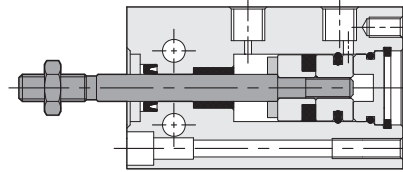
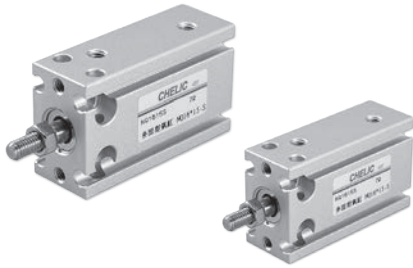


NQ series - Free mount cylinder

Operating specification and Ordering expression

CHELIC PNEUMATIC

Internal structure



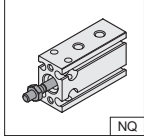
Specification

Unit : mm

Item	Bore size	Ø6	Ø10	Ø16	Ø20	Ø25	Ø32
Operation		Double acting					
Fluid		Air					
Mounting type		Horizontal mounting, Side mounting, Vertical mounting					
Pressure range	kgf/cm ² (kpa)	1.5 ~ 8.5 (150 ~ 850)					
Range of service temperature	°C	0 ~ 60					
Operated speed	mm / sec	50 ~ 700					
Body material		Aluminum alloy					
Cushion		Rubber washer					
Lubrication		Lubrication free					
Connection port		M5 X 0.8P					
Sensor switch		Standard : Without magnet / S : With magnet					

How to order

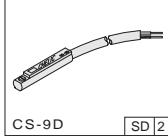
NQ × **20** × **30** - **SD 2**
 Model Bore size Stroke Sensor switch



NQ : Standard Double acting

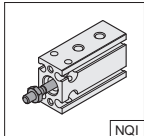
6 - Ø6 mm
10 - Ø10 mm
16 - Ø16 mm
20 - Ø20 mm
25 - Ø25 mm
32 - Ø32 mm

Ø6 - 5 ~ 30 mm
Ø10 - 5 ~ 30 mm
Ø16 - 5 ~ 30 mm
Ø20 - 5 ~ 50 mm
Ø25 - 5 ~ 50 mm
Ø32 - 5 ~ 50 mm

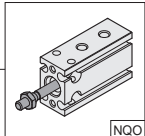


CS-9D SD 2

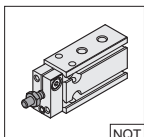
None : Standard
SD1 : Sensor switch (CS-9D)
SB1 : Sensor switch (CS-9B)
2 : Number of sensor switch
1 = 1 PCS
2 = 2 PCS



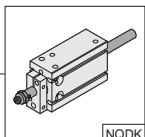
NQI : Single acting Normal in



NQO : Single acting Normal out



NQT : Non-Rotating rod type



NQDK : Free Mount Cylinder (For Vacuum)

NA
Cartridge
Cylinder

NA2
Cartridge
Cylinder

NB
Cartridge
Cylinder

NU
Free Mount
Cylinder

ND
Free Mount
Cylinder

NQ
Free Mount
Cylinder

MSI
Mini
Compact
Cylinder

JD
Compact
Cylinder

JG
Compact
Cylinder

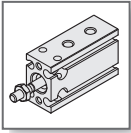
JTD
Twin-Guide
Cylinder

JTF
Twin-Guide
Cylinder

JCB
Twin-Guide
Cylinder

JCF
Twin-Guide
Cylinder

JE
Compact
Cylinder



NQ series - Free mount cylinder

Mounting Type and Specification

CHELIC PNEUMATIC

◉ Bore size and Stroke

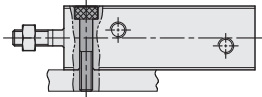
■ Standard

Item	Stroke	5	10	15	20	25	30	40	50	60
NQ	∅6	●	●	●	●	●	●	—	—	—
NQ NQT	∅10、∅16	●	●	●	●	●	●	—	—	—
	∅20、∅25、∅32	●	●	●	●	●	●	●	●	●
NQI NQO	∅10 - ∅32	●	●	●	—	—	—	—	—	—
NQDK	∅20、∅25、∅32	●	●	●	●	●	●	●	●	●

