

MDC2 SENSOR COMPACT CYLINDERS



- MDC2 model is compact cylinder (CXHC2) with limit switches and touch rod which are used to control precisely position of molds, suit for plastic mold ejection.

Tie-rod Hydraulic Cylinder

Mold Hydraulic Cylinders

Swivel & Clamp Hydraulic Cylinders

Booster Cylinders & Unclamping cylinders

ISO Specifications Cylinders

Round Hydraulic Cylinders

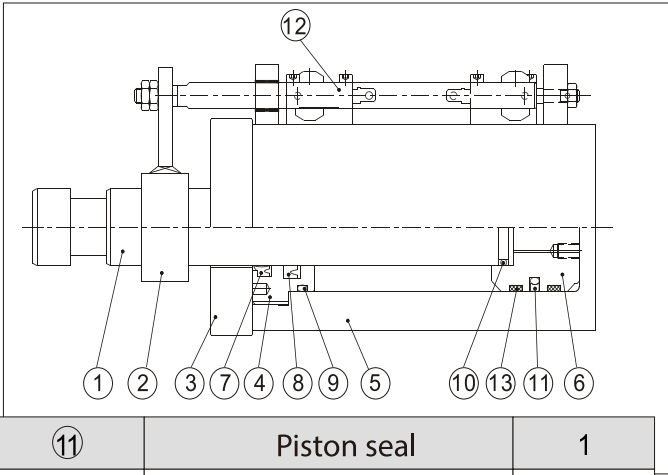
Specific Hydraulic Cylinders

Systems & Fittings

THEORETICAL FORCE

Bore(mm)	Shaft(mm)	Piston pressure area(c m ²)		Theoretical force(P=70kgf/c m ²)		Theoretical force(P=140kgf/c m ²)	
		Push(kg)	Pull(kg)	Push(kg)	Pull(kg)	Push(kg)	Pull(kg)
φ 32	φ 20	8	4.9	560	343	1120	686
φ 40	φ 25	12.6	7.7	880	536	1760	1072
φ 50	φ 30	19.6	12.6	1375	880	2750	1760
φ 63	φ 35	31.2	21.6	2182	1508	4343	3016
φ 80	φ 40	50.3	38	3519	2660	7038	5320
φ 100	φ 56	78.5	53.9	5495	3773	10990	7546

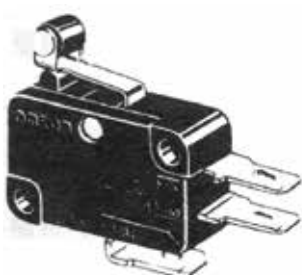
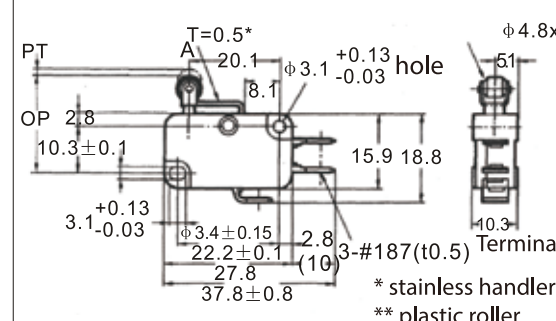
INTERNAL STRUCTURE AND PART NAMES

Item	Part name	Qty			
①	Rod	1			
②	Connecting plate	1			
③	Flange(FA)	1			
④	Rod cover	1			
⑤	Tube	1			
⑥	Piston	1			
⑦	Rod cover dust seal	1			
⑧	Rod cover seal	1	⑪	Piston seal	1
⑨	Rod cover O ring	1	⑫	Control box	1
⑩	Piston O ring	1	⑬	Wear ring	2

SEAL SPEC.

