

MGCXHC COMPACT CYLINDER FOR MAGNETIC SENSORS



- Use the magnetic contact of the magnetic sensor to accurately transmit the actuating position of the cylinder to the external controller.
- Direct installation without any accessories.
- Save installation space, the total length of the cylinder is about half of the rod cylinder with the same bore and stroke.
- Suitable for molds, processing tools or mechanical occasions with limited installation space

TYPE AND INSTALLATION FORM

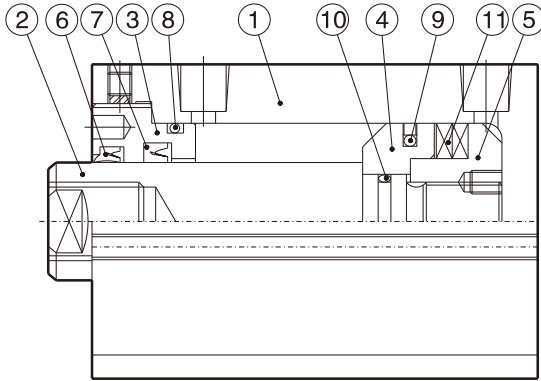
Type	Mark	Graphics	Heat resistance	Installation form	Bore (mm)
Double acting cylinder	MG-CXHC-A		MG-CXHC-AJ	SD basic	32
					40 50 63 80 100
Double rods cylinder	MG-CXHC-C		MG-CXHC-CJ	LA Foot flange	32
					40 50 63 80 100
Double rods cylinder with stroke alignment	MG-CXHC-D		MG-CXHC-DJ		32 40 50 63 80 100
Manifold block cylinder	MG-CXHC-MF		MG-CXHC-MF-FC	Rod/ head manifold block	32
			MG-CXHC-MF-RC		40 50 63 80

THEORETICAL OUTPUT TABLE

Units:kgf

Bore (mm)	Shaft diameter (mm)	Piston pressure area (cm ²)		Theoretical output(P=70kgf/cm ²)		Theoretical output (P=140kgf/cm ²)	
		Extend	Retract	Extend	Retract	Extend	Retract
32	20	8.0	4.9	560	343	1120	686
40	25	12.6	7.7	880	536	1760	1072
50	30	19.6	12.6	1375	88	2750	1760
63	35	31.2	21.65	2182	1508	4343	3016
80	40	50.3	38	3519	2660	7038	5320
100	56	78.5	53.9	5498	3774	10995	7548

INTERNAL STRUCTURE AND PART NAMES



Tie-rod Hydraulic Cylinder

Mold Hydraulic Cylinders

Swivel & Clamp Hydraulic Cylinders

Booster Cylinders & Unclamping cylinders

ISO Specifications Cylinders

Round Hydraulic Cylinders

Specific Hydraulic Cylinders

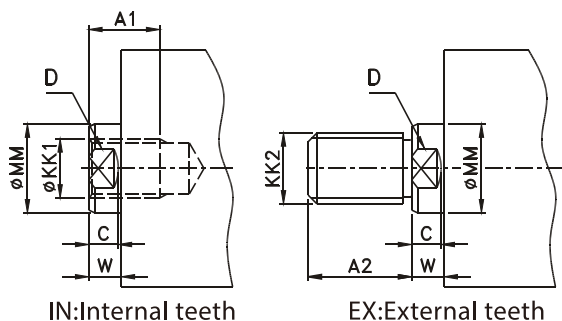
Systems & Fittings

Item	Part name	Qty	Item	Part name	Qty
①	Tube	1	⑦	Rod packing	1
②	Piston rod	1	⑧	Rod cover O-ring	1
③	Rod cover	1	⑨	Piston packing	1
④	Rod piston	1	⑩	Piston O-ring	1
⑤	Head piston	1	⑪	Induction magnet	2
⑥	Dust seal	1			

SEAL SPEC.

Item Bore Z E E E O-ring y	⑥	⑦	⑧	⑨	⑩
	Rod dust seal	Rod seal	Cover O-ring	Piston packing	Piston O-ring
	1	1	1	1	1
32	20×28×6	20×28×5	G25	32×21×4.2	P16
40	25×33×6	25×33×5	G35	40×29×4.2	P21
50	30×38×6.5	30×40×6	G45	50×39×4.2	G25
63	35×43×6.5	35×45×6	G58	63×52×4.2	G30
80	40×48×6.5	40×50×6	G75	80×69×4.2	G35
100	56×64×6.5	56×66×6	G95	100×84.5×6.3	G50

TYPE OF PISTON ROD SHAFT END



Symbol	MM	KK1	A1	KK2	A2	C	D	W
Bore								
32	20	M12x1.75	15	M16x1.5	25	9	17	10
40	25	M16x2.0	20	M20x1.5	30	9	21	10
50	30	M20x2.5	24	M24x1.5	35	10	27	11
63	35	M27x3.0	33	M30x1.5	45	11	32	13
80	40	M30x3.5	33	M36x1.5	55	14	37	17
100	56	M36x4.0	40	M48x1.5	70	15	50	17

ORDER INDICATION



Type

A: Double acting cylinder
 C: Double rod cylinder
 D: Double rods cylinder with stroke alignment
 MF: Manifold block

Performance

Blank = indicates standard
 H: Shaft with dust cover
 J: Heat/acid & alkali resistance
 (Max. tem. 150°C)

Shaft

IN : Internal
 EX : External

Installation

SD: Basic
 LA: Foot flange (bore: 32, 40, 50, 63, 80, 100)

Oil intake type (only manifold block)

