

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 15552 standard specification

Conforms to ISO 15552 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 (Please refer to page 8-14)

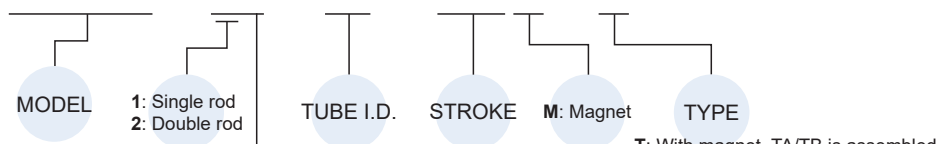
Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke (mm)
ø32,40	50,75,100,125,150,175,200, 250,300,350,400,450,500	1800
ø50,63		2000
ø80,100		2500

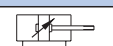


* Intermediate stroke are available, please contact us.

Order example

MCQI2 – 11 – 50 – 100M – T



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 stroke" at order list

T: With magnet, TA/TB is assembled

* Tube, piston rod and tie rod are extended, and an extra piston is added.

* Order example for special specification, refer to page 0-7.

* Rc or NPT thread are also available, please contact us.

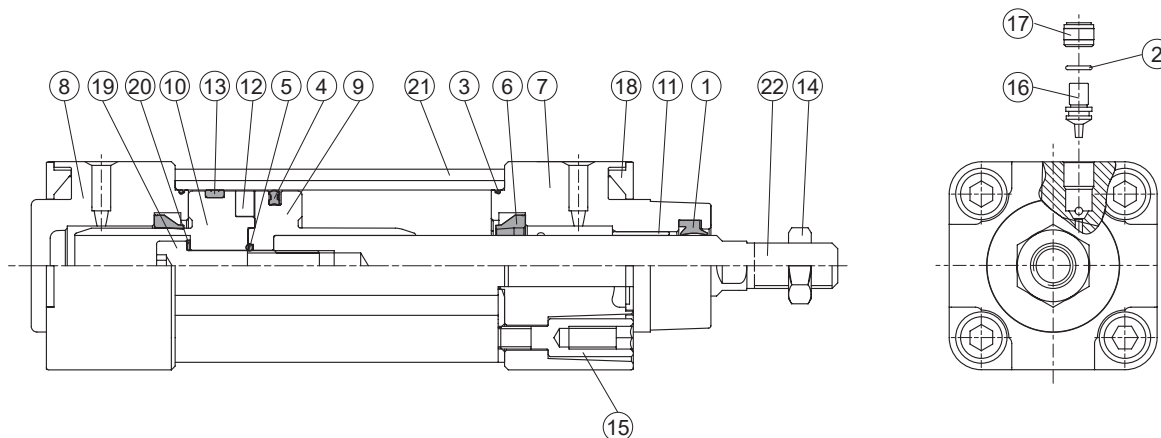
MCQI2-11 Inside structure & Parts list

ISO 15552 **STANDARD PROFILE CYLINDER**



Single rod 11 type

ø32~ø100



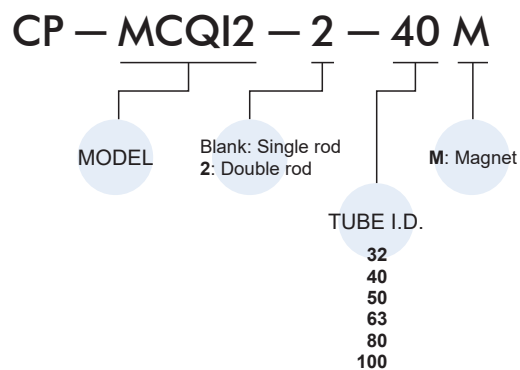
Material

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	Resin	1	●	
14	Rod 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 *1	Carbon steel	1		

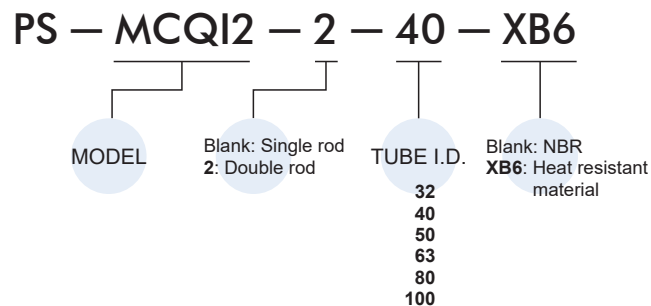
◎ Option

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.

