



Features

■ Non lubrication

Special housing and bushing enables self lubrication of piston rod.

■ High quality long service life

Hard anodised stainless steel cylinder tubes offer a high resistance to corrosion and low internal friction.

■ Cylinder mountings

Available with a comprehensive range of accessories for rigid or flexible mounting.

■ ISO-6432 standard

Enables world-wide inter-changeability.

■ Port thread Rc. NPT. are also available.

■ Magnetic as standard.

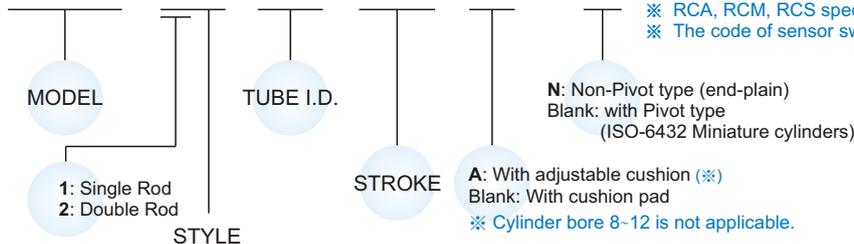
Table for standard stroke

	Tube I.D.	Stroke (mm)
Single acting	φ 16	15, 25, 50, 75, 100
	φ 20, 25	15, 25, 50, 75, 100, 125, 150
Double acting	φ 8, 10	10, 25, 40, 50, 80, 100
	φ 12	10, 25, 40, 50, 80, 100, 125, 160, 200
	φ 16	15, 25, 50, 75, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500
	φ 20, 25	15, 25, 50, 75, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

Order example

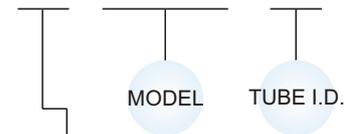
MCFI - 11 - 16 - 100 - A - N



- ※ RCA, RCM, RCS specification, please refer to page V-07, V-11, V-12.
- ※ The code of sensor switch band is BM16. "16" represents the tube I.D.

Mounting accessories

FA - MCFI - 16



MOUNTING TYPE

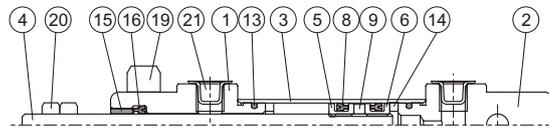
	LB
	FA
	FB
	SDB
	Y
	I

Code	Symbol	Description
1 1		Double acting / Male thread
1 3		Single acting / Normally extended male thread
1 5		Single acting / Normally returned male thread
2 1		Double rod / Male thread
2 7		Double rod / Adjustable male thread Please mark "adjustable distance(mm)" at order list

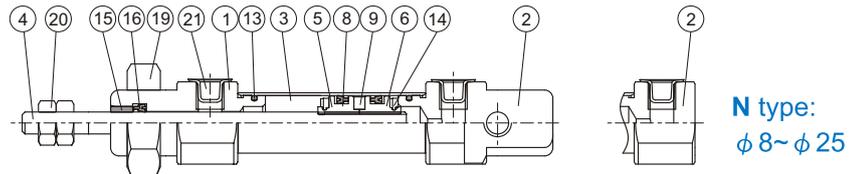
Single acting type Please consult us.

- ※ Order example for special specification, refer to page J-03.

φ 8, φ 12

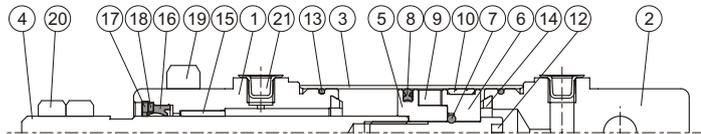


φ 10

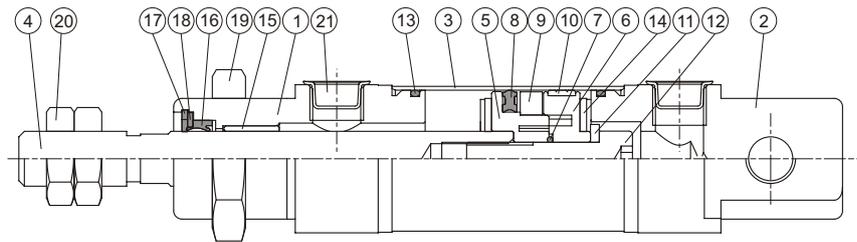


N type:
φ 8~φ 25

φ 16, φ 20



φ 25



- ※ Style 21 is not applicable in cylinder bore φ 8~φ 12.
- ※ Repair kit is not applicable for cylinder bore φ 8~φ 12.
- ◎ Cylinder bore φ 8~12 (Required quantity : 2 psc).