FC : Front-end oil intake
 RC : Back-end oil intake

Bore

32, 40, 50, 63, 80, 100

▲ Blank = indicates standard

- Note:
- For all cylinders with magnetic sensors, to prevent sensor failure, please note the following points:
1. Minimum stroke > 20mm
 2. Working temperature range: -25 ~ +70°C
 3. The cylinder cannot be installed in an environment where the magnetic field strength is greater than 1ka/m, and it is forbidden to place soft magnetic materials and soft magnetic iron filings nearby

Magnetic sensor

T: 2 outgoing lines, standard line is 2 m
 P: PNP 3 outgoing lines, standard line is 2 m
 N: NPN 3 outgoing lines, standard line is 2 m
 n: Qty

Pilot check valve

Refer to below form

Flow regulator

Refer to below form

● **Pilot Check Valve**

Standard	Install position	Order indication	Qty.	Bore
PCVI	FC (rod)	PVCI-03	x1	Ø32~Ø63
	RC (head)			
	FC/RC (rod + head)	PVCI-03-T	x1	Ø80~Ø100

Note for check valve:

1. The selected standards are matched according to the size of the bore, and no need to indicated.
2. Install position need to indicated.

● **Flow Regulator**

Standard	Install position	Order indication	Qty.	Bore
KC	FC (rod)	KC-02	x1	Ø32~Ø63
	RC (head)	KC-03	x1	Ø80~Ø100
	FC/RC (rod + head)	KC-04	x1	Ø125

Seal material

Blank = indicates standard (NBR)
 FPM maximum heat resistance 150°C

Adjustable stroke

▲ Only for double acting cylinder with adjustable stroke

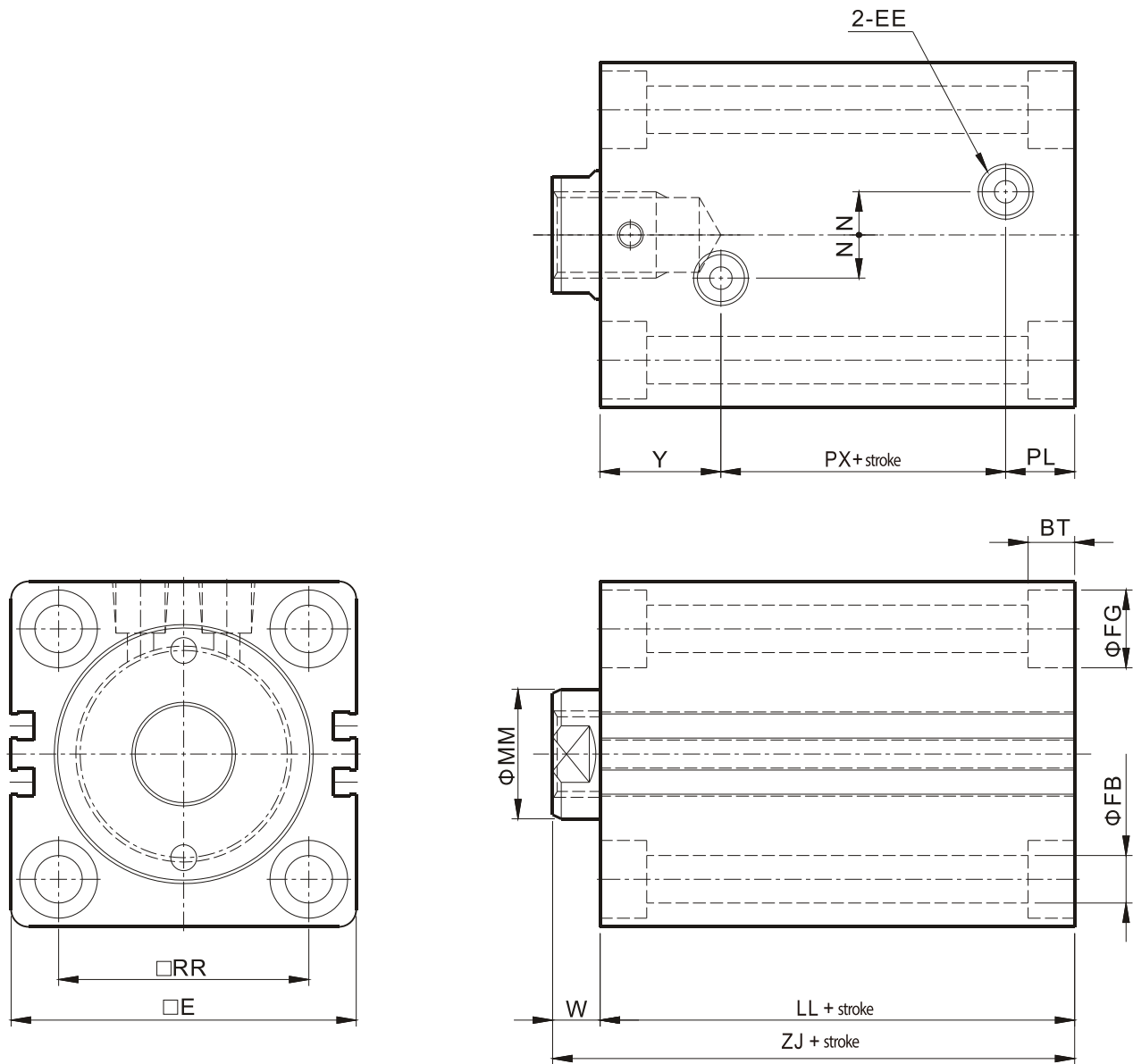
Stroke (mm)

Bore Ø32	Max. stroke 80mm
Bore Ø40	Max. stroke 110mm
Bore Ø50	Max. stroke 160mm
Bore Ø63	Max. stroke 170mm
Bore Ø80~Ø100	Max. stroke 150mm

If exceeds the above stroke, please contact ours sales department.