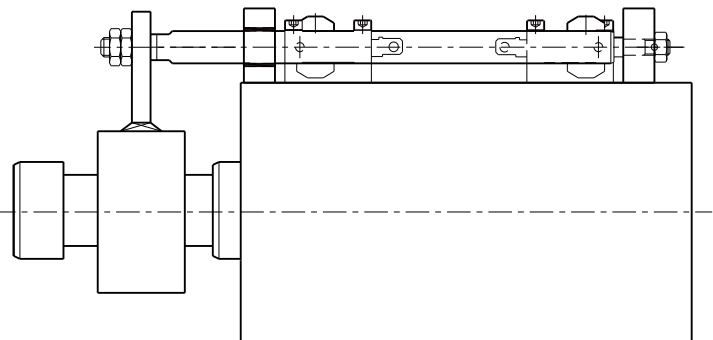
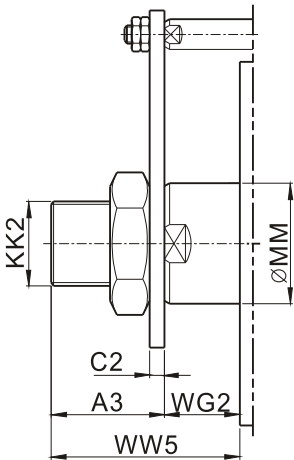
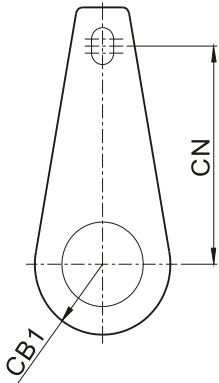
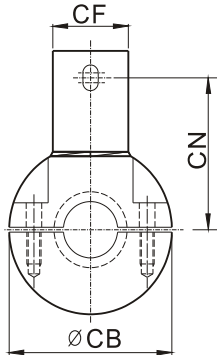
Bore	7 Rod cover dust seal	8 Rod cover seal	9 Cover O ring	10 Piston O ring	11 Piston seal
Parts	1	1	1	1	1
32	20X28X6	20X28X5	G25	P16	32X21X4.2
40	25X33X6	25X33X5	G35	P21	40X29X4.2
50	30X38X6.5	30X40X6	G45	G25	50X39X4.2
63	35X43X6.5	35X45X6	G55	G30	63X52X4.2
80	40X48X6.5	40X50X6	G75	G35	80X69X4.2
100	56X64X6.5	56X66X6	G95	G50	100X84.5X6.3

FEATURE & SPEC. OF LIMIT SWITCHES

Spec.		V-155-1C25		External dimension		
	 * stainless handler ** plastic roller			OF(max.) RF(min.)	2.35N(240GF) 0.49N(50GF)	
				PT(max.) OT(max.) MD(max.)	1.6mm 0.8mm 0.6mm	
				OP	20.7±0.6mm	
Operating speed		0.1mm--1m/s (push button)				
Operating frequency	Mechanical	600/min				
	Electrical	60/min				
Insulation resistance		More than 100MΩ (DC500V MEGA)				
Contact resistance		Less than15MΩ(initial value)				
Temperature	-25~+85℃ (without freezing)	Durability	Mechanical	>50 million times		
Humidity	85%RH or less (+5~+35℃)		Electrical	>300,000 times		
Protection	IP00					