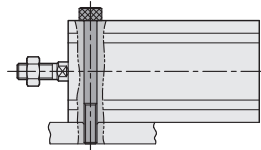
■ With magnet

Item	Stroke	5	10	15	20	30	40	50
NQ	∅6	●	●	●	●	●	—	—
NQ NQT	∅10、∅16	●	●	●	●	●	—	—
	∅20、∅25、∅32	●	●	●	●	●	●	●
NQI NQO	∅10 - ∅32	●	●	●	—	—	—	—
NQDK	∅20、∅25、∅32	●	●	●	●	●	●	●

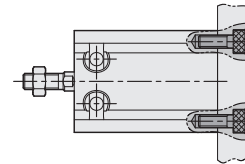
◉ Mounting type



■ Side mounting

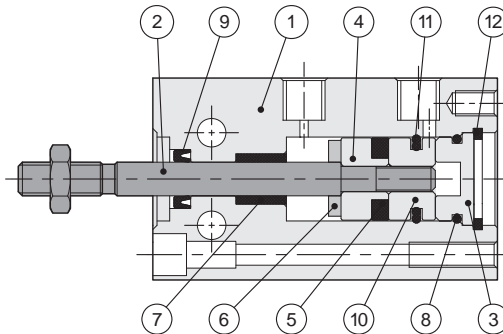


■ Upper mounting



■ Bottom mounting

◉ Internal structure



◉ Component and Material list

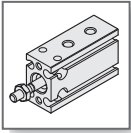
No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	07	Bush	Teflon
02	Piston Rod	Medium carbon steel	08	End cover O-Ring	NBR
03	End cover	Aluminum alloy	09	Rod packing	NBR
04	Magnet cover	Copper alloy	10	Piston	Copper alloy
05	Magnet	Plastic	11	Piston packing	NBR
06	Washer	Rubber	12	Ring	Spring steel

◉ Packing and O-Ring

Unit : mm

Item	Piston packing	Rod packing	End cover O-ring
Number	1	1	1
Bore size	1	1	1
∅ 6	MYA - 3 (2pcs)	MYA - 3	5 x 1
∅ 10	MYA - 7 (2pcs)	MYA - 4	8 x 1.5
∅ 16	COP - 16	EM - 8	15.5 x 1.45
∅ 20	COP - 20	EM - 10	17.5 x 1.5
∅ 25	COP - 25	EM - 12	24.35 x 2.0
∅ 32	COP - 32	EM - 16	30 x 2.0

Note : Piston and rod packing adapt in Osaka and Mitsubishi imports



NQ series - Free mount cylinder

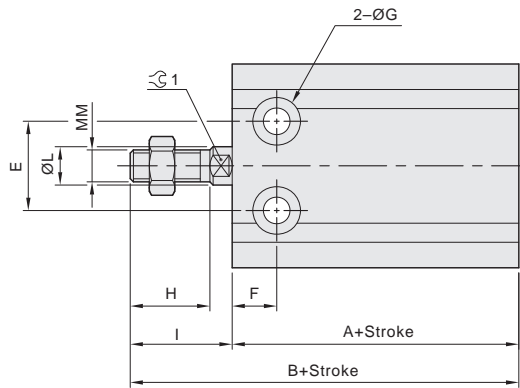
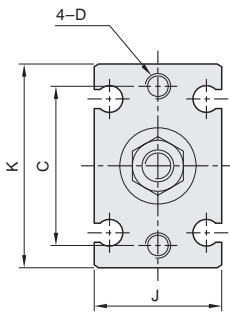
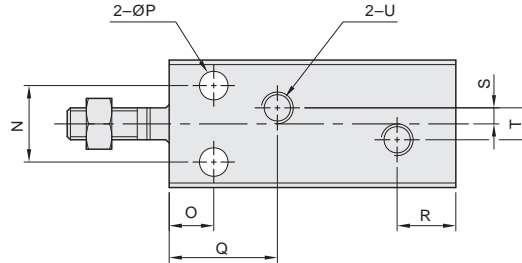
External dimensions

