## MCJQ series COMPACT CYLINDERS





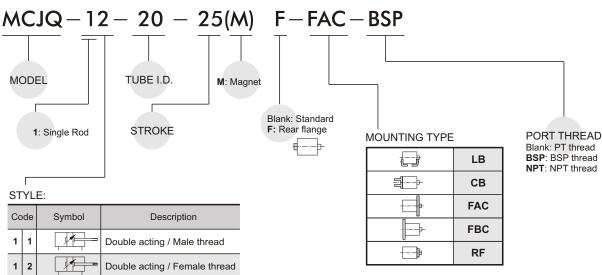
### Double acting-Table for standard stroke

Tube I.D.	Standard stroke	Long stroke (mm)
φ 12,16	5,10,15,20,25,30	35, 40, 45, 50, 75,100
φ20	5,10,15,20,25,	75,100,125,150,175,200
φ25	30,35,40,45,50	75,100,125,150,175,200,250,300
φ 32	5,10,15,20,25,30,	125,150,175,200,250,300
φ 32	35,40,45,50,75,100	123, 130, 173, 200, 230, 300
Tube I.D	. S	tandard stroke (mm)
φ40~100	5,10,15,2	0,25,30,35,40,45,50,75,100

• Stroke out of specification is also available.

• Please consult us if stroke out of specification.

### Order example:



#### Features:

- Ultra-compact,lightweight,space-saving type.
- Available with a comprehensive selection of bore size ( $\phi$  12mm ~  $\phi$  100mm) for the various needs.
- The highly accurate, air-driven push-pull work.
- Ideal for machine designs with small space requirements sensor switches will not protrude from switch mounting groove.
- Sensor switch mounting allows for flexible designing requirements 3 faces on  $\phi$  12 &  $\phi$  16 ,and all 4 faces including port side on  $\phi$  20  $\sim \phi$  100.

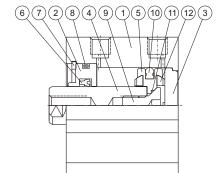
### **Specification:**

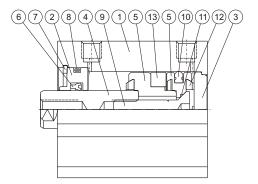
Model			MCJQ		
Acting type		Do	uble act	ing	
Tube I.D.(mm)	12, 16	20, 25	32, 40	50, 63	80, 100
Port size	M5>	< 0.8	PT 1/8	PT 1/4	PT 3/8
Medium			Air		
Operating pressure range	0.7~9.9		0.5~9.9	kgf/cm <sup>2</sup>	
Proof pressure			15 kgf/cm	2	
Ambient temperature		-5℃~+	60℃ (No	freezing)	
Sensor switch	F	RCE, RCE	1	RCB, RC	CE, RCE1



### Double acting

Double acting (with magnet)





#### Seal kit

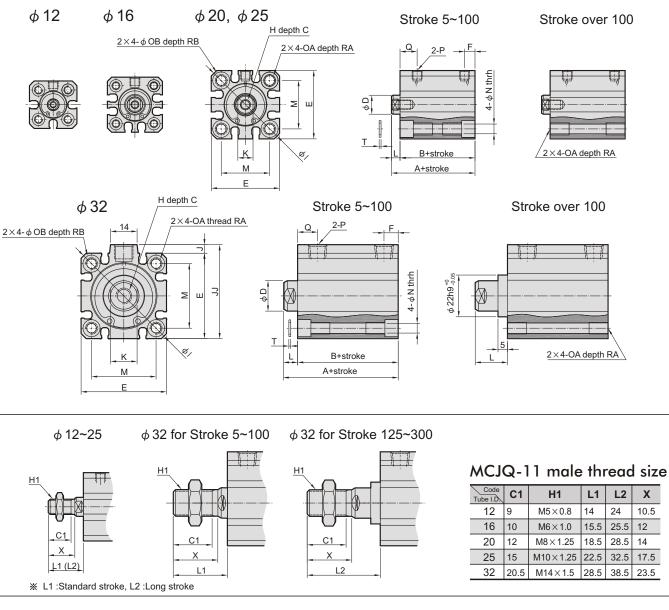
	Rod packing	Piston packing	Cover ring	Piston gasket
Acting type		Double	action	•
Qty.	1	1	2	1
12	KSYR-6	OPA-12	S-12	d4×w1
16	KSYR-8	OPA-16	S-14	d4×w1
20	KSYR-10A	OPA-20	S-18	d6×w1
25	KSYR-12	OPA-25	S-22.4	d8×w1
32	KSYR-16	OPA-32	S-28	S-9
40	KSYR-16	OPA-40	S-36	S-10
50	KSYR-20	OPA-50	S-46	S-16
63	KSYR-20	OPA-63	S-60	S-16
80	ORA-25	OPA-80	S-75	d20×w1
100	ORA-30	OPA-100	S-95	S-26

