

DN series - Standard cylinder

Double piston packing type

CHELIC PNEUMATIC

DN series ISO-6431 specification



DN series
Provide CAD external dimension.

DN
Standard
Cylinder

DMB
Standard
Cylinder

DU
Standard
Cylinder

DNK
Rod
Locking
Cylinder

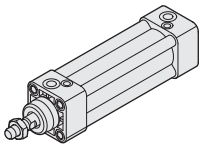
DNE
End lock
Cylinder

This product :

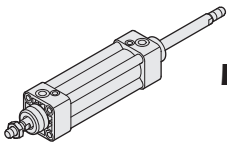
Use for longer stroke request

DCK2
Clamp
Cylinder

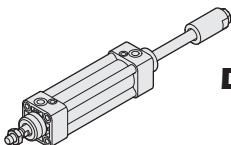
DCQ
Pin
Clamp
Cylinder



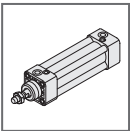
DN series --- Standard cylinder ----- Ø32 ~ Ø200 ----- P.3-4.1



DND series --- Standard cylinder ----- Ø32 ~ Ø200 ----- P.3-4.3



DNL series --- Standard cylinder ----- Ø32 ~ Ø200 ----- P.3-4.3



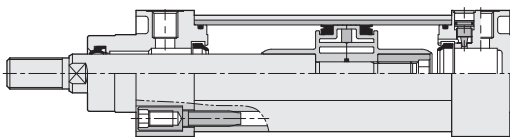
DN series - Standard cylinder

Operating specification and Ordering expression

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Internal structure



DN
Standard
Cylinder

DMB
Standard
Cylinder

DU
Standard
Cylinder

Specification

ISO-6431

Item	Bore size (mm)	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Operation		Double acting								
Fluid		Air								
Mounting type		FA、FB、TC、CA、CB、LB								
Pressure range	Kgf/cm ² (Kpa)	1.5 ~ 9 (150 ~ 900)								
Operating ambient temperature range	°C	0 ~ 60								
Range of service speed	mm/sec	50 ~ 700								
Material		Aluminum alloy								
Cushion		Adjustable available								
Lubrication		Lubrication free								
Port size	Rc	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)								

DNK
Rod
Locking
Cylinder

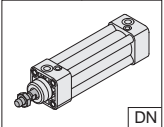
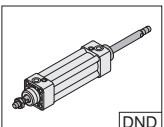
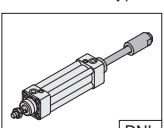
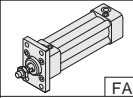
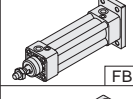
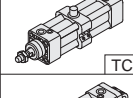
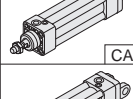
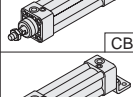
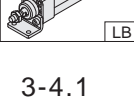
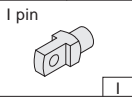
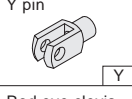

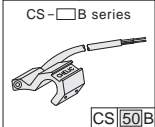
DNE
End lock
Cylinder

DNK2
Clamp
Cylinder

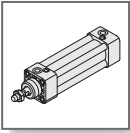
DCQ
Pin
Clamp
Cylinder

How to order

DN × **50** × **200** - **LB** - **Y** - **CS** **50B** - **2**

Model	Bore size	Stroke	Mounting type	Accessory	Sensor switch	Number of Sensor switch
 <p>DN : Standard type</p>  <p>DND : Double - Rod type</p>  <p>DNL : Adjustable stroke</p>	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 The biggest stroke : 500mm	 <p>FA</p>  <p>FB</p>  <p>TC</p>  <p>CA</p>  <p>CB</p>  <p>LB</p>	I pin  Y pin  Rod eye clevis  G	CS-□B series  Sensor switch code : <input type="checkbox"/> : None (without Sensor switch) <input checked="" type="checkbox"/> : With Sensor switch Sensor switch code (CS - □ B) CS 32 B : Suitable for Ø32,Ø40 CS 50 B : Suitable for Ø50,Ø63 CS 80 B : Suitable for Ø80,Ø100 CS 125 B : Suitable for Ø125 CS 160 B : Suitable for Ø160 CS 200 B : Suitable for Ø200	1=1 PCS 2=2 PCS

