

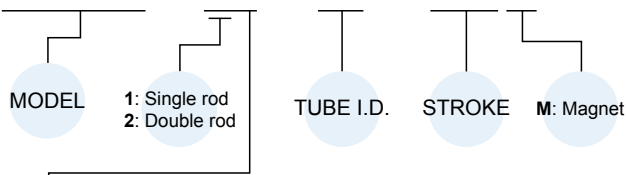
Table for standard stroke

Tube I.D.	Stroke (mm)
ø32,40	50,75,100,125,150,175,200,250,300,350,400,450,500
ø50,63	↑ 600
ø80,100	↑ 600,700

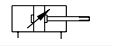


- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

Order example

MCQI2 – 11 – 50 – 100M



STYLE

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

- * Order example for special specification, refer to page 0-7.
- * Order example for Rc or NPT thread please consult us.

Features

■ Non lubrication

Special housing and bushing enables self lubrication of piston rod.

■ High quality long service life

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

■ ISO-VDMA standard specification

Conforms to ISO-6431 and VDMA 24562 specification enabling worldwide interchangeability.

■ Easy to insert reed switch

With four grooves on the tube, proximity and reed sensors can be easily inserted into any position.

Specification

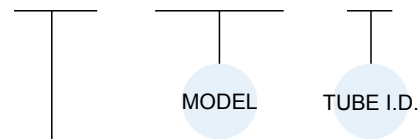
Model	MCQI2
Tube I.D. (mm)	32,40,50,63,80,100
Medium	Air
Operating pressure range	0.05~1 MPa
Proof pressure	1.5 MPa
Ambient temperature	-5~+60°C (No freezing)
Available speed range	50~500 mm/sec
Sensor switch (*)	RCI

* RCI specification, please refer to page 8-11.

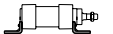
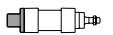

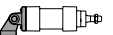

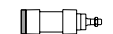
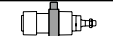



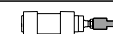
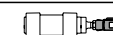
Mounting accessories

* Use the same accessories with MCQV.

FAC – MCQV – 50



MOUNTING TYPE

	LB
	CA
	CB
	CDB (+CB+PIN)
	FAC
	FBC
	TA
	TB
	TC
	Y
	I
	YS (Y+Floating+PIN)

Model is MCQI2

Refer to MCQV dimension

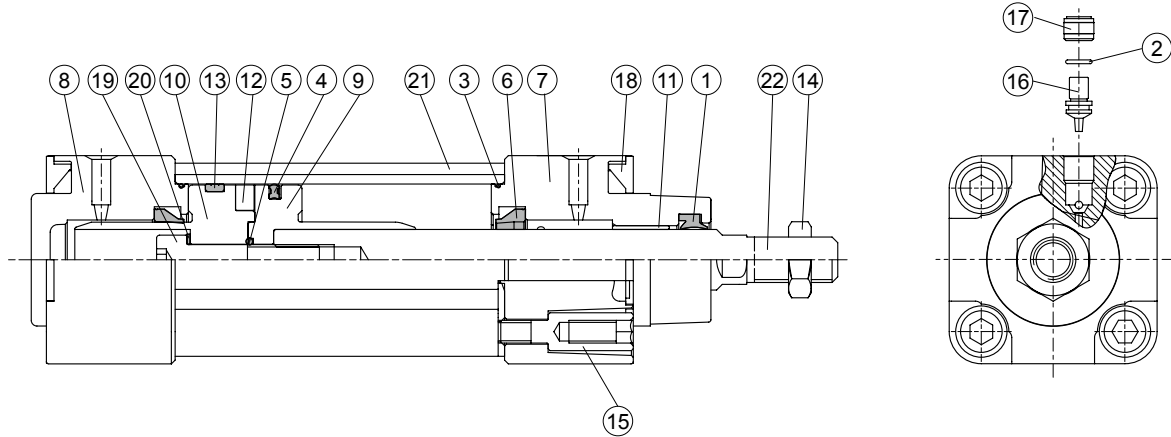
MCQI2-11 Inside structure & Parts list

ISO-VDMA **STANDARD PROFILE CYLINDER**



Single rod 11 type

ø32~ø100

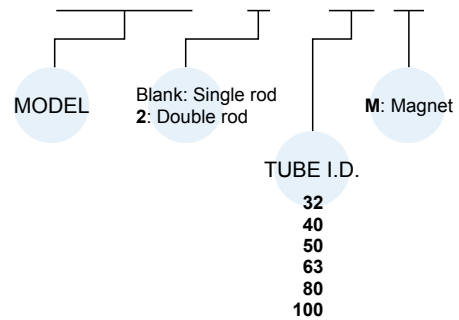


Material

No.	Part name	Material	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Rod packing	NBR	1	●	●
2	O-ring	NBR	2	●	
3	O-ring	NBR	2	●	●
4	Piston packing	NBR	1	●	●
5	O-ring	NBR	1	●	●
6	Cushion packing	NBR	2	●	●
7	Rod cover	Aluminum alloy	1	●	
8	Head cover	Aluminum alloy	1	●	
9	Piston-R	Aluminum alloy	1	●	
10	Piston-H	Aluminum alloy	1	●	
11	Bush	Bearing alloy	1	●	
12	Magnet ring	Magnet material	1	●	
13	Wear ring	Teflon	1	●	
14	Nut	Carbon steel	1	●	
15	Screw	Carbon steel	8	●	
16	Needle valve	Copper alloy	2	●	
17	Insert nut	Copper alloy	2	●	
18	Cover plate	Plastic	2	●	
19	Bolt	Carbon steel	1	●	
20	Washer	Carbon steel	1	●	
21	Cylinder tube	Aluminum alloy	1		
22	Piston rod	Carbon steel	1		

