Pressure



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



Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

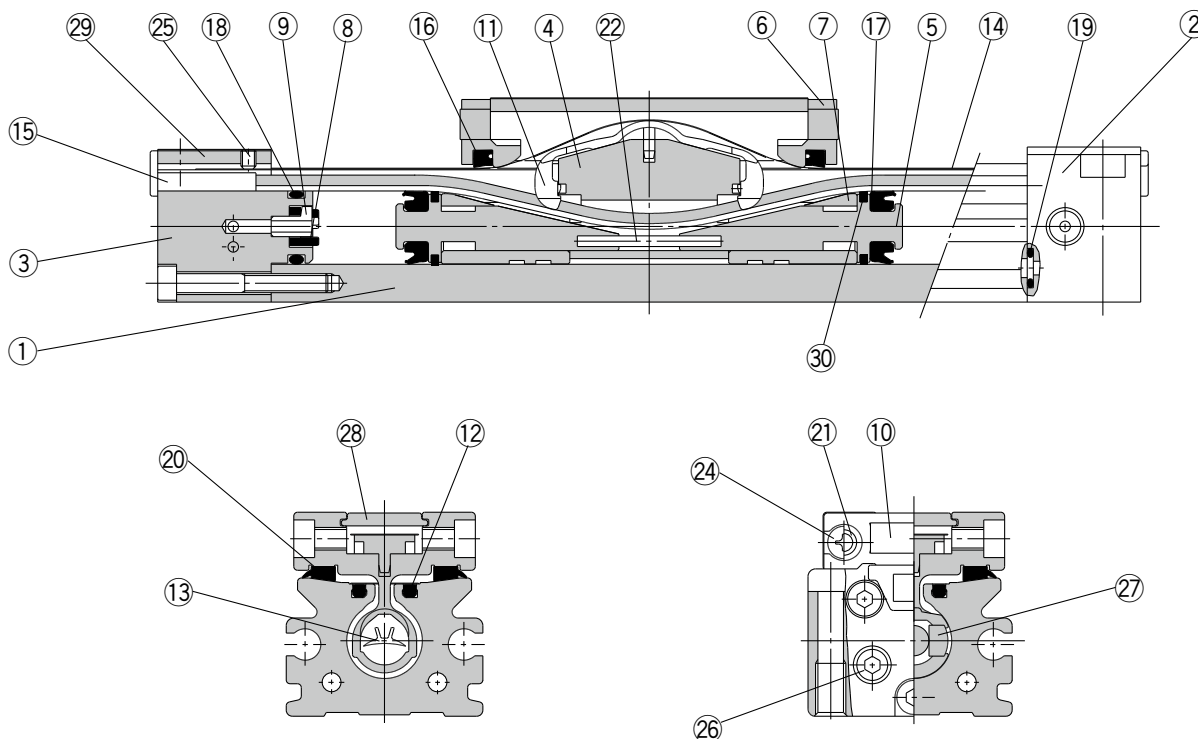
Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions

Construction: $\varnothing 10$

Centralized piping type: MY1B10G



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 plating
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 plating
22	Spring pin	Stainless steel	
23	Hexagon socket head cap screw	Chromium molybdenum steel	Chromated
24	Cross recessed binding head screw	Carbon steel	Chromated
25	Slotted set screw	Carbon steel	Black zinc chromated
26	Hexagon socket head plug	Carbon steel	Chromated
27	Magnet	—	
28	Top plate	Stainless steel	
29	Head plate	Stainless steel	
30	Lube-retainer	Special resin	

Replacement Parts/Seal Kit

No.	Description	Qty.	MY1B10
13	Seal belt	1	MY10-16A-Stroke
14	Dust seal band	1	MY10-16B-Stroke
16	Scraper	2	MY1B10-PS
17	Piston seal	2	
18	Tube gasket	2	
19	O-ring	4	

* Seal kit includes 16, 17, 18, and 19.
 Seal kit includes a grease pack (10 g).
 When 13 and 14 are shipped independently, a grease pack is included. (10 g per 1000 mm stroke)
 Order with the following part number when only the grease pack is needed.
Grease pack part number: GR-S-010 (10 g), GR-S-020 (20 g)

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

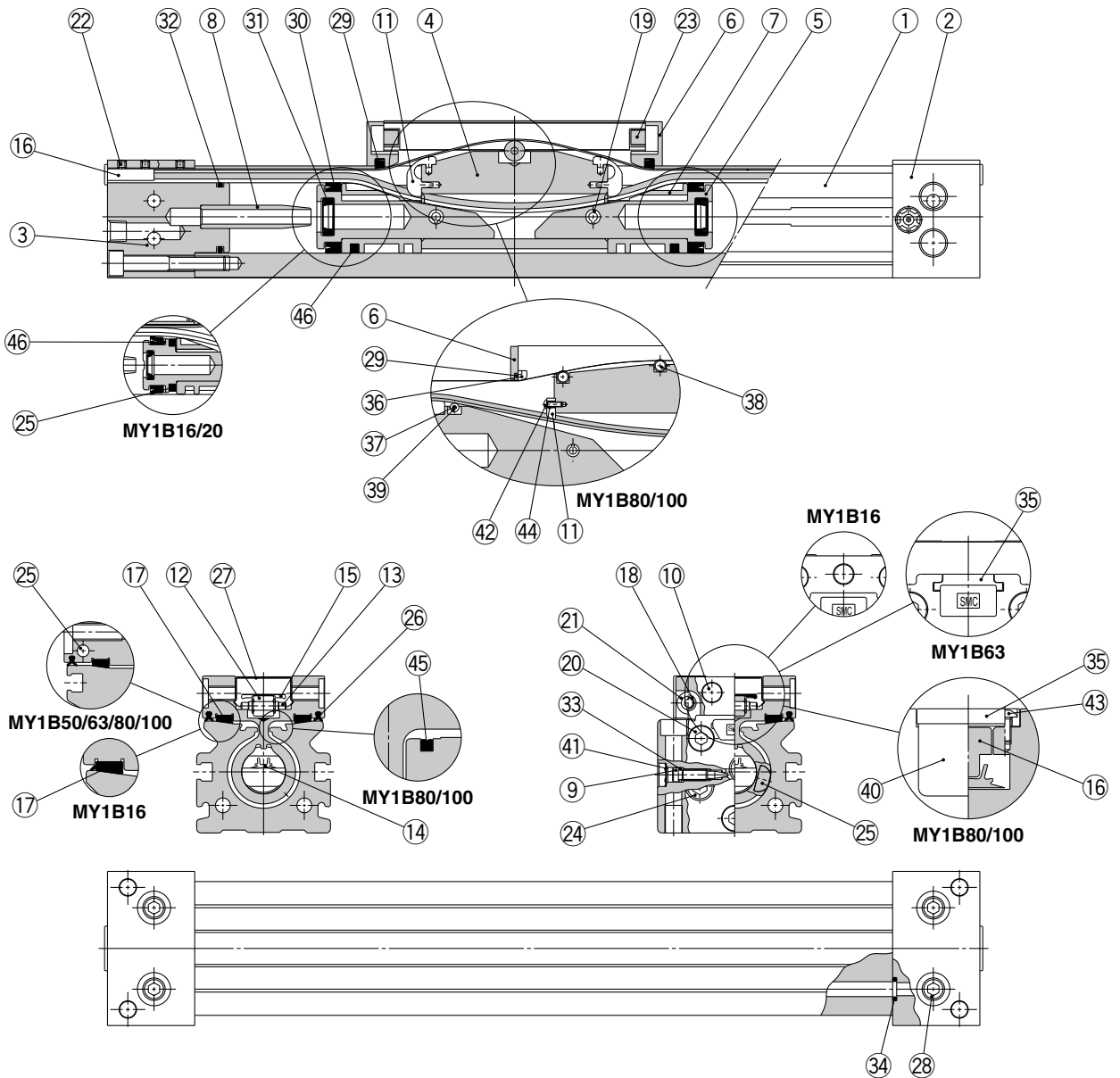
Made to Order Common Specifications

Specific Product Precautions

MY1B Series

Construction: $\varnothing 16$, $\varnothing 20$, $\varnothing 50$ to $\varnothing 100$

MY1B16, 20, 50 to 100



MY1B16, 20, 50 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	Anodized
5	Piston	Aluminum alloy	Chromated
6	End cover	Special resin	
		Carbon steel	Nickel plating (ø80, ø100)
7	Wear ring	Special resin	
8	Cushion ring	Aluminum alloy	Anodized
9	Cushion needle	Rolled steel	Nickel plating
10	Stopper	Carbon steel	Nickel plating
11	Belt separator	Special resin	
12	Guide roller	Special resin	(ø16, ø20, ø50, ø63)
13	Guide roller shaft	Stainless steel	(ø16, ø20, ø50, ø63)
16	Belt clamp	Special resin	
		Aluminum alloy	Chromated (ø80, ø100)
17	Bearing	Special resin	
18	Spacer	Stainless steel	(ø16, ø20, ø50, ø63)
19	Spring pin	Carbon tool steel	
20	Hexagon socket head cap screw	Chromium molybdenum steel	Chromated
21	Hexagon socket button head screw	Chromium molybdenum steel	Chromated
22	Hexagon socket head set screw	Chromium molybdenum steel	Black zinc chromated/Chromated
23	Double round parallel key	Carbon steel	(ø16, ø20)
24	Hexagon socket head taper plug	Carbon steel	Chromated

No.	Description	Material	Note
25	Magnet	—	
27	Top cover	Stainless steel	
28	Hexagon socket head taper plug	Carbon steel	Chromated
35	Head plate	Aluminum alloy	Painted (ø63 to ø100)
36	Backup plate	Special resin	(ø80, ø100)
37	Guide roller B	Special resin	(ø80, ø100)
38	Guide roller A	Stainless steel	(ø80, ø100)
39	Guide roller shaft B	Stainless steel	(ø80, ø100)
40	Side cover	Aluminum alloy	Hard anodized (ø80, ø100)
41	Type CR retaining ring	Spring steel	
42	Hexagon socket button head screw	Chromium molybdenum steel	Chromated (ø80, ø100)
43	Hexagon socket button head screw	Chromium molybdenum steel	Chromated (ø80, ø100)
44	Spacer B	Stainless steel	(ø80, ø100)
45	Seal magnet	Rubber magnet	(ø80, ø100)
46	Lube-retainer	Special resin	(ø16, ø20, ø50, ø63)

Replacement Parts/Seal Kit

No.	Description	Qty.	MY1B16	MY1B20
14	Seal belt	1	MY16-16C- <u>Stroke</u>	MY20-16C- <u>Stroke</u>
15	Dust seal band	1	MY16-16B- <u>Stroke</u>	MY20-16B- <u>Stroke</u>
26	Side scraper	2	—	MYB20-15CA7164B
33	O-ring	2	KA00309 (ø4 x ø1.8 x ø1.1)	KA00309 (ø4 x ø1.8 x ø1.1)
29	Scraper	2	MY1B16-PS	MY1B20-PS
30	Piston seal	2		
31	Cushion seal	2		
32	Tube gasket	2		
34	O-ring	4		

No.	Description	Qty.	MY1B50	MY1B63	MY1B80	MY1B100
14	Seal belt	1	MY50-16C- <u>Stroke</u>	MY63-16A- <u>Stroke</u>	MY80-16A- <u>Stroke</u>	MY100-16A- <u>Stroke</u>
15	Dust seal band	1	MY50-16B- <u>Stroke</u>	MY63-16B- <u>Stroke</u>	MY80-16B- <u>Stroke</u>	MY100-16B- <u>Stroke</u>
26	Side scraper	2	MYB50-15CA7165B	MYB63-15CA7166B	MYB80-15CK2470B	MYB100-15CK2471B
33	O-ring	2	KA00402 (ø8.3 x ø4.5 x ø1.9)	KA00777	KA00050	KA00050
29	Scraper	2	MY1B50-PS	MY1B63-PS	MY1B80-PS	MY1B100-PS
30	Piston seal	2				
31	Cushion seal	2				
32	Tube gasket	2				
34	O-ring	4				

* Seal kit includes 29, 30, 31, 32, and 34. Order the seal kit based on each bore size.

* Seal kit includes a grease pack (10 g).

When 14 and 15 are shipped independently, a grease pack is included. (10 g per 1000 mm stroke)

Order with the following part number when only the grease pack is needed.

Grease pack part number: GR-S-010 (10 g), GR-S-020 (20 g)

* Two types of dust seal bands are available for the MY1B16, 20, 50, 63. Since the part number varies depending on the treatment of the hexagon socket head set screw 22, please check a proper dust seal band carefully.

