

Made to Order Common Specifications: -XB6: Heat Resistant Cylinder (-10 to 150°C)



2 Heat Resistant Cylinder (-10 to 150°C)

Symbol
-XB6

Air cylinder which changed the seal material and grease, so that it could be used even at higher temperature up to 150 from -10°C.

Applicable Series

Series	Description	Model	Action	Note	Vol. no. (for std model)
CJP2	Pin cylinder	CJP2	Double acting, Single rod	Except clevis, trunnion type, with auto switch, ø4. Packing set (6)	
CJ2	Air cylinder	CJ2-Z	Double acting, Single rod	Except with air cushion and auto switch, rod end bracket T, U	
		CJ2W-Z	Double acting, Double rod	Except with air cushion and auto switch, rod end bracket T, U	
CM2	Air cylinder	CM2-Z	Double acting, Single rod	Except with rod boot and with auto switch	
		CM2W-Z	Double acting, Double rod	Except with rod boot and with auto switch	
	Non-rotating rod type	CM2K-Z	Double acting, Single rod	Except with rod boot and with auto switch	
		CM2KW-Z	Double acting, Double rod	Except with auto switch	
	Direct mount type	CM2R-Z	Double acting, Single rod	Except with auto switch	
Non-rotating rod, Direct mount type	CM2RK-Z	Double acting, Single rod	Except with auto switch		
	End lock cylinder	CBM2	Double acting, Single rod	Except with rod boot and with auto switch	
CG1	Air cylinder	CG1-Z	Double acting, Single rod	Except with auto switch. Without a bumper for cylinders with rubber bumper	
		CG1W-Z	Double acting, Double rod	Except with auto switch.	
	Direct mount type	CG1R-Z	Double acting, Single rod	Except with auto switch. Without a bumper for cylinders with rubber bumper	
MB	Air cylinder	MB-Z	Double acting, Single rod	Except without air cushion and with auto switch	
		MBW-Z	Double acting, Double rod	Except without air cushion and with auto switch	
MB1	Air cylinder	MB1-Z	Double acting, Single rod	Except without air cushion and with auto switch	
		MB1W-Z	Double acting, Double rod	Except without air cushion and with auto switch	
CA2	Air cylinder	CA2-Z	Double acting, Single rod	Except with auto switch	
		CA2W-Z	Double acting, Double rod	Except with auto switch	
	End lock cylinder	CBA2	Double acting, Single rod	Except with auto switch	
CS1	Air cylinder	CS1□N	Double acting, Single rod	Except with auto switch. Applicable bore size (ø125 to ø200)	
		CS1W□N	Double acting, Double rod		
CS2	Air cylinder	CS2	Double acting, Single rod	Except with auto switch	Web Catalog
		CS2W	Double acting, Double rod	Except with auto switch	
CUJ	Mini free mount cylinder	CUJ	Double acting, Single rod	Except with auto switch and ø4	
CU	Free mount cylinder	CU	Double acting, Single rod	Except with auto switch	
	Non-rotating rod type	CUK	Double acting, Single rod	Except with auto switch	
	Long stroke	CU	Double acting, Single rod	Except with auto switch	
	Long stroke, Non-rotating rod	CUK	Double acting, Single rod	Except with auto switch	
CQS	Compact cylinder	CQS	Double acting, Single rod	Except with rubber bumper and auto switch	
		CQSW	Double acting, Double rod	Except with rubber bumper and auto switch	
CQ2	Compact cylinder	CQ2-Z	Double acting, Single rod	Except with rubber bumper and auto switch, air-hydro type	
		CQ2W-Z	Double acting, Double rod	Except with rubber bumper and auto switch, air-hydro type	
	Axial piping type (Centralized piping type)	CQP2	Double acting, Single rod	Except with rubber bumper and auto switch, air-hydro type	
	Non-rotating rod type	CQ2K-Z	Double acting, Single rod	Except with rubber bumper and auto switch	
CQ2KW-Z		Double acting, Double rod	Except with rubber bumper and auto switch		
CG5	Stainless cylinder	CG5	Double acting, Single rod	Except with auto switch. Without a bumper for cylinders with a rubber bumper (Grease for non-food is used.)	
CY3	Magnetically coupled rodless cylinder	CY3B-Z	Basic type	Without a bumper	
		CY3B		Without a bumper	
MK	Rotary clamp	MK-Z	Double acting	Except with auto switch, ø12 and ø16	
MGP	Compact guide cylinder	MGPM-Z	Double acting	Except with auto switch. No rubber bumper is equipped.	
MGQ	Compact guide cylinder	MGQ	Double acting	Except with auto switch, ø12 to ø25 of MGQL (Ball bushing type)	
MGG	Guide cylinder	MGG	Double acting	Except with auto switch. No shock absorber and rubber bumper are equipped.	
MGC	Guide cylinder	MGC	Double acting	Except with auto switch	
CXSJ	Dual rod cylinder	CXSJ	Compact type	Except with auto switch	
CXS		CXS	Basic type	Except with auto switch	

