

Actuator Unit – DU series

Standard cylinder, Double rod, Adjustable stroke

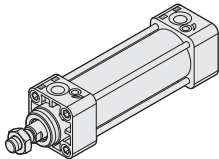
CHELIC



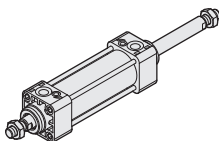
DU series
Provide CAD external dimension.

This product:

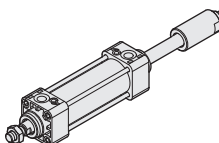
Applicable to longer stroke requirement



DU series ----- Standard cylinder --- Ø40 ~ Ø200 ----- P.6-6.17



DUD series ----- Double rod ----- Ø40 ~ Ø200 ----- P.6-6.19



DUL series ----- Adjustable stroke --- Ø40 ~ Ø200 ----- P.6-6.19

DN

DMB

DU

DNK

DNE

DCK2

DQ

DCQ

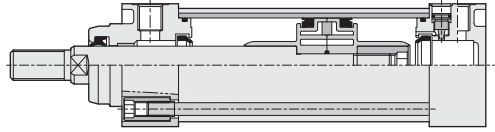
DU series Air Cylinder (Double piston packings)

Product features

CHELIC



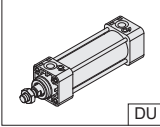
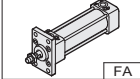
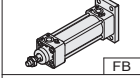
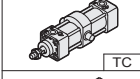
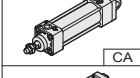
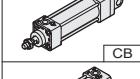
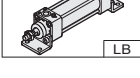
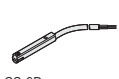
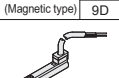
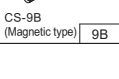
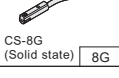
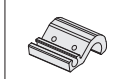
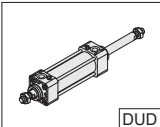
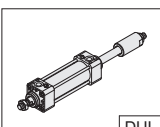
Internal structure



Specification

Item	Bore size (mm)	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Action		Double acting							
Fluid		Air							
Mounting type		FA, FB, CA, CB, LB, TC							
Pressure range	Kgf/cm ² (kPa)	1.5 ~ 9 (150 ~ 900)							
Ambient and fluid temperature	°C	0 ~ 60							
Piston speed	mm/s	50 ~ 700							
Material		Aluminum alloy							
Cushion		Adjustable air cushion							
Lubrication		Lubrication free type							
Port size		PT 1/4		PT 3/8		PT 1/2		PT 3/4	
Sensing device		With magnet							
Standard stroke	mm	50, 75, 100, 125, 150, 200, 250, 300, 400, 50(700, 1000)							

Code of order

DU	50	×	200	-	LB	-	9D	-	32U	-	2
Model	Bore size		Stroke		Mounting type		Sensor switch		Sensor bracket		Sensor switch q'ty
 DU: Standard type	40 - Ø40 mm 50 - Ø50 mm 63 - Ø63 mm 80 - Ø80 mm 100 - Ø100mm 125 - Ø125mm 160 - Ø160mm 200 - Ø200mm		Ø40 50~300mm Ø50 50~400mm Ø63 50~500mm Ø80 50~500mm Ø100 50~1000mm Ø125 50~1000mm Ø160 50~1000mm Ø200 50~1000mm		 FA  FB  TC  CA  CB  LB		 CS-9D (Magnetic type) 9D  CS-9B (Magnetic type) 9B  CS-8G (Solid state) 8G  CS-8B (Solid state) 8B		 32U 2 None: without sensor bracket 32U: Applicable to Ø32, Ø40 50U: Applicable to Ø50, Ø63 80U: Applicable to Ø80, Ø100 125U: Applicable to Ø125 160U: Applicable to Ø160, Ø200		1 = 1 PCS 2 = 2 PCS
 DUD: Double rod			The biggest stroke : 1000 mm								
 DUL: Adjustable stroke											