Order example of component parts



Order example of repair kits



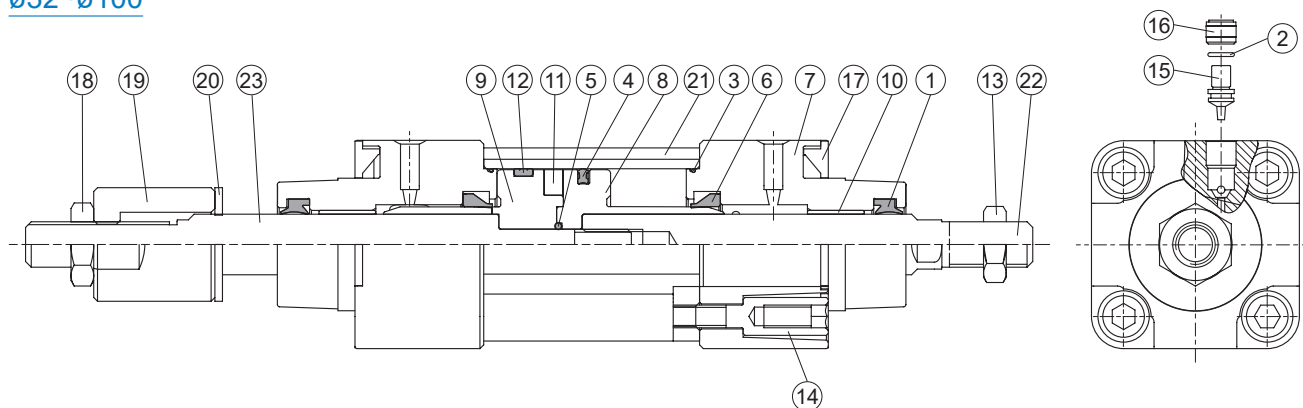
MCQI2-2* Inside structure & Parts list

ISO 15552 **STANDARD PROFILE CYLINDER**



Double rod 21 / 27 type

ø32~ø100



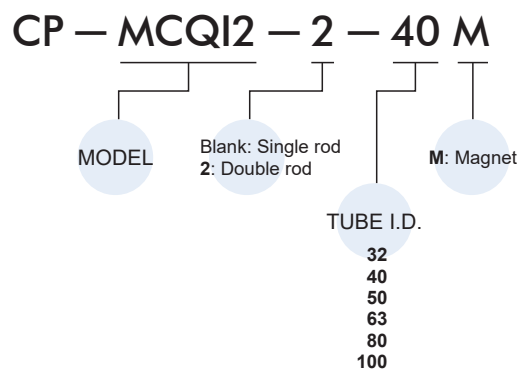
Material

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	Resin	1	●	●
13	●	●	Rod 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		●	Rod nut	Carbon steel	1		
19		●	Adjustable nut	Carbon steel	1		
20		●	Gasket	PU	1		
21	●	●	Cylinder tube	Aluminum alloy	1		
22	●	●	Piston rod #1 *1	Carbon steel	1		
23	●	●	Piston rod #2 *1	Carbon steel	1		

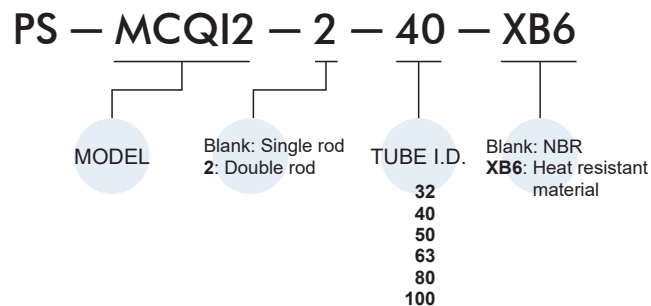
◎ Option

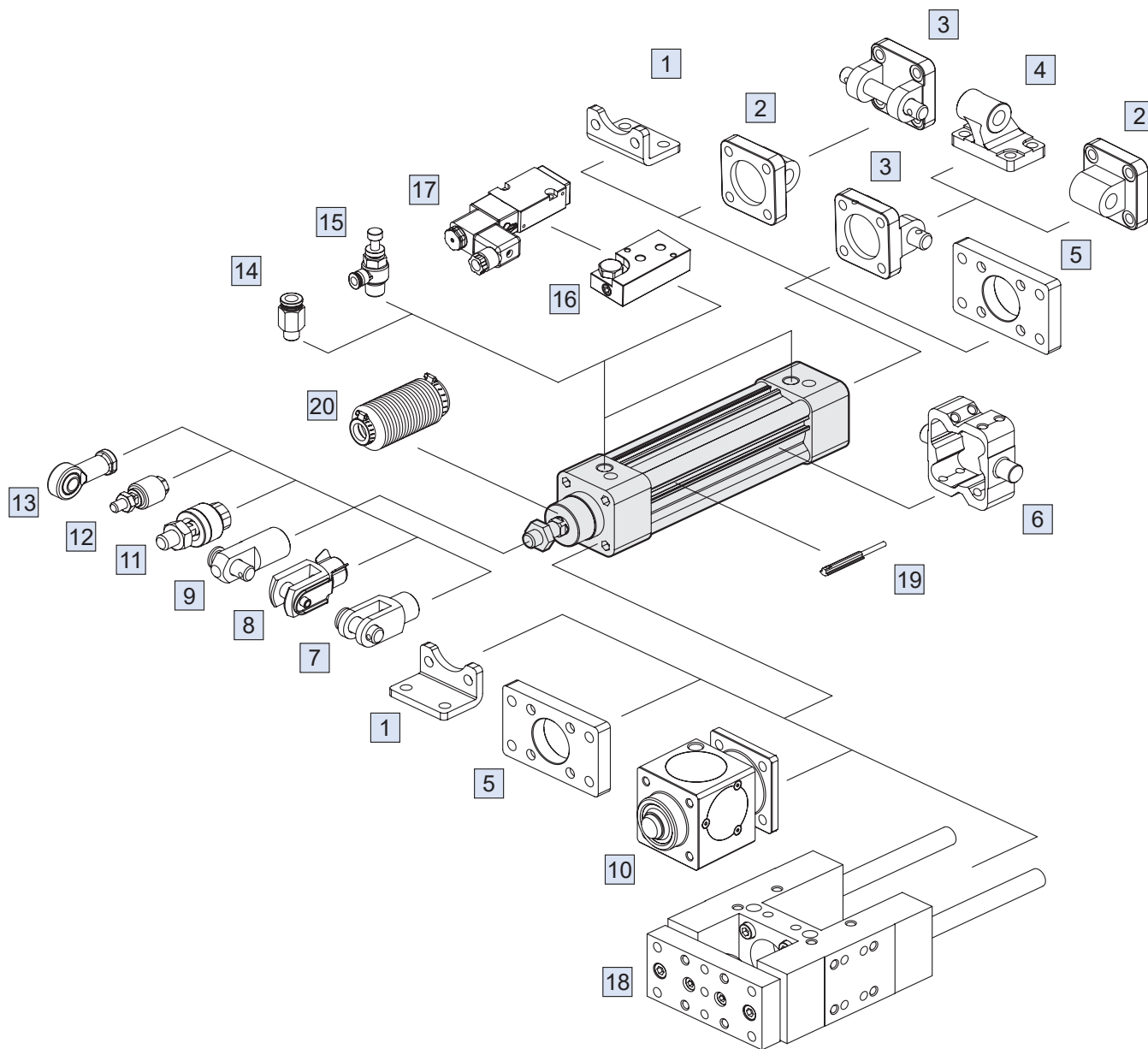
*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.