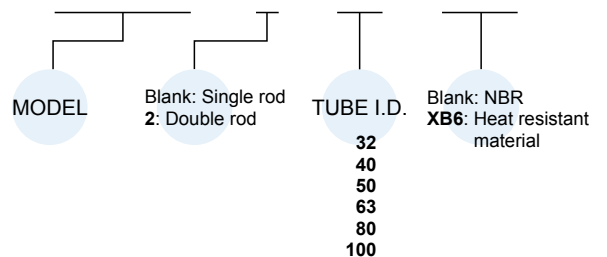
Order example of component parts

CP — MCQI2 — 2 — 40 M



Order example of repair kits

PS — MCQI2 — 2 — 40 — XB6



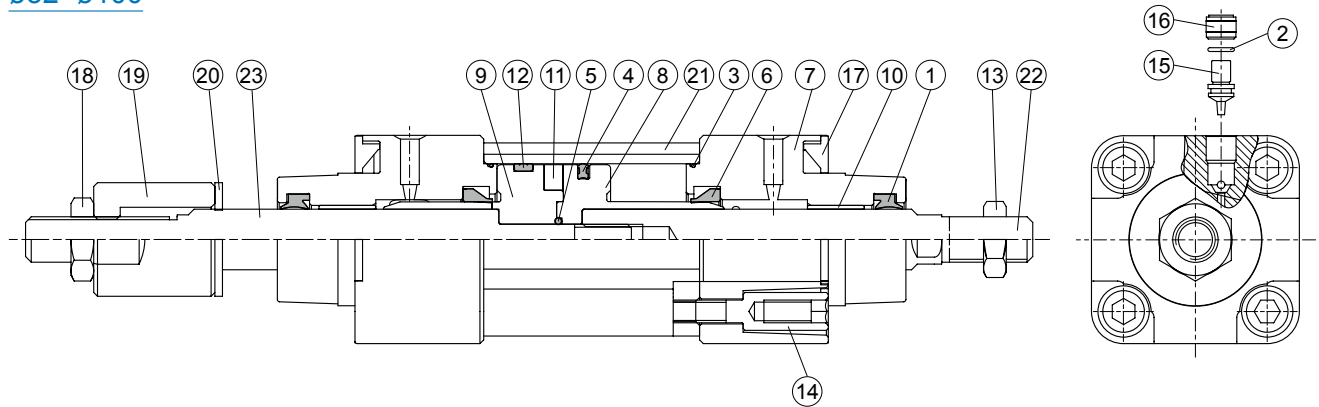
MCQI2-2* Inside structure & Parts list

ISO-VDMA STANDARD PROFILE CYLINDER



Double rod 21 / 27 type

ø32~ø100

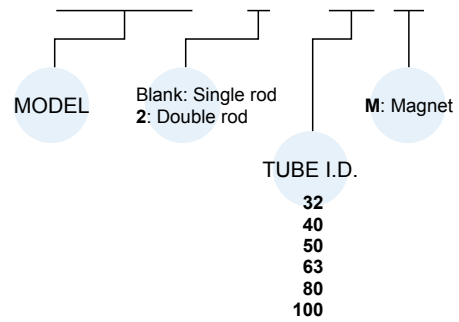


Material

No.	21 type	27 type	Part name	Material	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	●	●	Rod packing	NBR	2	●	●
2	●	●	O-ring	NBR	2	●	
3	●	●	O-ring	NBR	2	●	●
4	●	●	Piston packing	NBR	1	●	●
5	●	●	O-ring	NBR	1	●	●
6	●	●	Cushion packing	NBR	2	●	●
7	●	●	Rod cover	Aluminum alloy	2	●	
8	●	●	Piston-R	Aluminum alloy	1	●	
9	●	●	Piston-h	Aluminum alloy	1	●	
10	●	●	Bush	Bearing alloy	2	●	
11	●	●	Magnet ring	Magnet material	1	●	
12	●	●	Wear ring	Teflon	1	●	
13	●	●	Nut	Carbon steel	1	●	
14	●	●	Screw	Carbon steel	8	●	
15	●	●	Needle valve	Copper alloy	2	●	
16	●	●	Insert nut	Copper alloy	2	●	
17	●	●	Cover plate	Plastic	2	●	
18		●	Nut	Carbon steel	1		
19		●	Adjustable nut	Carbon steel	1		
20		●	Gasket	PU	1		
21	●	●	Cylinder tube	Aluminum alloy	1		
22	●	●	Piston rod #1	Carbon steel	1		
23	●	●	Piston rod #2	Carbon steel	1		