Material :

No.	Part name	Tube I.D.					Q'y		Componentn parts (inclusion)		Repair kits (inclusion)
		8	10	12	16	20	25	11 type	21 type	11 type	
1	Rod cover	Aluminum alloy					1	2	●	●	
2	Head cover	Aluminum alloy					1	—	●		
3	Tube	Stainless steel					1	1			
4	Piston rod	Stainless steel				※2	1	1			
5	Piston-R	Aluminum alloy				※1	1	1	●	●	
6	Piston-H	Aluminum alloy				※1	1	1	●	●	
7	Piston gasket	—				NBR	1	1	●	●	
8	Piston packing	NBR					1 ^(◎)	1 ^(◎)	●	●	
9	Magnet ring	Magnet material					1	1	●	●	
10	Wear ring	—				Teflon + Graphite	1	1	●	●	
11	Washer	—				※2	1	—	●		
12	Piston bolt	SCM					1	—	●		
13	Cover ring	NBR					2	2	●	●	
14	Cushion gasket	NBR					2	2	●	●	
15	Rod bush	Bearing alloy					1	2	●	●	
16	Rod packing	NBR					1	2	●	●	●
17	Snap ring	—				Spring steel	1	2	●	●	
18	Washer	—				Carbon steel	1	2	●	●	
19	Tie nut	Carbon steel					1	2	●	●	
20	Rod front nut	Carbon steel					2	2	●	●	
21	Port plug	Plastic					2	2	●	●	

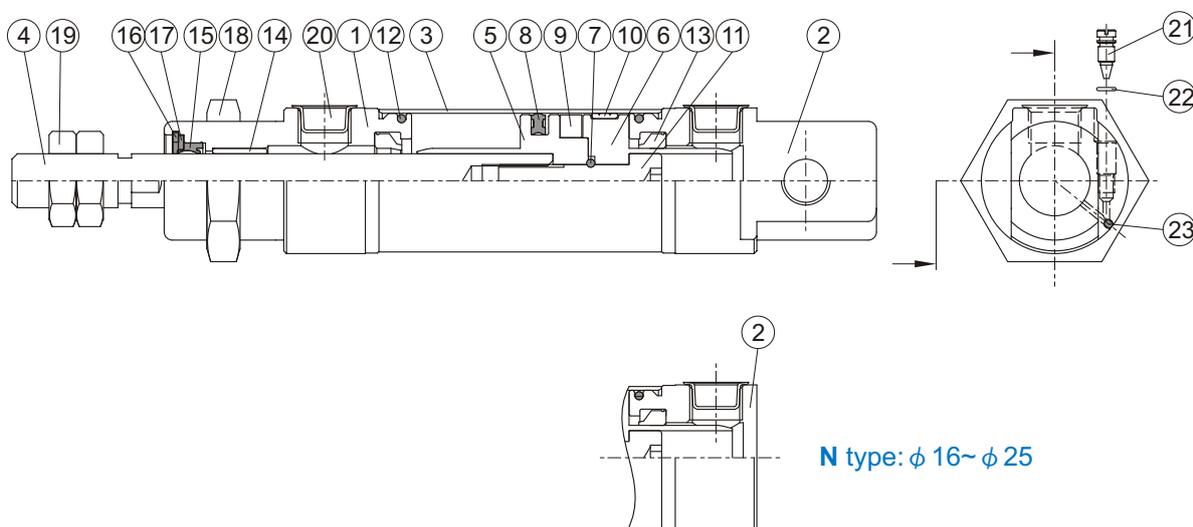
※1. Polyurethane ※2. Carbon steel

Order example of component parts / repair kits

Tube I.D.	Component parts	Repair kits
φ 8	CP-MCFI-8	PS-MCFI-8
φ 10	CP-MCFI-10	PS-MCFI-10
φ 12	CP-MCFI-12	PS-MCFI-12
φ 16	CP-MCFI-16	PS-MCFI-16
φ 20	CP-MCFI-20	PS-MCFI-20
φ 25	CP-MCFI-25	PS-MCFI-25

Non-pivot type (end-plain)

Tube I.D.	Component parts
φ 8	CP-MCFI-8-N
φ 10	CP-MCFI-10-N
φ 12	CP-MCFI-12-N
φ 16	CP-MCFI-16-N
φ 20	CP-MCFI-20-N
φ 25	CP-MCFI-25-N



N type: ϕ 16~ ϕ 25

Material ※ Cylinder bore 8-12 is not applicable.

No.	Part name	Tube I.D.			Q'ty		Component parts (inclusion)		Repair kits (inclusion)
		16	20	25	11 type	21 type	11 type	21 type	
1	Rod cover	Aluminum alloy			1	2	●	●	
2	Head cover	Aluminum alloy			1	—	●		
3	Tube	Stainless steel			1	1			
4	Piston rod	※1	Carbon steel		1	1			
5	Piston-R	Aluminum alloy			1	1	●	●	
6	Piston-H	Aluminum alloy			1	1	●	●	
7	Piston gasket	NBR			1	1	●	●	
8	Piston packing	NBR			1	1	●	●	
9	Magnet ring	Magnet material			1	1	●	●	
10	Wear ring	Teflon + Graphite			1	1	●	●	
11	Piston bolt	SCM			1	—	●		
12	Cover ring	NBR			2	2	●	●	
13	Cushion packing	NBR			2	2	●	●	
14	Rod bush	Bearing alloy			1	2	●	●	
15	Rod packing	NBR			1	2	●	●	●
16	Snap ring	Spring steel			1	2	●	●	
17	Washer	Carbon steel			1	2	●	●	
18	Tie nut	Carbon steel			1	2	●	●	
19	Rod front nut	Carbon steel			2	2	●	●	
20	Port plug	Plastic			2	2	●	●	
21	Needle valve	Stainless steel			2	2	●	●	
22	Needle valve packing	NBR			2	2	●	●	●
23	Steel ball	Stainless steel			2	2	●	●	

