

Features

1. Hard anodized aluminum body provides corrosion and wear resistance.
2. Miniature size and double acting force.
3. One air source supplies two piston rods.
4. Simple maintenance and installation.
5. Adjustable stroke range: 0 to -5mm.
6. Available for face mounting or side mounting.



How to order

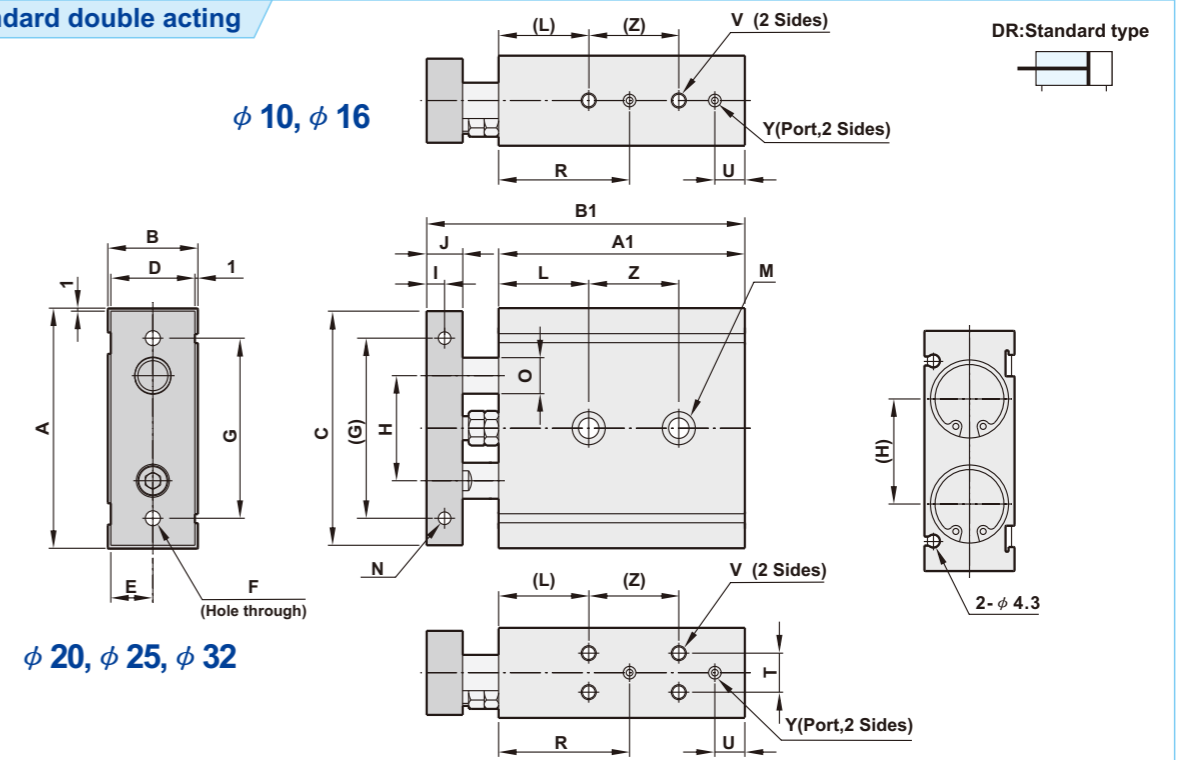
DR	20	B50	-	SR	1
Type	Bore size	Stroke		Sensor type	Number of sensor
DR : Standard double acting	10 : ϕ 10 16 : ϕ 16 20 : ϕ 20 25 : ϕ 25 32 : ϕ 32			Blank : W/O sensor SS : Square type AL-11R/N/P SR : Round type (Only for ϕ 10) AL-07R/N/P	1 pc 2 pcs

