

Actuator Unit – DN series

Standard cylinder, Double rod, Adjustable stroke

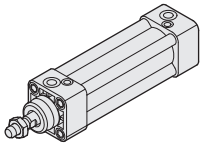
CHELIC



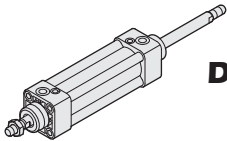
DN series
Provide CAD external dimension.

This product:

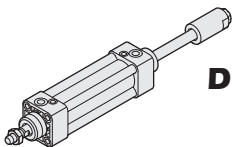
Applicable to longer stroke



DN series --- Standard cylinder ----- $\text{Ø}32 \sim \text{Ø}200$ ----- P.6-6.2



DND series --- Double rod ----- $\text{Ø}32 \sim \text{Ø}200$ ----- P.6-6.4

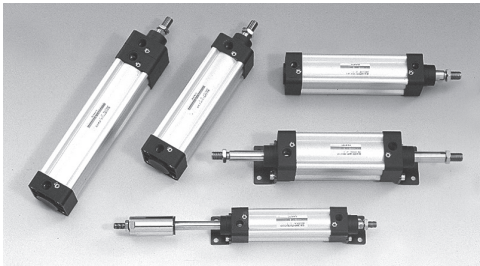


DNL series --- Adjustable stroke ----- $\text{Ø}32 \sim \text{Ø}200$ ----- P.6-6.4

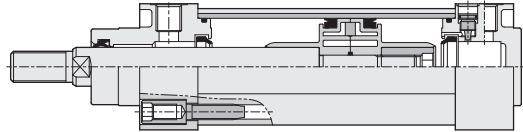
DN series ISO 15552 Air Cylinder

Product features

CHELIC



Internal structure

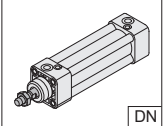
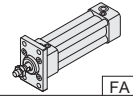
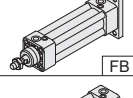
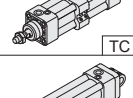
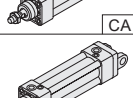
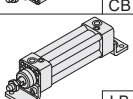
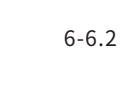



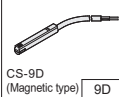
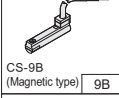
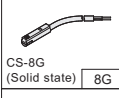
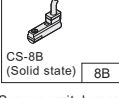
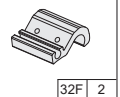
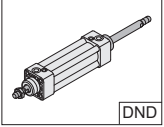
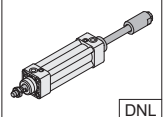


Specification

ISO-15552 type

Item	Bore size (mm)	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Action		Double acting								
Fluid		Air								
Mounting type		FA, FB, TC, CA, CB, LB								
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 1/8	PT 1/4	PT 3/8		PT 1/2		PT 3/4		
Sensing device		With magnet								
Standard stroke	mm	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, (350, 400, 450, 500)								

Code of order

DN	50	×	200	-	LB	-	Y	-	9D	-	32F	-	2
Model	Bore size		Stroke		Mounting type		Accessory		Sensor switch		Sensor bracket		Sensor switch q'ty
 DN: Standard type	32 - Ø32 mm 40 - Ø40 mm 50 - Ø50 mm 63 - Ø63 mm 80 - Ø80 mm 100 - Ø100 mm 125 - Ø125 mm 160 - Ø160 mm 200 - Ø200 mm		Ø32 25 ~ 500mm Ø40 25 ~ 500mm Ø50 25 ~ 500mm Ø63 25 ~ 500mm Ø80 25 ~ 500mm Ø100 25 ~ 500mm Ø125 25 ~ 500mm Ø160 25 ~ 500mm Ø200 25 ~ 500mm		 FA  FB  TC  CA  CB  LB	 I  Y  G		 CS-9D (Magnetic type) 9D  CS-9B (Magnetic type) 9B  CS-8G (Solid state) 8G  CS-8B (Solid state) 8B	 32F 2		None: without sensor bracket 32F: Applicable to Ø32, Ø40 50F: Applicable to Ø50, Ø63 80F: Applicable to Ø80, Ø100 125F: Applicable to Ø125 160F: Applicable to Ø160, Ø200		1=1 PCS 2=2 PCS
 DND: Double rod			The biggest stroke: 500mm										
 DNL: Adjustable stroke					FA: Front flange FB: End flange TC: Central trunnion CA: Single clevis CB: Double clevis LB: Axial foot				Sensor switch mark: <input type="checkbox"/> : None (without Sensor switch)				
									9D: CS-9D 9B: CS-9B 8G: CS-8G 8B: CS-8B				