FA : Front flange mounting
 FB : Cap flange mounting
 TC : Central trunnion
 CA : Male clevis
 CB : Female clevis
 LB : Foot mounting



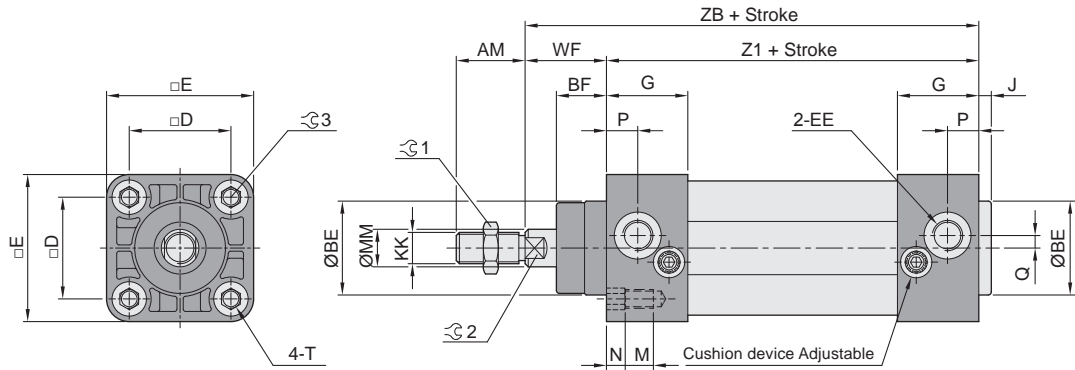
DN series - Standard cylinder

External dimension

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Standard type

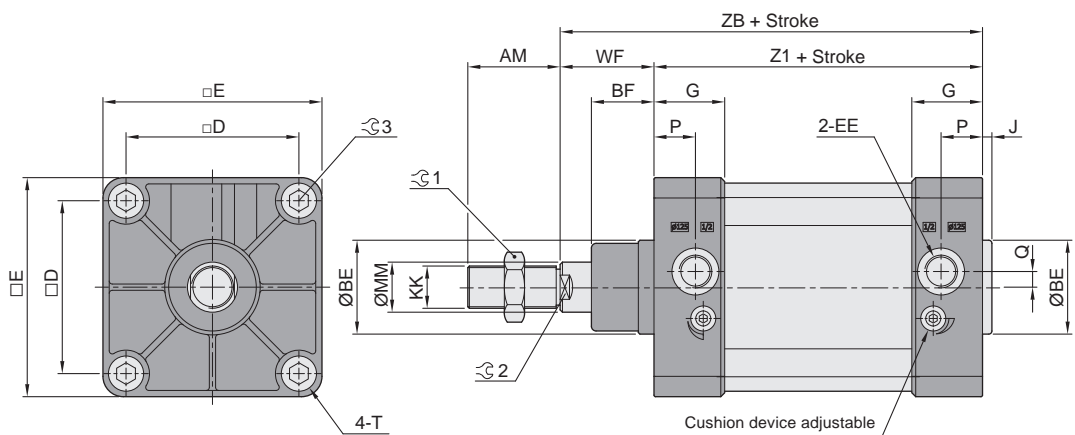
● Ø32 ~ Ø100



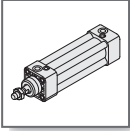
Symbol Bore size	AM	BE	BF	D	E	EE	G	J	KK	M	MM	N	P	Q	T	WF	Z1	ZB	⌀1	⌀2	⌀3
Ø32	22	30	16	32.5	47	PT 1/8"	26	4	M10x1.25	9	12	6	13	4.2	M6x1	26	94	120	16	10	6
Ø40	24	35	20	38	52	PT 1/4"	30	4	M12x1.25	9	16	6	15	5	M6x1	30	105	135	18	14	6
Ø50	32	40	25	46.5	65	PT 1/4"	30	4	M16x1.5	12	20	6	15	5	M8x1.25	37	106	143	24	17	8
Ø63	32	45	25	56.5	75	PT 3/8"	32	4	M16x1.5	12	20	6	15.7	7	M8x1.25	37	121	158	24	17	8
Ø80	40	45	32	72	95	PT 3/8"	38	4	M20x1.5	16	25	6	19	7	M10x1.5	46	128	174	30	22	10
Ø100	40	55	35	89	114	PT 1/2"	40	4	M20x1.5	16	25	6	20	7	M10x1.5	51	138	189	30	22	10

Standard type

● Ø125 ~ Ø200



