



Specifications

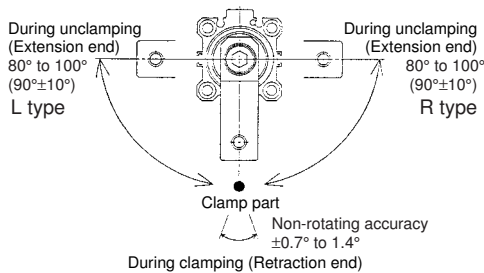
Bore size (mm)	12	16	20	25	32	40	50	63
Action	Double acting							
Rotation angle Note 1)	90° ±10°							
Rotary direction Note 2)	Clockwise, Counterclockwise							
Rotary stroke (mm)	7.5		9.5		15		19	
Clamp stroke (mm)	10, 20						20, 50	
Theoretical clamp force (N) Note 3)	40	75	100	185	300	525	825	1400
Fluid	Air							
Proof pressure	1.5 MPa							
Operating pressure range	0.1 to 1 MPa							
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing)							
	With auto switch: -10 to 60°C (No freezing)							
Lubrication	Non-lube							
Piping port size	M5 x 0.8				Rc1/8, NPT1/8, G1/8		Rc1/4, NPT1/4, G1/4	
Mounting	Through-hole/Both ends tapped common			Both ends tapped, Through-hole, Head end flange				
Cushion	Rubber bumper							
Stroke length tolerance	+0.6 -0.4							
Piston speed	50 to 200 mm/s							
Non-rotating accuracy (Clamp part) Note 1)	±1.4°		±1.2°		±0.9°		±0.7°	

Note 1) Refer to "Rotary Angle" figure.

Note 2) Direction of rotation viewed from the rod end when the piston rod is retracting.

Note 3) At 0.5 MPa.

Rotary Angle



Made to Order
(For details, refer to page 40.)

Symbol	Description
XB6	Head resistant cylinder (150°C)

Theoretical Output

Unit: N

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (cm ²)	Operating pressure (MPa)			
				0.3	0.5	0.7	1.0
12	6	R	0.8	24	40	56	80
		H	1.1	33	55	77	110
16	8	R	1.5	45	75	105	150
		H	2	60	100	140	200
20	12	R	2	60.8	100	139	200
		H	3	90.2	149	208	298
25	12	R	3.7	112	185	258	370
		H	4.9	149	245	341	490
32	16	R	6	182	300	418	600
		H	8	243	400	557	800
40	16	R	10.5	319	525	731	1050
		H	12.5	380	625	870	1250
50	20	R	16.5	502	825	1149	1648
		H	19.6	596	980	1365	1961
63	20	R	28	851	1400	1950	2801
		H	31.2	948	1560	2172	3121

Note) Theoretical output (N) = Pressure (MPa) x Piston area (cm²) x 100

Operating direction
R: Rod end (Clamp)
H: Head end (Unclamp)

Option/Arm

Bore size (mm)	Part no.	Accessories
12	MK-A012	Clamp bolt, Hexagon socket head cap screw, Hexagon nut, Spring washer
16	MK-A016	
20	MK-A020	
25	MK-A025	
32	MK-A032	
40	MK-A040	
50	MK-A050	
63	MK-A063	

Mounting Bracket/Flange

Bore size (mm)	Part no.	Accessories
20	MK-F020	Centering location ring, Set pin, Bolt for cylinder body
25	MK-F025	
32	MK-F032	
40	MK-F040	
50	MK-F050	
63	MK-F063	

Weight/Through-hole Mounting

Unit: g

Clamp stroke (mm)	Bore size (mm)							
	12	16	20	25	32	40	50	63
10	70	100	250	280	500	595	—	—
20	87	123	290	320	525	640	1100	1520
50	—	—	—	—	—	—	1350	1805

Additional Weight

Unit: g

Bore size (mm)	12	16	20	25	32	40	50	63
Both ends tapped	—	—	6	7	7	6	7	17
Rod end width across flats	—	—	10	10	21	21	46	46
With boss on head end	—	—	2	3	5	7	13	25
With arm	13	32	100	100	200	200	350	350
Head end flange(including mounting bolt)	—	—	133	153	166	198	345	531

Calculation: (Example) MKG20-10RFN

• Standard calculation: MKB20-10R 250 g
• Extra weight calculation: Both ends tapped 6 g
Head end flange 133 g
With boss on head end 2 g
With arm 100 g
491 g