EXTERNAL DIMENSIONS

- MGCXHC-A-SD (double acting, basic)



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Booster Cylinders & Unclamping cylinders

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Specific Hydraulic Cylinders

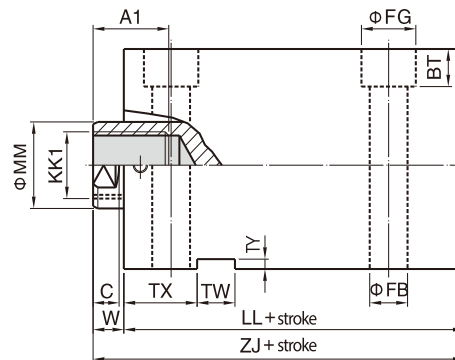
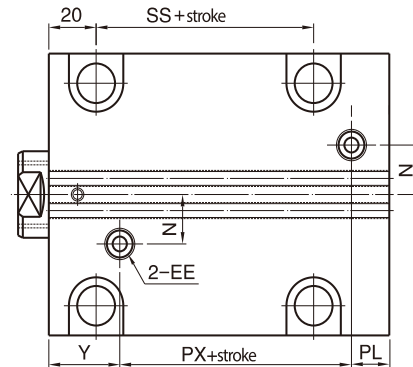
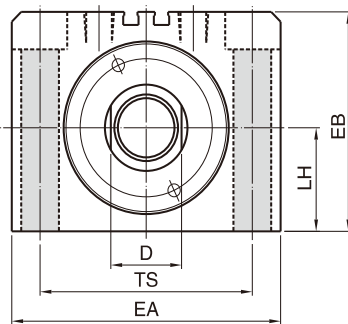
Systems & Fittings

Symbol Bore	MM	W	E	EE	LL	ZJ	Y	PL	PX	BT	RR	FB	FG	N
32	20	10	62	Rc1/4	73	83	27	17	29	6.5	47	7	11	10
40	25	10	70	Rc1/4	70	80	27	16	27	8.6	52	9	14	10
50	30	11	80	Rc1/4	75	86	28	16	31	10.8	58	11	18	10
63	35	13	94	Rc1/4	84	97	30	18	36	13	69	14	20	10
80	40	17	114	Rc3/8	95	112	35	22	38	15	86	16	23	15
100	56	17	134	Rc3/8	100	117	39	25	36	17.5	102	18	26	15

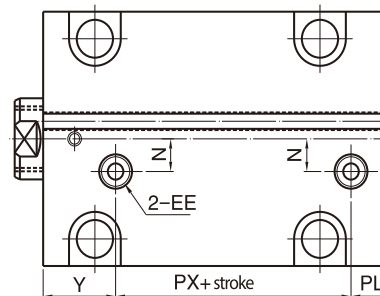
Note: 1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-A-LA (double acting, foot flange)
- Bore: Ø63、Ø80、Ø100
Double strip magnetic sensor



- Bore: Ø32、Ø40、Ø50
Single strip magnetic sensor shown as below:



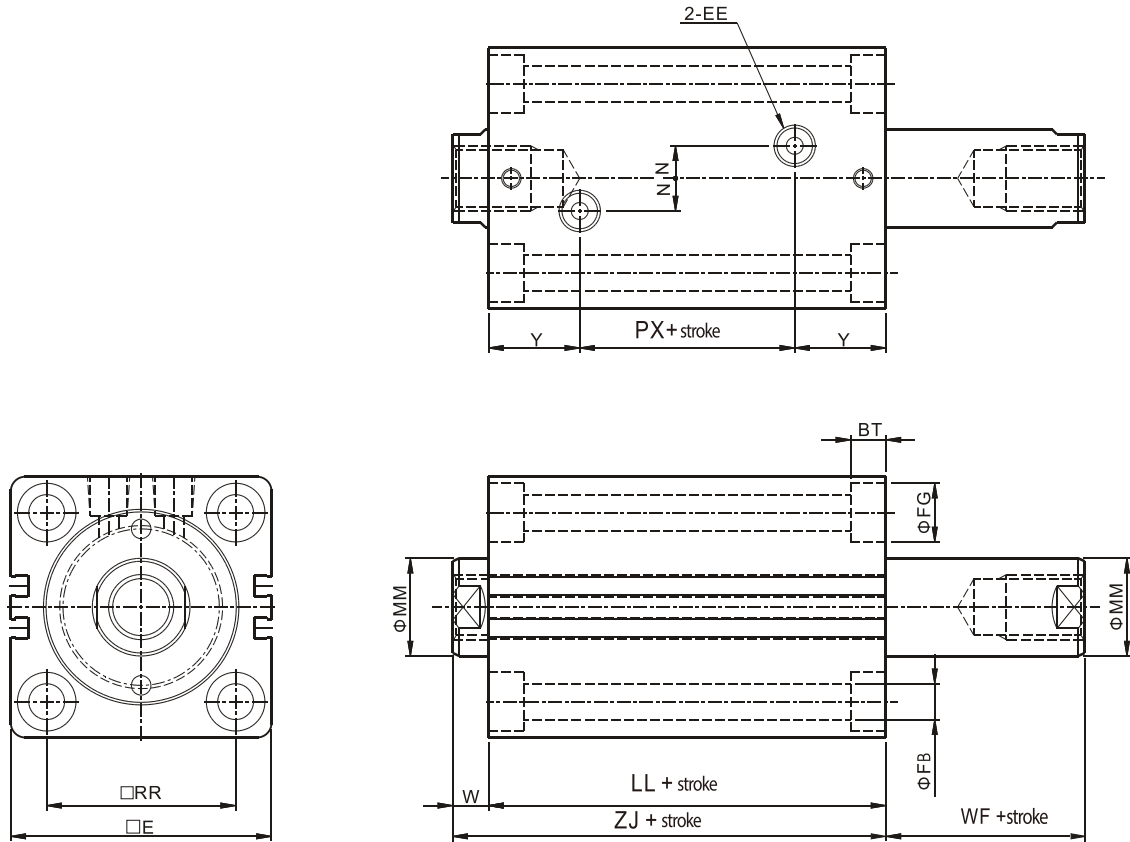
Symbol Bore	BT	EA	EB	EE	FB	FG	LH	LL	MM	N	PL	SS	TS	TW	TX	W	Y	ZJ	PX	TY
32	8.6	70	56	RC1/4	9	14	25	73	20	10	17	24	56	12	28	10	27	83	29	4
40	10.8	80	64	RC1/4	11	18	29	70	25	10	16	23	62	12	28	10	27	80	27	4
50	13	94	74	RC1/4	14	20	34	75	30	10	16	27	74	14	29	11	28	86	31	4
63	15.2	114	89	RC1/4	16	23	42	84	35	20	18	32	90	16	31	13	30	97	36	4
80	15.2	134	109	RC3/8	16	23	52	95	40	25	22	41	110	16	34	17	35	112	38	4
100	17	160	129	RC3/8	18	26	62	100	56	25	25	44	134	16	34	17	39	117	36	5

