



Special spec



Rod end shape



Technical data



Caution for safety
(Read before installing)



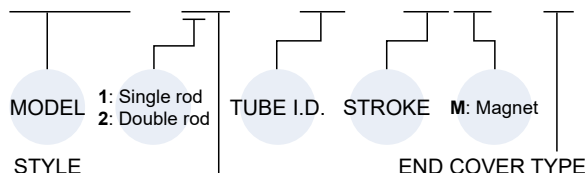
Table for standard stroke

Acting type	Tube I.D.	Stroke (mm)	Max. stroke (mm)
Single acting 13 15	ø6	15,30,45,60	60
	ø10	15,30,45,60	70
	ø16	15,30,45,60,75,100,125,150	150
Double acting 11	ø6	15,30,45,60,75,100	200
	ø10,16	↑ 150,200	300

* Intermediate stroke are available, please contact us.

Order example

MCMJ - 11 - 16 - 45M - B



Code	Symbol	Description	Code	Symbol	Tube I.D.
1 1		Double acting / Male thread	B		ø10,16
1 3		Single acting / Normally extended male thread	D		ø10,16
1 5		Single acting / Normally returned male thread	R		ø6,10,16

* Order for 21, 27 type, please contact us.

Order example of mounting accessories & connector

Accessories						Connector	
Code	LB	FA	T (With I+PIN)	NUT		Y	I
Cover type	B, R		D	-		All applicable	
Mounting Tube I.D.				Rod nut 	Cover nut 		
ø6	LB-M4-6	FA-M4-6	-	NUT-M3x0.5x2.4Hx5.5B	NUT-M6x1.0x4Hx8B	-	-
ø10	LB-M4-10	FA-M4-10	T-M4-10	NUT-M4x0.7x3.2Hx7B	NUT-M8x1.0x4Hx11B	Y-M4-10	I-M4-10
ø16	LB-M4-16	FA-M4-16	T-M4-16	NUT-M5x0.8x4Hx8B	NUT-M10x1.0x4Hx14B	Y-M4-16	I-M4-16

Features

■ High quality long service life

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.

Specification

Model	MCMJ		
Tube I.D. (mm)	ø6	ø10	ø16
Port size	M5×0.8		
Medium	Air		
Max. operating pressure	0.7 MPa		
Min. operating pressure (MPa)	Single acting	normally extended	0.25
		normally returned	0.15
	Double acting		0.12
Proof pressure	1 MPa		
Lubrication	Not required		
Ambient temperature	-5~+60°C (No freezing)		
Available speed range	50~500 mm/sec		
Max. allowable kinetic energy (J)	0.16	0.27	0.4
Sensor switch	RDC, RQC  , RCM 		
Sensor switch band	R*C	BKC-1 (Not for R*CV angle cable)	
	RCM	BM6	BM10 BM16

Tightening torque

Tube I.D.	Rod thread	Tightening torque (kgf·cm)	End cap thread	Tightening torque (kgf·cm)
ø6	M3×0.5	4.79	M6×1.0	24.6~26.6
ø10	M4×0.7	11.8	M8×1.0	60~65
ø16	M5×0.8	22.8	M10×1.0	110~120

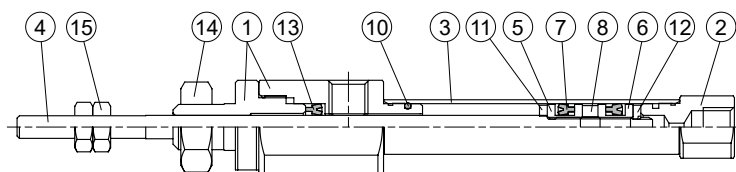
* Make sure the tightening torque within the value above, and avoid breaking the thread.

* The tolerance of tightening torque is ±5%.

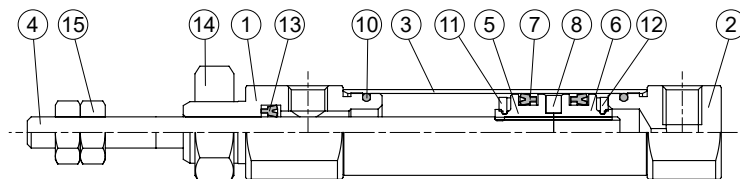
Pin

Applicable	Y & I connector	End cover D type
Code	PIN-Y-P (With snap ring)	PIN-D-P (With snap ring)
Fig Tube I.D.		
ø6	-	-
ø10	PIN-M4-10-1-P	PIN-M4-10-2-P
ø16	PIN-M4-16-1-P	PIN-M4-16-2-P

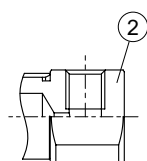
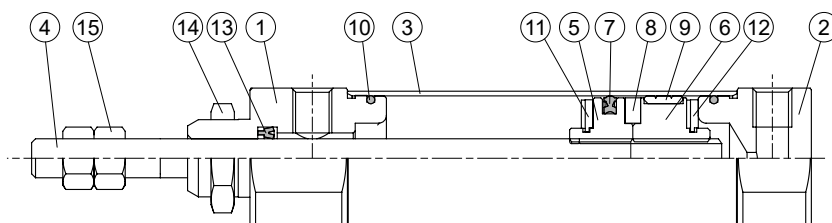
ø6



