



Special spec



Technical data



Caution for safety
(Read before installing)

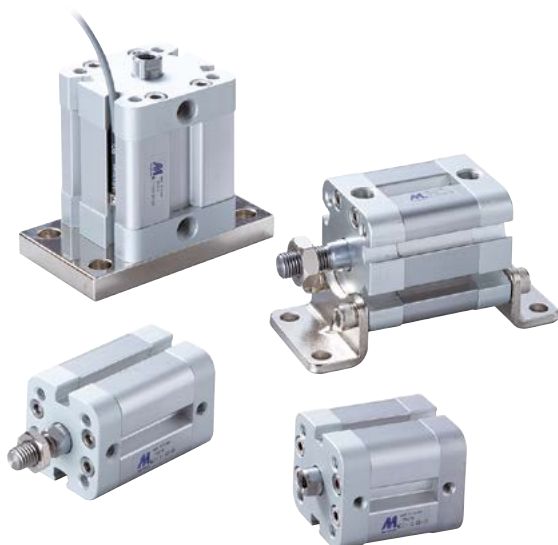


Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
ø20,25	5,10,15,20,25,30,40,50,60,80,100,200	300
ø32,40	5,10,15,20,25,30,40,50,60,80,100,200,300	300
ø50,63	10,15,20,25,30,40,50,60,80,100,200,300,400	400
ø80,100	15,20,25,30,40,50,60,80,100,200,300,400,500	500

* Please contact us if the stroke is out of specification.

Order example

MCJI — 12 — 20 — 25

MODEL

1: Single rod
2: Double rod

TUBE I.D.

STROKE

STYLE

Code	Symbol	Description
1 1		Double acting / Male thread
1 2		Double acting / Female thread

Code	Symbol	Description
2 1		Double rod / Male thread
2 2		Double rod / Female thread

Order example of mounting accessories

Code	LB (Purchase 2 pcs)	CA	CB	FAC	FBC	MP	ROD NUT
Mounting Tube I.D.							
ø20	LB-J2-20	CA-J2-20	—	FAC-J2-20	—	MP-J2-20	NUT-M8x1.25x4Hx13B
ø25	LB-J2-25	CA-J2-25	—	FAC-J2-25	—	MP-J2-25	NUT-M8x1.25x4Hx13B
ø32	LB-J2-32	CA-J2-32	CB-J2-32	FAC-J2-32	—	MP-J2-32	NUT-M10x1.25x5Hx17B
ø40	LB-J2-40	CA-J2-40	CB-J2-40	FAC-J2-40	—	MP-J2-40	NUT-M10x1.25x5Hx17B
ø50	LB-J2-50	CA-J2-50	CB-J2-50	FAC-J2-50	—	MP-J2-50	NUT-M12x1.25x6Hx19B
ø63	LB-J2-63	CA-J2-63	CB-J2-63	FAC-J2-63	—	MP-J2-63	NUT-M12x1.25x6Hx19B
ø80	LB-J2-80	CA-J2-80	CB-J2-80	FAC-J2-80	—	MP-J2-80	NUT-M16x1.5x8Hx24B
ø100	LB-J2-100	CA-J2-100	CB-J2-100	FAC-J2-100	—	MP-J2-100	NUT-M16x1.5x8Hx24B

Features

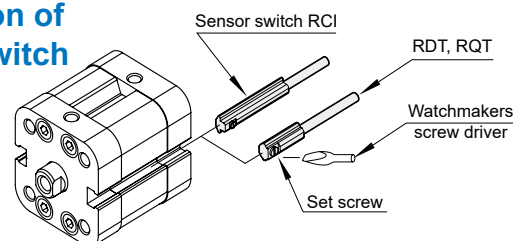
- ISO 21287 standard.
- Wide range of bore sizes and strokes.
- Ultra compact, light weight and space saving.
- Sensor slots on RCI sides for flush mounting of proximity sensors.
- Magnetic as standard.

Specification

Model	MCJI	
Acting type	Double acting	
Tube I.D. (mm)	20,25	32,40,50,63,80,100
Port size	M5×0.8	G1/8
Medium	Air	
Operating perssure range	0.05~1 MPa	
Proof pressure	1.5 MPa	
Cushion	Rubber bumper	
Lubricator	Without lubrication	
Stroke length tolerance (*)	+0~+1.0 mm	
Ambient temperature	-5°C~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Sensor switch	RDT, RQT  RCI 	

* Stroke length tolerance does not include the amount of bumper change.