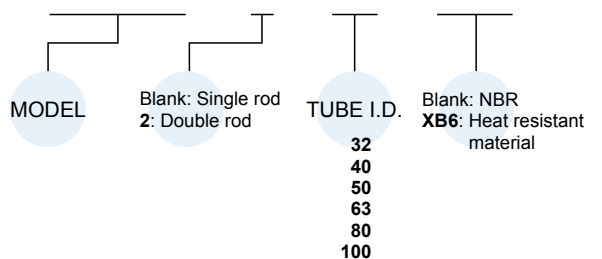
Order example of component parts

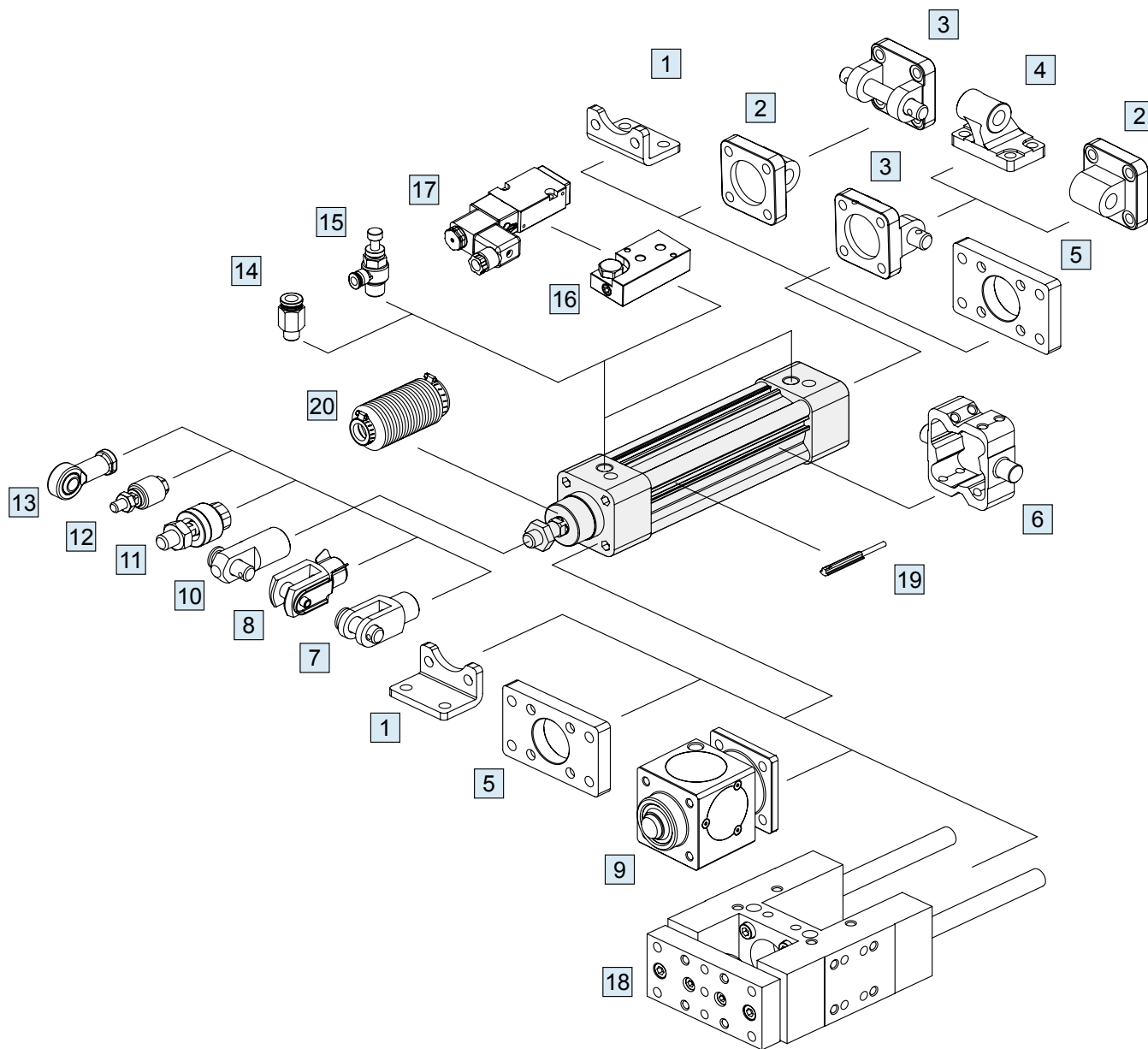
CP — MCQI2 — 2 — 40 M



Order example of repair kits

PS — MCQI2 — 2 — 40 — XB6

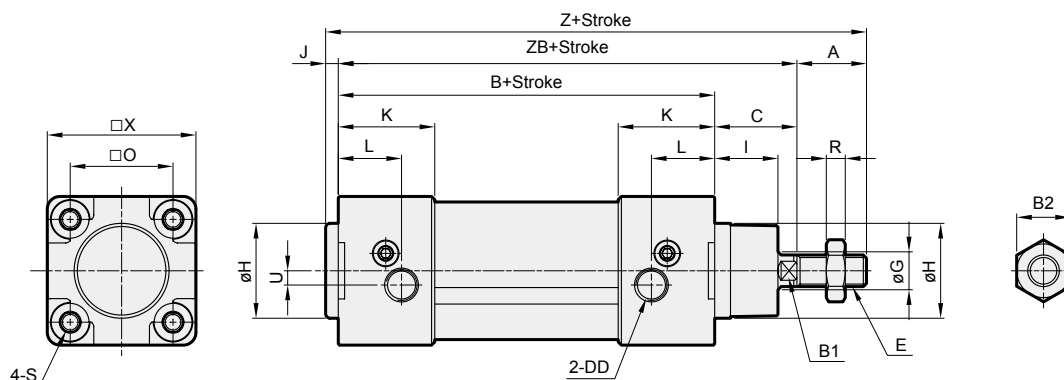




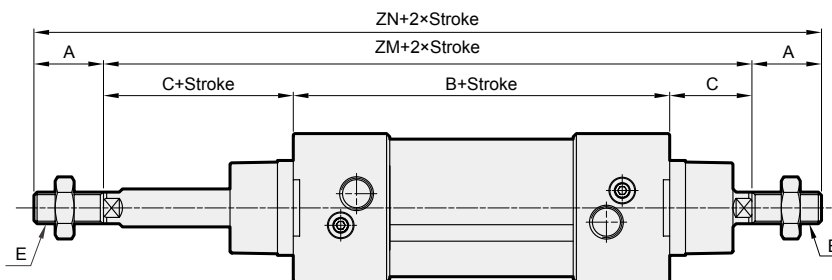
No.	Accessories	Page
1	Mounting accessories LB	1-57
2	Mounting accessories CA	1-59
3	Mounting accessories CB+PIN	1-59, 46
4	Mounting accessories CDB	1-60
5	Mounting accessories FAC / FBC	1-58
6	Mounting accessories TA / TB / TC	1-60, 61
7	Accessories Y+PIN	1-46
8	Accessories YS (Y+Floating pin)	1-46
9	Accessories I+PIN	1-46
10	Locking unit MCBQI2	1-65

No.	Accessories	Page
11	Floating joint MFC	8-2
12	Floating joint MFCS	8-4
13	Female rod ends PHS	8-5
14	Fitting PC (PISCO)	8-5 (Vol.1)
15	Speed controller JSC (PISCO)	8-18 (Vol.1)
16	Sensor switch RCI	8-11
17	Cylinder link seats MVSN-300-C	1-60 (Vol.1)
18	Solenoid valve MVSN-220 / 300	1-56, 58 (Vol.1)
19	Twin-guide cylinders MGTB/TU/TX	4-34
20	Protective bellows kit	—