Specifications

Bore size	ϕ 10	ϕ 16	ϕ 20	ϕ 25	ϕ 32
Port size	M5xP0.8		Rc1/8"		
Fluid	Compressed air(lubricant free)				
Acting	Double acting				
Operating pressure range	1 ~ 8 kgf/cm ²				
Proof pressure	10 kgf/cm ²				
Body material	Aluminum alloy				
Magnet	Built-in				
Cushion	Rubber				
Stroke adjustable range	0 ~ -5mm				
Ambient temperature	-5°C ~ 60°C (unfrozen)				
Piston speed mm/Sec	50 ~ 500				

Dimensions

DR Standard double acting



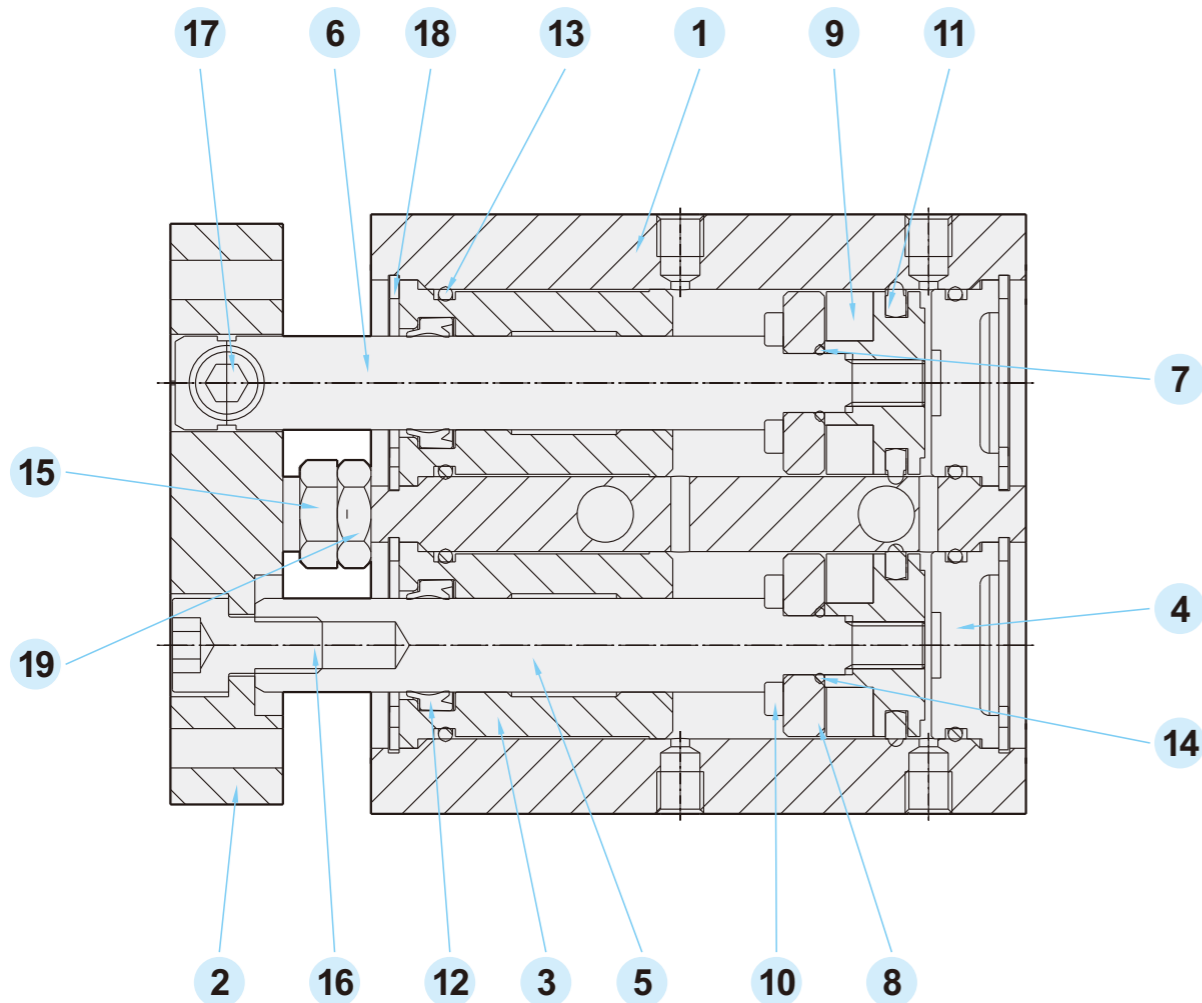
(Unit: mm)

