Mechanically Jointed Rodless Cylinder
Cam Follower Guide Type
MY2C Series
ø16, ø25, ø40

How to Order

Cam Follower Guide Type **MY2C 16 □ G – 300 □ – M9BW □ – □**

Guide type

C	Cam follower guide

Bore size

16	16 mm
25	25 mm
40	40 mm

Port thread type

Symbol	Type	Bore size
Nil	M thread	ø16
	Rc	ø25, ø40
TN	NPT	
TF	G	

Piping

G	Centralized piping type (Standard)

Cylinder stroke (mm)

Bore size	Standard stroke*1	Long stroke	Maximum manufacturable stroke
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
25, 40	*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

Stroke adjustment unit symbol
Refer to "Stroke adjustment unit" on page 1381.

Auto switch

Nil	Without auto switch (Built-in magnet)

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

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Made to Order
Refer to page 1381 for details.

Ordering example
* Long stroke can be ordered the same as the standard stroke. MY2C25-3000L-M9BW

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

Applicable Auto Switches/Refer to pages 1575 to 1701 for further information on auto switches.

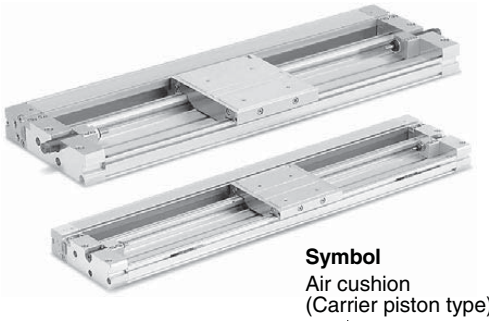
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC		Load voltage AC	Auto switch model: Perpendicular	Auto switch model: In-line	Lead wire length (m): 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	Pre-wired connector	Applicable load	
Solid state auto switch	——	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	**M9NV**	**M9N**	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				**M9PV**	**M9P**	●	●	●	○	○		
				2-wire		12 V		**M9BV**	**M9B**	●	●	●	○	○	—	
	Diagnostic indication (2-color indicator)			3-wire (NPN)		5 V, 12 V		**M9NWV**	**M9NW**	●	●	●	○	○	IC circuit	
				3-wire (PNP)				**M9PWV**	**M9PW**	●	●	●	○	○		
				2-wire		12 V		**M9BWV**	**M9BW**	●	●	●	○	○	—	
	Water resistant (2-color indicator)			3-wire (NPN)		5 V, 12 V		**M9NAV***1	**M9NA***1	○	○	●	○	○	IC circuit	
				3-wire (PNP)				**M9PAV***1	**M9PA***1	○	○	●	○	○		
				2-wire		12 V		**M9BAV***1	**M9BA***1	○	○	●	○	○	—	
Reed auto switch	——	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	**A96V**	**A96**	●	—	●	—	—	IC circuit	—
			No	2-wire	24 V	12 V	100 V	**A93V***2	**A93**	●	●	●	●	—	—	Relay, PLC
							100 V or less	**A90V**	**A90**	●	—	●	—	—	IC circuit	

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Consult with SMC regarding water resistant types with the above model numbers.
*2 1 m type lead wire is only applicable to D-A93.

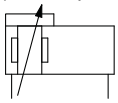
* Lead wire length symbols: 0.5 m ····· Nil (Example) M9NW
1 m ····· M (Example) M9NWM
3 m ····· L (Example) M9NWL
5 m ····· Z (Example) M9NWZ

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

* There are other applicable auto switches than listed above. For details, refer to page 1398.
* For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.
* Auto switches are shipped together (not assembled). (Refer to page 1398 for the details of auto switch mounting.)



Symbol
Air cushion
(Carrier piston type)



Made to Order

Made to Order: Individual Specifications
(For details, refer to page 1399)

Symbol	Specifications
-X168	Helical insert thread

Made to Order Specifications
Click here for details

Symbol	Specifications
-XB22	Shock absorber soft type RJ series type

Specifications

Bore size (mm)	16	25	40
Fluid	Air		
Action	Double acting		
Operating pressure range	0.15 to 0.8 MPa	0.1 to 0.8 MPa	
Proof pressure	1.2 MPa		
Ambient and fluid temperature	5 to 60°C		
Cushion	Air cushion, Shock absorber		
Lubrication	Not required (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 $^{+2.8}_{0}$	
Port size	M5 x 0.8	Rc 1/8	Rc 1/4

Piston Speed

Bore size (mm)		16	25	40
Without stroke adjustment unit		100 to 1000 mm/s(1)		
Stroke adjustment unit	**L unit and H unit**	100 to 1500 mm/s		

Note 1) When exceeding the air cushion stroke ranges on page 1376, the **piston speed** should be **100 to 200 mm/s.**
Note 2) Use at a piston speed within the absorption capacity range. Refer to page 1376.

Stroke Adjustment Unit Specifications

Bore size (mm)		16	25		40	
Unit symbol		**L**	**L**	**H**	**L**	**H**
Shock absorber model		RB0806	RB1007	RB1412	RB1412	RB2015
Stroke adjustment range by intermediate fixing spacer (mm)	**Without spacer**	0 to –5.6	0 to –11.5		0 to –16	
	With short spacer	–5.6 to –11.2	–11.5 to –23		–16 to –32	
	With long spacer	–11.2 to –16.8	–23 to –34.5		–32 to –48	

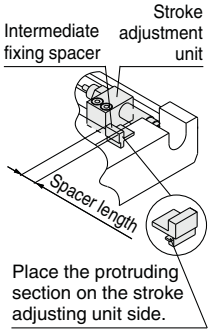
∗ Stroke adjustment range is applicable for one side when mounted on a cylinder.

Stroke Adjustment Unit Symbol

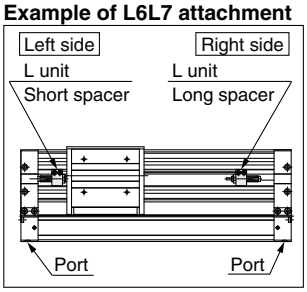
Left side stroke adjustment unit		Right side stroke adjustment unit: Without unit	L: With low load shock absorber	L: With short spacer	L: With long spacer	H: With high load shock absorber	H: With short spacer	H: With long spacer
Without unit		**Nil**	**SL**	**SL6**	**SL7**	**SH**	**SH6**	**SH7**
L: With low load shock absorber		**LS**	**L**	**LL6**	**LL7**	**LH**	**LH6**	**LH7**
	With short spacer	**L6S**	**L6L**	**L6**	**L6L7**	**L6H**	**L6H6**	**L6H7**
	With long spacer	**L7S**	**L7L**	**L7L6**	**L7**	**L7H**	**L7H6**	**L7H7**
H: With high load shock absorber		**HS**	**HL**	**HL6**	**HL7**	**H**	**HH6**	**HH7**
	With short spacer	**H6S**	**H6L**	**H6L6**	**H6L7**	**H6H**	**H6**	**H6H7**
	With long spacer	**H7S**	**H7L**	**H7L6**	**H7L7**	**H7H**	**H7H6**	**H7**

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

Stroke adjustment unit mounting diagram



Example of L6L7 attachment



Shock Absorbers for L and H Units

Type	Stroke adjustment unit	Bore size (mm) 16	25	40
Standard (Shock absorber/RB series)	L	RB0806	RB1007	RB1412
	H	—	RB1412	RB2015
Shock absorber/soft type RJ series mounted (-XB22)	L	RJ0806H	RJ1007H	RJ1412H
	H	—	RJ1412H	—

∗ The shock absorber service life is different from that of the MY2C cylinder depending on operating conditions. Refer to the RB Series Specific Product Precautions for the replacement period.
∗ Mounted shock absorber soft type RJ series (-XB22) is made to order specifications. For details, refer to page 1752.

Shock Absorber Specifications

Model		RB 0806	RB 1007	RB 1412	RB 2015
Max. energy absorption (J)		2.9	5.9	19.6	58.8
Stroke absorption (mm)		6	7	12	15
Max. collision speed (mm/s)		1500	1500	1500	1500
Max. operating frequency (cycle/min)		80	70	45	25
Spring force (N)	**Extended**	1.96	4.22	6.86	8.34
	Retracted	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 MY2C cylinder depending on operating conditions. Refer to the RB Series Specific Product Precautions for the replacement period.

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
16	200	40	60	80	100	120	140	160
25	490	98	147	196	245	294	343	392
40	1256	251	377	502	628	754	879	1005

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm^2)

Weight

(kg)

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)	
					L unit weight	H unit weight
16	1.05	0.13	0.34	0.01	0.03	—
25	2.59	0.29	0.97	0.02	0.06	0.09
40	8.78	0.67	3.09	0.04	0.17	0.23

Calculation: (Example) **MY2C25G-300L**
- Basic weight ····· 2.59 kg
- Cylinder stroke ····· 300 stroke
- Additional weight ····· 0.29/50 stroke
  2.59 + 0.29 x 300/50 + 0.06 x 2 ≅ 4.45 kg
- Weight of L unit ····· 0.06 kg

Replacement Parts

Drive Unit (Cylinder) Replacement Part No.

Model / Bore size (mm)	MY2C
16	MY2BH16G- Stroke
25	MY2BH25□G- Stroke
40	MY2BH40□G- Stroke

Enter a symbol for port thread type inside □.
Note) Order auto switches separately.

Option

Stroke Adjustment Unit Part No.

MY2C – A 25 L2 – 6N

Stroke adjustment unit

Bore size

16	16 mm
25	25 mm
40	40 mm

Unit no.

