

FDA series Standard Cylinder (Aluminum Tube)

Product features, Code of order

CHELIC

Feature

- Built-in rubber pads absorb piston impact.
- Optional pneumatic cushioning for enhanced cushioning performance.
- Various mounting accessories available for easy installation.



Specification

Item	Bore size (mm)	Ø20	Ø30	Ø40
Action		Double acting		
Fluid		Air		
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		
Port size		PT1/8		PT1/4
Sensing device		With magnet		

Standard stroke

Unit: mm

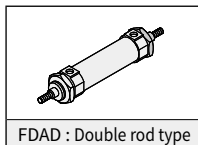
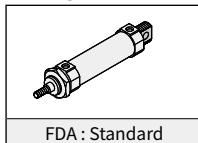
Bore size	Standard stroke	Max. stroke
Ø20	25, 50, 75, 100, 150, 200, 250, 300	500
Ø30		
Ø40		

Code of order FDA 20 x 150 - FA - I - 9D - 20A - 2

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8

1	Mark	Model
	FDA	Standard
	FDAD	Double rod type

● Image



2	Mark	Bore size (mm)
	20	Ø20
	30	Ø30
	40	Ø40

3	Stroke (mm)	Bore size (mm)
	25, 50, 75, 100, 150, 200, 250, 300	Ø20
		Ø30
		Ø40

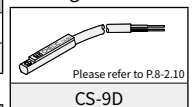
● Refer to stroke list

4	Mounting type	
	None: Without accessory	FA: Front flange
	LB: Foot mounting	CB: Double clevis

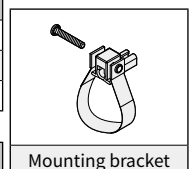
5	Accessory			
	Please refer to P.6-5.30	Please refer to P.6-5.30	Please refer to P.8-1.28	Please refer to P.8-1.2
	I : I joint	Y : Y joint	PHS : Rod end	CJ : Floating joint

6	Mark	Sensor switch
	None	Without sensor switch
	9D	CS-9D

● Image



7	Mark	Mounting bracket
	20A	Ø20
	30A	Ø30
	40A	Ø40



8	Mark	Sensor/ Bracket q'ty
	1	1 Pc
	2	2 Pcs

SBA

SDA

SDX

DB□2

DBT

FDA

FDX

FDA series Standard Cylinder (Aluminum Tube)

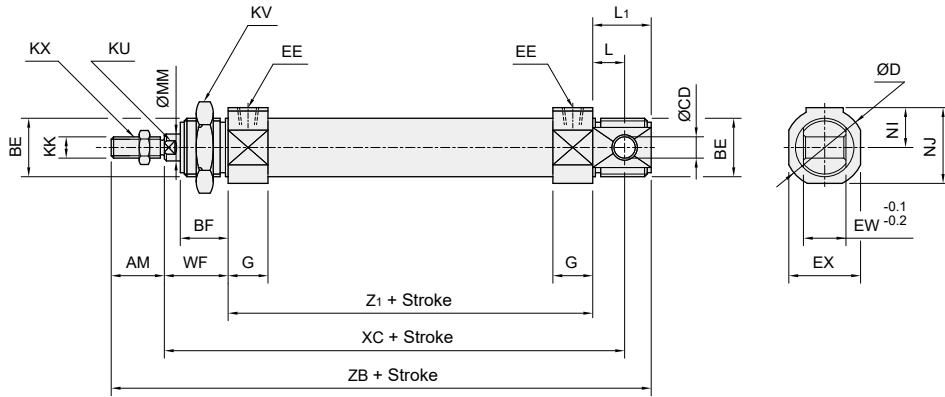
Dimensions

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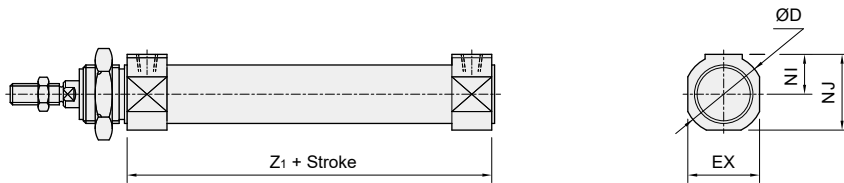
Double acting



