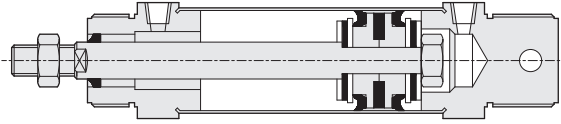


FDA series Miniature Cylinder (Aluminum tube)

Product features

CHELIC

Internal structure



Specification

Unit: mm

Item	Bore size (mm)	Ø25 ~ Ø40
Action		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)
Ambient and fluid temperature	°C	0 ~ 60
Piston speed	mm/s	50 ~ 700
Cushion		Rubber washer
Lubrication		Lubrication free type
Bore size		PT 1/8 (Ø40 - Rc 1/4)
Sensing device		With magnet

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

SBA

SDA

SDX

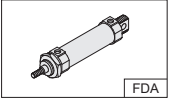
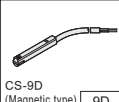
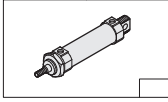
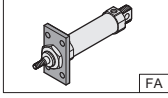
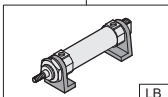
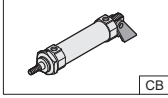
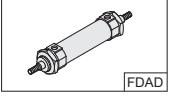
DBS2

DBF2

DBT

FDA

Code of order

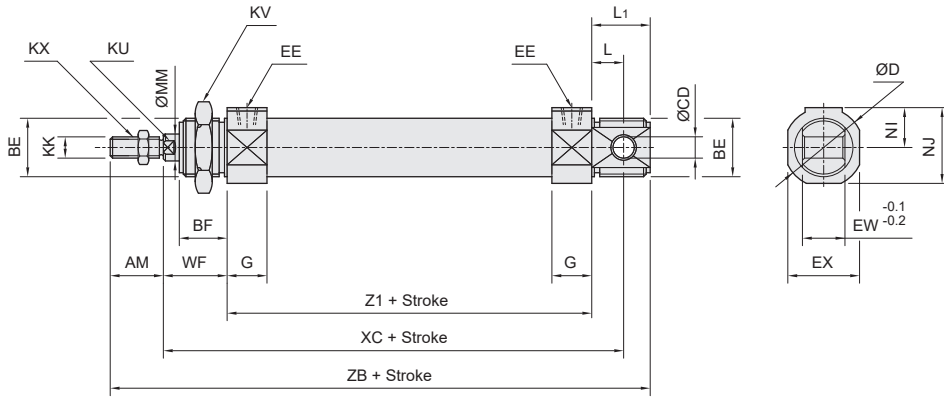
FDA	×	20	×	150	-	9D	-	20A	-	2	-	FA								
Model		Bore size		Stroke		Sensor switch		Mounting bracket		Sensor/ Bracket q'ty		Mounting type								
 FDA: Standard		20 - Ø20 mm 30 - Ø30 mm 40 - Ø40 mm		25 - 25 mm 50 - 50 mm 75 - 75 mm 100 - 100 mm 125 - 125 mm 150 - 150 mm 175 - 175 mm 200 - 200 mm		 None: Standard		<table border="1" style="font-size: small;"> <thead> <tr> <th>Mark</th> <th>Cylinder (inner dia.)</th> </tr> </thead> <tbody> <tr> <td>25A</td> <td>Ø25</td> </tr> <tr> <td>30A</td> <td>Ø30</td> </tr> <tr> <td>40A</td> <td>Ø40</td> </tr> </tbody> </table>	Mark	Cylinder (inner dia.)	25A	Ø25	30A	Ø30	40A	Ø40		1 : 1 PC 2 : 2 PC		 None: Standard  FA: Front or rear flange  LB: Double foot  CB: Clevis
Mark	Cylinder (inner dia.)																			
25A	Ø25																			
30A	Ø30																			
40A	Ø40																			
 FDAD: Twin-rod type																				

FDA series Miniature Cylinder (Aluminum tube)