Note: When the stroke is <10mm, the keyway will not be processed. (i.e. cancel the size:TX, TW, TY)

Note:1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-C-SD (double rods, basic)



Symbol	MM	W	E	EE	LL	ZJ	Y	PX	BT	RR	FB	FG	N
Bore 32	20	10	62	Rc1/4	84	94	27	30	6.5	47	7	11	10
40	25	10	70	Rc1/4	81	91	27	27	8.6	52	9	14	10
50	30	11	80	Rc1/4	87	98	28	31	10.8	58	11	18	10
63	35	13	94	Rc1/4	94	107	30	34	13	69	14	20	10
80	40	17	114	Rc3/8	106	123	35	36	15	86	16	23	15
100	56	17	134	Rc3/8	114	131	39	36	17.5	102	18	26	15

Note:1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

Tie-rod Hydraulic Cylinder

Mold Hydraulic Cylinders

Swivel & Clamp Hydraulic Cylinders

Booster Cylinders & Unclamping cylinders

ISO Specifications Cylinders

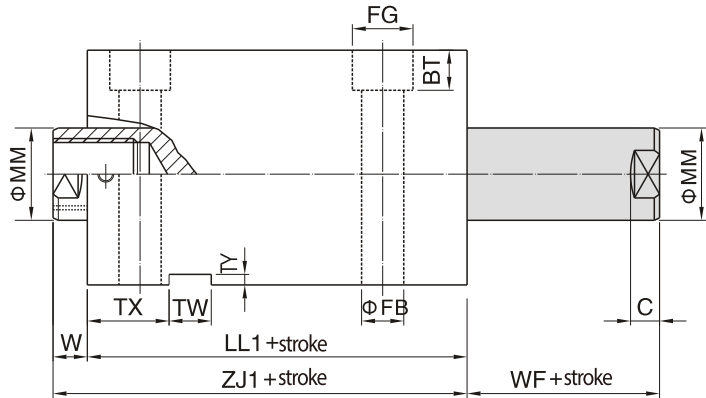
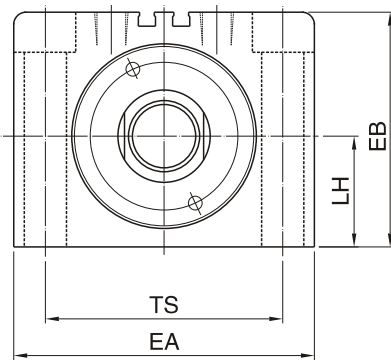
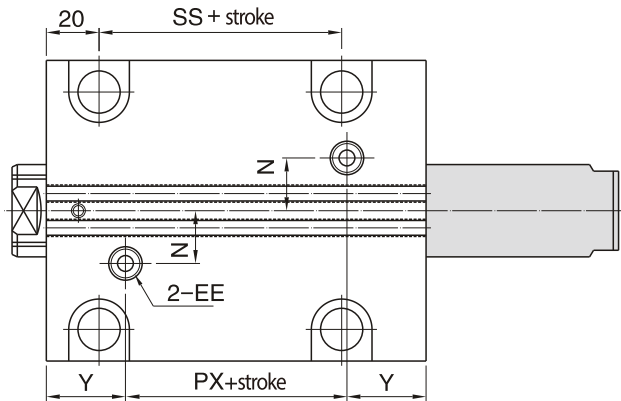
Round Hydraulic Cylinders

Specific Hydraulic Cylinders

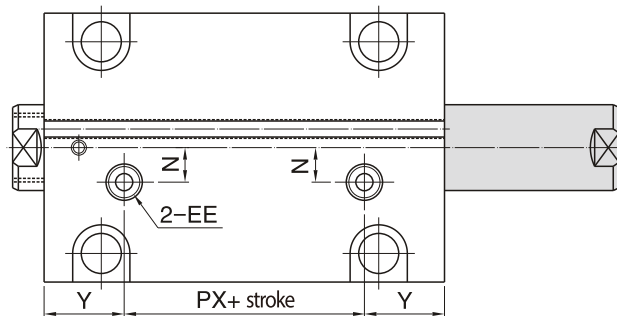
Systems & Fittings

EXTERNAL DIMENSIONS

- MGCXHC-C-LA (double rods, foot flange)
- Bore: Ø63、Ø80、Ø100
Double strip magnetic sensor