Installation of sensor switch



Pin

Applicable CA & CB accessories

Code	PIN-CB-P (With snap ring)
Fig Tube I.D.	
ø20	—
ø25	—
ø32	PIN-J2-32-1-P
ø40	PIN-J2-40-1-P
ø50	PIN-J2-50-1-P
ø63	PIN-J2-63-1-P
ø80	PIN-J2-80-1-P
ø100	PIN-J2-100-1-P

Theoretic force

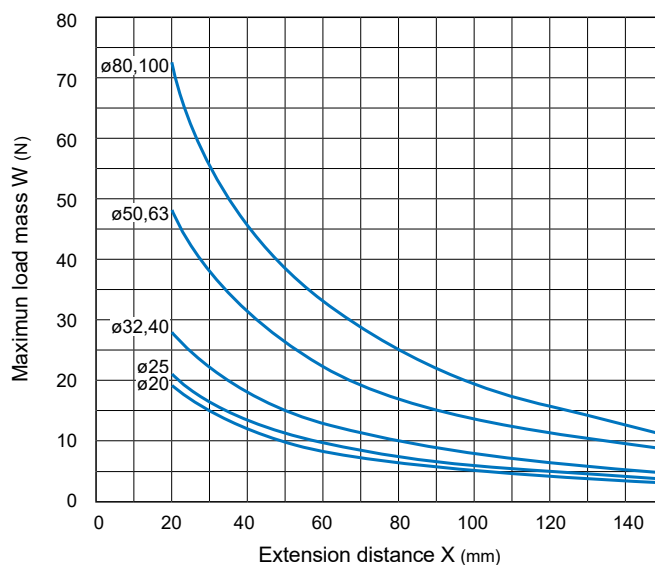
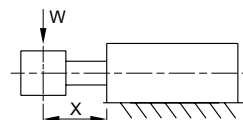


Unit: N

Tube I.D.	Acting direction	Operating perssure (MPa)		
		0.3	0.5	0.7
20	IN	69	116	162
	OUT	92	154	216
25	IN	121	202	283
	OUT	144	241	337
32	IN	203	339	475
	OUT	237	394	552
40	IN	337	561	785
	OUT	370	616	863
50	IN	519	864	1210
	OUT	578	963	1348
63	IN	858	1430	2003
	OUT	917	1529	2141
80	IN	1387	2311	3236
	OUT	1479	2466	3452
100	IN	2219	3698	5178
	OUT	2311	3852	5393