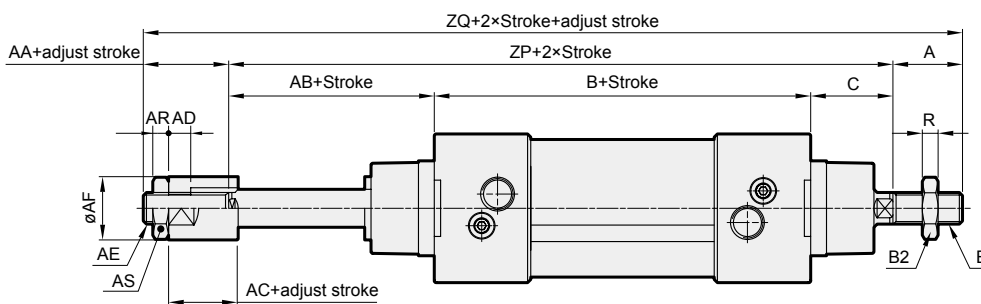
11



21

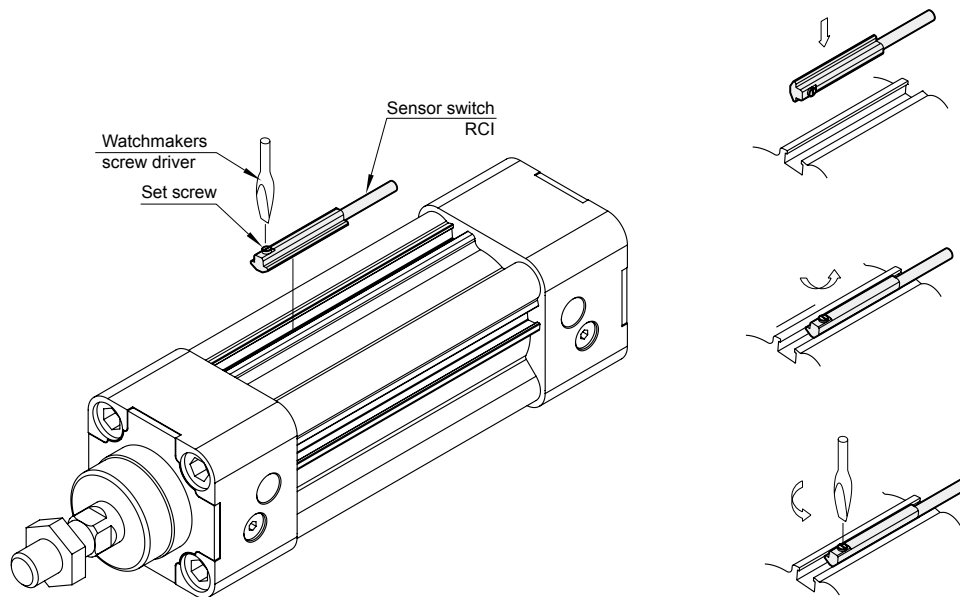


27



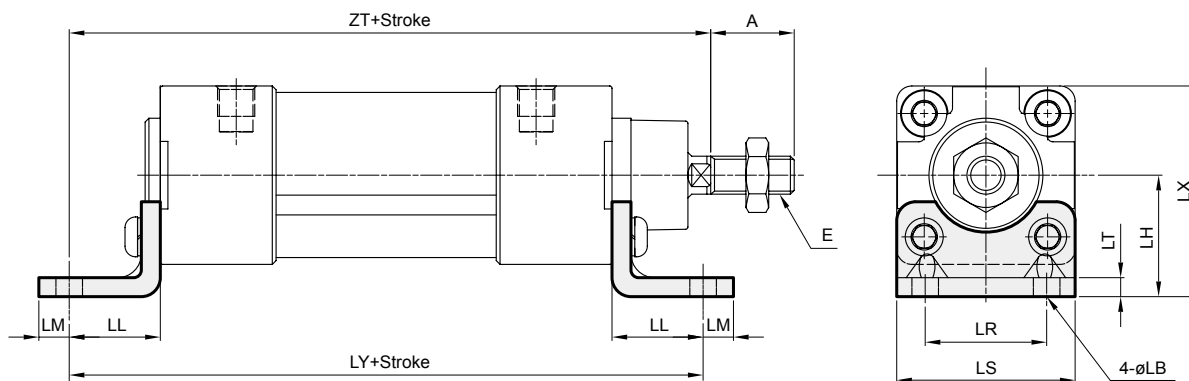
Code Tube I.D.	A	AA	AB	AC	AD	AE	AF	AR	AS	B	B1	B2	C	DD	E	G	H	I	J	K	L	O
32	22	16	26	12	7	M10×1.25	20	5	17	94	10	17	26	G1/8	M10×1.25	12	30	20	4	30.5	20	32.5
40	24	20	27	12	7	M12×1.25	30	6	19	105	13	19	30	G1/4	M12×1.25	16	35	20.5	4	34	14.5	38
50	32	18	34	15	10	M16×1.5	40	8	24	106	16	24	37	G1/4	M16×1.5	20	40	28	4	31	16	46.5
63	32	20	32	15	10	M16×1.5	40	8	24	121	16	24	37	G3/8	M16×1.5	20	45	26	4	33	16	56.5
80	40	32	41	20	14	M22×1.5	50	13	32	128	21	30	46	G3/8	M20×1.5	25	45	32.5	4	35.5	20.5	72
100	40	30	46	20	14	M22×1.5	50	13	32	138	21	30	51	G1/2	M20×1.5	25	55	37.5	4	37	19	89

Code Tube I.D.	R	S	U	X	Z	ZB	ZM	ZN	ZP	ZQ
32	5	M6×1.0	4.5	47	146	120	146	190	146	184
40	6	M6×1.0	5.3	55	163	135	165	213	162	206
50	8	M8×1.25	8.5	65	179	143	180	244	177	227
63	8	M8×1.25	8	78	194	158	195	259	190	242
80	10	M10×1.5	9	95	218	174	220	300	215	287
100	10	M10×1.5	13	115	233	189	240	320	235	305