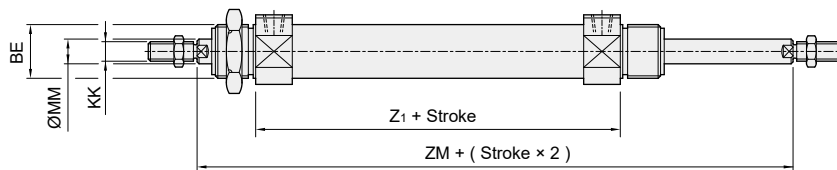
Standard FDA



Short head type FDA - K



Double rod type FDAD



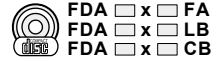
Unit: mm

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 x 1.5	16	8	30	PT 1/8	27	10	15	M8 x 1.25	8	27	14	11	20	10	15	28.5	22	97	64	126	108
Ø30	20	M26 x 1.5	18	10	38	PT 1/8	35	12	16	M10 x 1.25	10	32	17	15	25	12	19	36.5	26	114	73	144	125
Ø40	23	M33 x 2.0	20	10	46	PT 1/4	—	20	18	M14 x 1.5	14	41	24	15	27	16	—	—	28	129	86	164	142

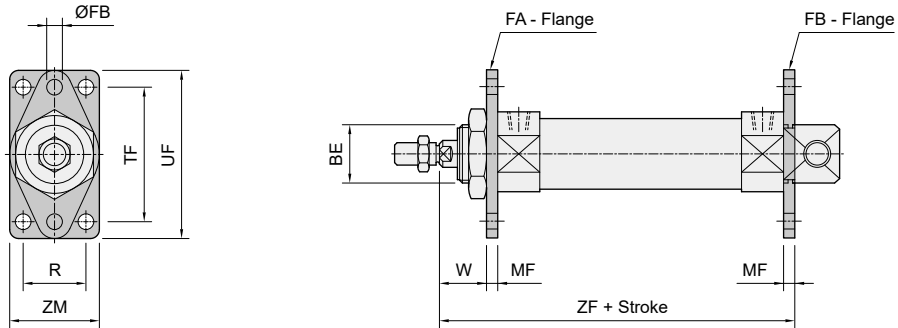
FDA series Standard Cylinder (Aluminum Tube)

Dimensions/ Mounting accessory

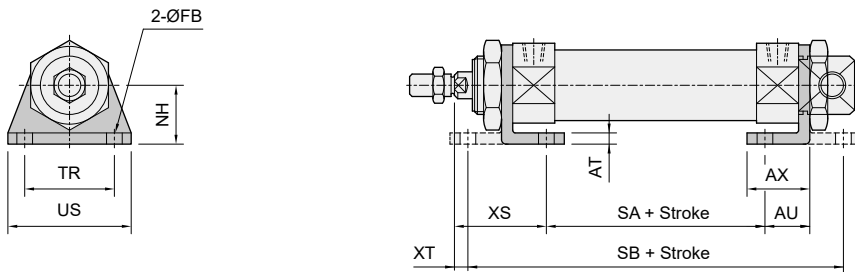
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Front flange - FA



Double clevis - LB



SBA

SDA

SDX

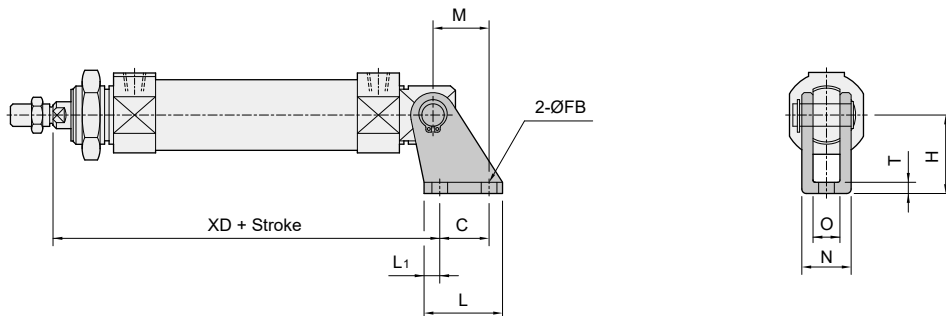
DB□2

DBT

FDA

FDX

Female clevis - CB



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	M20 x 1.5	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	M26 x 1.5	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	M33 x 2.0	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