Bore size	A	B	C	D	E	F	G	H	I	J	L	M
ϕ 10	46	17	44	15	7.5	2-M4x0.7	35	20	4	8	20	2- ϕ 3.4Depth,2x2- ϕ 6.5,Depth3.3(M4x0.7 Hole through)
ϕ 16	58	22	56	20	10	2-M5x0.8	45	24	5	10	30	2- ϕ 4.3Depth,2x2- ϕ 8,Depth4.4(M5x0.8 Hole through)
ϕ 20	64	25	62	23	11.5	2-M5x0.8	50	28	6	12	30	2- ϕ 5.5Depth,2x2- ϕ 9.5,Depth3.3(M6x1.0 Hole through)
ϕ 25	80	30	78	28	14	2-M6x1.0	60	35	6	12	30	2- ϕ 6.9Depth,2x2- ϕ 11,Depth3.3(M8x1.25 Hole through)
ϕ 32	98	38	96	36	18	2-M6x1.0	75	44	8	16	30	2- ϕ 6.9Depth,2x2- ϕ 11,Depth3.3(M8x1.25 Hole through)

Bore size	N	O	R	U	T	V	Y	Z (Per stroke)				
								10,15 20,25	30,35 40,45,50	60,70 75	80	90,100
ϕ 10	2-M3x0.5, Depth4.5	ϕ 6	33.7	9.5	—	4-M3x0.5, Depth5.5	4-M5x0.8, Depth5.0	30	40	50	—	—
ϕ 16	2-M4x0.7, Depth6.0	ϕ 8	36	9.2	—	4-M4x0.7, Depth5.5	4-M5x0.8, Depth5.0	25	35	45	45	55
ϕ 20	2-M4x0.7, Depth6.0	ϕ 10	42.5	10.5	9.5	8-M4x0.7, Depth5.5	4-M5x0.8, Depth5.0	30	40	60	60	60
ϕ 25	2-M5x0.8, Depth7.5	ϕ 12	44	10	13	8-M5x0.8, Depth7.5	4-Rc1/8, Depth6.5	30	40	60	60	60
ϕ 32	2-M5x0.8, Depth7.5	ϕ 16	56	10	20	8-M5x0.8, Depth7.5	4-Rc1/8, Depth6.5	40	50	70	70	70

Bore size	A1 (Per stroke)										B1 (Per stroke)																			
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
ϕ 10	65	70	75	80	85	90	95	100	105	115	125	130	—	—	—	82	87	92	97	102	107	112	117	122	132	142	147	—	—	—
ϕ 16	70	75	80	85	90	95	100	105	110	120	130	135	140	150	160	89	94	99	104	109	114	119	124	129	139	149	154	159	169	179
ϕ 20	80	85	90	95	100	105	110	115	120	130	140	145	150	160	170	104	109	114	119	124	129	134	139	144	154	164	169	174	184	194
ϕ 25	82	87	92	97	102	107	112	117	122	132	142	147	152	162	172	106	111	116	121	126	131	136	141	146	156	166	171	176	186	196
ϕ 32	92	97	102	107	112	117	122	127	132	142	152	157	162	172	182	122	127	132	137	142	147	152	157	162	172	182	187	192	202	212

