

MCMB series

MINIATURE CYLINDERS



Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
φ 20, 25, 32, 40	25, 50, 75, 100, 125, 150, 200, 250, 300	900

Features:

- Non-lubrication:**
 Designs of oil-filled alloy, special housing and bushing provide the needed self-lubrication of piston rod.
- High quality-long service life:**
 Stainless cylinder tubes resist corrosion and abrasion.
- Cylinder mountings:**
 Available with a comprehensive selection of mountings for fixed or flexible installation.
- Standard with magnet:**

Model	MCMB			
Tube I.D. (mm)	20	25	32	40
Port size	PT 1/8			PT 1/4
Medium	Air			
Max operating pressure	9.9 kgf/cm ²			
Min operating pressure	0.5 kgf/cm ²			
Proof pressure	15 kgf/cm ²			
Available speed range	-5~+60°C (No freezing)			
Ambient temperature	Not required			
Lubricator	50~500mm/sec			
Sensor switch	RCA, RCM			
Sensor switch band	BA20	BA25	BA32	BA40
	BGS20	BGS25	BGS32	BGS40
	BM20	BM25	BM32	BM40

• Senser switch band BM** only for RCM.

Order example:

MCMB - 11 - 20 - 50 - A - N - BSP

MODEL

TUBE I.D.

STROKE

Blank: With cushion pad
A: With adjustable cushion

PORT THREAD
Blank: PT thread
BSP: BSP thread
NPT: NPT thread

1: Single Rod
2: Double Rod

STYLE:

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		Dual rod / Male thread
2 7		Dual rod / Adjustable male thread Please mark "adjustable distance(mm)" at order list

Single acting type: Please consult us.

Mounting accessories:

LB - MCMB - 20

MOUNTING TYPE

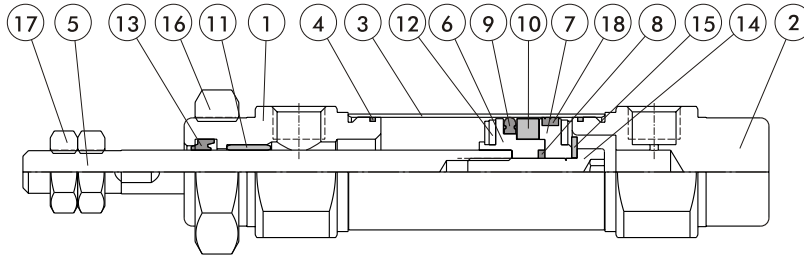
	LB
	CA
	CB
	FA
	FB
	SDB
	TA
	TB

MODEL TUBE I.D.

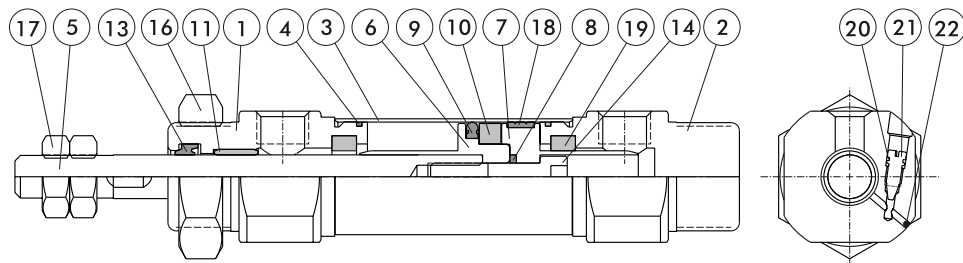
for end cover "E" type

END COVER TYPE:

Code	Symbol	Description
Blank		Standard type
N		End -plain
E		With pivot type



With adjustable cushion type



Material

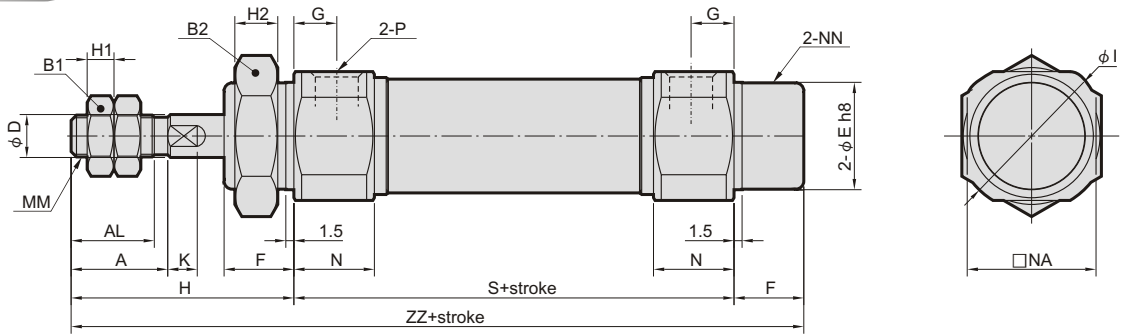
No.	Cushion		Part name	Tube I.D.				Note
	Rubber	Air		20	25	32	40	
1	●	●	Rod cover	Aluminum alloy				Anodized
2	●	●	Head cover	Aluminum alloy				Anodized
3	●	●	Tube	Stainless steel				
4	●	●	Cover ring	NBR				
5	●	●	Piston rod	Carbon steel				
6	●	●	Piston-R	Aluminum alloy				φ 25 With cushion pad - Plastic
7	●	●	Piston-H	Aluminum alloy				
8	●	●	Piston gasket	NBR				
9	●	●	Piston packing	NBR				
10	●	●	Magnet ring	Magnet material				
11	●	●	Rod bush	Copper				
12	●		Cushion gasket	NBR				
13	●	●	Rod packing	NBR				
14	●	●	Piston bolt	SCM				
15	●		Washer	Carbon steel				
16	●	●	Tie nut	Carbon steel				
17	●	●	Rod front nut	Carbon steel				
18	●	●	Wear ring	Teflon				
19		●	Cushion packing	NBR				
20		●	Needle valve packing	NBR				
21		●	Needle valve	Stainless steel	Rolled steel			
22		●	Steel ball	Stainless steel				