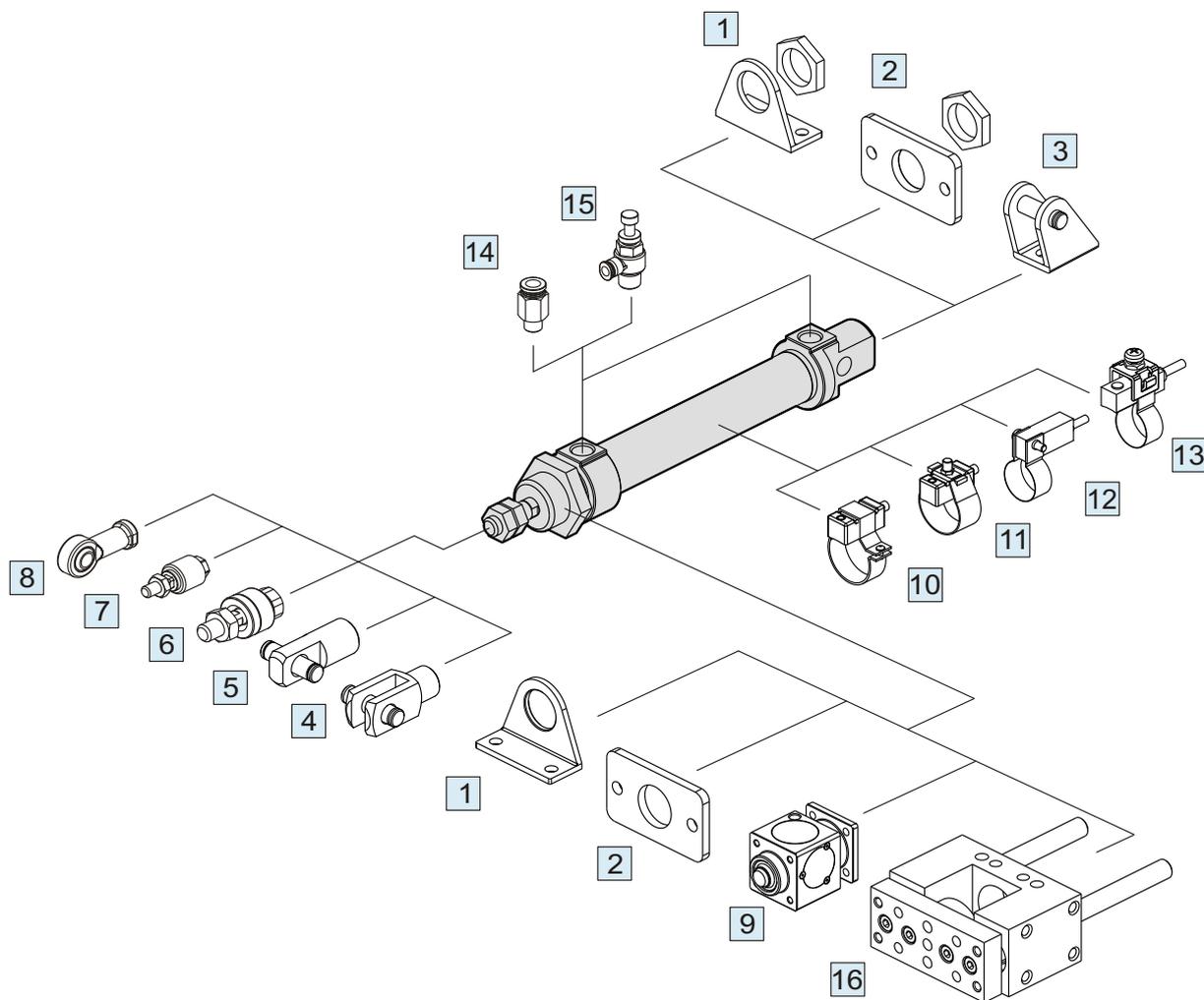
※1. Stainless steel

Order example of component parts / repair kits

Tube I.D.	Component parts	Repair kits
ϕ 16	CP-MCFI-16A	PS-MCFI-16A
ϕ 20	CP-MCFI-20A	PS-MCFI-20A
ϕ 25	CP-MCFI-25A	PS-MCFI-25A

Non-pivot type (end-plain)