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

Note 1) Refer to page 1381 for details about adjustment range.
Note 2) L unit only for ø16

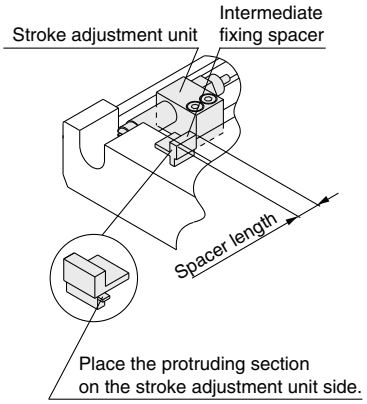
Intermediate fixing spacer

Nil	Without spacer
6□	Short spacer
7□	Long spacer

Spacer delivery type

Nil	Unit installed
N	Spacer only

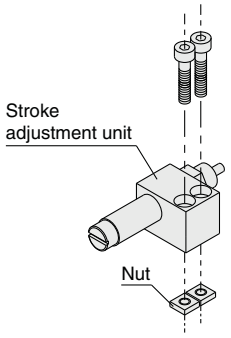
∗ Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
∗ Spacers are shipped for a set of two.



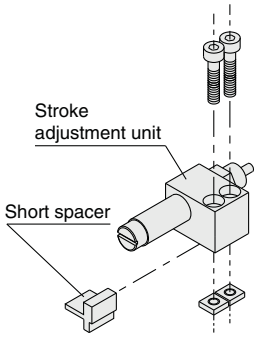
∗ When ordering the intermediate fixing spacer for the stroke adjustment unit, the intermediate fixing spacer is shipped together.

Component Parts

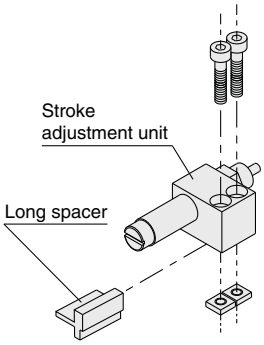
MY2C-A25L2 (Without spacer)



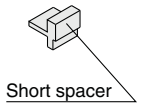
MY2C-A25L2-6 (With short spacer)



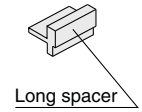
MY2C-A25L2-7 (With long spacer)



MY2C-A25L2-6N (Short spacer only)



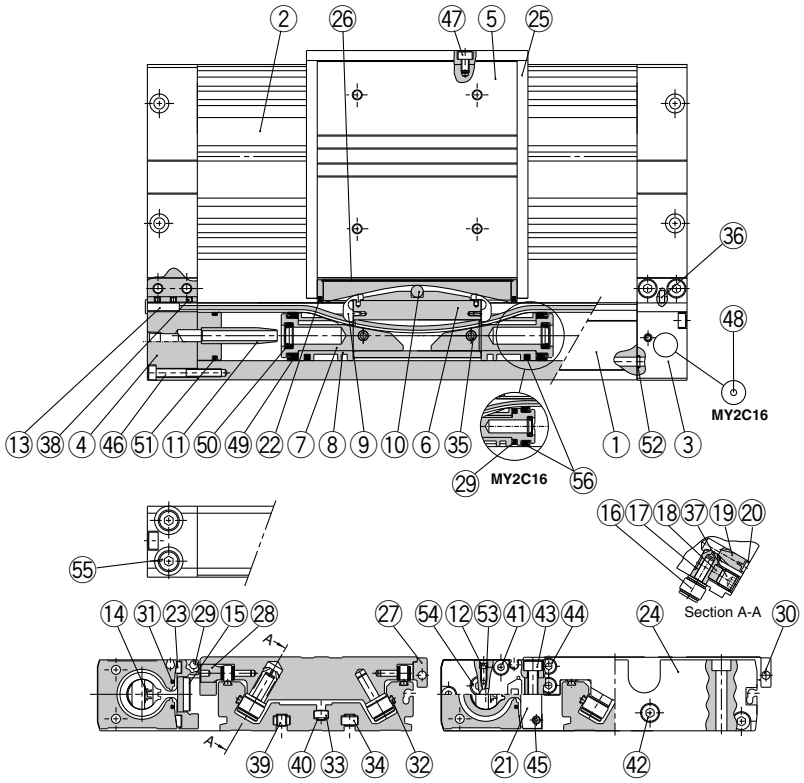
MY2C-A25L2-7N (Long spacer only)



∗ Nuts are equipped on the cylinder body.

Construction

MY2C



Component Parts

No.	Description	Material	Note
1	**Cylinder tube**	Aluminium alloy	Hard anodized
2	**Body**	Aluminium alloy	Hard anodized
3	**Head cover WR**	Aluminium alloy	Hard anodized
4	**Head cover WL**	Aluminium alloy	Hard anodized
5	**Slide table**	Aluminium alloy	Hard anodized
6	**Piston yoke**	Aluminium alloy	Hard anodized
7	**Piston**	Aluminium alloy	Chromated
8	**Wear ring**	Special resin	
9	**Belt separator**	Special resin	
10	**Parallel pin**	Stainless steel	
11	**Cushion ring**	Aluminum alloy	Anodized
12	**Cushion needle**	Rolled steel	Nickel plated
13	**Belt clamp**	Special resin	
16	**Cam follower**	—	
17	**Eccentric gear**	Stainless steel	
18	**Gear fixture**	Stainless steel	
19	**Adjustment gear**	Stainless steel	
20	**Retaining ring**	Stainless steel	
21	**End cover**	Aluminium alloy	Hard anodized
23	**Bearing**	Special resin	
24	**End plate**	Aluminium alloy	Hard anodized
25	**Stopper**	Carbon steel	Nickel plated after quenching
26	**Top cover**	Stainless steel	
27	**Side cover**	Aluminium alloy	Hard anodized

No.	Description	Material	Note
28	**Cam follower cap**	Aluminium alloy	Hard anodized
29	**Magnet**	—	
30	**Magnet**	—	
31	**Seal magnet**	Rubber magnet	
32	**Rail**	Hard steel wire material	
33	**Square nut**	Carbon steel	Chromated
34	**Square nut**	Carbon steel	Chromated
35	**Spring pin**	Carbon tool steel	
36	**Parallel pin**	Stainless steel	
37	**Hexagon socket set screw**	Chrome molybdenum steel	Black zinc chromated
38	**Hexagon socket set screw**	Chrome molybdenum steel	Black zinc chromated
39	**Hexagon socket set screw**	Chrome molybdenum steel	Chromated
40	**Hexagon socket set screw**	Chrome molybdenum steel	Chromated
41	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
42	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
43	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
44	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
45	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
46	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
47	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
48	**Steel ball**	Spring steel	Nickel plated
54	**Hexagon socket head (taper) plug**	Carbon steel	Chromated
55	**Hexagon socket head (taper) plug**	Carbon steel	Chromated
56	**Lube retainer**	Special resin	

Replacement Parts: Seal Kit

No.	Description	Qty.	MY2C16G	MY2C25G	MY2C40G
14	**Seal belt**	1	MY16-16C-Stroke	MY25-16C-Stroke	MY40-16C-Stroke
15	**Dust seal band**	1	MY2H16-16B-Stroke	MY2H25-16B-Stroke	MY2H40-16B-Stroke
53	**O-ring**	2	KA00309 (ø4 x ø1.8 x ø1.1)	KA00309 (ø4 x ø1.8 x ø1.1)	KA00320 (ø7.15 x ø3.75 x ø1.7)
22	**Scraper**	2	MY2B16-PS	MY2B25-PS	MY2B40-PS
49	**Piston seal**	2			
50	**Cushion seal**	2			
51	**Tube gasket**	2			
52	**O-ring**	4			

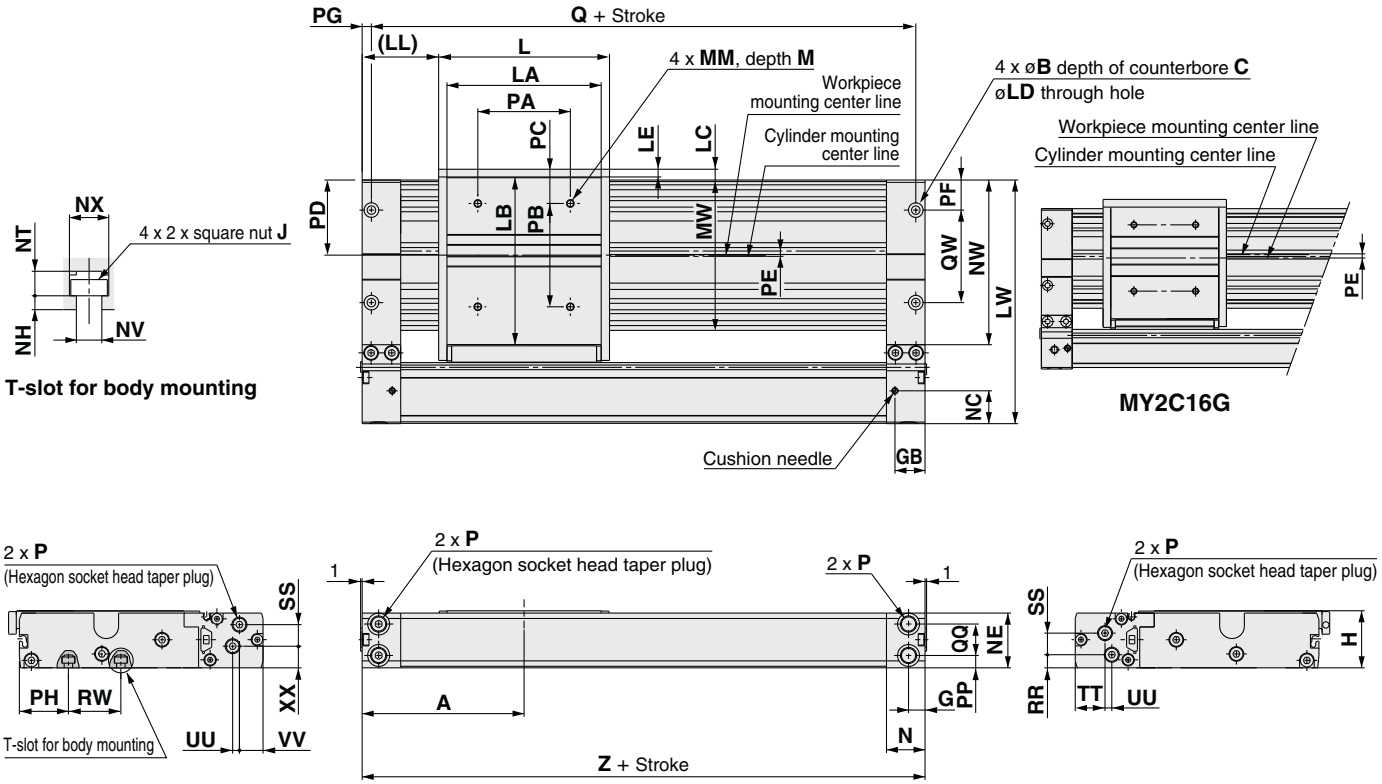
* Seal kit includes ㉒, ㊾, ㊿, ㊶ and ㊷. Order the seal kit based on each bore size.