Material of parts



No.	Description	Material	Qty.	No.	Description	Material	Qty.
1	Barrel	Aluminum alloy	1	11	Piston seal	NBR	2
2	Rod cover	Aluminum alloy	1	12	Rod seal	NBR	2
3	Front cover	Aluminum alloy	2	13	O-ring 1	NBR	4
4	Resr cover	Aluminum alloy	2	14	O-ring 2	NBR	2
5	Piston rod	Carbon steel+Cr	1	15	Stroke aligning screw	Fe/Ni+NBR	1
6	Piston rodA	Carbon steel+Cr	1	16	Hex. Scerw	Fe/Ni	1
7	Piston A	Aluminum alloy	2	17	Hex. Scerw	Fe/Ni	1
8	Piston B	Aluminum alloy	2	18	C type clip	Fe/Ni	4
9	Magnet	Rubber magnet	2	19	Hex.mounting nut (M6)	Fe/Ni	1
10	Cushion seal	NBR	2				

Theoretical force

Bore size	φ 10		φ 16		φ 20		φ 25		φ 32		
Rod diameter	φ 6		φ 8		φ 10		φ 12		φ 16		
Acting(N)	Double acting										
	Push	Pull	Push	Pull	Push	Pull	Push	Pull	Push	Pull	
Piston area mm ²	157	101	402	302	628	471	982	756	1608	1206	
Operating pressure (kgf/cm ²)	1	15.4	9.9	39.4	29.6	61.6	64.2	96.3	74.2	8	8
	2	30.8	19.8	78.9	59.3	123.2	92.4	192.7	148.3	16	13
	3	46.2	29.7	118.3	88.9	184.8	138.6	289	222.5	24	20
	4	61.6	39.6	157.7	118.5	246.4	184.8	385.3	296.7	32	27
	5	77	49.5	197.2	148.1	308	231	481.7	370.8	40	34
	6	92.4	59.4	236.6	177.8	369.6	277.2	578	445	48	47
	7	107.8	69.4	276.1	207.4	431.2	323.4	674.3	519.1	56	48
	8	123.2	79.3	315.5	237	492.9	369.6	770.7	593.3	64	55

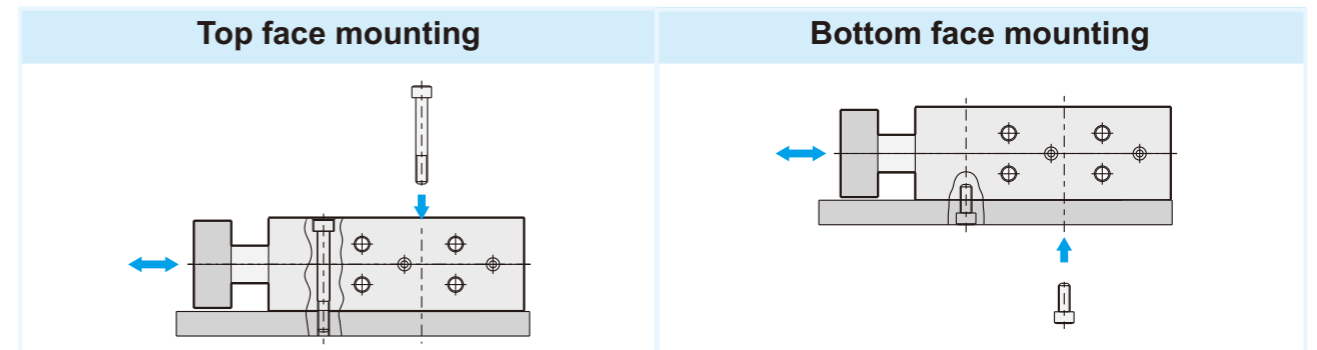
Stroke table

DR Standard type

Bore size	Acting	Standard stroke(mm)	Producible stroke(mm)	Max. stroke(mm)
φ 10	Double acting	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75	80,90,100	150
φ 16				
φ 20		10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75	125,150	200
φ 25		80, 90, 100		
φ 32				

Note: Please contact our sales for non-standard stroke.

Mounting example



Deflection at the plated end

An approximate plate-end deflection Y without a load is shown in the graph below