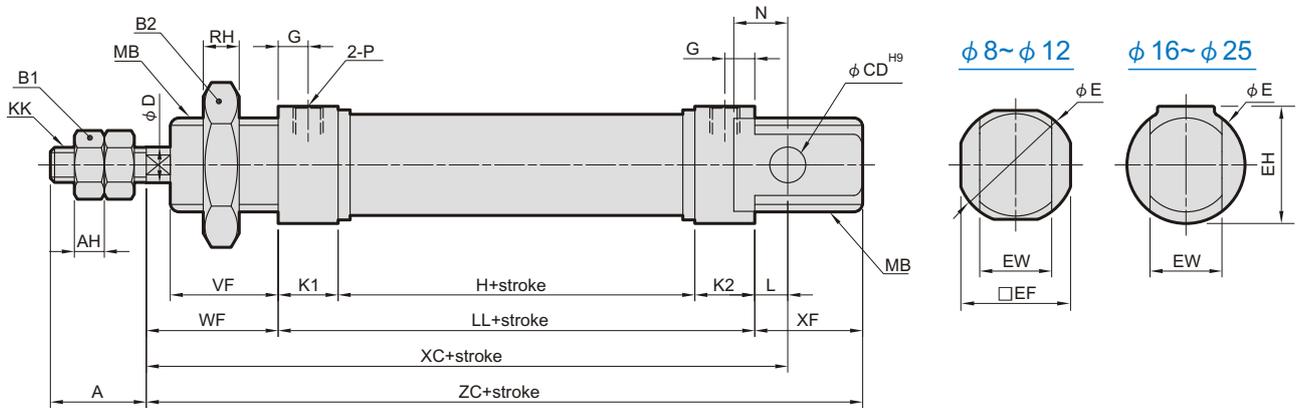
Tube I.D.	Component parts
ϕ 16	CP-MCFI-16A-N
ϕ 20	CP-MCFI-20A-N
ϕ 25	CP-MCFI-25A-N



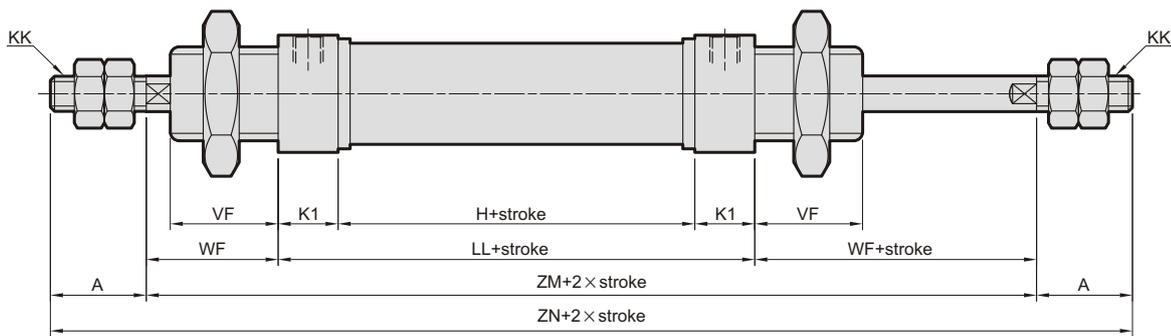
No.	Accessories	Page
1	Mounting accessories LB	L-43
2	Mounting accessories FA/FB	L-42
3	Mounting accessories SDB+PIN	L-32,13
4	Accessories Y+PIN	L-13
5	Accessories I+PIN	L-13
6	Floating joint MFC	V-01
7	Floating joint MFCS	V-03
8	Female rod ends PHS	V-04

No.	Accessories	Page
9	Locking unit MCBMI	J-75
10	Sensor switch RCA+BGS**	V-05
11	Sensor switch RCA+BA**	V-05
12	Sensor switch RCM+BM**	V-11
13	Sensor switch RCS+BJ**	V-12
14	Fitting PC	H-03
15	Fitting JSC	H-14
16	Twin-guide cylinders MGTB/ TK/ TU	K-24