#### Material

No.	Tube I.D. Part name	12~32	40~100	Note
1	Body	Aluminu	um alloy	Hard anodized
2	Rod cover	Aluminum bearing alloy	Aluminum alloy	Anodized
3	End cover	Aluminu	um alloy	Anodized
4	Piston rod	Stainless steel	Carbor steel	
5	Piston	Aluminu	um alloy	Anodized
6	Rod packing	NE	3R	
7	Snap ring	Stainless steel	Spring steel	
8	Cover ring	NE	3R	
9	Piston bolt	Stainless steel	SCM	
10	Piston packing	NE	3R	
11	Piston gasket	NE	3R	
12	Cushion packing	NE	3R	
13	Magnet	Pla	stic	



### MCJQ Dimensions $\phi_{12} \sim \phi_{32}$ COMPACT CYLINDERS



#### φ 12~25

Code			Sta	anda	rd st	roke				I	ong	stro	ke																
	Stroke	Wi	thout r	nagn	et		Mag	net		Stroke	•	в	E		С	D	Е	н	T	ĸ	Μ	Ν	OA	ОВ	Р	Q	RA	RB	Т
Tube I.D.	range	Α	В	F	L	Α	В	F	L	range	A	Р	Г	L															
12	5~30	20.5	17	5	3.5	25.5	22	5	3.5	35~100	45.5	32	7.5	13.5	6	6	25	M3×0.5	32	5	15.5	3.5	$M4\!\times\!0.7$	6.5	M5×0.8	7.5	7	4	0.5
16	5~30	20.5	17	5	3.5	25.5	22	5	3.5	35~100	45.5	32	7.5	13.5	8	8	29	$M4 \times 0.7$	38	6	20	3.5	$M4\!\times\!0.7$	6.5	M5×0.8	7.5	7	4	0.5
20	5~50	24	19.5	5.5	4.5	34	29.5	5.5	4.5	75~200	55.5	41	9	14.5	7	10	36	M5×0.8	47	8	25.5	5.4	$M6\!\times\!1.0$	9	M5×0.8	9	10	7	1
25	5~50	27.5	22.5	5.5	5	37.5	32.5	5.5	5	75~300	59	44	11	15	12	12	40	M6  imes 1.0	52	10	28	5.4	$M6\!\times\!1.0$	9	$M5 \times 0.8$	11	10	7	1

### φ32

Code			S	tand	ard s	troke	Э				Long	stroke																		
	Stroke	Without	magnet	Ма	gnet	E	-		Stroke	•	в	E		Q	Р	С	D	Е	н	Т	J	JJ	κ	м	Ν	OA	ΟВ	RA	RB	Т
Tube I.D.	range	Α	В	Α	В	Г	-	Q	range	<b>A</b>	Р	Г	-	Q																
32	5~50	30	23	40	33	7.5	7	10.5	125~300	62.5	15 5	12.5	17	12.5	PT1/8	13	16	15	M8×1.25	60	4 5	40 F	14	24	5.5		0	10	7	1
32	75,100	40	33	40	33	7.5	7	10.5	125~300	02.5	45.5	12.5	17	12.5	( <b>※1</b> )	13	10	40	110 \ 1.23	00	4.5	49.5	14	34	0.5		9	10		