* Seal kit includes a grease pack (10 g).
When ⑭ and ⑮ are shipped as single units, a grease pack (10 g per 1000 strokes) is included.
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)

ø16, ø25, ø40

Refer to page 1402 regarding port variations.

MY2C Bore size G – Stroke



(mm)

Model	A	B	C	G	GB	H	L	J	LA	LB	LC	LD	LE	(LL)	LW	M	MM	MW	N	NC	NE	NH	NT
MY2C16G	80	6.5	3.3	8.5	17	28	80	M3 x 0.5	70	72.4	6	3.4	5	40	104	7	M4 x 0.7	64.6	20	14	27	2	3.5
MY2C25G	105	9.5	5.4	10.7	19.5	37	110.8	M5 x 0.8	100	108.7	7	5.5	5	49.6	158	9	M5 x 0.8	97.5	25	21.3	35.5	3	5.3
MY2C40G	165	14	8.6	15.5	31.5	58	180	M6 x 1	158	135.3	7	9	5	75	214	13	M6 x 1	121.5	40	32.4	56.5	4	6.5

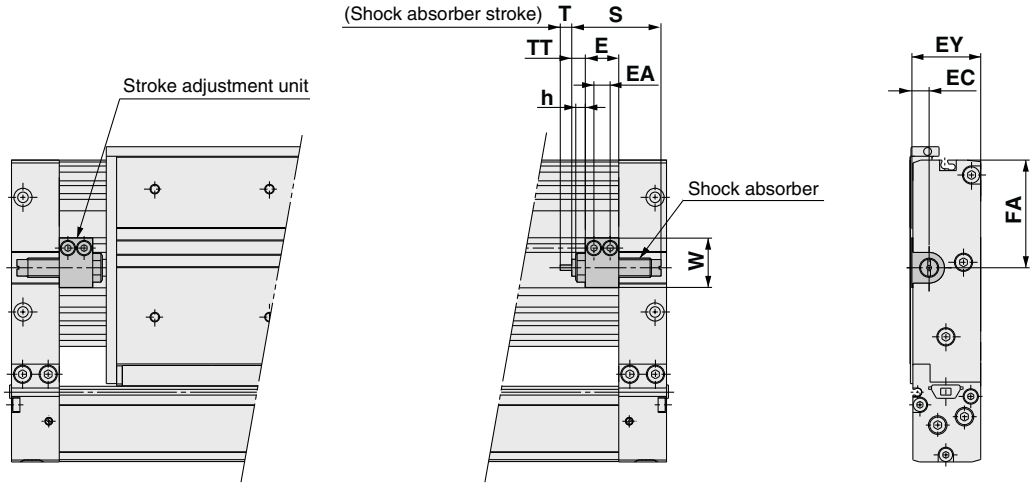
Model	NV	NW	NX	P	PA	PB	PC	PD	PE	PF	PG	PH	PP	Q	QQ	QW	RR	RW	SS	TT	UU	VV	XX	Z
MY2C16G	3.4	69.2	5.8	M5 x 0.8	40	43	16.5	32	2.2	9.8	4	21.3	5.3	152	16.4	40	5.3	22	9.7	12.5	3	10.5	12	160
MY2C25G	5.5	106.8	8.5	$^1/_8$	60	67	22.2	48.7	0.8	19.5	6	31.8	8	198	20.4	60	8.5	34	14	19.3	4.4	15.3	14	210
MY2C40G	6.6	135.1	10.5	$^1/_4$	100	77	29	60.5	8.5	40.5	9	38	16	312	25.5	57	11	45	21.5	35.4	2	29	23	330

"P" indicates cylinder supply ports. ∗ The plug for "P" MY2C16G is a hexagon socket head plug.

Stroke adjustment unit

Low load shock absorber

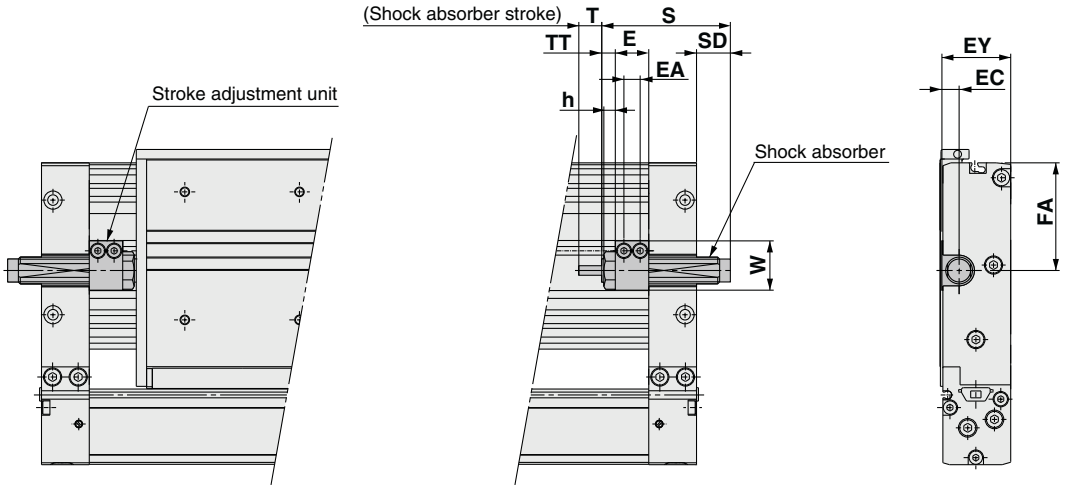
MY2C Bore size G – Stroke L



Applicable cylinder	E	EA	EC	EY	FA	h	S	T	TT	W	Shock absorber model
MY2C16	14.4	7	6	27	38.5	4	40.8	6	5.6 (Max. 11.2)	16.5	RB0806
MY2C25	17.5	8.5	9	36	56.4	5	46.7	7	7.1 (Max. 18.6)	25.8	RB1007
MY2C40	25	13	13.5	56.5	67.8	6	67.3	12	10 (Max. 26)	38	RB1412

High load shock absorber

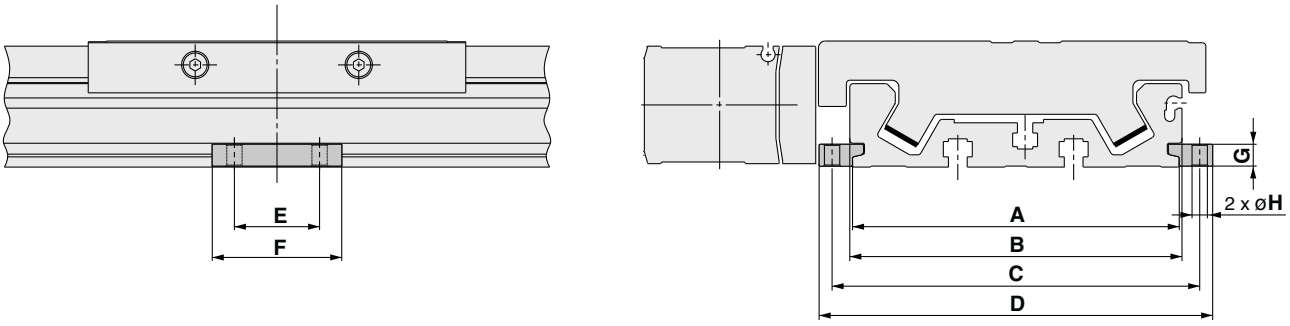
MY2C Bore size G – Stroke H



Applicable cylinder	E	EA	EC	EY	FA	h	S	SD	T	TT	W	Shock absorber model
MY2H25	17.5	8.5	9	36	56.4	6	67.3	17.7	12	7.1 (Max. 18.6)	25.8	RB1412
MY2H40	25	13	13.5	56.5	67.8	6	73.2	—	15	10 (Max. 26)	38	RB2015