MCMB Dimensions / Double acting $\phi 20\sim\phi 40$

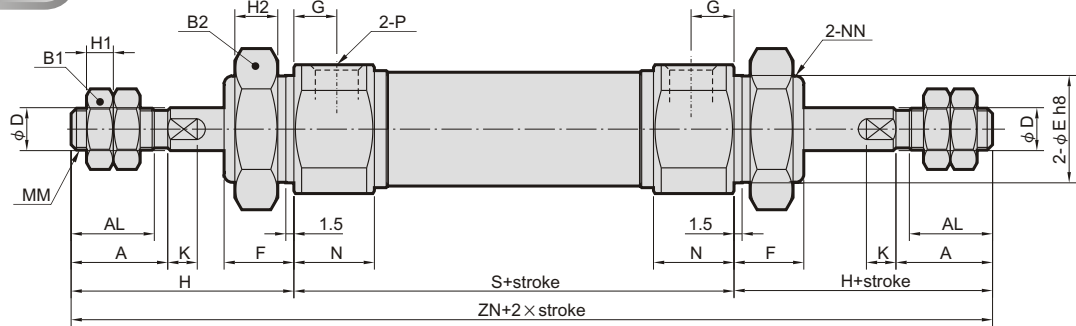
MINIATURE CYLINDERS



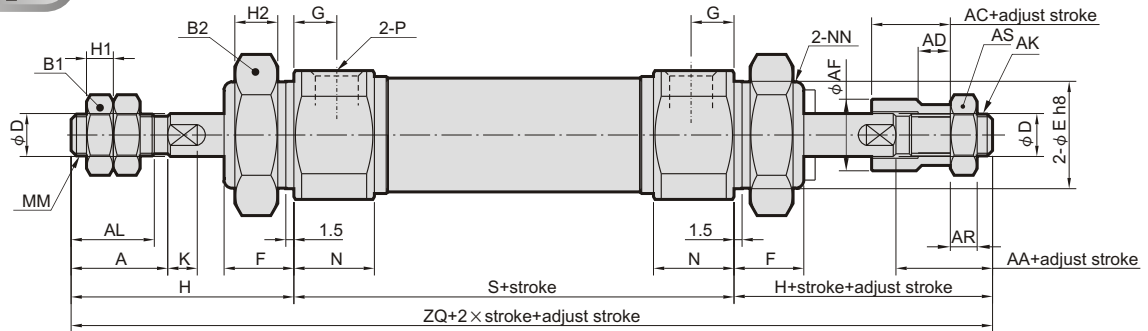
11



21



27



(mm)

Code Tube I.D.	A	AA	AC	AD	AF	AK	AL	AR	AS	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA
20	18	17.5	15	9.5	16	M8 × 1.25	15.5	5	13	13	26	8	20 ⁰ _{-0.03}	13	8	41	5	8	28	5	M8 × 1.25	15	24
25	22	17.5	15	9.5	16	M8 × 1.25	19.5	5	13	17	32	10	26 ⁰ _{-0.03}	13	8	45	6	8	33.5	5.5	M10 × 1.25	15	30
32	22	16	12	7	20	M10 × 1.25	19.5	6	17	17	32	12	26 ⁰ _{-0.03}	13	8	45	6	8	37.5	5.5	M10 × 1.25	15	34.5
40	24	15.5	12	7	30	M12 × 1.25	21	7	19	22	41	14	32 ⁰ _{-0.04}	16	11	50	8	10	46.5	7	M14 × 1.5	21.5	42.5