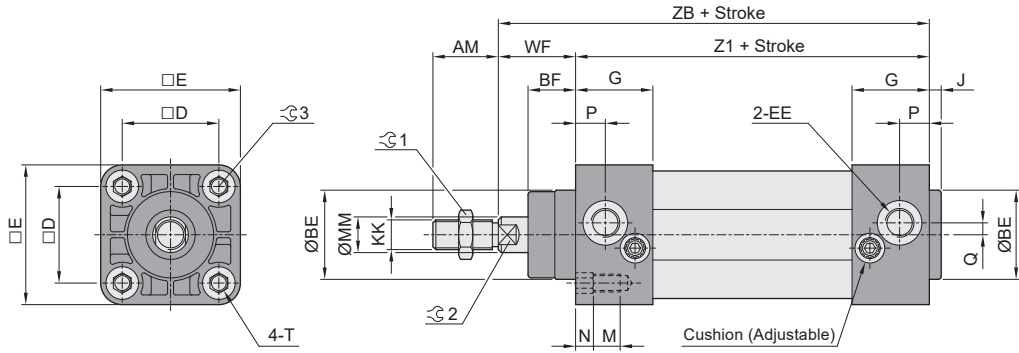
DN series ISO 15552 Air Cylinder

Dimensions

CHELIC

Standard type

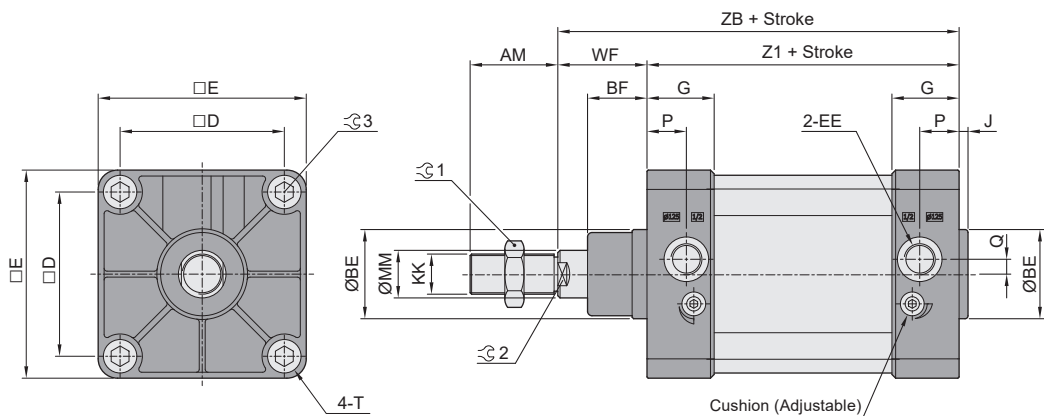
● Ø32 ~ Ø100



Mark Bore size	AM	BE	BF	D	E	EE	G	J	KK	M	MM	N	P	Q	T	WF	Z1	ZB	⌀1	⌀2	⌀3
Ø32	22	30	16	32.5	47	G 1/8	26	4	M10×1.25	9	12	6	10	4.2	M6×1	26	94	120	16	10	6
Ø40	24	35	20	38	52	G 1/4	30	4	M12×1.25	9	16	6	12	5	M6×1	30	105	135	18	14	6
Ø50	32	40	25	46.5	65	G 1/4	30	4	M16×1.5	12	20	6	15	5	M8×1.25	37	106	143	24	17	8
Ø63	32	45	25	56.5	75	G 3/8	32	4	M16×1.5	12	20	6	15.7	7	M8×1.25	37	121	158	24	17	8
Ø80	40	45	32	72	95	G 3/8	38	4	M20×1.5	16	25	6	19	7	M10×1.5	46	128	174	30	22	10
Ø100	40	55	35	89	114	G 1/2	40	4	M20×1.5	16	25	6	20	7	M10×1.5	51	138	189	30	22	10

