Magnetically Coupled Rodless Cylinder Basic Type

Series NCY3B

ø6(1/4"), ø10(3/8"), ø15(5/8"), ø20(3/4"), ø25(1"), ø32(1-1/4"), ø40(1-1/2"), ø50(2"), ø63(2-1/2")

How to Order

Basic type **NCY3B** **25** — **05** **25** — **X116**

- North American type
- Basic type
- Bore size (inch-Nominal)
- Stroke/Inch
- Stroke/Hundredths of an inch
- Made to Order

6	1/4"
10	3/8"
15	5/8"
20	3/4"
25	1"
32	1-1/4"
40	1-1/2"
50	2"
63	2-1/2"

Standard Stroke

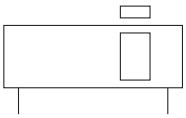
Bore size (mm)	Bore size (inch-Nominal)	Standard stroke (inch)	Max. stroke (inch)
6	**1/4"**	2, 3, 4, 5, 6, 8, 10	12
10	**3/8"**	2, 3, 4, 5, 6, 8, 10	20
15	**5/8"**	5, 10, 15, 20, 25, 30	40
20	**3/4"**	5, 10, 15, 20, 25, 30, 40	60
25	**1"**	5, 10, 15, 20, 25, 30, 40	80
32	**1-1/4"**	5, 10, 15, 20, 25, 30, 40	80
40	**1-1/2"**	5, 10, 15, 20, 25, 30, 40	80
50	**2"**	5, 10, 15, 20, 25, 30, 40	80
63	**2-1/2"**	5, 10, 15, 20, 25, 30, 40	80

Note) 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 (lbf)

Bore size (mm)	**6**	**10**	**15**	**20**	**25**	**32**	**40**	**50**	**63**
Bore size (inch-Nominal)	**1/4"**	**3/8"**	**5/8"**	**3/4"**	**1"**	**1-1/4"**	**1-1/2"**	**2"**	**2-1/2"**
Magnetic holding force	4.41	12.12	30.80	51.93	81.60	132.18	207.27	330.68	507.15

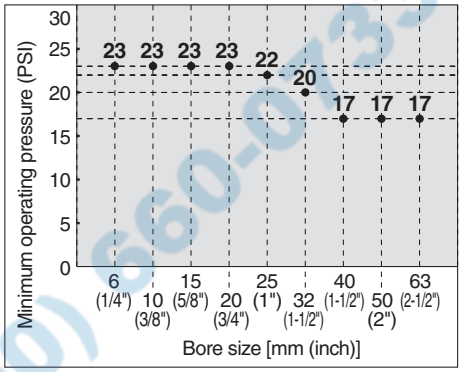
JIS symbol



Made to Order
Made to Order
(Refer to pages 9 for details.)

Symbol	Specifications
XB6	Heat resistant specification
XB9	Low speed specification (0.6 to 2.0 inch/s)
XB13	Low speed specification (0.3 to 2.0 inch/s)
X116	Air Hydro specification
X132	Axial ports
X160	High speed specification
X168	Helical insert thread specification
X206	Added mounting tap positions for slider
X210	Oil-free exterior specification
X322	Outside of cylinder tube with hard chrome plating
X324	Oil-free exterior specification (with dust seal)
X1468	Interchangeable specification with NCY2B6
XC24	With magnetic shielding plate
XC57	With floating joint

Minimum Operating Pressure



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

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 7.

Specifications

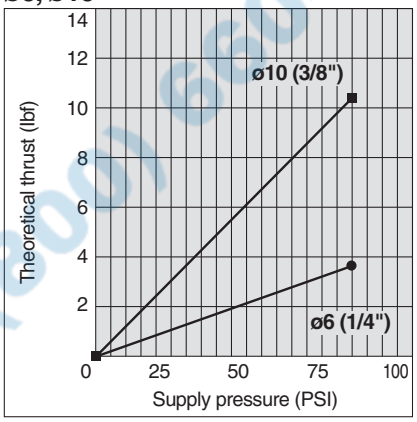
Fluid	Air
Proof pressure	152 PSI (1.05 MPa)
Max. operating pressure	101 PSI (0.7MPa)
Min. operating pressure	Refer to the minimum operating pressure table.
Ambient and fluid temperature	14 to 140°F (–10 to 60°C) (No freezing)
Piston speed	2 to 20 inch/s (50 to 500 mm/s)
Cushion	Rubber bumper on both ends
Lubrication	Non-lube
Stroke length tolerance	0 to 10 st (inch): 0 to 0.04 inch (1.0 mm) 10.01 to 40 st (inch): 0 to 0.06 inch (1.4 mm) 40.01 st (inch): 0 to 0.07 inch (1.8 mm)
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 pneumatic circuit.

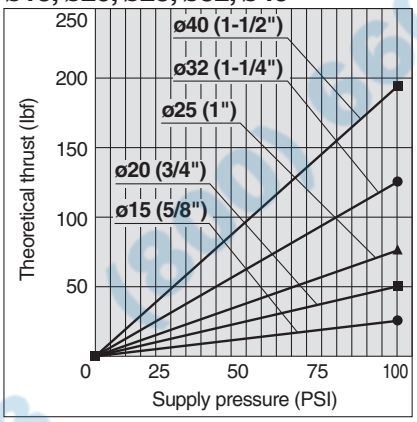
Theoretical Cylinder Thrust

⚠Caution When calculating the actual thr-ust, design should consider the minimum actuating pressure.

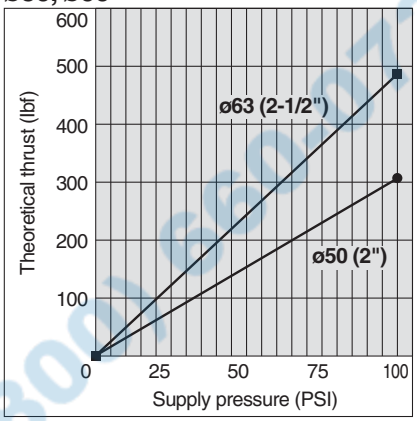
ø6, ø10



ø15, ø20, ø25, ø32, ø40



ø50, ø60



Weight

Unit: oz

Bore size (mm)	6	10	15	20	25	32	40	50	63
Bore size (inch-nominal)	1/4"	3/8"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
Basic weight (at 0 st)	1.83	2.82	9.70	12.38	23.70	45.40	73.02	112.88	186.95
Additional weight per 1 inch stroke	0.07	0.25	0.27	0.36	0.41	0.59	0.72	1.38	1.72

Calculation method/Example: NCY3B32-2000

Basic weight · · · · · · · · · · 45.40 (oz)
Additional weight · · · 0.59 (oz/inch)
Cylinder stroke · · · · · · · · · 20 (inch)

} 45.40 + (0.59 x 20) = 57.20 (oz)