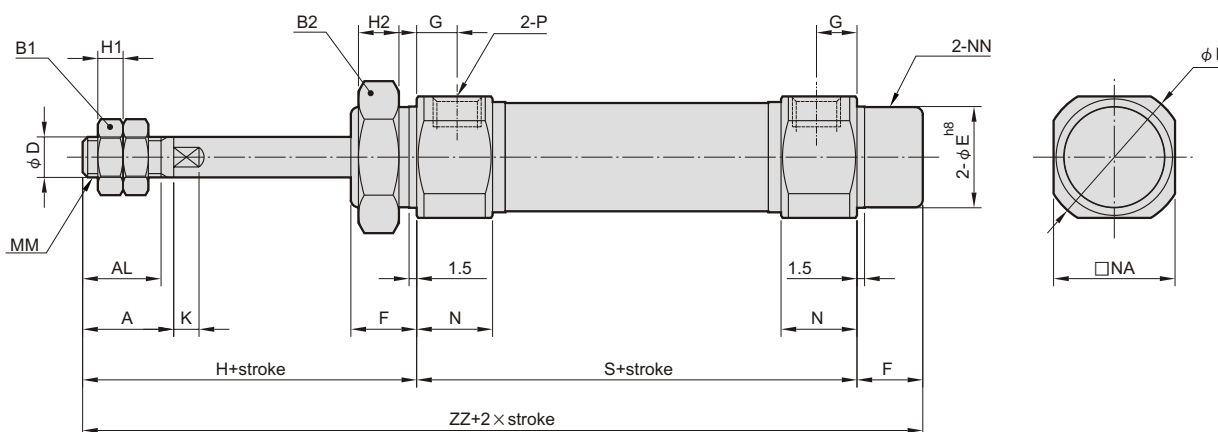
Code Tube I.D.	NN	P	S	ZN	ZQ	ZZ
20	M20 × 1.5	PT 1/8	62	144	141	116
25	M26 × 1.5	PT 1/8	62	152	146	120
32	M26 × 1.5	PT 1/8	64	154	145	122
40	M32 × 2.0	PT 1/4	88	188	198	154

MCMB Dimensions / Single acting $\phi 20 \sim \phi 40$

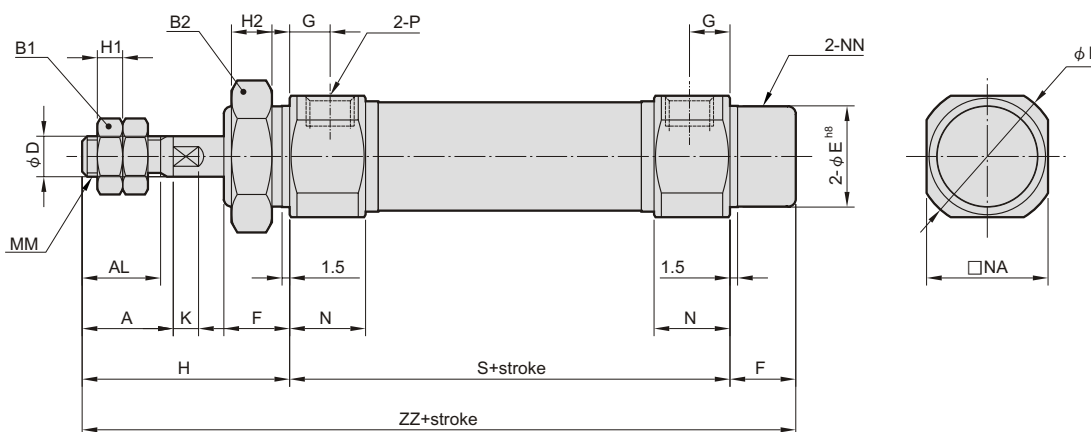
MINIATURE CYLINDERS



13



15



Code Tube I.D.	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P
20	18	15.5	13	26	8	20 ⁰ _{0.03}	13	8	41	5	8	28	5	M8×1.25	15	24	M20×1.5	PT 1/8
25	22	19.5	17	32	10	26 ⁰ _{0.03}	13	8	45	6	8	33.5	5.5	M10×1.25	15	30	M26×1.5	PT 1/8
32	22	19.5	17	32	12	26 ⁰ _{0.03}	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	PT 1/8
40	24	21	22	41	14	32 ⁰ _{0.04}	16	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2.0	PT 1/4

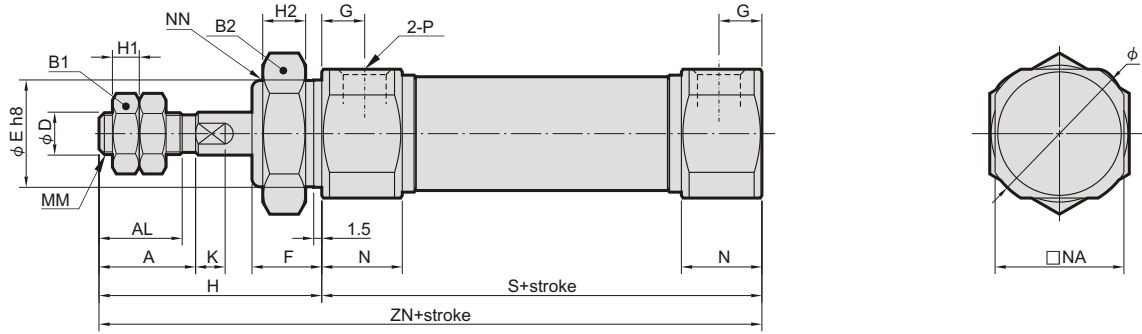
Code Stroke I.D.	S			ZZ		
	1~50	51~100	101~150	1~50	51~100	101~150
20	87	112	137	141	166	191
25	87	112	137	145	170	195
32	89	114	139	147	172	197
40	113	138	163	179	204	229