Standard type

● Ø125 ~ Ø200



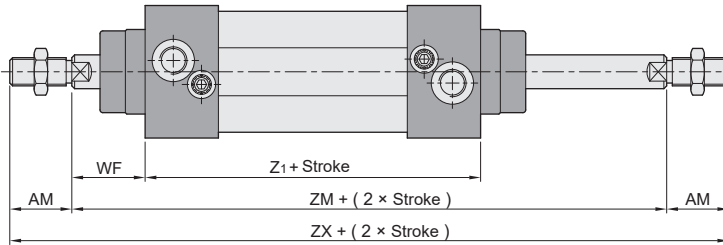
Mark Bore size	AM	BE	BF	D	E	EE	G	J	KK	MM	P	Q	T	WF	Z1	ZB	⌀1	⌀2	⌀3
Ø125	54	60	40	110	140	G 1/2	45.2	6	M27×2	32	26.5	10	M12×1.75	60	160	220	41	27	12
Ø160	72	65	55	140	180	G 3/4	50	6	M36×2	40	25.5	15	M16×2	80	180	260	55	36	17
Ø200	72	75	65	175	220	G 3/4	50	6	M36×2	40	25.5	15	M16×2	95	180	275	55	36	17

DN series ISO 15552 Air Cylinder

Dimensions

CHELIC

Double rod – DND

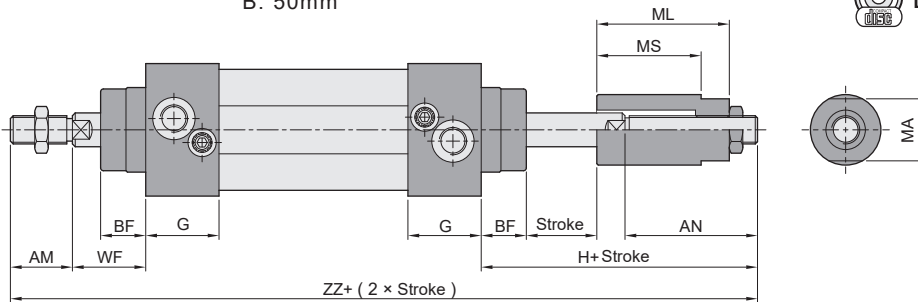


DN

DMB

DU

Adjustable stroke – DNL A: 25mm B: 50mm



DNK

DNE

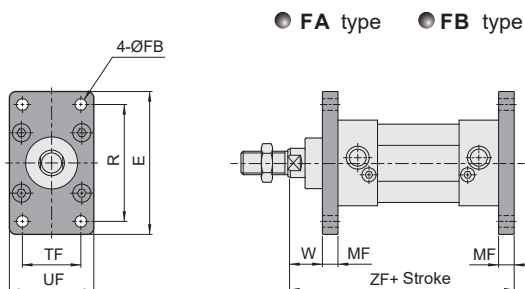
Bore size	Mark	AN		BF	G	H		MA	ML		MS		WF	ZZ		Z1	ZM	ZX
		A	B			A	B		A	B	A	B						
Ø32	22	47	72	16	26	73	98	22	47	72	35	60	26	215	240	94	146	190
Ø40	24	48	73	20	30	78	103	27	47	72	37	62	30	237	262	105	165	213
Ø50	32	52	77	25	30	89	114	36	53	78	38	63	37	264	289	106	180	244
Ø63	32	52	77	25	32	89	114	36	53	78	38	63	37	279	304	121	195	259
Ø80	40	58	83	32	38	104	129	46	60	85	40	65	46	318	343	128	220	300
Ø100	40	58	83	35	40	104	129	46	60	85	40	65	51	333	358	138	240	320
Ø125	54	75	100	40	45.2	135	160	56	70	95	50	75	60	409	434	160	280	388
Ø160	72	80	105	55	50	160	185	60	75	100	55	80	80	492	517	180	340	484
Ø200	72	80	105	65	50	170	195	60	75	100	55	80	95	517	542	180	370	514

