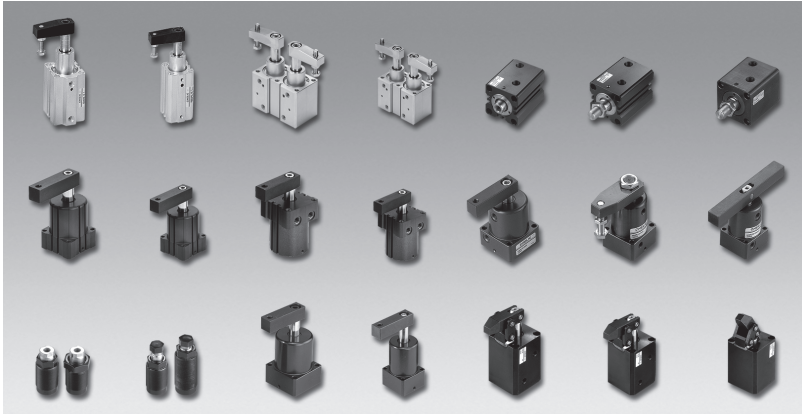


# CLAMP CYLINDER / HYDRAULIC CYLINDER

SCR(L) \ HER \ HSR(L) \ HBR(L) \ HFR(L) \ HUR(L) \ HUK \ HN \ HS \ HCF \ HCS \ HCQ Series **CHELIC PNEUMATIC**



SCR(L) \ HER \ HSR(L) \ HBR(L) \ HFR(L) \ HUR(L) \ HUK \ HN \ HS \ HCF \ HCS \ HCQ Series.

Provide **CAD** external dimension

Use for hold and move in holder and mold structure

**SCR(L)**  
Swing  
Clamp  
Cylinder

**HER**  
Double Rod  
Swing Clamp  
Cylinder

**HSR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HBR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HFR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HUR(L)**  
Hydraulic  
Swing Clamp  
Cylinder

**HUK**  
Hydraulic  
Compact  
Cylinder

**HN**   
Threaded  
Body  
Cylinder

**HS**   
Hydraulic  
Support  
Cylinder

**HCF**  
Compact  
Hydraulic  
Cylinder

**HCS**  
Compact  
Hydraulic  
Cylinder

**HCQ**  
Compact  
Cylinder



**SCR(L)** series --- Swing Clamp Cylinder -----  $\varnothing 12 \sim \varnothing 63$  --- P.20-1.1



**HER** series ----- Double Rod Swing Clamp Cylinder --  $\varnothing 20 \sim \varnothing 40$  --- P.20-2.1



**HSR(L)** series -- Pneumatic Swing Clamp Cylinder ---  $\varnothing 25 \sim \varnothing 63$  --- P.20-3.1



**HBR(L)** series -- Pneumatic Swing Clamp Cylinder ---  $\varnothing 20 \sim \varnothing 80$  --- P.20-4.1



**HFR(L)** series -- Pneumatic Swing Clamp Cylinder ---  $\varnothing 20 \sim \varnothing 63$  --- P.20-5.1



**HUR(L)** series -- Hydraulic Swing Clamp Cylinder -----  $\varnothing 25 \sim \varnothing 63$  --- P.20-6.1



**HUK** series ----- Hydraulic Compact Cylinder -----  $\varnothing 25 \sim \varnothing 63$  --- P.20-7.1



**HN** series ----- Threaded Body Cylinder -----  $\varnothing 12 \sim \varnothing 25$  --- P.20-8.1



**HS** series ----- Hydraulic Support Cylinder -----  $\varnothing 16$  ----- P.20-9.1



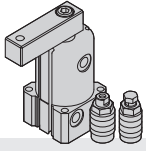
**HCF** series ----- Compact Hydraulic Cylinder -----  $\varnothing 20 \sim \varnothing 80$  --- P.20-10.1



**HCS** series ----- Compact Hydraulic Cylinder -----  $\varnothing 32 \sim \varnothing 63$  --- P.20-10.1



**HCQ** series ----- Compact Cylinder -----  $\varnothing 32 \sim \varnothing 80$  --- P.20-11.1



## **Safety notice / Common caution**

CHELIC PNEUMATIC



Please read this safety notice carefully, pay attention to safety item while using this product, in order to prevent injury to human body and damage of property; thus, there are divided into three classes of " **Danger** " , " **Warning** " , and " **Caution** " according to the extend of prevention.