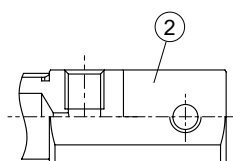
ø10



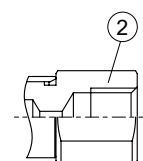
ø16



B type: ø10, ø16



D type: ø10, ø16



R type: ø6, ø10, ø16

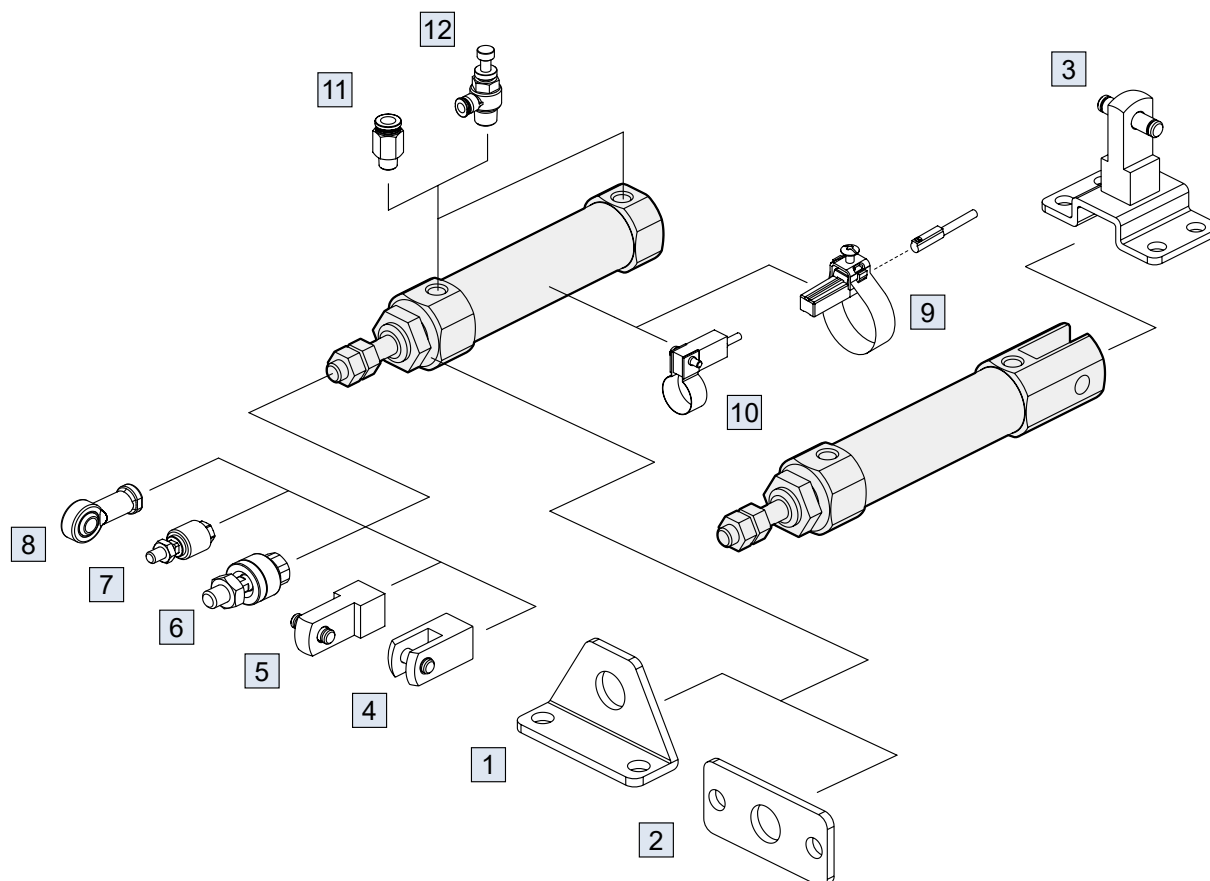
Material

No.	Tube I.D. Part name	6	10	16	Q'y	Component parts (inclusion)
1	Rod cover	Aluminum alloy			1	●
2	Head cover	Aluminum alloy			1	●
3	Tube	Stainless steel			1	
4	Piston rod	Stainless steel			1	
5	Piston-R	Aluminum alloy			1	●
6	Piston-H	Aluminum alloy			1	●
7	Piston packing	NBR			2*1	●
8	Magnet ring	Magnet material			1	●
9	Wear ring	—		Resin	1	●
10	Cover ring	NBR			2	●
11	Cushion packing #1	TPU	NBR		1	●
12	Cushion packing #2	NBR			1	●
13	Snap ring	NBR			1	●
14	Tie nut	Carbon steel			1	●
15	Rod front nut	Carbon steel			2	●

*1. Cylinder bore 6 (Required quantity: 1 pc)

Order example of Component parts

Tube I.D.	Component parts
ø6	CP-MCMJ-6-R
ø10	CP-MCMJ-10-R
	CP-MCMJ-10-B
	CP-MCMJ-10-D
ø16	CP-MCMJ-16-R
	CP-MCMJ-16-B
	CP-MCMJ-16-D

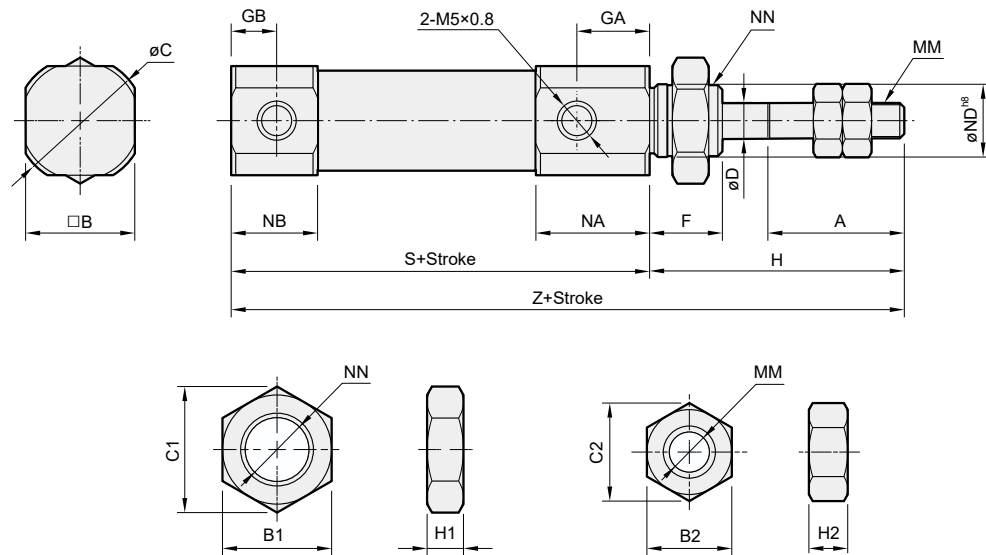


No.	Accessories	Material	Page link
1	Mounting accessories LB	Carbon steel	Link , Link , Link
2	Mounting accessories FA	Carbon steel	Link , Link , Link
3	Mounting accessories T+I+PIN (*)	Carbon steel	Link , Link , Link , Link
4	Accessories Y+PIN	Carbon steel	Link
5	Accessories I+PIN	Carbon steel	Link
6	Floating joint MFC	Carbon steel	Link

* Contains I+PIN. Only for end cover "D" type.

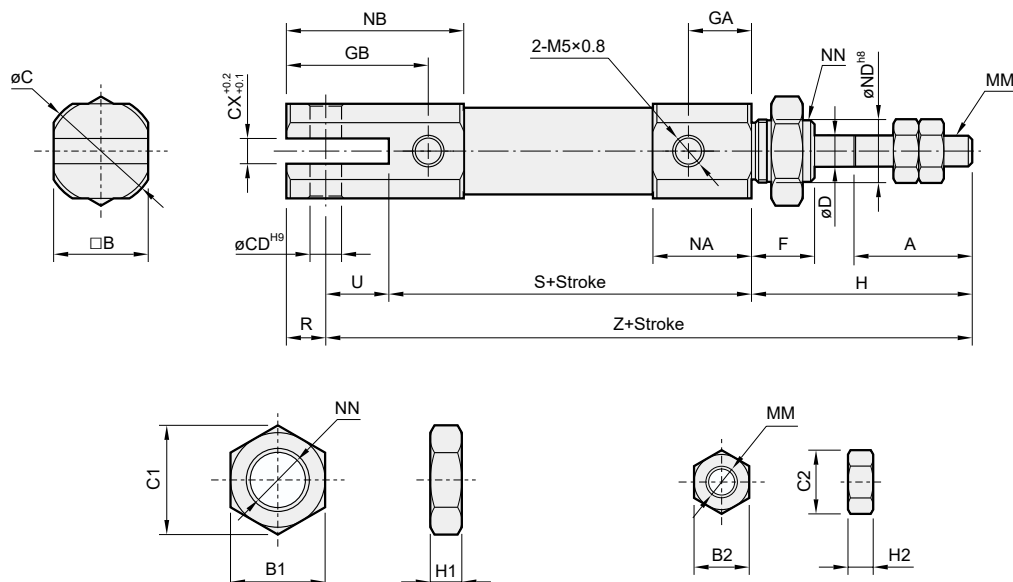
No.	Accessories	Material	Page link
7	Floating joint MFCS	Carbon steel	Link
8	Female rod ends PHS	Carbon steel	Link
9	Sensor switch R*C+BKC-1	—	Link
10	Sensor switch RCM+BM**	—	Link
11	Fitting PC (PISCO)	—	Link
12	Speed controller JSC (PISCO)	—	Link

