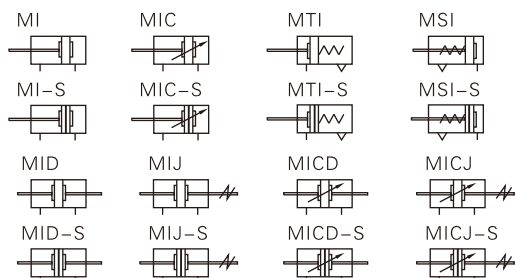


Cylinder

SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
NRQ
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMHZ2
NMHC2
NMHL2
NMHT2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRQ2
NCRB2
ACK
SRC
QCK
NCK1



Symbol



Product feature

- In accordance with ISO6432 standard ($\Phi 8 \sim \Phi 25$).
- Front and back cover owns fixed bumper and which can reduce the impact of direction-change of the cylinder.
- There are several mode of back cover, which makes the installation of cylinder more convenient.
- Front and back cover and stainless steel block adopt riveted rolling packed structure to form a reliable connection.
- Piston rod and cylinder body with the material of stainless steel make the cylinder adapt general working environment with corrosivity.
- There are cylinders and accessories with several specifications for installation for your choice.

Ordering code

MI MID MIJ		10 × 40 10 × 40 10 × 40	- 30	S S S	CA	☐ ☐ ☐	☐ ☐ ☐
Model		Adjustable stroke		Mounting type		Thread type	
MI	Mini cylinder(Double acting)	10: 10mm		MI	Blank: No accessories	Blank	PT
MIC	Mini cylinder(Double acting with cushion)	20: 20mm		MIC	FA: FA type	G	G
MTI	Mini cylinder(Single acting_push)	30: 30mm		MTI	SDB: SDB type		
MIJ	Mini cylinder(Double rod)	40: 40mm			LB: LB type		
MID	Mini cylinder(Double rod)	50: 50mm			TC: TC type		
MICD	Mini cylinder(Double rod with cushion)	75: 75mm		MID	Blank: No accessories		
MIJ	Mini cylinder(Adjustable stroke)	100: 100mm		MICD	FA: FA type		
MICJ	Mini cylinder(Adjustable stroke with cushion)	Others No this code		MIJ	LB: LB type		
				MICJ	TC: TC type		
Bore size		Magnet code		Back cover			
MIC, MICD, MICJ	16 20 25 32 40	Blank	Without magnet	MI	CA: Pivot type	$\Phi 8 \sim \Phi 25$	
Others	8 10 12 16 20 25 32 40	S	With magnet	MTI	U: Perpendicular 90°	$\Phi 8 \sim \Phi 40$	
Stroke					R: Axial air-in	$\Phi 16 \sim \Phi 40$	
Refer to stroke table for details					CM: Round-end type	$\Phi 16 \sim \Phi 40$	
					CA: Pivot type	$\Phi 16 \sim \Phi 25$	
					U: Perpendicular	$\Phi 16 \sim \Phi 40$	
					CM: Round-end type	$\Phi 16 \sim \Phi 40$	
					Others	No this code	

Specifications

Bore size(mm)		8	10	12	16	20	25	32	40
Acting type		Double acting, Single acting_Push, Single acting_Pull							
		Double acting with cushion							
Fluid		Air (to be filtered by 40μm filter element)							
Operating pressure	Double acting	0.15~1.0MPa(22~145psi)(1.5~10.0bar)							
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)							
Proof pressure		1.5MPa(215psi)(15bar)							
Temperature (°C)		-20~70							
Speed range (mm/s)		Double acting: 30~800				Single acting: 50~800			
Stroke tolerance		0~150 ⁺¹⁰ ₀ >150 ⁺¹⁵ ₀							
Cushion type		MIC Series: Variable cushion				Other series: Bumper			
Port size Note)		M5×0.8				1/8"		1/4"	

Note: PT thread, G thread and NPT thread are available.