CHELIC PNEUMATIC

● NQ Ø6 ~ Ø32



NQ □ x □ MST



Bore size	Standard		With magnet		C	D	E	F	G	H	I	J
	A	B	A	B								
Ø 6	33	46	33	46	17	M3x0.5P x 5 dp	10	7	Ø3.2 Thru-hole, Hole Ø6 x 4.3 dp	7	13	13
Ø10	36	52	36	52	18	M3x0.5P x 5 dp	11	7	Ø3.5 Thru-hole, Hole Ø6 x 5 dp	10	16	15
Ø16	30	46	40	56	25	M4x0.7P x 6 dp	14	7	Ø4.2 Thru-hole, Hole Ø7.5 x 4.1 dp	12.5	16	20
Ø20	36	55	46	65	30	M5x0.8P x 8 dp	16	9	Ø5.5 Thru-hole, Hole Ø9 x 8 dp	14	19	26
Ø25	40	63	50	73	38	M5x0.8P x 8 dp	20	10	Ø5.5 Thru-hole, Hole Ø9 x 8.5 dp	18	23	32
Ø32	42	69	52	79	48	M6x1.0P x 9 dp	24	11	Ø6.5 Thru-hole, Hole Ø11 x 11 dp	22	27	40

Bore size	K	L	MM	N	O	P	Q	R	S	T	U	∓ 1
Ø 6	22	Ø3	M3x0.5P	7	7	Ø3.2	15	10	—	—	M5x0.8P	—
Ø10	24	Ø4	M4x0.7P	9	7	Ø3.4	15.5	10	—	—	M5x0.8P	—
Ø16	32	Ø6	M5x0.8P	12	7	Ø4.5	15.3	10.5	2.5	5	M5x0.8P	5
Ø20	40	Ø8	M6x1.0P	16	9	Ø5.5	19.5	7	6	12	M5x0.8P	6
Ø25	50	Ø10	M8x1.25P	20	10	Ø5.5	21	7.5	7	14	M5x0.8P	8
Ø32	62	Ø12	M10x1.25P	24	11	Ø6.6	24.2	9	11	22	Rc 1/8	10

NA
Cartridge
Cylinder

NA2
Cartridge
Cylinder

NB
Cartridge
Cylinder

NU
Free Mount
Cylinder

ND
Free Mount
Cylinder

NQ
Free Mount
Cylinder

MSI
Mini
Compact
Cylinder

JD
Compact
Cylinder

JG
Compact
Cylinder

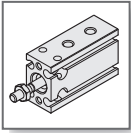
JTD
Twin-Guide
Cylinder

JTF
Twin-Guide
Cylinder

JCB
Twin-Guide
Cylinder

JCF
Twin-Guide
Cylinder

JE
Compact
Cylinder

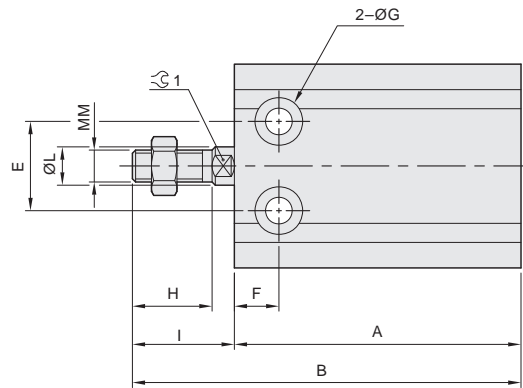
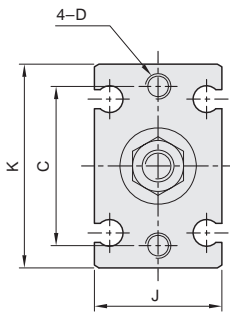
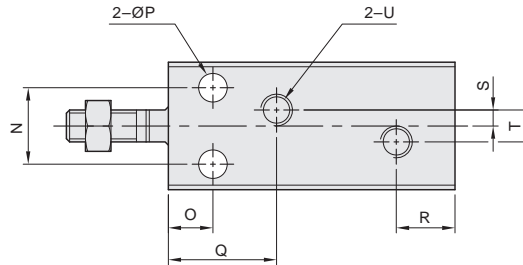
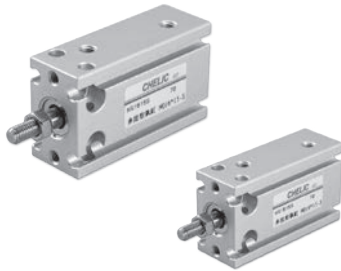