- Bore: Ø40、Ø50



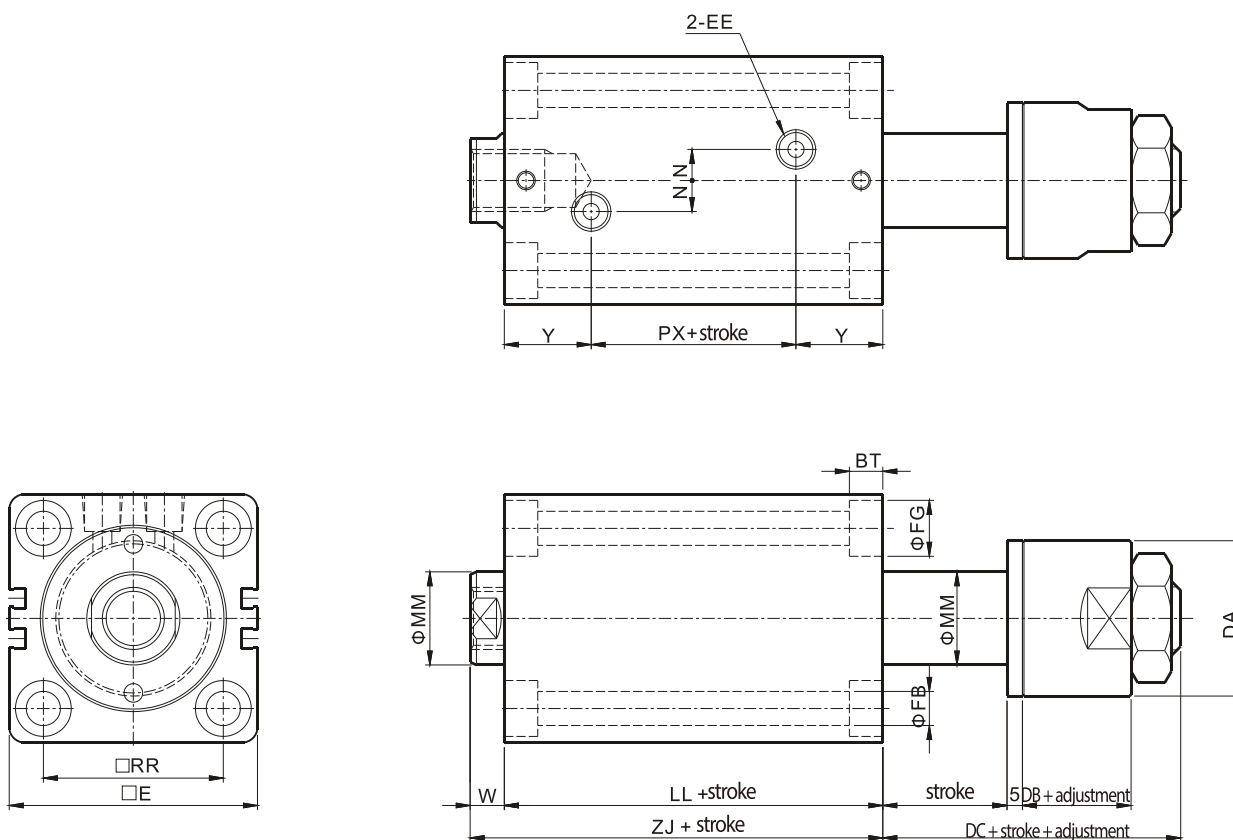
Symbol Bore	BT	EA	EB	EE	FB	FG	LH	LL 1	MM	N	SS	TS	TW	TX	W	Y	ZJ 1	PX	TY
40	10.8	80	64	RC1/4	11	18	29	81	25	10	23	62	12	28	10	27	91	27	4
50	13	94	74	RC1/4	14	20	34	87	30	10	27	74	14	29	11	28	98	31	4
63	15.2	114	89	RC1/4	16	23	42	94	35	20	32	90	16	31	13	30	107	34	4
80	15.2	134	109	RC3/8	16	23	52	106	40	25	41	110	16	34	17	35	123	36	4
100	17	160	129	RC3/8	18	26	62	114	56	25	44	134	16	34	17	39	131	36	5

Note: When the stroke is <10mm, the keyway will not be processed. (i.e. cancel the size:TX, TW, TY)

Note: 1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-D-SD (double rods with stroke alignment, basic)