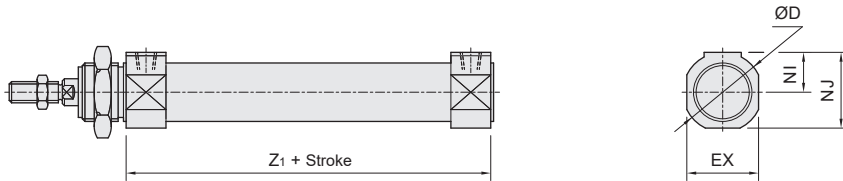
Dimensions

CHELIC

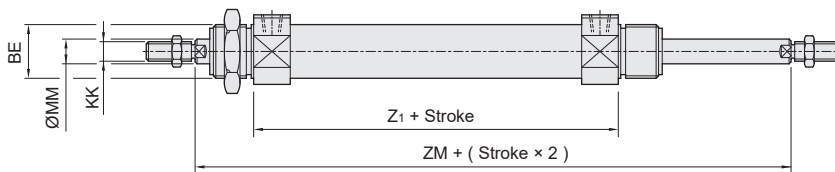
Standard (Double acting) — FDA



Short head type (Double acting) — K



Twinrod type (Double acting) — FDAD



Dimension

Unit: mm

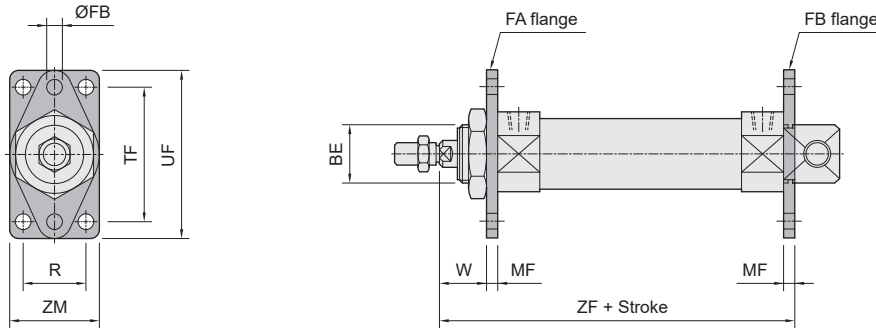
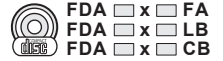
Bore size	AM	BE	BF	CD	D	EE	EX	EW	G	KK	KU	KV	KX	L	L ₁	MM	NI	NJ	WF	XC	Z ₁	ZB	ZM
Ø20	20	M20 × 1.5	16	8	30	PT 1/8	27	10	15	M8 × 1.25	8	27	14	11	20	10	15	28.5	22	97	64	126	108
Ø30	20	M26 × 1.5	18	10	38	PT 1/8	35	12	16	M10 × 1.25	10	32	17	15	25	12	19	36.5	26	114	73	144	125
Ø40	23	M33 × 2.0	20	10	46	PT 1/4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

FDA series Miniature Cylinder (Aluminum tube)