Order example of component parts



Order example of repair kits





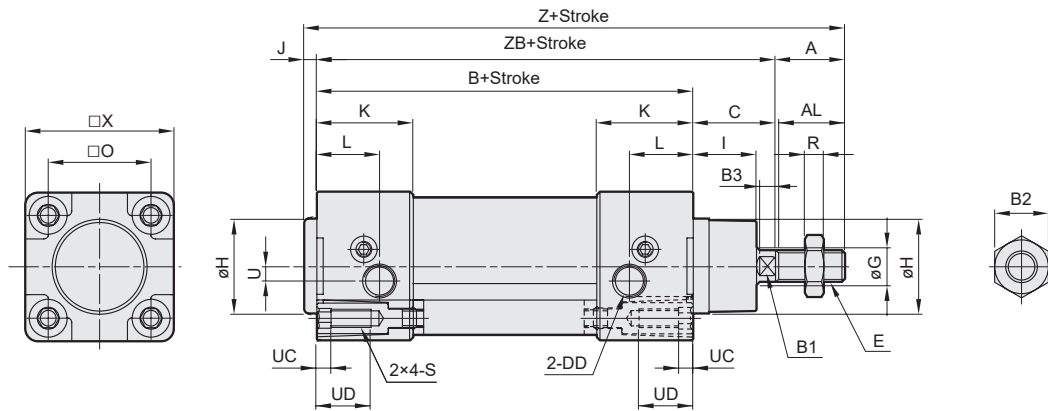
No.	Accessories	Material	Page
1	Mounting accessories LB	Carbon steel	1-74
2	Mounting accessories CA	Cast iron	1-76
3	Mounting accessories CB+PIN	Cast iron / *1	1-76, 46
4	Mounting accessories CDB	Cast iron	1-77
5	Mounting accessories FAC/FBC	Carbon steel	1-75
6	Mounting accessories TA/TB/TC	Cast iron	1-77, 78
7	Accessories Y+PIN	Cast iron / *1	1-46
8	Accessories YS (Y+Floating pin)	Carbon steel	1-46
9	Accessories I+PIN	Carbon steel	1-46
10	Locking unit MCBQI2	Aluminum alloy+*2	1-88

No.	Accessories	Material	Page
11	Floating joint MFC	Carbon steel	8-2
12	Floating joint MFCS	Carbon steel	8-5
13	Female rod ends PHS	Carbon steel	8-7
14	Fitting PC (PISCO)	—	8-3 (Vol.1)
15	Speed controller JSC (PISCO)	—	8-15 (Vol.1)
16	Cylinder link seats MVSN-300-C	Aluminum alloy	1-69 (Vol.1)
17	Solenoid valve MVSN-220 / 300	—	1-65, 67 (Vol.1)
18	Twin-guide cylinders MGTB/TU/TX	—	4-39
19	Sensor switch RCI	—	8-14
20	Protective bellows kit	NBR	—

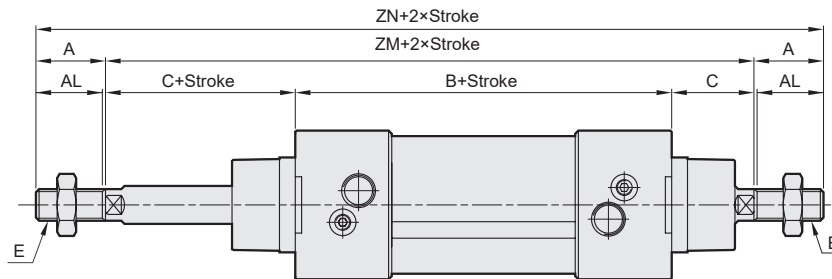
*1. PIN material is carbon steel.