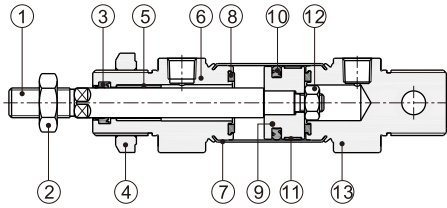
Stroke

Bore size(mm)	Standard stroke (mm)																Max. Std. stroke	Max. stroke
MI	8	10	15	20	25	30	40	50	60	75	80	100	125	150			150	200
	10	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	200
	12	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250
MIJ	16	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250
	MIC	20\25\32\40	350	400	450	500											500	800
	8	10	15	20	25	30	40	50	60	75	80	100					100	-
MID	10	10	15	20	25	30	40	50	60	75	80	100					100	-
	12	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	-
	16\20	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	300
MICD	25	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	300
	32	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	300
	40	350	400	450	500												500	-
MSI	8\10\12	10	15	20	25	30	40	50									-	-
	16	10	15	20	25	30	40	50	60	75	80	100					-	-
	20\25\32\40	10	15	20	25	30	40	50	60	75	80	100	125	150			-	-

Note: Consult us for non-standard stroke.

Inner structure and material of major parts

MI-CA

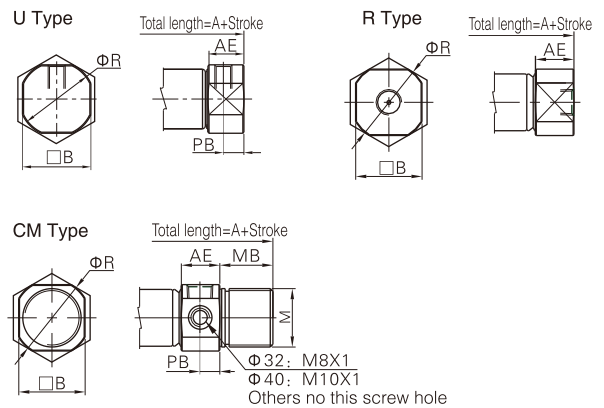
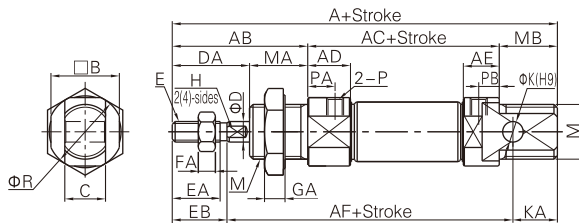


NO.	Item	Material
1	Rod	SUS 304
2	Rod nut	Carbon steel
3	Front cover packing	NBR
4	Front cover nut	Carbon steel
5	Bushing	Wear resistant material
6	Front cover	Aluminum alloy
7	Barrel	SUS304(Φ8~Φ12)\SUS316L(Others)
8	Bumper	TPU
9	Piston	SUS304(Φ8~Φ12)\Aluminum alloy(Others)
10	Piston seal	NBR
11	Wear ring	Wear resistant material
12	Nut	Carbon steel
13	Back cover	Aluminum alloy

