

Actuator Unit – DCK2 series

Clamp cylinder

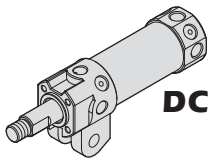
CHELIC



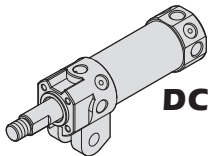
DCK2 series
Provide CAD external dimension.

Feature:

The front of the seal with telescopic scraper can clean the dust and welding residues to avoid scratching the seal.



DCK2 series ----- Clamp cylinder ----- $\text{Ø}25 \sim \text{Ø}80$ ----- P.6-6.42



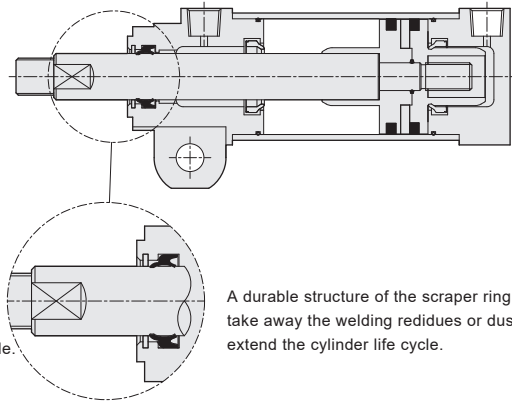
DCK2S series ----- Clamp cylinder ----- $\text{Ø}25 \sim \text{Ø}80$ ----- P.6-6.48
(Strong magnet type)

DCK2 series Clamp Cylinder

Product features

CHELIC

Internal structure



A durable structure of the scraper ring can take away the welding residues or dust to extend the cylinder life cycle.

Feature:

- The barrel made of aluminum material with anodizing treatment is to give high wearables and to prevent corrosion.
- Adopt the non-lubrication bearing and wearable seal to extend the life cycle.
- Various piping directions option.
- With air cushioning design to reduce impact to cylinder cap.
- The cylinder has magnet embedded to activate the sensor switch.
- The reduced length structure is space-saving.
- Redesign the connection way of the shaft and connectors to strengthen the tip of the shaft.

DN

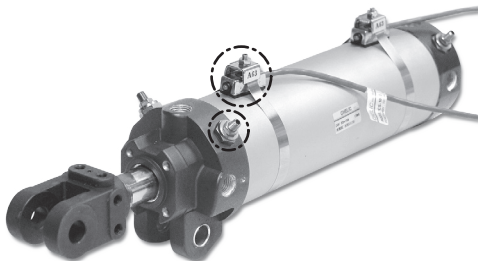
DMB

DU

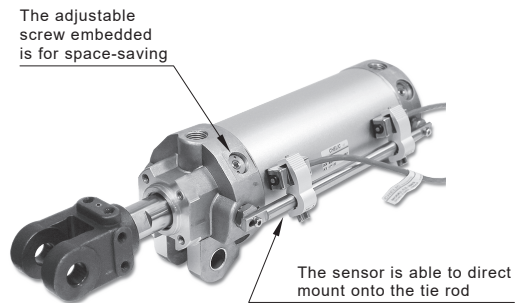
DNK

DNE

Difference in product appearance



● Product appearance: DCK



The adjustable screw embedded is for space-saving

The sensor is able to direct mount onto the tie rod

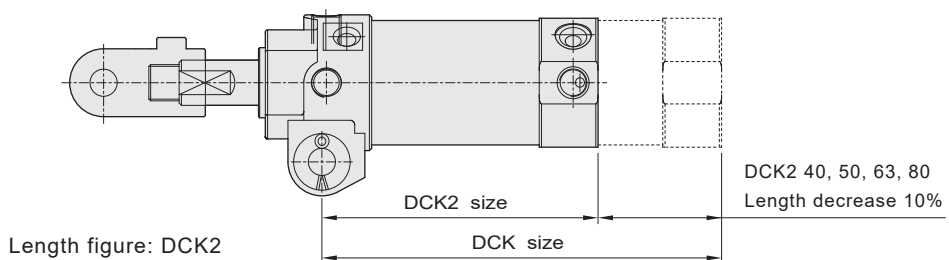
● Product appearance: DCK2

DCK2

DQ

DCQ

Length changing figure



DCK2 series Clamp Cylinder

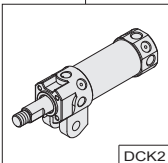
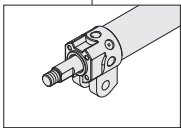
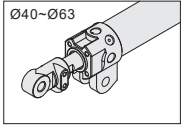
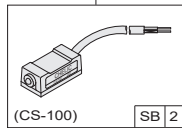
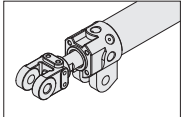

