

Mechanically Jointed Rodless Cylinder/Basic Type

Series MY3A/3B

ø16, ø20, ø25, ø32, ø40, ø50, ø63

How to Order

Basic MY3 **B** **16** - **300** **HL** - **M9BW** -

Type

A	Short type (Rubber bumper)
B	Standard type (Air cushion)

Cylinder bore size

16	16 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm

Port thread type

Symbol	Type	Bore size
Nil	M5	ø16, ø20
	Rc	ø25, ø32, ø40
TN	NPT	ø50, ø63
TF	G	ø50, ø63

Stroke

* Refer to "Standard Stroke" table on page 14 for further information.

Number of auto switches

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

Auto switch

Nil	Without auto switch (Built-in magnet)
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* Refer to the table below for auto switch model numbers.

Stroke adjustment unit

Symbol	Stroke adjustment unit	Applicable model
Nil	Without adjustment unit	MY3A, MY3B
L	With shock absorbers for low load on both sides	MY3B
H	With shock absorbers for high load on both sides	
LS	With a shock absorber for low load on left side	
SL	With a shock absorber for low load on right side	
HS	With a shock absorber for high load on left side	
SH	With a shock absorber for high load on right side	
LH	With L unit on left side and H unit on right side	
HL	With H unit on left side and L unit on right side	

Stroke adjustment unit appearance and mounting direction In case of the MY3B

Applicable Auto Switches/ Refer to Best Pneumatics No. 2, pages 1263 to 1371 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)				Pre-wired connector	Applicable load		
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	3-wire (PNP)			M9PV				M9P	●	●	●	○	○			
	2-wire			M9BV				M9B	●	●	●	○	○	—		
	3-wire (NPN)			M9NWV				M9NW	●	●	●	○	○		IC circuit	
	3-wire (PNP)			M9PWV	M9PW	●	●	●	○	○	—					
	2-wire			M9BWV	M9BW	●	●	●	○	○		○	○	—		
Reed switch	—	Grommet	Yes	3-wire (NPN equiv.)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
				2-wire	24 V	12 V	100 V	A93V	A93	●	—	●	—	—	—	Relay, PLC
			100 V or less				A90V	A90	●	—	●	—	—	—	IC circuit	

* Lead wire length symbols: 0.5 m Nil
1 m M
3 m L
5 m Z

(Example) M9NW
(Example) M9NWM
(Example) M9NWL
(Example) M9NWZ

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

* In addition to the models in the above table, there are some other auto switches that are applicable. For more information, please refer to page 38.

* Refer to Best Pneumatics No. 2, pages 1328 to 1329 for the details of auto switches with a pre-wired connector.

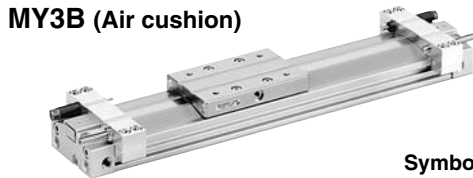
* Auto switches are shipped together, but not assembled.

Series MY3A/3B

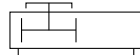
MY3A (Rubber bumper)



MY3B (Air cushion)



Symbol



Specifications

Bore size (mm)	16, 20	25, 32	40	50, 63
Fluid	Air			
Action	Double acting			
Operating pressure range	0.15 to 0.8 MPa			
Proof pressure	1.2 MPa			
Ambient and fluid temperature	5 to 60°C			
Cushion	Rubber bumper (MY3A) / Air cushion (MY3B)			
Lubrication	Not required (Non-lube)			
Stroke length tolerance	1000 mm or less $^{+1.8}_{-0}$, From 1001 mm $^{+2.8}_{-0}$ (Note)			
Port size (Rc, NPT, G)	M5 x 0.8	1/8	1/4	3/8

Note) The tolerance of the MY3A is a value with no pressurization. When a rubber bumper is used, the stroke of the MY3A varies according to the operating pressure. To find the stroke length tolerance at each operating pressure, double the additional stroke due to pressure on each side (pages 6 and 7) and add it.

Piston Speed

Bore size (mm)	16	20	25	32	40	50	63
Without stroke adjustment unit (MY3A)	80 to 500 mm/s						
Without stroke adjustment unit (MY3B)	80 to 1000 mm/s						
Stroke adjustment unit (L and H unit/MY3B)	80 to 1000 mm/s (ø16, ø20 L unit: 80 to 800 mm/s)						
* External shock absorber (low reaction type)	80 to 1500 mm/s						

- * Refer to "External Shock Absorber Selection" on pages 10 and 11. When the RB series is used, operate at a piston speed that will not exceed the absorption capacity of the air cushion and stroke adjustment unit.
- * Because of its structure, the fluctuation of this cylinder's operating speed is greater than rod type cylinders. For applications that require constant speed, select an applicable equipment for the level of demand.

Standard Stroke

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

* Strokes are manufacturable in 1 mm increments, up to the maximum stroke. However, when exceeding 2000 mm stroke, add "-XB11" to the end of the model number. Refer to "Made to Order" on page 40.

Stroke Adjustment Unit Specifications

Bore size (mm)	16, 20		25, 32		40, 50		63	
Unit symbol	L	H	L	H	L	H	L	H
Shock absorber model	RB0806	RB1007	RB1007	RB1412	RB1412	RB2015	RB2015	RB2725
Shock absorber soft type Series RJ (-XB22) model	RJ0806H	RJ1007H	RJ1007H	RJ1412H	RJ1412H	—	—	—
Fine stroke adjustment range (mm)	0 to -10		0 to -12		0 to -16		0 to -24	



Made to Order
(For details, refer to pages 40 to 44.)

Symbol	Specifications
-XB11	Long stroke type
-XB22	Shock absorber soft type Series RJ type
-X168	Helical insert thread
-X416	Holder mounting bracket I
-X417	Holder mounting bracket II

Shock Absorber Specifications

Model	RB 0806	RB 1007	RB 1412	RB 2015	RB 2725
Max. energy absorption (J)	0.84	2.4	10.1	29.8	46.6
Stroke absorption (mm)	6	7	12	15	25
Max. collision speed (mm/s)	1000				
Max. operating frequency (cycle/min)	80	70	45	25	10
Spring force (N)	Extended	1.96	4.22	6.86	8.34
	Compressed	4.22	6.86	15.98	20.50
Operating temperature range (°C)	5 to 60				

Note) The shock absorber service life is different from that of the MY3A/3B cylinders depending on operating conditions. Allowable operating cycle under the specifications set in this catalog is shown below.

1.2 million times RB08□□

2 million times RB10□□ to RB2725

Note) Specified service life (suitable replacement period) is the value at room temperature (20 to 25°C). The period may vary depending on the temperature and other conditions. In some cases the absorber may need to be replaced before the allowable operating cycle above.