Dimensions

MI

CA Type

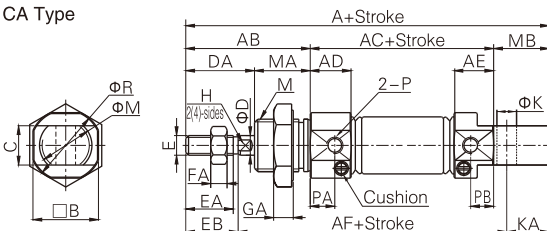


Bore size\Item	A				AB	AC	AD	AE		AF	B	C	D	DA	E	EA	EB	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA	PB		
Back cover	CA	U	R	CM				CA	UR/CM																					CA	U/CM	R
8	86	74	-	-	28	46	11.5	9.5	9.5	64	15	8	4	16	M4x0.7	10.5	12	7	2.2	17	6	-	4	10	M12x1.25	12	12	M5x0.8	7	5	5	17
10	86	74	-	-	28	46	11.5	9.5	9.5	64	15	8	4	16	M4x0.7	10.5	12	7	2.2	17	6	-	4	10	M12x1.25	12	12	M5x0.8	7	5	5	17
12	105	88	-	-	38	50	12.5	10.5	10.5	75	18	12	6	21	M6x1.0	14	16	10	5	22	6	5(2-Sides)	6	14	M16x1.5	17	17	M5x0.8	8	6	6	20
16	111	94	94	111	38	56	12.5	10.5	10.5	82	20	12	6	21	M6x1.0	14.5	16	10	5	22	6	5(2-Sides)	6	13	M16x1.5	17	17	M5x0.8	8	6	6	22
20	126	106	106	126	44	62	14.5	14.5	14.5	95	25	16	8	24	M8x1.25	18	20	12	6	29	7	6(2-Sides)	8	11	M22x1.5	20	20	1/8"	7.5	7.5	7.5	29
25	137	114.5	115	137	50	65	16	16	16	104	30	16	10	28	M10x1.25	20.5	22	17	6	29	7	8(4-Sides)	8	11	M22x1.5	22	22	1/8"	8	8	8	33.5
32	-	125	126	140	58	-	16.5	-	16.5	-	34.5	-	12	28	M10x1.25	17.5	20	17	6	36	7	10(4-Sides)	-	-	M30x1.5	30	14	1/8"	9	-	9	37.5
40	-	158	158	174	69	-	22	-	22	-	42.5	-	16	34	M12x1.25	21	24	17	7	46	8	14(4-Sides)	-	-	M38x1.5	35	16	1/4"	12	-	12	46.5

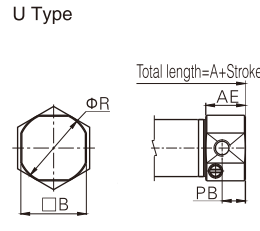
Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

MIC Φ16~Φ25

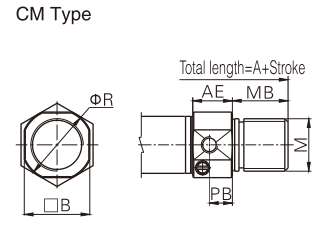
CA Type



U Type



CM Type



Bore size\Item	A		AB	AC	AD	AE		AF	B	C	D	DA	E	EA	EB	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA	PB	R
Back cover	CA/CM	U				CA/CM	U																						
16	111	94	38	56	12.5	12	12	82	20	12	6	21	M6×1.0	14.5	16	10	5	22	6	5(2-Sides)	6	13	M16×1.5	17	17	M5×1.5	7.5	7	22
20	126	106	44	62	14.5	14.5	14.5	95	25	16	8	24	M8×1.25	18	20	12	6	29	7	6(2-Sides)	8	11	M22×1.5	20	20	1/8"	7.5	7.5	29
25	137	113.5	50	65	16	16	14.5	104	30	16	10	28	M10×1.25	20.5	22	17	6	29	7	8(4-Sides)	8	11	M22×1.5	22	22	1/8"	8	8	33.5

Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

Cylinder

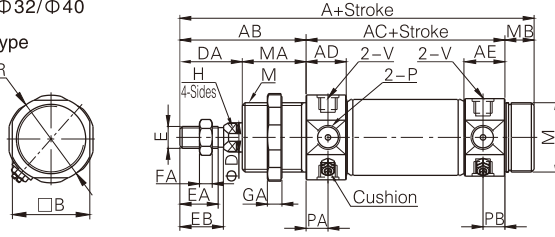
SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
NRQ
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMHZ2
NMHC2
NMHL2
NMHY2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRQ2
NCRB2
ACK
SRC
QCK
NCK1

