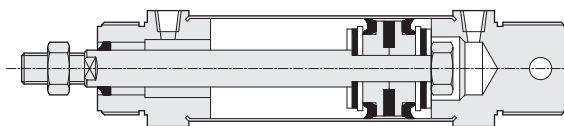


FDA series - Miniature cylinder (Aluminum tube)

Operating specification and Ordering expression

CHELIC PNEUMATIC

Internal structure



Specification

Item	Bore size (mm)	Ø20 ~ Ø40
Operation		Double acting
Fluid		Air
Mounting type		FA · LB · CB
Pressure range	kgf/cm ² (kpa)	1 ~ 8.5 (100 ~ 850)
Max. operating pressure	kgf/cm ² (kpa)	9.5 (950)
Operating ambient temperature range	°C	0 ~ 60
Range of service speed	mm/sec	50 ~ 700
Cushion		Washer
Lubrication		Lubrication free
Bore size		Rc 1/8" (Ø40 - Rc 1/4")
Sensing device		With magnet

Standard stroke

Unit : mm

Bore size	Standard stroke	Max. stroke	Maximum
Ø20	25、50、75、100、150 、200、250、300	300	500
Ø30	25、50、75、100、150 、200、250、300	300	
Ø40	25、50、75、100、150 、200、250、300	300	

SBA
Pen
Cylinder

SDA
Miniature
cylinder

SDX
Miniature
cylinder

DBS2
Block
cylinder

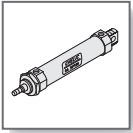
DBF2
Block
cylinder

DBT
Block
cylinder

FDA
Miniature
Cylinder

How to orde

<div style="border: 1px solid black; border-radius: 10px; padding: 2px; width: 60px; margin: 0 auto;">FDA</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">Model</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">FDA : Standard</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">FDAD : Twin-rod type</div>	×	<div style="border: 1px solid black; border-radius: 10px; padding: 2px; width: 60px; margin: 0 auto;">20</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">Bore size</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> 20 - Ø20 mm 30 - Ø30 mm 40 - Ø40 mm </div>	×	<div style="border: 1px solid black; border-radius: 10px; padding: 2px; width: 60px; margin: 0 auto;">150</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">Stroke</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> 25 - 25 mm 50 - 50 mm 75 - 75 mm 100 - 100 mm 125 - 125 mm 150 - 150 mm 175 - 175 mm 200 - 200 mm </div>	-	<div style="border: 1px solid black; border-radius: 10px; padding: 2px; width: 60px; margin: 0 auto;">SA 2</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">Sensor switch</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> None : Without sensor switch SA : Sensor switch code (CS-100) 2 : Number of sensor switch 1 = 1 PCS 2 = 2 PCS </div>	-	<div style="border: 1px solid black; border-radius: 10px; padding: 2px; width: 60px; margin: 0 auto;">FA</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">Mounting type</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">None : Standard</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">FA : Front flange mounting</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">LB : Foot mounting</div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;"> </div> <div style="border: 1px solid black; padding: 2px; width: 60px; margin: 0 auto;">CB : Pivot with supporting bracket type</div>
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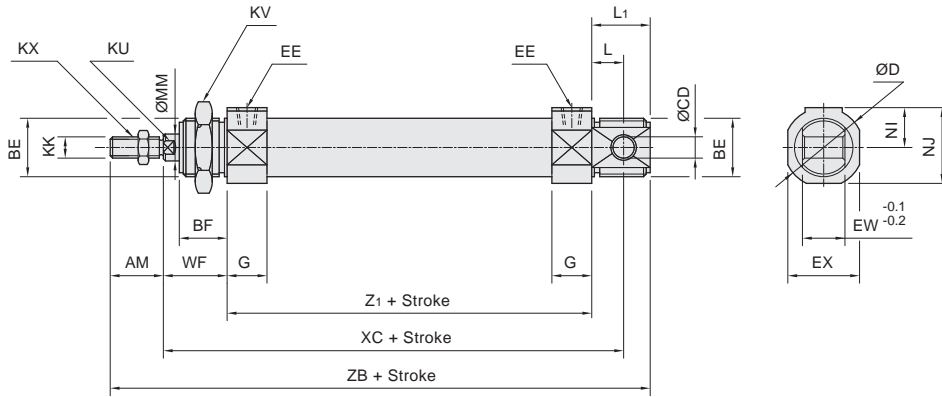