ROD END TYPE

- Single rod

Removable single rod		
		
A4 ext. thread type	Flat type	Thin round type
		

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

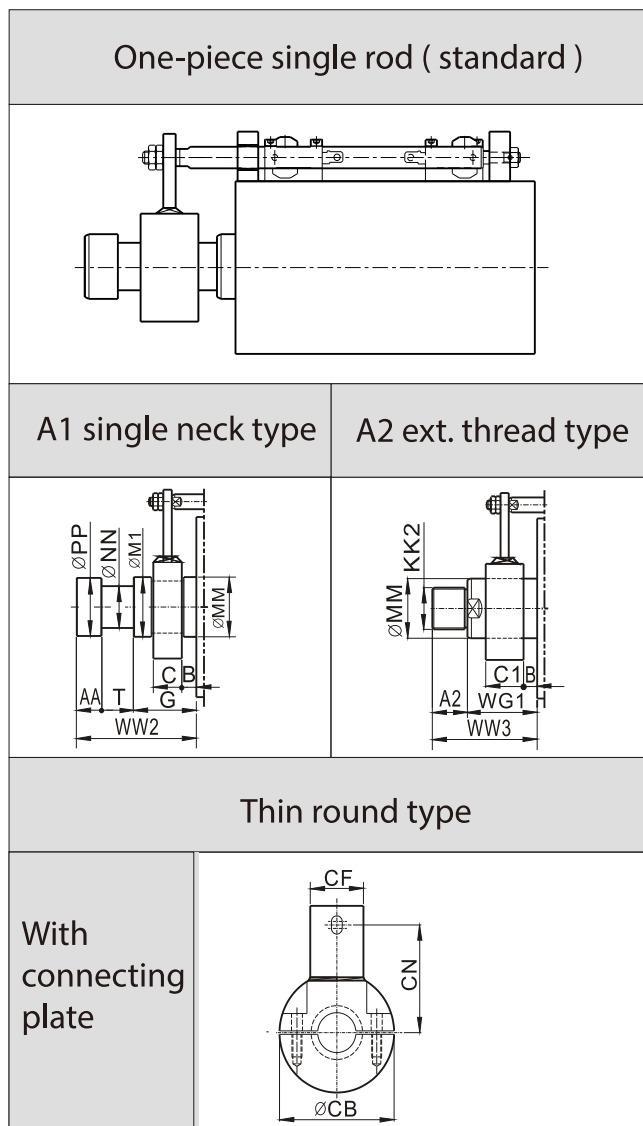
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

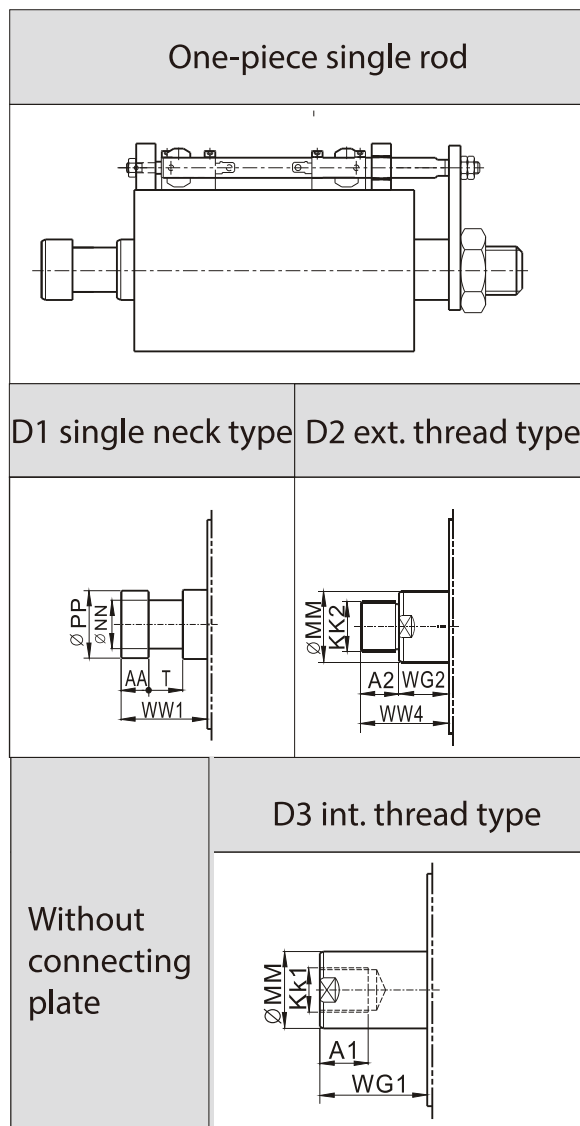
Systems
&
Fittings

ROD END TYPE

● Single rod



● Double rod



Bore	MM	A1 single neck type										A2 ext. thread type						D1 single neck type				
		AA	T	G	C	B	WW2	PP	NN	M1	A2	WG1	C1	B	WW3	KK2	AA	T	WW1	PP	NN	
50	30	15	15	40	20	5	70	30	22	30	35	55	30	5	90	M24x1.5	15	15	55	30	22	
63	35	18	22	40	20	5	80	34	25	35	45	55	30	5	100	M30x1.5	18	22	55	34	25	
80	40	18	22	40	20	5	80	39	28	40	55	55	30	5	110	M36x1.5	18	22	55	39	28	
100	56	20	27	45	20	5	92	49	38	56	70	65	40	5	135	M48x1.5	20	27	65	49	38	

