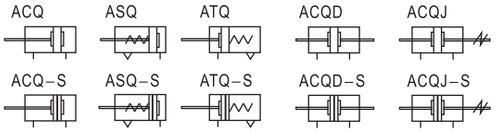


Specification

Bore size(mm)		12	16	20	25	32	40	50	63	80	100
Acting type		Double acting									
		Single acting-Push type, Single acting-Pull type								–	
Fluid		Air(to be filtered by 40 μ m filter element)									
Operating pressure	Double acting	0.1~1.0MPa(15~145psi)(1.0~10.0bar)									
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)									
Proof pressure		1.5MPa(215psi)(15bar)									
Temperature ℃		-20~80									
Speed range mm/s		Double acting: 30~500 Single acting: 50~500									
Stroke tolerance		$0\sim150^{+1.0}_{0}$ $>150^{+1.4}_{0}$									
Cushion type		Bumper									
Port size ①		M5×0.8				1/8"		1/4"		3/8"	

① PT thread, NPT thread and G thread are available. Add) Refer to P419~442 for detail of sensor switch.

Symbol





ACQ

Product feature

1. JIS standard is implemented.
2. C clip is adopted to connect the cylinder body and back cover or front cover, and riveted structure is adopted to connect piston and piston rod to make it compact and reliable.
3. The internal diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability.
4. The seal of piston adopts heterogeneous two-way seal structure. It has compact dimension and the function of grease reservation.
5. Compact structure can effectively save installation space.
6. There are magnetic switch slots around the cylinder body, which is convenient to install inducting switch.
7. Installing accessories with various specifications are optional.

Stroke

Bore size (mm)		Standard stroke (mm)	Max. std stroke	Max. stroke	
				Without magnet	With magnet
12	Double acting	5 10 15 20 25 30 35 40 45 50	50	80	70
	Single acting	5 10 15 20	20	–	-
16	Double acting	5 10 15 20 25 30 35 40 45 50 55 60	60	80	70
	Single acting	5 10 15 20	20	-	-
20	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	100	140	130
25	Single acting	5 10 15 20 25 30	30	-	-
32 40	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	100	100	100
50 63	Single acting	5 10 15 20 25 30			
80 100	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	100	-	-

Note) 1. Please contact the company for other special strokes.
2. The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder. e.g. 23mm stroke cylinder has the same dimensions of 25 std. stroke cylinder.

Ordering code

ACQ 20×30 S B □ □

ACQD 20×30 S B □ □

ACQJ 20×30–30 S B □ □

Model

ACQ: Compact cylinder(Double acting)
ASQ: Compact cylinder (Single acting-push)
ATQ: Compact cylinder (Single acting-pull)
ACQD: Compact cylinder(Double rod)
ACQJ: Compact cylinder (Adjustable stroke)

Bore size

Model	Bore size
ACQ	12 16 20 25 32 40 50 63 80 100
ASQ	12 16 20 25 32 40 50 63
ATQ	12 16 20 25 32 40 50 63
ACQD	12 16 20 25 32 40 50 63 80 100
ACQJ	12 16 20 25 32 40 50 63 80 100

Stroke

Refer to stroke table for details

Adjustable stroke

Model	Adjustable stroke
ACQJ	10: 10mm
	20: 20mm
	30: 30mm
	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others	No this code

Thread type ②

Blank: PT
T: NPT
G: G

Mounting type ①

Model	Mounting type
ACQ ASQ ATQ	Blank: No accessories
	FA: FA type
	FB: FB type
	CB: CB type
	LB: LB type
ACQD ACQJ	Blank: No accessories
	FA: FA type
	FB: FB type
	LB: LB type

Rod type

Blank: Female thread
B: Male thread
N: No thread

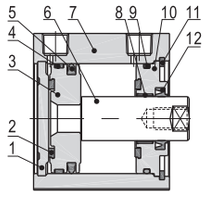
Magnet

Blank: Without magnet
S: With magnet

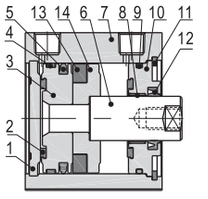
① Please refer to page 279 for accessory parts.
② Standard thread is blank here.

Inner structure and material of major parts

ACQ



ACQS

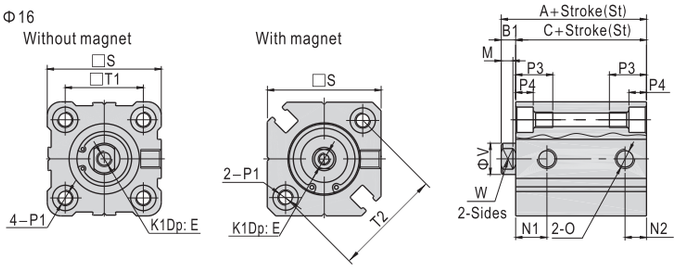


NO.	Item		Material
1	Back cover		No(Φ12, 16)\Aluminum alloy(Others)
2	Bumper		TPU(Φ12~25)NBR(Others)
3	Piston		Brass(Φ12, 16)\Aluminum alloy(Others)
4	Wear ring		No(Φ12~32)\Wear resistant material(Others)
5	Piston seal		NBR
6	Piston rod		Carbon steel with 20 μ m chrome plated
7	Body		Aluminum alloy
8	Bushing		No(Φ12~32)\Wear resistant material(Others)
9	O-ring		NBR
10	Front cover		Aluminum alloy
11	C clip		Spring steel
12	Front cover packing		NBR
13	Magnet	Φ12~25	Sintered metal(Neodymium-iron-boron)
		Others	Plastic
14	Magnet holder		Brass(Φ12, 16)Aluminum alloy(Others)