FDA series - Miniature cylinder (Aluminum tube)

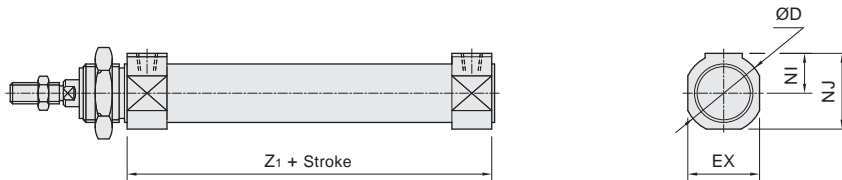
External dimension

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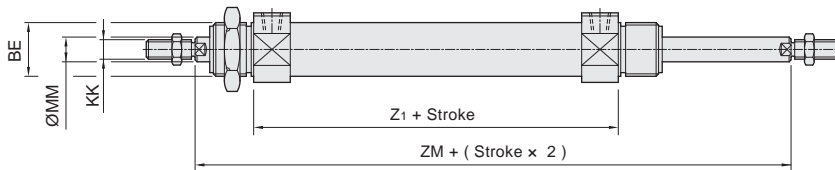
Standard (Double acting) — FDA



Short head type (Double acting) — K



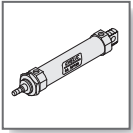
Twinrod type (Double acting) — FDAD



Dimension

Unit : mm

Bore size	AM	BE	BF	CD	D	EE	EX	EW	G	KK	KU	KV	KX	L	L1	MM	NI	NJ	WF	XC	Z1	ZB	ZM
Ø20	20	M20×1.5	16	8	30	PT 1/8	27	10	15	M8×1.25	8	27	14	11	20	10	15	28.5	22	97	64	126	108
Ø30	20	M26×1.5	18	10	38	PT 1/8	35	12	16	M10×1.25	10	32	17	15	25	12	19	36.5	26	114	73	144	125
Ø40	23	M33×2.0	20	10	46	PT 1/4	—	20	18	M14×1.5	14	41	24	15	27	16	—	—	28	129	86	164	142

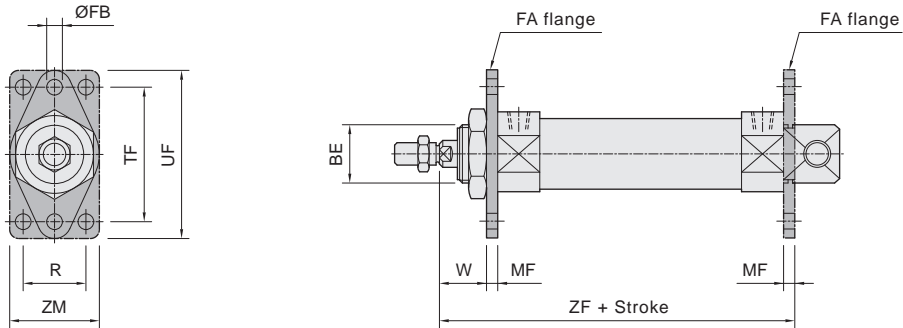


FDA series - Miniature cylinder (Aluminum tube)

