



### Table for standard stroke

	Tube I.D.	Stroke (mm)
Double acting	ø10	10,25,40,50,80,100,125,150
	ø12, 16	10,25,40,50,80,100,125,160,200
	ø20	15,25,50,75,100,125,150,200,250,300,350
	ø25	15,25,50,75,100,125,150,200,250,300,350,400,450,500

• Please consult us if stroke out of specification.

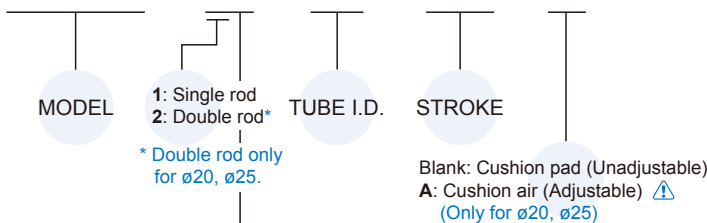
### Tightening torque

Tube I.D.	Bolt	Max. tightening torque (kgf·cm)	Tube I.D.	Bolt	Max. tightening torque (kgf·cm)
ø10	M4×0.7	11.8	ø20	M8×1.25	170
ø12, 16	M6×1.0	41.0	ø25	M10×1.25	340

- Make sure the tightening torque of rod thread does not exceed the value above.
- Tightening torque tolerance ±5%.

### Order example

**MCMIS – 11 – 16 – 100 – A**



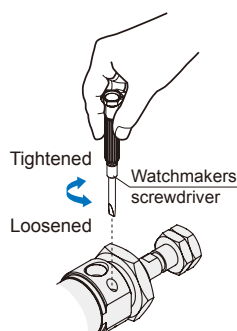
#### STYLE

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

### ⚠ Caution

For (A) Cushion air (Adjustable)

1. To adjust a cushion needle, please slowly turn the needle valve from the fully closed status to the required status whose turns need to be within 2.5 circles.
2. If the needle valve loosens excessively, the buffer can't take effect and the lifetime of cylinder can shorten.



### Feature

#### ■ Non lubrication

Special housing and bushing enables self lubrication of piston rod.

#### ■ High strength steel & chemical resistance

Highly resistant with crimped covers and entirely built in stainless steel. Available with or without adjustable cushioning, double acting or through piston rod.

On request complaint with 2014/34/UE ATEX directive.

#### ■ ISO 6432 standard

Enables world-wide inter-changeability.

#### ■ Cylinder mountings

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

#### ■ Magnetic as standard

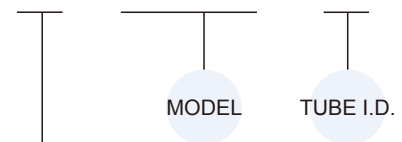
### Specification

Model	MCMIS				
Tube I.D. (mm)	10	12	16	20	25
Port size	M5×0.8			G1/8	
Medium	Air				
Max. operating pressure	1.0 MPa				
Min. operating pressure	0.1 MPa		0.08 MPa		
Proof pressure	1 MPa				
Lubricator	Not required				
Ambient temperature	-35~+80°C (No freezing)				
Available speed range	50~500 mm/sec				
Sensor switch	RCM (Refer to page 8-15)				
Sensor switch (band)	BM10	BM12	BM16	BM20	BM25

\* For precautions, please refer to page 3-2.