Side Support

Side support
MYC-S□A

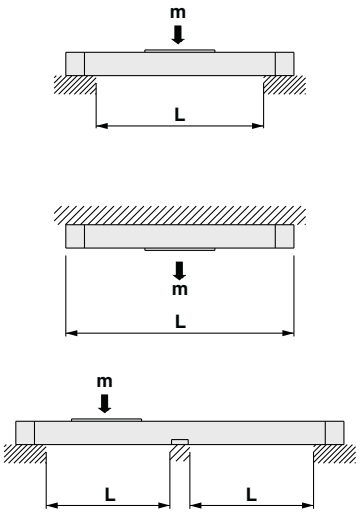


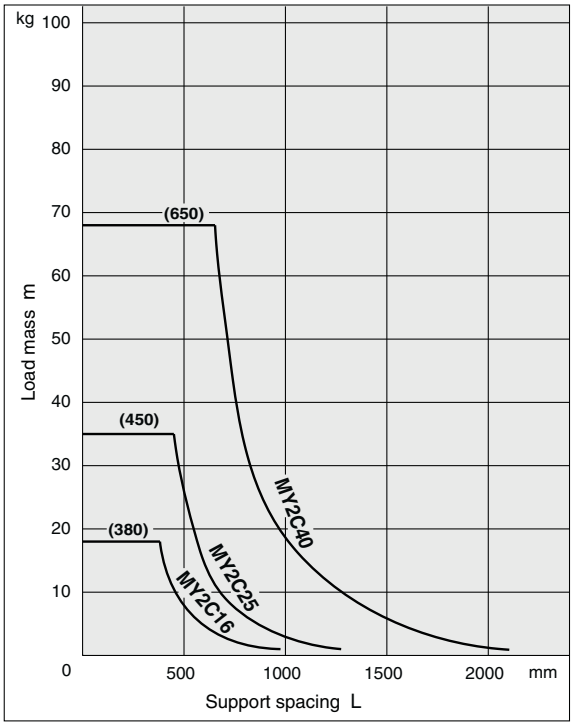
Model	Applicable cylinder	A	B	C	D	E	F	G	øH
MYC-S16A	**MY2C16**	60.6	64.6	70.6	77.2	15	26	4.9	3.4
MYC-S25A	**MY2C25**	95.9	97.5	107.9	115.5	25	38	6.4	4.5
MYC-S40A	**MY2C40**	121.5	121.5	134.5	145.5	45	64	11.7	6.6

* A set of side supports consists of a left support and a right support.

Guide for Using Side Support

For long stroke operation, the cylinder tube may deflect due to its own weight and/or load mass. In such cases, install a side support at the intermediate stroke position. The spacing (L) of the side support must be no more than the values shown in the graph at right.





⚠ Caution

① If the cylinder mounting surfaces are not measured accurately, using a side support may cause poor operation. Make sure to level the cylinder tube when mounting the cylinder. For long stroke operation involving vibration and impact, the use of side supports is recommended even if the support spacing is within the allowable limits shown in the graph.

② Support brackets are not for mounting. They should be used only to provide support.

Mechanically Jointed Rodless Cylinder
Linear Guide Type
MY2H/HT Series
ø16, ø25, ø40

How to Order

Linear Guide Type MY2 [H] [16] [ ] [G] – [300] [ ] – [M9NW] [ ] – [ ]

Guide type

H	Linear guide, Single axis
HT	Linear guide, Double axis

Bore size

16	16 mm
25	25 mm
40	40 mm

Port thread type

Symbol	Type	Bore size
Nil	M thread	ø16
	Rc	ø25, ø40
TN	NPT	
TF	G	

Piping

G	Centralized piping type (Standard)

Cylinder stroke (mm)

Bore size	Standard stroke	Intermediate stroke	Long stroke	Maximum manufacturable stroke
16	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600	Intermediate strokes of 51 to 599 mm (1 mm increments) other than standard strokes	Strokes of 601 to 1000 mm (1 mm increments) exceeding the standard stroke	1000
25, 40			Strokes of 601 to 1500 mm (1 mm increments) exceeding the standard stroke	1500

Ordering example
∗ Intermediate stroke can be ordered the same as the standard stroke. MY2H16-60-M9BW
∗ Long stroke can be ordered the same as the standard stroke. MY2H25-800L-M9BW

Stroke adjustment unit symbol
Refer to "Stroke adjustment unit" on page 1389.

Auto switch

Nil	Without auto switch (Built-in magnet)

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

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Made to Order
Refer to page 1389 for details.

Applicable Auto Switches/Refer to pages 1575 to 1701 for further information on auto switches.

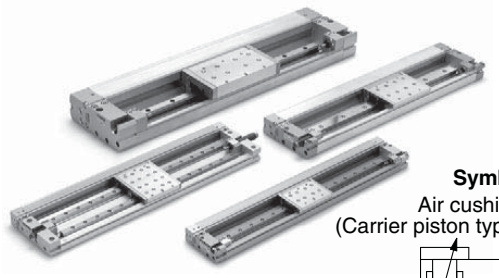
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC	Load voltage DC	Load voltage AC	Auto switch model: Perpendicular	Auto switch model: In-line	Lead wire length (m): 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	Pre-wired connector	Applicable load	
Solid state auto switch	——	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	**M9NV**	**M9N**	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				**M9PV**	**M9P**	●	●	●	○	○		
				2-wire		12 V		**M9BV**	**M9B**	●	●	●	○	○	—	
	Diagnostic indication (2-color indicator)			3-wire (NPN)		5 V, 12 V		**M9NWV**	**M9NW**	●	●	●	○	○	IC circuit	
				3-wire (PNP)				**M9PWV**	**M9PW**	●	●	●	○	○		
				2-wire		12 V		**M9BWV**	**M9BW**	●	●	●	○	○	—	
	Water resistant (2-color indicator)			3-wire (NPN)		5 V, 12 V		**M9NAV**∗1	**M9NA**∗1	○	○	●	○	○	IC circuit	
				3-wire (PNP)				**M9PAV**∗1	**M9PA**∗1	○	○	●	○	○		
				2-wire		12 V		**M9BAV**∗1	**M9BA**∗1	○	○	●	○	○	—	
Reed auto switch	——	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	**A96V**	**A96**	●	—	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	**A93V**∗2	**A93**	●	●	●	●	—	—	Relay, PLC
			No				100 V or less	**A90V**	**A90**	●	—	●	—	—	IC circuit	

∗1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Consult with SMC regarding water resistant types with the above model numbers.
∗2 1 m type lead wire is only applicable to D-A93.

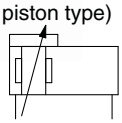
∗ Lead wire length symbols: 0.5 m ····· Nil (Example) M9NW
1 m ····· M (Example) M9NWM
3 m ····· L (Example) M9NWL
5 m ····· Z (Example) M9NWZ

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

∗ There are other applicable auto switches than listed above. For details, refer to page 1398.
∗ For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.
∗ Auto switches are shipped together (not assembled). (Refer to page 1398 for the details of auto switch mounting.)



Symbol
Air cushion
(Carrier piston type)



Made to Order

Made to Order: Individual Specifications
(For details, refer to page 1399)

Symbol	Specifications
-X168	Helical insert thread

Made to Order Specifications

Click here for details

Symbol	Specifications
-XB20	Stroke adjusting unit with adjusting bolt
-XB22	Shock absorber soft type RJ series type
-XC56	With knock pin holes

Specifications

Bore size (mm)	16	25	40
Fluid	Air		
Action	Double acting		
Operating pressure range	0.15 to 0.8 MPa	0.1 to 0.8 MPa	
Proof pressure	1.2 MPa		
Ambient and fluid temperature	5 to 60°C		
Cushion	Air cushion, Shock absorber		
Lubrication	Not required (Non-lube)		
Stroke length tolerance	$^{+1.8}_{0}$		
Port size	M5 x 0.8	Rc 1/8	Rc 1/4

Piston Speed

Bore size (mm)		16	25	40
Without stroke adjustment unit		100 to 1000 mm/s Note 1)		
Stroke adjustment unit	**L unit and H unit**	100 to 1500 mm/s		

Note 1) When exceeding the air cushion stroke ranges on page 1376, the **piston speed** should be **100 to 200 mm/s.**
Note 2) Use at a piston speed within the absorption capacity range. Refer to page 1376.

Stroke Adjustment Unit Specifications

Bore size (mm)		16		25		40	
Unit symbol		**L**	**H**	**L**	**H**	**L**	**H**
Shock absorber model	**MY2H**	RB0806	RB1007	RB1007	RB1412	RB1412	RB2015
	MY2HT	RB1007	RB1412	RB1412	RB2015	RB2015	RB2725
Stroke adjustment range by intermediate fixing spacer (mm)	**Without spacer**	0 to –5.6		0 to –11.5		0 to –16	
	With short spacer	–5.6 to –11.2		–11.5 to –23		–16 to –32	
	With long spacer	–11.2 to –16.8		–23 to –34.5		–32 to –48	

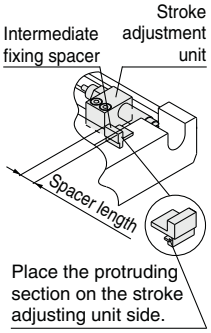
∗ Stroke adjustment range is applicable for one side when mounted on a cylinder.