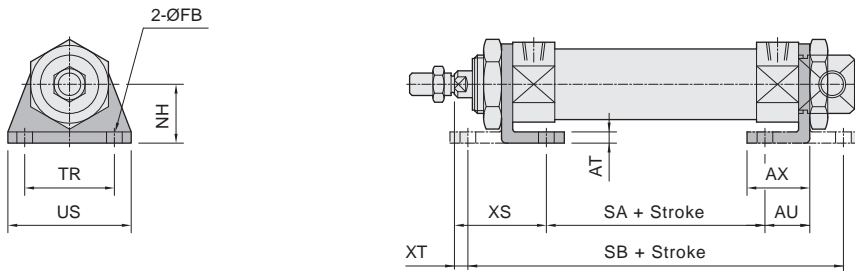
External dimension

CHELIC PNEUMATIC

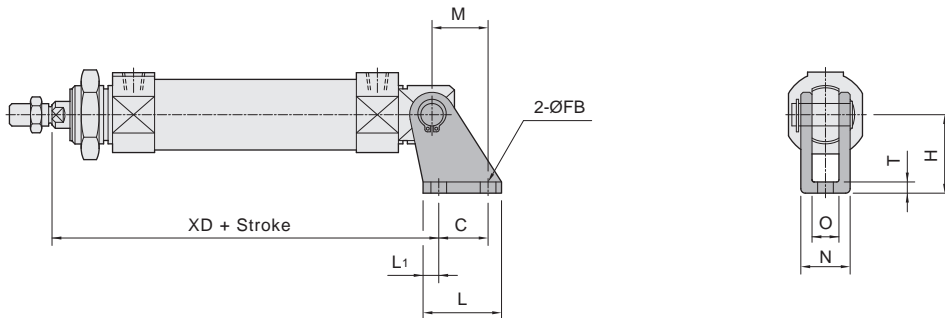
Flange mounting type — FA



Foot mounting type — LB



Clevis with supporting bracket type — CB

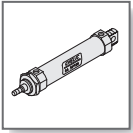


Dimension

Unit : mm

Bore size	AT	AU	AX	BE	C	FB	H	L	L ₁	M	MF	N	NH	O	R	SA	SB	T	TF	TR	UF	US	W	XD	XS	XT	ZF	ZM
Ø20	5	20	28	M20x1.5	20	7	30	32	6	16	5	24	23	12	-	34	106	4	60	40	75	55	17	93	37	2	91	40
Ø30	5	20	28	M26x1.5	25	7	40	40	7.5	20	5	28	26	12	-	43	119	4	60	40	75	55	21	109	41	6	104	40
Ø40	5	20	30	M33x2.0	25	9	40	40	7.5	20	4.5	28	40	20	30	55	134	4	80	50	100	75	23.5	124	43.5	8	118.5	50

- SBA**
Pen Cylinder
- SDA**
Miniature cylinder
- SDX**
Miniature cylinder
- DBS2**
Block cylinder
- DBF2**
Block cylinder
- DBT**
Block cylinder
- FDA**
Miniature Cylinder

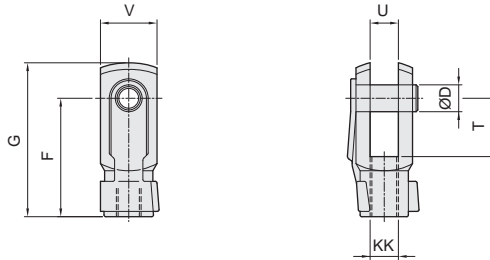


FDA series - Rod end clevis

External dimension

CHELIC PNEUMATIC

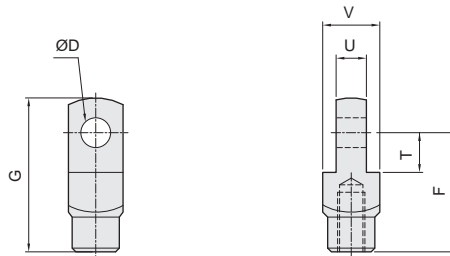
Y Rod end clevis



Unit : mm

Model	Bore size	D	F	G	KK	T	U	V
Y - M6 x 1.0	Ø12 · Ø16	6	24	31	M6 x 1.0	12	6	12.7
Y - M8 x 1.25	Ø20	8	32	42	M8 x 1.25	16	8	16
Y - M10 x 1.25	Ø25 · Ø32	10	40	52	M10 x 1.25	20	10	20
Y - M14 x 1.5	Ø40	10	45	58	M14 x 1.5	20	14	25.4