*2. Bronze alloy.

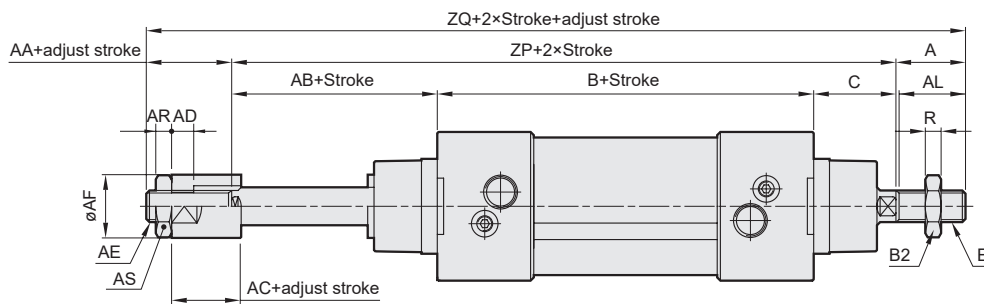
11



21

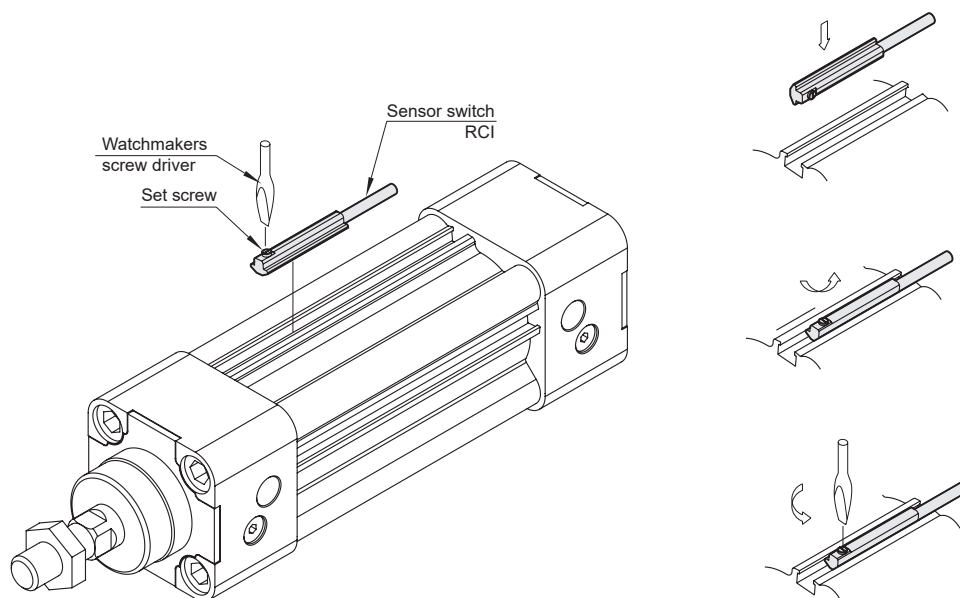


27



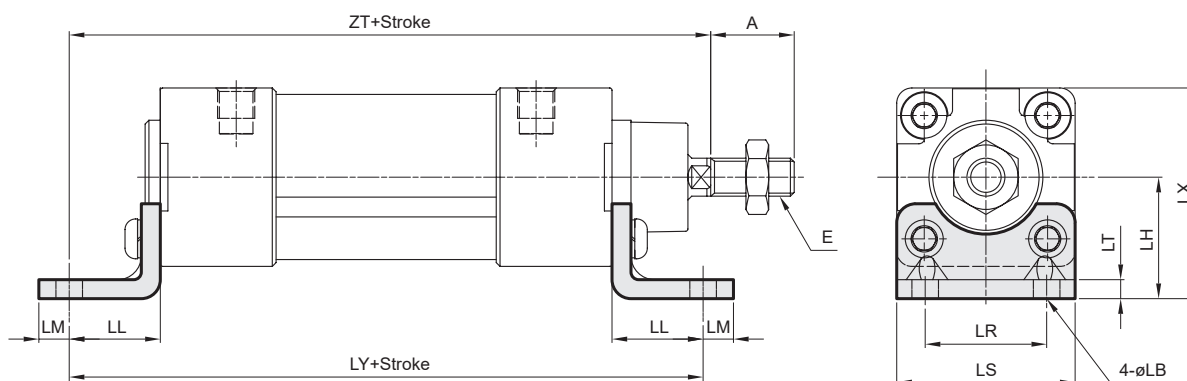
Code Tube I.D.	A	AA	AB	AC	AD	AE	AF	AL	AR	AS	B	B1	B2	B3	C	DD	E	G	H	I	J	K	L	O
32	22	16	26	12	7	M10×1.25	20	20	5	17	94	10	17	4	26	G1/8	M10×1.25	12	30	20	4	30.5	20	32.5
40	24	20	27	12	7	M12×1.25	30	22	6	19	105	13	19	6.5	30	G1/4	M12×1.25	16	35	20.5	4	34	14.5	38
50	32	18	34	15	10	M16×1.5	40	30	8	24	106	17	24	6	37	G1/4	M16×1.5	20	40	28	4	31	16	46.5
63	32	20	32	15	10	M16×1.5	40	30	8	24	121	17	24	8	37	G3/8	M16×1.5	20	45	26	4	33	16	56.5
80	40	32	41	20	14	M22×1.5	50	38	13	32	128	22	30	10	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	38	13	32	138	22	30	10	51	G1/2	M20×1.5	25	55	37.5	4	37	19	89