B



Code Tube I.D.	A	B	B1	B2	C	C1	C2	D	F	GA	GB	H	H1	H2	MM	NA	NB	ND ^{h8}	NN	S	Z
10	15	12	11	7	14	11.5	8.1	4	8	8	5	28	4	3.2	M4×0.7	12.5	9.5	8 ^{0 -0.022}	M8×1.0	46	74
16	15	18	14	8	20	16.2	9.2	5	8	8	5	28	4	4	M5×0.8	12.5	9.5	10 ^{0 -0.022}	M10×1.0	47	75

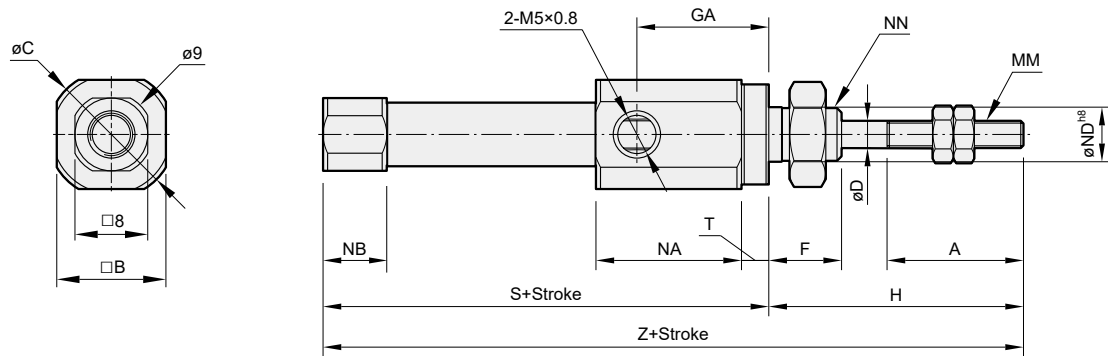
D



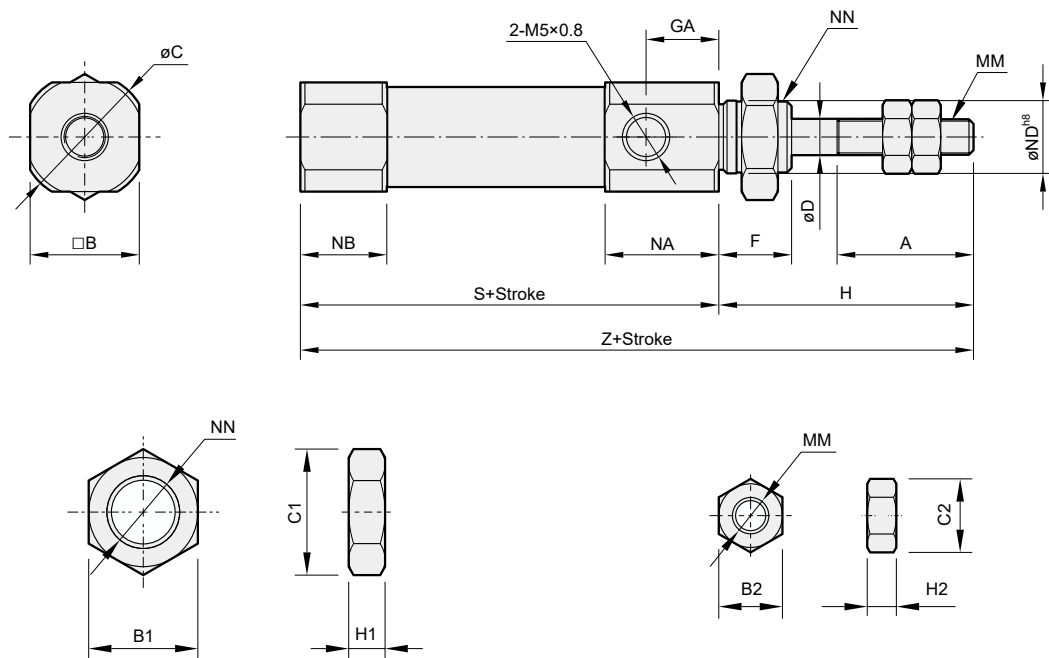
Code Tube I.D.	A	B	B1	B2	C	CD	CX	C1	C2	D	F	GA	GB	H	H1	H2	MM	NA	NB	ND ^{h8}	NN	R	S	U	Z
10	15	12	11	7	14	3.3	3.2	12.7	8.1	4	8	8	18	28	4	3.2	M4×0.7	12.5	22.5	8 ^{0 -0.022}	M8×1.0	5	46	8	82
16	15	18	14	8	20	5	6.5	16.2	9.2	5	8	8	23	28	4	4	M5×0.8	12.5	27.5	10 ^{0 -0.022}	M10×1.0	8	47	10	85

R

ø6



ø10~ø16



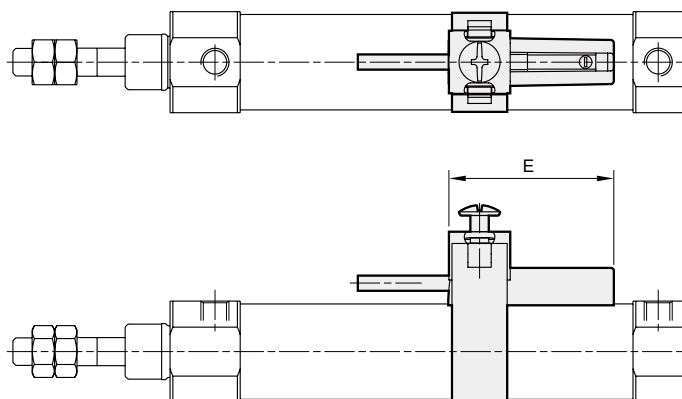
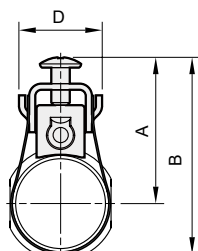
Code Tube I.D.	A	B	B1	B2	C	C1	C2	D	F	GA	H	H1	H2	MM	NA	NB	ND ^{h8}	NN	S	T	Z
6	15	12	8	5.5	14	9.2	6.4	3	8	14.5	28	4	2.4	M3×0.5	16	7	6 ⁰ _{-0.022}	M6×1.0	49	3	77
10	15	12	11	7	14	12.7	8.1	4	8	8	28	4	3.2	M4×0.7	12.5	9.5	8 ⁰ _{-0.022}	M8×1.0	46	—	74
16	15	18	14	8	20	16.2	9.2	5	8	8	28	4	4	M5×0.8	12.5	9.5	10 ⁰ _{-0.022}	M10×1.0	47	—	75