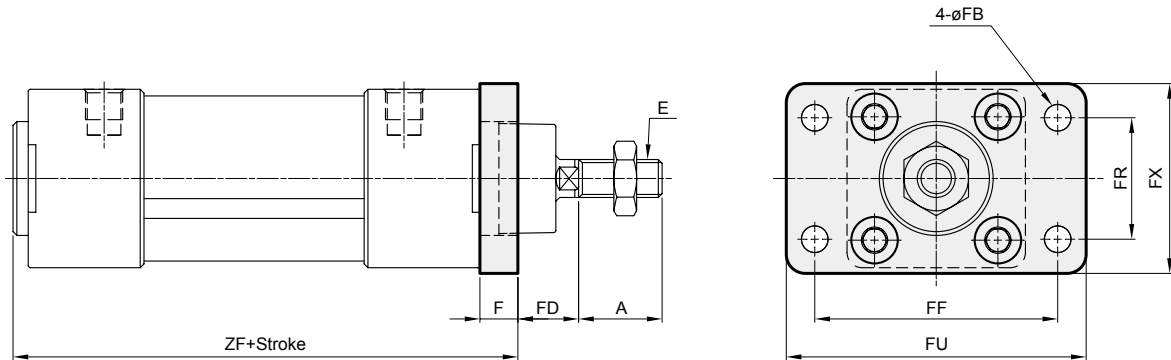
■ Mounting accessories

LB



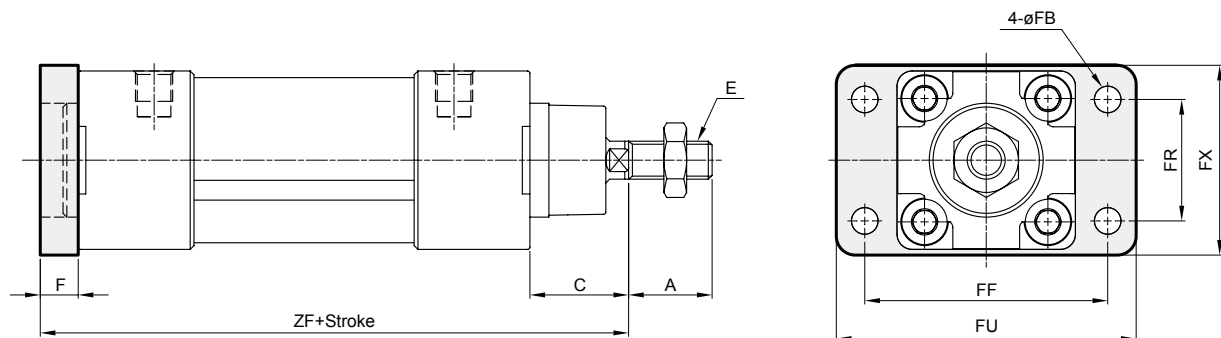
Code Tube I.D.	A	E	LB	LH	LL	LM	LR	LS	LT	LX	LY	ZT
32	22	M10×1.25	7	32	24	8	32	47	5	55.5	142	144
40	24	M12×1.25	9	36	28	10	36	53	5	63.2	161	163
50	32	M16×1.5	9	45	32	10	45	65	5	77.5	170	175
63	32	M16×1.5	9	50	32	10	50	75	5	89	185	190
80	40	M20×1.5	12	63	41	13	63	95	6	110.5	210	215
100	40	M20×1.5	14	71	41	13	75	115	6	128.5	220	230

FAC



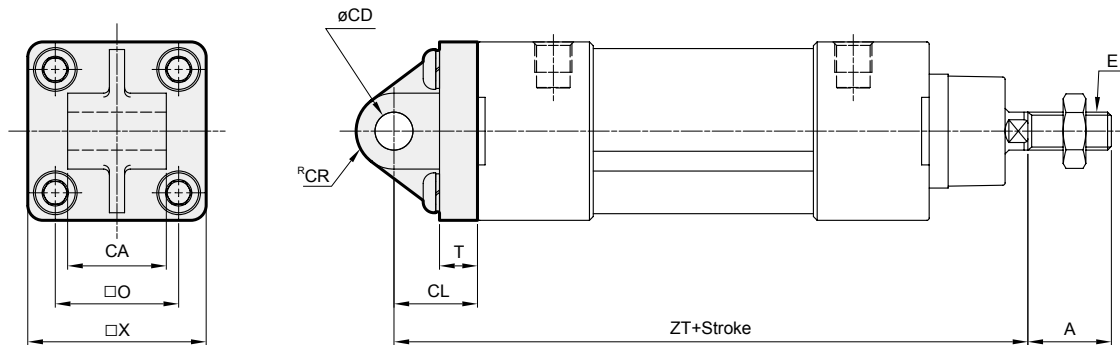
Code Tube I.D.	A	E	F	FB	FD	FF	FR	FU	FX	ZF
32	22	M10×1.25	10	7	16	64	32	79	50	108
40	24	M12×1.25	10	9	20	72	36	93	54	120
50	32	M16×1.5	12	9	25	90	45	112	67	123
63	32	M16×1.5	12	9	25	100	50	127	79	137
80	40	M20×1.5	16	12	30	126	63	158	98	148
100	40	M20×1.5	16	14	35	150	75	185	116	158

FBC



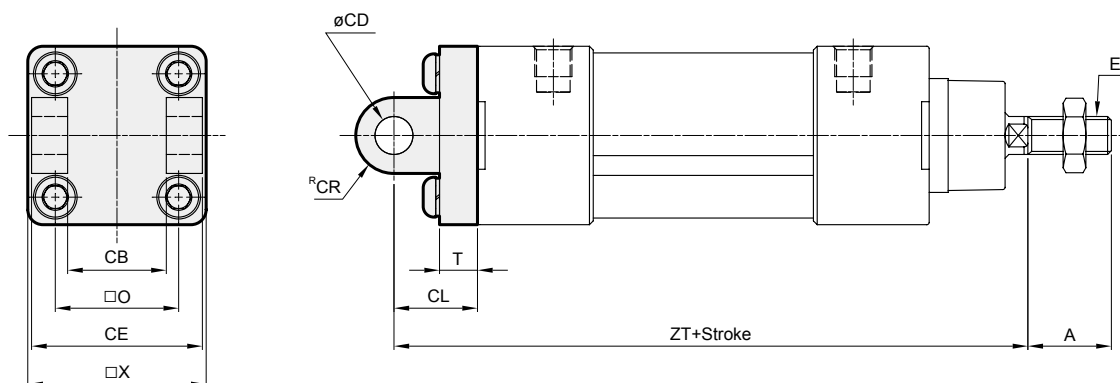
Code Tube I.D.	A	C	E	F	FB	FF	FR	FU	FX	ZF
32	22	26	M10×1.25	10	7	64	32	79	50	130
40	24	30	M12×1.25	10	9	72	36	93	54	145
50	32	37	M16×1.5	12	9	90	45	112	67	155
63	32	37	M16×1.5	12	9	100	50	127	79	170
80	40	46	M20×1.5	16	12	126	63	158	98	190
100	40	51	M20×1.5	16	14	150	75	185	116	205