Stroke Adjustment Unit Symbol

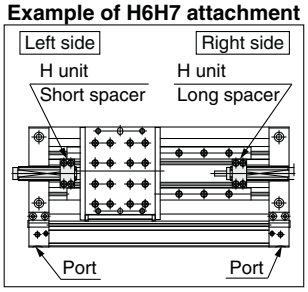
Left side stroke adjustment unit		Right side stroke adjustment unit: Without unit	L: With low load shock absorber	L: With short spacer	L: With long spacer	H: With high load shock absorber	H: With short spacer	H: With long spacer
Without unit		**Nil**	**SL**	**SL6**	**SL7**	**SH**	**SH6**	**SH7**
L: With low load shock absorber		**LS**	**L**	**LL6**	**LL7**	**LH**	**LH6**	**LH7**
	With short spacer	**L6S**	**L6L**	**L6**	**L6L7**	**L6H**	**L6H6**	**L6H7**
	With long spacer	**L7S**	**L7L**	**L7L6**	**L7**	**L7H**	**L7H6**	**L7H7**
H: With high load shock absorber		**HS**	**HL**	**HL6**	**HL7**	**H**	**HH6**	**HH7**
	With short spacer	**H6S**	**H6L**	**H6L6**	**H6L7**	**H6H**	**H6**	**H6H7**
	With long spacer	**H7S**	**H7L**	**H7L6**	**H7L7**	**H7H**	**H7H6**	**H7**

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

Stroke adjustment unit mounting diagram



Example of H6H7 attachment



Shock Absorbers for L and H Units

Model	Type	Stroke adjustment unit	Bore size (mm) 16	25	40
MY2H	Standard (Shock absorber/RB series)	L	RB0806	RB1007	RB1412
		H	RB1007	RB1412	RB2015
	Shock absorber/soft type RJ series mounted (-XB22)	L	RJ0806H	RJ1007H	RJ1412H
		H	RJ1007H	RJ1412H	—
MY2HT	Standard (Shock absorber/RB series)	L	RB1007	RB1412	RB2015
		H	RB1412	RB2015	RB2725
	Shock absorber/soft type RJ series mounted (-XB22)	L	RJ1007H	RJ1412H	—
		H	RJ1412H	—	—

∗ The shock absorber service life is different from that of the MY2H/HT cylinder depending on operating conditions. Refer to the RB Series Specific Product Precautions for the replacement period.
∗ Mounted shock absorber soft type RJ series (-XB22) is made to order specifications. For details, refer to page 1752.

Shock Absorber Specifications

Model		RB 0806	RB 1007	RB 1412	RB 2015	RB 2725
Max. energy absorption (J)		2.9	5.9	19.6	58.8	147
Stroke absorption (mm)		6	7	12	15	25
Max. collision speed (mm/s)		1500	1500	1500	1500	1500
Max. operating frequency (cycle/min)		80	70	45	25	10
Spring force (N)	**Extended**	1.96	4.22	6.86	8.34	8.83
	Retracted	4.22	6.86	15.98	20.50	20.01
Operating temperature range (°C)		5 to 60				

∗ The shock absorber service life is different from that of the MY2H/HT cylinder depending on operating conditions. Refer to the RB Series Specific Product Precautions for the replacement period.

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
16	200	40	60	80	100	120	140	160
25	490	98	147	196	245	294	343	392
40	1256	251	377	502	628	754	879	1005

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm^2)

Weight

(kg)

Model	Bore size (mm)	Basic weight	Additional weight per each 50 mm of stroke	Weight of moving parts	Stroke adjustment unit weight (per unit)	
					L unit weight	H unit weight
MY2H	**16**	0.86	0.22	0.21	0.03	0.04
	25	2.35	0.42	0.64	0.06	0.09
	40	6.79	0.76	2.20	0.16	0.22
MY2HT	**16**	1.27	0.31	0.33	0.04	0.08
	25	3.70	0.61	1.20	0.10	0.18
	40	10.05	1.13	3.35	0.27	0.46

Calculation: (Example) **MY2H25G-300L**
- Basic weight ····· 2.35 kg
- Cylinder stroke ····· 300 stroke
- Additional weight ····· 0.42/50 stroke
  2.35 + 0.42 x 300/50 + 0.06 x 2 ≅ 4.99 kg
- Weight of L unit ····· 0.06 kg

Replacement Parts

Drive Unit (Cylinder) Replacement Part No.

Model / Bore size (mm)	MY2H	MY2HT
16	MY2BH16G- Stroke	
25	MY2BH25□G- Stroke	
40	MY2BH40□G- Stroke	

Enter a symbol for port thread type inside □.
Note) Order auto switches separately.

Option

Stroke Adjustment Unit Part No.

MY 2H – A 25 L2 – 6N

Guide type

2H	MY2H16
2H	MY2H25
2H	MY2H40
2HT	MY2HT16
2HT	MY2HT25
2HT	MY2HT40

Stroke adjustment unit

Bore size

16	16 mm
25	25 mm
40	40 mm

Unit no.

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

Note) Refer to page 1389 for details about adjustment range.

Intermediate fixing spacer

Nil	Without spacer
6□	Short spacer
7□	Long spacer

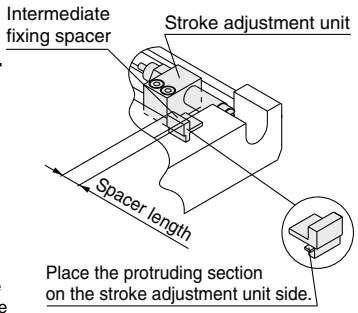
Spacer delivery type

Nil	Unit installed
N	Spacer only

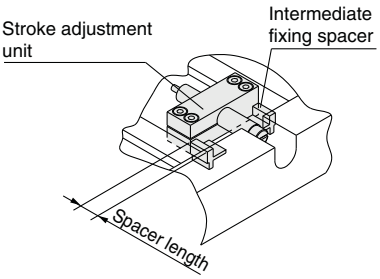
∗ Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
∗ Spacers are shipped for a set of two.

∗ When ordering the intermediate fixing spacer for the stroke adjustment unit, the intermediate fixing spacer is shipped together.

MY2H

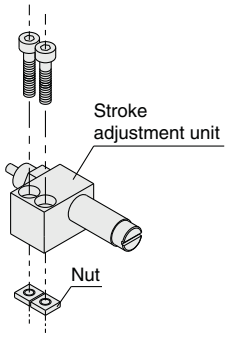


MY2HT

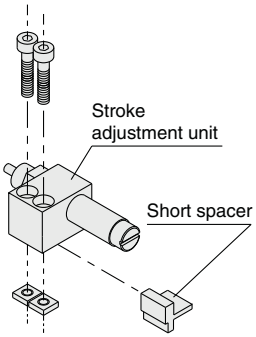


Component Parts

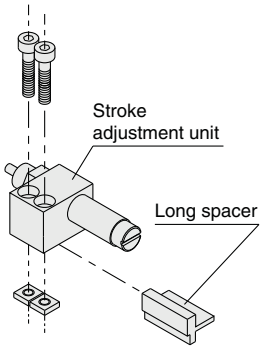
MY2H-A25L2 (Without spacer)



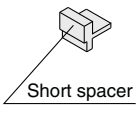
MY2H-A25L2-6 (With short spacer)



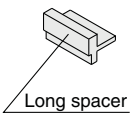
MY2H-A25L2-7 (With long spacer)



MY2H-A25L2-6N (Short spacer only)



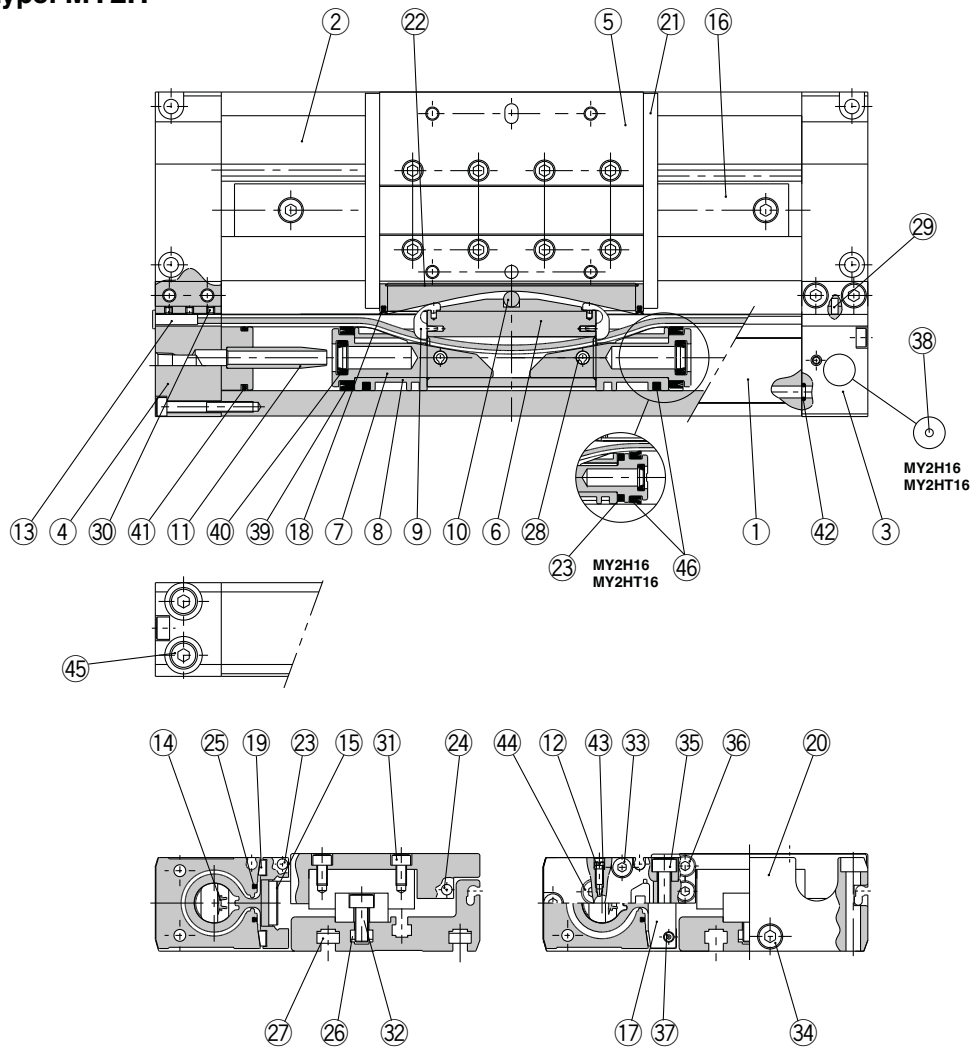
MY2H-A25L2-7N (Long spacer only)



∗ Nuts are equipped on the cylinder body.