### Mounting accessories

**LB – MCMIS – 16**



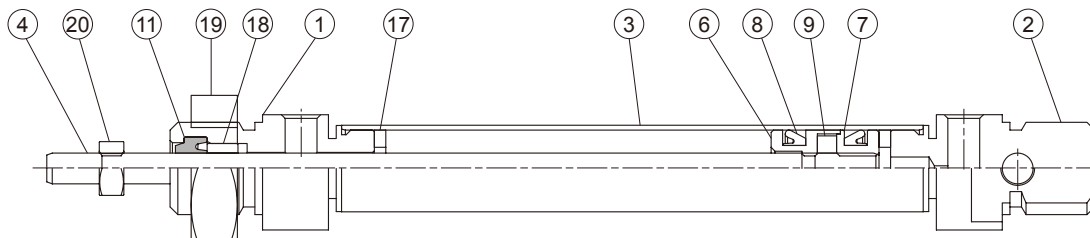
#### MOUNTING TYPE

	<b>LB</b>
	<b>FA</b>
	<b>FB</b>
	<b>SDB (+Pin)</b>
	<b>YP (Y+Pin)</b>

\* Material: Stainless steel

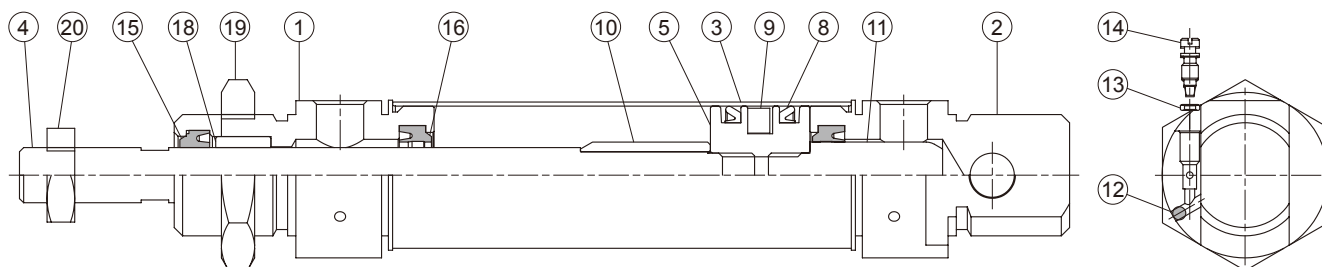
### Cushion pad

Unadjustable



### Cushion air

Adjustable



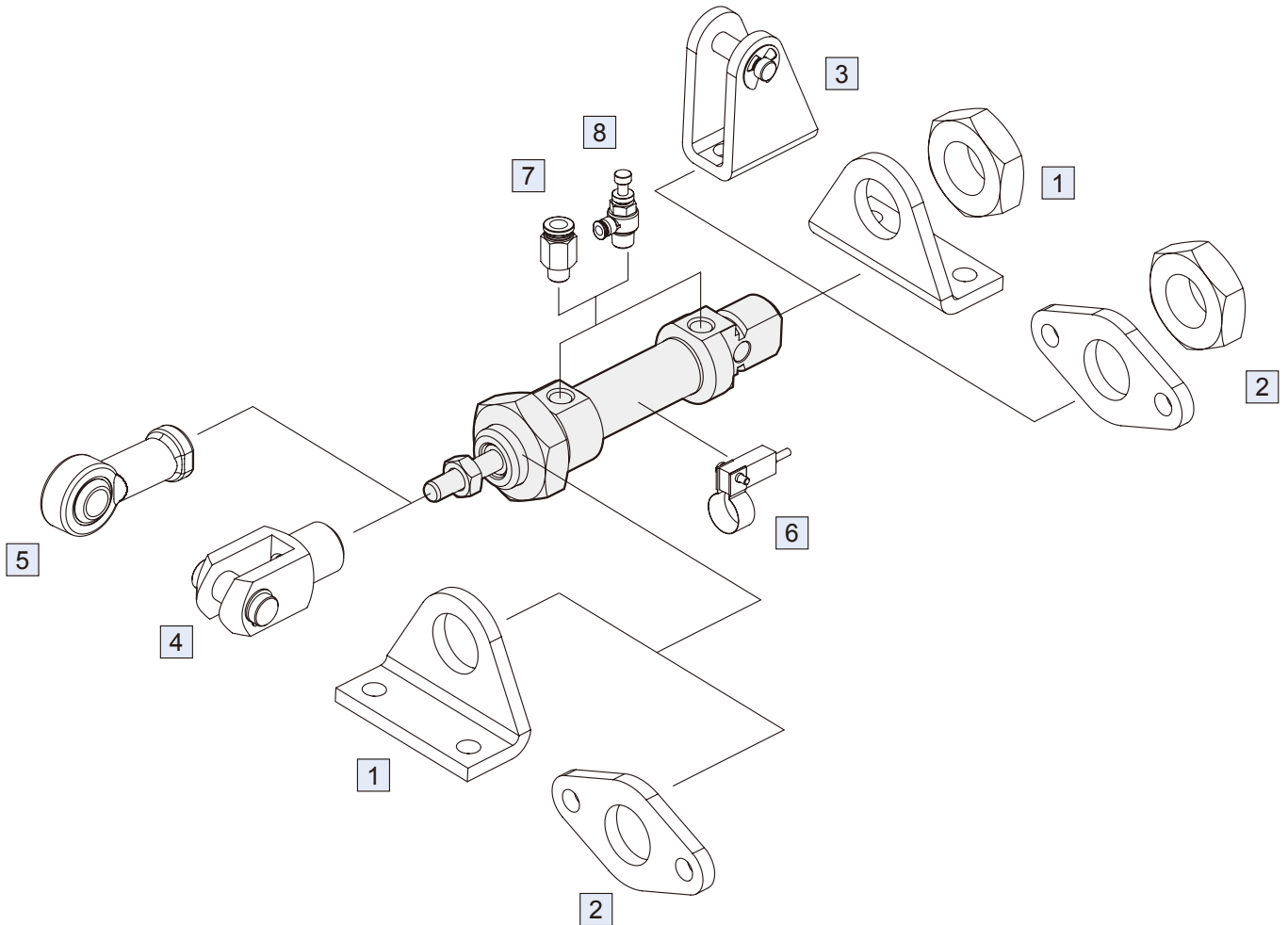
### Material

No.	Cushion		Part name	Material	Qty	Component parts (inclusion)	
	Pad	Air				Pad	Air
1	●	●	Head cover	SUS304	1	●	●
2	●	●	Rear cover	SUS304	1	●	●
3	●	●	Cylinder	SUS304	1		
4	●	●	Piston rod	SUS316	1		
5		●	Piston	Brass	1		●
6	●		Piston-H	Brass	1	●	
7	●		Piston-R	Brass	1	●	
8	●	●	Piston packing	PU	2	●	●
9	●	●	Magnet ring	Magnet	1	●	●
10		●	#1 Shock absorber axis	Aluminum alloy	1		●
11		●	#2 Shock absorber axis	Aluminum alloy	1		●
12		●	Steel ball	Stainless steel	2		●