DCK2

DQ

DCQ

Flange – FA Front flange FB End flange



Bore size	Mark	E	FB	MF	R	TF	UF	W	ZF
Ø32		79	7	10	64	32	50	16	130
Ø40		90	9	10	72	36	55	20	145
Ø50		110	9	12	90	45	65	25	155
Ø63		120	9	12	100	50	75	25	170
Ø80		153	12	16	126	63	95	30	190
Ø100		178	14	16	150	75	115	35	205
Ø125		210	16	20	180	90	140	40	240
Ø160		280	18	20	230	115	180	60	280
Ø200		320	22	25	270	135	220	70	300

DN series ISO 15552 Air Cylinder

Bracket dimensions

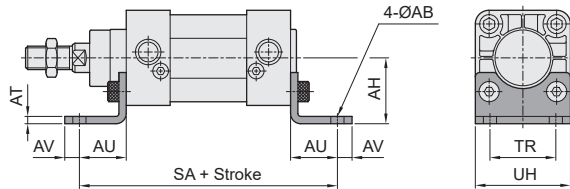
CHELIC

○ Axial foot – **LB**



DN □ LB

Unit: mm



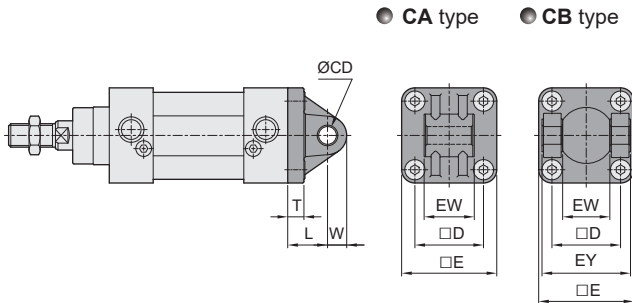
Mark	AB	AH	AT	AU	AV	SA	TR	UH
Ø32	7	32	5	24	8	142	32	47
Ø40	9	36	5	28	10	161	36	53
Ø50	9	45	5	32	10	170	45	65
Ø63	9	50	5	32	10	185	50	75
Ø80	12	63	6	41	13	210	63	95
Ø100	14	71	6	41	15	220	75	115
Ø125	16	90	9	45	25	250	90	140
Ø160	18	115	10	60	15	300	115	180
Ø200	22	135	9	70	30	320	135	220

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



DN □ CA
DN □ CB

Unit: mm



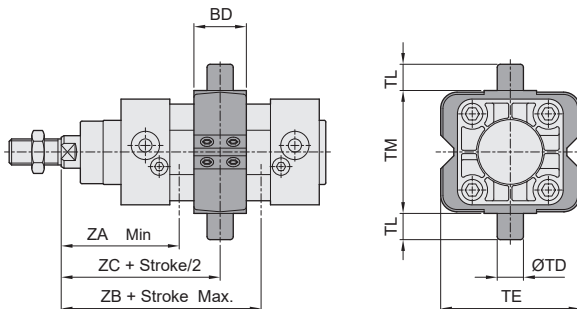
Mark	CD	D	E	EW	EY	L	T	W
Ø32	10	32.5	47	26	45	22	10	10.5
Ø40	12	38	52	28	52	25	10	11
Ø50	12	46.5	65	32	60	27	11	12
Ø63	16	56.5	75	40	70	32	11	15
Ø80	16	72	95	50	90	36	15	17
Ø100	20	89	114	60	110	41	15	21
Ø125	25	110	140	70	128	50	20	25
Ø160	30	140	177	90	170	55	20	25
Ø200	30	175	217	90	170	60	25	25

○ Central trunnion type – **TC**



DN □ TC

Unit: mm



Mark	BD	TD	TE	TL	TM	ZA	ZB	ZC
Ø32	22	12	58	12	50	73	73	73
Ø40	28	16	70	16	63	77	88	82.5
Ø50	32	16	85	16	75	86	94	90
Ø63	35	20	100	20	90	89.5	105.5	97.5
Ø80	40	20	120	20	110	107	113	110
Ø100	45	25	145	25	132	116.5	123.5	120