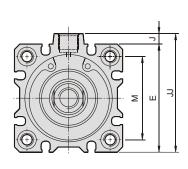
%1: Without magnet with stroke=5mm, P=M5  $\times$  0.8  ${\scriptstyle \times}$  Q=11.5  ${\scriptstyle \times}$  F=5.5

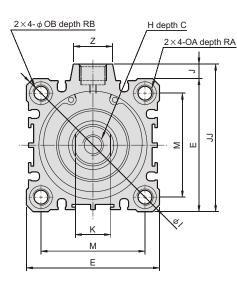


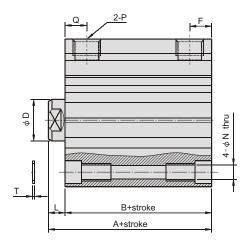
 $\phi 40$ 

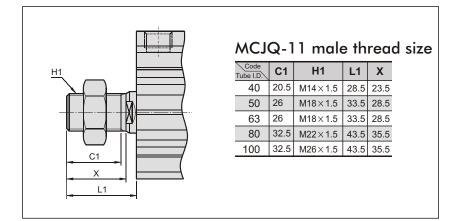
*φ* 50~100

Stroke 5~100









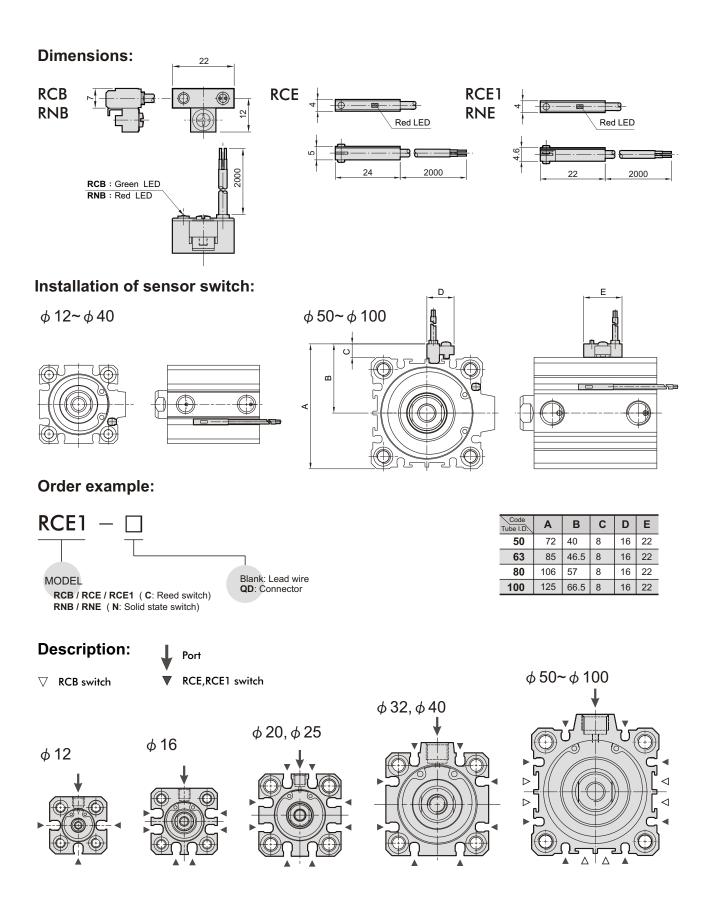
Code	Stroke	Without	magnet	Ма	gnet	с	D	Е	F	н			JJ	к	L	м	N	OA	ов	Р	Q	D۸	RB	т	7
Tube I.D.	range	Α	В	Α	В	C		E	F	п	•	J	33	n	-	IVI		0A	ОВ	Г	Q	<b>NA</b>	КD	•	2
40	5~50	36.5	29.5	16 5	39.5	12	16	52	8	M8×1.25	70	5	57	14	7	40	5.5	M6×1.0	9	PT 1/8	11	10	7	1	14
40	75,100	46.5	39.5	40.5	39.5	15	10	52	0	10 × 1.25	70	5	57	14	1	40	5.5		9		11	10	'	1	14
50	5~50	38.5	30.5	18 5	40.5	15	20	64	10.5	M10×1.5	86	7	71	17	Q	50	6.6	M8×1.25	11	PT 1/4	10.5	14	8	1	19
50	75,100	48.5	40.5	40.5	40.5	15	20	04	10.5	WITU X 1.5	00	1	/ 1	17	0	50	0.0	1.23	11	(※1)	10.5	14	0	1	19
63	10~50	44	36	54	46	15	20	77	10.5	M10×1.5	103	7	84	17	8	60	9	M10×1.5	14	PT 1/4	15	18	10.5	1	10
03	75,100	54	46	54	40	15	20	//	10.5	WITU X 1.5	103	'	04	17	0	00	9	WITU × 1.5	14	(※2)	15	10	10.5	'	19
80	10~50	53.5	43.5	62 5	53.5	21	25	00	12.5	M16×2.0	122	6	104	22	10	77	11	M12×1.75	17 5	PT 3/8	16	22	13.5	2	26
00	75,100	63.5	53.5	03.5	55.5	21	25	90	12.5	10 2.0	132	0	104	22	10	11		1112 × 1.75	17.5	(※3)	10	22	13.5	2	20
100	10~50	65	53	75	63	27	30	117	12	M20×2.5	156	6 5	102 5	27	12	94	11	M12×1.75	17 5	PT 3/8	22	22	13.5	2	26
100	75,100	75	63	15	03	21	30	117	15	10120 × 2.5	150	0.5	123.5	21	12	94		IVI1Z × 1.75	17.5	(**3)	23	22	13.5	2	20