Product features

CHELIC

Specification

U groove width	DCK2-1A	9.2 mm		16.5 mm			28 mm
	DCK2-1B	12.2 mm		19.5 mm			
Bore size	mm	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80
Action		Double acting					
Fluid		Air					
Pressure range	kgf/cm ² (kPa)	1 ~ 7 (100 ~ 700)					
Ambient and fluid temperature	°C	5 ~ 60					
Piston speed	mm/s	50 ~ 500			50 ~ 350	50 ~ 250	
Cushion		Rubber washer		Air cushion on both sides			
Lubrication		Lubrication free type					
Port size		PT 1/8		PT 1/4			PT 3/8
Standard stroke	mm	50,75,100,125,150					

Code of order

DCK2	1A	50	×	100	-	Y	-	SB	2
Model	U groove width	Bore size		Stroke		Accessory		Sensor switch	
	1A - 9.2mm 1B - 12.2mm Ø25 ~ Ø32 1A - 16.5mm 1B - 19.5mm Ø40 ~ Ø63 None - 28mm Ø80	25 - Ø25 32 - Ø32 40 - Ø40 50 - Ø50 63 - Ø63 80 - Ø80		50 - 50 mm 75 - 75 mm 100 - 100 mm 125 - 125 mm 150 - 150 mm		 None: Standard  Ø40-Ø63		 (CS-100) SB 2 None : Without sensor switch SB : Sensor switch mark (CS-100) 2 : Sensor switch q'ty 1 = 1 PCS 2 = 2 PCS	
DCK2 : Clamp cylinder						 I : I connector * Ø25, Ø32, Ø80 without I connector			
						 Y : Rod clevis			

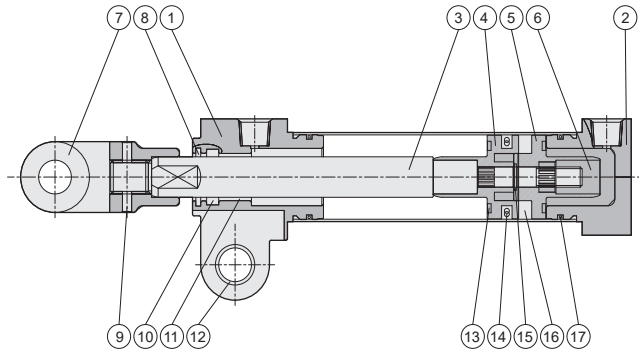
DCK2 series Clamp Cylinder

Product features

CHELIC

Internal structure

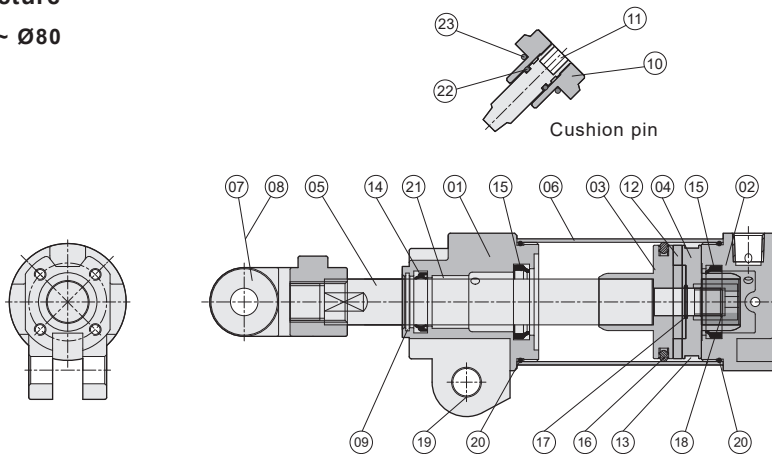
● DCK2 Ø25, Ø32



No.	Item	Material	No.	Item	Material
01	Front cover	Aluminum alloy	10	Piston packing	NBR
02	Rear cover	Aluminum alloy	11	Bearing	—
03	Shaft	Carbon steel	12	Bearing	—
04	Piston	POM	13	Cushion gasket	NBR
05	Magnet cover	POM	14	Piston packing	NBR
06	Piston rod screw	Alloy steel	15	O-ring	NBR
07	Rod clevis	Iron	16	Magnet	Rubber magnet
08	Scrap ring	Phosphor copper	17	O-ring	NBR
09	Pin	Spring steel	18		

Internal structure

● DCK2 Ø40 ~ Ø80



No.	Item	Material	No.	Item	Material
01	Front cover	Aluminum alloy	13	Wear ring	POM
02	Rear cover	Aluminum alloy	14	Shaft packing	NBR
03	Piston	Aluminum alloy	15	Absorbing packing ring	NBR
04	Magnet cover	Aluminum alloy	16	Piston packing	NBR
05	Shaft	Carbon steel	17	Shaft O-ring	NBR
06	Barrel	Aluminum alloy	18	Piston rod nut	Alloy steel
07	Rod clevis	Iron	19	Bearing	—
08	I connector	Iron	20	Front/ Rear cover O-ring	NBR
09	Scrap ring	Phosphor copper	21	Bearing	—
10	Absorbing pin body	Iron	22	Absorbing pin O-ring	NBR
11	Absorbing pin screw	Iron	23	Absorbing pin body O-ring	NBR
12	Magnet	Rubber magnet			