13		●	Needle valve packing	NBR	2		●
14		●	Needle valve	Stainless steel	2		●
15	●	●	Rod packing	PU	1	●	●
16		●	Cushion ring	NBR	2		●
17	●		Cushion pad	NBR	2	●	
18	●	●	Bushing	Copper alloy	1	●	●
19	●	●	Nut	SUS304	1	●	●
20	●	●	Nut	SUS304	1	●	●

### Order example of Component parts

Tube I.D.	Cushion pad
ø10	CP-MCMIS-10
ø12	CP-MCMIS-12
ø16	CP-MCMIS-16
ø20	CP-MCMIS-20
ø25	CP-MCMIS-25

Tube I.D.	Cushion air
ø20	CP-MCMIS-20A
ø25	CP-MCMIS-25A

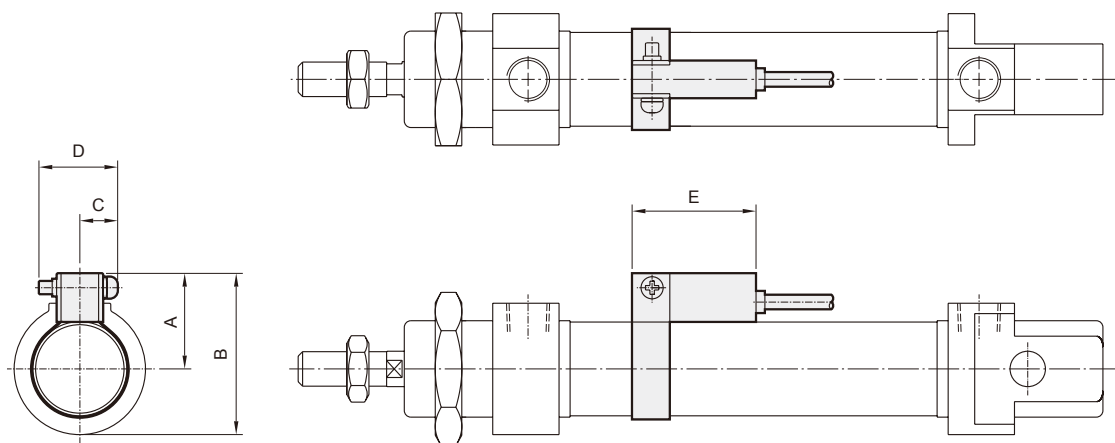


No.	Accessories	Material	Page
1	Mounting accessories LB	Stainless steel	3-57
2	Mounting accessories FA/FB	Stainless steel	3-57
3	Mounting accessories SDB+PIN	Stainless steel	3-58
4	Accessories Y+PIN	Stainless steel	3-58
5	Female rod ends PHS-S	Stainless steel	8-7
6	Sensor switch RCM+BM**	-	8-15
7	Fitting PC (PISCO)	-	7-3 (Vol.1)
8	Fitting JSC (PISCO)	-	7-15 (Vol.1)