MCMB Dimensions / Double acting $\phi 20\sim\phi 40$

MINIATURE CYLINDERS



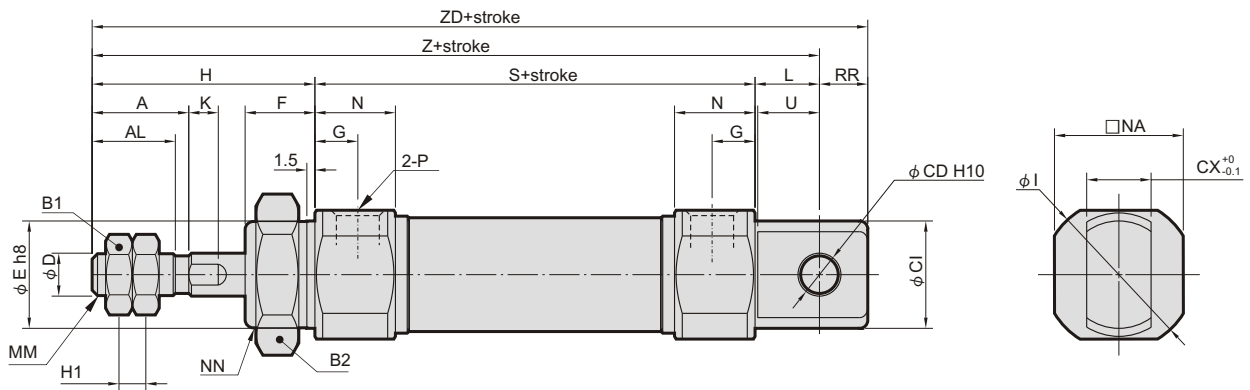
N



(mm)

Code Tube I.D.	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	S	ZN
20	18	15.5	13	26	8	20 ⁰ _{-0.03}	13	8	41	5	8	28	5	M8×1.25	15	24	M20×1.5	PT 1/8	62	103
25	22	19.5	17	32	10	26 ⁰ _{-0.03}	13	8	45	6	8	33.5	5.5	M10×1.25	15	30	M26×1.5	PT 1/8	62	107
32	22	19.5	17	32	12	26 ⁰ _{-0.03}	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	PT 1/8	64	109
40	24	21	22	41	14	32 ⁰ _{-0.04}	16	11	50	8	10	46.5	7	M14×1.5	21.5	42.5	M32×2.0	PT 1/4	88	138

E



(mm)

Code Tube I.D.	A	AL	B1	B2	CD	CX	CI	D	E	F	G	H	H1	I	K	L	MM	N	NA	NN	P	RR	S	U	Z	ZD
20	18	15.5	13	26	8	12	20	8	20 ⁰ _{-0.03}	13	8	41	5	28	5	12	M8×1.25	15	24	M20×1.5	PT1/8	9	62	11.5	115	124
25	22	19.5	17	32	8	12	22	10	26 ⁰ _{-0.03}	13	8	45	6	33.5	5.5	12	M10×1.25	15	30	M26×1.5	PT1/8	9	62	11.5	119	128
32	22	19.5	17	32	10	20	27	12	26 ⁰ _{-0.03}	13	8	45	6	37.5	5.5	15	M10×1.25	15	34.5	M26×1.5	PT1/8	12	64	14.5	124	136
40	24	21	22	41	10	20	33	14	32 ⁰ _{-0.04}	16	11	50	8	46.5	7	15	M14×1.5	21.5	42.5	M32×2.0	PT1/4	12	88	14.5	153	165

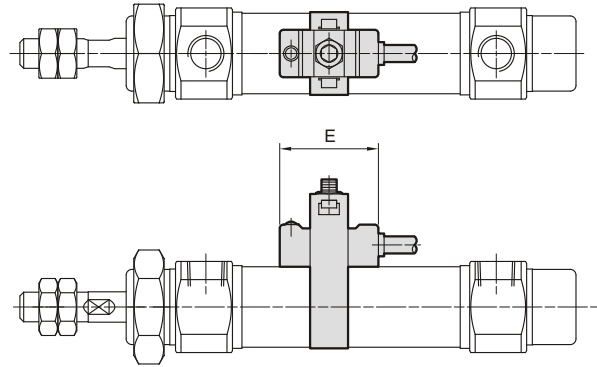
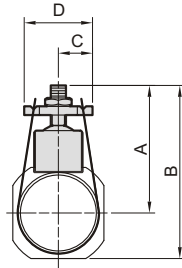
MCMB Installation of sensor switch $\phi 20 \sim \phi 40$