CA



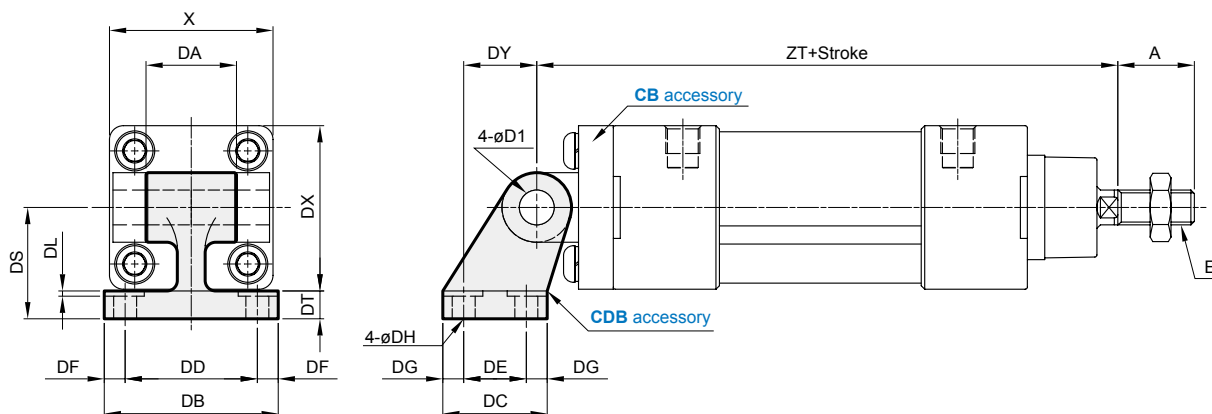
Code Tube I.D.	A	CA	CD	CL	CR	E	O	T	X	ZT
32	22	26 ^{+0.1} _{-0.3}	10 ^{H9}	22	10.5	M10×1.25	32.5	10	46	142
40	24	28 ^{+0.1} _{-0.3}	12 ^{H9}	25	12	M12×1.25	38	9	52	160
50	32	32 ^{+0.1} _{-0.3}	12 ^{H9}	27	14	M16×1.5	46.5	9	63.5	170
63	32	40 ^{+0.1} _{-0.3}	16 ^{H9}	32	18	M16×1.5	56.5	9	75	190
80	40	50 ^{+0.1} _{-0.3}	16 ^{H9}	36	17	M20×1.5	72	12	93	210
100	40	60 ^{+0.1} _{-0.3}	20 ^{H9}	41	21	M20×1.5	89	11	112	230

CB



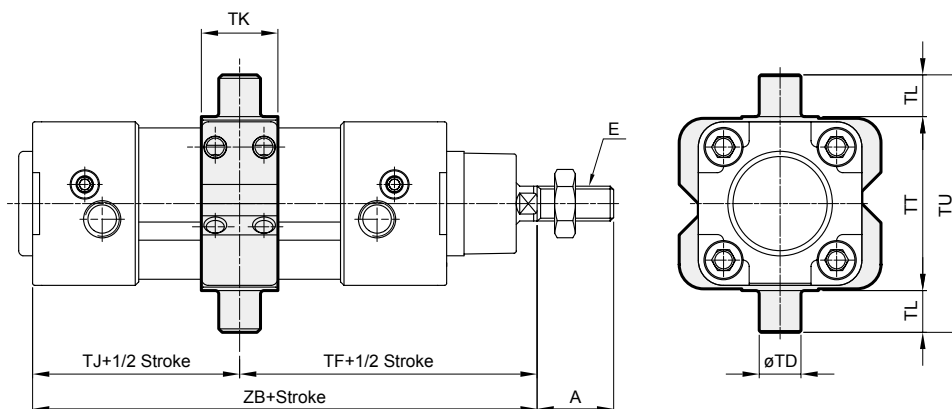
Code Tube I.D.	A	CB	CD	CE	CL	CR	E	O	T	X	ZT
32	22	26 ^{+0.3} _{+0.1}	10 ^{H9}	45	22	10.5	M10×1.25	32.5	10	46	142
40	24	28 ^{+0.3} _{+0.1}	12 ^{H9}	52	25	12	M12×1.25	38	9	52	160
50	32	32 ^{+0.3} _{+0.1}	12 ^{H9}	60	27	14	M16×1.5	46.5	9	63.5	170
63	32	40 ^{+0.3} _{+0.1}	16 ^{H9}	70	32	18	M16×1.5	56.5	9	75	190
80	40	50 ^{+0.3} _{+0.1}	16 ^{H9}	90	36	17	M20×1.5	72	12	93	210
100	40	60 ^{+0.3} _{+0.1}	20 ^{H9}	110	41	21	M20×1.5	89	11	112	230

CDB CB+Pin (Extra purchase)



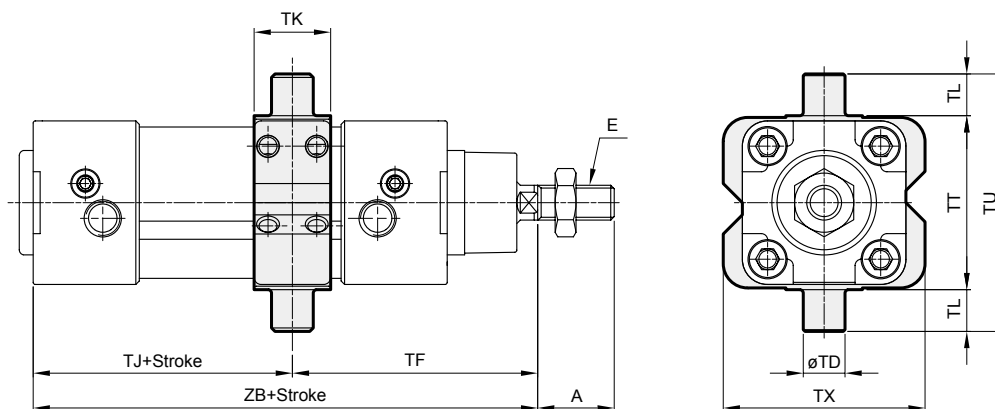
Code Tube I.D.	A	DA	DB	DC	DD	DE	DF	DG	DH	DI	DL	DS	DT	DX	DY	E	X	ZT
32	22	26	50	30	38	18	6	6	6.6	10	1.5	32	8	47.5	21	M10×1.25	47	142
40	24	28	53	34	41	22	6	6	6.6	12	1.5	36	10	52.5	24	M12×1.25	55	160
50	32	32	65	45	50	30	7.5	7.5	9	12	1.5	45	12	65.5	33	M16×1.5	65	170
63	32	40	67	50	52	35	7.5	7.5	9	16	1.5	50	12	75.5	37	M16×1.5	78	190
80	40	50	86	60	66	40	10	10	11	16	2.5	63	14	96.5	47	M20×1.5	95	210
100	40	60	96	70	76	50	10	10	11	20	2.5	71	15	113.5	55	M20×1.5	115	230