Bore	MM	D2 ext. thread type				D3 int. thread type			A4 ext. thread type					Lat\thin round			
		A2	WG2	WW4	KK2	KK1	A1	WG1	KK2	C2	A3	WG2	WW5	CN	CB1	CF	CB
50	30	35	11	46	M24x1.5	M20x2.5	24	55	M24x1.5	6	48	11	59	62	R20	32	69
63	35	45	13	58	M30x1.5	M27x3.0	33	55	M30x1.5	6	65	13	78	69	R25	32	69
80	40	55	17	72	M36x1.5	M30x3.5	33	55	M36x1.5	6	75	17	92	79	R30	32	69
100	56	70	17	87	M48x1.5	M36x4.0	40	65	M48x1.5	6	90	17	107	89	R40	38	89

ORDER INDICATION

MDC2	A		FA	50	30ST				
------	---	--	----	----	------	--	--	--	--

Sensor compact cylinders

Type

(1) A: Single rod (standard)
(2) C: Double rod

Performance

Blank = indicates standard
J: Heat/acid & alkali resistance
(Max. tem.150℃)

Installation

(1)SD: Basic
(2)FA: Flange
(3)LA: Foot fange

Bore (mm)

32, 40, 50, 63, 80, 100

Stroke (mm)

According to customer demand

Rod end type

1.Single rod
One-piece single rod
A1 single neck A2 ext. Thread (thin round connecting plate)
A3 int. Thread A4 ext. Thread (fat connecting plate)
2.Removable single rod
B1 single neck B2 ext. Thread
3.Double rod
One-piece single rod
D1 single neck D2 ext. thread D3 int. Thread

Seal material

Blank = indicates standard(NBR)
2:PU
3: FPM

● Pilot check valve

Standard	Install position
PCVI-03	FC(rod)
	RC(head)
PCVI-03T	FC/RC (rod + head)
Qty	Bore
x1	φ 32~ φ 63
x1	
x1	φ 80~ φ 150

⚠ (Pilot 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

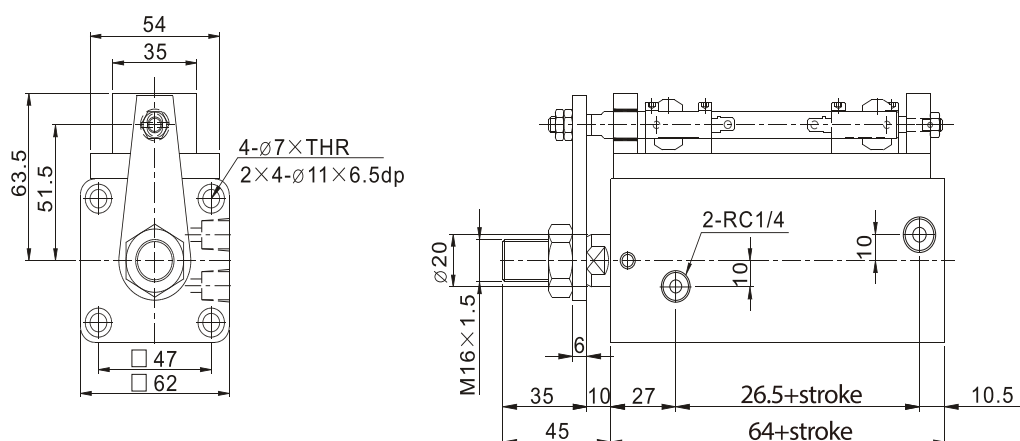
Standard	Install position
KC-02	FC(rod)
KC-03	RC(head)
KC-04	FC/RC(rod + head)
Qty	Bore
x1	φ 32~ φ 63
x1	φ 80~ φ 100
x1	φ 125

Tie-rod
Hydraulic
CylinderMold
Hydraulic
CylindersSwivel &
Clamp
Hydraulic
CylindersBooster
Cylinders
&
Unclamping
cylindersISO
Specifications
CylindersRound
Hydraulic
CylindersSpecific
Hydraulic
CylindersSystems
&
Fittings