%1: Without magnet with stroke=5mm, P=PT 1/8 \ Q=12 \ F=8

%2: Without magnet with stroke=5mm, P=PT 1/8

%3: Without magnet with stroke=5mm, P=PT 1/4

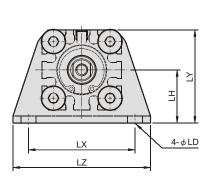


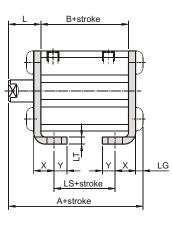


# MCJQ Double acting $\phi$ 12~ $\phi$ 25 COMPACT CYLINDERS

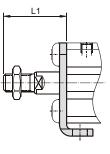








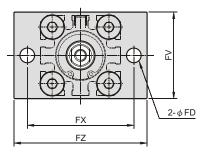
Female thread



Male thread

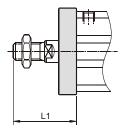
Code		St	andar	d stro	ke			Loi	ng stro	oke												
	Stroke	Witho	out ma	agnet	Ν	Лаgne	et	Stroke		в	1.0	L	L1	LD	LG	LH	LT	LX	LY	LΖ	X	Υ
Tube I.D.	range	Α	В	LS	Α	В	LS	range	A	В	LS											
12	5~30	35.3	17	5	40.3	22	10	35~100	50.3	32	20	13.5	24	4.5	2.8	17	2	34	29.5	44	8	4.5
16	5~30	35.3	17	5	40.3	22	10	35~100	50.3	32	20	13.5	25.5	4.5	2.8	19	2	38	33.5	48	8	5
20	5~50	41.2	19.5	7.5	51.2	29.5	17.5	75~200	62.7	41	29	14.5	28.5	6.6	4	24	3.2	48	42	62	9.2	5.8
25	5~50	44.7	22.5	7.5	54.7	32.5	17.5	75~300	66.2	44	29	15	32.5	6.6	4	26	3.2	52	46	66	10.7	5.8







FT L B+stroke A+stroke Male thread



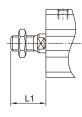
Code		Stand	ard stro	ke		Lon	g stroke	;							
	Stroke	Without	magnet	Ма	gnet	Stroke	•	в	FD	FT	FV	FX	FZ	L	L1
Tube I.D.	range	Α	В	Α	В	range	A	В							
12	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	25	45	55	13.5	24
16	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	30	45	55	13.5	25.5
20	5~50	34	19.5	44	29.5	75~200	55.5	41	6.6	8	39	48	60	14.5	28.5
25	5~50	37.5	22.5	47.5	32.5	75~300	59	44	6.6	8	42	52	64	15	32.5