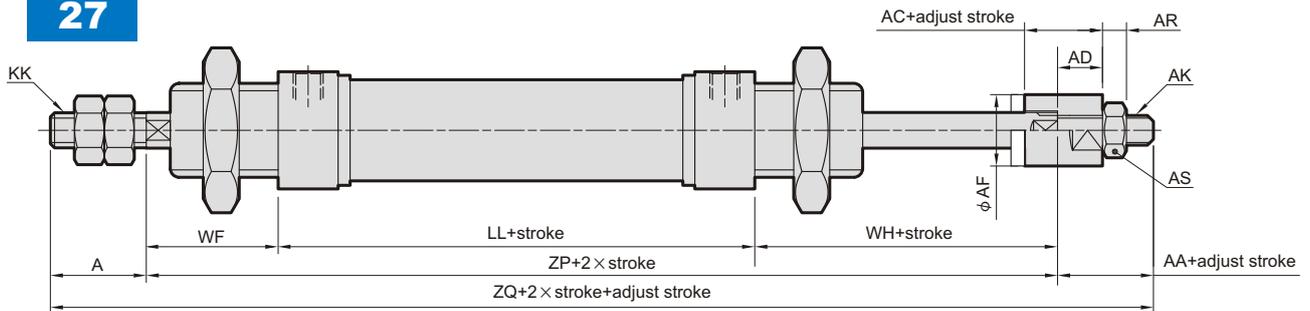
11



21



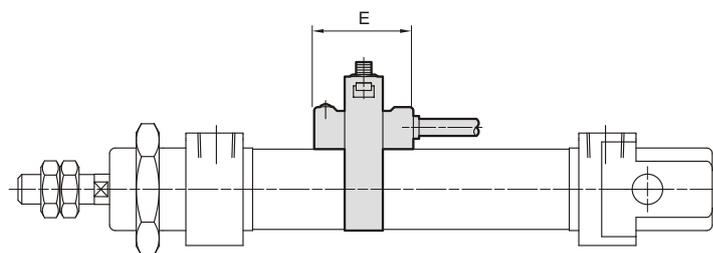
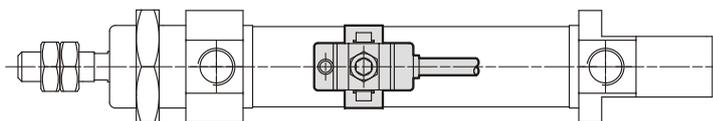
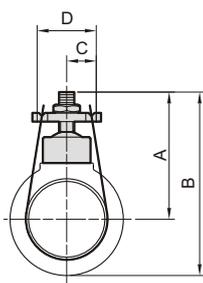
27



Code Tube I.D.	A	AA	AC	AD	AF	AH	AK	AR	AS	B1	B2	CD	D	E	EF	EH	EW	G	H	KK	K1	K2	L	LL
8	12	—	—	—	—	3.2	—	—	—	7	19	4	4	16.7	15	—	8 ^{-0.05} _{-0.4}	6	24	M4×0.7	11	11	2	46
10	12	—	—	—	—	3.2	—	—	—	7	19	4	4	16.7	15	—	8 ^{-0.05} _{-0.4}	6	24	M4×0.7	11	11	2	46
12	16	—	—	—	—	5	—	—	—	10	24	6	6	19.7	18.3	—	12 ^{-0.05} _{-0.4}	6	28	M6×1.0	11	11	3	50
16	16	16	13	7.5	12	5	M5×0.8	4	8	10	22	6	6	20	—	20	12 ^{-0.05} _{-0.4}	5	34.5	M6×1.0	10	10	5.5	54.5
20	20	19	15	9.5	16	5	M8×1.25	5	13	13	30	8	8	27	—	27	16 ^{-0.05} _{-0.4}	8	38	M8×1.25	15	15	3	68
25	22	19	15	9.5	16	5	M8×1.25	5	13	17	30	8	10	27	—	27	16 ^{-0.05} _{-0.4}	7.5	37	M10×1.25	15	15	9	67

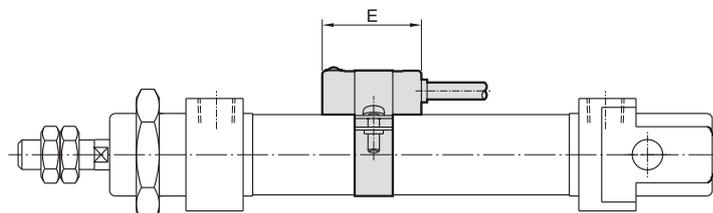
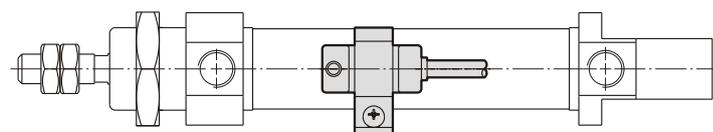
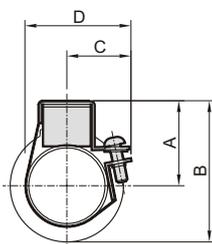
Code Tube I.D.	MB	N	P	RH	VF	WF	WH	XC	XF	ZC	ZM	ZN	ZP	ZQ
8	M12×1.25	6	M5×0.8	6	12	16	—	64	12	74	—	—	—	—
10	M12×1.25	6	M5×0.8	6	12	16	—	64	12	74	—	—	—	—
12	M16×1.5	9	M5×0.8	8	17	22	—	75	17	89	—	—	—	—
16	M16×1.5	9	M5×0.8	6	18	22	25.5	82	18	94.5	98.5	130.5	102	134
20	M22×1.5	12	G1/8	6	20	24	27	95	20	112	116	156	119	158
25	M22×1.5	12	G1/8	6	22	28	29.5	104	22	117	123	167	124.5	165.5