Cylinder

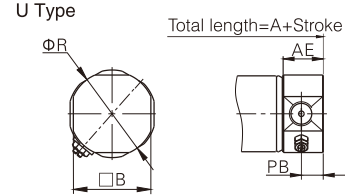
SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
NRQ
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMH22
NMHC2
NMHL2
NMHY2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRO2
NCRB2
ACK
SRC
QCK
NCK1

MIC Φ32/Φ40

CM Type



U Type

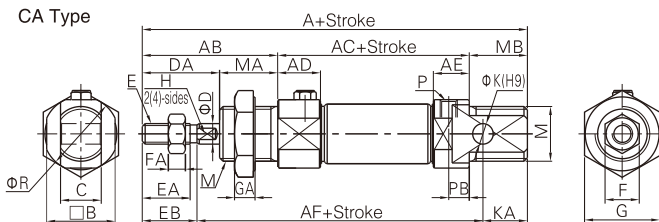


Bore size/Item	A		AB	AC	AD	AE		B	D	DA	E	EA	EB	F	FA	G	GA	H	M	MA	MB	P	PA	PB		R	V
Back cover	U	CM				U	CM																	U	CM		
32	124	140	58	68	16.5	14.5	16.5	34.5	12	28	M10×1.25	17.5	20	17	6	36	7	10(4-Sides)	M30×1.5	30	14	1/8"	9	7.5	9	37.5	M8×1
40	157.5	174	69	89	22	21.5	22	42.5	16	32	M12×1.25	21	24	17	7	46	8	24(4-Sides)	M38×1.5	35	16	1/4"	12	11.5	12	46.5	M10×1

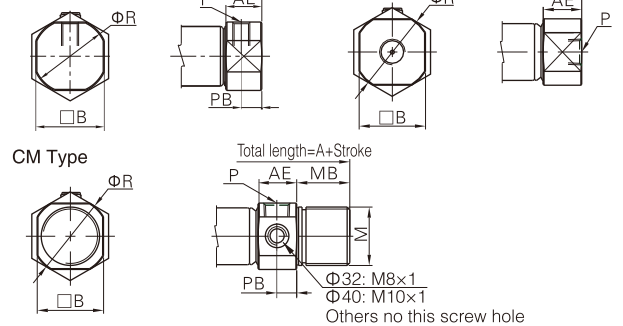
Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