A: Black zinc chromated → MY□□-16B-stroke, B: Chromated → MY□□-16BW-stroke

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

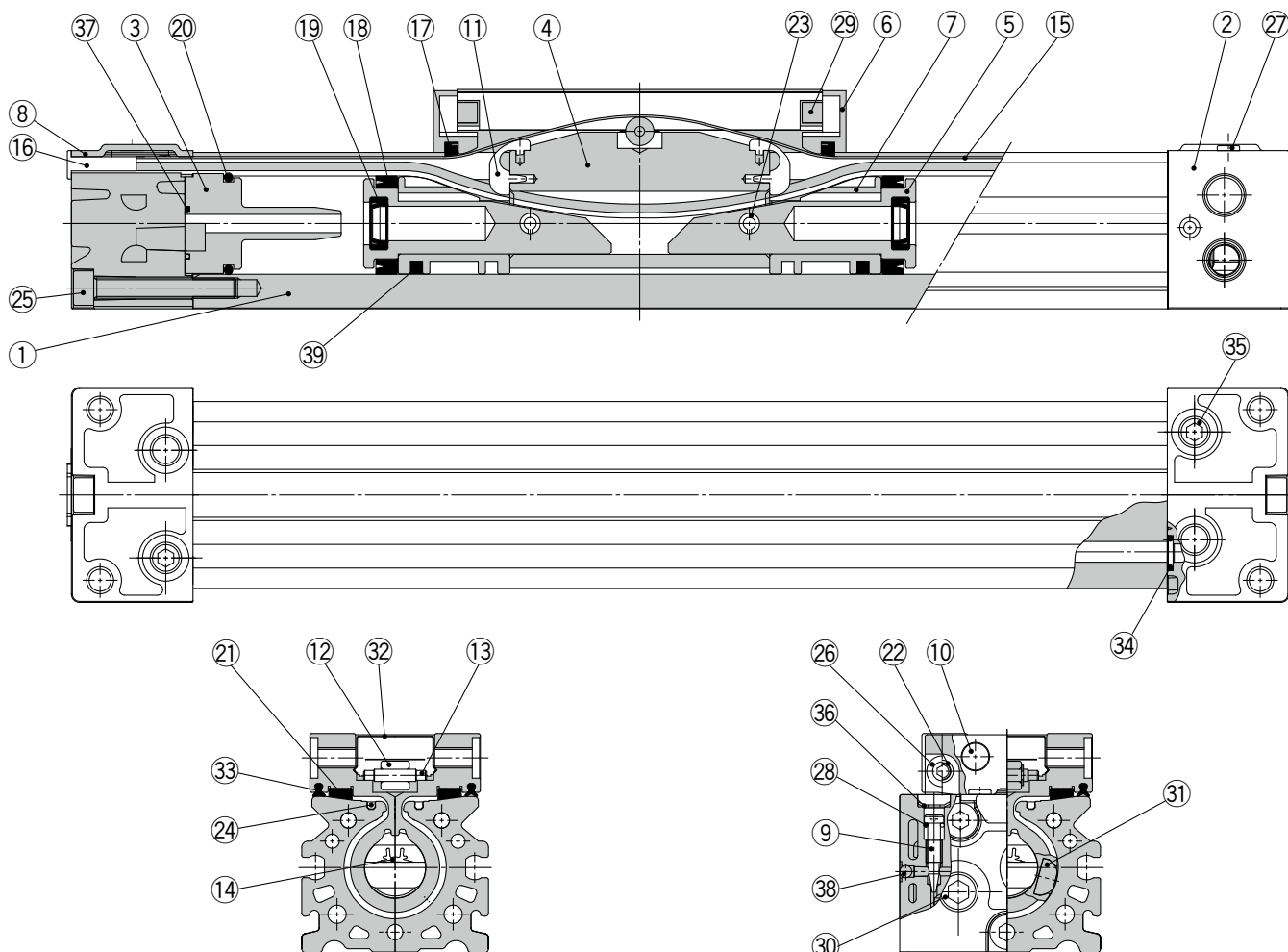
Made to Order Common Specifications

Specific Product Precautions

MY1B Series

Construction: $\varnothing 25$, $\varnothing 32$, $\varnothing 40$

MY1B25 to 40



Component Parts

No.	Description	Material	Note
1	Cylinder tube	Aluminum alloy	Hard anodized
2	Head cover	Aluminum alloy	Painted
3	Cushion boss	Polyacetal	
4	Piston yoke	Aluminum alloy	Anodized
5	Piston	Aluminum alloy	Chromated
6	End cover	Polyacetal	
7	Wear ring	Polyacetal	
8	Head plate	Stainless steel	
9	Cushion needle	Rolled steel	Nickel plating
10	Stopper	Carbon steel	Nickel plating
11	Belt separator	Polyacetal	
12	Guide roller	Polyacetal	
13	Parallel pin	Carbon steel	
16	Belt clamp	Polybutylene terephthalate	
21	Bearing	Stainless steel	
22	Spacer	Stainless steel	

No.	Description	Material	Note
23	Spring pin	Carbon tool steel	
24	Seal magnet	Rubber magnet	
25	Hexagon socket head cap screw	Chromium molybdenum steel	Chromated
26	Hexagon socket button head screw	Chromium molybdenum steel	Chromated
27	Thin head screw	Chromium molybdenum steel	Chromated
29	Double round parallel key	Carbon steel	
30	Hexagon socket head taper plug	Carbon steel	Chromated (Centralized piping: 7 pcs.)
31	Magnet	Rare earth magnet	
32	Top cover	Stainless steel	
35	Hexagon socket head taper plug	Carbon steel	Chromated (Centralized piping: 3 pcs.)
36	Type CR retaining ring	Spring steel	
38	Steel ball	Bearing steel	
39	Lube-retainer	Special resin	

Replacement Parts/Seal Kit

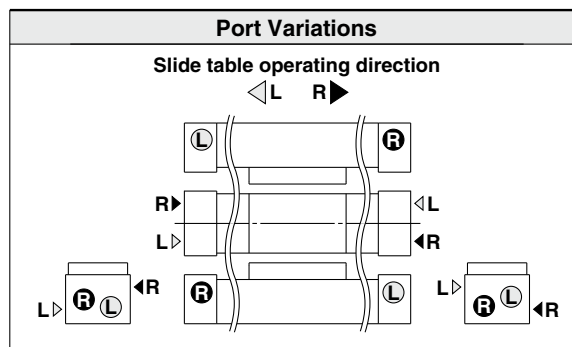
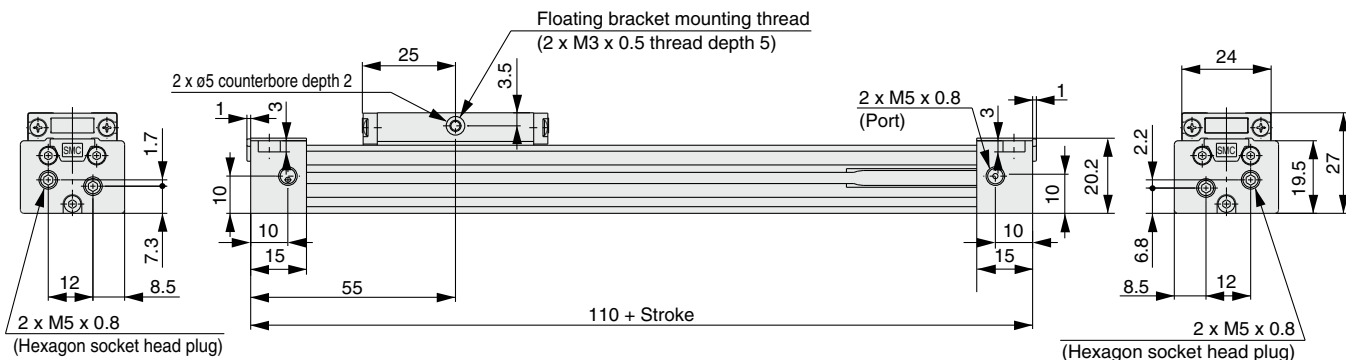
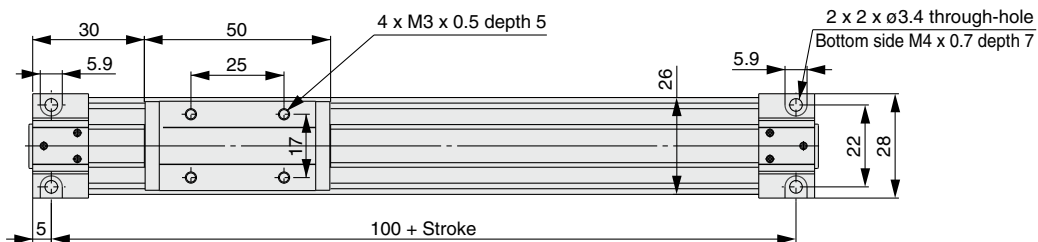
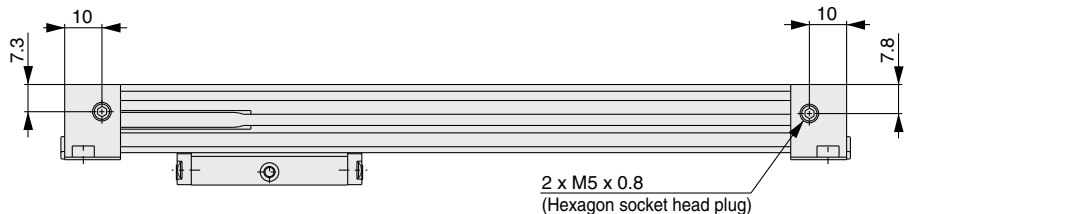
No.	Description	Material	Qty.	MY1B25	MY1B32	MY1B40
14	Seal belt	Urethane	1	MY25-16C-Stroke	MY32-16C-Stroke	MY40-16C-Stroke
15	Dust seal band	Stainless steel	1	MY1B25-16B-Stroke	MY1B32-16B-Stroke	MY1B40-16B-Stroke
33	Side scraper	Polyamide	2	MYB25-15BA5900B	MYB32-15BA5901B	MYB40-15BA5902B
28	O-ring	NBR	2	KA00311 ($\varnothing 5.1 \times \varnothing 3 \times \varnothing 1.05$)	KA00320 ($\varnothing 7.15 \times \varnothing 3.75 \times \varnothing 1.7$)	KA00320 ($\varnothing 7.15 \times \varnothing 3.75 \times \varnothing 1.7$)
37	Cushion boss gasket	NBR	2	MYB25-16GA5900	MYB32-16GA5901	MYB40-16GA5902
17	Scraper	NBR	2			
18	Piston seal	NBR	2			
19	Cushion seal	NBR	2			
20	Tube gasket	NBR	2			
34	O-ring	NBR	4			
				MY1B25-PS	MY1B32-PS	MY1B40-PS

* Seal kit includes 17, 18, 19, 20, and 34. Order the seal kit based on each bore size.

* Seal kit includes a grease pack (10 g). When 14 and 15 are shipped independently, a grease pack is included. (10 g per 1000 mm stroke) Order with the following part number when only the grease pack is needed.
Grease pack part number:
GR-S-010 (10 g), **GR-S-020** (20 g)

Centralized Piping Type $\phi 10$

MY1B10G — Stroke



Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

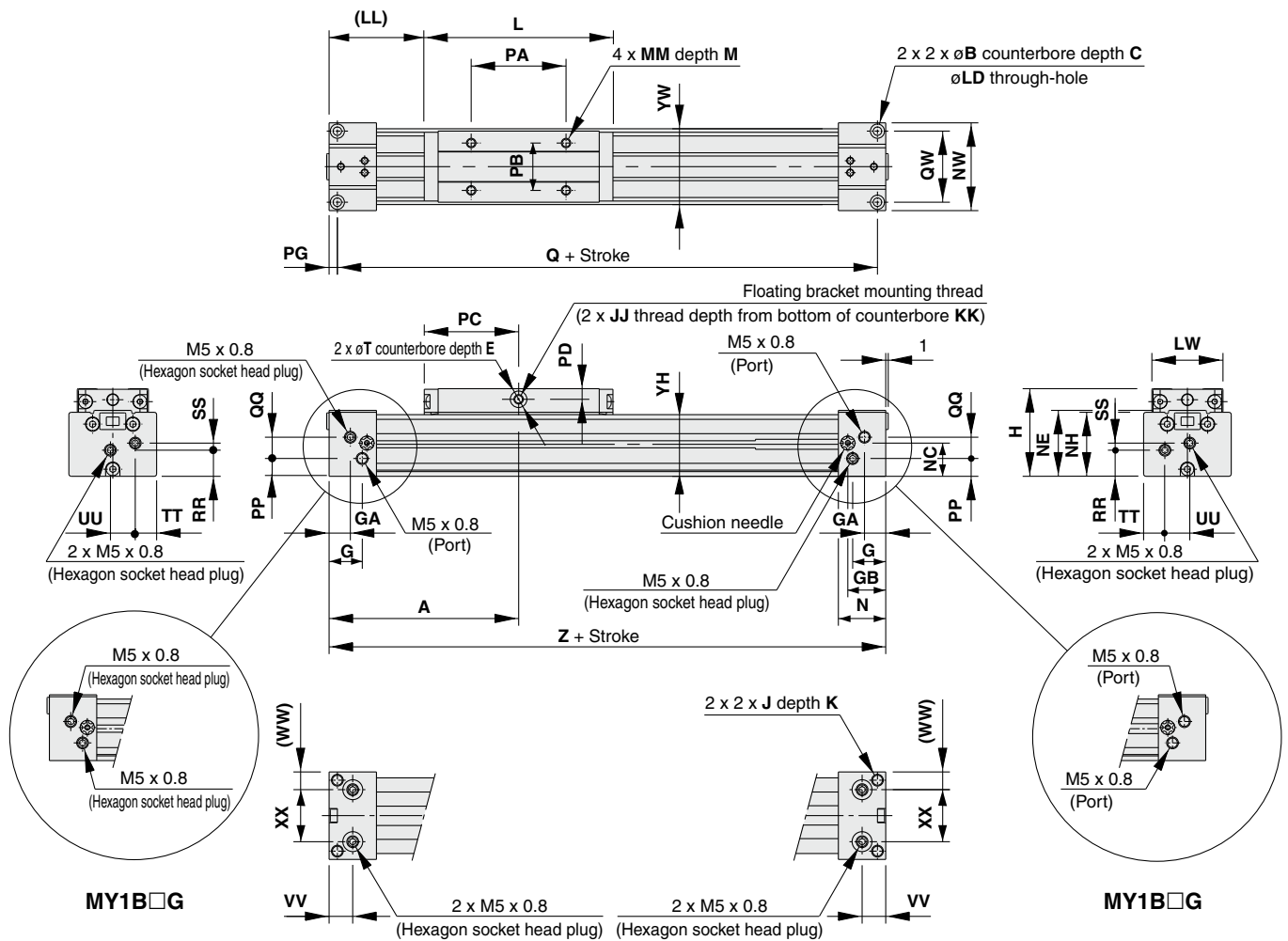
Made to Order Common Specifications

Specific Product Precautions

MY1B Series

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

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	20.5	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