Construction

Single axis type: MY2H

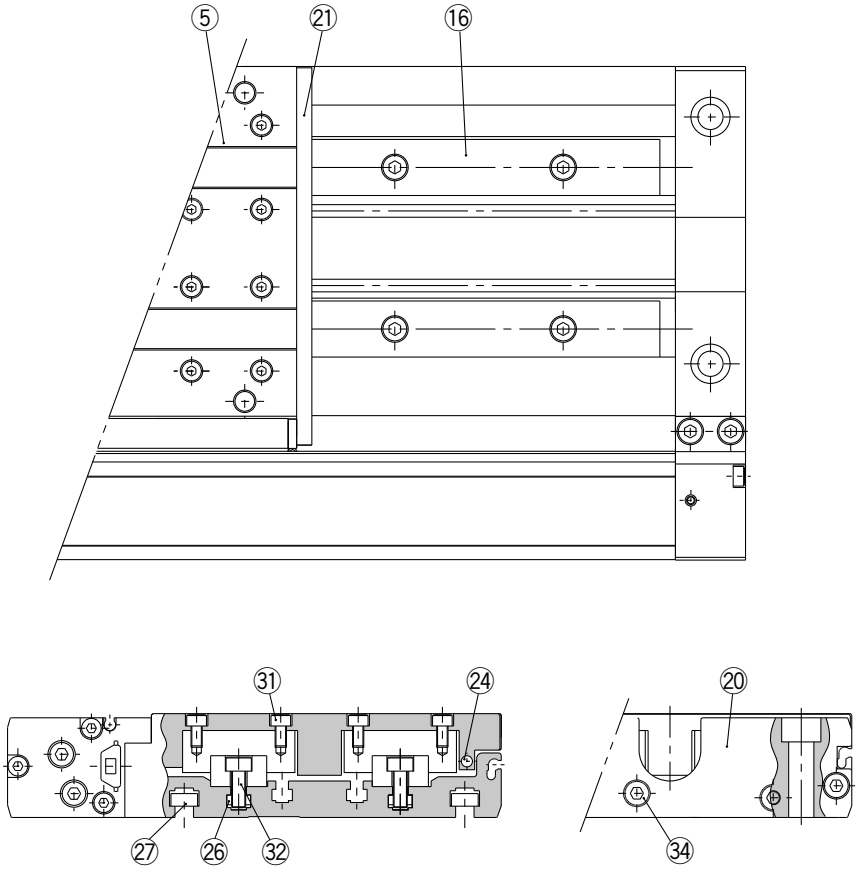


Component Parts

No.	Description	Material	Note
1	**Cylinder tube**	Aluminum alloy	Hard anodized
2	**Body**	Aluminum alloy	Anodized
3	**Head cover WR**	Aluminum alloy	Hard anodized
4	**Head cover WL**	Aluminum alloy	Hard anodized
5	**Slide table**	Aluminum alloy	Hard anodized
6	**Piston yoke**	Aluminum alloy	Hard anodized
7	**Piston**	Aluminum alloy	Chromated
8	**Wear ring**	Special resin	
9	**Belt separator**	Special resin	
10	**Parallel pin**	Stainless steel	
11	**Cushion ring**	Aluminum alloy	Anodized
12	**Cushion needle**	Rolled steel	Nickel plated
13	**Belt clamp**	Special resin	
16	**Guide**	—	
17	**End cover**	Aluminum alloy	Hard anodized
19	**Bearing**	Special resin	
20	**End plate**	Aluminum alloy	Hard anodized
21	**Stopper**	Carbon steel	Nickel plated after quenching
22	**Top cover**	Stainless steel	

No.	Description	Material	Note
23	**Magnet**	—	
24	**Magnet**	—	
25	**Seal magnet**	Rubber magnet	
26	**Square nut**	Carbon steel	Chromated
27	**Square nut**	Carbon steel	Chromated
28	**Spring pin**	Carbon tool steel	
29	**Parallel pin**	Stainless steel	
30	**Hexagon socket set screw**	Chrome molybdenum steel	Black zinc chromated
31	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
32	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
33	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
34	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
35	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
36	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
37	**Hexagon socket head cap screw**	Chrome molybdenum steel	Chromated
38	**Steel ball**	Spring steel	Nickel plated
44	**Hexagon socket head (taper) plug**	Carbon steel	Chromated
45	**Hexagon socket head (taper) plug**	Carbon steel	Chromated
46	**Lubretainer**	Special resin	

Double axis type: MY2HT



Replacement Parts: Seal Kit

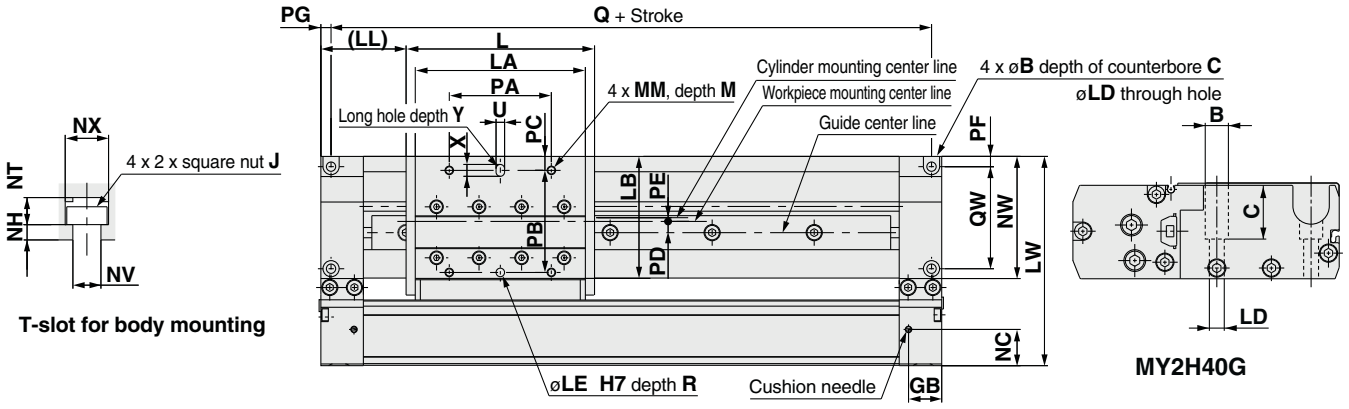
No.	Description	Qty.	MY2H16G/MY2HT16G	MY2H25G/MY2HT25G	MY2H40G/MY2HT40G
14	**Seal belt**	1	MY16-16C-Stroke	MY25-16C-Stroke	MY40-16C-Stroke
15	**Dust seal band**	1	MY2H16-16B-Stroke	MY2H25-16B-Stroke	MY2H40-16B-Stroke
43	**O-ring**	2	KA00309 (ø4 x ø1.8 x ø1.1)	KA00309 (ø4 x ø1.8 x ø1.1)	KA00320 (ø7.15 x ø3.75 x ø1.7)
18	**Scraper**	2	MY2B16-PS	MY2B25-PS	MY2B40-PS
39	**Piston seal**	2			
40	**Cushion seal**	2			
41	**Tube gasket**	2			
42	**O-ring**	4			

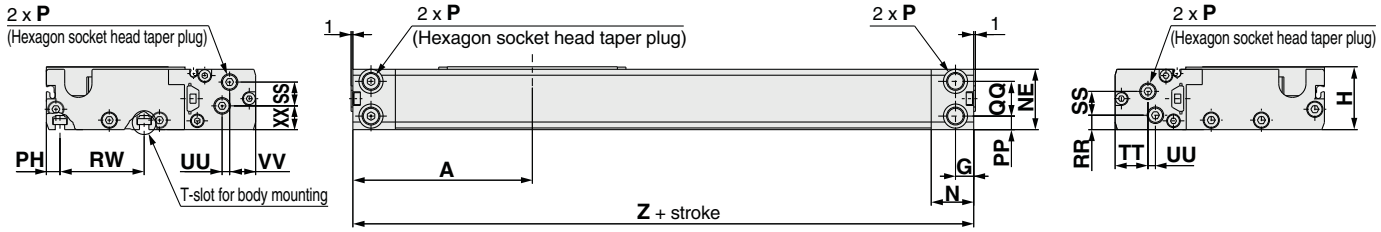
∗ Seal kit includes ⑱, ㊴, ㊵, ㊶ and ㊷. Order the seal kit based on each bore size.
∗ Seal kit includes a grease pack (10 g).
When ⑭ and ⑮ are shipped as single units, a grease pack (20 g) is included.
Order with the following part number when only the grease pack is needed.
Grease pack part number:GR-S-010 (10 g) **, GR-S-020** (20 g)

Single Axis Type: ø16, ø25, ø40

Refer to page 1402 regarding port variations.