Symbol 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	PT 1/2"	45.2	6	M27x2	32	26.5	10	M12x1.75	60	160	220	41	27	12
Ø160	72	65	55	140	180	PT 3/4"	50	6	M36x2	40	25.5	15	M16x2	80	180	260	55	36	17
Ø200	72	75	65	175	220	PT 3/4"	50	6	M36x2	40	25.5	15	M16x2	95	180	275	55	36	17

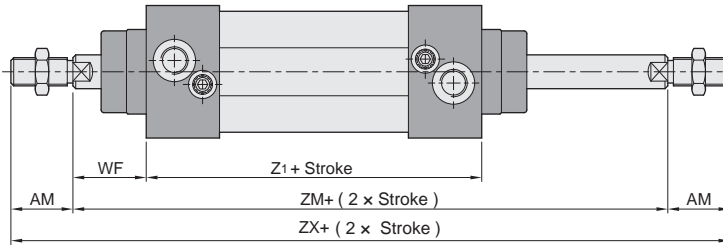


DN series - Standard cylinder

External dimension - DND , DNL , FA , FB series

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Double-Rod type - DND

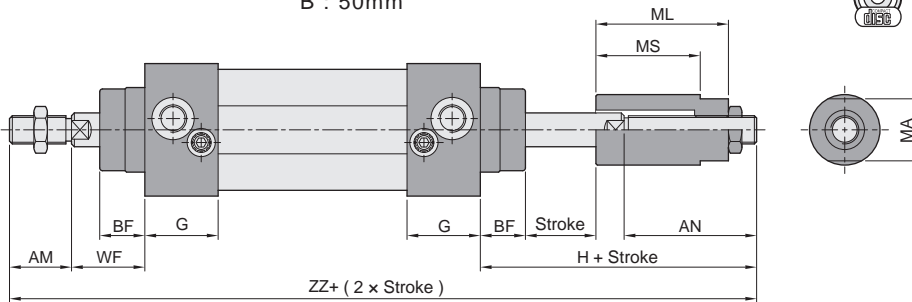


DN
Standard
Cylinder

DMB
Standard
Cylinder

DU
Standard
Cylinder

Adjustable stroke type - DNL A : 25mm B : 50mm



DNK
Rod
Locking
Cylinder

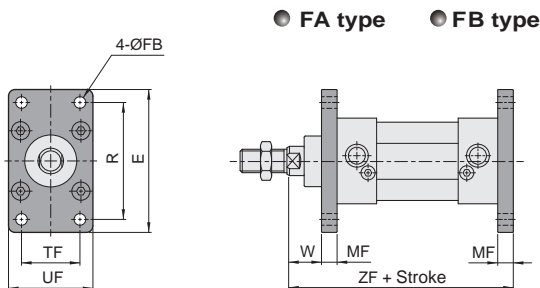
DNE
End lock
Cylinder

Symbol Bore size	AM	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	33	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	40	135	160	56	70	95	50	75	60	414	439	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	67	50	205	230	60	75	100	55	80	95	517	542	180	370	514