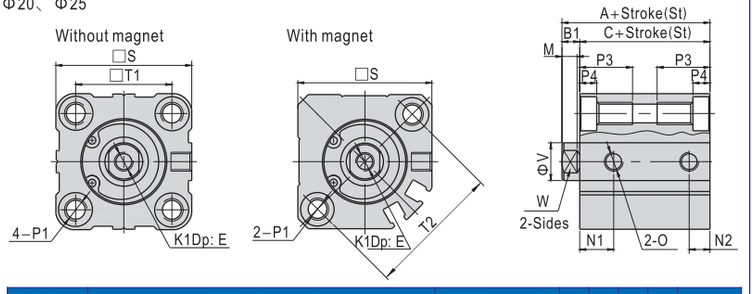
Dimensions

ACQ

Φ12、Φ16



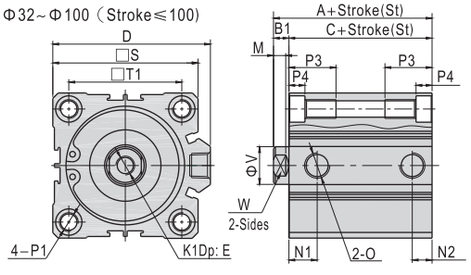
Φ20、Φ25



Model	Without magnet								With magnet				B1	D	E	M	K1
Item / Bore size	A			C			N1	N2	A	C	N1	N2					
	St≤50	St=55	St≥60	St≤50	St=55	St≥60											
12	20.5	-	-	17	-	-	7.5	5	31.5	28	9	7	3.5	-	6	3.5	M3×0.5
16	22	22	-	18.5	18.5	-	8	5.5	34	30.5	9.5	5.5	3.5	-	8	3	M4×0.7
20	24	-	34	19.5	-	29.5	9	5.5	36	31.5	9.5	5.5	4.5	-	7	4	M5×0.8
25	27.5	-	37.5	22.5	-	32.5	11	5.5	37.5	32.5	11	5.5	5	-	12	4.5	M6×1.0

Bore size\Item	O	P1	P3	P4	S	T1	T2	V	W
12	M5×0.8	2−Sides: Φ6.5 Thread:M4×0.7 Thru.hole: Φ3.4	11	3.5	25	15.5	22	6	5
16	M5×0.8	2−Sides: Φ6.5 Thread:M4×0.7 Thru.hole: Φ3.4	11	3.5	29	20	28	8	6
20	M5×0.8	2−Sides: Φ9.0 Thread:M6×1.0 Thru.hole: Φ5.2	17	7	36	25.5	36	10	8
25	M5×0.8	2−Sides: Φ9.0 Thread:M6×1.0 Thru.hole: Φ5.2	17	7	40	28	40	12	10

Φ32~Φ100（Stroke≤100）



Model		Without magnet						With magnet				B1	D	E	M	K1	O
Item / Bore size		A		C		N1	N2	A	C	N1	N2						
		St≤50	St≥60	St≤50	St≥60												
32	St=5	30	40	23	33	7.5	6.5	40	33	10.5	7.5	7	49.5	13	6	M8×1.25	1/8"
	St>5					10.5	7.5										
40		36.5	46.5	29.5	39.5	11	8	46.5	39.5	11	8	7	57	13	6	M8×1.25	1/8"
50	St=5	38.5	48.5	30.5	40.5	9	9	48.5	40.5	10.5	10.5	8	71	15	6.5	M10×1.5	1/4"
	St>5					10.5	10.5										
63	St=5	44	54	36	46	14	9.5	54	46	15	10.5	8	84	15	6.5	M10×1.5	1/4"
	St>5					15	10.5										
80		53.5	63.5	43.5	53.5	16	14	63.5	53.5	16	14	10	104	20	8.5	M16×2.0	3/8"
100		65	75	53	63	20	17.5	75	63	20	17.5	12	123.5	26	9.5	M20×2.5	3/8"

Bore size\Item	P1	P3	P4	S	T1	T2	V	W
32	2−Sides: Φ9 Thread:M6×1.0 Thru.hole: Φ5.2	17	7	45	34	-	16	14
40	2−Sides: Φ9 Thread:M6×1.0 Thru.hole: Φ5.2	17	7	53	40	-	16	14
50	2−Sides: Φ11 Thread:M8×1.25 Thru.hole: Φ6.8	22	8	64	50	-	20	17
63	2−Sides: Φ14 Thread:M10×1.5 Thru.hole: Φ8.5	28.5	10.5	77	60	-	20	17
80	2−Sides: Φ17.5 Thread:M12×1.75 Thru.hole: Φ10.3	35.5	13.5	98	77	-	25	22
100	2−Sides: Φ17.5 Thread:M12×1.75 Thru.hole: Φ10.3	35.5	13.5	117	94	-	32	27