MY2H Bore size G – Stroke





(mm)

Model	A	B	C	G	GB	H	L	J	LA	LB	LD	LE	(LL)	LW	M	MM	N	NC	NE	NH	NT	NV	NW	NX	P
MY2H16G	80	6.5	3.3	8.5	17	28	80	M3 x 0.5	70	50.4	3.4	4	40	83	7	M4 x 0.7	20	14	27	2	3.5	3.4	48.2	5.8	M5 x 0.8
MY2H25G	105	9.5	5.4	10.7	19.5	37	110.8	M5 x 0.8	100	71.7	5.5	5	49.6	123	9	M5 x 0.8	25	21.3	35.5	3	5.3	5.5	71.8	8.5	1/8
MY2H40G	165	14	32.5	15.5	31.5	58	180	M6 x 1	158	80.3	9	6	75	161	13	M6 x 1	40	32.4	56.5	4	6.5	6.6	82.1	10.5	1/4

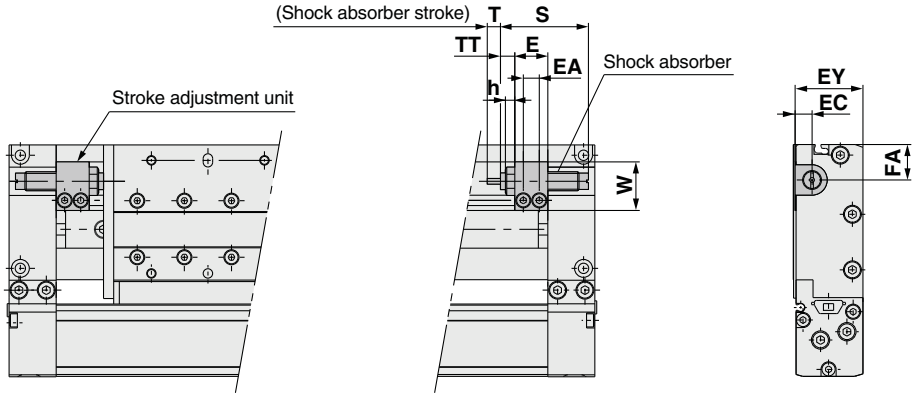
Model	PA	PB	PC	PD	PE	PF	PG	PH	PP	Q	QQ	QW	R	RR	RW	SS	TT	U	UU	VV	X	XX	Y	Z
MY2H16G	40	40	7.2	2.8	3.7	3.5	4	5.1	5.3	152	16.4	40	5	5.3	40	9.7	12.5	4	3	10.5	6	12	5	160
MY2H25G	60	60	8.2	6.6	2.7	5.5	6	7.5	8	198	20.4	60	5	8.5	50	14	19.3	5	4.4	15.3	7.5	14	5	210
MY2H40G	100	70	5.5	8.5	5	17	9	9.5	16	312	25.5	57	8	11	53.5	21.5	35.4	6	2	29	9	23	8	330

"P" indicates cylinder supply ports. ∗ The plug for "P" MY2H16G is a hexagon socket head plug.

Stroke adjustment unit

Low load shock absorber

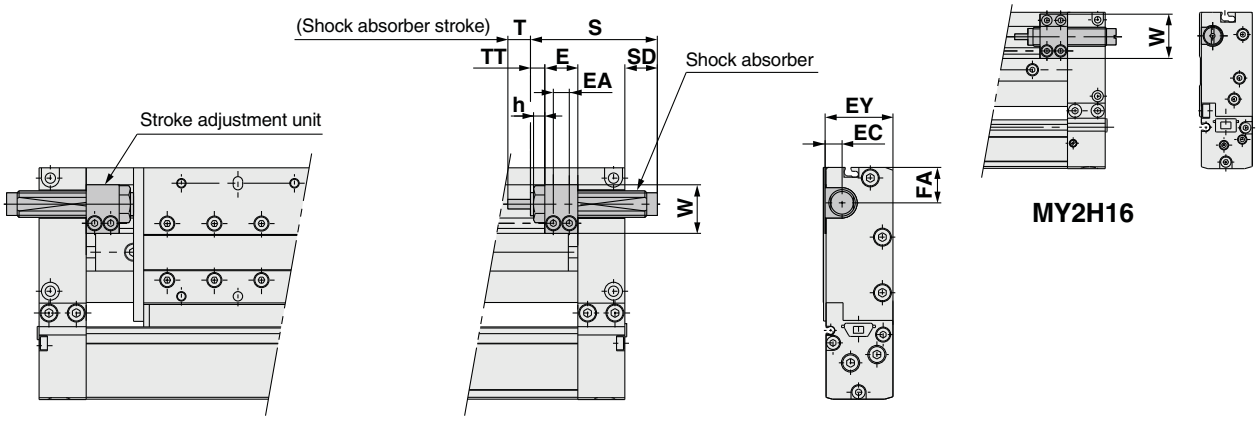
MY2H Bore size G – Stroke L



Applicable cylinder	E	EA	EC	EY	FA	h	S	T	TT	W	Shock absorber model
MY2H16	14.4	7	6	27	12.5	4	40.8	6	5.6 (Max. 11.2)	16.5	RB0806
MY2H25	17.5	8.5	9	36	19.3	5	46.7	7	7.1 (Max. 18.6)	25.8	RB1007
MY2H40	25	13	13	57	17	6	67.3	12	10 (Max. 26)	38	RB1412

High load shock absorber

MY2H Bore size G – Stroke H

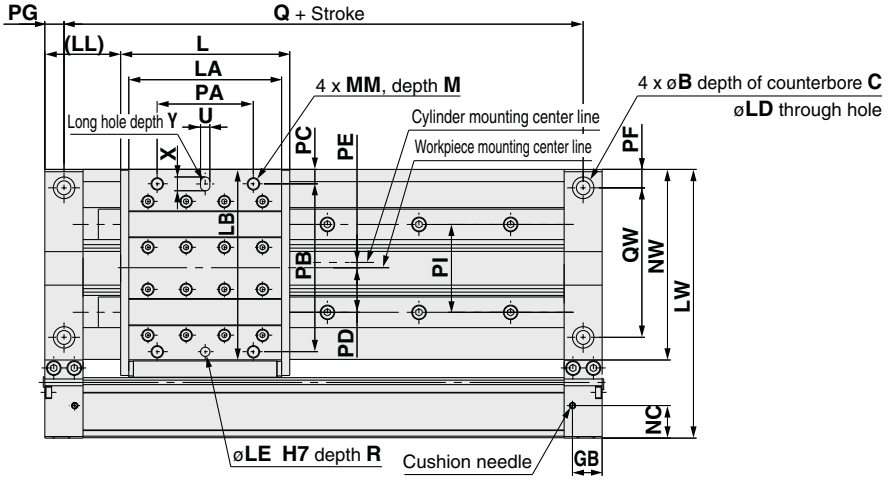


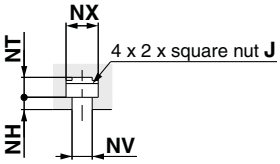
Applicable cylinder	E	EA	EC	EY	FA	h	S	SD	T	TT	W	Shock absorber model
MY2H16	14.4	7	6	27	12.5	—	46.7	6.7	7	5.6 (Max. 11.2)	23.5	RB1007
MY2H25	17.5	8.5	9	36	19.3	6	67.3	17.7	12	7.1 (Max. 18.6)	25.8	RB1412
MY2H40	25	13	13	57	17	6	73.2	—	15	10 (Max. 26)	38	RB2015

Double Axis Type: ø16, ø25, ø40

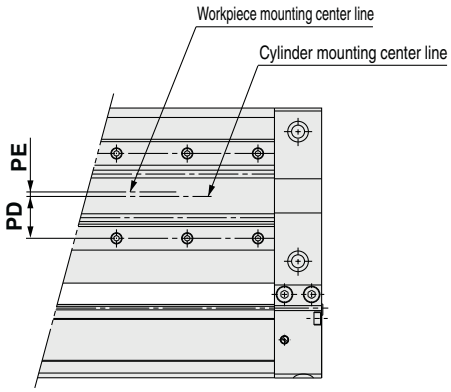
Refer to page 1402 regarding port variations.