MINIATURE CYLINDERS

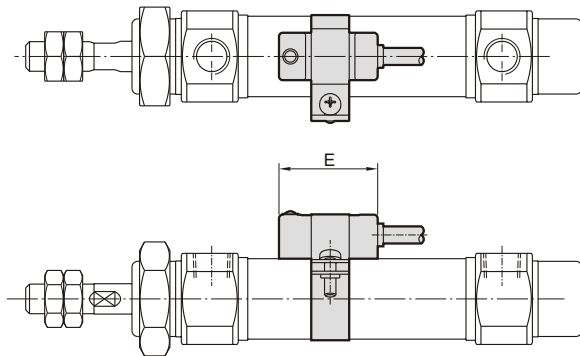
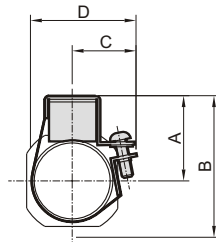
Sensor switch: RCA
Sensor switch band: BA**

Code Tube I.D.	A	B	C	D	E
20	33	45	9	18	26
25	35.5	50.5	9	18	26
32	39	56.5	9	18	26
40	43	64.5	9	18	26



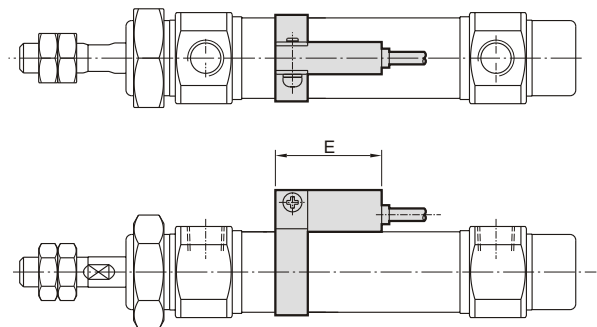
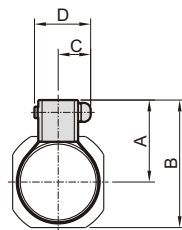
Sensor switch: RCA
Sensor switch band: BGS**

Code Tube I.D.	A	B	C	D	E
20	25	37	18	30	26
25	25.5	40.5	18.5	33.5	26
32	29	46.5	22	39.5	26
40	33	55	26	47.5	26



Sensor switch: RCM
Sensor switch band: BM**

Code Tube I.D.	A	B	C	D	E
20	22	34	10	16	28
25	25	40	10	16	28
32	28	46	10	16	28
40	32	54	10	16	28

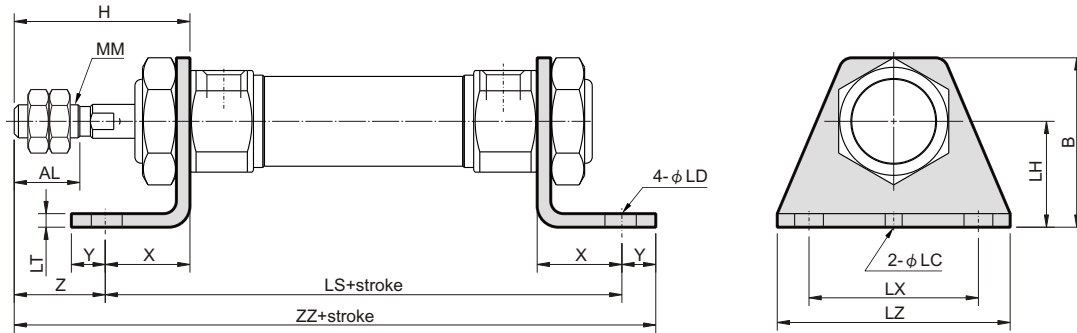


MCMB Mounting accessories / Double acting $\phi 20 \sim \phi 40$

MINIATURE CYLINDERS



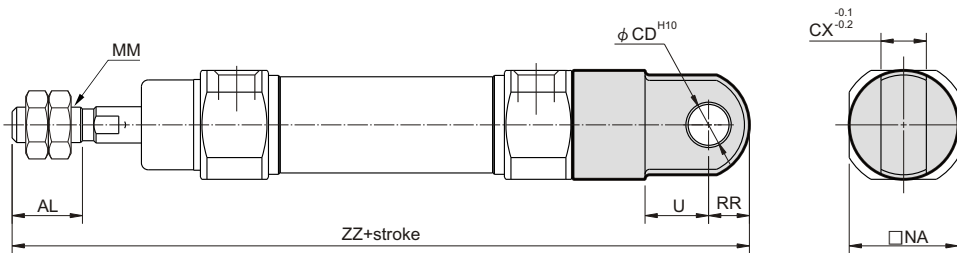
LB



(mm)

Code Tube I.D.	AL	B	H	LC	LD	LH	LS	LT	LX	LZ	MM	X	Y	Z	ZZ
20	15.5	40	41	4	6.8	25	102	3.2	40	55	M8×1.25	20	8	21	131
25	19.5	47	45	4	6.8	28	102	3.2	40	55	M10×1.25	20	8	25	135
32	19.5	47	45	4	6.8	28	104	3.2	40	55	M10×1.25	20	8	25	137
40	21	54	50	4	7	30	134	3.2	55	75	M14×1.5	23	10	27	171