Code Tube I.D.	R	S	U	UC	UD	X	Z	ZB	ZM	ZN	ZP	ZQ
32	5	M6×1.0	4.5	4.5	17	47	146	120	146	190	146	184
40	6	M6×1.0	5.3	4.5	17	55	163	135	165	213	162	206
50	8	M8×1.25	8.5	4.5	18	65	179	143	180	244	177	227
63	8	M8×1.25	8	4.5	18	78	194	158	195	259	190	242
80	10	M10×1.5	9	5.5	19	95	218	174	220	300	215	287
100	10	M10×1.5	13	5.5	19	115	233	189	240	320	235	305



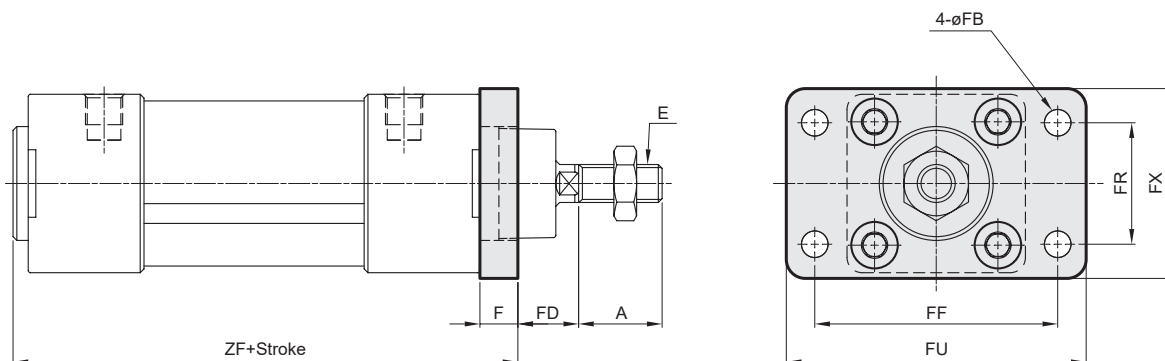
■ Mounting accessories

LB



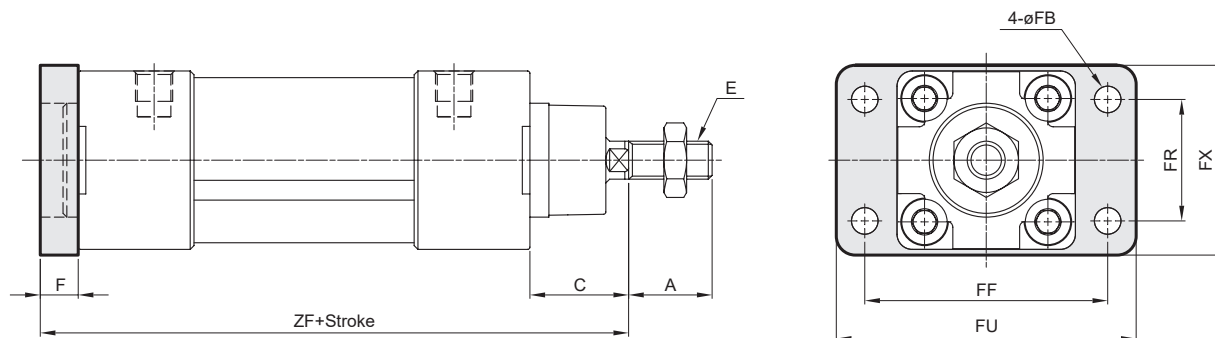
Code Tube I.D.	A	E	LB	LH	LL	LM	LR	LS	LT	LX	LY	ZT
32	22	M10×1.25	7	32	24	8	32	47	5	55.5	142	144
40	24	M12×1.25	9	36	28	10	36	53	5	63.5	161	163
50	32	M16×1.5	9	45	32	10	45	65	5	77.5	170	175
63	32	M16×1.5	9	50	32	10	50	75	5	89	185	190
80	40	M20×1.5	12	63	41	13	63	95	6	110.5	210	215
100	40	M20×1.5	14	71	41	13	75	115	6	128.5	220	230