Sensor switch mark:
 : None (Without sensor switch)
 9D: CS-9D
 9B: CS-9B
 8G: CS-8G
 8B: CS-8B

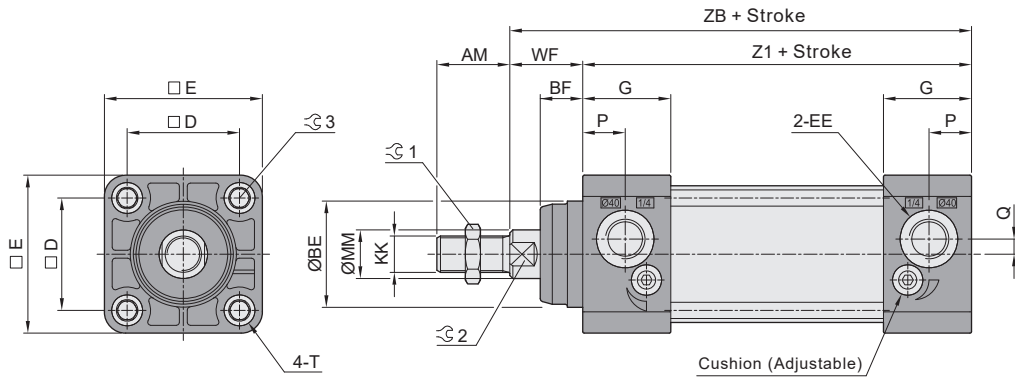
DU series Air Cylinder (Double piston packings)

Dimensions

CHELIC

Standard type

Ø40 ~ Ø100

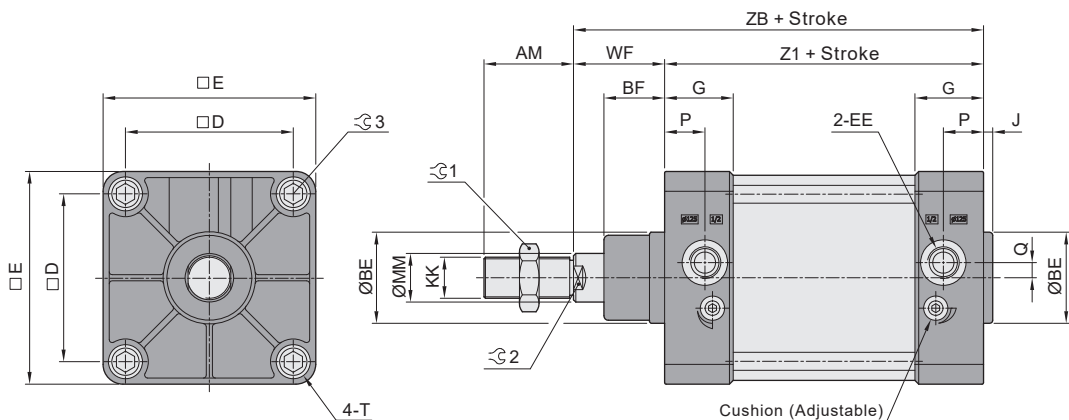


Unit: mm

Mark	AM	BE	BF	D	E	EE	G	KK	MM	P	Q	T	WF	Z1	ZB	↻1	↻2	↻3
Ø40	24	35	14	37	52	G 1/4	29	M12×1.25	16	14	5	M6×1.0	24	98	122	19	14	6
Ø50	32	40	18	47	65	G 1/4	29	M16×1.5	20	12.5	5	M8×1.25	30	100	130	24	17	8
Ø63	32	40	18	56	75	G 3/8	28	M16×1.5	20	12.5	7	M8×1.25	30	102	132	24	17	8
Ø80	40	45	20	70	94	G 3/8	33	M20×1.5	25	14	7	M10×1.5	33	120	153	30	22	10
Ø100	40	50	20	85	113	G 1/2	35	M20×1.5	25	17	7	M10×1.5	33	124	157	30	22	10