PEN CYLINDER

■ Installation of sensor switch

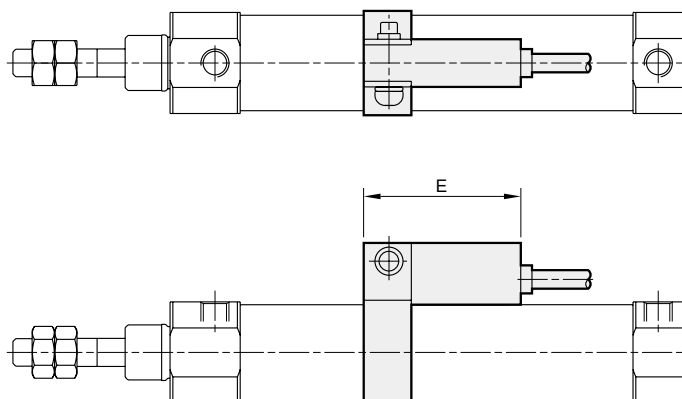
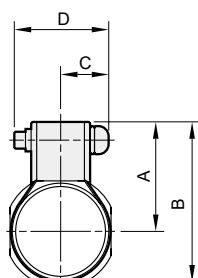
Sensor switch: R*C
Band: BKC-1

Code Tube I.D.	A	B	D	E
6	19.5	23.5	13.5	27
10	21.5	27.5	13.5	27
16	24.5	33.5	13.5	27



Sensor switch: RCM
Band: BM**

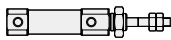
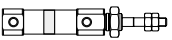
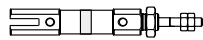
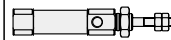
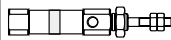
Code Tube I.D.	A	B	C	D	E
6	15	21	10	16	28
10	17	23	10	16	28
16	20	29	10	16	28



■ Cylinder & accessories weight

Cylinder weight

Unit: g

Model	Basic weight MCMJ-11-B	Stroke 15 mm MCMJ-11-B	Basic weight MCMJ-11-D	Stroke 15 mm MCMJ-11-D	Basic weight MCMJ-11-R	Stroke 15 mm MCMJ-11-R
Tube I.D.						
$\varnothing 6$	—	—	—	—	18	2
$\varnothing 10$	21	4	24	4	23	3
$\varnothing 16$	46	7	52	8	46	7

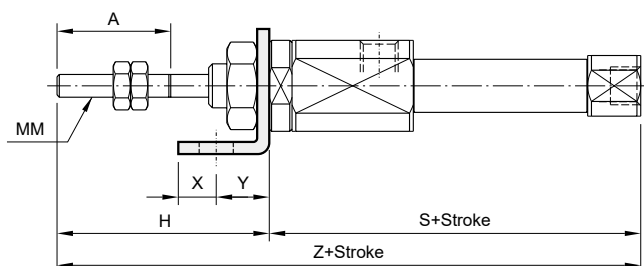
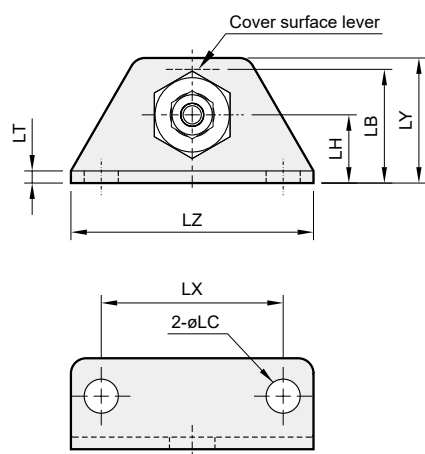
Accessories weight

Unit: g

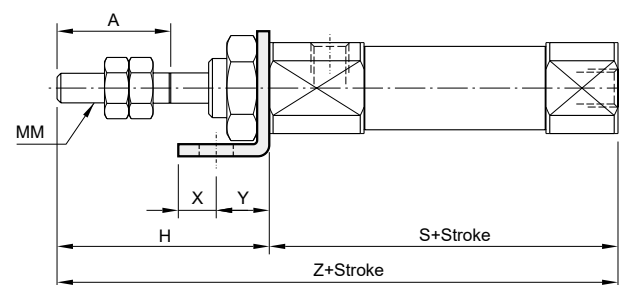
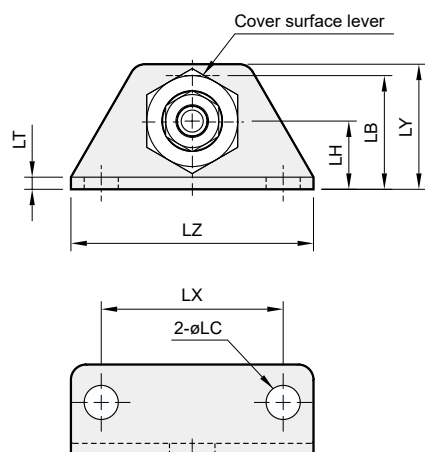
Model	LB	FA	T	Y	I	Pin
Tube I.D.						
$\varnothing 6$	9	5	—	—	—	—
$\varnothing 10$	9	5	14	22	16	1
$\varnothing 16$	21	13	54	17	21	3

LB

$\phi 6$



$\phi 10 \sim \phi 16$

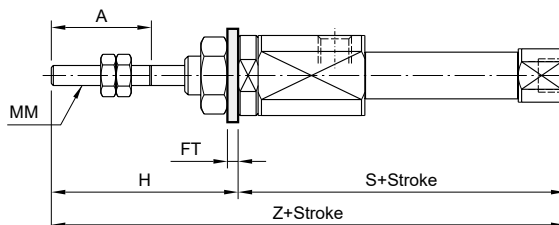
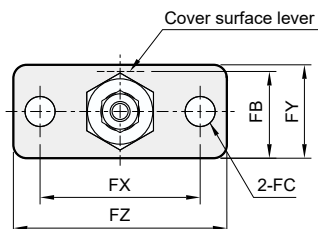