TC



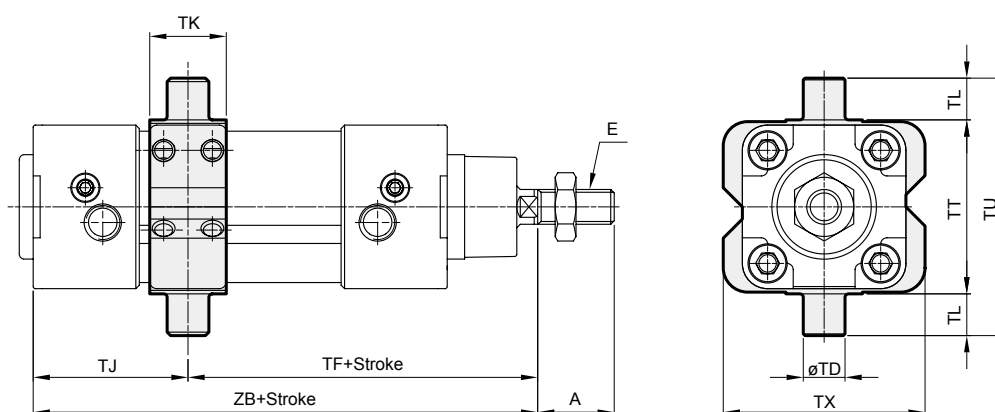
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TT	TU	TX	ZB
32	22	M10×1.25	12 ^{øB}	73	47	22	12	50	74	58	120
40	24	M12×1.25	16 ^{øB}	82.5	52.5	28	16	63	95	70	135
50	32	M16×1.5	16 ^{øB}	90	53	32	16	75	107	85	143
63	32	M16×1.5	20 ^{øB}	97.5	60.5	35	20	90	130	100	158
80	40	M20×1.5	20 ^{øB}	110	64	40	20	110	150	120	174
100	40	M20×1.5	25 ^{øB}	120	69	45	25	132	182	145	189

TA



Code Tube I.D.	A	E	TD	TF	Without magnet		Magnet		TK	TL	TT	TU	TX
					TJ	ZB	TJ	ZB					
32	22	M10×1.25	12 ^{øB}	70.5	49.5	120	79.5	150	22	12	50	74	58
40	24	M12×1.25	16 ^{øB}	81	54	135	84	165	28	16	63	95	70
50	32	M16×1.5	16 ^{øB}	87	56	143	86	173	32	16	75	107	85
63	32	M16×1.5	20 ^{øB}	90.5	67.5	158	97.5	188	35	20	90	130	100
80	40	M20×1.5	20 ^{øB}	104.5	69.5	174	109.5	214	40	20	110	150	120
100	40	M20×1.5	25 ^{øB}	113.5	75.5	189	115.5	229	45	25	132	182	145

TB



Code Tube I.D.	A	E	TD	TJ	Without magnet		Magnet		TK	TL	TT	TU	TX
					TF	ZB	TF	ZB					
32	22	M10×1.25	12 ^{øB}	44.5	75.5	120	105.5	150	22	12	50	74	58
40	24	M12×1.25	16 ^{øB}	51	84	135	114	165	28	16	63	95	70
50	32	M16×1.5	16 ^{øB}	50	93	143	123	173	32	16	75	107	85
63	32	M16×1.5	20 ^{øB}	53.5	104.5	158	134.5	188	35	20	90	130	100
80	40	M20×1.5	20 ^{øB}	58.5	115.5	174	155.5	214	40	20	110	150	120
100	40	M20×1.5	25 ^{øB}	62.5	126.5	189	166.5	229	45	25	132	182	145

MCQI2 Cylinder weight $\varnothing 32\sim\varnothing 100$

ISO-VDMA **STANDARD PROFILE CYLINDER**



Cylinder weight

Unit: kg

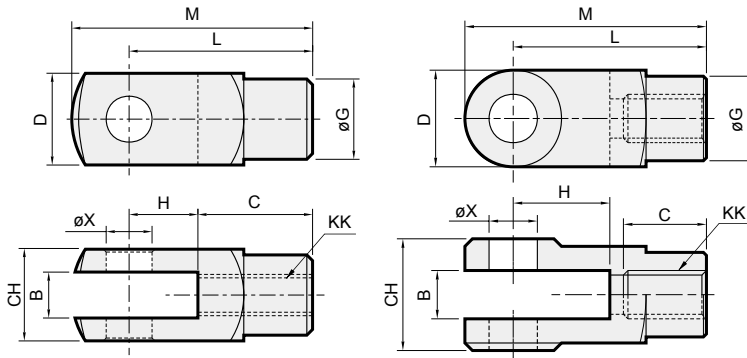
Model	Basic weight MCQI2-11	Basic weight (magnet) MCQI2-11	Stroke 25 mm MCQI2-11
Tube I.D.			
$\varnothing 32$	0.544	0.550	0.064
$\varnothing 40$	0.822	0.834	0.091
$\varnothing 50$	1.260	1.277	0.128
$\varnothing 63$	1.838	1.858	0.116
$\varnothing 80$	2.754	2.781	0.209
$\varnothing 100$	4.086	4.121	0.234