Standard type

Ø125 ~ Ø200



Unit: mm

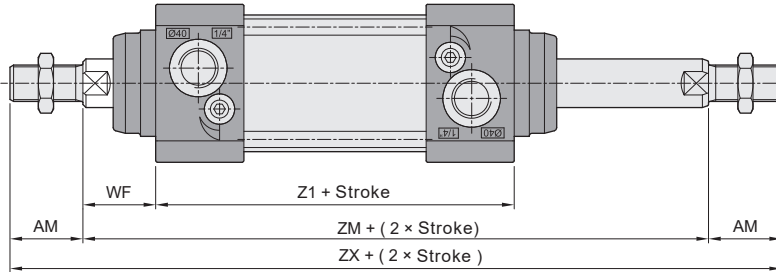
Mark	AM	BE	BF	D	E	EE	G	J	KK	MM	P	Q	T	WF	Z1	ZB	↻1	↻2	↻3
Ø125	54	60	40	110	140	G 1/2	45.2	6	M27×2	32	26.5	10	M12×1.75	60	160	220	41	28	12
Ø160	72	65	55	140	180	G 3/4	50	6	M36×2	40	25.5	15	M16×2	80	180	260	55	36	17
Ø200	72	75	65	175	220	G 3/4	50	6	M36×2	40	25.5	15	M16×2	95	180	275	55	36	17

DU series Air Cylinder (Double piston packings)

Dimensions

CHELIC

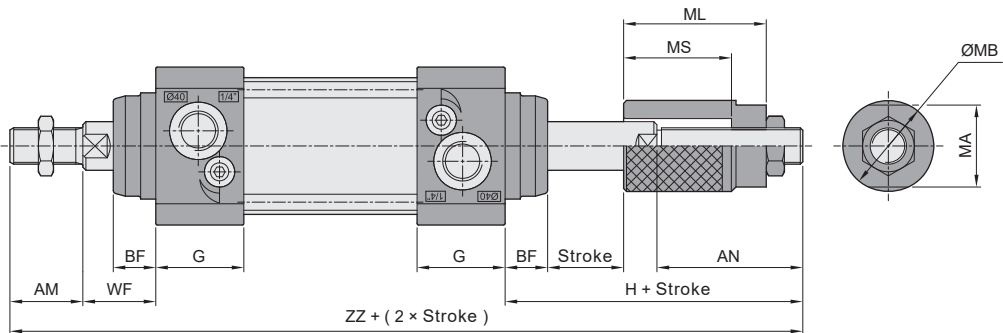
Double rod – DUD



Unit: mm

Bore size	Mark	AM	WF	Z1	ZM	ZX
Ø40		24	24	98	146	194
Ø50		32	30	100	160	224
Ø63		32	30	102	162	226
Ø80		40	33	120	186	266
Ø100		40	33	124	190	270
Ø125		54	60	160	280	388
Ø160		72	80	180	340	484
Ø200		72	95	180	370	514

Adjustable stroke – DUL



Unit: mm

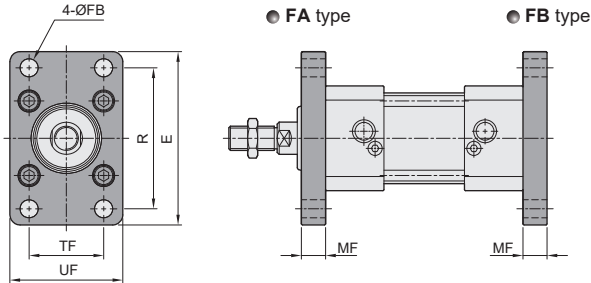
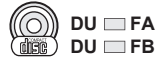
Bore size	Mark	AM	AN		BF	G	H		MA	ML		MS		WF	ZZ	
			A	B			A	B		A	B	A	B			
Ø40		24	48	73	14	29	73	98	27	47	72	35	62	24	219	244
Ø50		32	52	77	18	29	87	112	36	53	78	38	63	30	249	274
Ø63		32	52	77	18	28	87	112	36	53	78	38	63	30	251	276
Ø80		40	58	83	20	33	98	123	46	60	85	40	65	33	291	316
Ø100		40	58	83	20	35	98	123	46	60	85	40	65	33	295	320
Ø125		54	75	100	40	45.2	135	160	56	70	95	50	75	60	409	434
Ø160		72	80	105	55	50	160	185	60	75	100	55	80	80	492	517
Ø200		72	80	105	65	50	170	195	60	75	100	55	80	95	517	542