DN

DMB

DU

DNK

DNE

DCK2

DQ

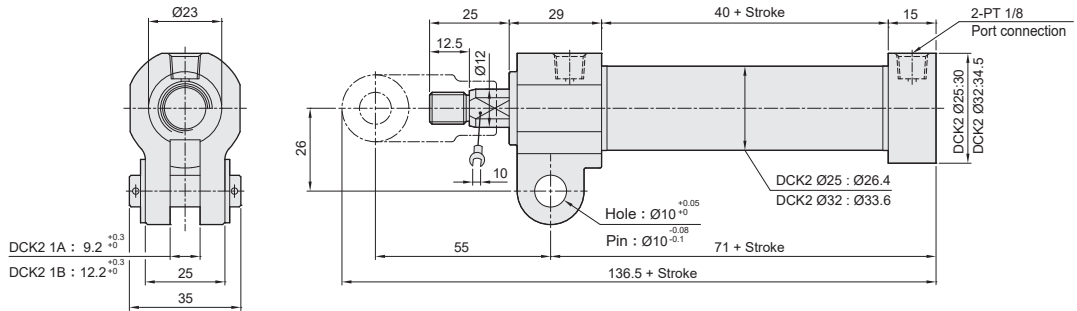
DCQ

DCK2 series Clamp Cylinder

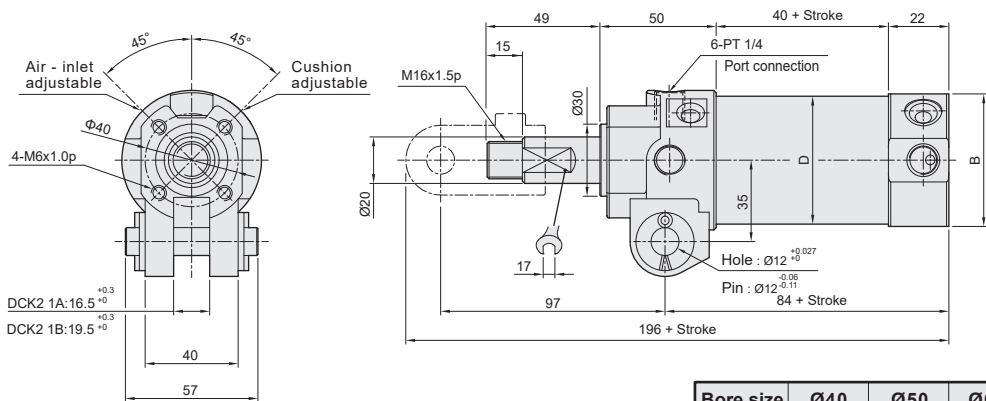
Dimensions

CHELIC

▷ DCK2 Ø25, Ø32



▷ DCK2 Ø40, Ø50, Ø63

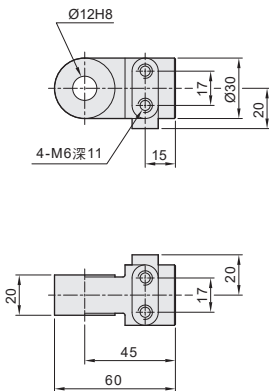


Bore size	Ø40	Ø50	Ø63
B	47	57	68
D	Ø45	Ø55	Ø68

▷ Accessory for rod point

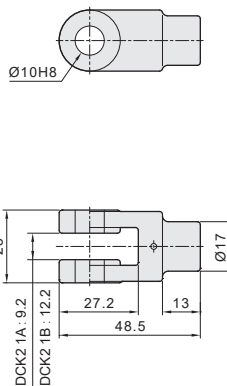
● I connector

■ Ø40 ~ Ø63

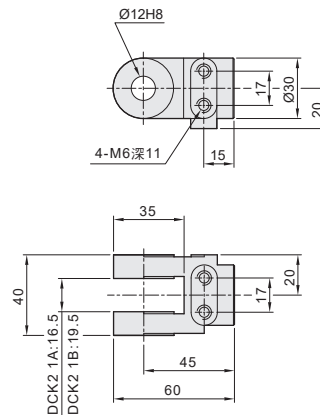


● Rod clevis

■ Ø25 ~ Ø32

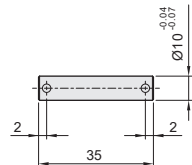


■ Ø40 ~ Ø63

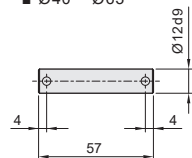


● Connect pin

■ Ø25 ~ Ø32



■ Ø40 ~ Ø63