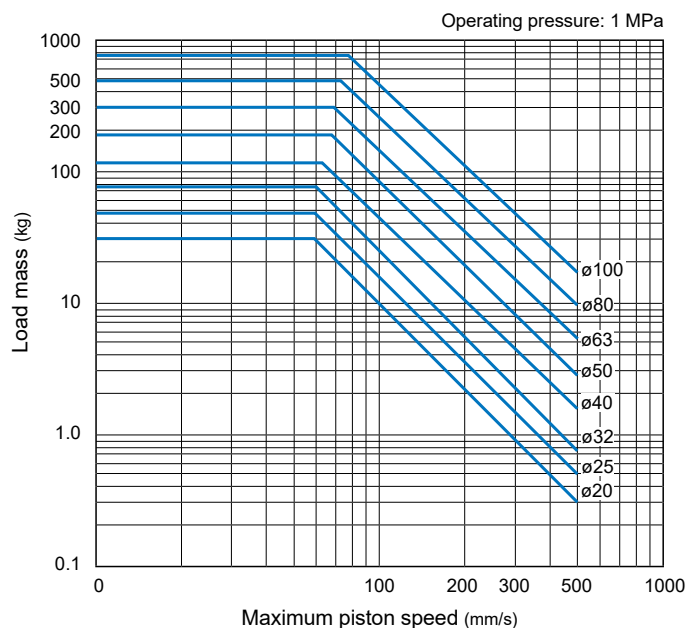
Allowable Lateral Load

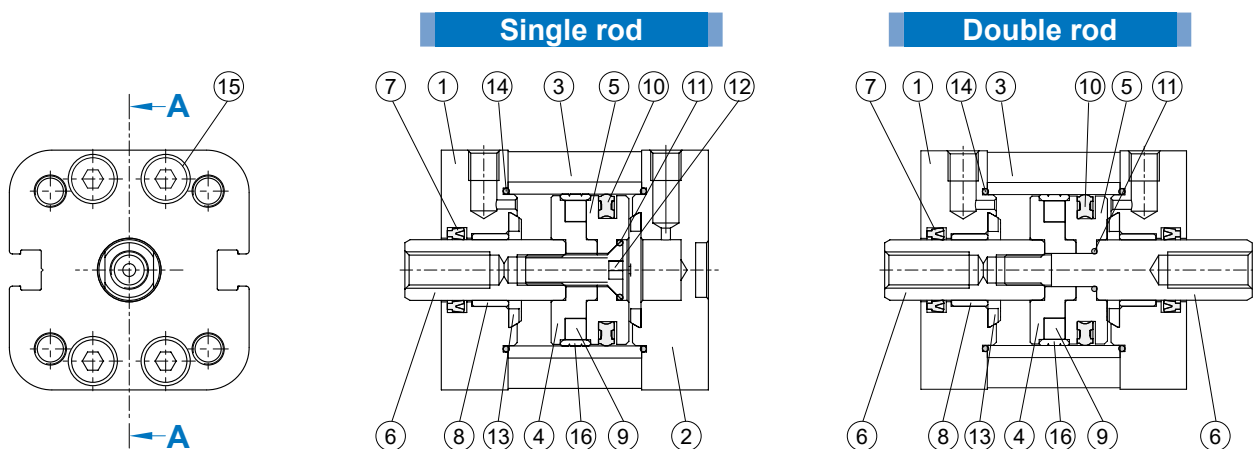
Please make sure to use the cylinder within allowable lateral load. Otherwise, the cylinder may be damaged or the life may be shortened.



Allowable kinetic energy

Please make sure to use the cylinder within allowable kinetic energy. If it is used outside the range, it may cause excessive impact and damage the device.





Order example

Component parts / Repair kits

Material

No.	Part name	Material	Q'y		Component parts (inclusion)	Repair kits (inclusion)
			Single	Double		
1	Rod cover	Aluminum alloy	1	2	●	
2	End cover	Aluminum alloy	1	—	●	
3	Tube	Aluminum alloy	1	1		
4	Piston-R	Aluminum alloy	1	1	●	
5	Piston-H	Aluminum alloy	1	1	●	
6	Piston rod	*1	1	2		
7	Rod packing	NBR	1	1	●	●
8	Bush	Bearing alloy	1	1	●	
9	Magnet ring	Magnet material	1	1	●	
10	Piston packing	NBR	1	1	●	●
11	O-ring	NBR	1	1	●	●
12	Screw	Carbon steel	1	—	●	
13	Cushion	NBR	2	2	●	●
14	O-ring	NBR	2	2	●	●
15	Screw	Stainless steel	8	8	●	
16	Wear ring	Resin	1	1	●	

*1. Material ø20, ø25: Stainless steel; ø32~ø100: Medium carbon steel.

Single rod

Tube I.D.	Component parts	Repair kits
ø20	CP-MCJI-20	PS-MCJI-20
ø25	CP-MCJI-25	PS-MCJI-25
ø32	CP-MCJI-32	PS-MCJI-32
ø40	CP-MCJI-40	PS-MCJI-40
ø50	CP-MCJI-50	PS-MCJI-50
ø63	CP-MCJI-63	PS-MCJI-63
ø80	CP-MCJI-80	PS-MCJI-80
ø100	CP-MCJI-100	PS-MCJI-100