FAC



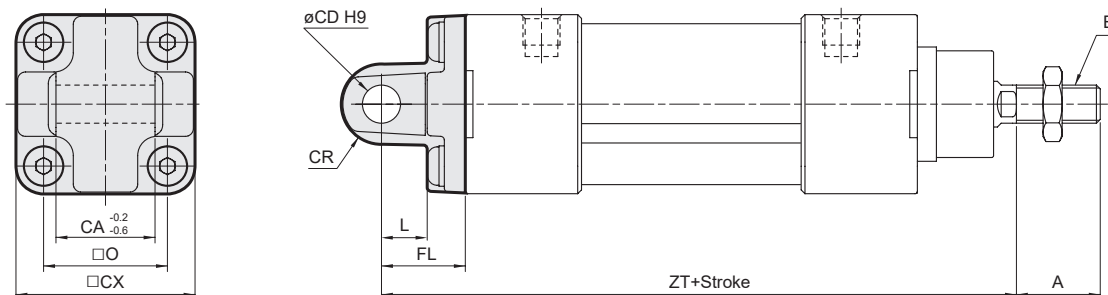
Code Tube I.D.	A	E	F	FB	FD	FF	FR	FU	FX	ZF
32	22	M10×1.25	10	7	16	64	32	79	50	108
40	24	M12×1.25	10	9	20	72	36	90	52	120
50	32	M16×1.5	12	9	25	90	45	110	65	123
63	32	M16×1.5	12	9	25	100	50	125	76	137
80	40	M20×1.5	16	12	30	126	63	154	94	148
100	40	M20×1.5	16	14	35	150	75	180	112	158

FBC



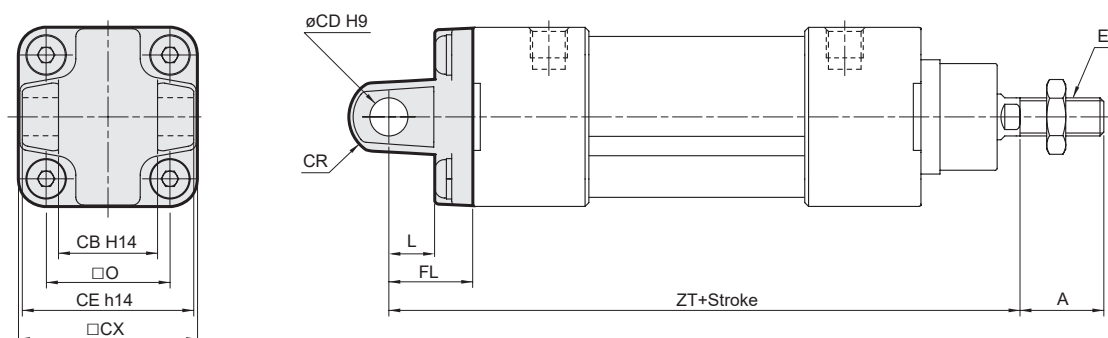
Code Tube I.D.	A	C	E	F	FB	FF	FR	FU	FX	ZF
32	22	26	M10×1.25	10	7	64	32	79	50	130
40	24	30	M12×1.25	10	9	72	36	90	52	145
50	32	37	M16×1.5	12	9	90	45	110	65	155
63	32	37	M16×1.5	12	9	100	50	125	76	170
80	40	46	M20×1.5	16	12	126	63	154	94	190
100	40	51	M20×1.5	16	14	150	75	180	112	205

CA



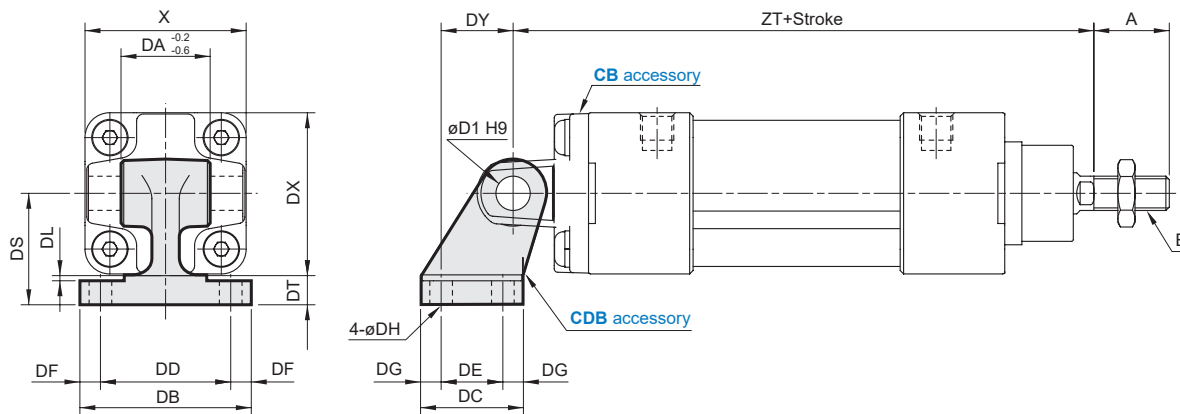
Code Tube I.D.	A	CA	CD	FL	CR	CX	E	O	L	ZT
32	22	26	10	22	R10.5	46.5	M10×1.25	32.5	12	142
40	24	28	12	25	R12	54	M12×1.25	38	15	160
50	32	32	12	27	R13	64	M16×1.5	46.5	15	170
63	32	40	16	32	R17	75	M16×1.5	56.5	20	190
80	40	50	16	36	R17	93	M20×1.5	72	20	210
100	40	60	20	41	R21	114	M20×1.5	89	25	230