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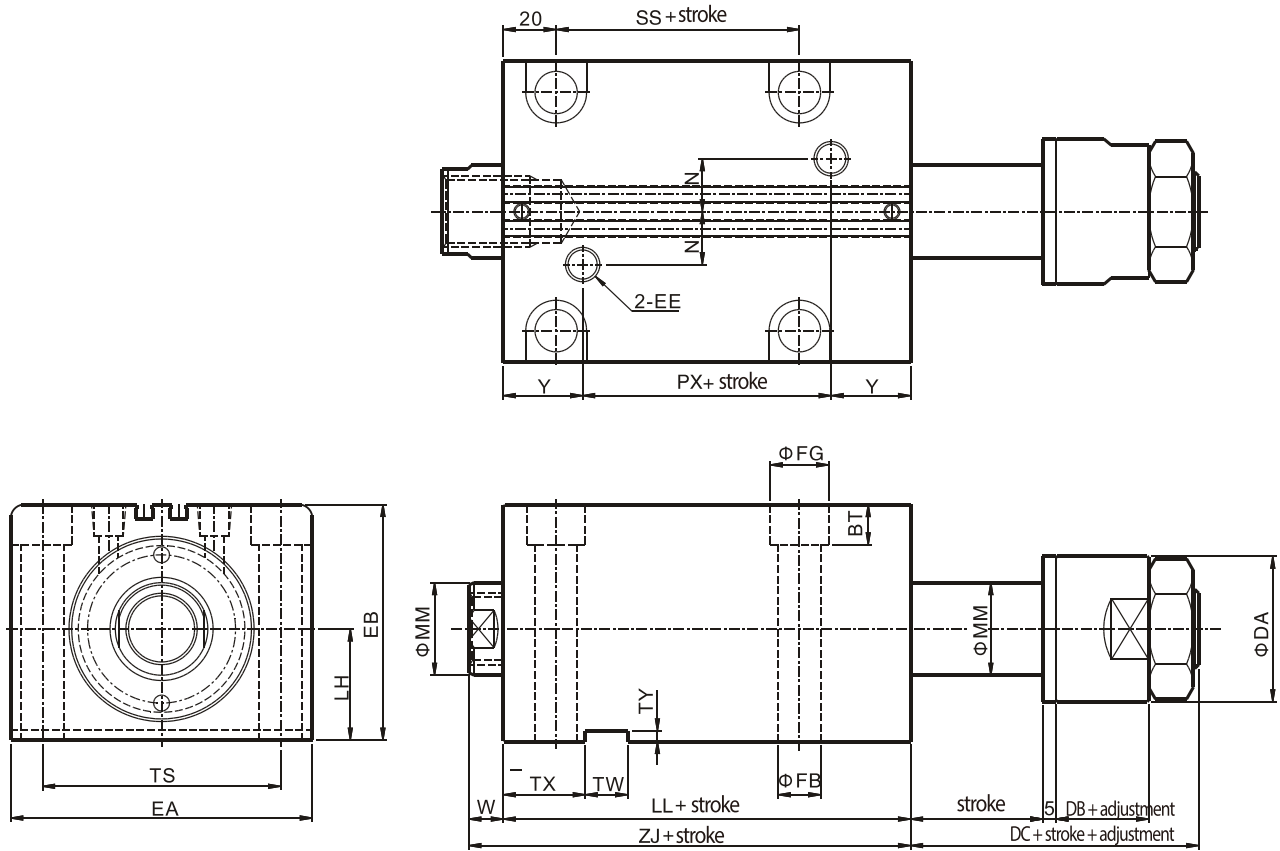
Systems & Fittings

Symbol Bore	DA	DB	DC	E	EE	LL	MM	N	BT	FB	FG	RR	W	Y	ZJ	PX
32	38	15	32	62	Rc1/4	84	20	10	6.5	7	11	47	10	27	94	30
40	44	20	38	70	Rc1/4	81	25	10	8.6	9	14	52	10	27	91	27
50	50	20	40	80	Rc1/4	87	30	10	10.8	11	18	58	11	28	98	31
63	55	20	44	94	Rc1/4	94	35	10	13	14	20	69	13	30	107	34
80	60	20	45	114	Rc3/8	106	40	15	15	16	23	86	17	35	123	36
100	80	30	55	134	Rc3/8	114	56	15	17.5	18	26	102	17	39	131	36

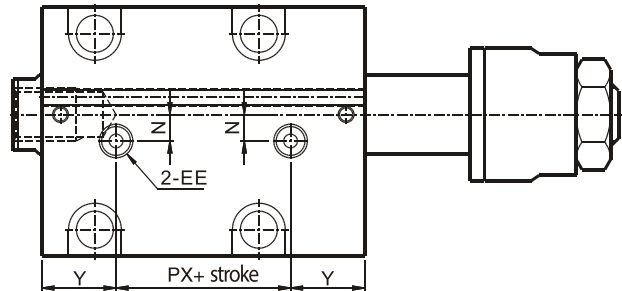
Note: 1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-D-LA (double rods with stroke alignment, foot flange)