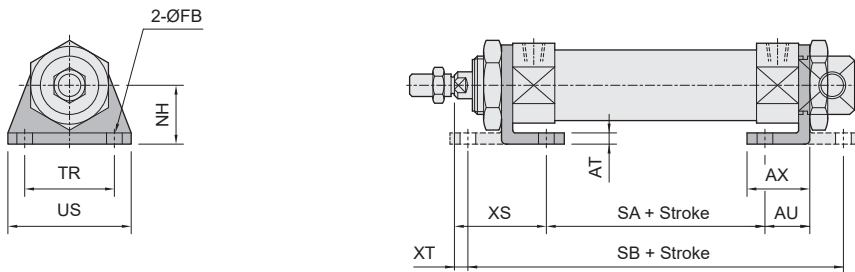
Bracket dimensions

CHELIC

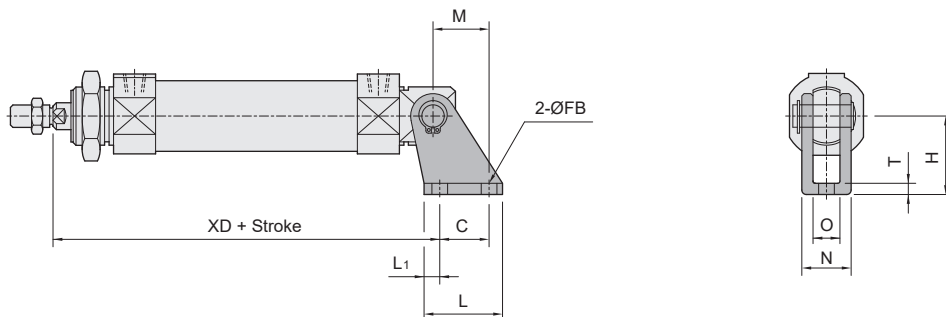
Front or rear flange — FA FB



Double foot for both front and rear — LB



Clevis — CB



Dimension

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

SDA

SDX

DBS2

DBF2

DBT

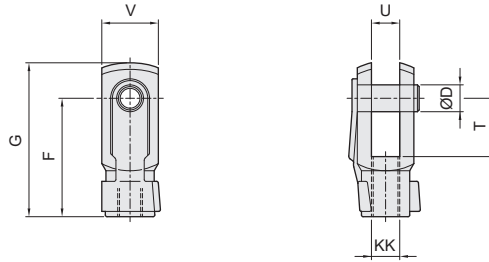
FDA

Cylinder Accessory

Dimensions

CHELIC

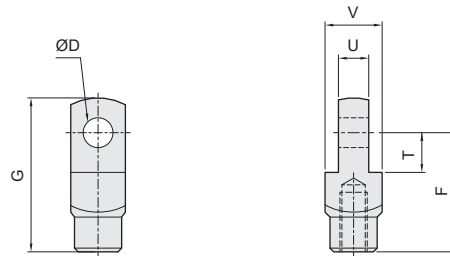
Double knuckle joint



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

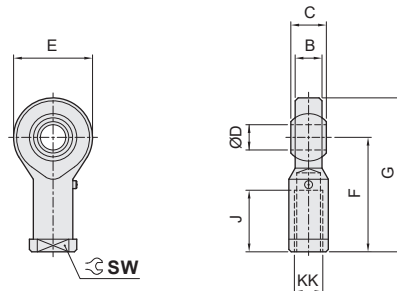
Single knuckle joint



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

Rod end



Unit: mm

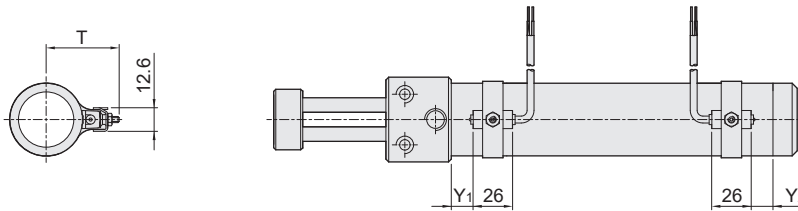
Model	Bore size	B	C	D	E	F	G	J	KK	SW
G - M6 x 1.0	Ø12, Ø16	7	9	6	18	30	39	14	M6 x 1.0	11
G - M8 x 1.25	Ø20	9	12	8	22	36	47	17	M8 x 1.25	14
G - M10 x 1.25	Ø25, Ø32	10.5	14	10	26	43	57	21	M10 x 1.25	17
G - M14 x 1.5	Ø40	13.5	19	14	34	57	74	27	M14 x 1.5	22

DB series Miniature Cylinder

Sensor switch operating range and the setting-Suitable for DBS2, DBF2, DBT, FDA series

CHELIC

Sensor switch mounting type/ Dimension (Reference)



Unit: mm

Bore size	T	Y ₁	Y ₂
Ø 20	24.5	6	12
Ø 25	27	7.5	11
Ø 30 (Ø32)	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 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.

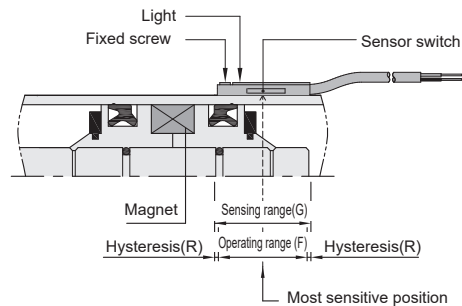
Operating range

- 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-9D	
Bore size	Operating range (F)	Hysteresis (R)
Ø 20	4.5	1
Ø 30	5	1
Ø 40	8	1

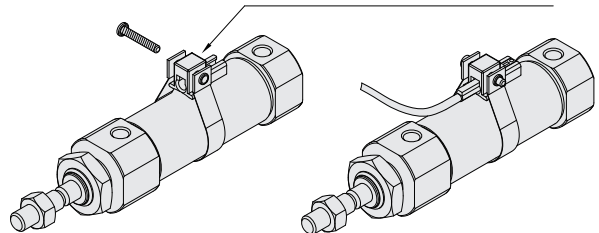
Sensor switch setting and operating range



Accessory and assembly (Stainless steel cylinder tube use)

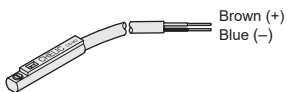
- CS-9D series-Applicable to round body cylinder

Round the metallic belt to the cylinder body with sensor switch like below images, then screw to the holder and tighten to prevent sensor switch fallen.



Sensor switch introduction

CS-9D



Voltage: DC 5 ~ 120 V
AC 5 ~ 120 V

SBA

SDA

SDX

DBS2

DBF2

DBT

FDA