Sensor switch: RCA
Sensor switch band: BA**



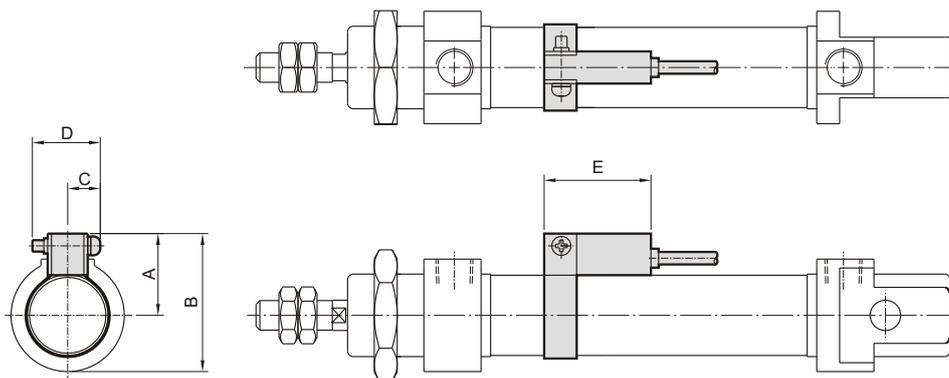
Code Tube I.D.	A	B	C	D	E
20	33	48	9	18	26
25	35.5	50.5	9	18	26

Sensor switch: RCA
Sensor switch band: BGS**



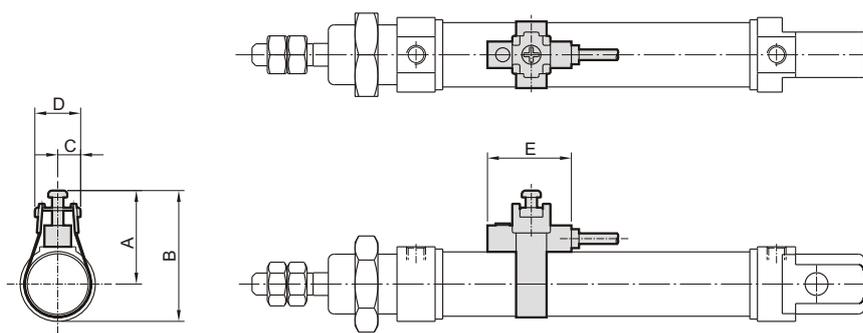
Code Tube I.D.	A	B	C	D	E
20	25	40	18	33	26
25	25.5	40.5	18.5	33.5	26

Sensor switch: RCM
Sensor switch band: BM**



Code Tube I.D.	A	B	C	D	E
16	20	30	10	16	28
20	22	37	10	16	28
25	25	40	10	16	28

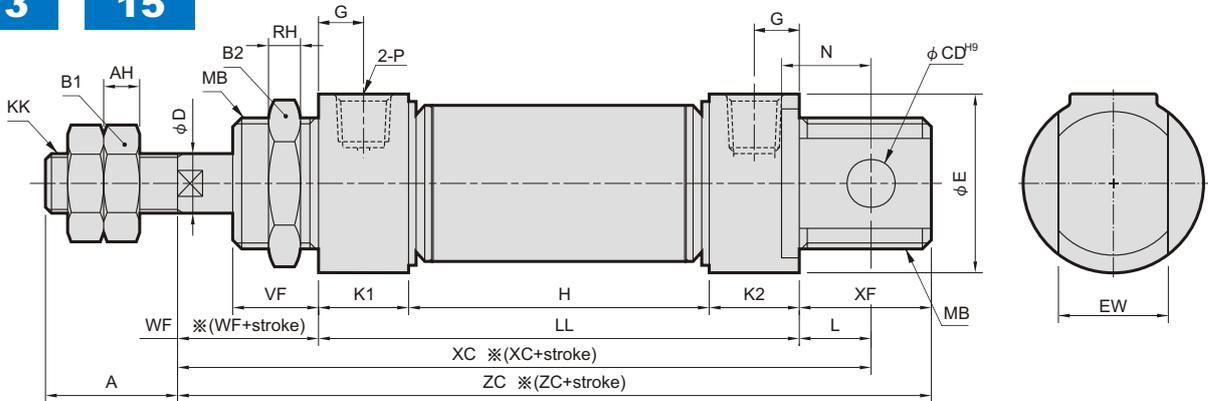
Sensor switch: RCS
Sensor switch band: BJ**



Code Tube I.D.	A	B	C	D	E
8	19.1	26.6	6	12	22
10	20.1	27.6	6	12	22
12	21.3	30.5	6	12	22
16	23.4	33.3	6	12	22

13

15



※ () Dimension for 13 type

Code Tube I.D.	A	AH	B1	B2	CD	D	E	EW	G	KK	K1	K2	L	LA	MB	N	P	RH	VF	WF	XF	ZM	ZN	ZP	ZQ
16	16	5	10	22	6	6	20	12 ^{-0.05} _{-0.4}	5	M6×1.0	10	10	5.5	54.5	M16×1.5	9	M5×0.8	6	18	22	18	98.5	130.5	96	134
20	20	5	13	30	8	8	27	16 ^{-0.05} _{-0.4}	8	M8×1.25	15	15	3	68	M22×1.5	12	G 1/8	6	20	24	20	116	156	119	158
25	22	6	17	30	8	10	27	16 ^{-0.05} _{-0.4}	7.5	M10×1.25	15	15	9	67	M22×1.5	12	G 1/8	6	22	28	22	123	167	124.5	165.5