- Bore: Ø40、Ø50



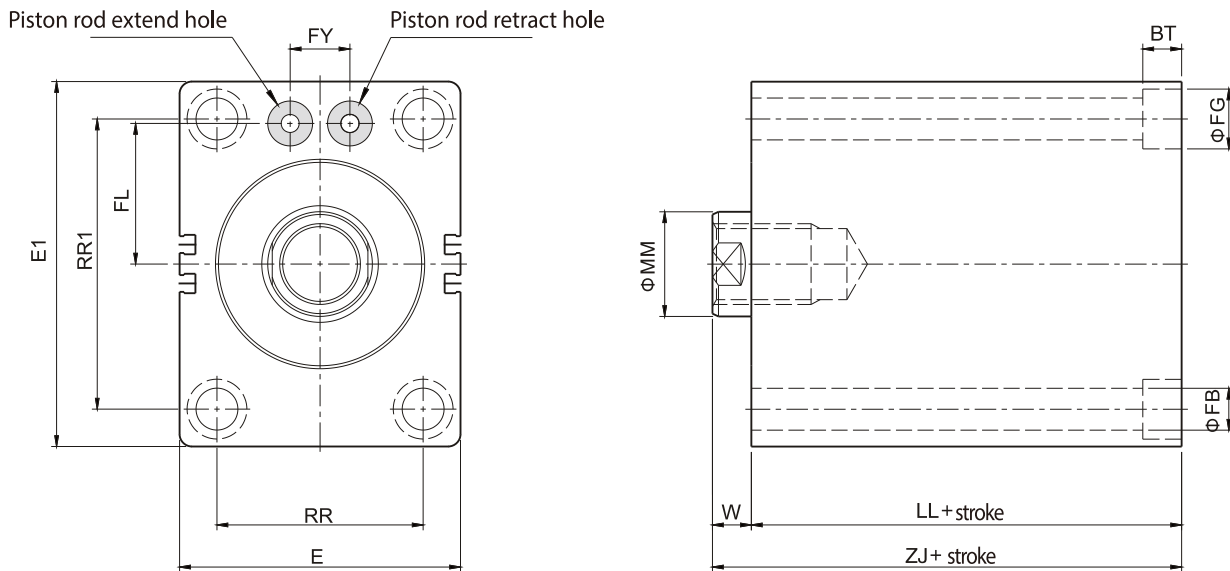
Symbol Bore	DA	DB	DC	EA	EB	EE	LH	LL1	MM	N	BT	FB	FG	SS	TS	TW	TX	W	Y	ZJ	PX	TY
40	44	20	38	80	64	RC1/4	29	81	25	10	10.8	11	18	23	62	12	28	10	27	91	27	4
50	50	20	40	94	74	RC1/4	34	87	30	10	13	14	20	27	74	14	29	11	28	98	31	4
63	55	20	44	114	89	RC1/4	42	94	35	20	15.2	16	23	32	90	16	31	13	30	107	34	4
80	60	20	45	134	109	RC3/8	52	106	40	25	15.2	16	23	41	110	16	34	17	35	123	36	4
100	80	30	55	160	129	RC3/8	62	114	56	25	17	18	26	44	134	16	34	17	39	131	36	5

Note: When the stroke is <10mm, the keyway will not be processed. (i.e. cancel the size:TX, TW, TY)

Note:1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-MF-SD-FC (rod manifold block, basic)



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Specific Hydraulic Cylinders

Systems & Fittings

Symbol Bore	MM	W	RR	E	RR1	E1	FB	FG	EF	FL	FY	LL	ZJ	BT
32	20	10	47	62	71	86	7	11	∅10x1.4DP ^{bottom hole} , ∅4	32	20	73	83	6.5
40	25	10	52	70	78	96	9	14	∅12x1.4DP ^{bottom hole} , ∅5.2	36	20	70	80	8.6
50	30	11	58	80	84	106	11	18	∅12x1.4DP ^{bottom hole} , ∅6	41	20	75	86	10.8
63	35	13	69	94	97	122	14	20	∅15x1.8DP ^{bottom hole} , ∅6	47	20	84	97	13
80	40	17	86	114	109	140	16	23	∅15x1.8DP ^{bottom hole} , ∅6	56	30	95	112	15
100	56	17	102	134	124	156	18	26	∅15x1.8DP ^{bottom hole} , ∅9	64.5	48	100	117	17.5

O-ring standard

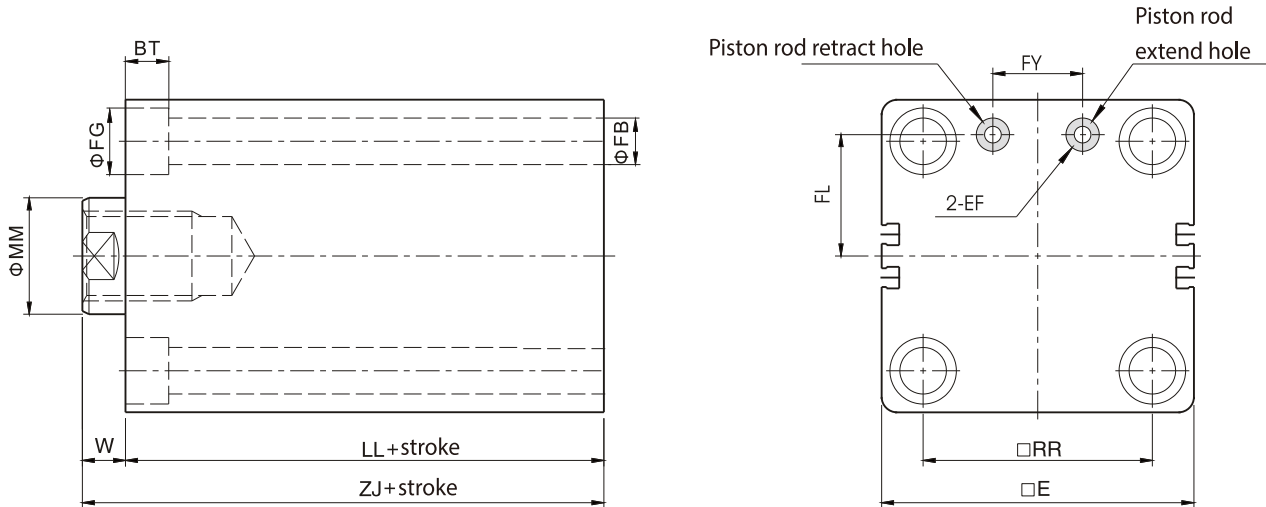
Bore	Standard
∅32	P7
∅40~∅50	P9
∅63~∅100	P11

Note: When the stroke is <10mm, the keyway will not be processed. (i.e. cancel the size:TX, TW, TY)

Note:1.IN/EX/T size refer to P102 piston rod shaft end form.
2.Exceed the above specifications, please contact our business department.