### ■ Installation of sensor switch

Sensor switch: RCM

Sensor switch band: BM\*\*



Code Tube I.D.	A	B	C	D	E
10	17	24.5	10	16	28
12	18	28	10	16	28
16	20	30	10	16	28
20	22	35.5	10	16	28
25	25	38.5	10	16	28

### ■ Cylinder weight

Unit: g

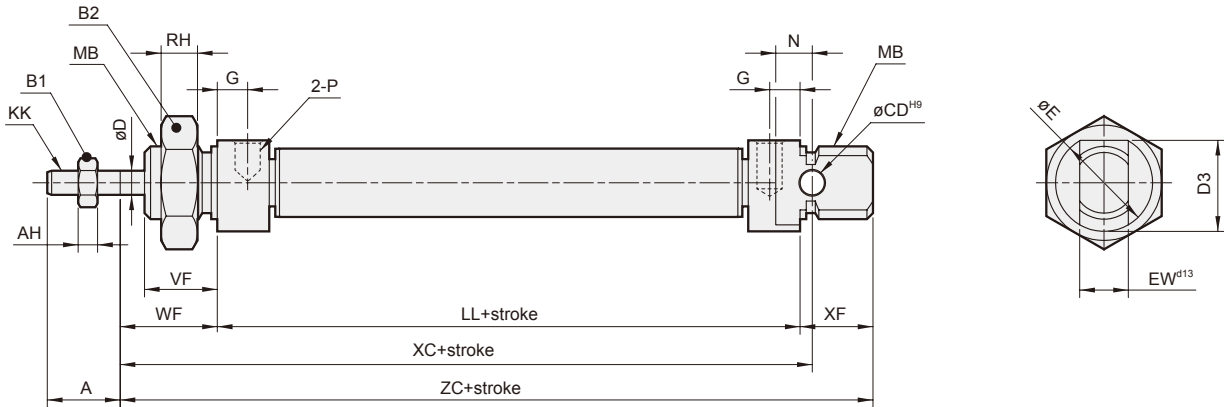
Model	Basic weight MCMIS-11	Stroke 25 mm MCMIS-11	Basic weight MCMIS-11-A	Stroke 25 mm MCMIS-11-A	Basic weight MCMIS-21	Stroke 25 mm MCMIS-21	Basic weight MCMIS-21-A	Stroke 25 mm MCMIS-21-A
Tube I.D.								
ø10	68	6	—	—	80	12	—	—
ø12	119	10	—	—	135	19	—	—
ø16	147	12	—	—	167	23	—	—
ø20	307	20	298	20	335	38	326	38
ø25	409	27	398	27	447	52	436	52

### Accessories weight

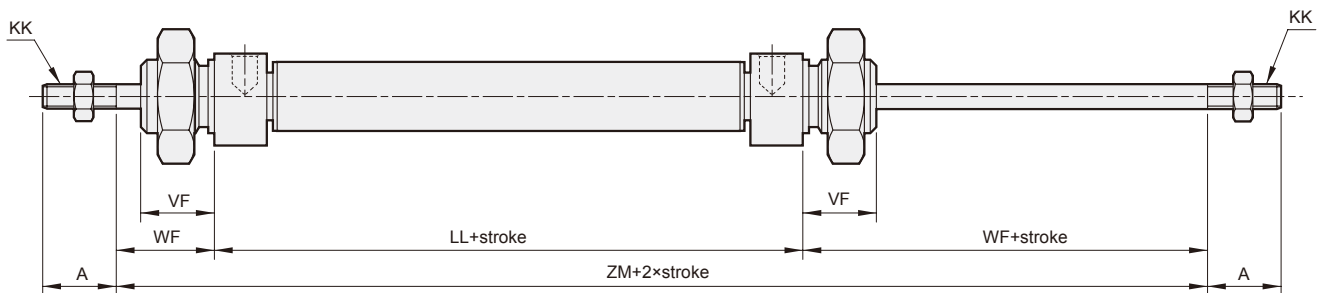
Unit: g

Model	LB	FA/FB	SDB	YP	Rod nut	Cover nut
Tube I.D.						
ø10	23	11	24	7	2	10
ø12	44	26	41	20	3	19
ø16	44	26	41	20	3	19
ø20	96	53	86	58	5	24
ø25	96	53	86	106	10	24