CB



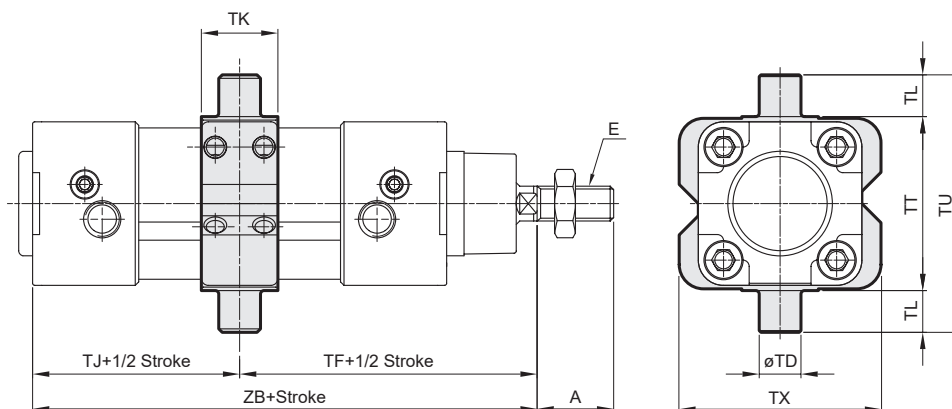
Code Tube I.D.	A	CB	CD	CE	FL	CR	CX	E	O	L	ZT
32	22	26	10	45	22	R10.5	46.5	M10×1.25	32.5	12	142
40	24	28	12	52	25	R12	54	M12×1.25	38	15	160
50	32	32	12	60	27	R14	64	M16×1.5	46.5	15	170
63	32	40	16	70	32	R17	75	M16×1.5	56.5	20	190
80	40	50	16	90	36	R17	93	M20×1.5	72	20	210
100	40	60	20	110	41	R21	114	M20×1.5	89	25	230

CDB CB+Pin (Extra purchase)



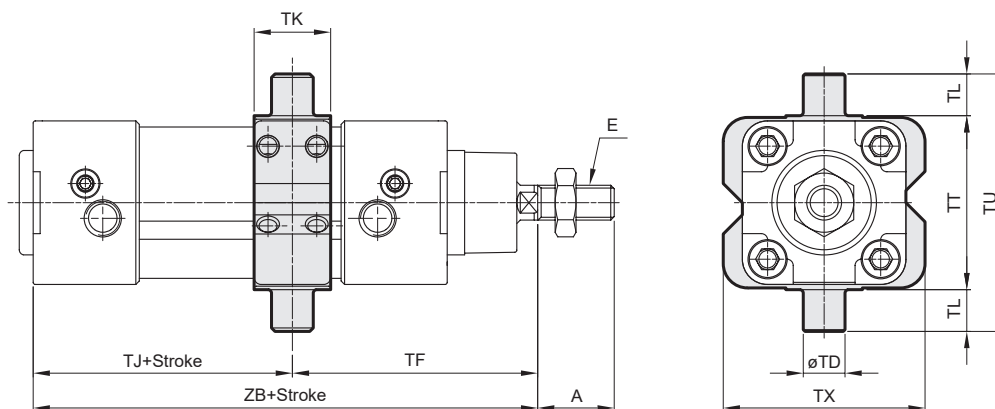
Code Tube I.D.	A	DA	DB	DC	DD	DE	DF	DG	DH	DI	DL	DS	DT	DX	DY	E	X	ZT
32	22	26	50	30	38	18	6	6	6.6	10	1.5	32	8	47.5	21	M10×1.25	47	142
40	24	28	53	34	41	22	6	6	6.6	12	1.5	36	10	52.5	24	M12×1.25	55	160
50	32	32	65	45	50	30	7.5	7.5	9	12	1.5	45	12	65.5	33	M16×1.5	65	170
63	32	40	67	50	52	35	7.5	7.5	9	16	1.5	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