EXTERNAL DIMENSIONS

- MGCXHC-MF-SD-RC (head manifold block, basic)



Symbol Bore	MM	W	RR	E	EF	FL	FY	FB	FG	BT	LL	ZJ
32	20	10	47	62	∅10x1.4DP _{bottom hole, ∅4}	21	16	7	11	6.5	73	83
40	25	10	52	70	∅10x1.4DP _{bottom hole, ∅4}	25	18	9	14	8.6	70	80
50	30	11	58	80	∅10x1.4DP _{bottom hole, ∅4}	30	20	11	18	10.8	75	86
63	35	13	69	94	∅10x1.4DP _{bottom hole, ∅5}	36.5	27	14	20	13	84	97
80	40	17	86	114	∅12x1.4DP _{bottom hole, ∅6}	45.5	28	16	23	15	95	112
100	56	17	102	134	∅15x1.8DP _{bottom hole, ∅7}	54	50	18	26	17.5	100	117

O-ring standard

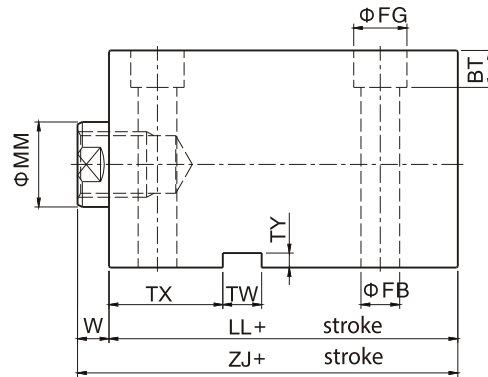
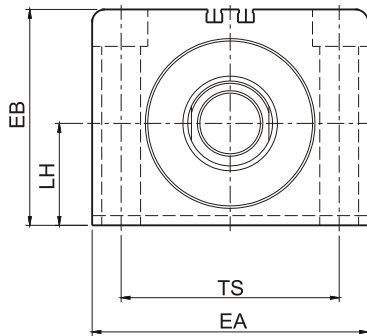
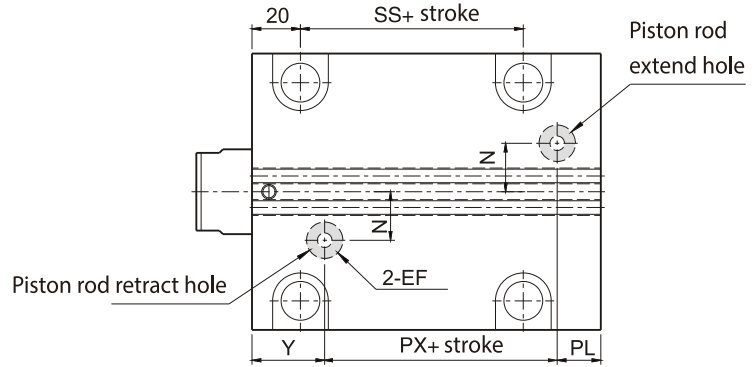
Bore	Standard
∅32~∅63	P7
∅80	P9
∅100	P11

Note: 1. IN/EX/T size refer to P102 piston rod shaft end form.
 2. Exceed the above specifications, please contact our business department.

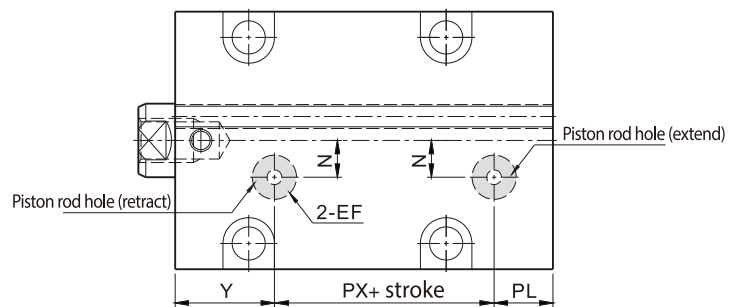
EXTERNAL DIMENSIONS

- MGCXHC-MF-LA (manifold block, foot flange)
- Bore: Ø63、Ø80、Ø100

O-ring standard	
Bore	Standard
Ø32~Ø40	AP9
Ø50~Ø100	AP11



- Bore: Ø32、Ø40、Ø50



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Symbol	MM	W	LH	EB	TS	EA	EF	N	Y	PL	FB	FG	BT	LL	ZJ	SS	TX	TW	PX	TY
Bore 32	20	10	25	56	56	70	Ø12x1.4DP bottom hole, Ø5.2	10	27	17	9	14	8.6	73	83	24	41	12	29	4
Bore 40	25	10	29	64	62	80	Ø12x1.4DP bottom hole, Ø5.2	10	27	16	11	18	10.8	70	80	23	42	12	27	4
Bore 50	30	11	34	74	74	94	Ø15x1.8DP bottom hole, Ø6	10	28	16	14	20	13	75	86	27	44	14	31	4
Bore 63	35	13	42	89	90	114	Ø15x1.8DP bottom hole, Ø7	20	30	18	16	23	15.2	84	97	32	47	16	36	4
Bore 80	40	17	52	109	110	134	Ø15x1.8DP bottom hole, Ø7	25	35	22	16	23	15.2	95	112	41	54	16	38	4
Bore 100	56	17	62	129	134	160	Ø15x1.8DP bottom hole, Ø9	25	39	25	18	26	17	100	117	44	56.5	16	36	5

Note: When the stroke is <10mm, the keyway will not be processed. (i.e. cancel the size:TX, TW, TY)

Note: 1.IN/EX/T size refer to P102 piston rod shaft end form.

2.Exceed the above specifications, please contact our business department.