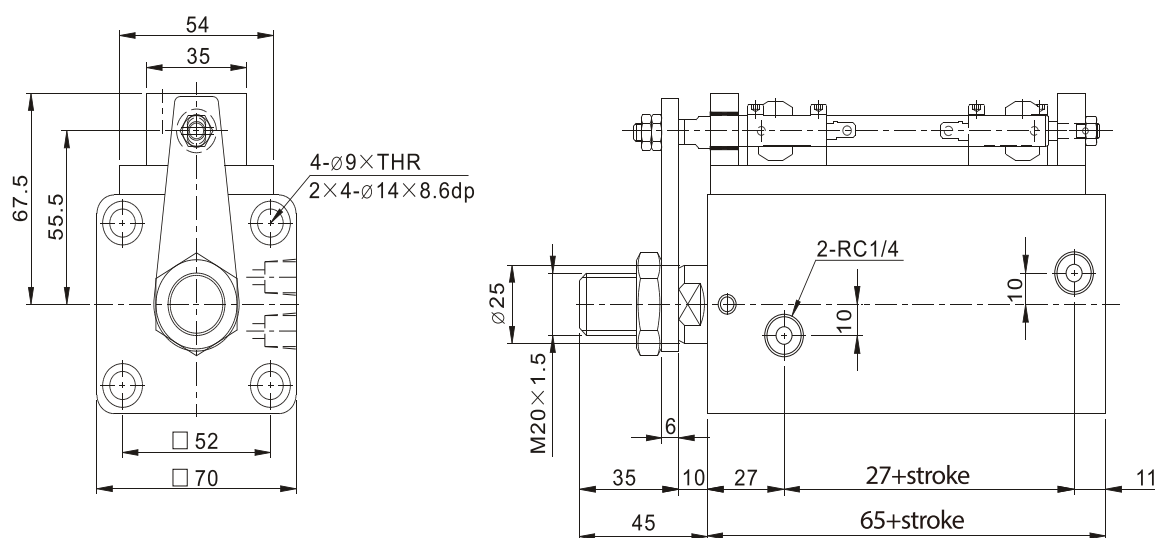
⚠ D1 single neck D2 ext. thread D3 int. Thread

EXTERNAL DIMENSIONS

- $\varnothing 32$ External dimension (rod dimension are for reference only and can be customized)
- MDC2-A-SD Single rod (basic)

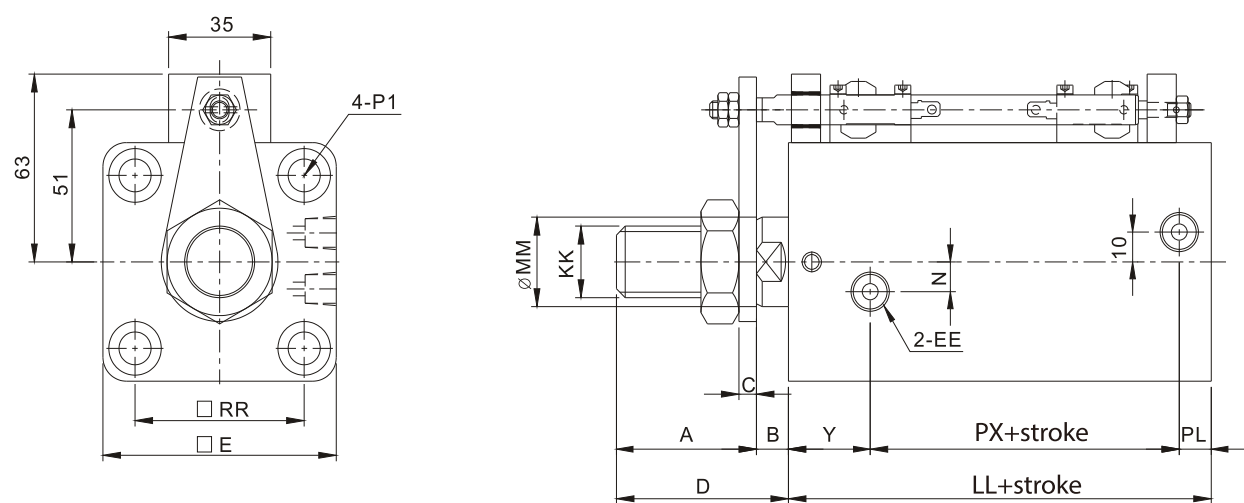


- $\varnothing 40$ External dimension (rod dimension are for reference only and can be customized)
- MDC2-A-SD Single rod (basic)