DU series Air Cylinder (Double piston packings)

Bracket dimensions

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- Flange – **FA** Front flange
FB End flange



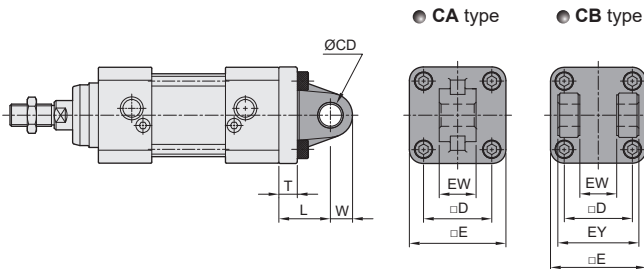
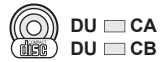
Bore size(mm)	Mark	E	FB	MF	R	TF	UF
Ø40		86	9	12	70	37	56
Ø50		104	9	12	85	47	65
Ø63		116	9	12	95	56	80
Ø80		145	12	16	120	70	96
Ø100		170	14	16	140	85	120
Ø125		210	16	20	180	90	140
Ø160		280	18	20	230	115	180
Ø200		320	22	25	270	135	220

DN

DMB

DU

- Clevis – **CA** Single clevis
CB Double clevis



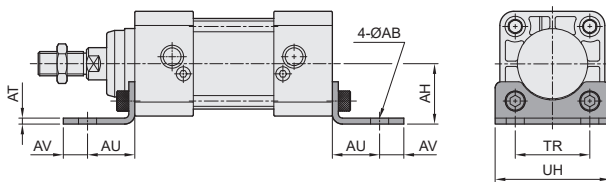
Bore size(mm)	Mark	CD	D	E	EW	EY	L	T	W
Ø40		12	37	52	20	44	28	10	12
Ø50		12	47	65	20	52	28	10	14
Ø63		16	56	75	20	52	32	10	17
Ø80		16	70	94	32	64	40	14	17
Ø100		20	85	113	32	64	44	14	21
Ø125		25	110	140	70	128	50	20	25
Ø160		30	140	177	90	170	55	20	25
Ø200		30	175	217	90	170	60	25	25

DNK

DNE

DCK2

- Axial foot – **LB**

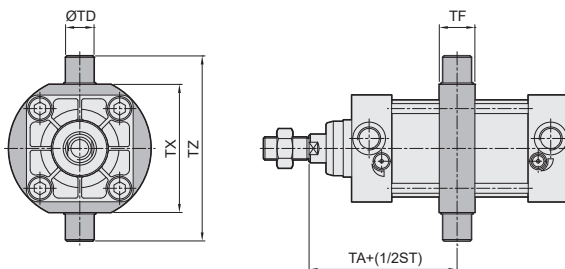


Bore size(mm)	Mark	AB	AH	AT	AU	AV	TR	UH
Ø40		9	30	3	23.5	12	37	57
Ø50		12	36.5	3	28	12	47	68
Ø63		12	41	3	31	13	56	80
Ø80		14	49	4	30	16	70	97
Ø100		14	57	4	30	16	85	112
Ø125		16	90	9	45	25	90	140
Ø160		18	115	10	60	15	115	180
Ø200		22	135	9	70	30	135	220