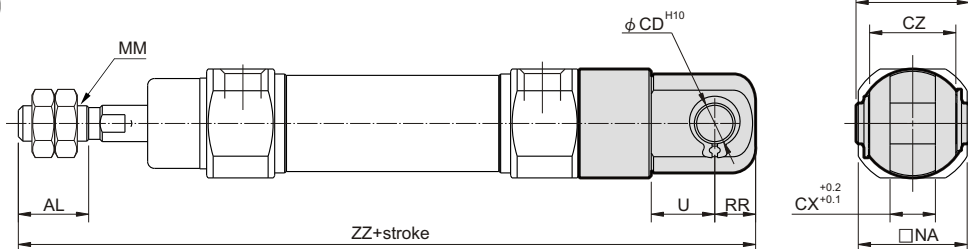
CA



(mm)

Code Tube I.D.	AL	CD	CX	MM	NA	RR	U	ZZ
20	15.5	9	10	M8×1.25	24	9	14	142
25	19.5	9	10	M10×1.25	30	9	14	146
32	19.5	9	10	M10×1.25	34.5	9	14	148
40	21	10	15	M14×1.5	42.5	11	18	188

CB



(mm)

Code Tube I.D.	AL	CD	CL	CX	CZ	MM	NA	RR	U	ZZ
20	15.5	9	25	10	19	M8×1.25	24	9	14	142
25	19.5	9	25	10	19	M10×1.25	30	9	14	146
32	19.5	9	25	10	19	M10×1.25	34.5	9	14	148
40	21	10	41.2	15	30	M14×1.5	42.5	11	18	188

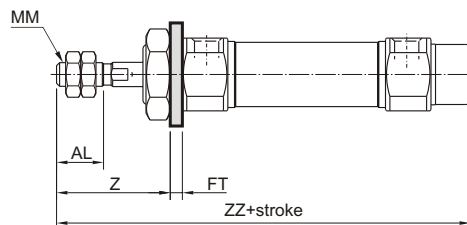
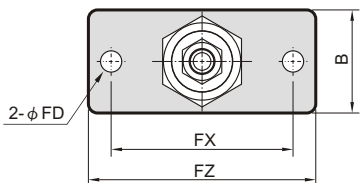
MCMB Mounting accessories / Double acting $\phi 20 \sim \phi 40$

MINIATURE CYLINDERS

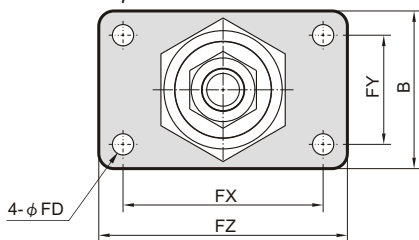


FA

$\phi 20 \sim \phi 32$

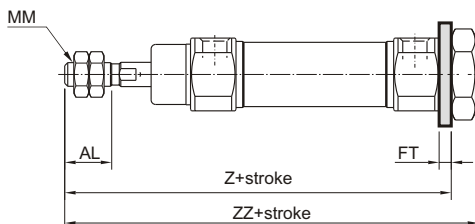


$\phi 40$

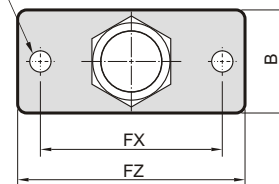


Code Tube I.D.	AL	B	FD	FT	FX	FY	FZ	MM	Z	ZZ
20	15.5	34	7	4	60	-	75	M8×1.25	37	116
25	19.5	40	7	4	60	-	75	M10×1.25	41	120
32	19.5	40	7	4	60	-	75	M10×1.25	41	122
40	21	52	7	5	66	36	82	M14×1.5	45	154

FB

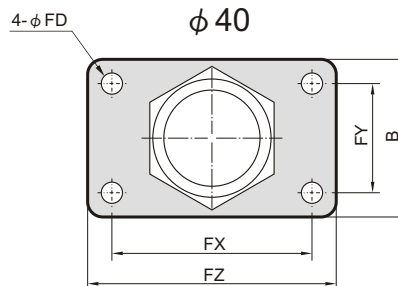


$\phi 20 \sim \phi 32$

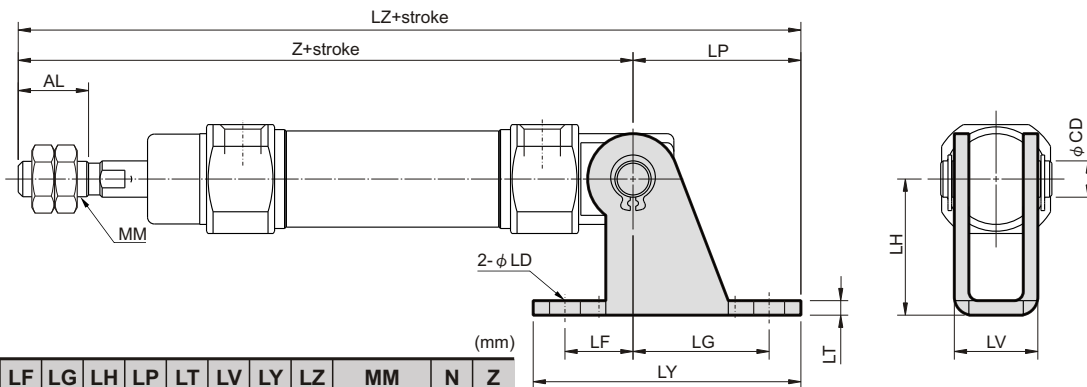


Code Tube I.D.	AL	B	FD	FT	FX	FY	FZ	MM	Z	ZZ
20	15.5	34	7	4	60	-	75	M8×1.25	107	116
25	19.5	40	7	4	60	-	75	M10×1.25	111	120
32	19.5	40	7	4	60	-	75	M10×1.25	113	122
40	21	52	7	5	66	36	82	M14×1.5	143	154