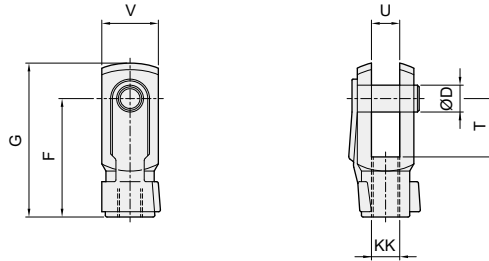
Cylinder Accessory

Dimensions/ Accessory – Suitable for SDA, SDX, DBF2, DBS2, FDA

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Accessory

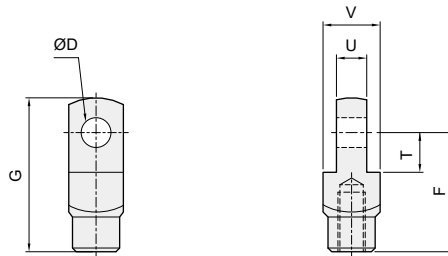
Y join



Unit: mm

Model	Bore size (mm)	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, Ø30, 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 joint



Unit: mm

Model	Bore size (mm)	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, Ø30, 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

Cylinder Sensor Switch

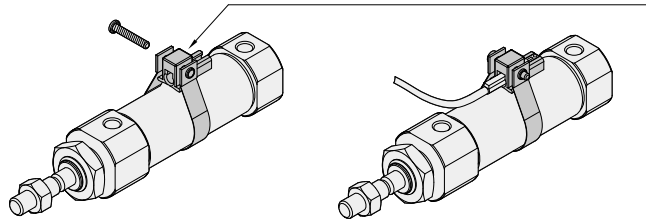
Sensor switch operating range and the setting – Suitable for DBF2, DBS2, DBT, FDA **CHELIC**

Mounting of sensor switch

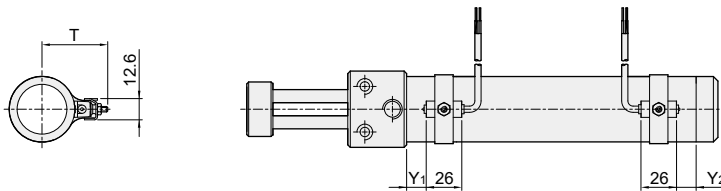
Accessory and assembly

- CS-9D series - Applicable to roud 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 mounting type/ Dimension (Reference)



Unit: mm			
Bore size	T	Y ₁	Y ₂
Ø20	24.5	6	12
Ø25	27	7.5	11
Ø30(Ø32)	29.5	9	12.5
Ø40	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.

Setting range

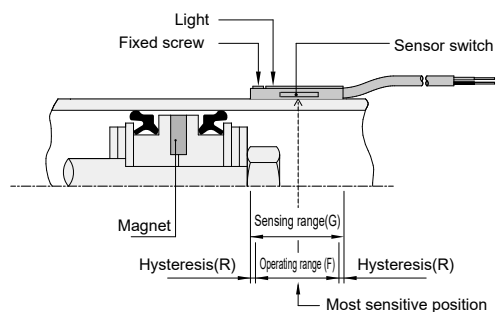
Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the Sensor switch when it enters the operating range. It has 0.5mm differential.

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)
Ø20	4.5	1
Ø30	5	1
Ø40	8	1

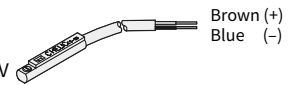
Sensor switch setting and operating range



Sensor switch introduction

CS-9D

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



SBA

SDA

SDX

DB□2

DBT

FDA

FDX