NQ series - Free mount cylinder

External dimension (Normal in type)

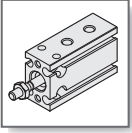
CHELIC PNEUMATIC

● NQI Ø10 ~ Ø32



Bore size	Standard						With magnet						C	D	G
	A			B			A			B					
	5st	10st	15st	5st	10st	15st	5st	10st	15st	5st	10st	15st			
Ø10	41	46	56	57	62	72	41	46	56	57	62	72	18	M3x0.5P x 5 dp	Ø3.5 Thru-hole, Hole Ø6x5 dp
Ø16	35	40	50	51	56	66	45	50	60	61	66	76	25	M4x0.7P x 6 dp	Ø4.2 Thru-hole, Hole Ø7.5x4.1 dp
Ø20	41	46	56	60	65	75	45	50	60	70	75	85	30	M5x0.8P x 8 dp	Ø5.5 Thru-hole, Hole Ø9x8 dp
Ø25	45	50	60	68	73	83	55	60	70	78	83	93	38	M5x0.8P x 8 dp	Ø5.5 Thru-hole, Hole Ø9x8.5 dp
Ø32	47	52	62	74	79	89	57	62	72	84	89	99	48	M6x1.0P x 9 dp	Ø6.5 Thru-hole, Hole Ø11x11 dp

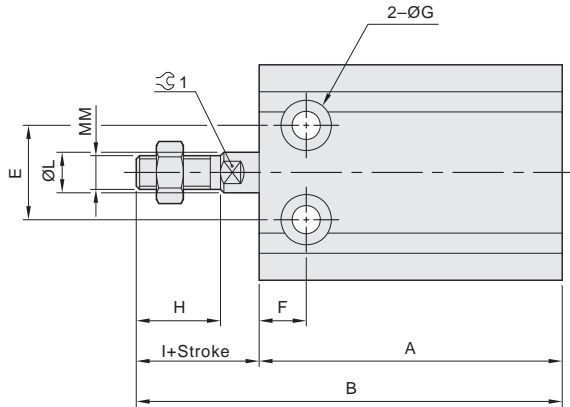
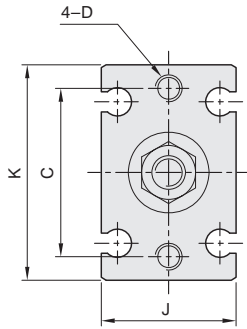
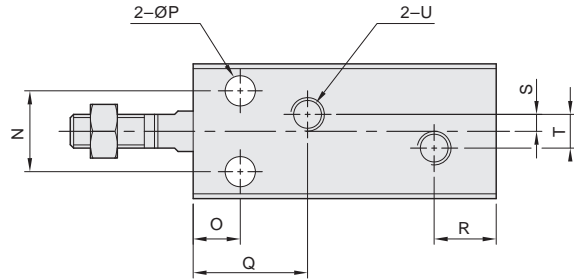
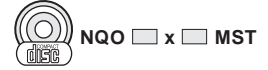
Bore size	E	F	H	I	J	K	L	MM	N	O	P	Q	R	S	T	U	1
Ø10	11	7	10	16	15	24	Ø4	M4x0.7P	9	7	Ø3.4	15.5	10	—	—	M5x0.8P	—
Ø16	14	7	12.5	16	20	32	Ø6	M5x0.8P	12	7	Ø4.5	15.3	10.5	2.5	5	M5x0.8P	5
Ø20	16	9	14	19	26	40	Ø8	M6x1.0P	16	9	Ø5.5	19.5	7	6	12	M5x0.8P	6
Ø25	20	10	18	23	32	50	Ø10	M8x1.25P	20	10	Ø5.5	21	7.5	7	14	M5x0.8P	8
Ø32	24	11	22	27	40	62	Ø12	M10x1.25P	24	11	Ø6.6	24.2	9	11	22	Rc 1/8	10