### **Danger**

Obvious situated at " **Danger** " state, may cause casualty if not avoided; take special safety protection and management to prevent the occurrence of " **Danger** "

### **Warning**

Condition of operation is situated at " **Warning** " state, may cause casualty if not avoided ; take special safety protection and manager to prevent the occurrence of " **Warning** "

### **Caution**

Condition of operation is situated at " **Caution** " state, may cause minor or moderate injury and damage of property if not avoided; take special safety protection and management.

### **Danger**

#### **1. Please never use in the following application**

- Use in operation, delivering and management of the appliance for the purpose of human life and body.
- Use in operation which rise obvious "danger" and safety concern to human life and body.
- Special for safety purpose, situation with impact of safety to human life and body

#### **2. Confirmation of safety shall avoid the following conditions which cause safety impact to human and damage of equipment.**

- Operation of machine, device should note to the drop of driven object or race at the rotation radius and operation range cause injury of human and damage of equipment.
- Operation of machine, device should note the air supply source and poor power supply and interruption and cause injury of human and damage of equipment.
- When restarting the machine, device, may cause object flying out and cause injury of human and damage of equipment.

### **Warning**

#### **1. Please never use in following situation**

- In outdoor dusty condition.
- To avoid chemical , corrosive and inflammable gas ; to avoid sea water , high temperature place in surrounding.
- Exceed the condition in the specification of the product.
- In the place tend to receive rigorous shock impact, which affect the quality and stability of the product.

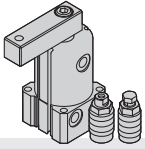
#### **2. Please don't make any modification or disassemble to the structure, function of the product.**

#### **3. Shut off the power switch and air source properly before service and maintenance, to avoid consequent hazard and damage of product.**

#### **4. To avoid consequent hazard and damage of product while assembling and operation.**

### **Caution**

- 1. Pay attention to the cleanliness of the pipeline while piping, to avoid dust, dirt and leak proof tape been sucked into the pipe line and affect the operation performance of the product.**
- 2. There are itemized cautions for various products, please contact our sales representative if you have any question.**



## Safety notice / Use caution

CHELIC PNEUMATIC



Be sure to read before handling and pay attention to the safety caution of this product.