Code Stroke I.D.	H							LL							XC						
	15	25	50	75	100	125	150	15	25	50	75	100	125	150	15	25	50	75	100	125	150
16	64.5	74.5	114.5	154.5	194.5	/	/	84.5	94.5	134.5	174.5	214.5	/	/	112	122	162	202	242	/	/
20	78	88	138	188	238	288	338	108	118	168	218	268	318	368	135	145	195	245	295	345	395
25	77	87	137	187	237	287	337	107	117	167	217	267	317	367	144	154	204	254	304	354	404

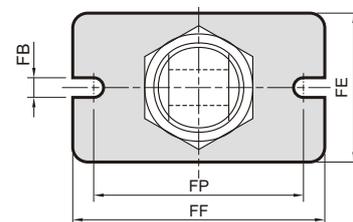
Code Stroke I.D.	ZC						
	15	25	50	75	100	125	150
16	124.5	134.5	174.5	214.5	254.5	/	/
20	152	162	212	262	312	362	412
25	153	163	213	263	313	363	413

Mounting accessories / Double acting

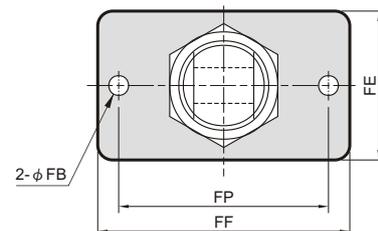
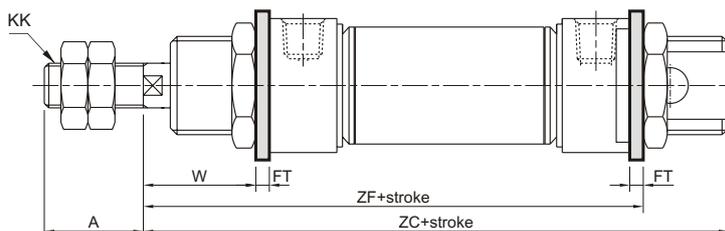
FA / FB

MCFI- $\phi 12, \phi 16$

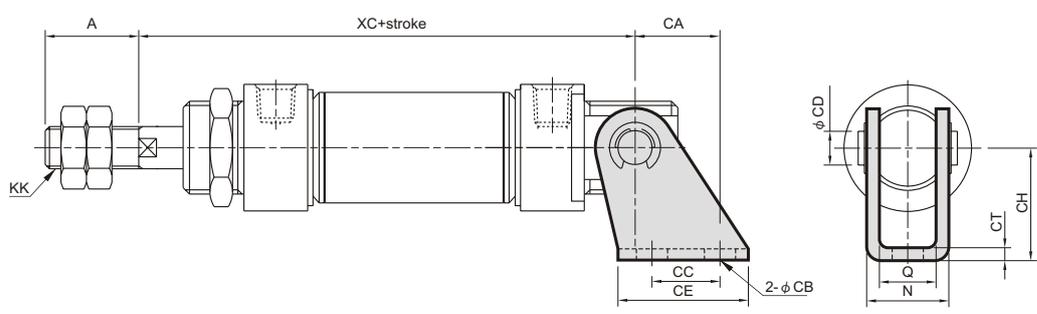
Code Tube I.D.	A	FB	FE	FF	FP	FT	KK	W	ZC	ZF
8	12	4.5	22	40	30	3.2	M4×0.7	12.8	74	65.2
10	12	4.5	22	40	30	3.2	M4×0.7	12.8	74	65.2
12	16	5.5	26	52	40	3.2	M6×1.0	18.8	89	75.2
16	16	5.5	26	52	40	3.2	M6×1.0	18.8	94.5	79.7
20	20	6.6	38	64	50	4.5	M8×1.25	19.5	112	96.5
25	22	6.6	38	64	50	4.5	M10×1.25	23.5	117	99.5