$\phi 40$

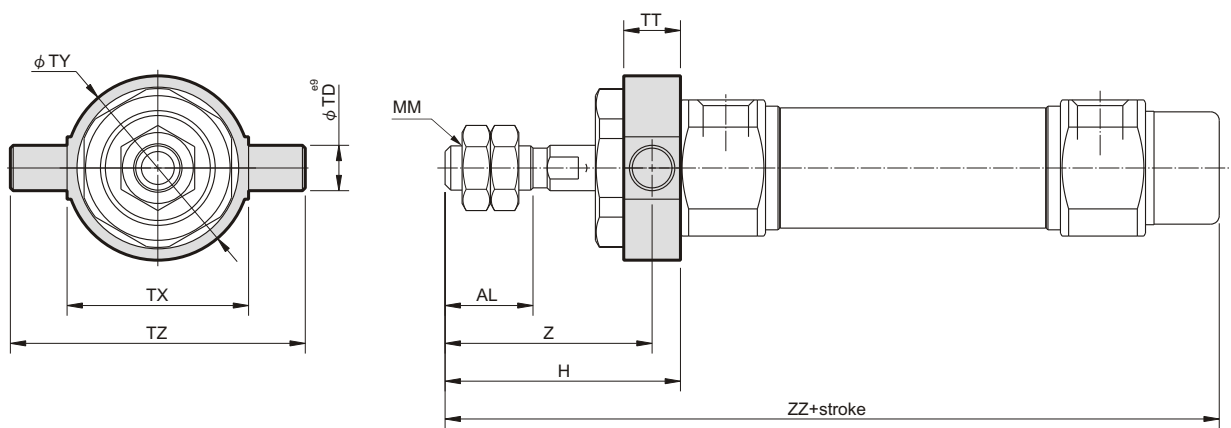


SDB



Code Tube I.D.	AL	CD	LD	LF	LG	LH	LP	LT	LV	LY	LZ	MM	N	Z
20	15.5	8	6.8	15	30	30	37	3.2	18.4	59	152	M8×1.25	15	115
25	19.5	8	6.8	15	30	30	37	3.2	18.4	59	156	M10×1.25	15	119
32	19.5	10	9	15	40	40	50	4	28	75	174	M10×1.25	15	124
40	21	10	9	15	40	40	50	4	28	75	203	M14×1.5	21.5	153

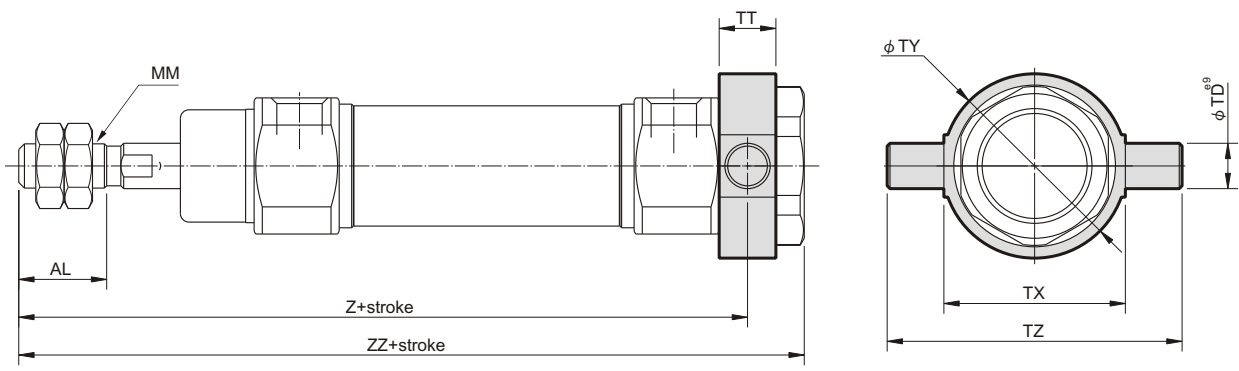
TA



(mm)

Code Tube I.D.	AL	H	MM	TD	TT	TX	TY	TZ	Z	ZZ
20	15.5	41	M8×1.25	8	10	32	32.5	52	36	118
25	19.5	45	M10×1.25	9	10	40	40.5	60	40	122
32	19.5	45	M10×1.25	9	10	40	40.5	60	40	124
40	21	50	M14×1.5	10	11	53	53.5	77	44.5	154