### **MCJQ** Double acting $\phi 12 \sim \phi 25$ COMPACT CYLINDERS

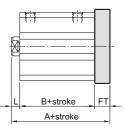


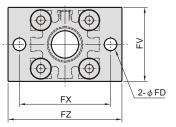


Male thread



Female thread

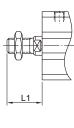




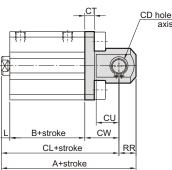
Code			St	andar	d stro	ke					Long	stroke	9						
	Stroke	W	ithout	magr	net		Mag	gnet		Stroke		в		L1	FD	FT	FV	FX	FZ
Tube I.D.	range	Α	В	L	L1	Α	В	L	L1	range	A	Б	L .	<b>L</b> 1					
12	5~30	26	17	3.5	14	31	22	3.5	14	35~100	51	32	13.5	24	4.5	5.5	25	45	55
16	5~30	26	17	3.5	15.5	31	22	3.5	15.5	35~100	51	32	13.5	25.5	4.5	5.5	30	45	55
20	5~50	32	19.5	4.5	18.5	42	29.5	4.5	18.5	75~200	63.5	41	14.5	28.5	6.6	8	39	48	60
25	5~50	35.5	22.5	5	22.5	45.5	32.5	5	22.5	75~300	67	44	15	32.5	6.6	8	42	52	64



Male thread



Female thread



hole H1 axis d9	0		
	-	CZ -0	 <u>CX</u> <sup>+0.4</sup>

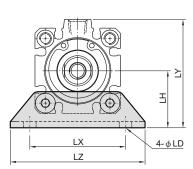
Code				St	andar	d stro	ke						Lor	ng str	oke									
	Stroke		Witho	out ma	agnet			Ν	Лаgne	et		Stroke	•	в	CL		L1	CD	СТ	CU	CW	СХ	CZ	RR
Tube I.D.	range	Α	В	CL	L	L1	Α	В	CL	L	L1	range	A	D		-								
12	5~30	40.5	17	34.5	3.5	14	45.5	22	39.5	3.5	14	35~100	65.5	32	59.5	13.5	24	5	4	7	14	5	10	6
16	5~30	41.5	17	35.5	3.5	15.5	46.5	22	40.5	3.5	15.5	35~100	66.5	32	60.5	13.5	25.5	5	4	10	15	6.5	12	6
20	5~50	51	19.5	42	4.5	18.5	61	29.5	52	4.5	18.5	75~200	82.5	41	73.5	14.5	28.5	8	5	12	18	8	16	9
25	5~50	57.5	22.5	47.5	5	22.5	67.5	32.5	57.5	5	22.5	75~300	89	44	79	15	32.5	10	5	14	20	10	20	10