EXTERNAL DIMENSIONS

- Ø50~Ø100External dimension
- MDC2-A-SD Ø 50 ~ Ø 100 Single rod (basic)



Symbol Bore	A	MM	KK	B	C	D	E	LL	N	PL	Y	PX
50	48	30	M24×1.5	11	6	59	80	70	10	11	28	21
63	65	34	M30×1.5	13	6	78	94	80	10	14	30	26
80	75	40	M36×1.5	17	6	92	114	91	15	18	35	28
100	90	56	M48×1.5	17	6	107	134	98	15	21	39	28

Symbol Bore	EE	RR	P1
50	RC1/4	58	Ø11through-hole.Ø17.5countersunk(both sided)x10.8depth(both sided)
63	RC1/4	69	Ø14through-hole.Ø20countersunk(both sided)x13depth(both sided)
80	RC3/8	86	Ø16through-hole.Ø23countersunk(both sided)x15depth(both sided)
100	RC3/8	102	Ø18through-hole.Ø26countersunk(both sided)x17.5depth(both sided)

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

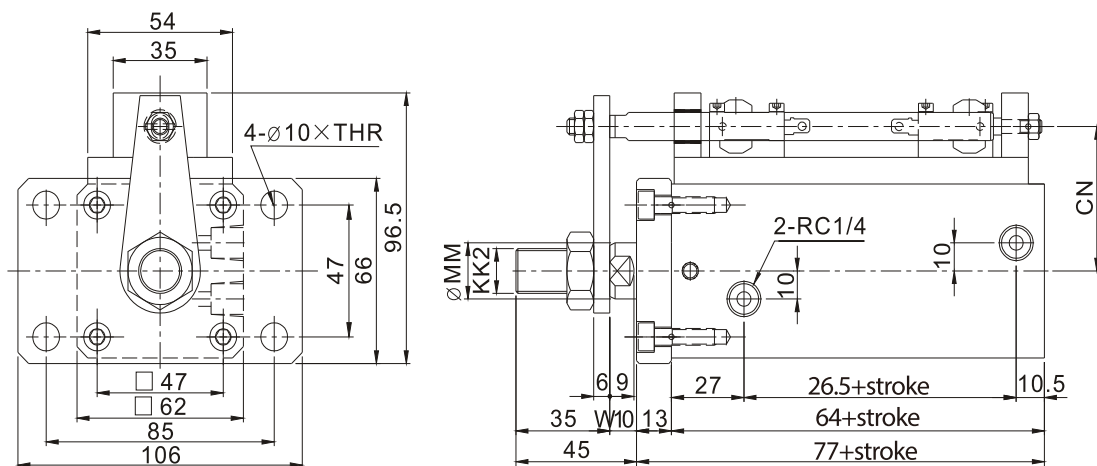
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