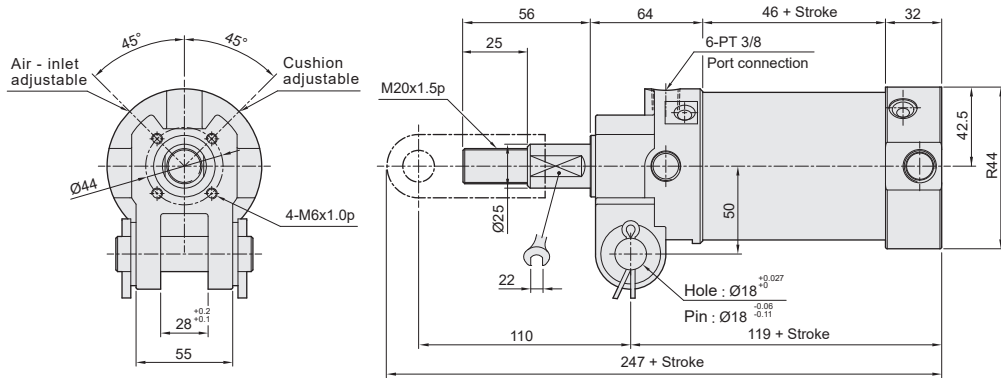


DCK2 series Clamp Cylinder

Dimensions

CHELIC

► DCK2 Ø80



DN

DMB

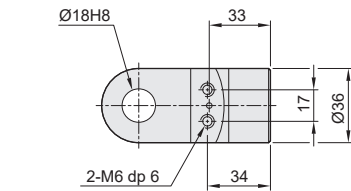
DU

DNK

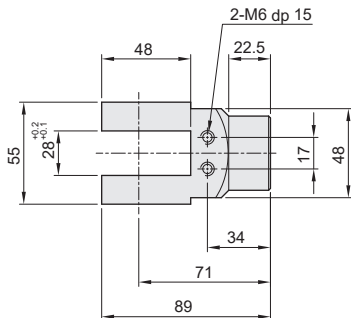
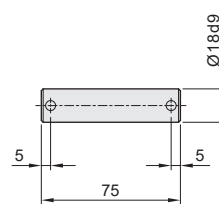
DNE

► Accessory for rod point (Ø80)

● Rod clevis



● Connect pin



DCK2

DQ

DCQ

DCK2 series Clamp Cylinder

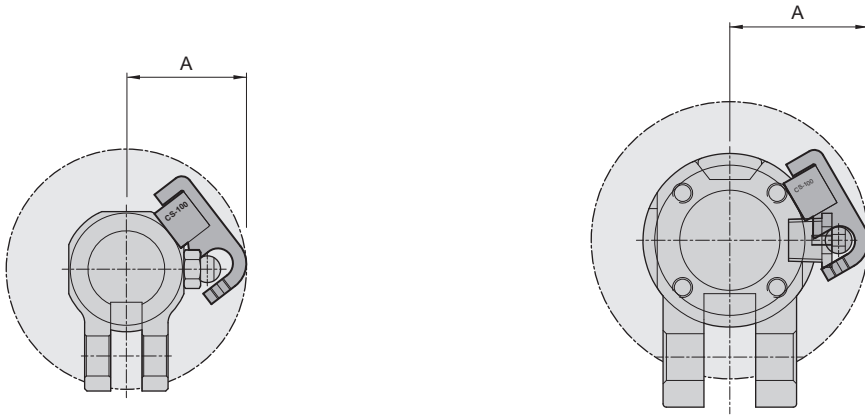
Mounting type and operation of sensor switch

CHELIC

▶ Installing magnet sensor CS-180 external dimension

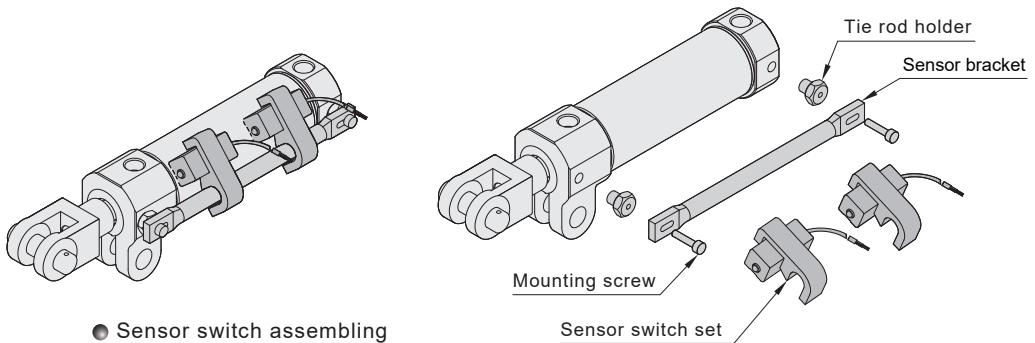
● Bore size: $\varnothing 25 \sim \varnothing 32$