## MCJQ Double acting $\phi 32 \sim \phi 100$ COMPACT CYLINDERS

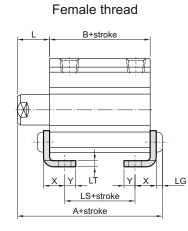


# LB

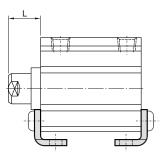
### Standard stroke



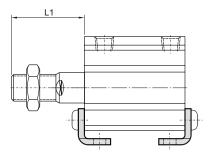
**Long storke** %Only for  $\phi$  32

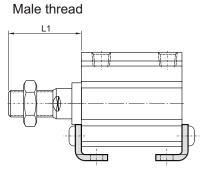


Female thread



Male thread

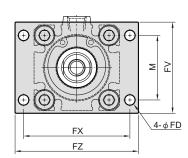


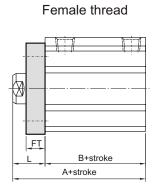


Code	Standard stroke							Loi	ng stro	oke													
	Stroke	With	out ma	agnet	Ν	/lagne	et	Str	oke		в	LS	L	L1	LD	LG	LH	LT	LX	LY	LZ	Х	Y
Tube I.D.	range	Α	В	LS	Α	В	LS	rai	nge	A	A B												
32	5~50	47.2	23	7	57.0	57.2 33	17	105	405 000			20 F	17	38.5	6.6	4	20	2.2	57	57	71	11.0	E 0
32	75, 100	57.2	33	17	57.2		17	125~300	69.7	69.7 45.5		17	30.5	0.0	4	30	3.2	57	57	/1	11.2	0.0	
Code		St	andar	d stro	ke																		
<u></u>	Stroke	With	out ma	agnet	N	lagne	et	L	L1	LD	LG	LH	LT	LX	LY	LZ	х	Y					
Tube I.D.	range	Α	В	LS	Α	A B LS																	
40	5~50	53.7	29.5	13.5	62.7	39.5	23.5	17	38.5	6.6	4	33	3.2	64	64	70	11.2	7					
40	75, 100	63.7	39.5	23.5	03.7		23.5	17	30.5	0.0	4	33	3.2	04	04	10	11.2	<i>'</i>					
50	5~50	56.7	30.5	7.5	66.7	10 5	17.5	18	43.5	9	5	39	3.2	79	78	95	14.7	8					
50	75, 100	66.7	40.5	17.5	00.7	40.5	17.5	10	43.5	9	5	39	3.2	19	10	95	14.7	0					
63	5~50	62.2	36	10	72.2	16	20	18	43.5	11	5	46	3.2	95	91.5	112	16.2	9					
	75, 100	72.2	46	20	12.2	40	20	10	43.5		5	40	3.2	95	91.5	113	10.2	9					
80	5~50	75	43.5	13.5	85	52 F	23.5	20	53.5	13	7	59	4.5	118	114	140	19.5	11					
30	75, 100	85	53.5	23.5	65	53.5	23.5	20	53.5	13		59	4.5	110	114	140	19.5						
100	5~50	88	53	19	98	63	29	22	53.5	13	7	71	6	137	7 136	162		12.5					
100	75, 100	98	63	29	90	03	29	22	55.5	13		11	U	137	130	102	23	12.5					

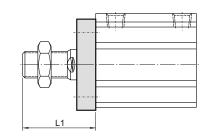








Male thread



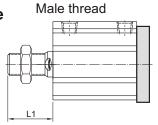
Code	Standard stroke Long stroke																	
	Stroke	Without	magnet	Ма	gnet	Str	oke	Α		3	FD	FT	FV	FX	FZ	L	L1	М
Tube I.D.	range	Α	В	Α	В	rar	nge	~		5								
32	5~50	40	23	50	33	125	125~300		. 15	5.5	5.5	8	48	56	65	17	38.5	34
	75, 100	50	33	50	50 33		125~300		5 45.5		5.5	0	40	50	05	17	50.5	54
Code		Stand	ard stro	ke														
	Stroke	Without	magnet	Ма	Magnet		FD FT		FX	FZ	L	L1	M					
Tube I.D.	range	Α	В	Α	В													
40	5~50	46.5	29.5	56.5	39.5	5.5	8	54	62	72	17	38.5	5 40	_				
40	75, 100	56.5	39.5	50.5	39.5	5.5	0	54	02	12	11	30.3	40					
50	5~50	48.5	30.5	58.5	40.5	6.6	9	67	76	89	18	43.5	5 50					
50	75, 100	58.5	40.5	00.0	40.5	0.0	9	07	76	09	10	43.3						
63	5~50	54	36	64	46	9	9	80	92	108	18	43.5	5 60	_				
03	75, 100	64	46	04	40	9	9	80	92	100	10	43.						
80	5~50	63.5	43.5	73.5	53.5	11	11	99	116	134	20	53.5	5 77					
00	75, 100	73.5	53.5	13.5	53.5	11		99	110	134	20	53.0						
100	5~50	75	53	85	<u></u>	11	11	117	126	151	22	521	5 94					
100	75, 100	85	63	60	63				136	154	22	53.5	94					

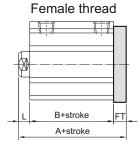
### MCJQ Double acting $\phi 32 \sim \phi 100$ COMPACT CYLINDERS