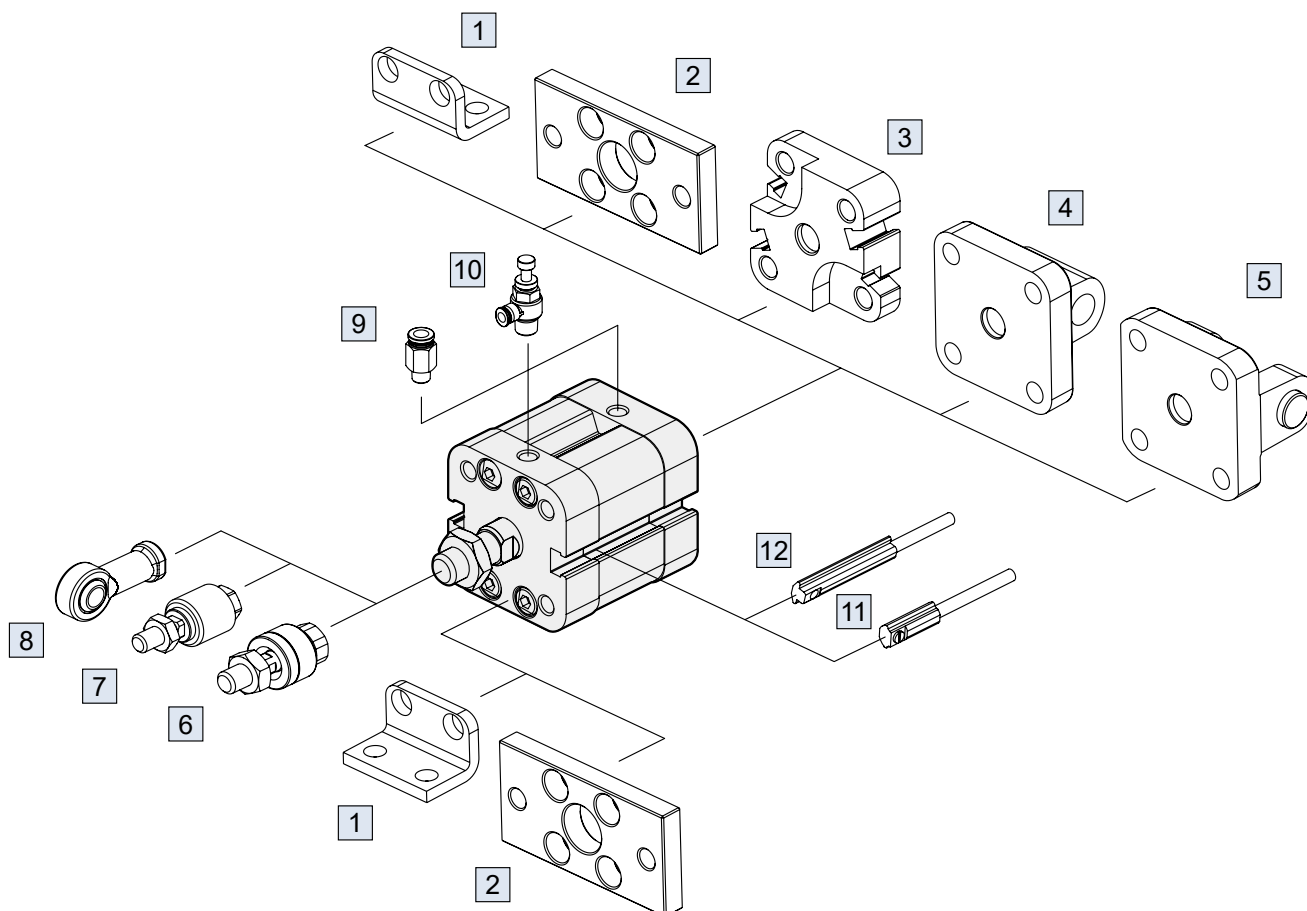
Double rod

Tube I.D.	Component parts	Repair kits
ø20	CP-MCJI-2-20	PS-MCJI-2-20
ø25	CP-MCJI-2-25	PS-MCJI-2-25
ø32	CP-MCJI-2-32	PS-MCJI-2-32
ø40	CP-MCJI-2-40	PS-MCJI-2-40
ø50	CP-MCJI-2-50	PS-MCJI-2-50
ø63	CP-MCJI-2-63	PS-MCJI-2-63
ø80	CP-MCJI-2-80	PS-MCJI-2-80
ø100	CP-MCJI-2-100	PS-MCJI-2-100

Cylinder weight

Unit: g

Model	Basic weight MCJI-11	Stroke 10mm MCJI-11	Basic weight MCJI-12	Stroke 10mm MCJI-12	LB	FAC/FBC	MP	CA	CB	PIN (CA & CB)	Nut
Tube I.D.											
ø20	121	14	108	14	76	126	28	66	N/A	N/A	3
ø25	147	18	135	18	88	159	37	82	N/A	N/A	3
ø32	238	24	214	24	106	206	60	174	160	31	7
ø40	322	32	291	32	140	268	89	260	248	51	7
ø50	493	46	455	46	242	492	129	403	390	58	9
ø63	703	48	667	48	288	635	182	634	576	119	9
ø80	1260	76	1190	76	567	1457	339	1149	1085	150	18
ø100	2140	92	2060	92	766	2033	568	1550	1623	285	18