DQ

DCQ

- Central trunnion type – **TC**



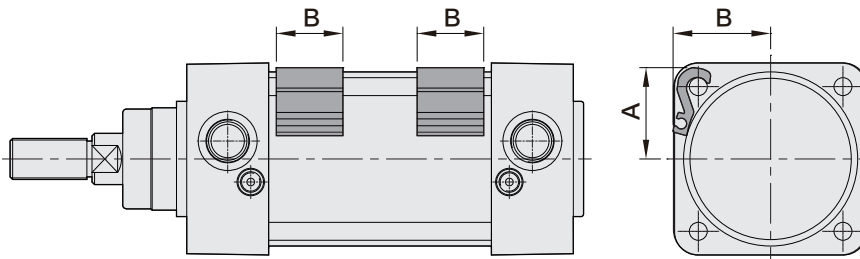
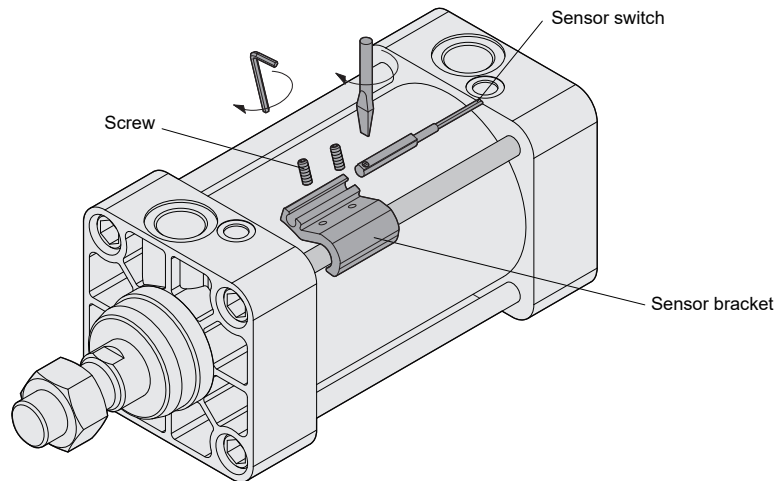
Bore size(mm)	Mark	TX	TZ	ØTD	TF	TA
Ø40		63	95	Ø16	20	73
Ø50		75	107	Ø16	25	80
Ø63		90	130	Ø20	25	81
Ø80		110	150	Ø20	35	93
Ø100		132	182	Ø25	40	95
Ø125		160	240	Ø25	30	140
Ø160		200	292	Ø32	38	170
Ø200		240	292	Ø32	44	185

DU series Air Cylinder (Double piston packings)

Mounting type of sensor switch

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◉ Sensor switch mounting type



◉ Sensor switch bracket dimension

Unit: mm

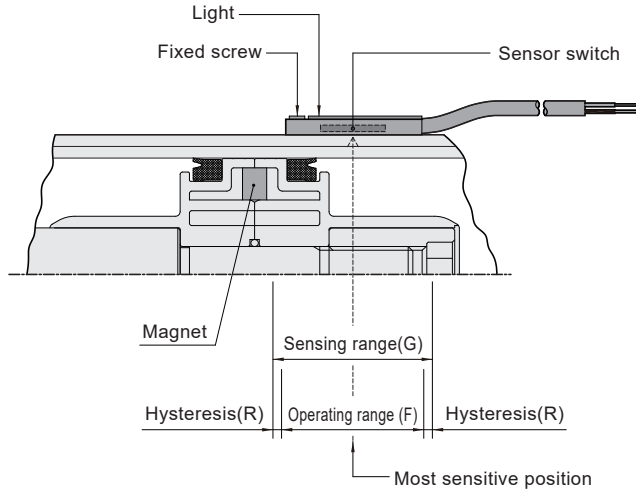
Bore size	40	50	63	80	100	125	160	200
A	25.4	30.5	35.6	44.5	53	67.4	86.3	102.6
B	27.8	32.5	38	46.9	54.5	65.6	82.6	99
C	26	26	26	26	26	25	25	25

DU series Air Cylinder (Double piston packings)

Sensor switch operating range and the setting

CHELIC

◉ Sensor switch setting and operating range



DN

DMB

DU

DNK

DNE

◉ 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 right table)

Unit: mm

Model	CS-9D(B)	
	Operating range (F)	Hysteresis (R)
40	8	2 ~ 3
50	9	3 ~ 3
63	10	2 ~ 3
80	13	2 ~ 3
100	14	2 ~ 3
125	14	2 ~ 3
160	14	2 ~ 3
200	13	2 ~ 3