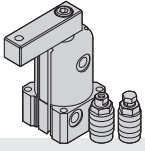
### Caution for service and Selection

#### Warning

- There is possibility of dangerous action by cylinders if sliding parts of machinery are twisted due to force. In this case, human injury may occur, so the machine should be designed to prevent such dangers.
- A protective cover is recommended to reduce the risk of personal injury.
- Securely tighten all stationary parts and connected parts so that they will not become loose.
- When a driven object is operated at high speed or the load is heavy, a cylinder's cushion will most likely not be sufficient to absorb the impact. Installing a deceleration circuit to reduce the speed before cushioning or install an external shock absorber to relieve the impact. In this case, the rigidity of the machinery should be checked.
- When a cylinder is used as a clamping mechanism, there is a danger of work pieces dropping if there is a decrease in clamping force due to a drop in circuit pressure caused by a power outage. Therefore, safety equipment should be installed to prevent human injury or damage to machinery. Suspension mechanisms require for drop prevention measures.
- It should not cause human injury and device damage when the power is lost which is controlled by air pressure, electricity, or hydraulics. It should not cause human injury and device damage when the power is lost which is controlled by air pressure, electricity, or hydraulics.
- When hydraulic pressure in cylinder is zero, the driven object will lurch at high speed if pressure is applied to one side of the piston. In this case human injury and machine may damage, so equipment should be selected and circuits designed to prevent sudden lurching.
- Design the system so that body injury and damage to machinery and equipment will not occur when machinery is stopped by a manual emergency stop or a safety device triggered by abnormal conditions.
- Design machinery so that body injury or equipment damage will not occur upon restart of operation. When the cylinder has to be reset at the starting position, install manual safety equipment.
- Designer of hydraulic and person who decide specification should judge the type of hydraulic suitable or not. There are lots of conditions for the products in catalog, so it should be decided by Designer of hydraulic and person who decides specification should judge the type of hydraulic suitable or not. In necessary, it should be tested and analyzed to decide the reasonability of person. It also needs to be checked the all content by the latest catalog and information and consider the condition for break to finish final hydraulic system.
- Hydraulic accessories are used in following condition and environment. For the safety, please contact with us.
  1. Use in outside or the dimension of condition and environment which are not recorded in the catalog.
  2. Use in atomic, railway, air freight, car, medical machine, food, drink machine, entertainment and safety machine.
  3. It occurs huge effect for human especially in request for safety.
- Confirm the specification  
The products featured in this catalog are designed strictly for use in industrial oil hydraulic system applications. If the products are used in conditions that are outside the range of pressure and temperature specifications, damage and malfunction may occur. Do not use in these conditions. Please contact CHELIC if a fluid other than hydraulic fluid is to be used.
- Intermediate stops  
Because hydraulic cylinders are not guaranteed for zero oil-leakage, it may not guarantee for stop in long time.
- Take surge pressure into consideration  
Use cylinders which can withstand the surge pressures generated in hydraulic systems (refer to specification). Pressure terminology used in this catalog is defined as following.
  - Nominal pressure : It is not necessary the same as the operating pressure which guarantees performance under specified conditions.
  - Maximum allowable pressure : The maximum allowable value for the pressure that is generated inside cylinders.
  - Proof pressure : Test pressure that the cylinder must be able to withstand without lowering system performance when returning to the nominal pressure.
  - Minimum operating pressure : Minimum pressure at which a horizontally installed cylinder operates with no load.
- Take into account compatibility with hydraulic fluids.

Hydraulic fluid	Compatibility
Standard mineral hydraulic fluid	O
W/O hydraulic fluid	O
O/W hydraulic fluid	O

Hydraulic fluid	Compatibility
Water-Glycol hydraulic fluid	X
Phosphate hydraulic fluid	X



## Safety notice / Use caution

CHELIC PNEUMATIC

### Caution

- Use the product within the limits of the maximum usable stroke.  
The piston rod will be damaged if operated beyond the maximum stroke.
- Operate the piston within a range such that collision damage will not occur at the stroke end.  
Operate within a range such that damage will not occur when the piston having inertial force stops by striking the cover at stroke end.  
When using a cylinder with no cushion, the speed when the piston strikes the cover should be decreased to 50mm/sec or lower (it can't hear metallic sound), or a stopper should be installed on the outside.
- Use a flow control valve to adjust the hydraulic cylinder drive speed, gradually increasing from a low speed to the desired speed setting.
- Safety comments are setting according **ISO 4414 : Pneumatic fluid power** and **JSI B 8370** air system regulation.

### Mounting

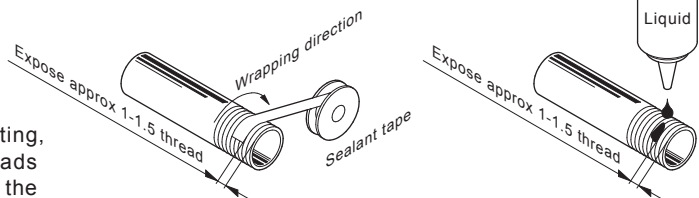
#### Caution

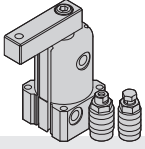
- Be sure person who uses hydraulic accessories with knowledge  
It may be dangerous for mistake to use hydraulic, so it should be processed for person with knowledge.
- Before checking facility safety, do not use hydraulic facility or take out accessory from it.
  1. Before checking and fixing, it must be confirm the object has device to prevent drop down.
  2. After checking device is safe, it should be turn off the power and check no pressure in system to take out accessory from hydraulic accessories.
  3. Before operating hydraulic accessories, it should make sure the rod will not extend.
- The axis of piston rod and the movement direction of load should be connected consist.  
If it is not consist, the piston rod and barrel will leave axis. It will cause direction bush and the face of piston rod will damage easily.
- In external section, the top of rod connect with load will not allow leaving axis.
- The slide section in barrel will not allow hit by object. It is because the surface of barrel is produce precision. If it damages a little, it will cause operating not easiness.
- Before checking accessory operating normally, do not use it.  
After mounting, fixing and changing, it should check function and leakage before using.