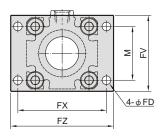




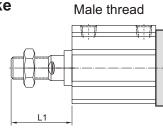
Standard stroke



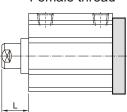




**Long storke** \*\* Only for \$\phi 32



Female thread



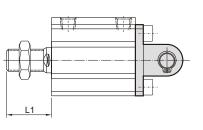
Code	Standard stroke Long stroke																			
	Stroke	Without	magnet			L	L1	Str	oke	Α		в	L	L1	FD	FT	FV	FX	FΖ	Μ
Tube I.D.	range	Α	В	Α	В			rar	nge	A			L	<b>L</b> 1						
32	5~50	38	23	48	33	7	28.5	125	~300	70.5		5.5	17	38.5	5.5	8	48	56	65	34
52	75, 100	48	33	40	55	<i>'</i>	20.5	125	-300	70.0	, 4,	5.5	17	30.5	5.5	0	40	50	05	54
Code			Standar	d stroke	e															
	Stroke	Without	magnet	Ма	gnet	FD	FT	FV	FX	FZ	L			L						
Tube I.D.	range	Α	В	Α	В	1														
40	5~50	44.5	29.5	54.5	39.5	5.5	8	54	62	72	7	28.5	40	<u> </u>						
40	75, 100	54.5	39.5	54.5	39.0	5.5	0	54	02	12		20.0	40	,						
50	5~50	47.5	30.5	57.5	40.5	6.6	9	67	76	89	8	33.5	50	<u>,</u>						
50	75, 100	57.5	40.5	57.5	40.5	0.0	9	07	10	09	0	33.0	50	,						
63	5~50	53	36	63	46	9	9	80	92	108	8	33.5	60	<u> </u>						
05	75, 100	63	46	03	40	9	9	80	92	108	0	33.0		,						
80	5~50	64.5	43.5	74.5	53.5	11	11	99	116	134	10	43.5	77	,						
00	75, 100	74.5	53.5	74.5	53.5			99	110	134	10	43.5								
100	5~50	76	53	86	63	11	11	117	136	154	12	43.5	94							
100	75, 100	86	63	00	03			117	130	134	12	43.3	94	•						

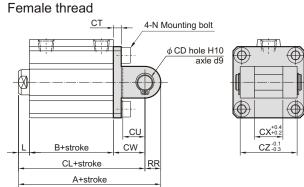
### $MCJQ \text{ Double acting } \phi 32 \sim \phi 100$ **COMPACT CYLINDERS**