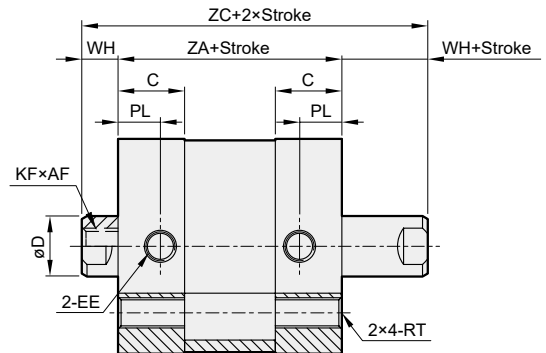
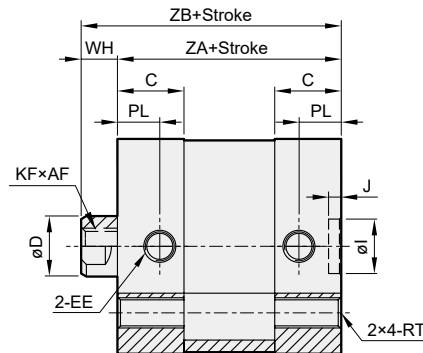
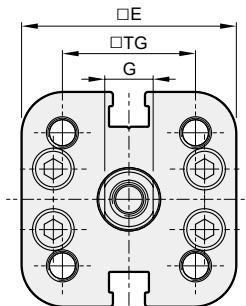
No.	Accessories	Material	Page link
1	Mounting accessories LB	Carbon steel	Link
2	Mounting accessories FAC/FBC	Carbon steel	Link
3	Mounting accessories MP	Aluminum	Link
4	Mounting accessories CA	Cast iron	Link
5	Mounting accessories CB+PIN	Cast iron / *	Link
6	Floating joint MFC	Carbon steel	Link
7	Floating joint MFCS	Carbon steel	Link
8	Female rod ends PHS	Carbon steel	Link
9	Fitting PC (PISCO)	—	Link
10	Speed controller JSC (PISCO)	—	Link
11	Sensor switch R*T	—	Link
12	Sensor switch RCI	—	Link

* Material of PIN is carbon steel.

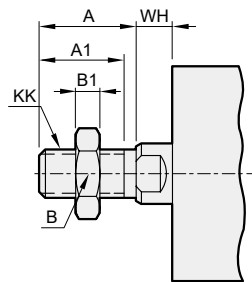
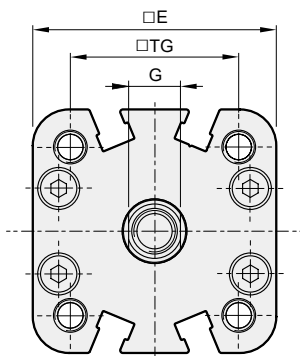
12 Single rod

22 Double rod

$\phi 20 \sim \phi 25$



$\phi 32 \sim \phi 100$

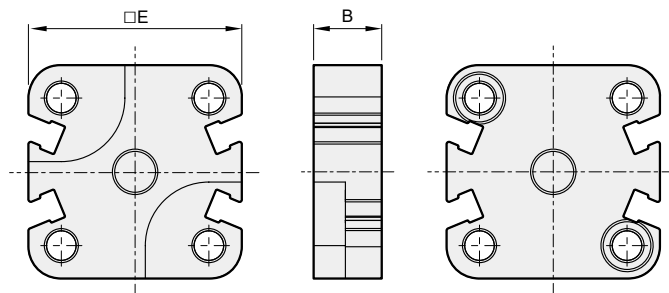


11 21 Male thread

Code Tube I.D.	A	A1	B	B1	KK
20	16	14	13	4	M8×1.25
25	16	14	13	4	M8×1.25
32	19	17	17	5	M10×1.25
40	19	17	17	5	M10×1.25
50	22	20	19	6	M12×1.25
63	22	20	19	6	M12×1.25
80	28	26	24	8	M16×1.5
100	28	26	24	8	M16×1.5