MSI

CA Type

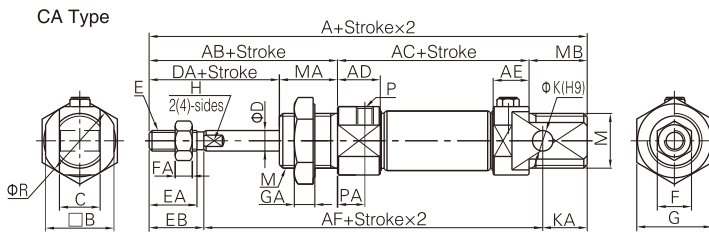


U Type

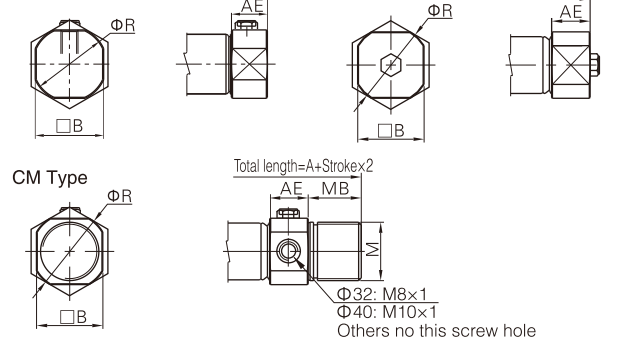


MTI

CA Type



U Type

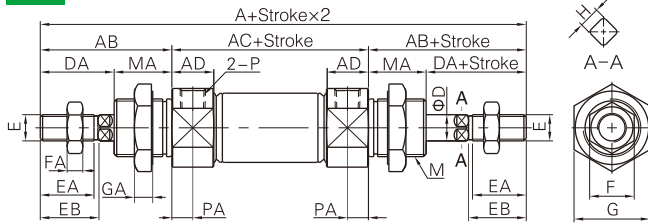


Item	A												AB	AC			AD	AF		
Back cover	CA			U			R			CM			-	-			-	-		
Bore size/Stroke	0~50	50~100	101~150	0~50	50~100	101~150	0~50	50~100	101~150	0~50	50~100	101~150	-	0~50	50~100	101~150	-	0~50	50~100	101~150
8	111	-	-	99	-	-	-	-	-	-	-	-	28	71	-	-	11.5	89	-	-
10	111	-	-	99	-	-	-	-	-	-	-	-	28	71	-	-	11.5	89	-	-
12	130	-	-	113	-	-	-	-	-	-	-	-	38	75	-	-	12.5	100	-	-
16	136	161	-	119	144	-	119	144	-	136	161	-	38	81	106	-	12.5	107	132	-
20	151	176	201	131	156	181	131	156	181	151	176	201	44	87	112	137	14.5	120	145	170
25	162	187	212	139.5	164.5	189.5	140	165	190	162	187	212	50	90	115	140	16	129	154	179
32	-	-	-	150	175	200	151	176	201	165	190	215	58	-	-	-	16.5	-	-	-
40	-	-	-	183	208	233	183	208	233	199	224	249	69	-	-	-	22	-	-	-

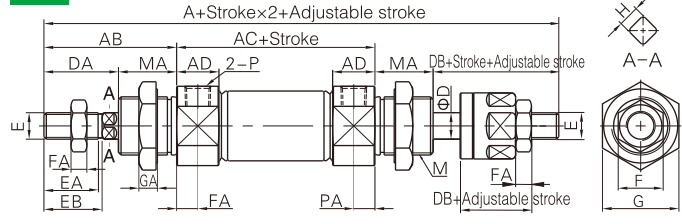
Bore size/Item	AE		B	C	D	DA	E	EA	EB	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA	PB		R
Back cover	CA	U/R/CM																				CA	U/CM	
8	9.5	9.5	15	8	4	16	M4x0.7	10.5	12	7	2.2	17	6	-	4	10	M12x1.25	12	12	M5x0.8	7	5	5	17
10	9.5	9.5	15	8	4	16	M4x0.7	10.5	12	7	2.2	17	6	-	4	10	M12x1.25	12	12	M5x0.8	7	5	5	17
12	10.5	10.5	18	12	6	21	M6x1.0	14	16	10	5	22	6	5(2-Sides)	6	14	M16x1.5	17	17	M5x0.8	8	6	6	20
16	10.5	10.5	20	12	6	21	M6x1.0	14.5	16	10	5	22	6	5(2-Sides)	6	13	M16x1.5	17	17	M5x0.8	8	6	6	22
20	14.5	14.5	25	16	8	24	M8x1.25	18	20	12	6	29	7	6(2-Sides)	8	11	M22x1.5	20	20	1/8"	7.5	7.5	7.5	29
25	16	16	30	16	10	28	M10x1.25	20.5	22	17	6	29	7	8(4-Sides)	8	11	M22x1.5	22	22	1/8"	8	8	8	33.5
32	-	16.5	34.5	-	12	28	M10x1.25	17.5	20	17	6	36	7	10(4-Sides)	-	-	M30x1.5	30	14	1/8"	9	-	9	37.5
40	-	22	42.5	-	16	34	M12x1.25	21	24	17	7	46	8	14(4-Sides)	-	-	M38x1.5	35	16	1/4"	12	-	12	46.5

Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

MID



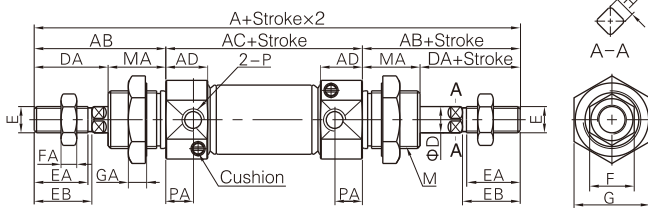
MIJ



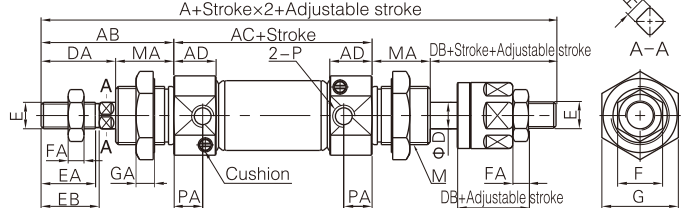
Bore size/Item	A(MID)	A(MIJ)	AB	AC	AD	D	DA	DB	E	EA	EB	F	FA	G	GA	H	M	MA	P	PA
8	104	103	28	48	11.5	4	16	15	M4×0.7	10.5	12	7	2.2	17	6	-	M12×1.25	12	M5×0.8	7
10	104	103	28	48	11.5	4	16	15	M4×0.7	10.5	12	7	2.2	17	6	-	M12×1.25	112	M5×0.8	7
12	128	128	38	52	12.5	6	21	21	M6×1.0	14	16	10	5	22	6	5(2-Sides)	M16×1.5	17	M5×0.8	8
16	134	134	38	58	12.5	6	21	21	M6×1.0	14.5	16	10	5	22	6	5(2-Sides)	M16×1.5	17	M5×0.8	8
20	150	151	44	62	14.5	8	24	25	M8×1.25	18	20	12	6	29	7	6(2-Sides)	M22×1.5	20	1/8"	7.5
25	165	164	50	65	16	10	28	27	M10×1.25	20	22	17	6	29	7	8(4-Sides)	M22×1.5	22	1/8"	8
32	184	183	58	68	16.5	12	28	27	M10×1.25	17.5	20	17	6	36	7	10(4-Sides)	M30×1.5	30	1/8"	9
40	227	222	69	89	22	16	34	29	M12×1.25	21	24	17	7	46	8	14(4-Sides)	M38×1.5	35	1/4"	12

Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

MICD Φ16~Φ40



MICJ Φ16~Φ40



Bore size/Item	A(MICD)	A(MICJ)	AB	AC	AD	D	DA	DB	E	EA	EB	F	FA	G	GA	H	M	MA	P	PA
16	132.5	132.5	38	56.5	12.5	6	21	21	M6×1.0	14.5	16	10	5	22	6	5(2-Sides)	M16×1.5	17	M5×0.8	7.5
20	150	151	44	62	14.5	8	24	25	M8×1.25	18	20	12	6	29	7	6(2-Sides)	M22×1.5	20	1/8"	7.5
25	165	164	50	65	16	10	28	27	M10×1.25	20.5	22	17	6	29	7	8(4-Sides)	M22×1.5	22	1/8"	8
32	184	183	58	68	16.5	12	28	27	M10×1.25	17.5	20	17	6	36	7	10(4-Sides)	M30×1.5	30	1/8"	9
40	227	221	69	89	22	16	34	28	M12×1.25	21	24	17	7	46	8	14(4-Sides)	M38×1.5	35	1/4"	12