DCK2

DQ

DCQ

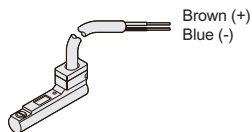
◉ Sensor switch introduction

● CS-8G

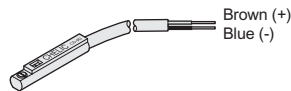


Voltage: DC 5~30V

● CS-8B

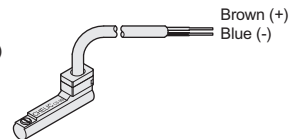


● CS-9D



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

● CS-9B



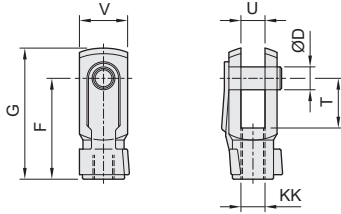
DU series Air Cylinder (Double piston packings)

Dimensions-Accessory

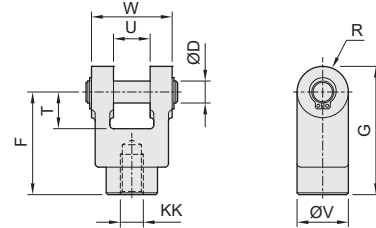
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◉ Rod clevis (With pin)

- DU (YN) series
Suitable for Ø40 ~ Ø100



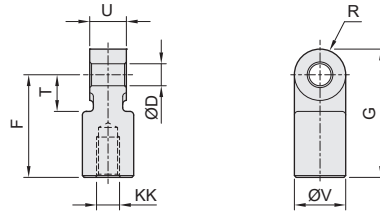
- DU (YN) series
Suitable for Ø125 ~ Ø200



Model	Bore size	D	F	G	KK	R	T	U	V	W
YN - M12 × 1.25	Ø40	12	48	62	M12 × 1.25	-	24	12	24	-
YN - M16 × 1.5	Ø50, Ø63	16	64	83	M16 × 1.5	14	32	16	32	-
YN - M20 × 1.5	Ø80, Ø100	20	80	105	M20 × 1.5	20	40	20	40	-
YN - M27 × 2	Ø125	30	110	148	M27 × 2	-	55	30	50	55
YN - M36 × 2	Ø160, Ø200	35	144	179	M36 × 2	-	73	35	65	70

◉ I connector

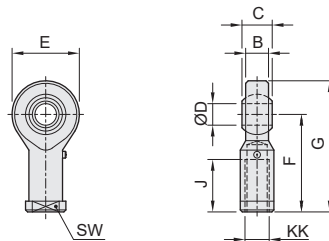
- DU (IN) series
Suitable for Ø40 ~ Ø200



Model	Bore size	D	F	G	KK	R	T	U	V
IN - M12 × 1.25	Ø40	12	48	67	M12 × 1.25	14	24	12	24
IN - M16 × 1.5	Ø50, Ø63	16	64	89	M16 × 1.5	14	32	16	32
IN - M20 × 1.5	Ø80, Ø100	20	80	112	M20 × 1.5	20	40	20	40
IN - M27 × 2	Ø125	30	110	155	M27 × 2	-	50	30	55
IN - M36 × 2	Ø160, Ø200	35	144	201	M36 × 2	-	72	35	70

◉ Rod end

- DN (GN) series
Suitable for Ø40 ~ Ø200



Model	Bore size	B	C	D	E	F	G	J	KK	SW
GN - M12 × 1.25	Ø40	12	16	12	30	50	65	24	M12 × 1.25	19
GN - M16 × 1.5	Ø50, Ø63	15	21	16	38	64	83	33	M16 × 1.5	22
GN - M20 × 1.5	Ø80, Ø100	18	25	20	46	77	100	40	M20 × 1.5	30
GN - M27 × 2.0	Ø125	24	35	28	66	103	136	41	M27 × 2.0	46
GN - M36 × 2.0	Ø160, Ø200	21	25	35	82	126	167	82	M36 × 2.0	50