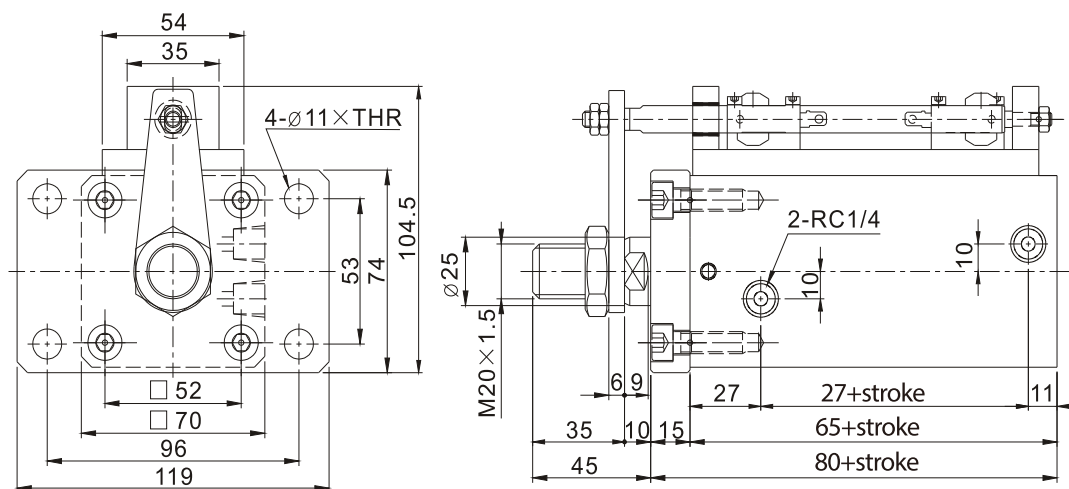
Systems
&
Fittings

EXTERNAL DIMENSIONS

- Ø32 External dimension (rod dimension are for reference only and can be customized)
- MDC2-A-FA Single rod (basic)

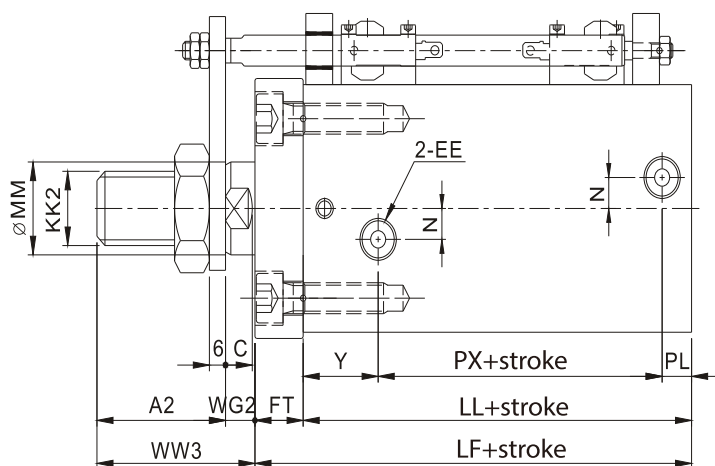
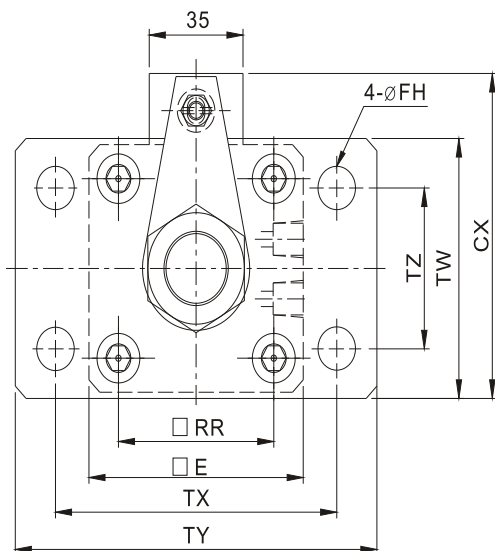


- Ø40 External dimension (rod dimension are for reference only and can be customized)
- MDC2-A-FA Single rod (basic)



EXTERNAL DIMENSIONS

- $\varnothing 50 \sim \varnothing 100$ External dimension
- MDC2-A-FA Single rod (fange)



Symbol Bore	A2	KK2	C	CX	E	EE	FH	FT	LL	LF	WG2	WW3
50	48	M24×1.5	9	126	80	RC1/4	14	18	70	78	11	59
63	65	M30×1.5	11	140	94	RC1/4	18	21	80	91	13	78
80	75	M36×1.5	14	160	114	RC3/8	22	24	91	105	17	92
100	90	M48×1.5	14	180	134	RC3/8	22	30	98	118	17	107

Symbol Bore	MM	N	PL	RR	TW	TX	TY	TZ	Y	PX
50	30	10	11	58	84	105	135	52	28	21
63	35	10	14	69	100	125	160	65	30	26
80	40	15	18	86	124	150	190	75	35	28
100	56	15	21	102	140	174	215	90	39	28