NQ series - Free mount cylinder

External dimensions of NQO Single acting (Normal Out) type **CHELIC PNEUMATIC**

● NQO Ø10 ~ Ø32



Bore size	Standard						With magnet						C	D	G
	A			B			A			B					
	5st	10st	15st	5st	10st	15st	5st	10st	15st	5st	10st	15st			
Ø10	41	46	56	62	72	87	41	46	56	62	72	87	18	M3x0.5P x 5 dp	Ø3.5 Thru-hole, Hole Ø6x5 dp
Ø16	35	40	50	66	76	91	45	50	60	66	76	91	25	M4x0.7P x 6 dp	Ø4.2 Thru-hole, Hole Ø7.5x4.1 dp
Ø20	41	46	56	65	75	90	45	50	60	75	85	100	30	M5x0.8P x 8 dp	Ø5.5 Thru-hole, Hole Ø9x8 dp
Ø25	45	50	60	73	83	98	55	60	70	83	93	108	38	M5x0.8P x 8 dp	Ø5.5 Thru-hole, Hole Ø9x8.5 dp
Ø32	47	52	62	79	89	104	57	62	72	89	99	114	48	M6x1.0P x 9 dp	Ø6.5 Thru-hole, Hole Ø11x11 dp

Bore size	E	F	H	I	J	K	L	MM	N	O	P	Q	R	S	T	U	⌀1
Ø10	11	7	10	16	15	24	Ø4	M4x0.7P	9	7	Ø3.4	15.5	10	—	—	M5x0.8P	—
Ø16	14	7	12.5	16	20	32	Ø6	M5x0.8P	12	7	Ø4.5	15.3	10.5	2.5	5	M5x0.8P	5
Ø20	16	9	14	19	26	40	Ø8	M6x1.0P	16	9	Ø5.5	19.5	7	6	12	M5x0.8P	6
Ø25	20	10	18	23	32	50	Ø10	M8x1.25P	20	10	Ø5.5	21	7.5	7	14	M5x0.8P	8
Ø32	24	11	22	27	40	62	Ø12	M10x1.25P	24	11	Ø6.6	24.2	9	11	22	Rc 1/8	10