### 11

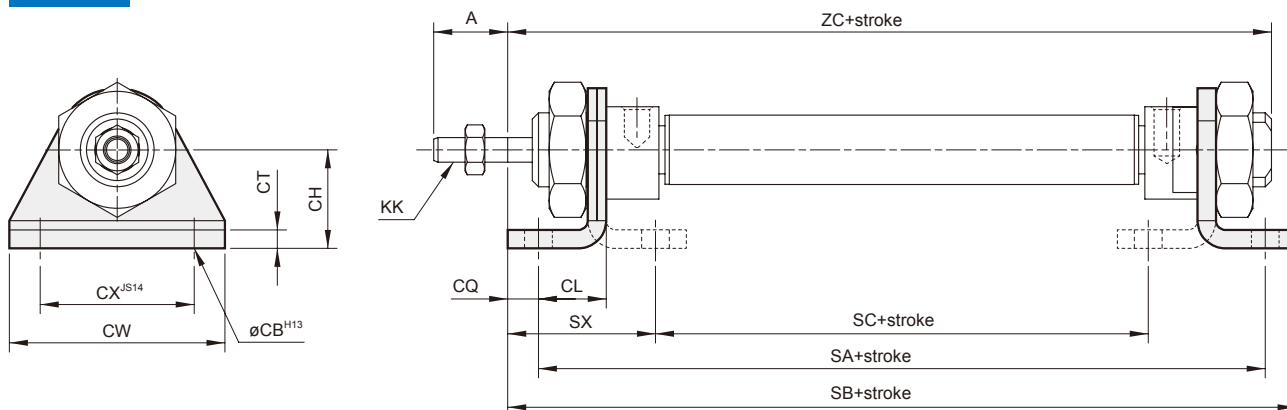


### 21



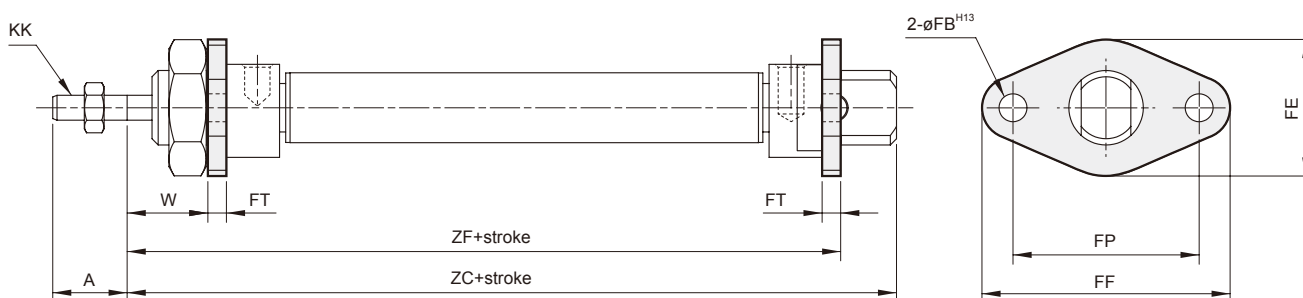
Code Tube I.D.	A	AH	B1	B2	CD	D	D3	E	EW	G	KK	LL	MB	N	ND	P	RH	VF	WF	XC	XF	ZC	ZM
10	12	3.2	7	16	4	4	15	16	8	5	M4×0.7	46	M12×1.25	6	12	M5×0.8	7	12	16	64	12	74	—
12	16	4	10	22	6	6	18	19	12	5	M6×1.0	48	M16×1.5	9	16	M5×0.8	5	17	22	75	18	88	—
16	16	4	10	22	6	6	18	19	12	4.5	M6×1.0	53	M16×1.5	9	16	M5×0.8	5	18	22	82	18	93	—
20	20	5	13	27	8	8	25.5	27	16	8	M8×1.25	67	M22×1.5	12	22	G1/8	8	20	24	95	20	111	115
25	22	6	17	27	8	10	28.5	30	16	8	M10×1.25	68	M22×1.5	12	22	G1/8	8	22	28	104	22	118	124