MCFI- $\phi 8, \phi 10, \phi 20, \phi 25$

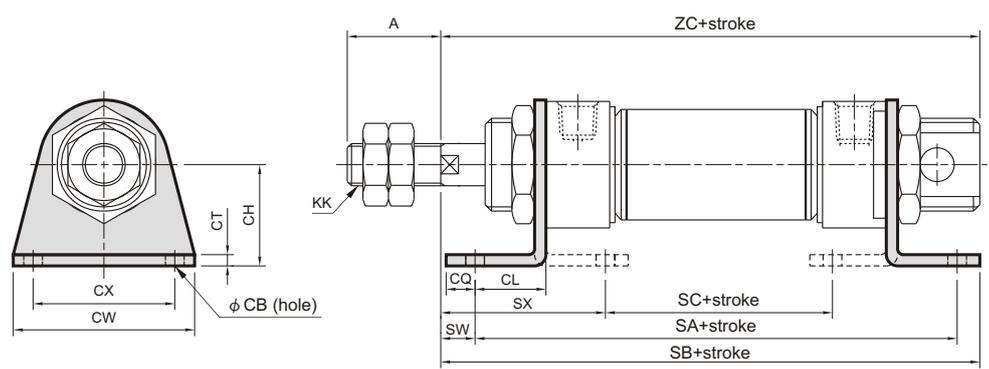


SDB



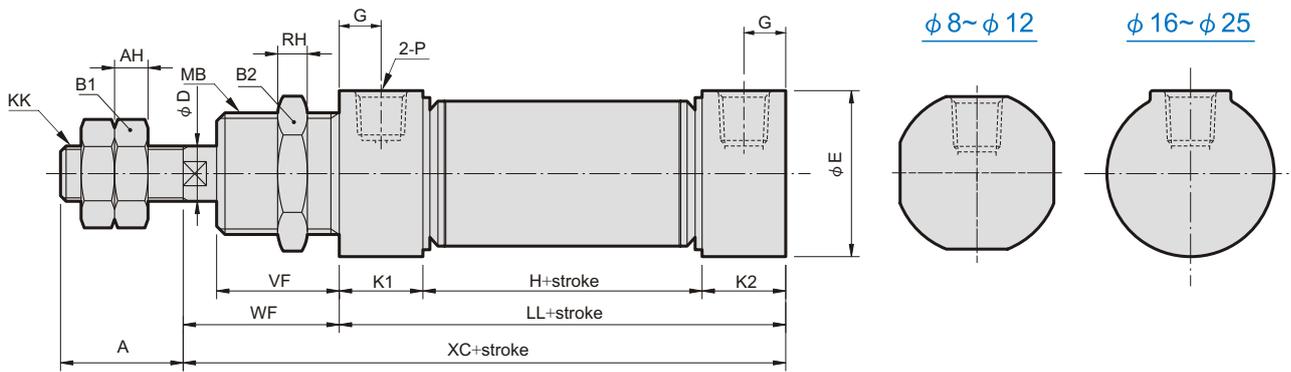
Code Tube I.D.	A	CA	CB	CC	CD	CE	CH	CT	KK	N	Q	XC
8	12	11	4.5	12.5	4	20	24	2.5	M4×0.7	13.1	8.1	64
10	12	11	4.5	12.5	4	20	24	2.5	M4×0.7	13.1	8.1	64
12	16	13	5.5	15	6	25	27	3.2	M6×1.0	18.5	12.1	75
16	16	13	5.5	15	6	25	27	3.2	M6×1.0	18.5	12.1	82
20	20	16	6.6	20	8	32	30	3.2	M8×1.25	22.5	16.1	95
25	22	16	6.6	20	8	32	30	3.2	M10×1.25	22.5	16.1	104

LB



Code Tube I.D.	A	CB	CH	CL	CQ	CT	CW	CX	KK	SA	SB	SC	SW	SX	ZC
8	12	4.5	16	11	5	3.2	35	25	M4×0.7	68	78	30.4	5	23.8	74
10	12	4.5	16	11	5	3.2	35	25	M4×0.7	68	78	30.4	5	23.8	74
12	16	5.5	20	14	6	4	42	32	M6×1.0	78	92	30	8	32	89
16	16	5.5	20	14	6	4	42	32	M6×1.0	82.5	96.5	34.5	8	32	94.5
20	20	6.6	25	15	8	3.2	54	40	M8×1.25	98	115	44.4	9	35.8	112
25	22	6.6	25	15	8	3.2	54	40	M10×1.25	97	118	43.4	13	39.8	117

N

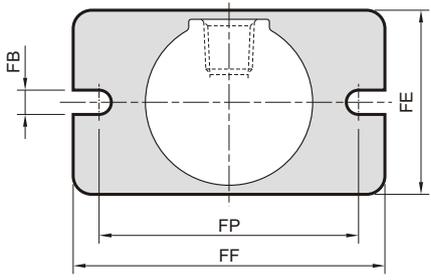


Code Tube I.D.	A	AH	B1	B2	D	E	G	H	KK	K1	K2	LL	MB	P	RH	VF	WF	XC
8	12	3.2	7	19	4	16.7	6	24	M4×0.7	11	11	46	M12×1.25	M5×0.8	6	12	16	62
10	12	3.2	7	19	4	16.7	6	24	M4×0.7	11	11	46	M12×1.25	M5×0.8	6	12	16	62
12	16	5	10	24	6	19.7	6	28	M6×1.0	11	11	50	M16×1.5	M5×0.8	8	17	22	72
16	16	5	10	22	6	20	5	34.5	M6×1.0	10	10	54.5	M16×1.5	M5×0.8	6	18	22	76.5
20	20	5	13	30	8	27	8	38	M8×1.25	15	15	68	M22×1.5	G1/8	6	20	24	92
25	22	6	17	30	10	27	7.5	37	M10×1.25	15	15	67	M22×1.5	G1/8	6	22	28	95

FA

Code Tube I.D.	A	FB	FE	FF	FP	FT	W	XC
8	12	4.5	22	40	30	3.2	12.8	62
10	12	4.5	22	40	30	3.2	12.8	62
12	16	5.5	26	52	40	3.2	18.8	72
16	16	5.5	26	52	40	3.2	18.8	76.5
20	20	6.6	38	64	50	4.5	19.5	92
25	22	6.6	38	64	50	4.5	23.5	96

MCFM- $\phi 12, \phi 16$



MCFM- $\phi 8, \phi 10, \phi 20, \phi 25$