Centralized Piping on the Bottom

O-ring

Piping tube

Centralized piping

Bottom ported
(Applicable O-ring)

Port Variations

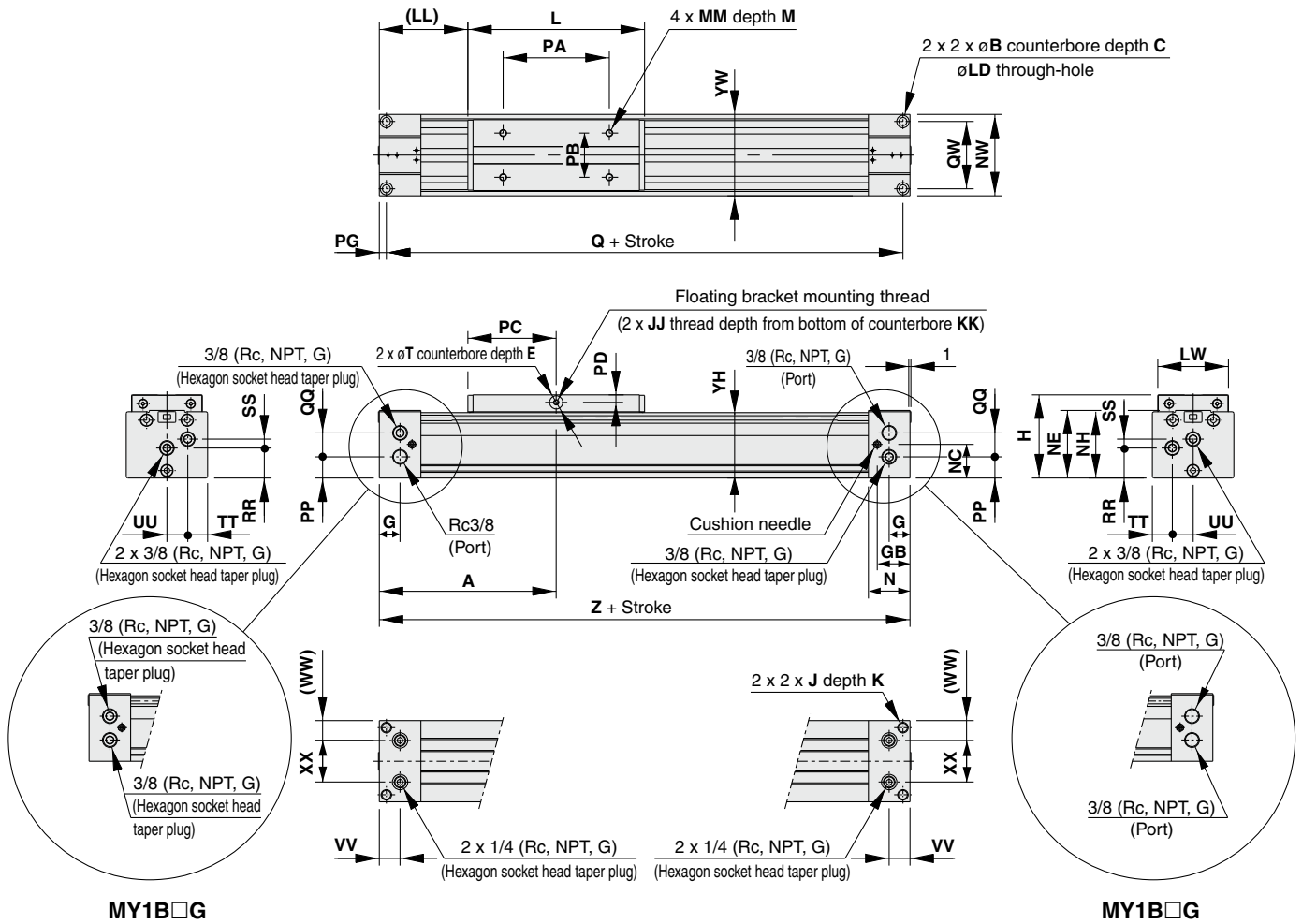
Slide table operating direction
◀ L ▶ R

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	

MY1B Series

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

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	45.5	13.5	16	27	29	25	28	56	94	112	460

Centralized Piping on the Bottom

O-ring
Piping tube
Centralized piping

Bottom ported
(Applicable O-ring)

Port Variations

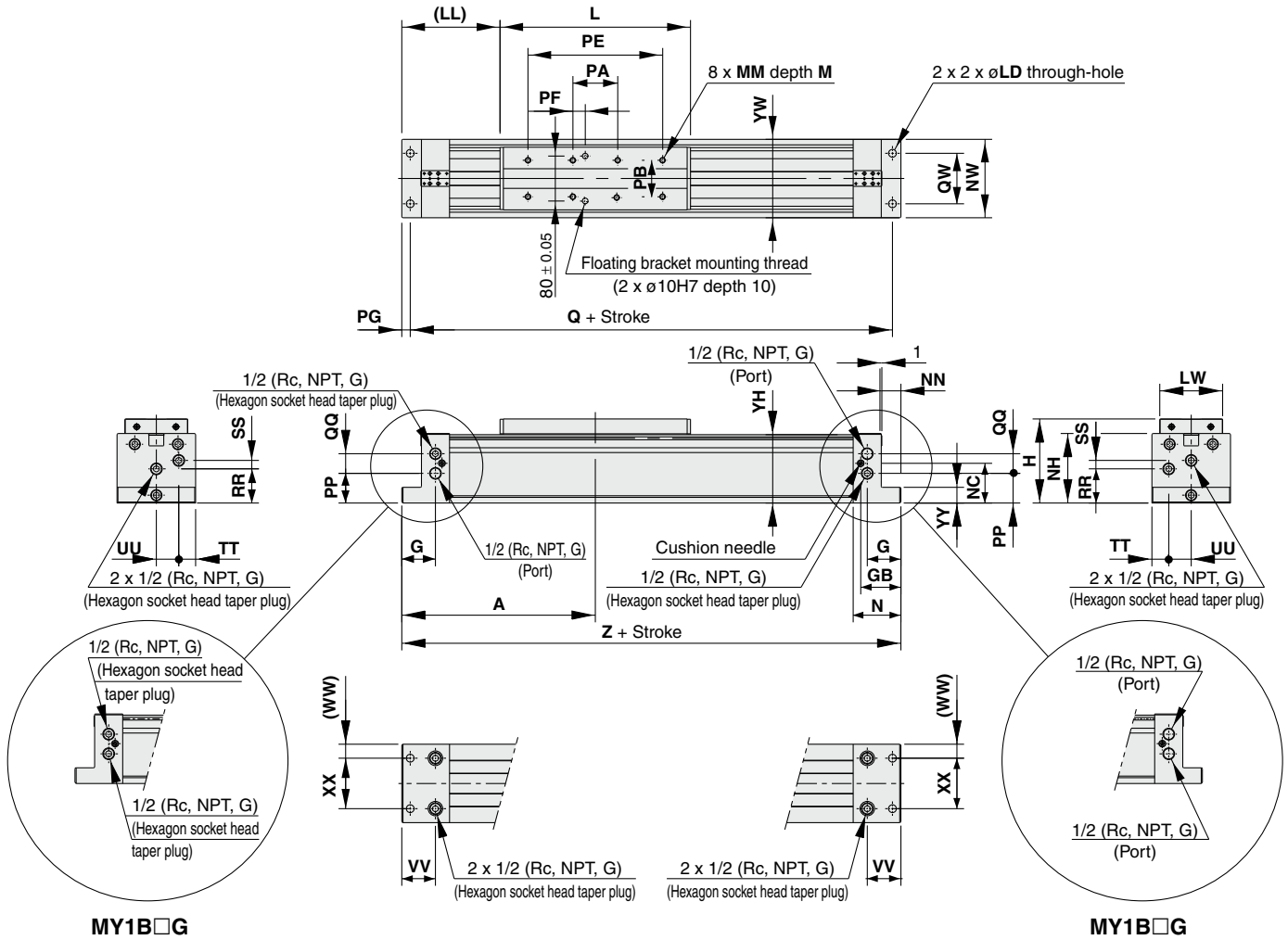
Slide table operating direction
◀ L ▶ R ▶

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	

Mechanically Jointed Rodless Cylinder **MY1B Series**

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

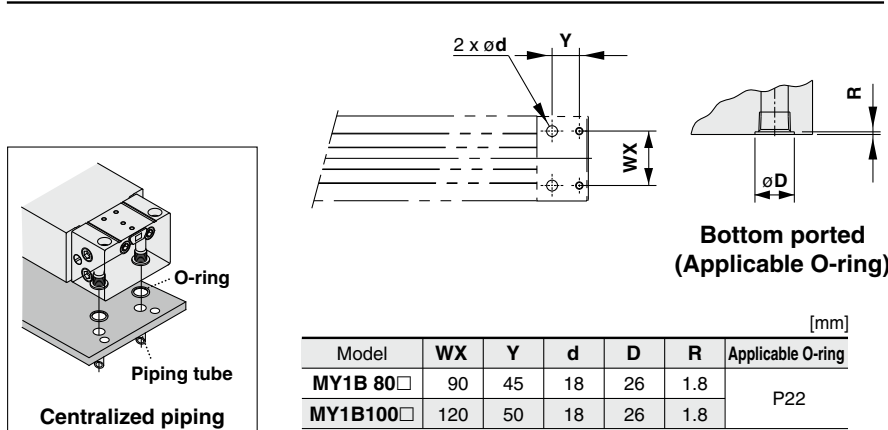
MY1B80□/100□ — Stroke



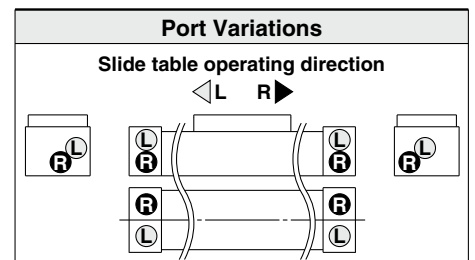
Model	A	G	GB	H	L	LD	LL	LW	M	MM	N	NC	NH	NN	NW	PA	PB	PE
MY1B 80□	345	60	71.5	150	340	14	175	112	20	M10 x 1.5	85	71	124	35	140	80	65	240
MY1B100□	400	70	79.5	190	400	18	200	140	25	M12 x 1.75	95	85	157	45	176	120	85	280

Model	PF	PG	PP	Q	QQ	QW	RR	SS	TT	UU	VV	WW	XX	YH	YW	YY	Z
MY1B 80□	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

Centralized Piping on the Bottom



Model	WX	Y	d	D	R	Applicable O-ring
MY1B 80□	90	45	18	26	1.8	P22
MY1B100□	120	50	18	26	1.8	



Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

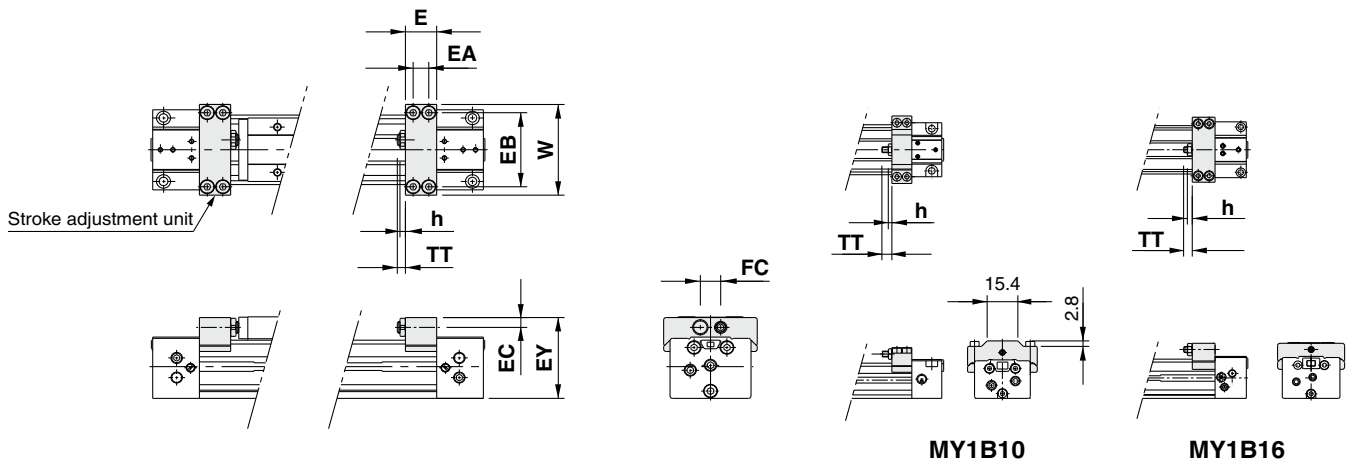
Specific Product Precautions

MY1B Series

Stroke Adjustment Units

With adjustment bolt

MY1B Bore size □ — Stroke A(Z)