### LB



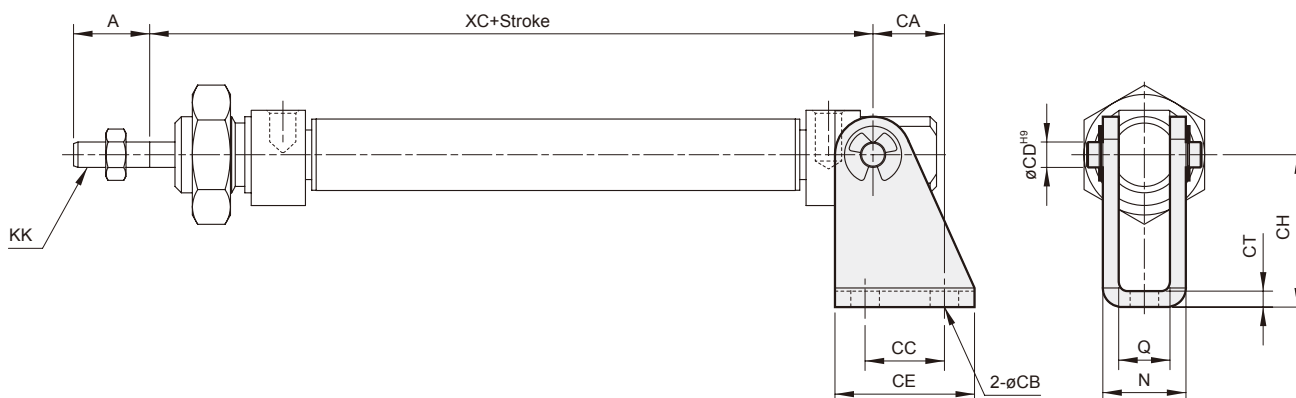
Code Tube I.D.	A	CB	CH	CL	CQ	CT	CW	CX	KK	SA	SB	SC	SX	ZC
10	12	4.5	16	11	5	3	35	25	M4×0.7	68	78	30	24	74
12	16	5.5	20	14	6	4	42	32	M6×1.0	76	90	28	32	88
16	16	5.5	20	14	6	4	42	32	M6×1.0	81	95	33	32	93
20	20	6.6	25	17	8	5	54	40	M8×1.25	101	116	43	36	111
25	22	6.6	25	17	8	5	54	40	M10×1.25	102	121	44	40	118

### FA / FB



Code Tube I.D.	A	FB	FE	FF	FP	FT	KK	W	ZC	ZF
10	12	4.5	22	40	30	3	M4×0.7	13	74	65
12	16	5.5	30	52	40	4	M6×1.0	18	88	74
16	16	5.5	30	52	40	4	M6×1.0	18	93	79
20	20	6.6	40	66	50	5	M8×1.25	19	111	96
25	22	6.6	40	66	50	5	M10×1.25	23	118	101

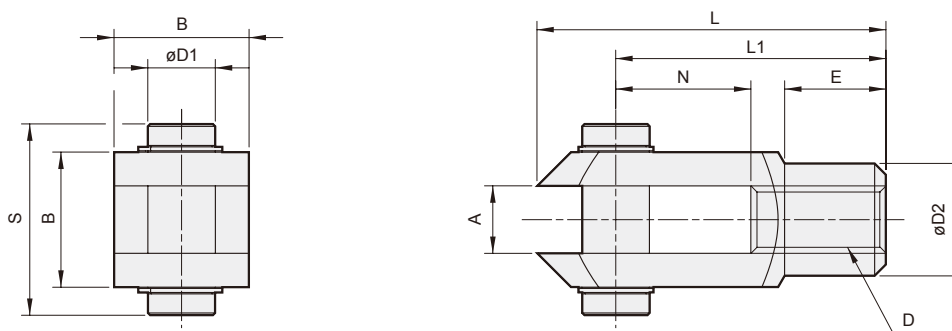
### SDB



Code Tube I.D.	A	CA	CB	CC	CD	CE	CH	CT	KK	N	Q	XC
10	12	11.25	4.5	12.5	4	22	24	2.5	M4×0.7	13.1	8.1	64
12	16	13	5.5	15	6	25	27	3	M6×1.0	18.1	12.1	75
16	16	13	5.5	15	6	25	27	3	M6×1.0	18.1	12.1	82
20	20	16	6.6	20	8	32	30	4	M8×1.25	24.1	16.1	95
25	22	16	6.6	20	8	32	30	4	M10×1.25	24.1	16.1	104

### YP

#### Y+Pin



Code Tube I.D.	A	B	D	D1	D2	E	L	L1	N	S
12, 16	6	12	M6×1.0	6	10	9	31	24	12	17
20	8	16	M8×1.25	8	14	12	42	32	16	21
25	10	20	M10×1.25	10	18	15	52	40	20	25