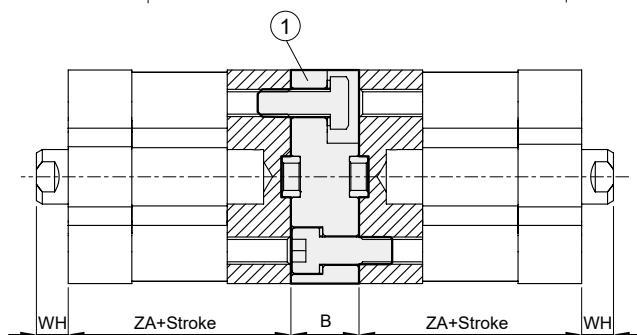
Code Tube I.D.	AF	C	D	E	EE	G	WH	I	J	KF	PL	TG	RT	ZA	ZB	ZC
20	14	11	10	35.5	M5×0.8	8	6	9	2.1	M6×1.0	7	22	M5×0.8	37	43	49
25	14	11	10	39.5	M5×0.8	8	6	9	2.1	M6×1.0	7	26	M5×0.8	39	45	51
32	15	14	12	47.0	G1/8	10	7	9	2.1	M8×1.25	7.5	32.5	M6×1.0	44	51	58
40	15	14	12	54.5	G1/8	10	7	9	2.1	M8×1.25	7.5	38	M6×1.0	45	52	59
50	18	14	16	65.5	G1/8	14	8	12	2.6	M10×1.5	7.5	46.5	M8×1.25	45	53	61
63	18	14.5	16	75.5	G1/8	14	8	12	2.6	M10×1.5	7.5	56.5	M8×1.25	49	57	65
80	20	15.5	20	95.5	G1/8	17	10	12	2.6	M12×1.75	8	72	M10×1.5	54	64	74
100	20	18.5	20	113.5	G1/8	17	10	12	2.6	M12×1.75	9.5	89	M10×1.5	67	77	87

MP

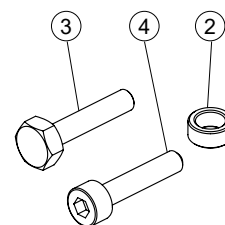


Code Tube I.D.	B	E	WH	ZA	Max. overall stroke
20	13	35.5	6	37	600 mm
25	13	39.5	6	39	600 mm
32	15	47.0	7	44	800 mm
40	15	54.5	7	45	800 mm
50	15	65.5	8	45	800 mm
63	15	75.5	8	49	800 mm
80	17	95.5	10	54	1000 mm
100	19.5	113.5	10	67	1000 mm

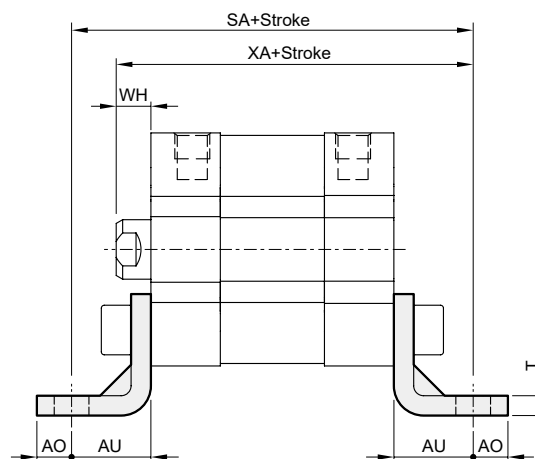
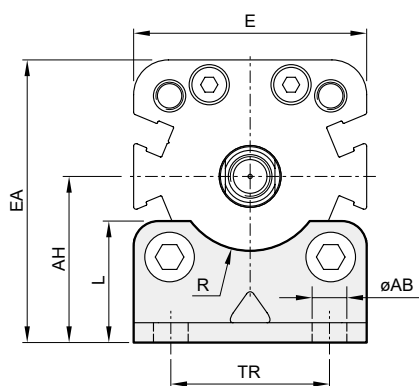
* The max. overall stroke length may not be exceeded when combining cylinders and multi-position kits.