NA
Cartridge
Cylinder

NA2
Cartridge
Cylinder

NB
Cartridge
Cylinder

NU
Free Mount
Cylinder

ND
Free Mount
Cylinder

NQ
Free Mount
Cylinder

MSI
Mini
Compact
Cylinder

JD
Compact
Cylinder

JG
Compact
Cylinder

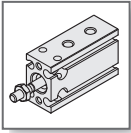
JTD
Twin-Guide
Cylinder

JTF
Twin-Guide
Cylinder

JCB
Twin-Guide
Cylinder

JCF
Twin-Guide
Cylinder

JE
Compact
Cylinder



NQ series - Free mount cylinder

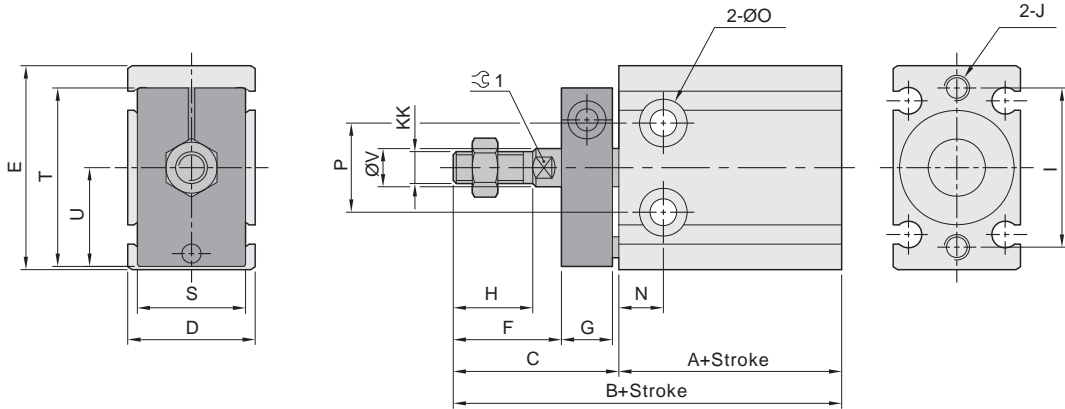
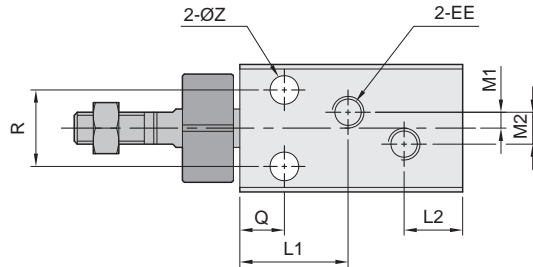
External dimension (Non-Rotating type)

CHELIC PNEUMATIC

Q NQT Ø10 ~ Ø32

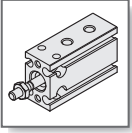


NQT □ x □ MST



Bore size	Standard		With magnet		C	D	E	EE	F	G	H	I	J	KK	L1	L2	M1	M2
	A	B	A	B														
Ø10	36	57	36	57	21	15	24	M5x0.8P	12	8	10	18	M3x0.5P x 5 dp	M4x0.7P	15.5	10	—	—
Ø16	30	56	40	66	26	20	32	M5x0.8P	17	8	12.5	25	M4x0.7P x 6 dp	M5x0.8P	15.3	10.5	2.5	5
Ø20	36	65	46	75	29	26	40	M5x0.8P	20	8	14	30	M5x0.8P x 8 dp	M6x1.0P	19.5	7	6	12
Ø25	40	73	50	83	33	32	50	M5x0.8P	22	10	18	38	M5x0.8P x 8 dp	M8x1.25P	21	7.5	7	14
Ø32	42	84	52	94	42	40	62	Rc 1/8	29	12	22	48	M6x1.0P x 9 dp	M10x1.25P	24.2	9	11	22

Bore size	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	⊕ 1
Ø10	7	Ø3.5 Thru-hole, Hole Ø6x5 dp	11	7	9	12	22	11.5	Ø4	7	15	M4x0.7P	Ø3.4	—
Ø16	7	Ø4.2 Thru-hole, Hole Ø7.5x4.1 dp	14	7	12	13	28	15.5	Ø6	6	18	M5x0.8P	Ø4.5	5
Ø20	9	Ø5.5 Thru-hole, Hole Ø9x8 dp	16	9	16	16	33	19.5	Ø8	8	20	M6x1.0P	Ø5.5	6
Ø25	10	Ø5.5 Thru-hole, Hole Ø9x8.5 dp	20	10	20	20	43.5	24.5	Ø10	10	28	M8x1.25P	Ø5.5	8
Ø32	11	Ø6.5 Thru-hole, Hole Ø11x11 dp	24	11	24	24	51.5	30.5	Ø12	12	32	M10x1.25P	Ø6.6	10