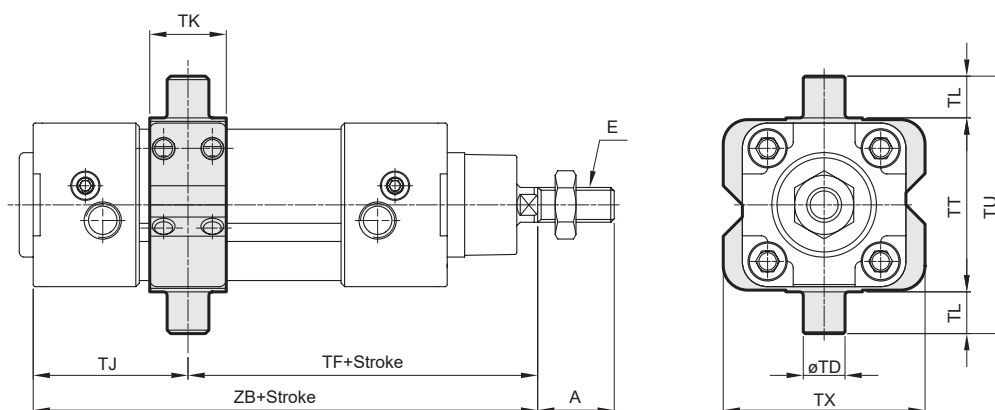
Code Tube I.D.	A	E	TD	TF	TJ	TK	TL	TT	TU	TX	ZB
32	22	M10×1.25	12 ^{øB}	73	47	22	12	50	74	58	120
40	24	M12×1.25	16 ^{øB}	82.5	52.5	28	16	63	95	70	135
50	32	M16×1.5	16 ^{øB}	90	53	32	16	75	107	85	143
63	32	M16×1.5	20 ^{øB}	97.5	60.5	35	20	90	130	100	158
80	40	M20×1.5	20 ^{øB}	110	64	40	20	110	150	120	174
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 15552 **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

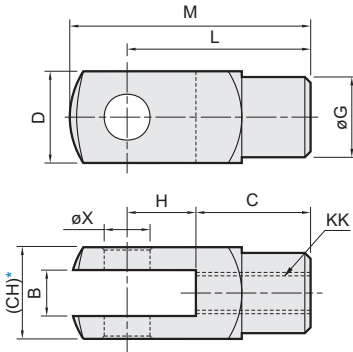
Accessories weight

Unit: kg

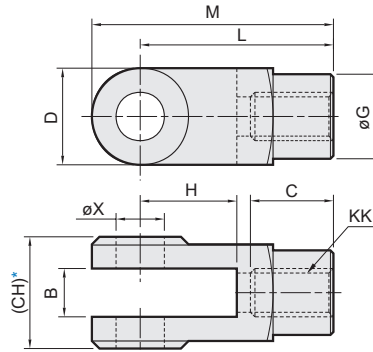
Model	LB	CA	CB	CDB	FAC/FBC	TA/TB/TC	Y	I	Pin		YS
									Y / I	CA / CB	
Tube I.D.											
$\varnothing 32$	0.163	0.213	0.185	0.170	0.235	0.208	0.070	0.080	0.02	0.040	0.018
$\varnothing 40$	0.211	0.253	0.211	0.230	0.265	0.282	0.115	0.141	0.03	0.065	0.031
$\varnothing 50$	0.315	0.390	0.352	0.410	0.460	0.377	0.272	0.334	0.08	0.072	0.070
$\varnothing 63$	0.395	0.670	0.544	0.550	0.684	0.675	0.272	0.334	0.08	0.145	0.070
$\varnothing 80$	0.816	1.076	0.982	0.870	1.508	1.025	0.551	0.553	0.16	0.179	0.150
$\varnothing 100$	1.014	1.587	1.493	1.400	1.975	1.680	0.551	0.553	0.16	0.330	0.150

Y connector

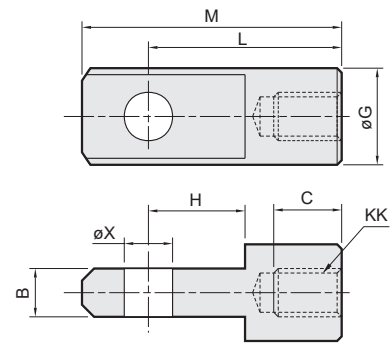
$\phi 32 \sim \phi 40$



$\phi 50 \sim \phi 100$



I connector

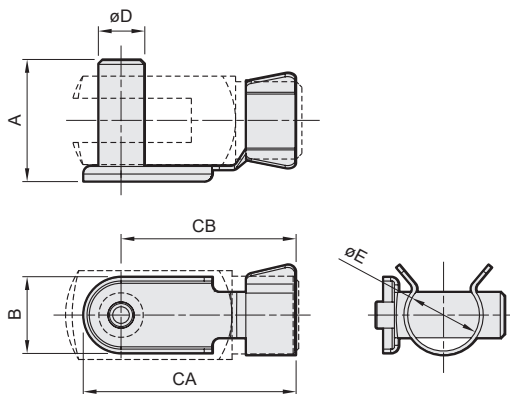


* Please do not take the sand casting plate as the mounting plate, because we do not machine it.
If you have this special demand, please contact our sales representative.

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

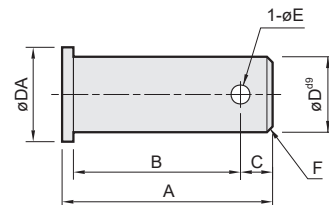
S



for floating pin

Code Tube I.D.	A	B	CA	CB	D ^{d9}	E
32	26	14	45	38	ø10 ^{-0.04/-0.07}	17
40	31	16	54	46	ø12 ^{-0.05/-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

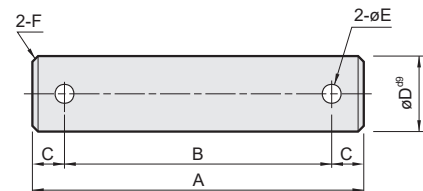
P



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