Note: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

List for ordering code of accessories

Accessories	Mounting accessories				Knuckle				Sensor switch							
Bore size	LB	FA	SDB	TC	I	Y	F	U	CS1-M□	DS1-M□	CS1-F	DS1-F	CS1-U	DS1-U		
8	F-MI10LB	F-MI8FA	F-MI8SDB	F-MI10TC	F-M4×070I	F-M4×070Y	F-M4×070F	F-M4×070U	CS1-M-S08	DS1-M-S08	CS1-F	DS1-F	CS1-U	DS1-U		
10									CS1-M-S10	DS1-M-S10						
12	F-MI12LB	F-MI12FA	F-MI12SDB	F-MI12TC	F-M6×100I	F-M6×100Y	F-M6×100F	F-M6×100U	CS1-M-S12	DS1-M-S12						
16									CS1-M-S16	DS1-M-S16						
20	F-MI20LB	F-MI20FA	F-MI20SDB	F-MI20TC	F-M8×125I	F-M8×125Y	F-M8×125F	F-M8×125U	CS1-M-S20	DS1-M-S20						
25									CS1-M-S25	DS1-M-S25						
32	F-MI32LB	-	F-MI32SDB	F-MI32TC	F-M10×125I	F-M10×125Y	F-M10×125F	F-M10×125U	CS1-M-S32	DS1-M-S32						
40	F-MI40LB	-	F-MI40SDB	F-MI40TC	F-M12×125I	F-M12×125Y	F-M12×125F	F-M12×125U	CS1-M-S40	DS1-M-S40						

Accessory selection

Accessories	Mounting accessory	Knuckle				Sensor switch		
Cylinder model	LB	FA	SDB	TC	I	Y	U	F
MI	Standard	●	●	●	●	●	●	●
MIC	With magnet	●	●	●	●	●	●	●
MSI	Standard	●	●	●	●	●	●	●
MTI	With magnet	●	●	●	●	●	●	●
MID	Standard	●	●	×	●	●	●	×
MICD	With magnet	●	●	×	●	●	●	●
MIJ	Standard	●	●	×	●	●	●	×
MICJ	With magnet	●	●	×	●	●	●	●

Material of accessories

Accessories	Mounting accessory	Knuckle			
Bore size	LB	FA	SDB	TC	I
8~40	△	△	△	▲	□
▲—SUS304; △—SPCC; □—Carbon steel;					

Cylinder

SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
NRQ
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMHZ2
NMHC2
NMHL2
NMHY2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRQ2
NCRB2
ACK
SRC
QCK
NCK1

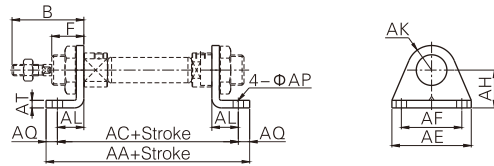
Cylinder

SC
SC(Big)
SCT
SCF
SU
SUF
SI
SIF
DNC
QGB
QGBZ
NCQ2
NCQ2(Big)
NCQ2(Long)
NCQS
NCQM
NRQ
SDA
ADVU
ACE(AND)
MAL
MA
MI
NCM2
NCJ2
NCG1
NCJP
TD
TN(TDA)
NCXS
NCXSW
NMGP
NMGG
NCU
NCUJ
NCY3B
NCY3R
NCY1S
NCY1L
STM
NMXH
NMXS
NMXQ
NMHZ2
NMHC2
NMHL2
NMHY2
NMHT2
NMHW2
NMHF2
NMHS2
NMHS3
NMHS4
NMRHQ
NMSQ
NCRA1
NCRQ2
NCRB2
ACK
SRC
QCK
NCK1