Code Tube I.D.	A	H	LB	LC	LH	LT	LX	LY	LZ	MM	S	X	Y	Z
6	15	28	15	4.5	9	1.6	24	16.5	32	M3×0.5	49	5	7	77
10	15	28	15	4.5	9	1.6	24	16.5	32	M4×0.7	46	5	7	74
16	15	28	23	5.5	14	2.3	33	25	42	M5×0.8	47	6	9	75

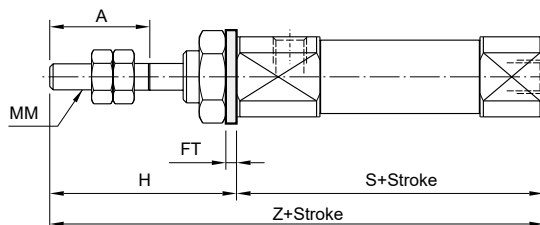
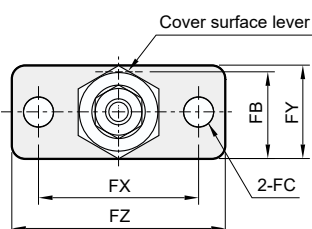
PEN CYLINDER

FA

ø6



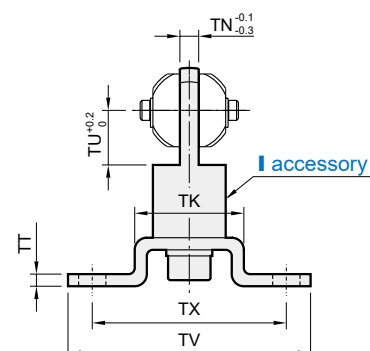
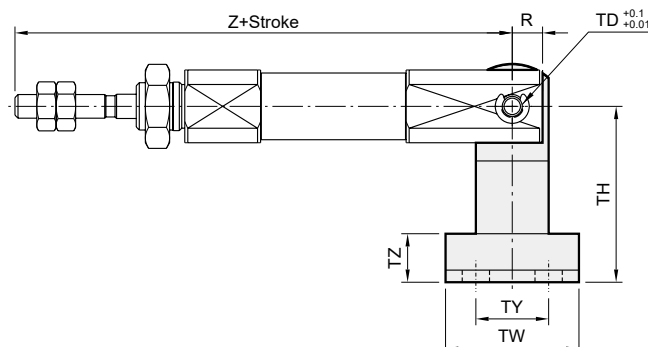
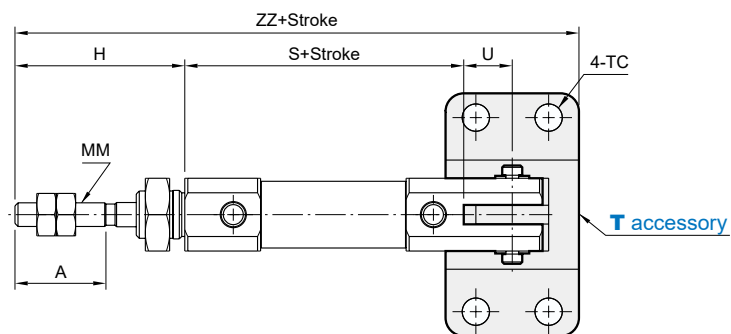
ø10~ø16



Code Tube I.D.	A	FB	FC	FT	FX	FY	FZ	H	MM	S	Z
6	15	13	4.5	1.6	24	14	32	28	M3×0.5	49	77
10	15	13	4.5	1.6	24	14	32	28	M4×0.7	46	74
16	15	19	5.5	2.3	33	20	42	28	M5×0.8	47	75

T

Contains I+PIN

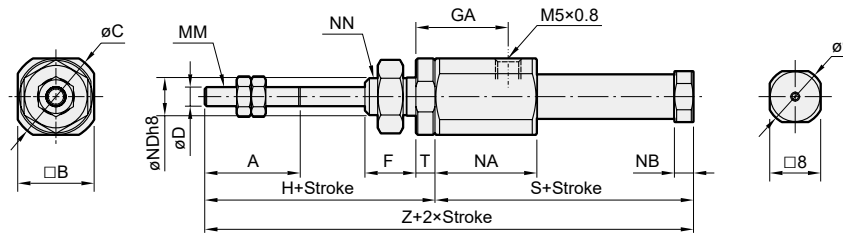


Code Tube I.D.	A	H	MM	R	S	TC	TD	TH	TK	TN	TT	TU	TV	TW	TX	TY	TZ	U	Z	ZZ
10	15	28	M4×0.7	5	46	4.5	3.3	29	18	3.1	2	9	40	22	32	12	8	8	8	93
16	15	28	M5×0.8	8	47	5.5	5	35	20	6.4	2.3	14	48	28	38	16	10	10	10	99

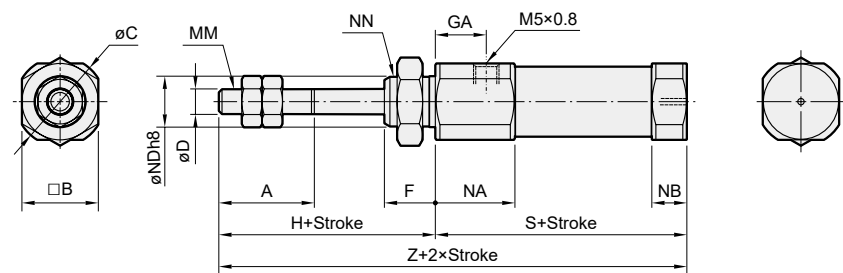
PEN CYLINDER

13

$\phi 6$



$\phi 10, \phi 16$



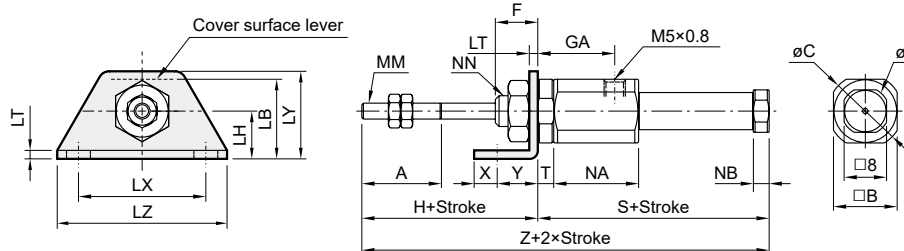
Code Tube I.D.	A	B	C	D	F	GA	H	MM	NA	NB	ND	NN	T
6	15	12	14	3	8	14.5	28	M3x0.5	16	3	6 ⁰ _{-0.018}	M6x1.0	3
10	15	12	14	4	8	8	28	M4x0.7	12.5	5.5	8 ⁰ _{-0.022}	M8x1.0	—
16	15	18	20	5	8	8	28	M5x0.8	12.5	5.5	10 ⁰ _{-0.022}	M10x1.0	—

* (S), (Z) () indicate the size of that with magnet ring.