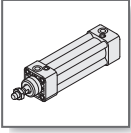
DKC2
Clamp
Cylinder

DCQ
Pin
Clamp
Cylinder

Flange mounting type - FA Front flange mounting type FB End flange mounting type



Symbol Bore size	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

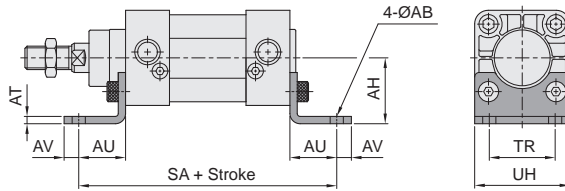


DN series - Standard cylinder

External dimension - LB , CA , CB , TC series

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Foot mounting type - LB



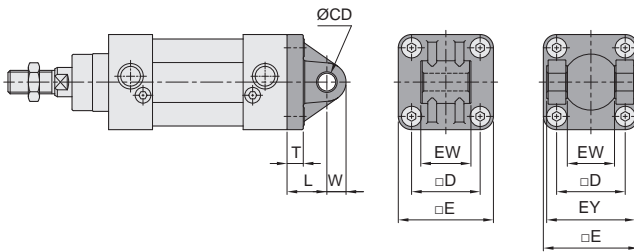
Symbol Bore size	AB	AH	AT	AU	AV	SA	TR	UH
Ø32	7	32	5	24	8	142	32	47
Ø40	9	36	5	28	10	161	36	53
Ø50	9	45	5	32	10	170	45	65
Ø63	9	50	5	32	10	185	50	75
Ø80	12	63	6	41	13	210	63	95
Ø100	14	71	6	41	15	220	75	115
Ø125	16	90	9	45	25	250	90	140
Ø160	18	115	10	60	15	300	115	180
Ø200	22	135	9	70	30	320	135	220

Central trunnion type - CA Male clevis type

CB Female clevis type

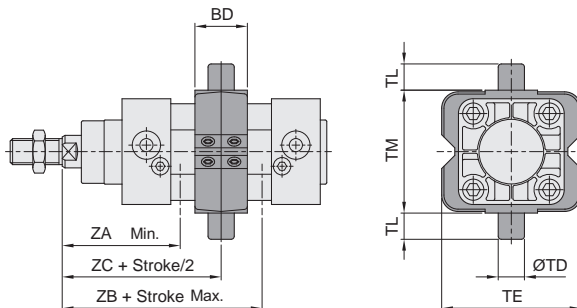


● CA type ● CB type

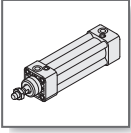


Symbol Bore size	CD	D	E	EW	EY	L	T	W
Ø32	10	32.5	47	26	45	22	10	10.5
Ø40	12	38	52	28	52	25	10	11
Ø50	12	46.5	65	32	60	27	11	12
Ø63	16	56.5	75	40	70	32	11	15
Ø80	16	72	95	50	90	36	15	17
Ø100	20	89	114	60	110	41	15	21
Ø125	25	110	140	70	130	50	20	25
Ø160	30	140	180	90	170	55	20	30
Ø200	30	175	220	90	170	60	23	30

Central trunnion type - TC



Symbol Bore size	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 - Standard cylinder

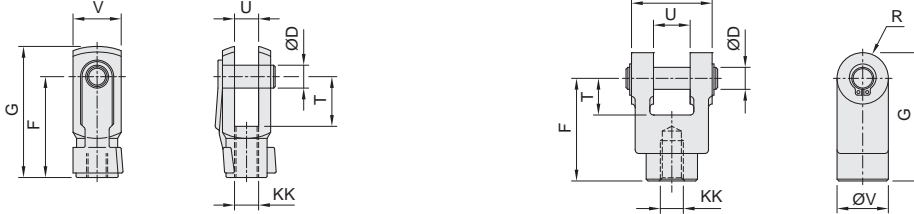
Accessory for rod connector

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Y type connector (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 - M10x1.25	$\varnothing 32$	10	40	52	M10x1.25	-	20	10	20	-
YN - M12x1.25	$\varnothing 40$	12	48	62	M12x1.25	-	24	12	24	-
YN - M16x1.5	$\varnothing 50 \sim \varnothing 63$	16	64	83	M16x1.5	14	32	16	32	-
YN - M20x1.5	$\varnothing 80 \sim \varnothing 100$	20	80	105	M20x1.5	20	40	20	40	-
YN - M27x2	$\varnothing 125$	30	110	148	M27x2	-	54	30	50	55
YN - M36x2	$\varnothing 160 \sim \varnothing 200$	35	144	191	M36x2	-	72	35	65	70