Tie-rod
Hydraulic
Cylinder

Mold
Hydraulic
Cylinders

Swivel &
Clamp
Hydraulic
Cylinders

Booster
Cylinders
&
Unclamping
cylinders

ISO
Specifications
Cylinders

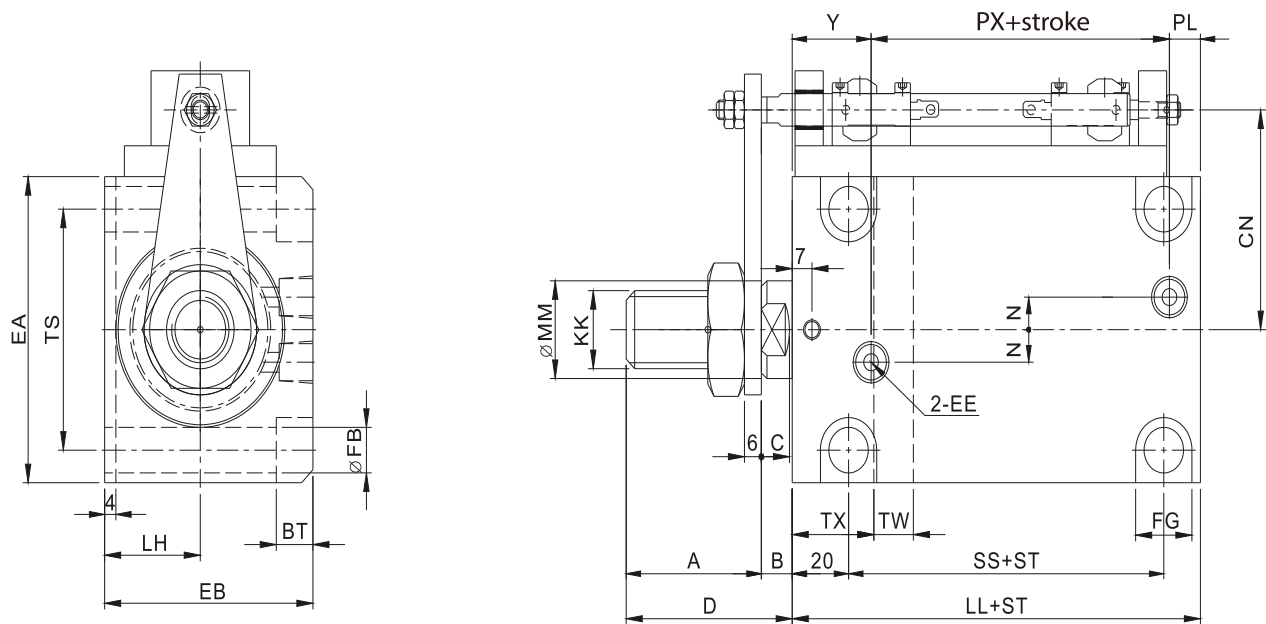
Round
Hydraulic
Cylinders

Specific
Hydraulic
Cylinders

Systems
&
Fittings

EXTERNAL DIMENSIONS

- $\varnothing 50 \sim \varnothing 100$ External dimension
- MDC2-A-LA Single rod (foot fange)



Symbol Bore	A	KK	MM	B	C	D	EA	EB	EE	CN	FB	FG	LH	LL	N	PL
50	48	M24x1.5	30	11	10	59	94	74	RC1/4	69	14	20	34	70	10	11
63	65	M30x1.5	35	13	11	78	114	89	RC1/4	79	16	23	42	80	10	14
80	75	M36x1.5	40	17	14	92	134	109	RC3/8	89	16	23	52	91	15	18
100	90	M48x1.5	56	17	15	107	160	129	RC3/8	102	18	26	62	98	15	21

Symbol Bore	TX	TS	Y	SS	PX	TW	BT
50	29	74	28	27	21	14	13
63	31	90	30	32	26	16	15.2
80	34	110	35	41	28	16	15.2
100	34	134	39	44	28	16	17