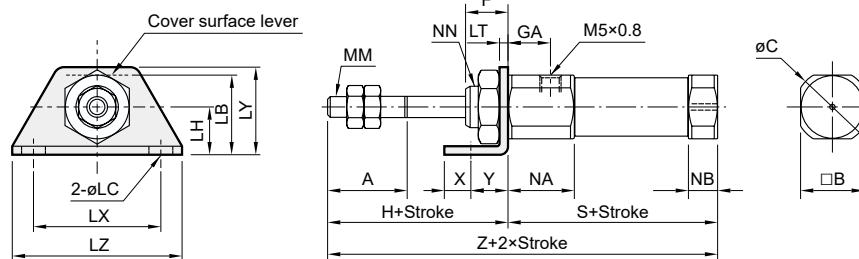
Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	46.5 (51.5)	55.5 (60.5)	59.5 (64.5)	73.5 (78.5)	—	—	—	—	74.5 (79.5)	83.5 (88.5)	87.5 (92.5)	101.5 (106.5)	—	—	—	—
10	48.5	56	68	80	—	—	—	—	76.5	84	96	108	—	—	—	—
16	48.5	57	69	81	87	111	129	141	76.5	85	97	109	115	139	157	169

LB

$\phi 6$



$\phi 10, \phi 16$



Code Stroke Tube I.D.	A	B	C	D	F	GA	H	LB	LC	LH	LT	LX	LY	LZ	MM	NA	NB	NN	T	X	Y
6	15	12	14	3	8	14.5	28	15	4.5	9	1.6	24	16.5	32	M3x0.5	16	3	M6x1.0	3	5	7
10	15	12	14	4	8	8	28	15	4.5	9	1.6	24	16.5	32	M4x0.7	12.5	5.5	M8x1.0	—	5	7
16	15	18	20	5	8	8	28	23	5.5	14	2.3	33	25	42	M5x0.8	12.5	5.5	M10x1.0	—	6	9

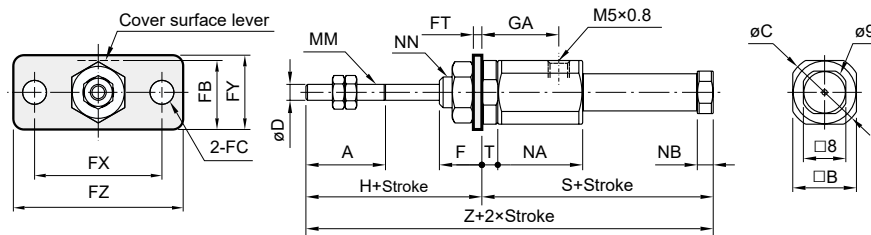
Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	46.5 (51.5)	55.5 (60.5)	59.5 (64.5)	73.5 (78.5)	—	—	—	—	74.5 (79.5)	83.5 (88.5)	87.5 (92.5)	101.5 (106.5)	—	—	—	—
10	48.5	56	68	80	—	—	—	—	76.5	84	96	108	—	—	—	—
16	48.5	57	69	81	87	111	129	141	76.5	85	97	109	115	139	157	169

* (S), (Z) () indicate the size of that with magnet ring.

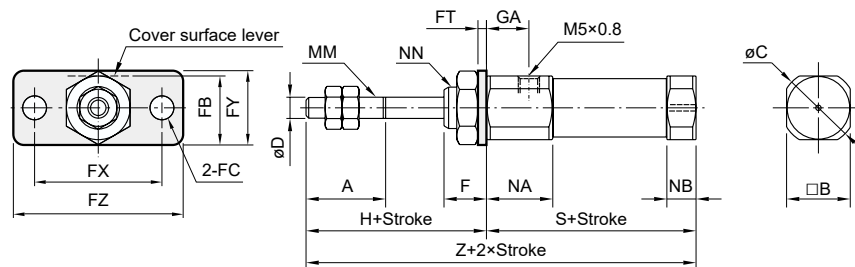
PEN CYLINDER

FA

ø6



ø10~ø16



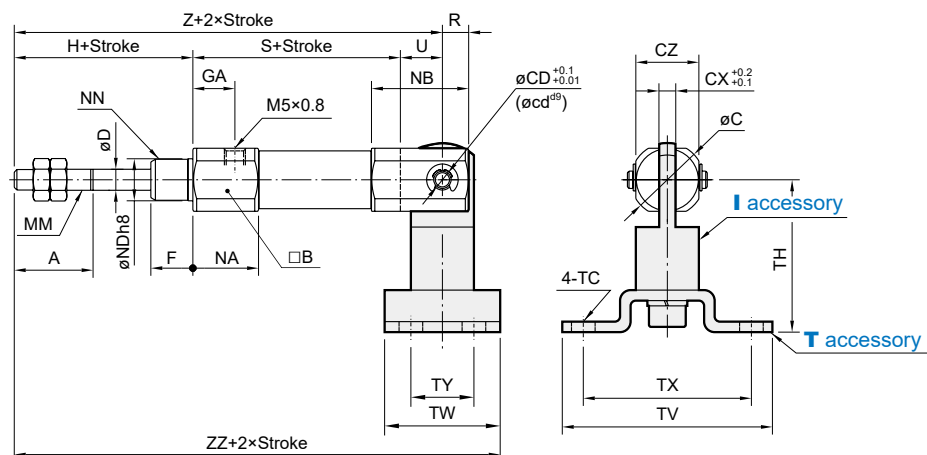
Code Tube I.D.	A	B	C	D	F	GA	H	FB	FC	FT	FX	FY	FZ	MM	NA	NB	NN	T	X	Y
6	15	12	14	3	8	14.5	28	11	4.5	1.6	24	14	32	M3×0.5	16	3	M6×1.0	3	5	7
10	15	12	14	4	8	8	28	13	4.5	1.6	24	14	32	M4×0.7	12.5	5.5	M8×1.0	—	5	7
16	15	18	20	5	8	8	28	19	5.5	2.3	33	20	42	M5×0.8	12.5	5.5	M10×1.0	—	6	9

Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	46.5 (51.5)	55.5 (60.5)	59.5 (64.5)	73.5 (78.5)	—	—	—	—	74.5 (79.5)	83.5 (88.5)	87.5 (92.5)	101.5 (106.5)	—	—	—	—
10	48.5	56	68	80	—	—	—	—	76.5	84	96	108	—	—	—	—
16	48.5	57	69	81	87	111	129	141	76.5	85	97	109	115	139	157	169

* (S), (Z) () indicate the size of that with magnet ring.