No.	Part name	Q'ty
1	Connection block	1
2	Flange	2
3	Bolt	2
4	Bolt	2



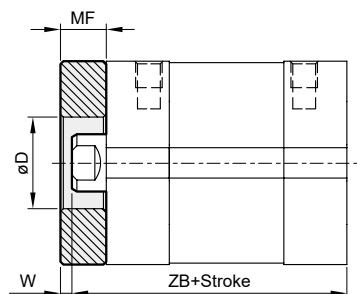
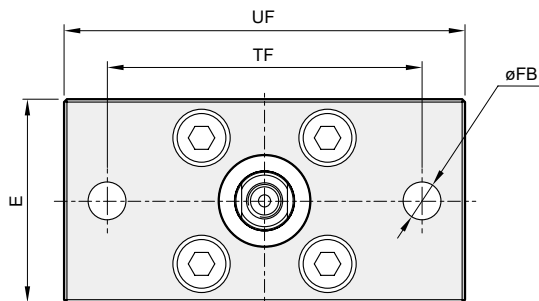
LB



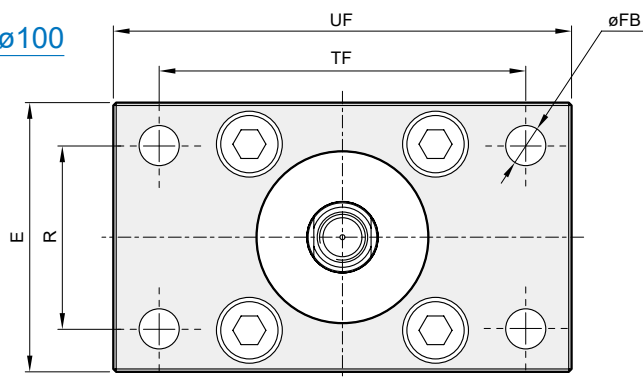
Code Tube I.D.	AB	AH	AO	AU	E	EA	L	R	SA	T	TR	WH	XA
20	7	27	7	16	35.5	44.8	21	—	69	4	22	6	59
25	7	29	7	16	39.5	48.8	22	—	71	4	26	6	61
32	7	33.5	7	16	47.0	57.0	24.5	15	76	4	32	7	67
40	10	38	9	18	54.5	65.3	26	17.5	81	4	36	7	70
50	10	45	9	21	65.5	77.8	31	20	87	5	45	8	74
63	10	50	9	21	75.5	87.8	31	22.5	91	5	50	8	78
80	12	63	11	26	95.5	110.8	40	—	106	6	63	10	90
100	14.5	74	13	27	113.5	130.8	46	—	121	6	75	10	104

FAC

$\phi 20 \sim \phi 25$



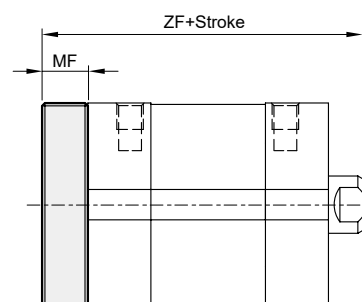
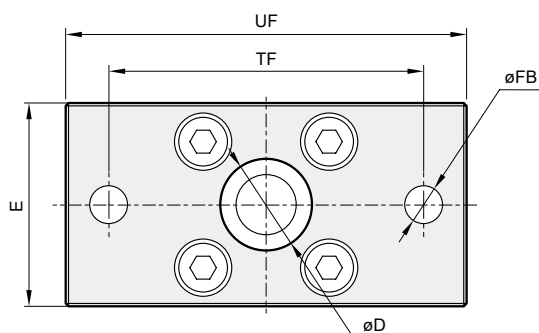
$\phi 32 \sim \phi 100$



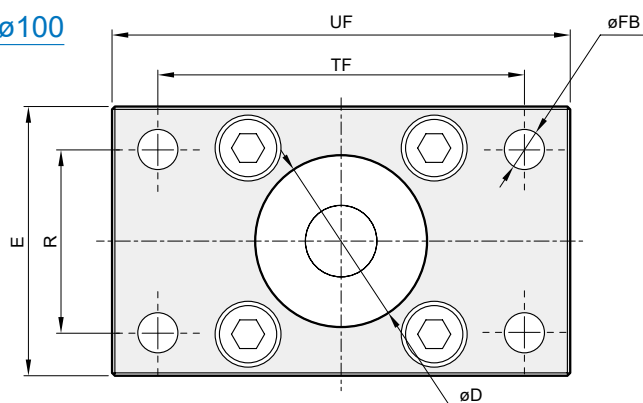
Code Tube I.D.	D	E	FB	MF	R	TF	UF	W	ZB
20	16	35.5	6.6	8	—	55	70	2	43
25	16	39.5	6.6	8	—	60	76	2	45
32	30	47.0	7	10	32	64	80	3	51
40	35	54.5	9	10	36	72	90	3	52
50	40	65.5	9	12	45	90	110	4	53
63	45	75.5	9	12	50	100	120	4	57
80	45	95.5	12	16	63	126	150	6	64
100	55	113.5	14	16	75	150	175	6	77