### Piping

#### Caution

- Preparation before piping
- Wrapping of pipe tape  
When screwing together pipes and fitting, be sure that chips from the pipe threads and sealing material do not get inside the piping. Also, when sealant tape is used, leave 1.5 to 2 thread ridges exposed at the end of the pipe.
- Operate after opening the air release valve and completely releasing any internal air.  
Residual air can cause malfunction.
- When adjusting the air release, do not loosen the plug too much.  
If loosening the plug too much may cause it to fly out or fluid to blow out, posing a danger o human injury.





## **Safety notice / Use caution**

CHELIC PNEUMATIC

Safety notice

### **Hydraulic fluid**

#### **Warning**

- Use clean fluid

Do not use deteriorated fluid or fluid containing foreign matter, moisture or corrosive additives, as this can cause the malfunction and damage or corrosion of parts.

#### **Caution**

- Install hydraulic fluid filters.

Provide hydraulic system with hydraulic fluid filters with a filtration degree of 10µm or finer.

- Use the product within the specified range of fluid and ambient temperature.

To prevent freezing, since moisture in hydraulic fluid will freeze at 0C or below, and this may cause damage to seals and lead to malfunction.

- Use hydraulic fluid with a viscosity grade equivalent to ISO VG32 or VG46

### **Operating environment**

#### **Warning**

- Do not use in an environment where there is a danger of corrosion.  
Please refer dimension figure.

- Install a protective cover if the product is to be used in a dusty environment or where it will be exposed to chips and spatter.

When water droplets or coolant are spattering, use a water resistant hydraulic cylinder.  
Maintenance.

### **Caution for maintenance**

#### **Warning**

- Perform maintenance inspection according to the procedures indicated in the operation manual.  
If using in mistake, malfunction and damage of machinery or equipment may occur.

- Removal of equipment

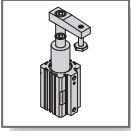
When machinery is removed, be sure there are measures in place to prevent the fall or sudden, erratic movement of driven objects and equipment. Then cut of the air supply and electric power, and reduce the pressure in the system to zero. Also, please make sure the device is processed which are prevented sudden movement when starting.

#### **Caution**

- It should be protected filter regularity to keep clean oil.  
If cylinder has something impurity, the piston ring and piston rod will damage.

---

A large grid of graph paper, consisting of 20 columns and 30 rows of small squares, intended for taking notes or drawing diagrams.

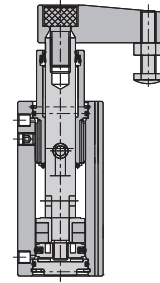


# SCR (L) series - SWING CLAMP CYLINDER

Operation specification and Ordering expression

CHELIC PNEUMATIC

## Internal structure



## Specification

New

New

Item	Bore size (mm)	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63
Operation		Double acting							
Fluid		Air							
Pressure range	kgf/cm <sup>2</sup> (kpa)	1.5 ~ 9.5 (150 ~ 950)							
Operating temperature range	°C	0 ~ 60°C							
Range of service speed	mm / sec	30 ~ 500							
Rotation stroke	mm	7		10		15		19	
Under pressure stroke	mm	10, 20		10, 20		10, 20		25, 50	
Rotation angle		90°±10°							
Rotation direction		Left ( From right to left ) - L ; Right ( From left to right ) - R							
Cushion device		Rubber lining							
Lubrication		Lubrication free							
Connection port		M5x0.8P				Rc 1/8		Rc 1/4	
Magnetic device		With magnet							