T

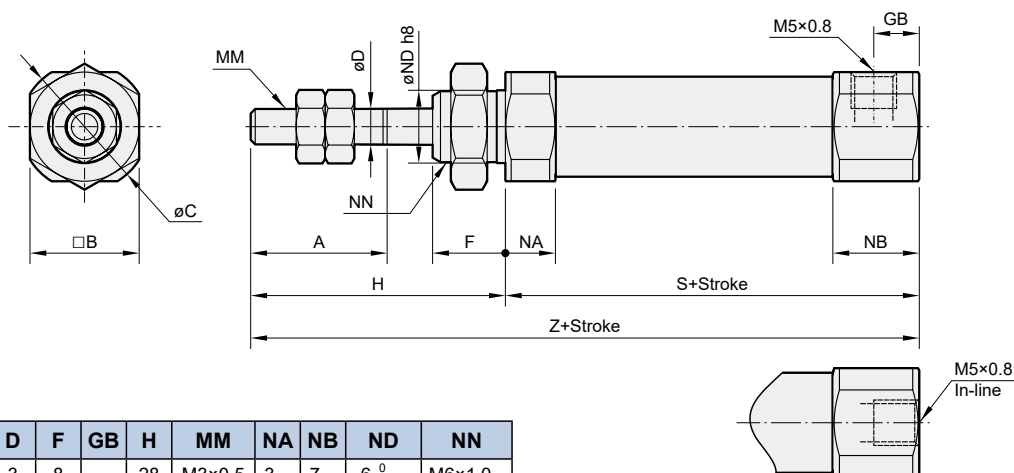
Contains I+PIN



Code Tube I.D.	A	B	C	CD (cd)	CX	CZ	D	F	GA	H	MM	NA	NB	ND	NN	R	TC	TH	TV	TW	TX	TY	U
10	15	12	14	3.3	3.2	12	4	8	8	28	M4×0.7	12.5	18.5	8 ⁰ _{-0.022}	M8×1.0	5	4.5	29	40	22	32	12	8
16	15	18	20	5	6.5	18	5	8	8	28	M5×0.8	12.5	23.5	10 ⁰ _{-0.022}	M10×1.0	8	5.5	35	48	28	38	16	10

Code Stroke Tube I.D.	S								Z								ZZ							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
10	48.5	56	68	80	—	—	—	—	84.5	92	104	116	—	—	—	—	95.5	103	115	127	—	—	—	—
16	48.5	57	69	81	87	111	129	141	86.5	95	107	119	125	149	167	179	100.5	109	121	133	139	163	181	193

15

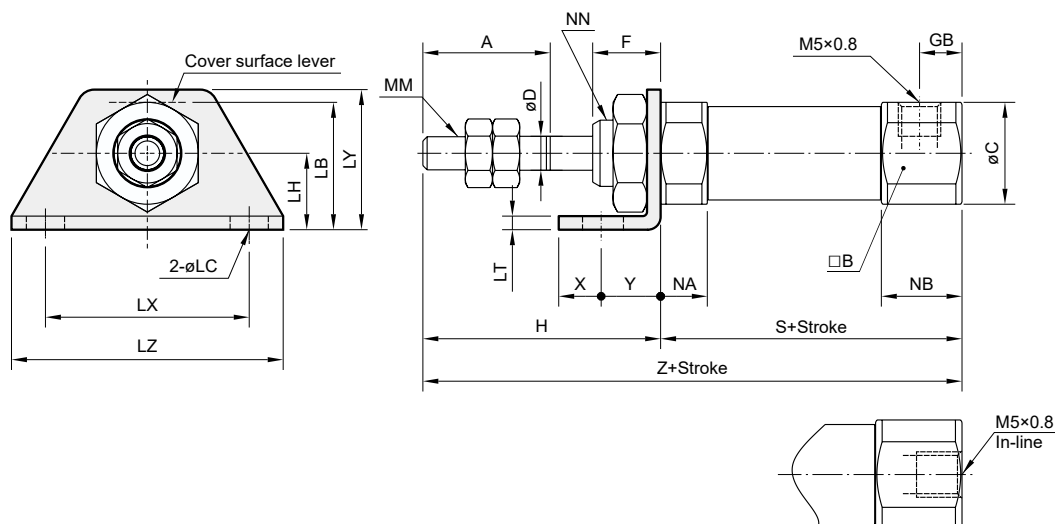


Code Tube I.D.	A	B	C	D	F	GB	H	MM	NA	NB	ND	NN
6	15	8	9	3	8	—	28	M3×0.5	3	7	6 ⁰ _{-0.018}	M6×1.0
10	15	12	14	4	8	5	28	M4×0.7	5.5	9.5	8 ⁰ _{-0.022}	M8×1.0
16	15	18	20	5	8	5	28	M5×0.8	5.5	9.5	10 ⁰ _{-0.022}	M10×1.0

Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	34.5 (39.5)	43.5 (48.5)	47.5 (52.5)	61.5 (66.5)	—	—	—	—	62.5 (67.5)	71.5 (76.5)	75.5 (80.5)	89.5 (94.5)	—	—	—	—
10	45.5	53	65	77	—	—	—	—	73.5	81	93	105	—	—	—	—
16	45.5	54	66	78	84	108	126	138	73.5	82	94	106	112	136	154	166

* (S), (Z) () indicate the size of that with magnet ring.

LB



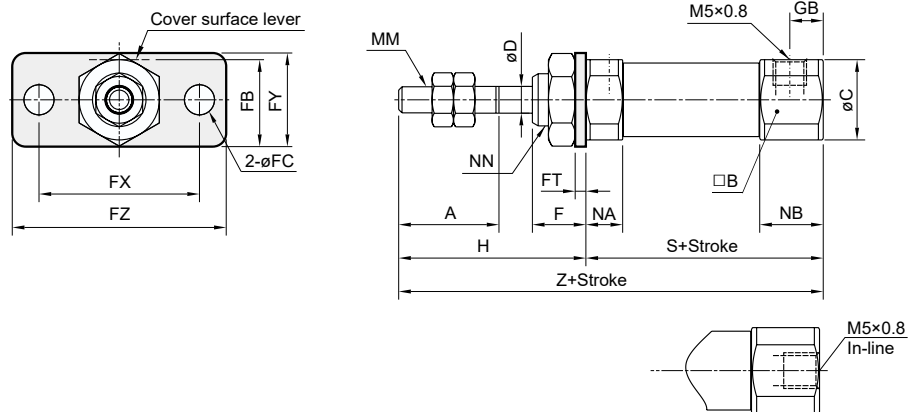
Code Tube I.D.	A	B	C	D	F	GB	H	LB	LC	LH	LT	LX	LY	LZ	MM	NA	NB	NN	X	Y
6	15	8	9	3	8	—	28	13	4.5	9	1.6	24	16.5	32	M3×0.5	3	7	M6×1.0	5	7
10	15	12	14	4	8	5	28	15	4.5	9	1.6	24	16.5	32	M4×0.7	5.5	9.5	M8×1.0	5	7
16	15	18	20	5	8	5	28	23	5.5	14	2.3	33	25	42	M5×0.8	5.5	9.5	M10×1.0	6	9

Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	34.5 (39.5)	43.5 (48.5)	47.5 (52.5)	61.5 (66.5)	—	—	—	—	62.5 (67.5)	71.5 (76.5)	75.5 (80.5)	89.5 (94.5)	—	—	—	—
10	45.5	53	65	77	—	—	—	—	73.5	81	93	105	—	—	—	—
16	45.5	54	66	78	84	108	126	138	73.5	82	94	106	112	136	154	166

* (S), (Z) () indicate the size of that with magnet ring.