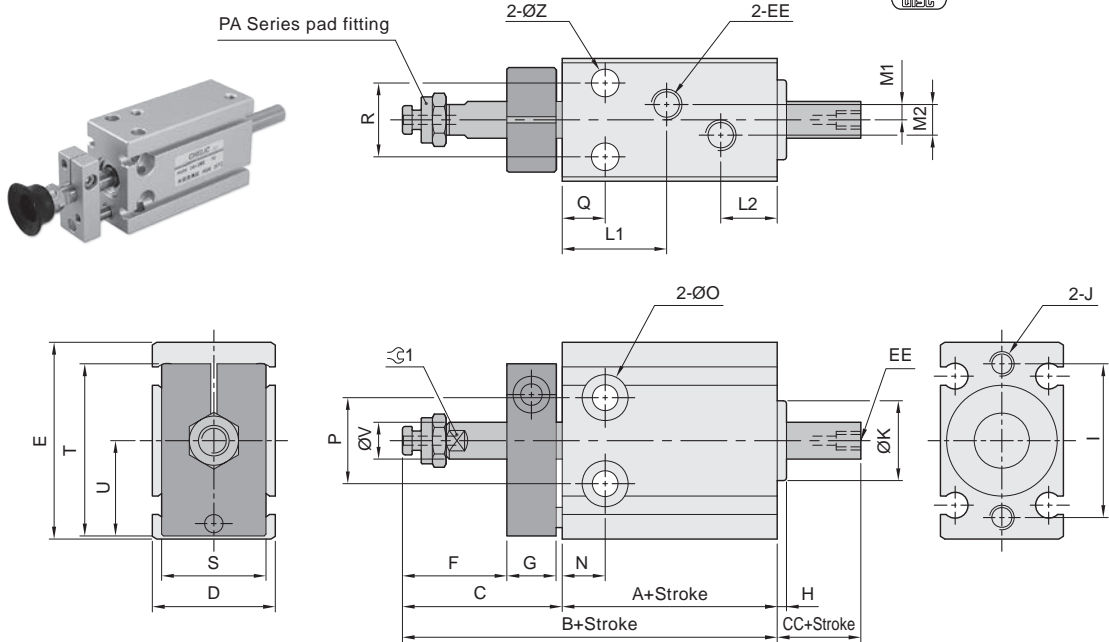


NQ series - Free mount cylinder

External dimension (For vacuum type)

CHELIC PNEUMATIC

● NQDK Ø20 ~ Ø32



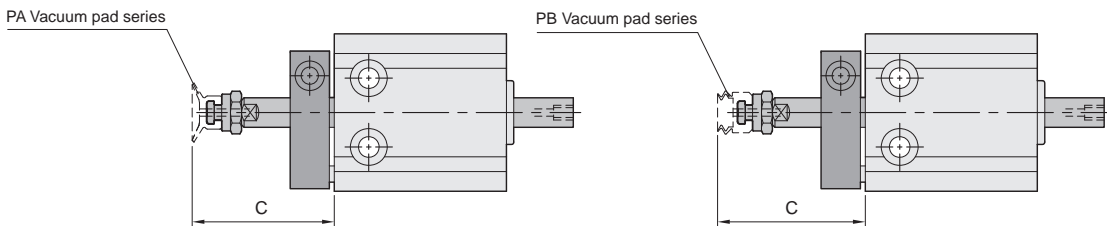
- NA**
Cartridge Cylinder
- NA2**
Cartridge Cylinder
- NB**
Cartridge Cylinder
- NU**
Free Mount Cylinder
- ND**
Free Mount Cylinder
- NQ**
Free Mount Cylinder
- MSI**
Mini Compact Cylinder

Bore size	Standard		With magnet		C	CC	D	E	EE	F	G	H	I	J	K	L1	L2	M1
	A	B	A	B														
Ø20	36	65	46	75	29	14	26	40	M5x0.8P	20	8	1.5	30	M5x0.8P x 8 dp	13	19.5	7	6
Ø25	40	73	50	83	33	14	32	50	M5x0.8P	22	10	1.9	38	M5x0.8P x 8 dp	17	21	7.5	7
Ø32	42	84	52	94	42	15	40	62	Rc 1/8	29	12	3.3	48	M6x1.0P x 9 dp	22	24.2	9	11