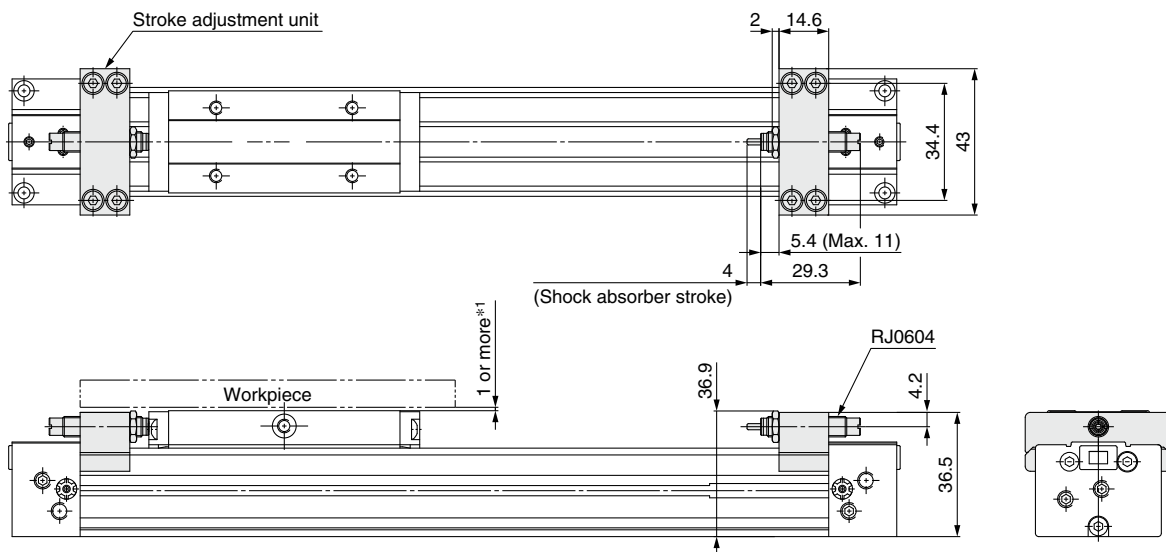


Applicable cylinder	E	EA	EB	EC	EY	FC	h	TT	W
MY1B10	10	5	28	3.3	26.3	—	1.8	5 (Max. 10)	35
MY1B16	14.6	7	34.4	4.2	36.5	—	2.4	5.4 (Max. 11)	43
MY1B20	19	9	43	5.8	45.6	13	3.2	6 (Max. 12)	53
MY1B25	20	10	49	6.5	53.5	13	3.5	5 (Max. 16.5)	60
MY1B32	25	12	61	8.5	67	17	4.5	8 (Max. 20)	74
MY1B40	31	15	76	9.5	81.5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

With low load shock absorber + Adjustment bolt

MY1B Bore size □ — Stroke L(Z)

ø16



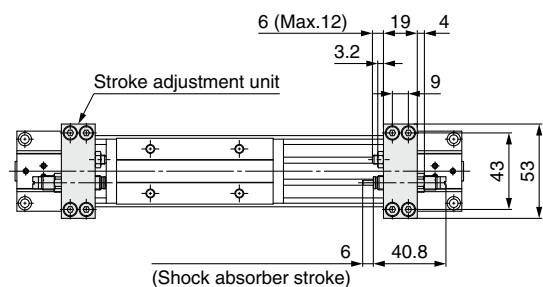
*1 The clearance between the stroke adjustment unit height dimension (36.9 mm) and the slide table top height (37 mm) is very small, so there is a possibility of interference. For this reason, when mounting a workpiece that exceeds the overall length of the slide table, secure a clearance of 1 mm or more on the workpiece side.

Stroke Adjustment Units

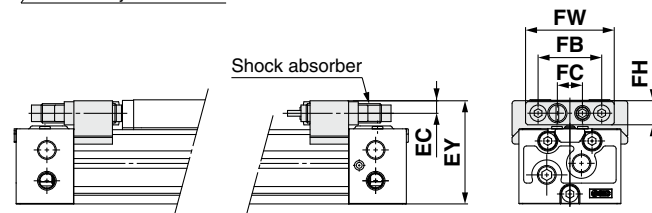
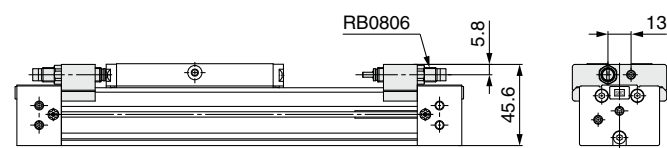
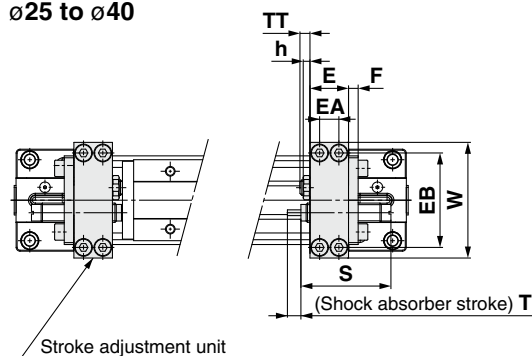
With low load shock absorber + Adjustment bolt

MY1B Bore size — Stroke L(Z)

ø20



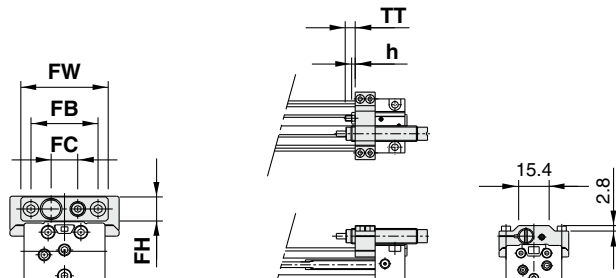
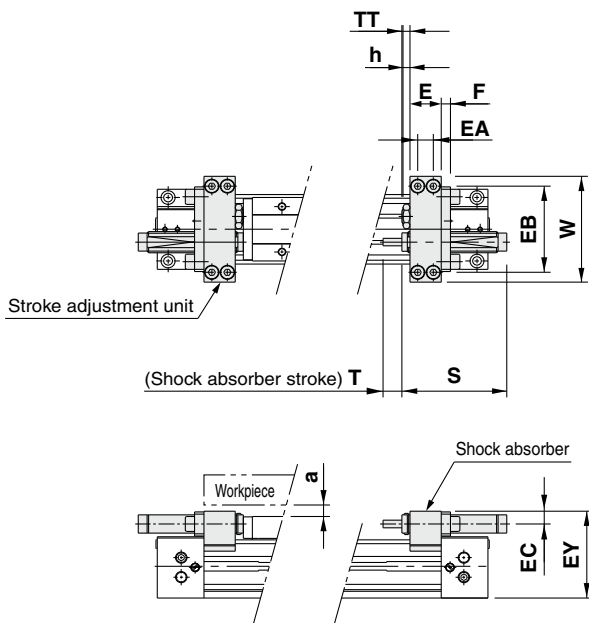
ø25 to ø40



Applicable cylinder	E	EA	EB	EC	EY	F	FB	FC	FH	FW	h	S	T	TT	W	Shock absorber model
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 + Adjustment bolt

MY1B Bore size — Stroke H(Z)



MY1B10

* Since the EY dimension of H unit is longer than the table top height (H dimension), when mounting a workpiece that exceeds the overall length (L dimension) of the slide table, allow a clearance of dimension "a" or longer on the workpiece side.

Applicable cylinder	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

MY1B Series Accessory Brackets (Option)

Stroke Adjustment Units

MY - A 20 H2 - 6N

Stroke adjustment unit

Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm

* Stroke adjustment unit is not available for $\phi 50$, $\phi 63$, $\phi 80$, and $\phi 100$.

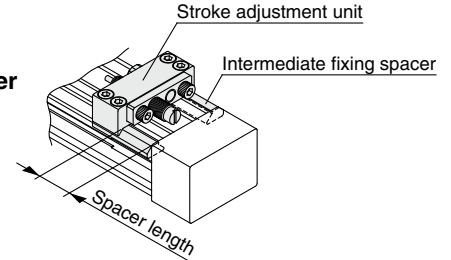
Intermediate fixing spacer

Nil	Without spacer
6	Short spacer
7	Long spacer

Spacer delivery type

Nil	Unit installed
N	Spacer only

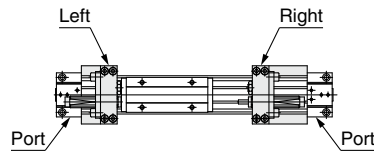
* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
* Spacers are shipped for a set of two.
* Intermediate fixing spacer is not available for $\phi 10$.



Unit no.

Symbol	Stroke adjustment unit	Mounting position
A1	A unit	Left
A2		Right
L1	L unit	Left
L2		Right
H1	H unit	Left
H2		Right

* A and H unit only for $\phi 10$, A unit only for $\phi 16$



Stroke adjustment range

[mm]

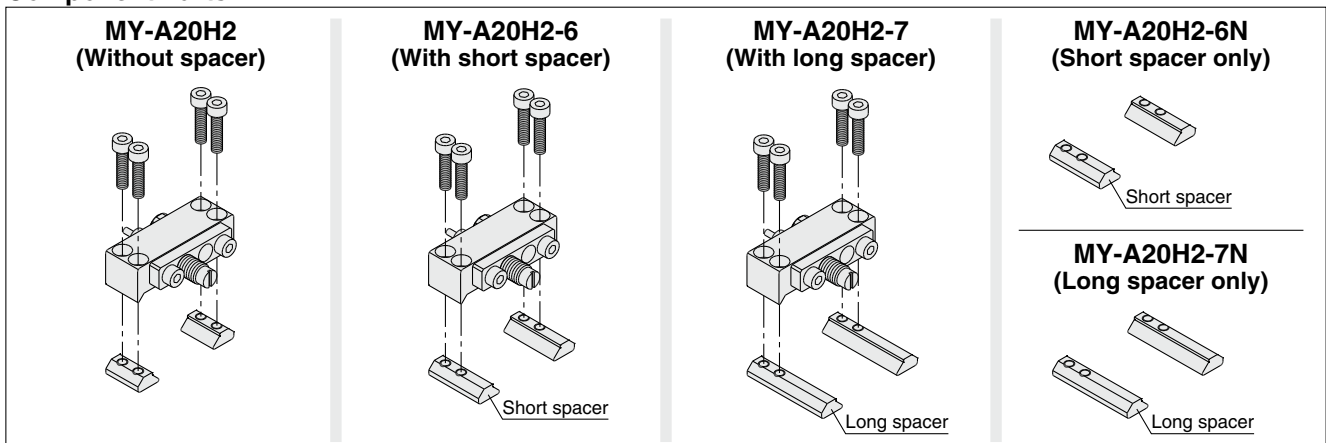
Bore size	10		16		20			25			32			40		
Unit symbol	A	H	A	L	A	L	H	A	L	H	A	L	H	A	L	H
Without spacer	0 to -5		0 to -5.6		0 to -6			0 to -11.5			0 to -12			0 to -16		
With short spacer	—	—	-5.6 to -11.2		-6 to -12			-11.5 to -23			-12 to -24			-16 to -32		
With long spacer	—	—	-11.2 to -16.8		-12 to -18			-23 to -34.5			-24 to -36			-32 to -48		

Spacer length

[mm]

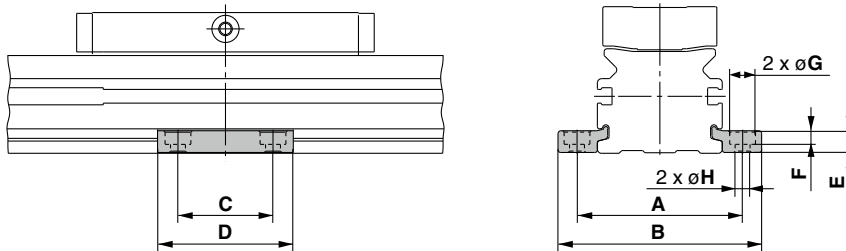
Bore size	16	20	25	32	40
Short spacer	5.6	6	11.5	12	16
Long spacer	11.2	12	23	24	32

Component Parts

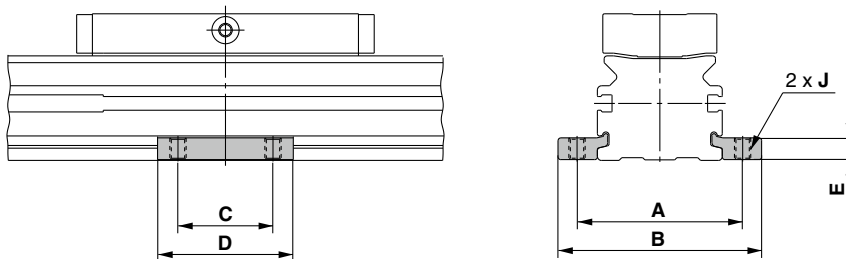


Side Supports

Side support A MY-S□A



Side support B MY-S□B

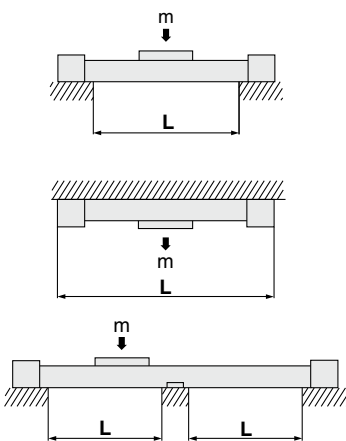


Model	Applicable cylinder	A	B	C	D	E	F	G	H	J
MY-S10 _{A/B}	MY1B 10	35	43.6	12	21	3	1.2	6.5	3.4	M4 x 0.7
MY-S16 _{A/B}	MY1B 16	43	53.6	15	26	4.9	3	6.5	3.4	M4 x 0.7
MY-S20 _{A/B}	MY1B 20	53	65.6	25	38	6.4	4	8	4.5	M5 x 0.8
MY-S25 _{A/B}	MY1B 25	61	75	35	50	8	5	9.5	5.5	M6 x 1
	MY1B 32	70	84							
MY-S32 _{A/B}	MY1B 40	87	105	45	64	11.7	6	11	6.6	M8 x 1.25
	MY1B 50	113	131							
MY-S50 _{A/B}	MY1B 63	136	158	55	80	14.8	8.5	14	9	M10 x 1.5
MY-S63 _{A/B}	MY1B 80	170	200	70	100	18.3	10.5	17.5	11.5	M12 x 1.75
	MY1B100	206	236							

* Side supports consist of a set of right and left brackets.