PEN CYLINDER

FA



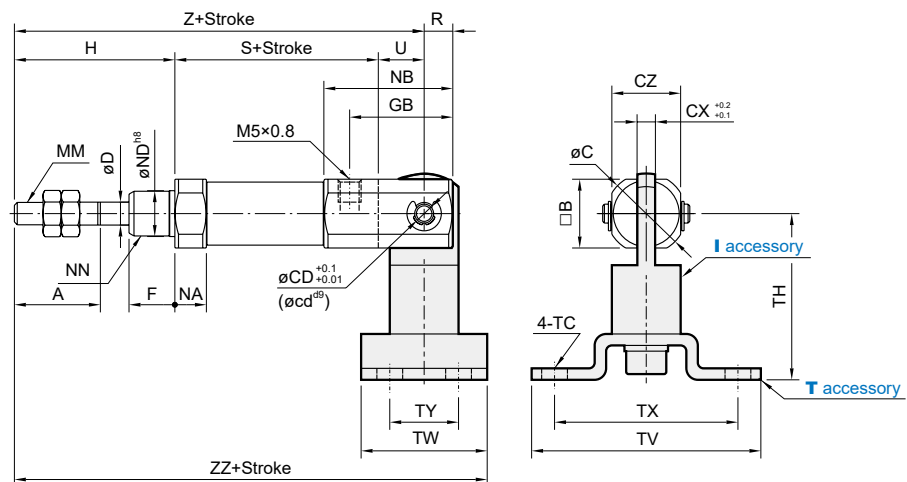
Code Tube I.D.	A	B	C	D	F	GB	H	FB	FC	FT	FX	FY	FZ	MM	NA	NB	NN	X	Y
6	15	8	9	3	8	—	28	11	4.5	1.6	24	14	32	M3×0.5	3	7	M6×1.0	5	7
10	15	12	14	4	8	5	28	13	4.5	1.6	24	14	32	M4×0.7	5.5	9.5	M8×1.0	5	7
16	15	18	20	5	8	5	28	19	5.5	2.3	33	20	42	M5×0.8	5.5	9.5	M10×1.0	6	9

Code Stroke Tube I.D.	S *								Z *							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
6	34.5 (39.5)	43.5 (48.5)	47.5 (52.5)	61.5 (66.5)	—	—	—	—	62.5 (67.5)	71.5 (76.5)	75.5 (80.5)	89.5 (94.5)	—	—	—	—
10	45.5	53	65	77	—	—	—	—	73.5	81	93	105	—	—	—	—
16	45.5	54	66	78	84	108	126	138	73.5	82	94	106	112	136	154	166

* (S), (Z) () indicate the size of that with magnet ring.

T

Contains I+PIN

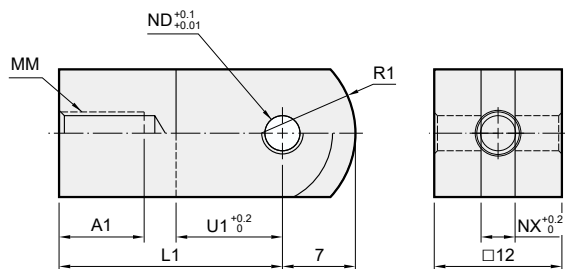


Code Stroke Tube I.D.	A	B	C	CD (cd)	CX	CZ	D	F	GB	H	MM	NA	NB	ND	NN	R	TC	TH	TV	TW	TX	TY	U
10	15	12	14	3.3	3.2	12	4	8	18	28	M4×0.7	5.5	22.5	8 ⁰ _{-0.022}	M8×1.0	5	4.5	29	40	22	32	12	8
16	15	18	20	5	6.5	18	5	8	23	28	M5×0.8	5.5	27.5	10 ⁰ _{-0.022}	M10×1.0	8	5.5	35	48	28	38	16	10

Code Stroke Tube I.D.	S								Z								ZZ							
	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150	5~15	16~30	31~45	46~60	61~75	76~100	101~125	126~150
10	45.5	53	65	77	—	—	—	—	81.5	89	101	113	—	—	—	—	92.5	100	112	124	—	—	—	—
16	45.5	54	66	78	84	108	126	138	83.5	92	104	116	122	146	164	176	97.5	106	118	130	136	160	178	190

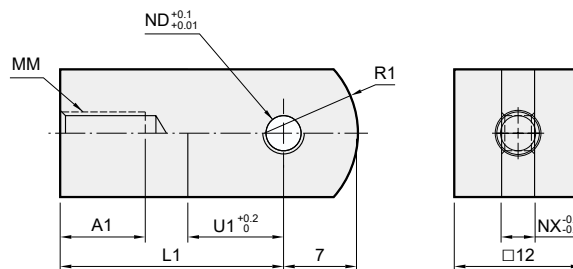
PEN CYLINDER

Y connector



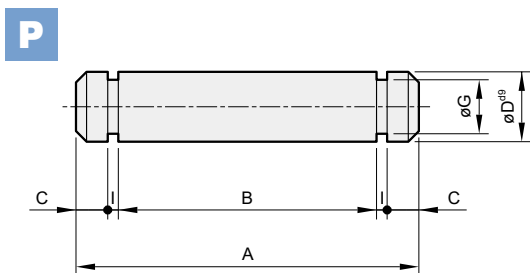
Code Tube I.D.	A1	L1	MM	ND	NX	R1	U1
10	8	21	M4×0.7	3.3	3.2	8	10
16	11	21	M5×0.8	5	6.5	12	10

I connector



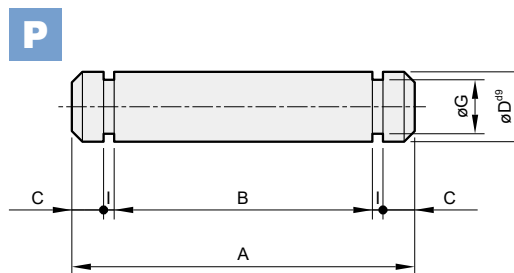
Code Tube I.D.	A1	L1	MM	ND	NX	R1	U1
10	8	21	M4×0.7	3.3	3.1	8	9
16	8	25	M5×0.8	5	6.4	12	14

PIN



for Y & I connector

Code Tube I.D.	A	B	C	D ^{d9}	G	I	Split pin
10	16.2	12.2	1.5	3.3 ^{-0.03 / -0.06}	2.5	0.5	E-2.5
16	16.2	12.2	1.5	5 ^{-0.03 / -0.06}	4	0.7	E-4



for end cover D type

Code Tube I.D.	A	B	C	D ^{d9}	G	I	Split pin
10	15.2	12.2	1	3.3 ^{-0.03 / -0.06}	2.5	0.5	E-2.5
16	22.7	18.3	1.5	5 ^{-0.03 / -0.06}	4	0.7	E-4