● Bore size: $\varnothing 40 \sim \varnothing 80$



Bore size	25	32	40	50	63	80
Mark						
A	$\varnothing 66$	$\varnothing 73$	$\varnothing 84$	$\varnothing 92$	$\varnothing 105$	$\varnothing 120$

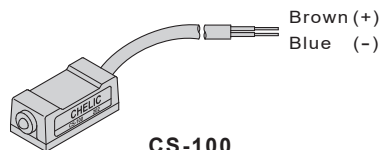
▶ Sensor switch mounting type



● Sensor switch assembling

● Sensor switch assembling expression

▶ Sensor switch introduction



CS-100

Voltage: DC 5 - 120V

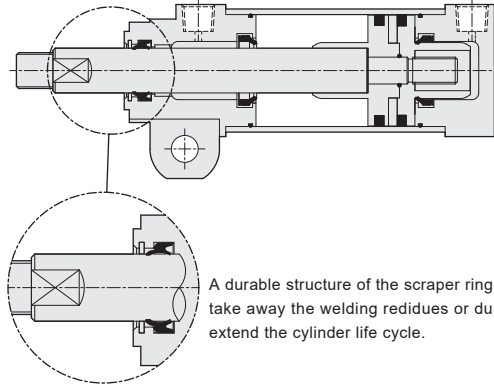
AC 5 - 120V

DCK2S series Clamp Cylinder (strong magnet type)

Product features

CHELIC

Internal structure



Feature:

- The barrel made of aluminum material with anodizing treatment is to give high wearables and to prevent corrosion.
- Adopt the non-lubrication bearing and wearable seal to extend the life cycle.
- Various piping directions option.
- With air cushioning design to reduce impact to cylinder cap.
- The reduced length structure is space-saving.
- Redesign the connection way of the shaft and connectors to strengthen the tip of the shaft.
- The embedded strong magnet is to adopting in a high magnetic environment.

A durable structure of the scraper ring can take away the welding residues or dust to extend the cylinder life cycle.

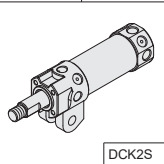
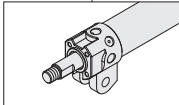
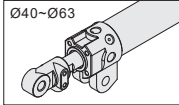
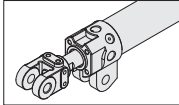
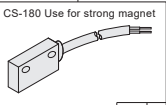
Cautions:

Keep the cylinder away from the electrical environment or magnetic objects such as the watch, the magnet chip, etc. to prevent strong magnet degaussing.

Specification

U groove width	DCK2S-1A	9.2 mm		16.5 mm			28 mm
	DCK2S-1B	12.2 mm		19.5 mm			
Bore size	mm	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80
Action		Double acting					
Fluid		Air					
Pressure range	Kgf/cm ² (kPa)	1 ~ 7 (100~700)					
Ambient and fluid temperature	°C	5 ~ 60					
Piston speed	mm/s	50 ~ 500			50 ~ 350		50 ~ 250
Cushion		Rubber washer		Air cushion on both sides			
Lubrication		Lubrication free type					
Port size		PT 1/8		PT 1/4			PT 3/8
Standard stroke	mm	50, 75, 100, 125, 150					

Code of order

DCK2S	1A	50	×	100	-	Y	-	SB	2
Model	U groove width	Bore size		Stroke		Accessory		Sensor switch	
	1A - 9.2mm 1B - 12.2mm Ø25 ~ Ø32 1A - 16.5mm 1B - 19.5mm Ø40 ~ Ø63 None - 28mm Ø80	25 - Ø25 32 - Ø32 40 - Ø40 50 - Ø50 63 - Ø63 80 - Ø80		50 - 50 mm 75 - 75 mm 100 - 100 mm 125 - 125 mm 150 - 150 mm		 None: Standard  Ø40~Ø63  I : I connector ※ Ø25, Ø32, Ø80 without I pin		 CS-180 Use for strong magnet (CS-180) SS 2 None: Without sensor switch SS : Sensor switch mark (CS-180) 2 : Sensor switch qty 1 = 1 PCS 2 = 2 PCS	

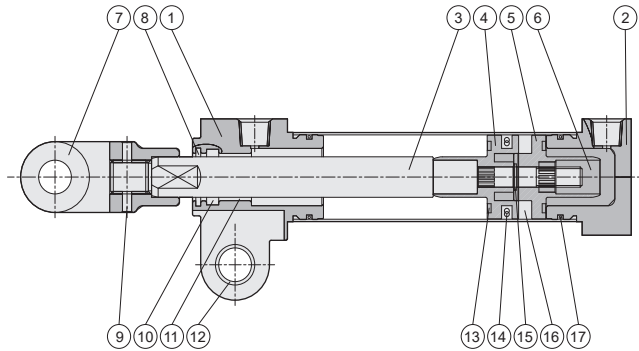
DCK2S series Clamp Cylinder (strong magnet type)