DN series ISO 15552 Air Cylinder

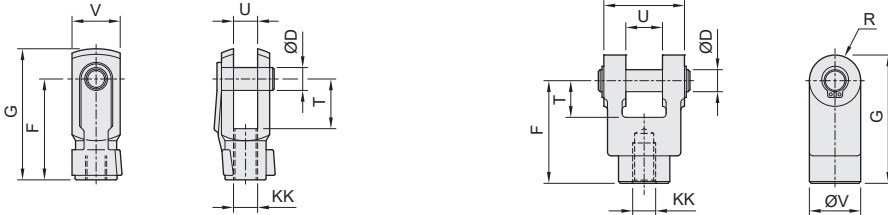
Dimensions-Accessory

CHELIC

● Rod clevis (With pin)

● DN (YN) series Suitable for $\varnothing 32 \sim \varnothing 100$

● DN (YN) series Suitable for $\varnothing 125 \sim \varnothing 200$

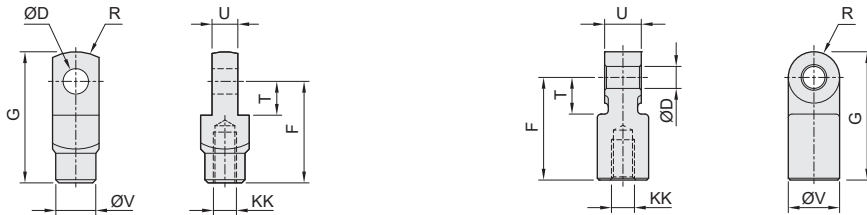


Model	Bore size	D	F	G	KK	R	T	U	V	W
YN - M10×1.25	Ø32	10	40	52	M10 × 1.25	-	20	10	20	-
YN - M12×1.25	Ø40	12	48	62	M12 × 1.25	-	24	12	24	-
YN - M16×1.5	Ø50, Ø63	16	64	83	M16 × 1.5	14	32	16	32	-
YN - M20×1.5	Ø80, Ø100	20	80	105	M20 × 1.5	20	40	20	40	-
YN - M27×2	Ø125	30	110	148	M27 × 2	-	54	30	50	55
YN - M36×2	Ø160, Ø200	35	144	191	M36 × 2	-	72	35	65	70

● I connector

● DN (IN) series Suitable for $\varnothing 32$

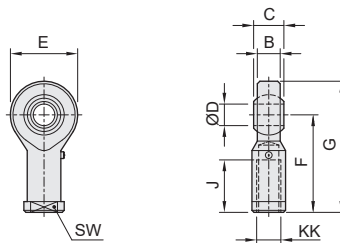
● DN (IN) series Suitable for $\varnothing 40 \sim \varnothing 100$



Model	Bore size	D	F	G	KK	R	T	U	V
IN-M10×1.25	Ø32	10	40	52	M10 × 1.25	-	13	10	17
IN-M12×1.25	Ø40	12	56	70	M12 × 1.25	14	20	20	24
IN-M16×1.5	Ø50, Ø63	16	56	70	M16 × 1.5	14	20	20	32
IN-M20×1.5	Ø80, Ø100	20	68	88	M20 × 1.5	20	30	30	40
IN-M27×2	Ø125	30	110	155	M27 × 2	-	54	30	55
IN-M36×2	Ø160, Ø200	35	144	201	M36 × 2	-	72	35	70

● Rod end

● DN (GN) series
Suitable for $\varnothing 32 \sim \varnothing 200$



Model	Bore size	B	C	D	E	F	G	J	KK	SW
GN - M10×1.25	Ø32	10.5	14	10	26	43	56	21	M10 × 1.25	17
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	27	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