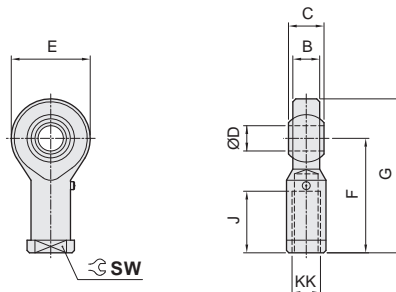
I Rod end clevis



Unit : mm

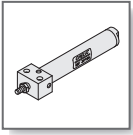
Model	Bore size	D	F	G	KK	T	U	V
I - M6 x 1.0	Ø12 · Ø16	6	24	31	M6 x 1.0	9	6	12.7
I - M8 x 1.25	Ø20	8	32	42	M8 x 1.25	11	8	16
I - M10 x 1.25	Ø25 · Ø32	10	40	52	M10 x 1.25	13	10	19
I - M14 x 1.5	Ø40	10	45	57	M14 x 1.5	13	14	25.4

G Rod eye clevis



Unit : mm

Model	Bore size	B	C	D	E	F	G	J	KK	SW
G - M6 x 1.0	Ø12 · Ø16	7	9	6	18	30	39	14	M6 x 1.0	11
G - M8 x 1.25	Ø20	9	12	8	22	36	47	17	M8 x 1.25	14
G - M10 x 1.25	Ø25 · Ø32	10.5	14	10	26	43	57	21	M10 x 1.25	17
G - M14 x 1.5	Ø40	13.5	19	14	34	57	74	27	M14 x 1.5	22

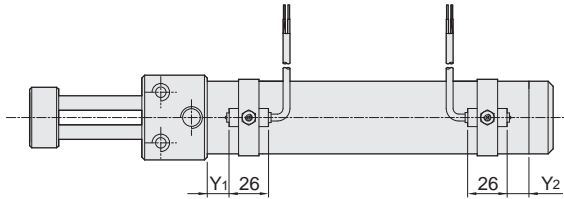
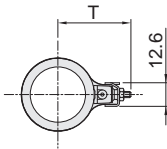


DB series - Miniature cylinder

Sensor switch installation and Operated setting (Suitable for DBS2, DBF2, DBT and FDA series)

CHELIC PNEUMATIC

Sensor switch installation position and Dimension (Reference)



Unit : mm

Bore size	T	Y1	Y2
Ø 20	24.5	6	12
Ø 25	27	7.5	11
Ø 30 (Ø 32)	29.5	9	12.5
Ø 40	34.5	11	12

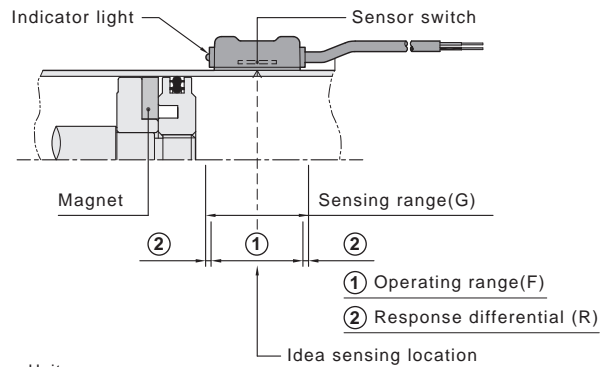
- Please install sensor switch at front and rear sides of cylinder, it is better to make same direction as line of visible at easy visible position of indicator light
- Electric wire is arranged following cylinder and fixed to avoid any pulling and dragging affecting the reception of signal.

Sensing range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

Operating range

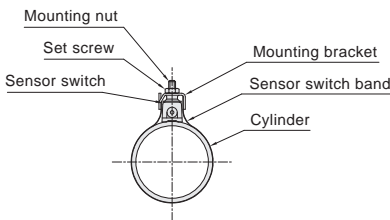
When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch. (Please refer to the below table)



Unit : mm

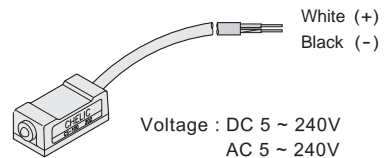
Model	CS-100	
	Operating range (F)	Response differential(R)
Ø 20	9	1
Ø 25	10	1
Ø 30 (Ø 32)	9	1.2
Ø 40	11	1.2

Accessory and Assembly



Connection type

CS-100



SBA

Pen Cylinder

SDA

Miniature cylinder

SDX

Miniature cylinder

DBS2

Block cylinder

DBF2

Block cylinder

DBT

Block cylinder

FDA

Miniature Cylinder

