Mechanically Jointed Rodless Cylinder
Basic Type
MY1B Series
ø25, ø32, ø40

RoHS

How to Order

Basic type MY1B 25 ☐ ☐ – 300 ☐ Z – M9BW ☐ – ☐

Basic type

Bore size

25	25 mm
32	32 mm
40	40 mm

Port thread type

Symbol	Type
Nil	Rc
TN	NPT
TF	G

Piping

Nil	Standard
G	Centralized piping type

Cylinder stroke (mm)

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

* Strokes are manufacturable in 1 mm increments, up to the maximum stroke. However, 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. Also when exceeding a 2000 mm stroke, specify "-XB11" at the end of the part number. For details, refer to the Made-to-Order specifications.

Stroke adjustment unit symbol
For stroke adjustment unit, refer to page 1189.

Auto switch

Nil	Without auto switch (Built-in magnet)

Number of auto switches

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

Made to Order
Refer to page 1189 for details.

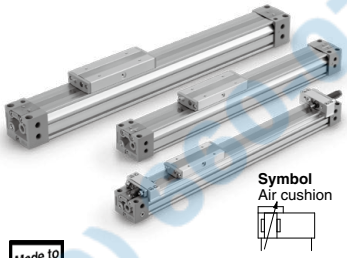
Applicable Auto Switches/Refer to pages 1575 to 1701 for further information on auto switches.

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	—
			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 other than the listed above. For details, refer to page 1197.
* For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.
* Auto switches are shipped together, (but not assembled).



Symbol
Air cushion

Made to Order

Made to Order: Individual Specifications
(For details, refer to page 1198.)

Symbol	Specifications
-X168	Helical insert thread

Made to Order

Click here for details

Symbol	Specifications
-XB11	Long stroke
-XB22	Shock absorber/ soft type RJ series mounted

∗For details about Copper/Fluorine-free Specifications, refer to the SMC website.

Specifications

Bore size (mm)		25	32	40
Fluid		Air		
Action		Double acting		
Operating pressure range		0.1 to 0.8 MPa		
Proof pressure		1.2 MPa		
Ambient and fluid temperature		5 to 60°C		
Cushion		Air cushion		
Lubrication		Non-lube		
Stroke length tolerance		2700 or less $^{+1.8}_{0}$, 2701 to 5000 $^{+2.8}_{0}$		
Piping port size	Front/Side port	Rc1/8		Rc1/4
	Bottom port	ø6		ø8

Piston Speed

Bore size (mm)		25 to 40
Without stroke adjustment unit		100 to 1000 mm/s
Stroke adjustment unit	A unit	100 to 1000 mm/s Note 1)
	L unit, H unit	100 to 1500 mm/s Note 2)

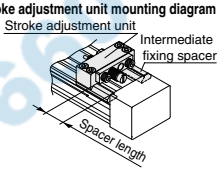
Note 1) Be aware that when the stroke adjustment range is increased with the adjustment bolt, the air cushion capacity decreases. Also, when exceeding the air cushion stroke ranges on page 1191, **the piston speed should be 100 to 200 mm/s.**
Note 2) The piston speed is 100 to 1000 mm/s for centralized piping.
Note 3) Use at a speed within the absorption capacity range. Refer to page 1191.
Note 4) 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)		25			32			40		
Unit symbol		A	L	H	A	L	H	A	L	H
Configuration Shock absorber model		With adjustment bolt	RB1007 + with adjustment bolt	RB1412 + with adjustment bolt	With adjustment bolt	RB1412 + with adjustment bolt	RB2015 + with adjustment bolt	With adjustment bolt	RB1412 + with adjustment bolt	RB2015 + with adjustment bolt
Stroke adjustment range by Intermediate fixing spacer (mm)	Without Spacer	0 to –11.5			0 to –12			0 to –16		
	With short spacer	–11.5 to –23			–12 to –24			–16 to –32		
	With long spacer	–23 to –34.5			–24 to –36			–32 to –48		

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

Stroke adjustment unit mounting diagram

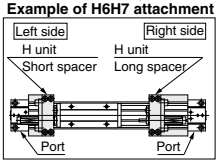


Stroke Adjustment Unit Symbol

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

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

Example of H6H7 attachment



Shock Absorber Model for L and H Units

Type	Stroke adjustment unit	Bore size (mm) 25	32	40
Standard	L	RB1007	RB1412	
	H	RB1412	RB2015	
Shock absorber/ soft type (-XB22)	L	RJ1007H	RJ1412H	
	H	RJ1412H	—	—

Shock Absorber Specifications

Model		RB1007	RB1412	RB2015
Max. energy absorption (J)		5.9	19.6	58.8
Stroke absorption (mm)		7	12	15
Max. collision speed (mm/s)		1500	1500	1500
Max. operating frequency (cycle/min)		70	45	25
Spring force (N)	Extended	4.22	6.86	8.34
	Retracted	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 Series RB Specific Product Precautions for the replacement period.