MY2HT Bore size G – Stroke

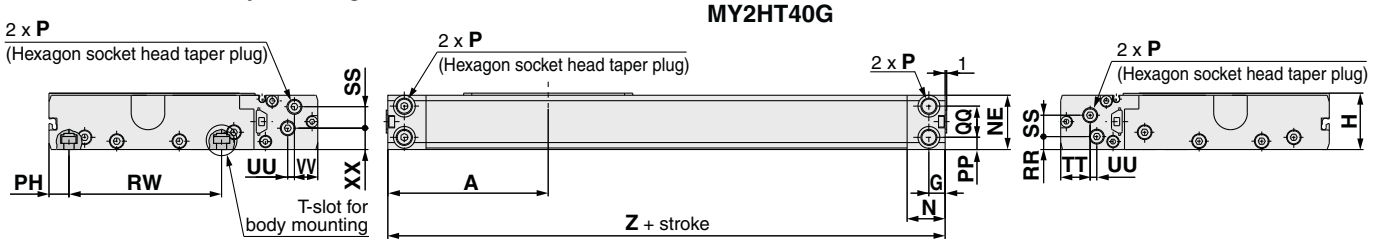




T-slot for body mounting



MY2HT40G



Model	A	B	C	G	GB	H	L	J	LA	LB	LD	LE	(LL)	LW	M	MM	N	NC	NE	NH	NT
MY2HT16G	80	9.5	5.4	8.5	17	28	80	M4 x 0.7	70	87.4	5.5	5	40	120	9	M5 x 0.8	20	14	27	3	4.7
MY2HT25G	105	14	8.6	10.7	19.5	37	110.8	M6 x 1	100	124.7	9	6	49.6	176	12	M8 x 1.25	25	21.3	35.5	4	6.5
MY2HT40G	165	17.5	10.8	15.5	31.5	58	180	M8 x 1.25	158	148.3	11	8	75	229	16	M10 x 1.5	40	32.4	56.5	5	9

Model	NV	NW	NX	P	PA	PB	PC	PD	PE	PF	PG	PH	PI	PP	Q	QQ	QW	R	RR	RW	SS	TT
MY2HT16G	4.5	85.2	7.3	M5 x 0.8	44	80	4	23	1	10	10	10.2	41	5.3	140	16.4	66	5	5.3	69	9.7	12.5
MY2HT25G	6.6	124.8	10.5	1/8	63	110	9.4	29.2	3.4	12	12.5	13	57.6	8	185	20.4	98	8	8.5	100	14	19.3
MY2HT40G	9	150.1	14	1/4	113	132	8.5	35.5	0.5	20	20	18.5	72	16	290	25.5	110	12	11	116	21.5	35.4

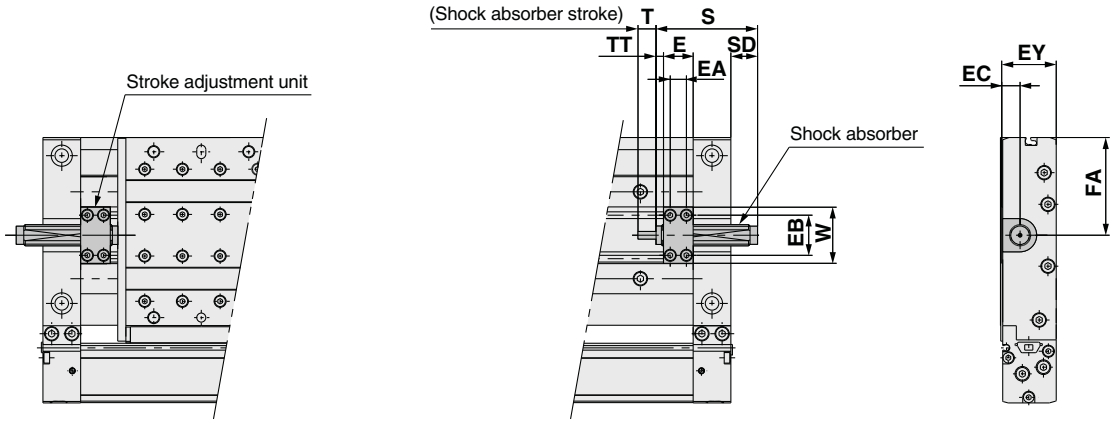
Model	U	UU	VV	X	XX	Y	Z
MY2HT16G	5	3	10.5	7	12	5	160
MY2HT25G	6	4.4	15.3	9	14	8	210
MY2HT40G	8	2	29	12	23	12	330

"P" indicates cylinder supply ports. * The plug for "P" MY2HT16G is a hexagon socket head plug.

Stroke adjustment unit

Low load shock absorber

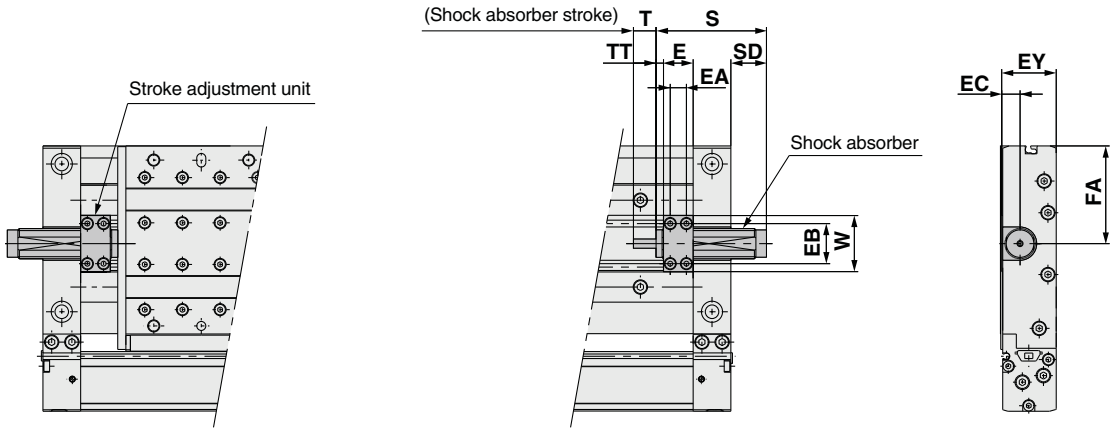
MY2HT Bore size G – Stroke L



Applicable cylinder	E	EA	EB	EC	EY	FA	S	SD	T	TT	W	Shock absorber model
MY2HT16	14.4	7	21	8	27	46.5	46.7	6.7	7	5.6 (Max. 11.2)	28.6	RB1007
MY2HT25	19.7	10.7	26.6	11.2	36	64.8	67.3	17.7	12	4.9 (Max. 16.4)	37.2	RB1412
MY2HT40	29.1	15.1	37	17.2	57	74.5	73.2	—	15	5.9 (Max. 21.9)	51.6	RB2015

High load shock absorber

MY2HT Bore size G – Stroke H

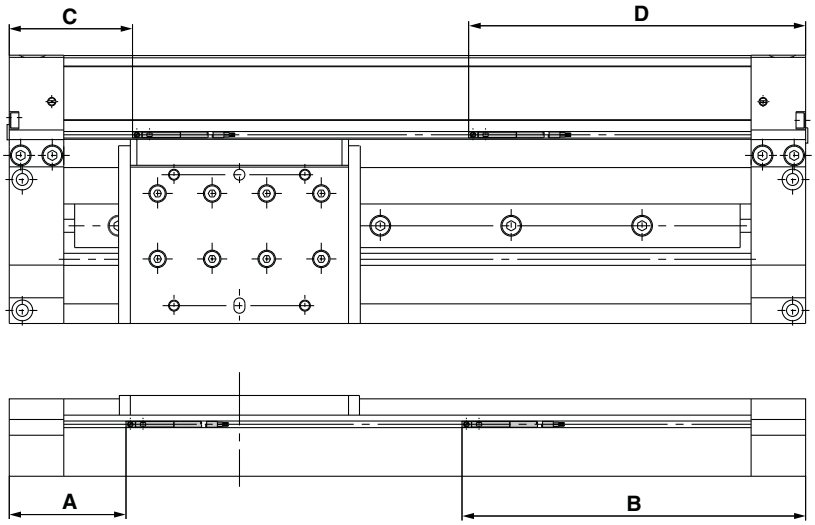


Applicable cylinder	E	EA	EB	EC	EY	FA	S	SD	T	TT	W	Shock absorber model
MY2HT16	14.4	7	21	8	27	46.5	67.3	27.3	12	5.6 (Max. 11.2)	28.6	RB1412
MY2HT25	19.7	10.7	26.6	11.2	36	64.8	73.2	23.6	15	4.9 (Max. 16.4)	37.2	RB2015
MY2HT40	29.1	15.1	37	17.2	57	74.5	99	24	25	5.9 (Max. 21.9)	51.6	RB2725

MY2 Series
Auto Switch Mounting

Proper Auto Switch Mounting Position (Detection at stroke end)

Note) The operating range is a standard including hysteresis, and is not guaranteed. There may be large variations depending on the surrounding environment (variations on the order of ±30%).



D-A9□, D-A9□V

Series model	A	B	Operating range
MY2C16	44	116	11
MY2H16	46	114	
MY2HT16	70	90	
MY2C/H/HT25	54	156	
MY2C/H/HT40	85	245	

Series model	C	D	Operating range
MY2C/H/HT16	27.6	132.4	6.5
MY2C/H/HT25	69	141	11
MY2C/H/HT40	90.2	239.8	

D-M9□, D-M9□V, D-M9□W, D-M9□WV, D-M9□A, D-M9□AV

Series model	A	B	Operating range
MY2C16	48	112	8.5
MY2H16	50	110	
MY2HT16	74	86	
MY2C/H/HT25	58	152	
MY2C/H/HT40	89	241	

Series model	C	D	Operating range
MY2C/H/HT16	31.6	128.4	4
MY2C/H/HT25	73	137	8.5
MY2C/H/HT40	94.2	235.8	

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

Besides the models listed in How to Order, the following auto switches are applicable.

* For solid state auto switches, auto switches with a pre-wired connector are also available. Refer to pages 1648 and 1649 for details.
* Normally closed (NC = b contact) solid state auto switches (D-M9□E(V)) are also available. Refer to page 1592-1 for details.

MY2 Series
Made to Order: Individual Specifications

Please contact SMC for detailed dimensions, specifications and lead times.

Made to Order

1 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.

MY2 [ ] [Bore size] – [Stroke] – [Auto switch] [Suffix] –X168

Series: Bore size

		16	25	40
C	Cam follower guide type	●	●	●
H	Linear guide type (Single axis)	●	●	●
HT	Linear guide type (Double axis)	●	●	●

Example) **MY2H40G-300L-A93-X168**