**SCR(L)**  
Swing  
Clamp  
Cylinder

**HER**  
Double Rod  
Swing Clamp  
Cylinder

**HSR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HBR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HFR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HUR(L)**  
Hydraulic  
Swing Clamp  
Cylinder

**HUK**  
Hydraulic  
Compact  
Cylinder

**HN**   
Threaded  
Body  
Cylinder

**HS**   
Hydraulic  
Support  
Cylinder

**HCF**  
Compact  
Hydraulic  
Cylinder

**HCS**  
Compact  
Hydraulic  
Cylinder

**HCP**  
Compact  
Cylinder

## Weight

Unit : kg

Stroke	Bore size	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Stroke	Bore size	Ø50	Ø63
10		0.1	0.2	0.3	0.4	0.6	0.8	25		1.5	2
20		0.1	0.2	0.3	0.4	0.6	0.8	50		1.6	2

## How to order

**SC** | **R**      **32**      ×      **10**      -      **F**      -      **SE** | **2**

**Model**      **Bore size**      **Stroke**      **With mounting base**      **Sensor switch**

**L** : Left rotation type  
(From right to left)

**R** : Right rotation type  
(From left to right)

12 — Ø12mm  
16 — Ø16mm  
20 — Ø20mm  
25 — Ø25mm  
32 — Ø32mm  
40 — Ø40mm  
50 — Ø50mm  
63 — Ø63mm

Press stroke  
(Not include rotation stroke)

Ø12 - 10 , 20 mm  
Ø16 - 10 , 20 mm  
Ø20 - 10 , 20 mm  
Ø25 - 10 , 20 mm  
Ø20 - 10 , 20 mm  
Ø25 - 10 , 20 mm  
Ø32 - 10 , 20 mm  
Ø40 - 10 , 20 mm  
Ø50 - 25 , 50 mm  
Ø63 - 25 , 50 mm

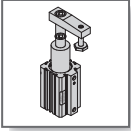
None : without mounting base  
F : with mounting base

CS-30E      **SE** | **2**

Note : For 20 ~ 63  
**SE** : Sensor code (CS-30E)  
**2** : Number of sensor

CS-9D      **SD** | **2**

Note : For 12 ~ 63  
**SD** : Sensor code (CS-9D)  
**SB** : Sensor code (CS-9B)  
**SH** : Sensor code (CS-9H)  
**SDN** : Sensor code (CS-9DNP)  
**SDPN** : Sensor code (CS-9DPNP)  
**2** : Number of sensor  
1 = 1 PCS  
2 = 2 PCS  
(option)



# SCR (L) series - SWING CLAMP CYLINDER

## Theoretical output and Caution

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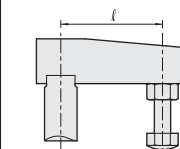
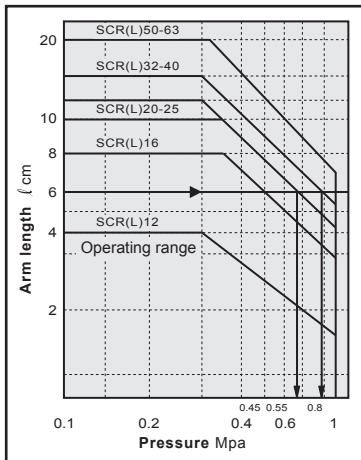
### Theoretical output

Model	Rod size (mm)	Operating direction	Piston area (cm <sup>2</sup> )	Operating pressure (kgf / cm <sup>2</sup> )			
				3	5	7	10
SCR(L)12	6	Clamp	0.8	2.4	4	5.6	8
		Unclamp	1.1	3.3	5.5	7.7	11
SCR(L)16	8	Clamp	1.5	4.5	7.5	10.5	15
		Unclamp	2	6	10	14	20
SCR(L)20	12	Clamp	2	6	10	14	20
		Unclamp	3	9	15	21	30
SCR(L)25	12	Clamp	3.7	11.1	18.5	25.7	37
		Unclamp	4.9	14.7	24.5	34.3	49
SCR(L)32	16	Clamp	6	18	30	42	60
		Unclamp	8	24	40	56	80
SCR(L)40	16	Clamp	10.5	31.5	52.5	73.5	105
		Unclamp	12.5	37.5	62.5	87.5	125
SCR(L)50	20	Clamp	16.5	49.5	82.5	115.5	165
		Unclamp	19.6	58.8	98	137.2	196
SCR(L)63	20	Clamp	28	84	140	196	280
		Unclamp	31.2	93.6	156	218.4	312