Product features

CHELIC

Internal structure

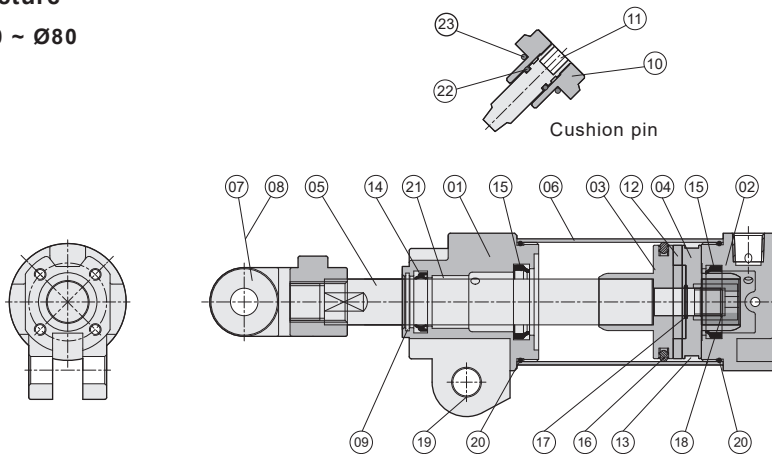
● DCK2S Ø25, Ø32



No.	Item	Material	No.	Item	Material
01	Front cover	Aluminum alloy	10	Piston packing	NBR
02	Rear cover	Aluminum alloy	11	Bearing	—
03	Shaft	Medium carbon steel	12	Bearing	—
04	Piston	POM	13	Cushion gasket	NBR
05	Magnet cover	POM	14	Piston packing	NBR
06	Piston rod screw	Alloy steel	15	O-ring	NBR
07	Rod clevis	Iron	16	Magnet	Rare earth metals
08	Scrap ring	Phosphor copper	17	O-ring	NBR
09	Pin	Spring steel	18		

Internal structure

● DCK2S Ø40 ~ Ø80



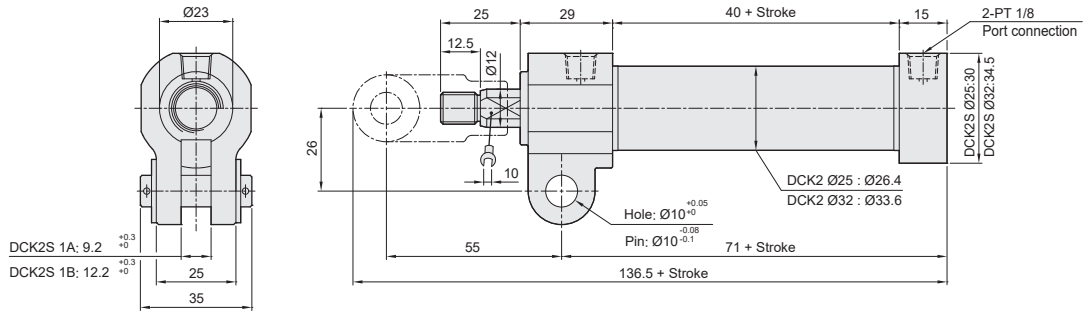
No.	Item	Material	No.	Item	Material
01	Front cover	Aluminum alloy	13	Wear ring	POM
02	Rear cover	Aluminum alloy	14	Shaft packing	NBR
03	Piston	Aluminum alloy	15	Absorbing packing ring	NBR
04	Magnet cover	Aluminum alloy	16	Piston packing	NBR
05	Shaft	Medium carbon steel	17	Shaft O-ring	NBR
06	Barrel	Aluminum alloy	18	Piston rod nut	Alloy steel
07	Rod clevis	Iron	19	Bearing	—
08	I connector	Iron	20	Front/ Rear cover O-ring	NBR
09	Scrap ring	Phosphor copper	21	Bearing	—
10	Absorbing pin body	Iron	22	O-ring	NBR
11	Absorbing pin screw	Iron	23	O-ring	NBR
12	Magnet	Rare earth metals			

DCK2S series Clamp Cylinder (strong magnet type)