How to Order

Standard model no.	-XB6
Heat resistant cylinder	

Specifications

Ambient temperature range	-10 to 150°C (0 to 150°C for CS1, CS2 series)
Seals materials	Fluororubber
Grease	Heat resistant grease
Specifications other than above and external dimensions	Same as standard type

Warning Precautions

Be aware that smoking cigarettes, etc. after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

- Note 1) Operate without lubrication from a pneumatic system lubricator.
 Note 2) Please contact SMC for details on the maintenance intervals for this cylinder, which differ from those of the standard cylinder.
 Note 3) In principle, it is impossible to make built-in magnet type and the one with auto switch. But, as for the one with auto switch, and the heat resistant cylinder with heat resistant auto switch, since it will be differed depending on the series, please contact SMC.
 Note 4) Piston speed is ranged from 50 to 500 mm/s. But, for MGQ□80, □100 and MGQ□30, □100, it will be 50 to 400 mm/s; 50 to 200 mm/s for the MK series. The piston speed for the CY3B and CY3B-Z series is 50 to 400 mm/s. Note that the max. piston speed changes depending on the ambient temperature.
 Note 5) Please contact SMC for the CQ2, CQS, MGP and MGQ series with rubber bumper.
 Note 6) As for the ambient temperature range of the CY3B and CY3B-Z series, since the magnetic holding force will be varied depending on the operating conditions, make sure that by referring to the next page.
 Note 7) The ambient temperature range of the CY3B and CY3B-Z series is 50 to 150°C.
 Note 8) Refer to the construction of the standard type for the details of the packing set for CJP2□6,10 and 16.

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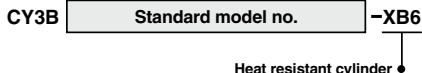


The CY3B series is to be discontinued as of May 2025.
Please select the CY3B-Z series instead. [▶Click here for details.](#)

Symbol
-XB6

2 Heat Resistant Cylinder (-10 to 150°C)

CY3B series How to Order



Specifications

Model	CY3B-Z, CY3B
Bore size (mm)	ø6 to ø63
Ambient and fluid temperature	50 to 150°C*
Maximum operating pressure	0.5 MPa
Piston speed	50 to 400 mm/s*

* When the temperature is in the less than 100°C range, operate at 200 mm/s or less.

* External dimensions are identical to the standard model.

Operating Pressure Limit for Intermediate Stop and Vertical Operation

Maximum operating pressure at the intermediate stop	0.4 MPa*
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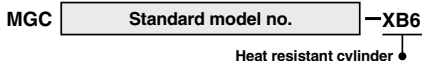
* Use caution that the magnet coupling will be removed, if it is used to stop in an intermediate stroke by an external stopper with the operating pressure over 0.4 MPa.

Magnetic Holding Force (N)

Bore size (mm)	6	10	15	20	25	32	40	50	63
Holding force (at 150°C)	14.4	40.0	90.1	160	250	410	641	1000	1590
Holding force (at 100°C)	17.2	47.9	107	192	299	490	766	1190	1900

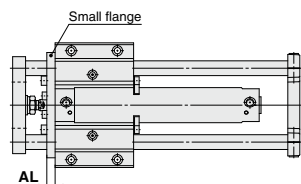
MGC series

How to Order



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

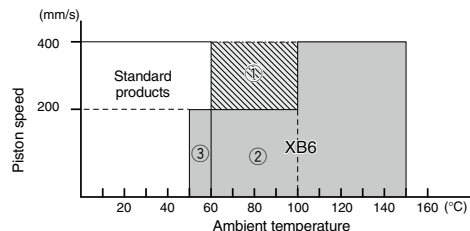
MGCLB series



Bore size (mm)	AL
20	9
25	9
32	9
40	12
50	12

Temperature Range for Operating Cylinder and Piston Speed

- For piston speeds of more than 200 mm/s when the operating temperature is within the 60 to 100°C range, a special order product is available separately.
- When using with the operating temperature from 50 up to 100°C, and the piston speed of less than 200 mm/s, XB6 specifications can be used.
- As for XB6, regarding the temperature range (over 50 to 60°C) which overlaps the one of standard products, consider the tendency of operating temperature (upper, lower limits), then choose a model.



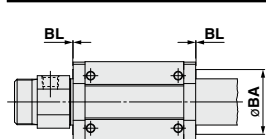
When the operating temperature fluctuates between 50°C or less and 100°C or more, this may result in an unstable operating speed and a reduced service life.

<Reference>

Maintenance cycle for XB6 could vary substantially, depending on the operating condition and the ambient temperature.

Even if using in our recommended range, as a guide, conduct it in around 1/2 intervals, compared to the standard products.

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



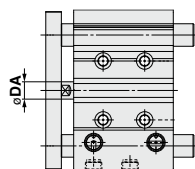
Bore size (mm)	BA	BL
6	—	—
10	—	—
15	—	—
20	—	—
25	37	0.3
32	—	—
40	—	—
50	68.5	0.6
63	—	—

MGP series

How to Order



Dimensions



Bore size (mm)	DA
12	(6)
16	(8)
20	(10)
25	(10)
32	(14)
40	(14)
50	20
63	20
80	25
100	30

The dimensions in () are the same as standard type.