FBC

$\phi 20 \sim \phi 25$

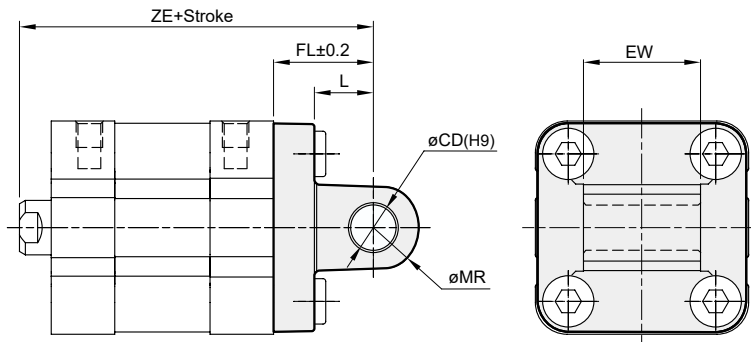


$\phi 32 \sim \phi 100$



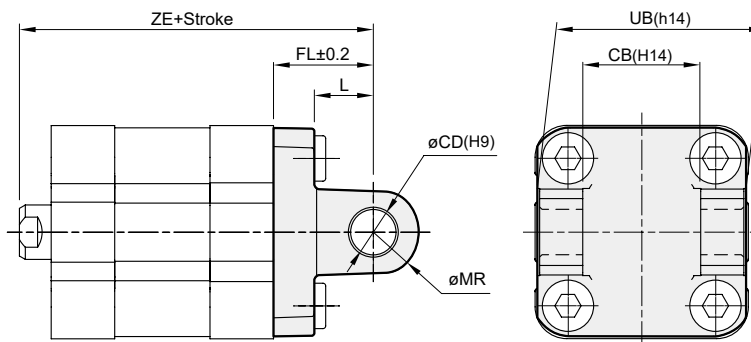
Code Tube I.D.	D	E	FB	MF	R	TF	UF	ZF
20	16	35.5	6.6	8	—	55	70	51
25	16	39.5	6.6	8	—	60	76	53
32	30	47.0	7	10	32	64	80	61
40	35	54.5	9	10	36	72	90	62
50	40	65.5	9	12	45	90	110	65
63	45	75.5	9	12	50	100	120	69
80	45	95.5	12	16	63	126	150	80
100	55	113.5	14	16	75	150	175	93

CA



Code Tube I.D.	CD	EW	FL	L	MR	ZE
20	8	16 h12	20	14	8	63
25	8	16 h12	20	14	8	65
32	10	25.8 $^{+0}_{-0.4}$	22	13	10	73
40	12	27.8 $^{+0}_{-0.4}$	25	16	12	77
50	12	31.8 $^{+0}_{-0.4}$	27	16	12	80
63	16	39.8 $^{+0}_{-0.4}$	32	21	16	89
80	16	49.8 $^{+0}_{-0.4}$	36	22	16	100
100	20	59.8 $^{+0}_{-0.4}$	41	30	21	118

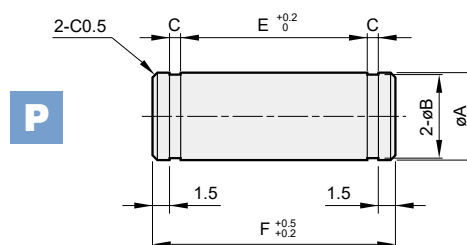
CB



Code Tube I.D.	CB	CD	FL	L	MR	UB	ZE
32	26	10	22	13	10	45	73
40	28	12	25	16	12	52	77
50	32	12	27	16	12	60	80
63	40	16	32	21	16	70	89
80	50	16	36	22	16	90	100
100	60	20	41	29	20	110	118

* $\varnothing 20$, $\varnothing 25$ without CB accessory.

PIN



Code Tube I.D.	A(e8)	B	C	E	F	Snap ring
32	10	9.6	1.15	45.2	50.5	STW-10
40	12	11.5	1.15	52.2	57.5	STW-12
50	12	11.5	1.15	60.2	65.5	STW-12
63	16	15.2	1.15	70.2	75.5	STW-16
80	16	15.2	1.15	90.2	95.5	STW-16
100	20	19	1.35	110.3	116	STW-20