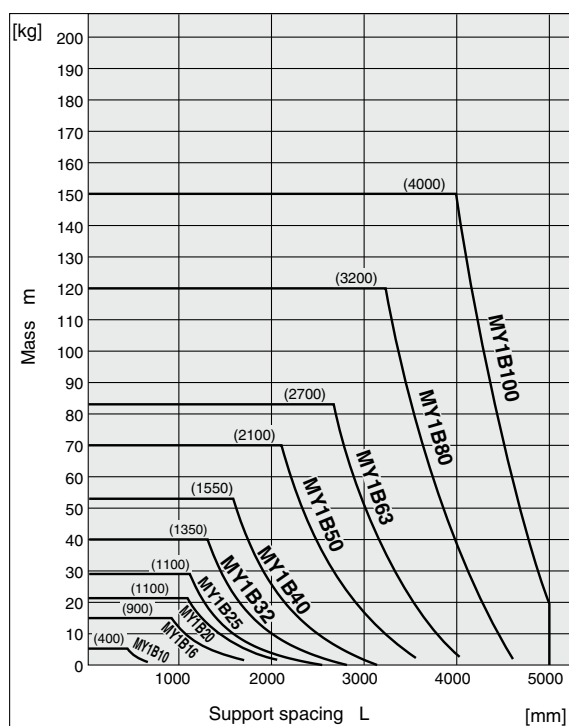
Guide for Side Support Application

For long stroke operation, the cylinder tube may be deflected depending on its own weight and the load. 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

1. 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 it. Also, for long stroke operation involving vibration and impact, the use of a side support is recommended even if the spacing value is within the allowable limits shown in the graph.
2. Support brackets are not for mounting; use them solely for providing support.



MY1B Series

Floating Brackets

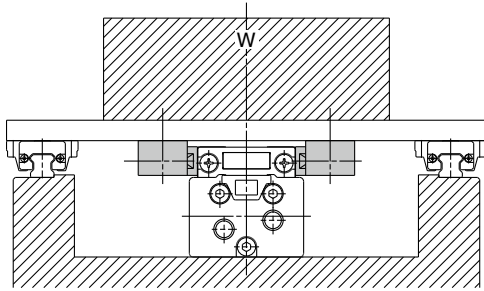
Facilitates connection to other guide systems.

Applicable bore size

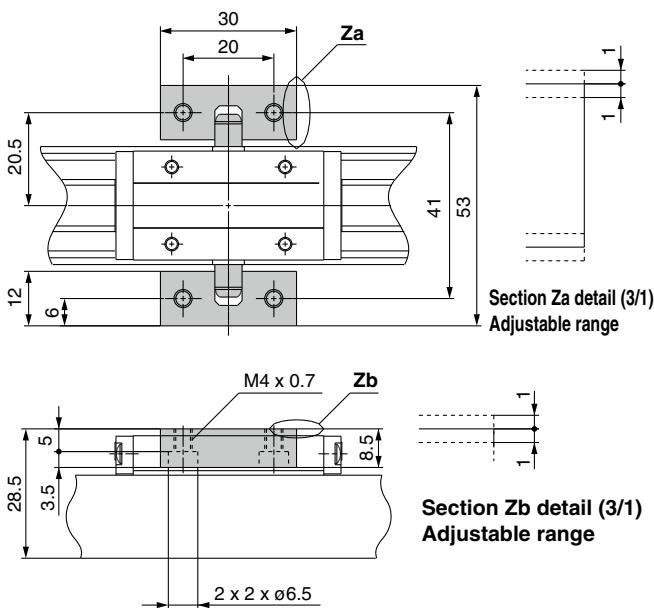
ø10

MY-J10

Application Example



Mounting Example



* Floating brackets consist of a set of right and left brackets.

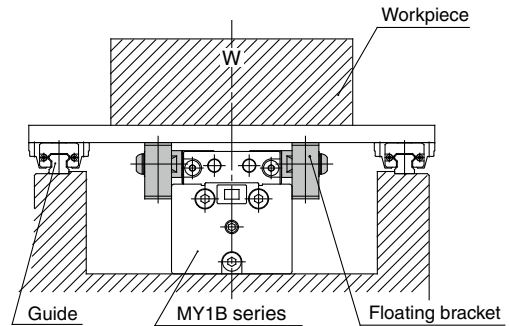
* For details on how to secure the holding bolt, refer to page 120.

Applicable bore size

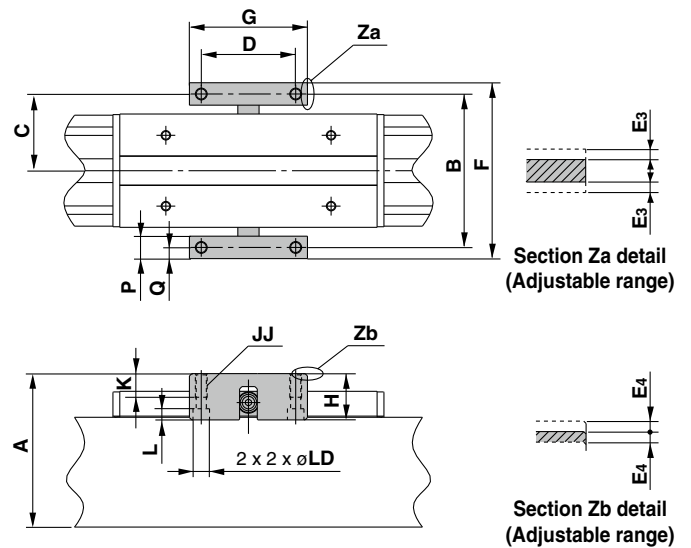
ø16, ø20

MY-J16/MY-J20

Application Example



Mounting Example



		[mm]							
Model	Applicable cylinder	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 cylinder	JJ	K	L	P	Q	E3	E4	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

* Floating brackets consist of a set of right and left brackets.

MY-J10 to 20 (1 set) Component Parts

Description	Qty.	Material
Bracket	2	Carbon steel
Pin	2	Carbon steel
Conical spring washer	2	Carbon steel
Holding bolt	2	Chromium molybdenum steel

Floating Brackets

Facilitates connection to other guide systems.

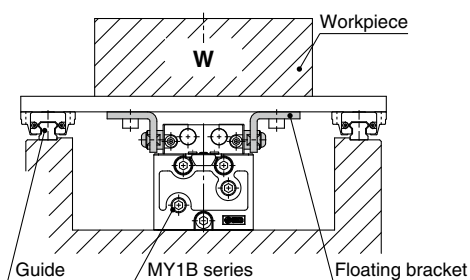
Applicable bore size

ø25, ø32, ø40

MY□J25/MY□J32/MY□J40

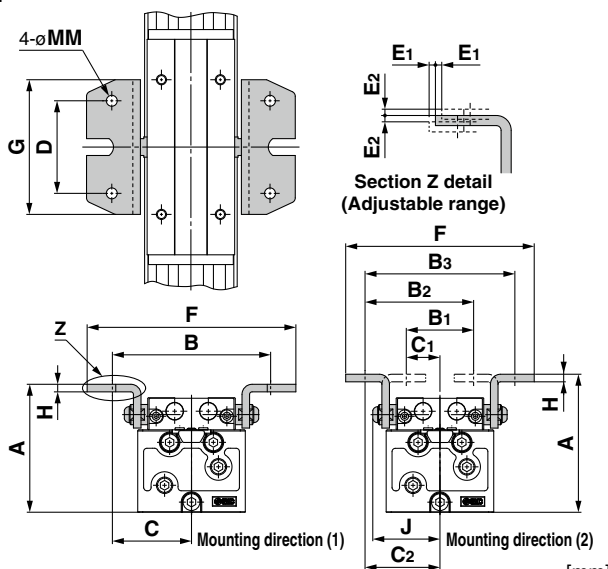
L Type

Application Example



Mounting Dimensions

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



Part no.	Applicable cylinder	Common					Mounting direction (1)			
		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

Part no.	Applicable cylinder	Mounting direction (2)							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

* Floating brackets consist of a set of right and left brackets.

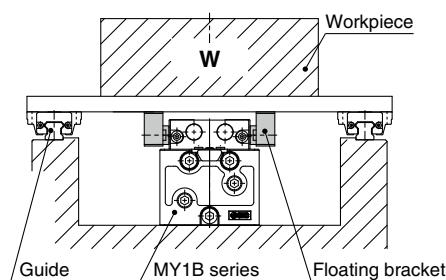
* For details on how to secure the holding bolt, refer to page 120.

MY-J25 (1 set) Component Parts

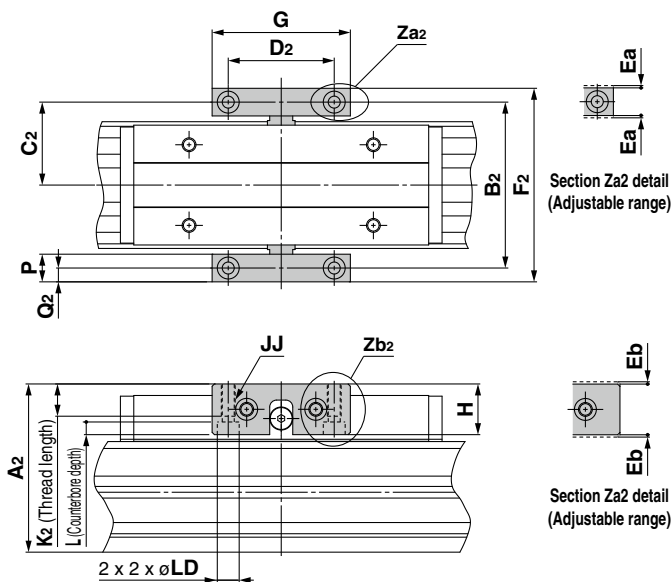
Description	Qty.	Material
Bracket	2	Carbon steel
Pin	2	Carbon steel
Conical spring washer	2	Carbon steel
Holding bolt	2	Chromium molybdenum steel

Block Type

Application Example



Mounting Dimensions



Part no.	Applicable cylinder	G	H	JJ	L	P	LD	Adjustable range	
								Ea	Eb
MYAJ25	MY1B25□	55	22	M6 x 1	5.5	12	9.5	1	1
MYAJ32	MY1B32□	60	22	M6 x 1	5.5	12	9.5	1	1
MYAJ40	MY1B40□	72	32	M8 x 1.25	6.5	16	11	1	1

Part no.	Applicable cylinder	A ₂	B ₂	C ₂	D ₂	F ₂	K ₂	Q ₂
MYAJ32	MY1B32□	73	72	36	46	84	14	6
MYAJ40	MY1B40□	93.5	88	44	55	104	19	8

* For details on how to secure the holding bolt, refer to page 120.

MYAJ25 to 40 (1 set) Component Parts

Description	Qty.	Material
Bracket	2	Rolled steel
Pin	2	Carbon steel
Conical spring washer	2	Carbon steel
Holding bolt	2	Chromium molybdenum steel

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions

MY1B Series

Floating Brackets

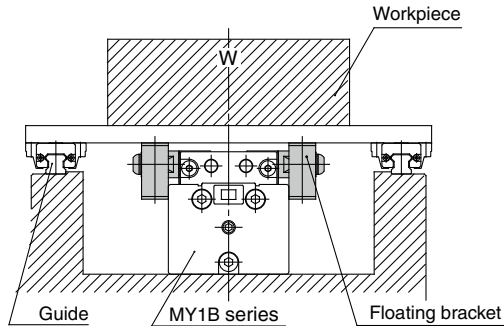
Facilitates connection to other guide systems.