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DNK
Rod
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DNE
End lock
Cylinder

I type connector

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

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



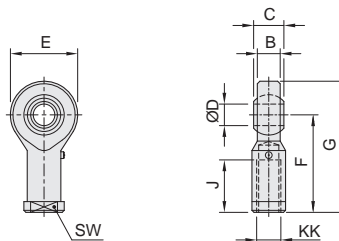
Model	Bore size	D	F	G	KK	R	T	U	V
IN-M10x1.25	$\varnothing 32$	10	40	52	M10x1.25	-	13	10	17
IN-M12x1.25	$\varnothing 40$	12	56	70	M12x1.25	14	20	20	24
IN-M16x1.5	$\varnothing 50 \sim \varnothing 63$	16	56	70	M16x1.5	14	20	20	32
IN-M20x1.5	$\varnothing 80 \sim \varnothing 100$	20	68	88	M20x1.5	20	30	30	40
IN-M27x2	$\varnothing 125$	30	110	155	M27x2	-	54	30	55
IN-M36x2	$\varnothing 160 \sim \varnothing 200$	35	144	201	M36x2	-	72	35	70

DCK2
Clamp
Cylinder

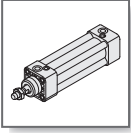
DCQ
Pin
Clamp
Cylinder

Rod eye clevis

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



Model	Bore size	B	C	D	E	F	G	J	KK	SW
GN - M10x1.25	$\varnothing 32$	10.5	14	10	26	43	56	21	M10x1.25	17
GN - M12x1.25	$\varnothing 40$	12	16	12	30	50	65	24	M12x1.25	19
GN - M16x1.5	$\varnothing 50, \varnothing 63$	15	21	16	38	64	83	33	M16x1.5	22
GN - M20x1.5	$\varnothing 80, \varnothing 100$	18	25	20	46	77	100	40	M20x1.5	30
GN - M27x2.0	$\varnothing 125$	24	35	27	66	103	136	41	M27x2.0	46
GN - M36x2.0	$\varnothing 160, \varnothing 200$	21	25	35	82	126	167	82	M36x2.0	50



DN series - Standard cylinder

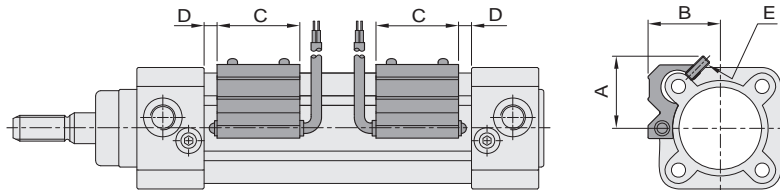
Sensor switch installation and Setting

CHELIC PNEUMATIC

Sensor switch installation position and Dimension (Reference)

● DN Ø32 ~ Ø200

Model	Bore size	A	B	C	D	E
CS-32B	Ø32	28	28	32	5	M4×8L
	Ø40	29	32.5	32	-	M4×8L
CS-50B	Ø50	36	37.5	32	4	M4×10L
	Ø63	43	44	32	3	M4×10L
CS-80B	Ø80	50	52	32	5	M4×12L
	Ø100	59	62	32	8	M4×12L
CS-125B	Ø125	73	75	32	10	M4×12L
CS-160B	Ø160	93	94	32	10	M4×12L
CS-200B	Ø200	114	115	32	10	M4×12L