DN

DMB

DU

DNK

DNE

DCK2

DQ

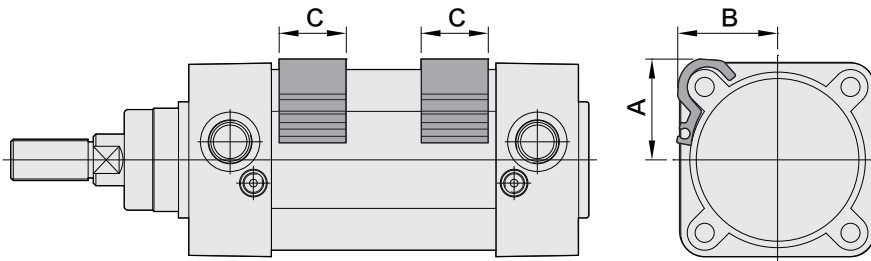
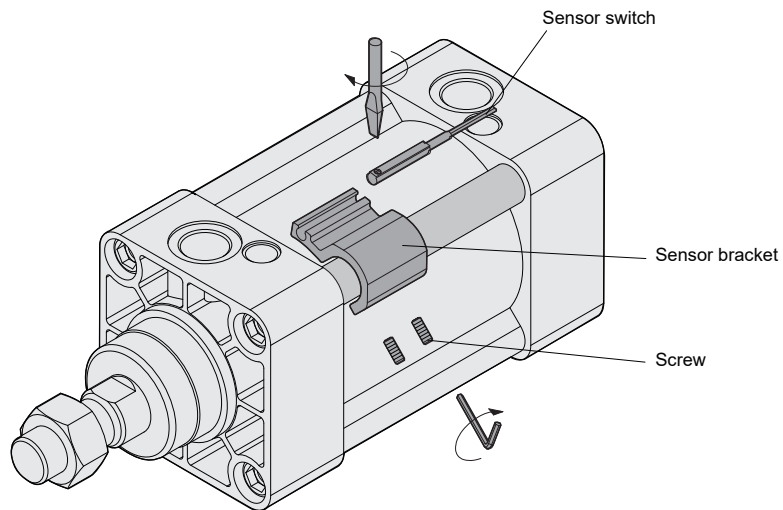
DCQ

DN series ISO 1552 Air Cylinder

Mounting type of sensor switch

CHELIC

► Sensor switch mounting type



► Sensor switch bracket dimension

Unit: mm

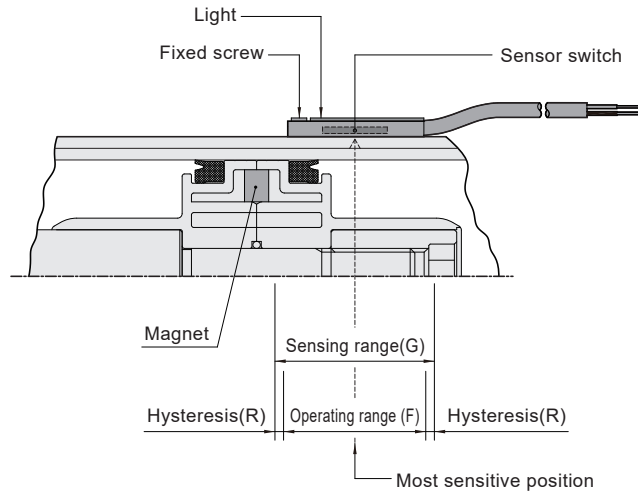
Bore size	32	40	50	63	80	100	125	160	200
A	24.2	27.3	34.4	39	49.4	57.8	73	93	114
B	25	28	33.4	38.7	48	57	75	94	115
C	26	26	26	26	26	26	25	25	25

DN series ISO 15552 Air Cylinder

Sensor switch operating range and the setting

CHELIC

Sensor switch setting and operating range



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

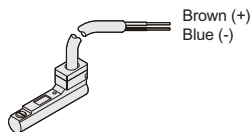
Model	CS-9D(B)	
	Operating range (F)	Hysteresis(R)
32	12	2 ~ 3
40	12	2 ~ 3
50	15	3 ~ 3
63	15	2 ~ 3
80	20	2 ~ 3
100	20	2 ~ 3
125	15	2 ~ 3
160	15	2 ~ 3
200	15	2 ~ 3

Sensor switch introduction

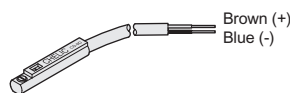
CS-8G



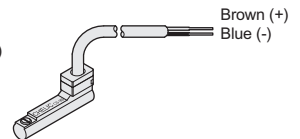
CS-8B



CS-9D



CS-9B



Voltage: DC 5~30V

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

DN

DMB

DU

DNK

DNE

DKK2

DQ

DCQ