Applicable bore size

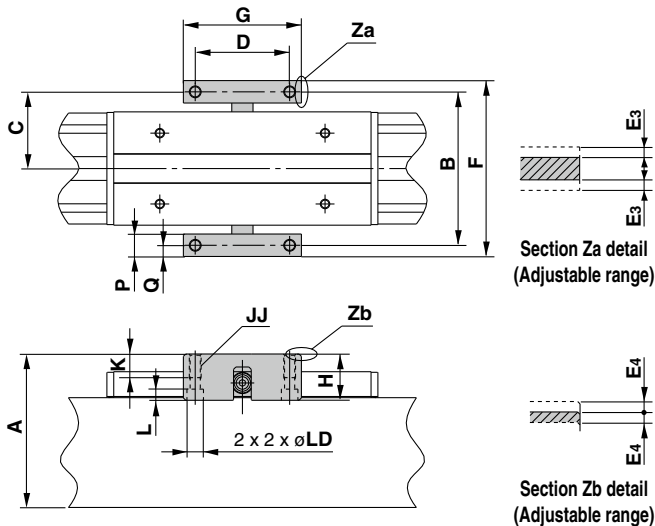
ø50, ø63

MY-J50/MY-J63

Application Example



Mounting Example



[mm]

Model	Applicable cylinder	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 cylinder	JJ	K	L	P	Q	E3	E4	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

- * Floating brackets consist of a set of right and left brackets.
- * For details on how to secure the holding bolt, refer to page 120.

MY-J50, 63 (1 set) Component Parts

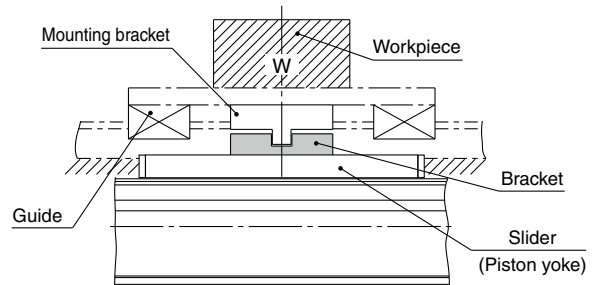
Description	Qty.	Material
Bracket	2	Carbon steel
Pin	2	Carbon steel
Conical spring washer	2	Carbon steel
Holding bolt	2	Chromium molybdenum steel

Applicable bore size

ø80, ø100

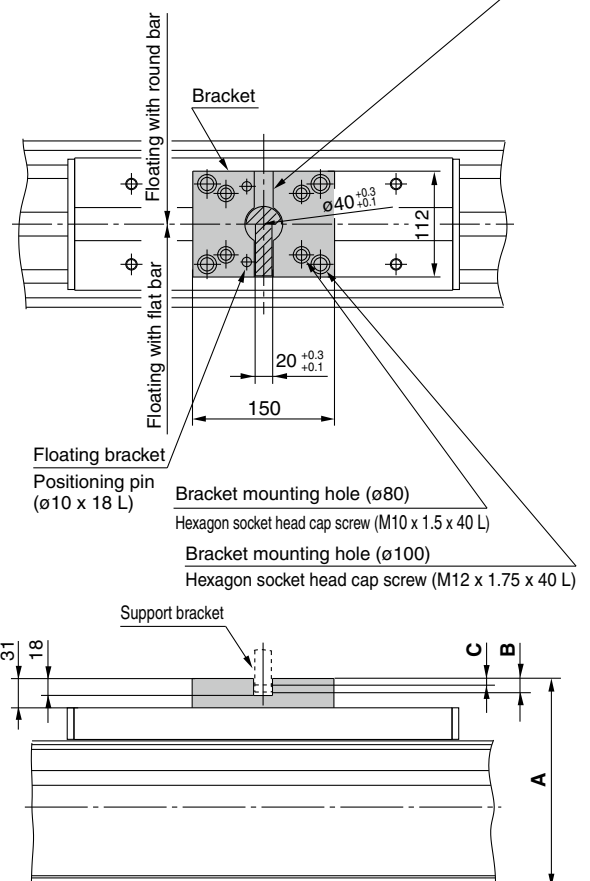
MY-J80/MY-J100

Application Example



Mounting Example

Support bracket mounting area is heat treated at Hrc40 or above.



Model	Applicable cylinder	A	B (max.)	C (min.)
MY-J80	MY1B 80□	181	15	9
MY-J100	MY1B100□	221	15	9

- * Flat bar or round bar mounting are possible for the support bracket (slanted lines) mounted by the customer.
- * "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.

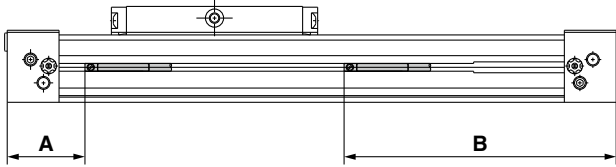
MY-J80, 100 (1 set) Component Parts

Description	Qty.	Material
Bracket	1	Rolled steel
Parallel pin	2	Carbon steel
Holding bolt	4	Chromium molybdenum steel

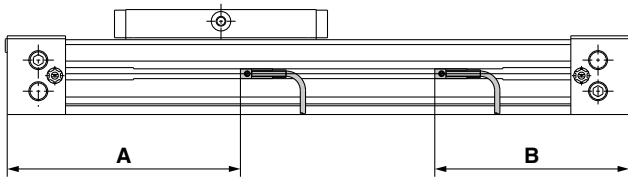
MY1 Series Auto Switch Mounting

Proper Auto Switch Mounting Position (Detection at Stroke End)

MY1B (Basic type) ø10 to ø20



ø25 to ø100



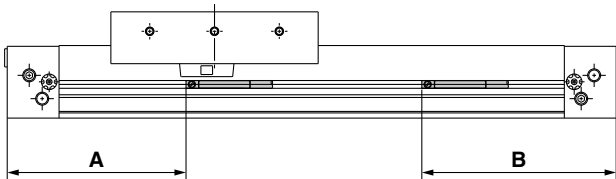
Proper Auto Switch Mounting Position [mm]

Auto switch model	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-Y59□/Y7P D-Y69□/Y7PV D-Y7□W D-Y7□WV D-Y7BA D-Z7□/Z80	
	A	B	A	B	A	B
Bore size						
10	24	86	20	90	—	—
16	31.5	128.5	27.5	132.5	—	—
20	39	161	35	165	—	—
25	138	82	134	86	—	—
32	186.5	93.5	182.5	97.5	—	—
40	222.5	117.5	218.5	212.5	—	—
50	—	—	—	—	272.5	127.5
63	322.5	137.5	—	—	317.5	142.5
80	489.5	200.5	—	—	484.5	205.5
100	574.5	225.5	—	—	569.5	230.5

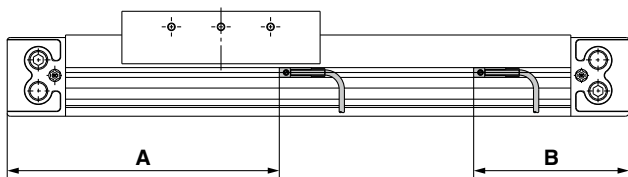
* D-M9□□□ type cannot be mounted on ø50.

* Adjust the auto switch after confirming the operating condition in the actual setting.

MY1M (Slide bearing guide type) ø16, ø20



ø25 to ø63

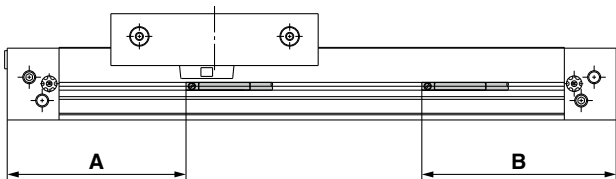


Proper Auto Switch Mounting Position [mm]

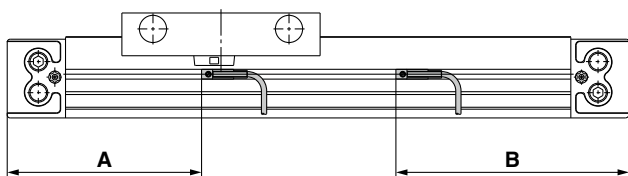
Auto switch model	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-Y59□/Y7P D-Y69□/Y7PV D-Y7□W D-Y7□WV D-Z7□/Z80	
	A	B	A	B	A	B
Bore size						
16	74	86	70	90	—	—
20	94	106	90	110	—	—
25	143.5	75.5	—	—	139.5	80.5
32	189.5	90.5	—	—	184.5	95.5
40	234.5	105.5	—	—	229.5	110.5
50	283.5	116.5	—	—	278.5	121.5
63	328.5	131.5	—	—	323.5	136.5

* Adjust the auto switch after confirming the operating condition in the actual setting.

MY1C (Cam follower guide type) ø16, ø20



ø25 to ø63



Proper Auto Switch Mounting Position [mm]

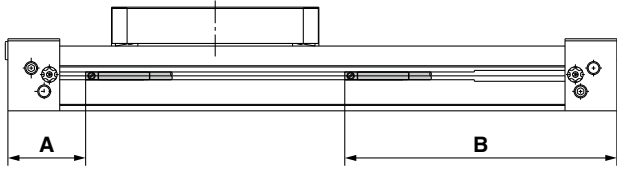
Auto switch model	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-Y59□/Y7P D-Y69□/Y7PV D-Y7□W D-Y7□WV D-Z7□/Z80	
	A	B	A	B	A	B
Bore size						
16	74	86	70	90	—	—
20	94	106	90	110	—	—
25	102	118	—	—	97	123
32	132	148	—	—	127	153
40	162.5	175.5	—	—	157.5	182.5
50	283.5	116.5	—	—	278.5	121.5
63	328.5	131.5	—	—	323.5	136.5

* Adjust the auto switch after confirming the operating condition in the actual setting.

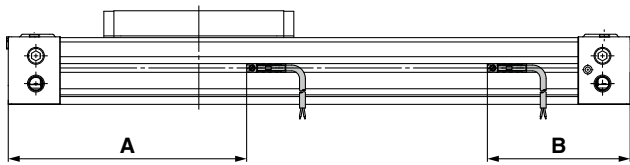
Proper Auto Switch Mounting Position (Detection at Stroke End)

MY1H (Linear guide type)

ø10 to ø20



ø25 to ø40



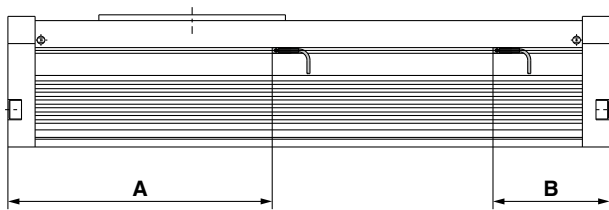
Proper Auto Switch Mounting Position [mm]

Auto switch model	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-Y59□/Y7P D-Y69□/Y7PV D-Y7□W D-Y7□WV D-Z7□/Z80	
	A	B	A	B	A	B
Bore size						
10	24	86	20	90	—	—
16	31.5	128.5	27.5	132.5	—	—
20	39	161	35	165	—	—
25	138	82	134	86	—	—
32	186.5	93.5	182.5	97.5	—	—
40	222.5	117.5	218.5	121.5	—	—

* Adjust the auto switch after confirming the operating condition in the actual setting.

MY1HT (High rigidity/Linear guide type)

ø50, ø63



Proper Auto Switch

Mounting Position [mm]

Auto switch model	D-Y59□/Y7P D-Y69□/Y7PV D-Y7□W D-Y7□WV D-Y7BA D-Z7□/Z80	
	A	B
Bore size		
50	290.5	123.5
63	335.5	138.5

* Adjust the auto switch after confirming the operating condition in the actual setting.

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions

MY1 Series

Operating Range

* Values which include hysteresis are for reference purpose only. They are not a guarantee (assuming approximately $\pm 30\%$ dispersion) and may change substantially depending on the ambient environment.

MY1B (Basic type) [mm]

Auto switch model	Bore size									
	10	16	20	25	32	40	50	63	80	100
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	3.5	4	5.5	5.0	5.5	5.5	—	12	12	11.5
D-A9□/A9□V	6	6.5	8.5	7.0	10.0	9.0	—	—	—	—
D-Z7□/Z80	—	—	—	—	—	—	11.5	11.5	11.5	11.5
D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV	—	—	—	—	—	—	3.5	3.5	3.5	3.5

* D-M9□□□ type cannot be mounted on $\phi 50$.

MY1H (Linear guide type) [mm]

Auto switch model	Bore size					
	10	16	20	25	32	40
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	3	4.5	5	5.0	5.5	5.5
D-A9□/A9□V	11	6.5	8.5	7.0	10.0	9.0
D-Z7□/Z80	—	—	—	—	—	—
D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV	—	—	—	—	—	—

MY1M (Slide bearing guide type) [mm]

Auto switch model	Bore size						
	16	20	25	32	40	50	63
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	7.5	7.5	8.5	8.5	9.5	7	6
D-A9□/A9□V	11	7.5	—	—	—	—	—
D-Z7□/Z80	—	—	12	12	12	11.5	11.5
D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV	—	—	5	5	5	5.5	5.5

MY1HT

(High rigidity/Linear guide type) [mm]

Auto switch model	Bore size	
	50	63
D-Z7□/Z80	11	11
D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA	5	5

MY1C (Cam follower guide type) [mm]

Auto switch model	Bore size						
	16	20	25	32	40	50	63
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	7.5	7.5	7	8	8.5	7	6
D-A9□/A9□V	11	7.5	—	—	—	—	—
D-Z7□/Z80	—	—	12	12	12	11.5	11.5
D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV	—	—	5	5	5	5.5	5.5

Auto Switch Mounting Bracket/Part No.