Sensor switch setting and Operated range

● CS - B

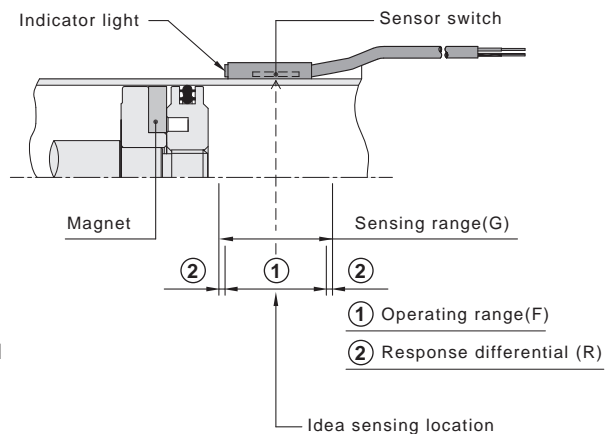
Sensing range

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

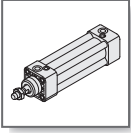
When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch.

(Please refer to the below table)



Unit : mm

Bore size	Ø32、Ø40	Ø50、Ø63	Ø80、Ø100	Ø125	Ø160	Ø200
Model	CS-32B	CS-50B	CS-80B	CS-125B	CS-160B	CS-200B
Operating range (F)	12	15	20	15	15	15
Response differential (R)	2 ~ 3	3 ~ 3	2 ~ 3	3 ~ 3	3 ~ 3	3 ~ 3



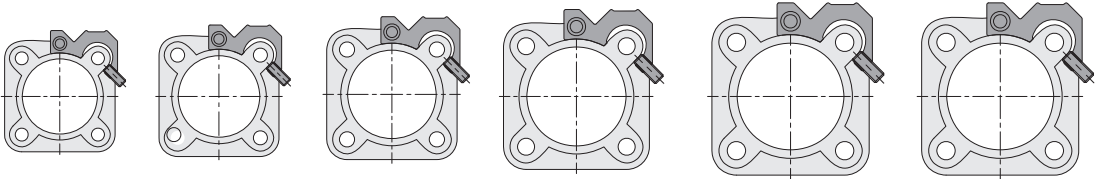
DN series - Standard cylinder-with sensor switch

Assembly diagram and Dimension

CHELIC PNEUMATIC

Sensor switch assembly diagram

- CS - 32B
Bore size
(Ø32,Ø40)
- CS - 50B
Bore size
(Ø50,Ø63)
- CS - 80B
Bore size
(Ø80,Ø100)
- CS - 125B
Bore size
(Ø125)
- CS - 160B
Bore size
(Ø160)
- CS - 200B
Bore size
(Ø200)



DN
Standard
Cylinder

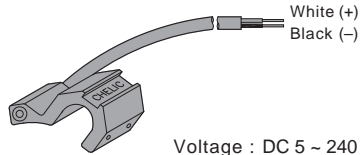
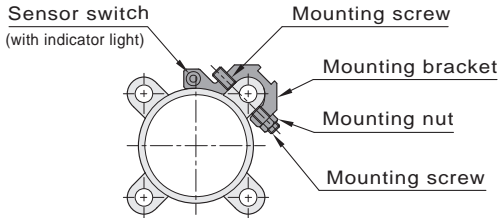
DMB
Standard
Cylinder

DU
Standard
Cylinder

Accessory and Installation

Connection type

- CS - 32B ~ CS - 200B



Voltage : DC 5 ~ 240 V
AC 5 ~ 240 V

DNK
Rod
Locking
Cylinder

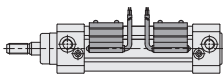
DNE
End lock
Cylinder

DCK2
Clamp
Cylinder

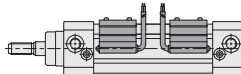
DCQ
Pin
Clamp
Cylinder

Sensor switch installation position (Reference)

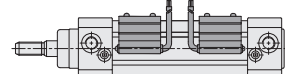
- CS - 32B (Ø32,Ø40)



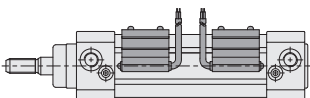
- CS - 50B (Ø50,Ø63)



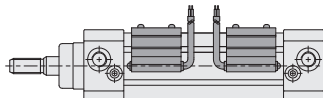
- CS - 80B (Ø80,Ø100)



- CS - 125B (Ø125)



- CS - 160B (Ø160)



- CS - 200B (Ø200)

