

Magnetically Coupled Rodless Cylinder: Basic Type

Series *CY3B*

ø6, ø10 ø15, ø20 ø25, ø32, ø40, ø50, ø63

How to Order

Basic type **CY3B** **25** **300**

Basic type •

Bore size •

6	6 mm
10	10 mm
15	15 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm

Standard stroke •
Refer to the standard stroke table shown below.

Port thread type •

Symbol	Type	Bore size
Nil	M thread	6, 10, 15
	Rc	20, 25, 32, 40
TN	NPT	50, 63
TF	G	

Standard Stroke

Bore size (mm)	Standard stroke (mm)	Maximum available stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	1000
20	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1500
25		3000
32		
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	3000
50		5000
63		

Note 1) Long stroke specification (XB11) applies to the strokes exceeding 2000 mm. (Refer to page 25.)

Note 2) The longer the stroke, the larger the amount of deflection in a cylinder tube. Pay attention to the mounting bracket and clearance value.

Magnetic Holding Force

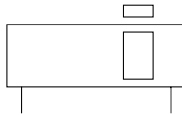
Bore size (mm)	6	10	15	20	25	32	40	50	63
Holding force (N)	19.6	53.9	137	231	363	588	922	1471	2256

Specifications

Fluid	Air
Proof pressure	1.05 MPa
Max. operating pressure	0.7 MPa
Min. operating pressure	Refer to the minimum operating pressure table.
Ambient and fluid temperature	-10 to 60°C
Piston speed	50 to 500 mm/s
Cushion	Rubber bumper on both ends
Lubrication	Non-lube
Stroke length tolerance	0 to 250 st: $^{+1.0}_0$, 251 to 1000 st: $^{+1.4}_0$, 1001 st to: $^{+1.8}_0$
Mounting orientation	Horizontal, Inclined, Vertical (Note)
Mounting nut (2 pcs.)	Standard equipment (accessory)

Note) When vertically mounting, it is impossible to perform an intermediate stop by means of a pneumatic circuit.

JIS Symbol



Made to Order

(Refer to pages 24 for details.)

Symbol	Specifications
-XB6	Heat resistant specifications
-XB9	Low speed specifications (15 to 50 mm/s)
-XB11	Long stroke
-XB13	Low speed specifications (7 to 50 mm/s)
-X116	Hydro specifications
-X132	Axial ports
-X160	High speed specifications
-X168	Helical insert thread specifications
-X206	Added mounting tap positions for slider
-X210	Oil-free exterior specifications
-X322	Outside of cylinder tube with hard chrome plating
-X324	Oil-free exterior specifications (with dust seal)
-X1468	Interchangeable specification with CY1□6
-XC24	With magnetic shielding plate
-XC57	With floating joint

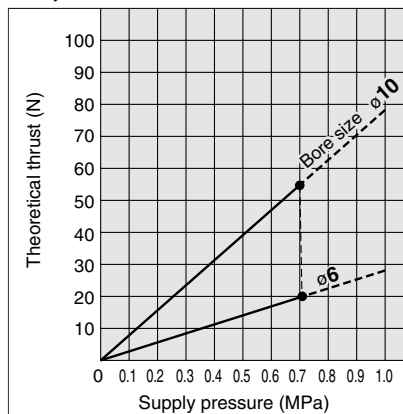
Theoretical Cylinder Thrust



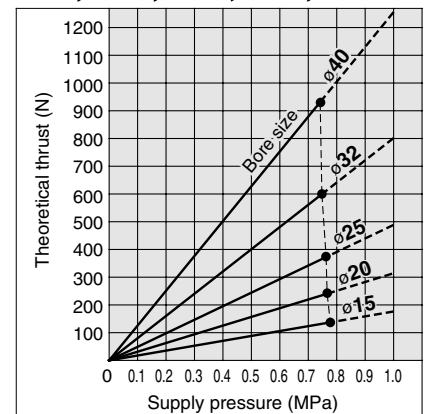
Caution

When calculating the actual thrust, design should consider the minimum actuating pressure.

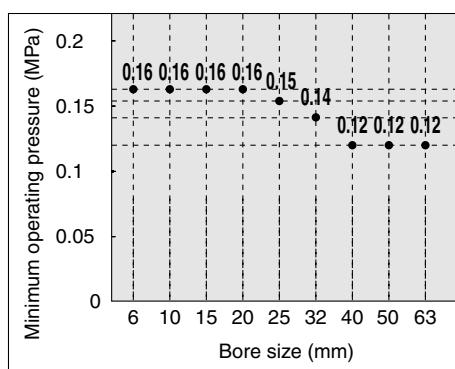
ø6, ø10



ø15, ø20, ø25, ø32, ø40

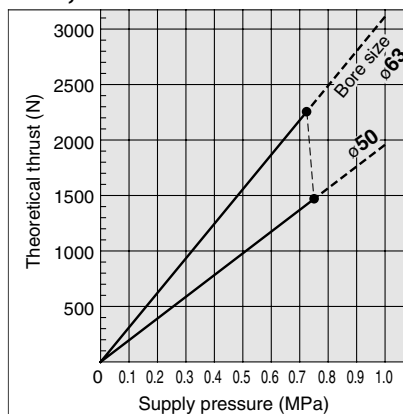


Minimum Operating Pressure



Note) Values show when the cylinder is driving without load.

ø50, ø63



Main Material

Description	Material	Note
Head cover	Aluminum alloy	Electroless nickel plated
Cylinder tube	Stainless steel	
Body	Aluminum alloy	Hard anodized
Magnet	Rare earth magnet	

Note) For details, refer to the construction drawings on page 9.

Weight

Unit: kg

Bore size (mm)	6	10	15	20	25	32	40	50	63
Basic weight (at 0 st)	0.052	0.08	0.275	0.351	0.672	1.287	2.07	3.2	5.3
Additional weight per 50 mm of stroke	0.004	0.014	0.015	0.02	0.023	0.033	0.04	0.077	0.096

Calculation method/Example: CY3B32-500

$$\begin{array}{l}
 \text{Basic weight.} \quad 287 \text{ kg} \\
 \text{Additional weight} \quad 0.033 \text{ kg/50 st} \\
 \text{Cylinder stroke.} \quad .500 \text{ st} \\
 \hline
 287 + 0.033 \times 500 \div 50 = 617 \text{ kg}
 \end{array}$$