Auto switch model	Bore size [mm]	MY1B, MY1H	
		ø10 to ø20	ø50 to ø100
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V		—	BMG2-012

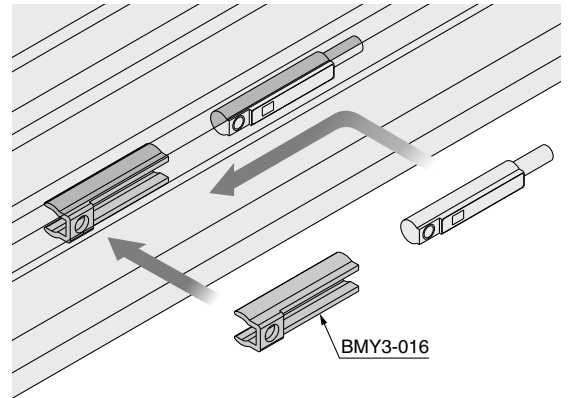
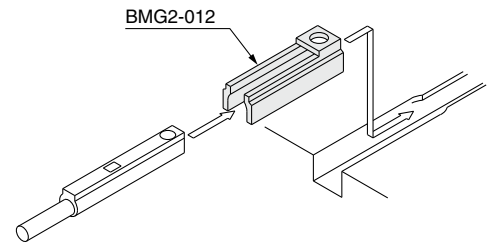
- * The D-M9□(V)/M9□W(V)/M9□A(V) are not available for bore size ø50 of the MY1B.
- * The D-A9□(V) is not available for bore sizes ø50 to ø100 of the MY1B.
- * There are no bore sizes ø50 to ø100 for the MY1H.

Auto switch model	Bore size [mm]	MY1B-Z, MY1H-Z	
		ø25 to ø40	
D-A9□/A9□V D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV		BMY3-016	

Auto switch model	Bore size [mm]	MY1M, MY1C	
		ø10 to ø20	ø25 to ø63
D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V		—	BMG2-012

- * The D-A9□(V) is not available for bore sizes ø25 to ø63.

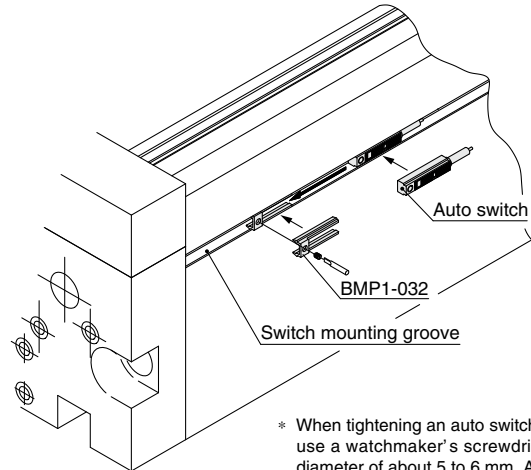
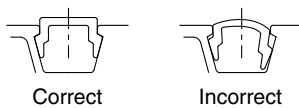
ø25 to ø100: M9□(V)/M9□W(V)/M9□A(V)



Switch Spacer No.

Cylinder series	Applicable bore size [mm]	
	50	63
MY1HT	BMP1-032	

When attaching an auto switch, first take a switch spacer between your fingers and press it into a switch mounting groove. When doing this, confirm that it is set in the correct mounting orientation, or reattach if necessary. Next, insert an auto switch into the groove and slide it until it is positioned under the switch spacer. After establishing the mounting position, use a watchmaker's flat head screwdriver to tighten the auto switch mounting screw which is included.



- * When tightening an auto switch mounting screw, use a watchmaker's screwdriver with a handle diameter of about 5 to 6 mm. Also, tighten with a torque of about 0.05 to 0.1 N·m. As a guide, it should be turned about 90° past the point at which tightening can be felt.

Other than the applicable auto switches listed in "How to Order," the following auto switches are mountable. For detailed specifications, refer to the **Web Catalog**.

Type	Model	Electrical entry	Features	Applicable bore size
Solid state auto switch	D-Y69A, Y69B, Y7PV	Grommet (Perpendicular)	—	MY1B ø50 to ø100 MY1M ø25 to ø63 MY1C ø25 to ø63
	D-Y7NWV, Y7PWV, Y7BWV		Diagnostic indication (2-color indicator)	
	D-Y59A, Y59B, Y7P	Grommet (In-line)	—	
	D-Y7NW, Y7PW, Y7BW		Diagnostic indication (2-color indicator)	

- * With pre-wired connector is also available for solid state auto switches. For details, refer to the **Web Catalog**.
- * Normally closed (NC = b contact) solid state auto switches (D-M9□E(V)/Y7G/Y7H) are also available. For details, refer to the **Web Catalog**.

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

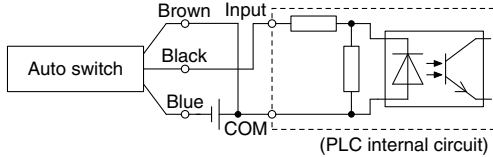
Specific Product Precautions

Prior to Use

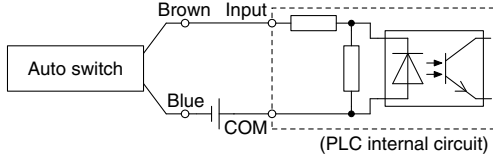
Auto Switch Connections and Examples

Sink Input Specifications

3-wire, NPN

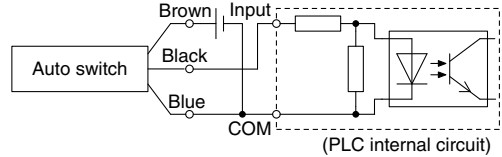


2-wire

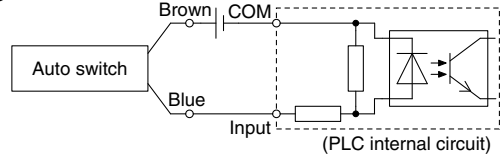


Source Input Specifications

3-wire, PNP



2-wire

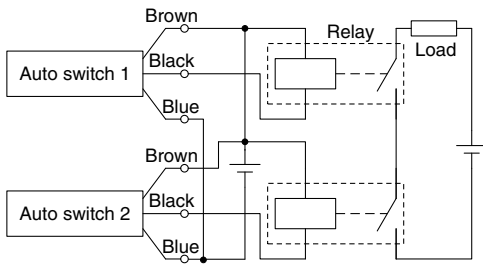


Connect according to the applicable PLC input specifications, as the connection method will vary depending on the PLC input specifications.

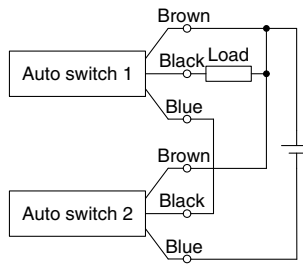
Examples of AND (Series) and OR (Parallel) Connections

* When using solid state auto switches, ensure the application is set up so the signals for the first 50 ms are invalid. Depending on the operating environment, the product may not operate properly.

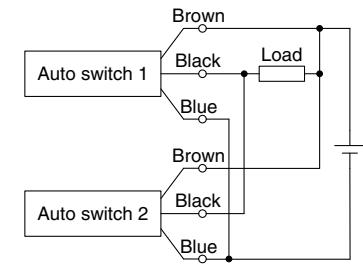
3-wire AND connection for NPN output (Using relays)



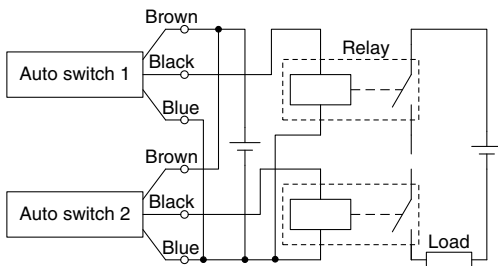
(Performed with auto switches only)



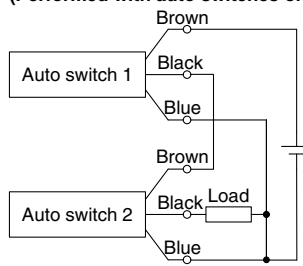
3-wire OR connection for NPN output



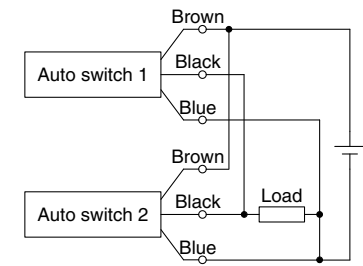
3-wire AND connection for PNP output (Using relays)



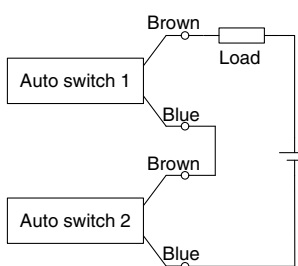
(Performed with auto switches only)



3-wire OR connection for PNP output



2-wire AND connection

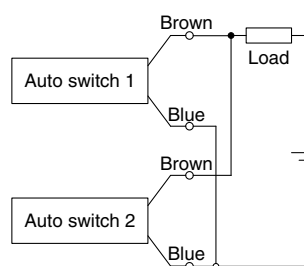


When two auto switches are connected in series, a load may malfunction because the load voltage will decline when in the ON state. The indicator lights will light up when both of the auto switches are in the ON state. Auto switches with a load voltage less than 20 V cannot be used.

$$\begin{aligned} \text{Load voltage at ON} &= \text{Power supply voltage} - \\ &\quad \text{Residual voltage} \times 2 \text{ pcs.} \\ &= 24 \text{ V} - 4 \text{ V} \times 2 \text{ pcs.} \\ &= 16 \text{ V} \end{aligned}$$

Example: Power supply is 24 VDC
Internal voltage drop in auto switch is 4 V.

2-wire OR connection



(Solid state)
When two auto switches are connected in parallel, malfunction may occur because the load voltage will increase when in the OFF state.

(Reed)
Because there is no current leakage, the load voltage will not increase when turned OFF. However, depending on the number of auto switches in the ON state, the indicator lights may sometimes grow dim or not light up, due to the dispersion and reduction of the current flowing to the auto switches.

$$\begin{aligned} \text{Load voltage at OFF} &= \text{Leakage current} \times 2 \text{ pcs.} \times \\ &\quad \text{Load impedance} \\ &= 1 \text{ mA} \times 2 \text{ pcs.} \times 3 \text{ k}\Omega \\ &= 6 \text{ V} \end{aligned}$$

Example: Load impedance is 3 k Ω .
Leakage current from auto switch is 1 mA.

MY1 Series

Made to Order Common Specifications

Please contact SMC for detailed specifications, delivery, and prices.



Made to Order Common Specifications

Symbol	Specifications	MY1B (Basic type)	MY1M (Slide bearing guide type)	MY1C (Cam follower guide type)	MY1H (Linear guide type)	MY1HT (High rigidity/Linear guide type)	Page
		ø10, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100	ø16, ø20, ø25, ø32, ø40, ø50, ø63	ø16, ø20, ø25, ø32, ø40, ø50, ø63	ø10, ø16, ø20, ø25, ø32, ø40	ø50, ø63	
-XB22	Shock absorber Soft type RJ series mounted	●*1	●*5	●*5	●		115
-XC56	With knock pin holes			●	●		117
-XC67	Dust seal band NBR lining specifications	●*2	●	●	●*6	●	118
-X168	Helical insert thread specifications	●*3	●	●	●*3	●*7	118
-X1810	Magnet for ø10 solid state auto switch specifications	●*4			●*4		118

- *1 Only applicable to ø10 to ø40
- *2 Only applicable to ø16, ø20, ø50, and ø63
- *3 ø10 is only available as a special product.
- *4 Only applicable to ø10
- *5 Only applicable to ø16 to ø40
- *6 Only applicable to ø16 and ø20
- *7 Produced upon receipt of order.

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions



Symbol
-XB22

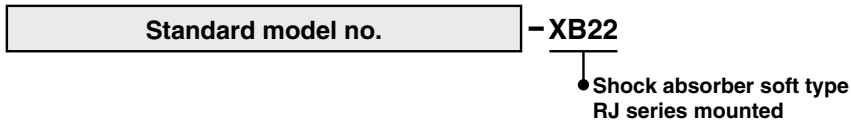
1 Shock Absorber Soft Type RJ Series Mounted

The standard cylinder has been equipped with shock absorber soft type RJ series type to enable soft stopping at the stroke end. Two different shock absorbers are available in accordance with the operating conditions.

Applicable Series

Description	Model	Bearing type	Applicable bore size
Mechanically jointed rodless cylinder	MY1B	Basic	ø10 to ø40
	MY1M	Slide bearing guide	ø16 to ø40
	MY1C	Cam follower guide	ø16 to ø40
	MY1H	Single-axis linear guide	ø10 to ø40

How to Order



How to Order a Stroke Adjustment Unit for MY Itself



Specifications

Absorbed energy	For the impact mass graph, refer to page 116.
Specifications other than the above and dimensions	Same as the standard type

Cylinders

Model	Type	Stroke adjustment unit	Bore size					
			ø10	ø16	ø20	ø25	ø32	ø40
MY1B	-XB22	L	RJ0805	RJ0604*1	RJ0806H	RJ1007H	RJ1412H	
		H			RJ1007H	RJ1412H	—	—
	Standard	L	RB0805	RB0806	RB1007	RB1412		
		H	RB0805	RB1007	RB1412	RB2015		
MY1M MY1C	-XB22	L	RJ0805	RJ0604*1	RJ0806H	RJ1007H	RJ1412H	
		H			RJ1007H	RJ1412H	—	—
	Standard	L	RB0805	RB0806	RB1007	RB1412		
		H	RB0805	RB1007	RB1412	RB2015		
MY1H	-XB22	L	RJ0805	RJ0604*1	RJ0806H	RJ1007H	RJ1412H	
		H			RJ1007H	RJ1412H	—	—
	Standard	L	RB0805	RB0806	RB1007	RB1412		
		H	RB0805	RB1007	RB1412	RB2015		

*1 The MY1B16 standard model uses an RJ0604.