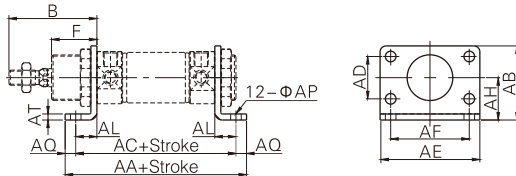
Dimensions

LB

Φ8~Φ25



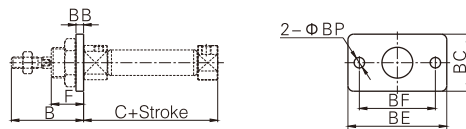
Φ32、Φ40



Bore size\Item	AA	AB	AC	AD	AE	AF	AH	AK	AL	AP	AQ	AT	B	F
8	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
10	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
12	90	-	78	-	42	32	20	13	14	5.5	6	2.5	38	17
16	96	-	84	-	42	32	20	13	14	5.5	6	2.5	38	17
20	112	-	96	-	54	40	25	20	17	7	8	3	44	20
25	115	-	99	-	54	40	25	20	17	7	8	3	50	22
32	110	49	96	28	66	52	28	-	14	7	7	3.5	58	30
40	149	58	129	30	80	60	33	-	20	9	10	3.5	69	35

FA

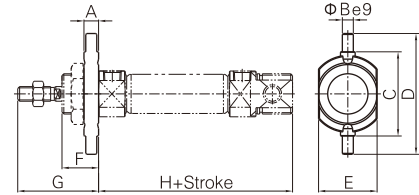
Φ8~Φ25



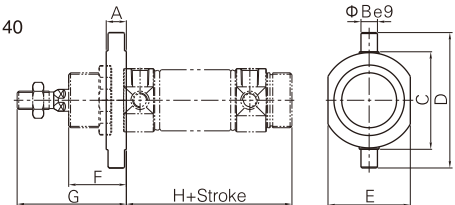
Bore size\Item	B	C	BB	BC	BE	BF	BP	F
8	28	46	2	22	40	30	4.5	12
10	28	46	2	22	40	30	4.5	12
12	38	50	3	26	52	40	5.5	17
16	38	56	3	26	52	40	5.5	17
20	44	62	3.5	38	64	50	7	20
25	50	65	3.5	38	64	50	7	22

TC

Φ8~Φ25



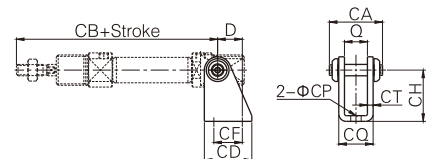
Φ32、Φ40



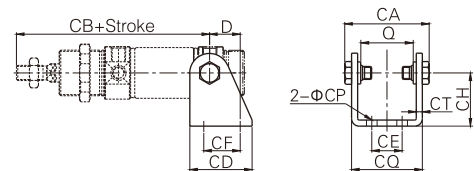
Bore size\Item	A	B	C	D	E	F	G	H
8	6	4	26	38	20	12	28	58
10	6	4	26	38	20	12	28	58
12	8	6	38	58	25	17	38	67
16	8	6	38	58	25	17	38	73
20	8	6	46	66	32	20	44	82
25	8	6	46	66	32	22	50	87
32	11	9	54	74	45	30	58	82
40	12	10	64	84	55	35	69	101

SDB

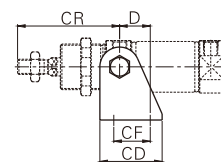
Φ8~Φ25



Φ32、Φ40



Φ32、Φ40



Bore size\Item	D	Q	CA	CB	CD	CE	CF	CH	CP	CQ	CT	CR
8	11	8.1	18.4	76	20	-	12.5	24	4.5	13.1	2	-
10	11	8.1	18.4	76	20	-	12.5	24	4.5	13.1	2	-
12	13	12.1	28	91	25	-	15	27	5.5	18.1	2	-
16	13	12.1	28	98	25	-	15	27	5.5	18.1	2	-
20	16	16.1	38	115	32	-	20	30	7	24.1	2.5	-
25	16	16.1	38	126	32	-	20	30	7	24.1	2.5	-
32	20	34.6	55.5	117	41	20	24	35	7	46.6	3	67
40	27	42.6	69.6	146	52	28	30	40	9	58.6	3	81

Note: SDB is attached with relevant PIN.