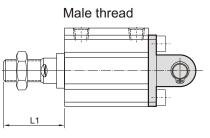
Standard stroke Male thread

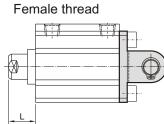




### Long storke

% Only for  $\phi$  32



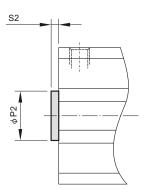


Code			Stand	dard s	stroke							Lor	ng stro	oke										
	Stroke	With	out ma	agnet	Ν	/lagne	et		L1	Str	oke	А	в	CL		L1	CD	СТ	CU	cw	СХ	CZ	Ν	RR
Tube I.D.	range	Α	В	CL	Α	В	CL	L	LI	rar	nge	A	Р	CL	L									
32	5~50	60	23	50	70	33	60	7	20 E	105	200	00 F	15 F	00 E	17	20 5	10	5	14	20	18	36		10
32	75, 100	70	33	60	/0	33 60		1	28.5	28.5 125~300		92.5	45.5	02.5	17	38.5	10	Э	14	20	10	30	M6×1.0	10
Code	Standard stroke																							
Code	Stroke	Stroke Without magnet Magnet CD CT CU CW CX CZ L L1				r	N	RR																
Tube I.D.	range	Α	В	CL	Α	В	CL																	
40	5~50	68.5	29.5	58.5	70.5	20 5	CO 5	10	6	14	22	18	36	7	00 F	MO		10						
40	75, 100	78.5	39.5	68.5	/8.5	39.5	68.5	10	6	14	22	18	30	1	28.5	M6>	K 1.0	10						
50	5~50	80.5	30.5	66.5	00.5	10.5	76.5	14	7	20	28	22	44	8	22 5	M8×	1 25	14						
50	75, 100	90.5	40.5	76.5	90.5	40.5	10.5	14		20	20	22	44	0	33.5		1.20	14						
63	5~50	88	36	74	98	46	84	14	8	20	30	22	44	8	33 5	M10	~15	14						
	75, 100	98	46	84	90	40	04	14	0	20	30	22	44	0	55.5	IVITO	~ 1.5	14						
80	5~50	109.5	43.5	91.5	110 5	53 5	101.5	18	10	27	38	28	56	10	13 5	M12>	/ 1 75	10						
00	75, 100	119.5	53.5	101.5	113.5	55.5	101.5	10	10	21	50	20	50	10	43.5	101127	× 1.75	10						
100	5~50	132	53	110	1/2	42 63 120		22	13	31	45	32	64	12	13 5	M12>	/ 1 75	22						
100	75, 100	142	63	120	172			22	13	51	45	52	04	12	43.5	101127	× 1.75	22						

### MCJQ Accessories $\phi 12 \sim \phi 100$ COMPACT CYLINDERS

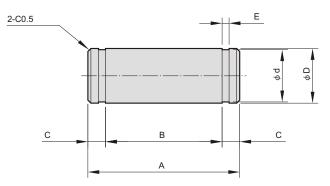






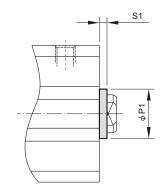
Code Tube I.D.	<b>P2</b> <sup>h9</sup>	S2
12	6	1.5
16	10	1.5
20	13	2
25	15	2
32	21	2
40	28	2
50	35	2
63	35	2
80	43	2
100	59	2





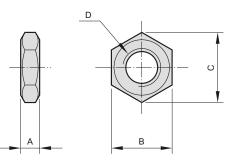
Code Tube I.D.	Α	В	С	$\phi \mathbf{D}^{d9}$	$\phi$ d	E	Snap ring
12	14.6	10.2	2.2	$5^{-0.03}_{-0.06}$	4.8 0 0 0 0	0.7 0+0.10	STW-5
16	16.6	12.2	2.2	$5^{-0.03}_{-0.06}$	4.8 _0_04	0.7 0+0.10	STW-5
20	21	16.2	2.4	$8^{-0.04}_{-0.08}$	7.6 _0.06	0.9 +0.10 0	STW-8
25	25.6	20.2	2.7	$10^{-0.04}_{-0.08}$	9.6 _0.06	1.15 +0.14	STW-10
32,40	41.6	36.2	2.7	$10^{-0.04}_{-0.08}$	9.6 _0.09	$1.15^{+0.14}_{-0}$	STW-10
50,63	50.6	44.2	3.2	$14 ^{-0.05}_{-0.10}$	$13.4_{-0.11}^{0}$	$1.15^{+0.14}_{0}$	STW-14
80	64	56.2	3.9	$18^{-0.05}_{-0.10}$	17.0 <sup>0</sup> <sub>-0.11</sub>	$1.35^{+0.14}_{0}$	STW-18
100	72	64.2	3.9	22-0.12	<b>21.0</b> <sup>0</sup> <sub>-0.21</sub>	1.35 0+0.14	STW-22





Code Tube I.D.	<b>P1</b> <sup>h9</sup>	S1
12	15	1.5
16	20	1.5
20	13	2
25	15	2
32	21	2
40	28	2
50	35	2
63	35	2
80	43	2
100	59	2





Code Tube I.D.	Α	В	С	D
12	4	8	9.2	M5×0.8
16	5	10	11.5	M6×1.0
20	5	13	15	M8×1.25
25	6	17	19.6	M10×1.25
32,40	8	22	25.4	M14×1.5
50,63	11	27	31.4	M18×1.5
80	13	32	37	M22×1.5
100	16	41	47.3	M26×1.5