Dimensions

CHELIC

◉ DCK2S Ø25, Ø32

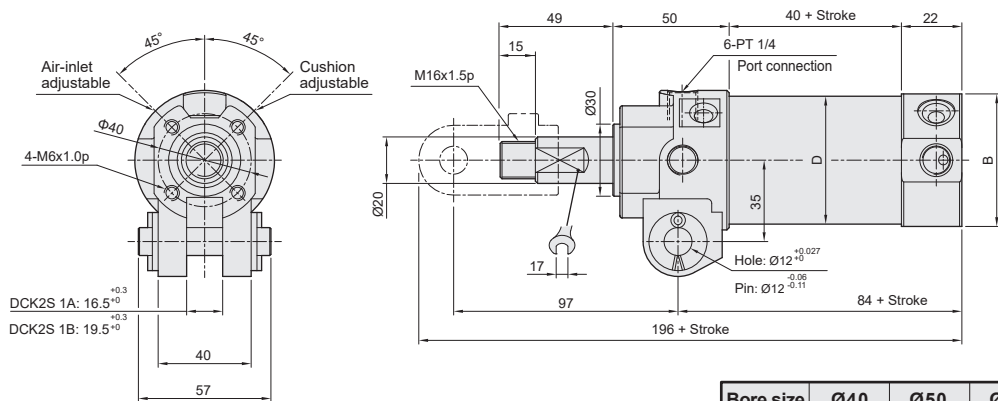


DN

DMB

DU

◉ DCK2S



DNK

DNE

DCK2

DQ

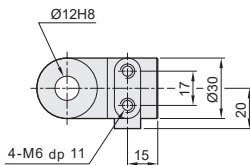
DCQ

Bore size	Ø40	Ø50	Ø63
B	47	57	68
D	Ø45	Ø55	Ø68

◉ Accessory for rod point

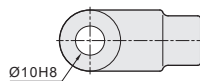
● I connector

- Ø40 ~ Ø63

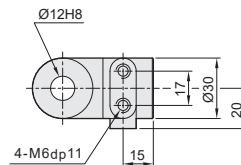


● Rod clevis

- Ø25 ~ Ø32

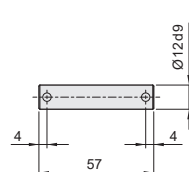
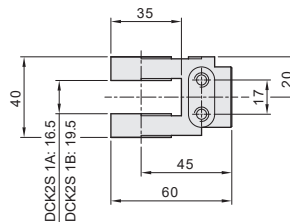
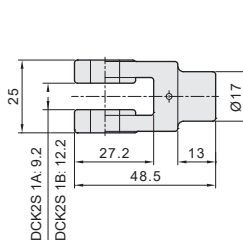
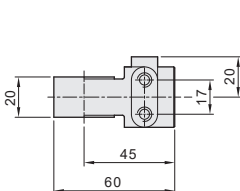
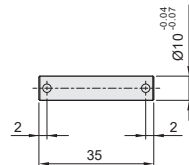


- Ø40 ~ Ø63



● Connect pin

- Ø25 ~ Ø32

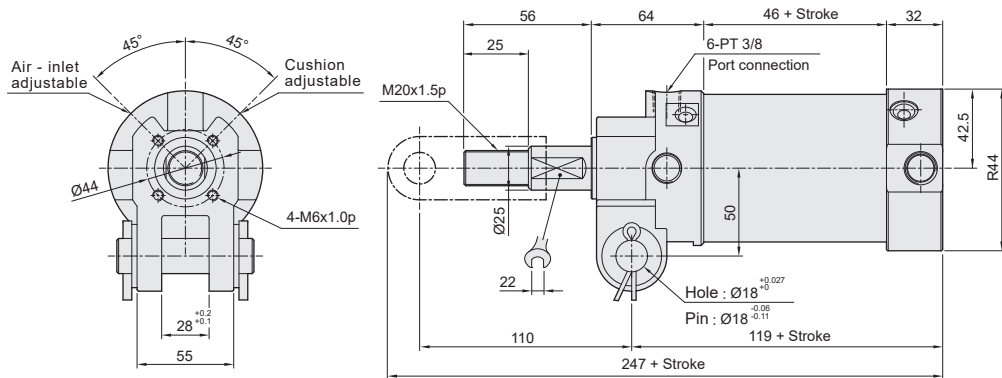


DCK2S series Clamp Cylinder (strong magnet type)

Dimensions

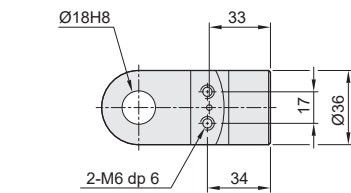
CHELIC

► DCK2S Ø80

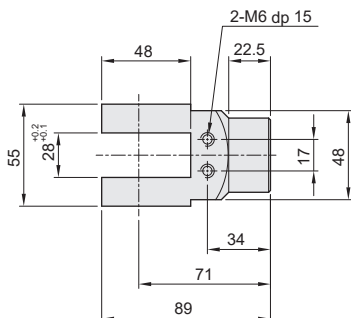
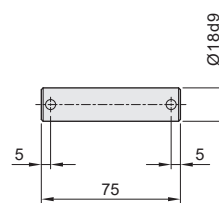


► Accessory for rod point (Ø80)

● Rod clevis



● Connect pin



DCK2S series Clamp Cylinder (strong magnet type)