Bore size	M2	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	∠1
Ø20	12	9	Ø5.5 Thru-hole, Hole Ø9x8 dp	16	9	16	16	33	19.5	Ø8	8	20	M6x1.0P	Ø5.5	6
Ø25	14	10	Ø5.5 Thru-hole, Hole Ø9x8.5 dp	20	10	20	20	43.5	24.5	Ø10	10	28	M8x1.25P	Ø5.5	8
Ø32	22	11	Ø6.5 Thru-hole, Hole Ø11x11 dp	24	11	24	24	51.5	30.5	Ø12	12	32	M10x1.25P	Ø6.6	10

- JD**
Compact Cylinder
- JG**
Compact Cylinder
- JTD**
Twin-Guide Cylinder

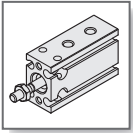
● Model of vacuum pad



Bore size	Ø20					Ø25			Ø32		
Model of vacuum pad	PA-05	PA-06	PA-08	PA-10	PA-15	PA-20	PA-25	PA-30	PA-35	PA-40	PA-50
C	31.9	31.9	32.4	33	33.5	43	47	45	50	50	51
Model of vacuum pad	PB-10		PB-15			PB-20		PB-30	PB-40		PB-50
C	34.9		36.4			46		51	54		56

- JTF**
Twin-Guide Cylinder
- JCB**
Twin-Guide Cylinder
- JCF**
Twin-Guide Cylinder

- JE**
Compact Cylinder

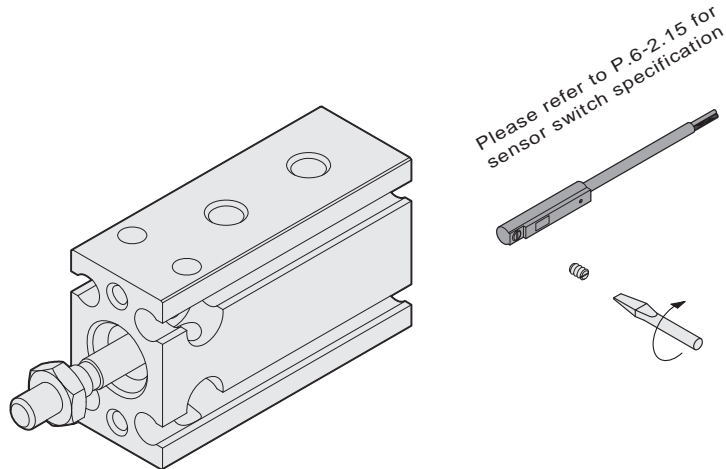


NQ series - Free mount cylinder

Sensor switch installation and Setting

CHELIC PNEUMATIC

◉ Sensor switch installation



◉ Sensing range

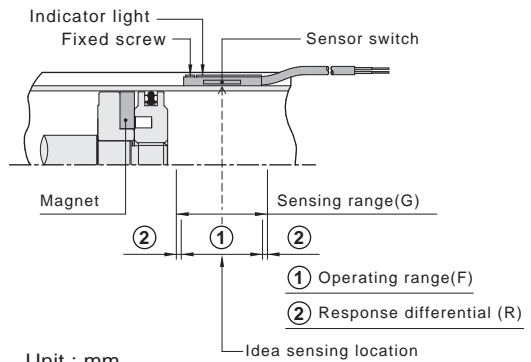
Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the Sensor switch when it enters the operating range. It has 0.5mm differential.

◉ 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 sensor switch. (Please refer to the below table)

◉ Sensor switch setting and Operating range

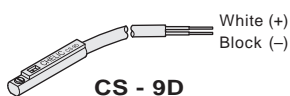
● CS - 9D (B)



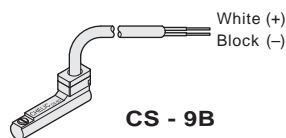
Unit : mm

Model	CS-9D(B)	
Bore size	Operating range (F)	Response differential(R)
Ø6	5	1
Ø10	5	1
Ø17	5	1
Ø20	8	1
Ø25	8	1
Ø32	10	1

◉ Connector type



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



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