TB

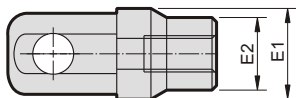


(mm)

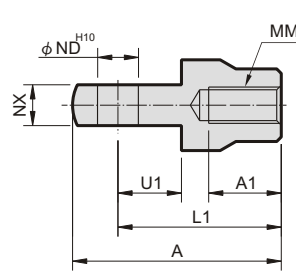
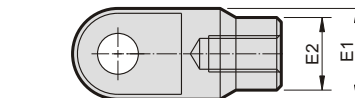
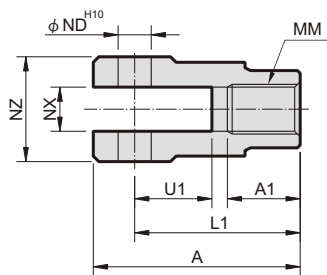
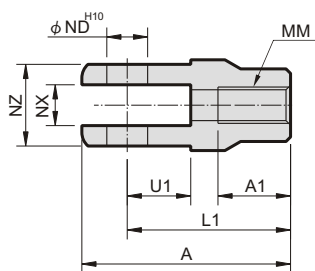
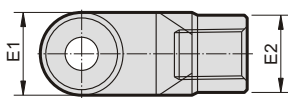
Code Tube I.D.	AL	MM	TD	TT	TX	TY	TZ	Z	ZZ
20	15.5	M8×1.25	8	10	32	32.5	52	108	118
25	19.5	M10×1.25	9	10	40	40.5	60	112	122
32	19.5	M10×1.25	9	10	40	40.5	60	114	124
40	21	M14×1.5	10	11	53	53.5	77	143.5	154

Y connector

$\phi 20 \sim \phi 32$



$\phi 40$



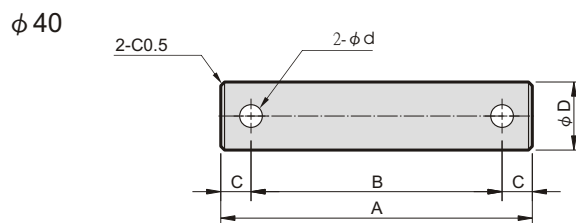
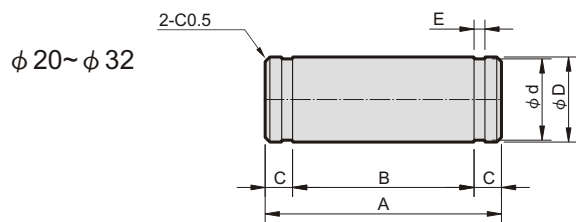
(mm)

Code Tube I.D.	A	A1	E1	E2	L1	MM	ND	NX	NZ	U1
20	46	16	$\phi 20$	$\phi 16$	36	M8×1.25	9	$9^{+0.2}_{+0.1}$	18	14
25, 32	46	16	$\phi 20$	$\phi 16$	36	M10×1.25	9	$9^{+0.2}_{+0.1}$	18	14
40	68	25	$\phi 24$	$\phi 24$	55	M14×1.5	12	$16^{+0.3}_{+0.1}$	38	25

(mm)

Code Tube I.D.	A	A1	E1	E2	L1	MM	ND	NX	U1
20	46	16	$\phi 20$	$\phi 16$	36	M8×1.25	9	$9^{+0.1}_{+0.2}$	14
25, 32	46	16	$\phi 20$	$\phi 16$	36	M10×1.25	9	$9^{+0.1}_{+0.2}$	14
40	69	22	$\phi 24$	$\phi 24$	55	M14×1.5	12	$16^{+0.1}_{+0.2}$	20

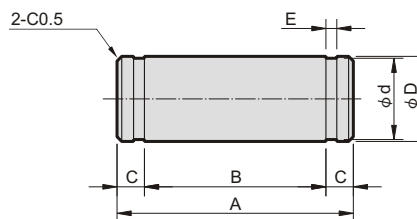
Pin for CB & Y connector



for CB & Y connector

Code Tube I.D.	A	B	C	ϕD^{d9}	ϕd	E	Snap ring Split pin
20~32-CB, Y	25	19.2	2.9	$9^{+0.04}_{-0.08}$	$8.6^{0}_{-0.06}$	$1.15^{+0.14}_{0}$	STW-9
40-CB	41.2	33.2	4	$10^{+0.04}_{-0.08}$	3		$\phi 3.2 \times 20L$
40-Y	49.7	41.7	4	$12^{+0.05}_{-0.09}$	3		$\phi 3.2 \times 20L$

Pin for SDB



for SDB

Code Tube I.D.	A	B	C	ϕD^{d9}	ϕd	E	Snap ring
20~25	24.5	19.5	2.5	$8^{+0.04}_{-0.08}$	$7.6^{0}_{-0.06}$	$0.9^{+0.10}_{0}$	STW-8
32-40	34	29	2.5	$10^{+0.04}_{-0.08}$	$9.6^{0}_{-0.09}$	$1.15^{+0.14}_{0}$	STW-9