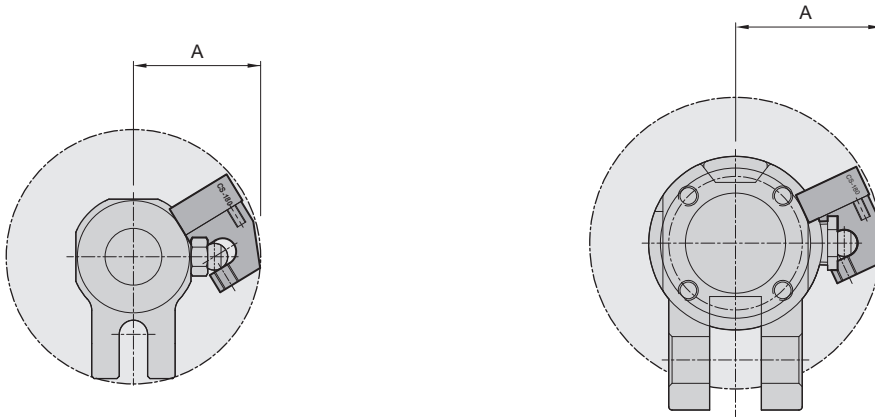
Mounting type and operation of sensor switch

CHELIC

▶ Installing magnet sensor CS-180 external dimension

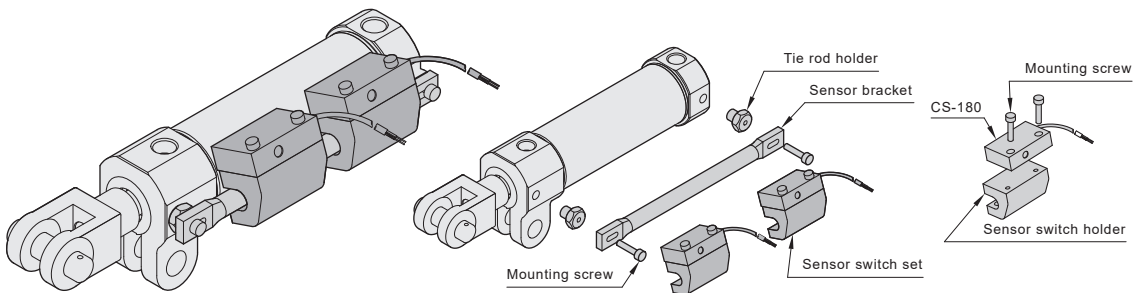
● Bore size: $\varnothing 25 \sim \varnothing 32$

● Bore size: $\varnothing 40 \sim \varnothing 80$



Bore size	25	32	40	50	63	80
Mark						
A	$\varnothing 73$	$\varnothing 77$	$\varnothing 88$	$\varnothing 97$	$\varnothing 111$	$\varnothing 127$

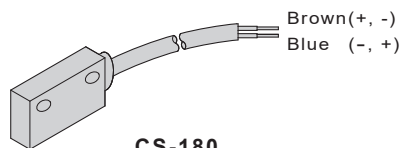
▶ Sensor switch mounting type



● Sensor switch assembling

● Sensor switch assembling expression

▶ Sensor switch introduction



CS-180

Voltage: DC 10 - 28V

DN

DMB

DU

DNK

DNE

DCK2

DQ

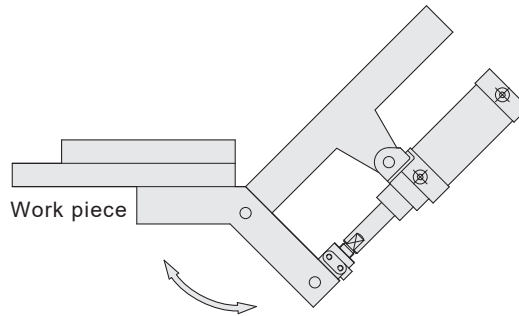
DCQ

DCK2S series Clamp Cylinder (strong magnet type)

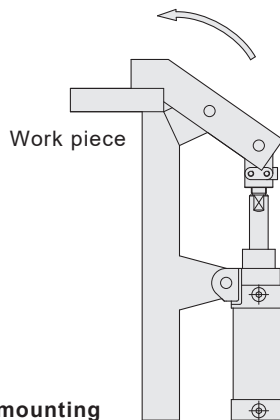
Application example

CHELIC

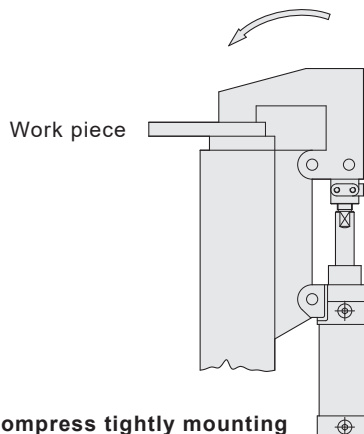
Application example



● Up mounting



● Clip mounting



● Compress tightly mounting