Model	LB	CA	CB	CDB	FAC/FBC	TA/TB/TC	Y	I	Pin (Y&I)	Pin (CA&CB)
Tube I.D.										
$\varnothing 32$	0.163	0.213	0.185	0.170	0.235	0.208	0.070	0.080	0.02	0.040
$\varnothing 40$	0.211	0.253	0.211	0.230	0.265	0.282	0.115	0.141	0.03	0.065
$\varnothing 50$	0.315	0.390	0.352	0.410	0.460	0.377	0.272	0.334	0.08	0.072
$\varnothing 63$	0.395	0.670	0.544	0.550	0.684	0.675	0.272	0.334	0.08	0.145
$\varnothing 80$	0.816	1.076	0.982	0.870	1.508	1.025	0.551	0.553	0.16	0.179
$\varnothing 100$	1.014	1.587	1.493	1.400	1.975	1.680	0.551	0.553	0.16	0.330

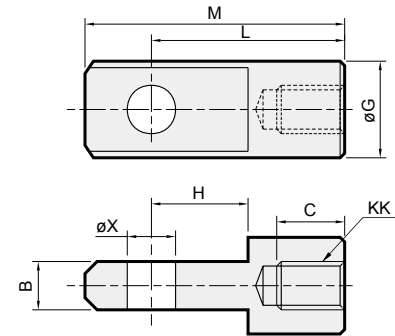
Y connector

$\phi 32 \sim \phi 40$

$\phi 50 \sim \phi 100$



I connector

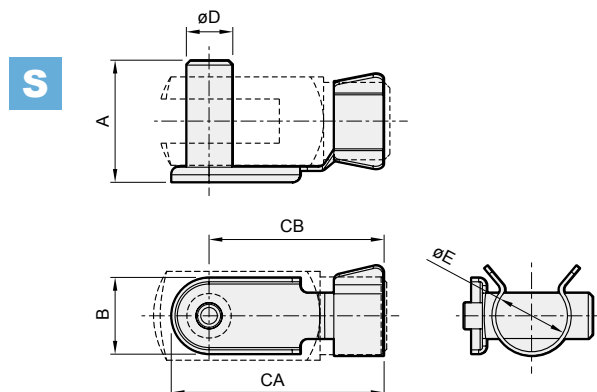
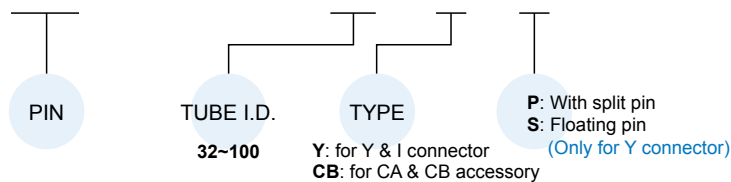


Code Tube I.D.	B		C		CH		D		G		H		KK		L		M		X ^{H9}
	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I	
32	10 ^{+0.5/-0.15}	10 ^{-0.1/-0.2}	20	17	19	—	19	—	ø18	ø20	20	15	M10×1.25	40	40	52	52	ø10 ^{+0.04/0}	
40	12 ^{+0.5/-0.15}	12 ^{-0.1/-0.2}	24	21	22	—	22	—	ø20	ø24	24	18	M12×1.25	48	48	62	62	ø12 ^{+0.04/0}	
50	16 ^{+0.3/-0.1}	16 ^{-0.1/-0.3}	28	23	32	—	32	—	ø28	ø32	32	32	M16×1.5	64	64	89	86	ø16 ^{+0.04/0}	
63	16 ^{+0.3/-0.1}	16 ^{-0.1/-0.3}	28	23	32	—	32	—	ø28	ø32	32	32	M16×1.5	64	64	89	86	ø16 ^{+0.04/0}	
80	20 ^{+0.3/-0.1}	20 ^{-0.1/-0.3}	33	30	45	—	40	—	ø36	ø36	40	40	M20×1.5	80	80	100	108	ø20 ^{+0.05/0}	
100	20 ^{+0.3/-0.1}	20 ^{-0.1/-0.3}	33	30	45	—	40	—	ø36	ø36	40	40	M20×1.5	80	80	100	108	ø20 ^{+0.05/0}	

PIN

Order example * MCQV / MCQI are common accessories.

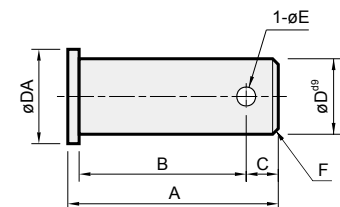
PIN — MCQV — 40 — Y — P



for floating pin

Code Tube I.D.	A	B	CA	CB	D ^{d9}	E
32	26	14	45	38	ø10 ^{-0.06/-0.09}	17
40	31	16	54	46	ø12 ^{-0.06/-0.09}	19
50,63	42	20	70	60	ø16 ^{-0.05/-0.09}	27
80,100	56	30	91	76	ø20 ^{-0.06/-0.11}	35

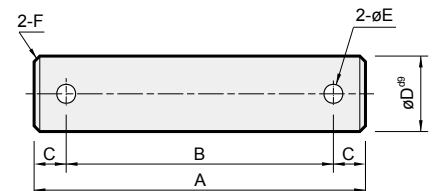
P



for Y & I connector

Code Tube I.D.	A	B	C	D ^{d9}	DA	E	F	Split pin
32	30	25	3.5	ø10 ^{-0.06/-0.09}	14	3.2	1	3.2×20L
40	37	30	5	ø12 ^{-0.06/-0.09}	16	3.2	1	3.2×20L
50,63	47	37	7	ø16 ^{-0.05/-0.09}	22	4	1	4×25L
80,100	62	50	8	ø20 ^{-0.06/-0.11}	30	5	1.5	5×35L

P



for CA & CB

Code Tube I.D.	A	B	C	D ^{d9}	E	F	Split pin
32	69	55	7	ø10 ^{-0.05/-0.09}	4	1.0	4×20L
40	76	62	7	ø12 ^{-0.05/-0.09}	4	1.0	4×20L
50	84	70	7	ø12 ^{-0.05/-0.09}	4	1.0	4×20L
63	94	80	7	ø16 ^{-0.05/-0.09}	4	1.0	4×30L
80	117	100	8.5	ø16 ^{-0.05/-0.09}	5	1.5	5×30L
100	137	120	8.5	ø20 ^{-0.05/-0.09}	5	1.5	5×35L