- * Refer to the **Web Catalog** for the details of the shock absorber RJ and RB series.
- * The shock absorber service life is different from that of each cylinder. Refer to the "Specific Product Precautions" of the RJ series for the replacement period.

Symbol
-XB22

1 Shock Absorber Soft Type RJ Series Mounted

Impact Mass Graph (Shock Absorber Performance Line Graph)

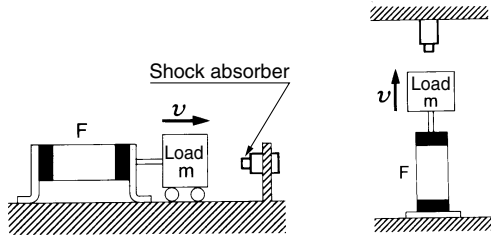
* Values in the impact mass graph are at room temperature (20 to 25°C).

Ensure that the impact mass and the collision speed are within the absorbed energy graphs below.
Refer to each cylinder selection calculation for load factors and guide load factors.

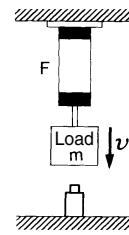
Type of collision

Horizontally-applied impact

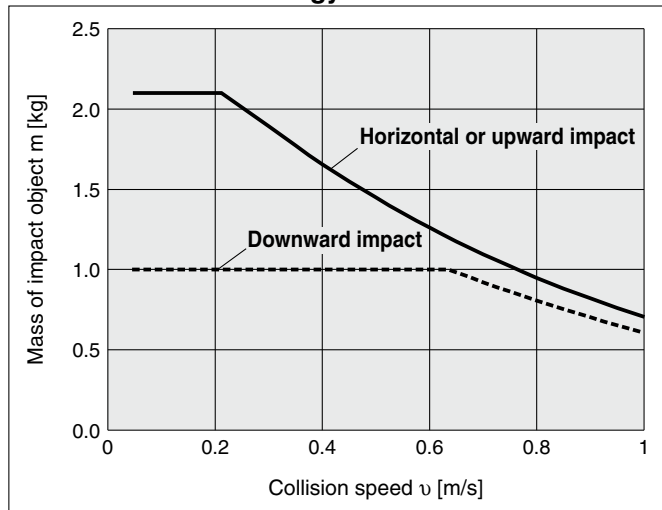
Air cylinder impact (horizontal/upward)



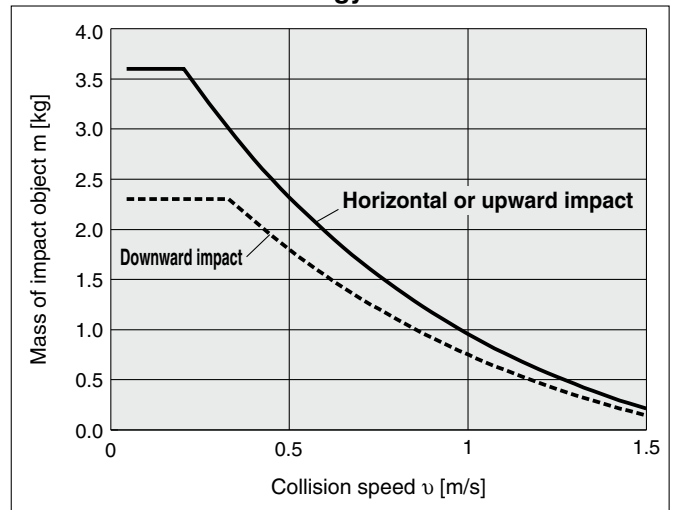
Air cylinder impact (downward)



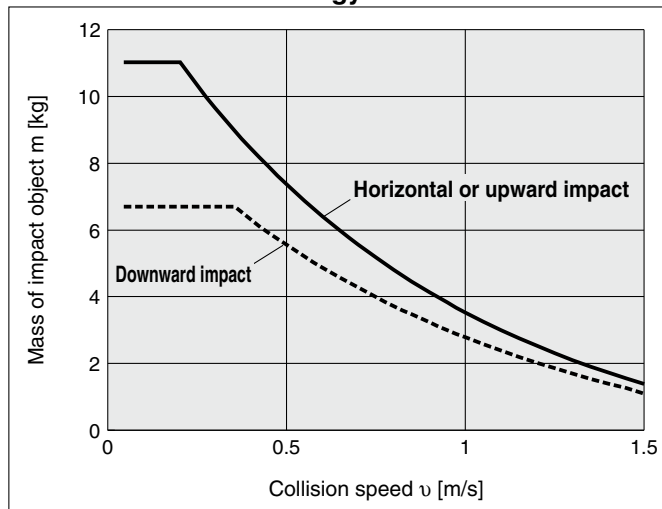
RJ0805 Absorbed Energy



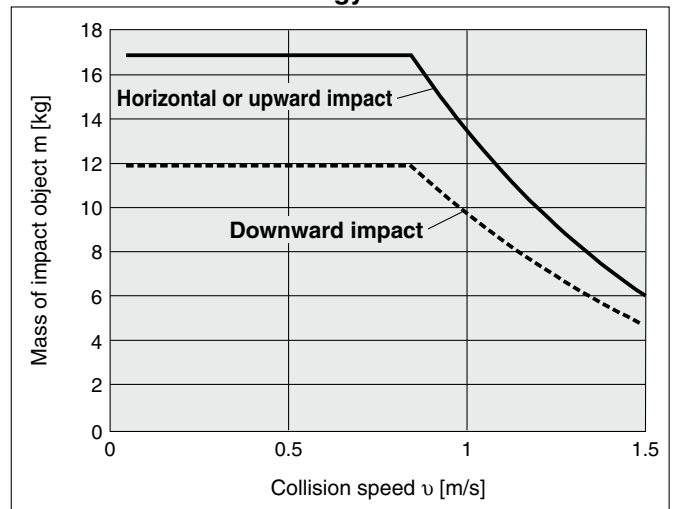
RJ0806H Absorbed Energy



RJ1007H Absorbed Energy



RJ1412H Absorbed Energy



* Be sure to read "Handling Precautions for SMC Products" (M-E03-3) and "Shock Absorber Soft Type RJ Series" (Web Catalog) before use.

Model Selection

MY1B

MY1M

MY1C

MY1H

MY1HT

Auto Switch Mounting

Made to Order Common Specifications

Specific Product Precautions

MY1 Series

Symbol
-XC56

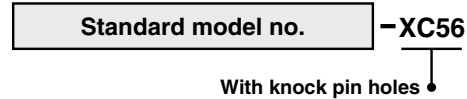
2 With Knock Pin Holes

Cylinder with knock positioning pin hole

Applicable Series

Description	Model	Action
Mechanically jointed rodless cylinder	MY1C	Cam follower guide
	MY1H	Linear guide

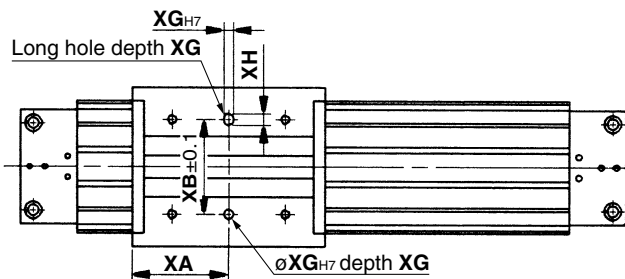
How to Order



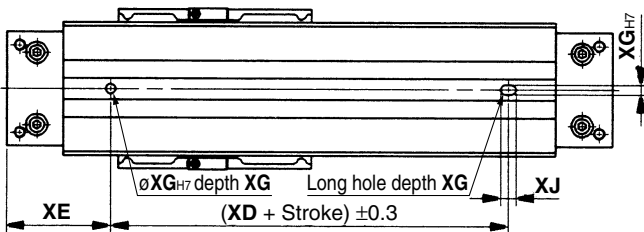
Specifications: Same as the standard type

Dimensions (Dimensions other than specified below are the same as the standard type.)

MY1C series



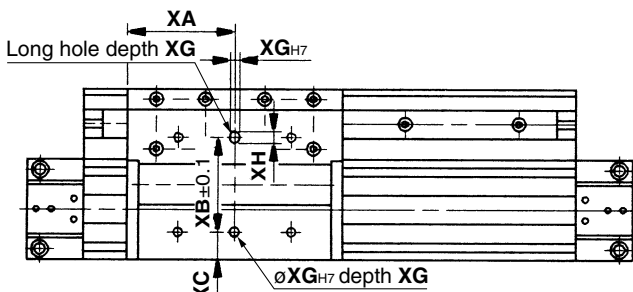
Mounting surface of a workpiece for the slide table



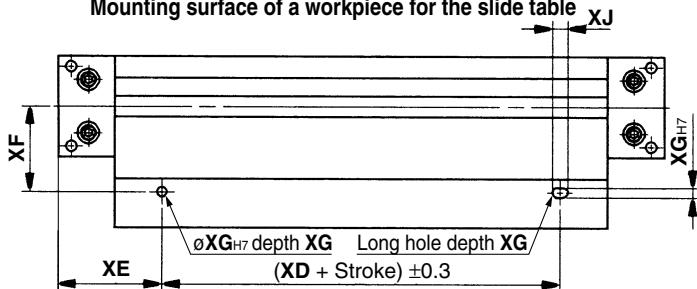
Mounting surface of cylinder tube

Bore size [mm]	XA	XB	XD	XE	XG	XH	XJ
16	40	40	80	40	4	5	9
20	50	40	100	50	4	5	9
25	51	50	110	55	5	6	10
32	66	60	140	70	6	7	11
40	81	80	180	80	6	7	11
50	100	90	230	85	8	9	13
63	115	110	280	90	10	10	15

MY1H(-Z) series



Mounting surface of a workpiece for the slide table



Mounting surface of cylinder tube

Bore size [mm]	XA	XB	XC	XD	XE
10	25	33	3.5	70	20
16	40	40	7.5	80	40
20	50	40	14.5	100	50
25	57	50	14.5	110	55
32	70	60	15	140	70
40	85	80	20.5	180	80

Bore size [mm]	XF	XG	XH	XJ
10	21.5	3	4	5
16	30	4	5	7
20	39	4	5	7
25	45	5	6	8
32	60	6	7	9
40	60.5	6	7	9

3 Dust Seal Band NBR Lining Specifications

Symbol
-XC67

The standard vinyl chloride lining specification is changed to NBR lining.
Oil resistance and peeling resistance are improved.

* Please consult with SMC for specific details on oil resistance.

MY1 **B** **Bore size** - **Stroke** **Stroke adjustment unit** - **Auto switch** **Suffix** -XC67

Type/Bore size		10	16	20	25	32	40	50	63	80	100
B	Basic	●	●	●	●	●	●	●	●	●	●
M	Slide bearing guide	●	●	●	●	●	●	●	●	●	●
C	Cam follower guide	●	●	●	●	●	●	●	●	●	●
H	Linear guide	●	●	●	●	●	●	●	●	●	●
HT	High rigidity/Linear guide							●	●		

Example) MY1B40G-300L-Z73-XC67

For ordering dust seal band (NBR lining) only

MY **Bore size** - 16 **B** **N** **Stroke**

Dust seal band
NBR lining

Dust seal band
Hexagon socket head set
screw thread treatment

Nil	Black zinc chromated
W	Nickel plating

Example) MY25-16BNW-300

For details, refer to "Dust seal band" in the construction of each series.

Applicable Series

Description	Model	Type
Mechanically jointed rodless cylinder	MY1B	Basic
	MY1M	Slide bearing guide
	MY1C	Cam follower guide
	MY1H	Linear guide
	MY1HT	High rigidity/Linear guide

4 Helical Insert Thread Specifications

Symbol
-X168

Helical insert thread is used for the slide table mounting thread, the thread size is the same as the standard model.

MY1 **B** **Bore size** - **Stroke** **(Z)*1** - **Auto switch** **Suffix** -X168

Type/Bore size		10	16	20	25	32	40	50	63	80	100
B	Basic	●	●	●	●	●	●	●	●	●	●
M	Slide bearing guide	●	●	●	●	●	●	●	●	●	●
C	Cam follower guide	●	●	●	●	●	●	●	●	●	●
H	Linear guide	●	●	●	●	●	●	●	●	●	●
HT	High rigidity/Linear guide							●	●		

(●) is available as special orders.

Example) MY1B20G-300L-M9BW-X168

*1 Please specify "Z" for the MY1B25 to 40 and the MY1H25 to 40.

5 Magnet for ø10 Solid State Auto Switch Specifications

Symbol
-X1810

By incorporating the use of the magnet for solid state auto switches, switch operation stability can be achieved.

* If you are using, or planning to use, the cylinder in combination with a solid state auto switch, but are currently only ordering the cylinder, please add the "-X1810" suffix to the end of the product number.

MY1 **B** 10G - **Stroke** **Stroke adjustment unit** -X1810

● Magnet for ø10 solid state auto switch specifications

Type	
B	Basic
H	Linear guide

* If an auto switch is included in the product number, the "-X1810" suffix does not need to be added to the end of the product number.

Example) MY1B10G-300H-M9BL