### Caution

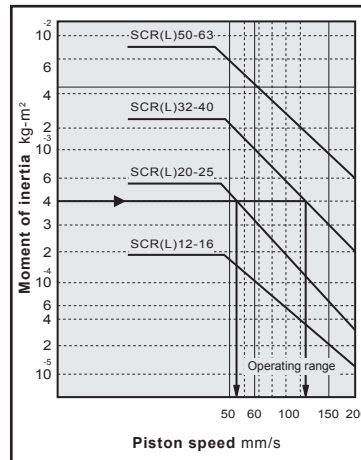
- The highest using pressure and cylinder speed will change with are length. If arm is too big or operated fast, it will cause cylinder damaged, please follow figure 1 and 2 to design.
- An area in which fluids such as cutting oil splash on the piston rod is not allowed; it may cause packing damage and leakage.
- It should be parallel for push tightly section and cylinder installation section.
- Do not clamp during the rotary stroke and make sure clamp tightly before working.
- Do not operate the cylinder horizontally, it will cause cylinder damaged.
- During the removal or reinstallation of the clamp arm, make sure to use a wrench or a vise to secure the clamp arm before removing or tightening the bolt. Refer to the table 3 for the tightening torque for mounting.

Table 1



**For example**  
 When arm length is 6 cm, pressure should be less than  
 SCR(L)20 - 25 : 0.65Mpa  
 SCR(L)32 - 40 : 0.9Mpa  
 SCR(L)50 - 63 : 1Mpa

Table 2

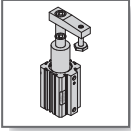


**For example**  
 When arm's moment of inertia is  $4 \times 10^{-4} \text{kg-m}^2$ , cylinder speed should be less than  
 SCR(L) 20 - 25 : 55mm/s  
 SCR(L) 32 - 40 : 120mm/s

Table 3

Stroke (mm)	Proper tightening torque N-m
Ø12	0.4 ~ 0.6
Ø16	2 ~ 2.4
Ø20 , Ø25	4 ~ 6
Ø32 , Ø40	8 ~ 10
Ø50 , Ø63	14 ~ 16





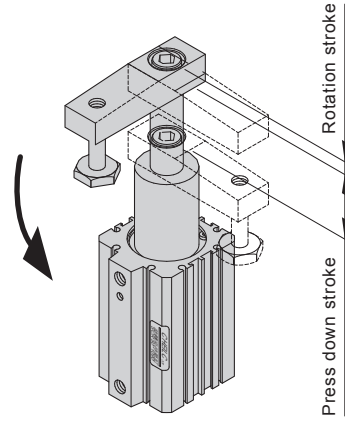
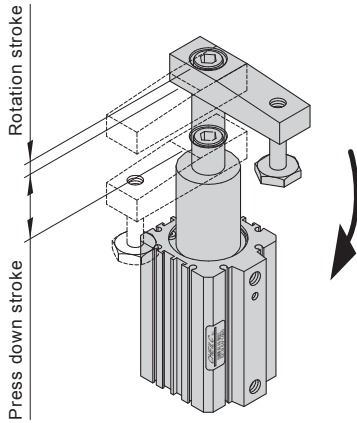
# SCR (L) series - SWING CLAMP CYLINDER

Mounting type

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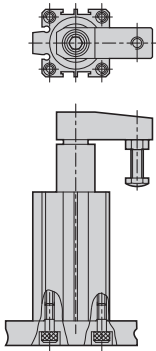
## Left rotation - SCL series

## Right rotation - SCR series

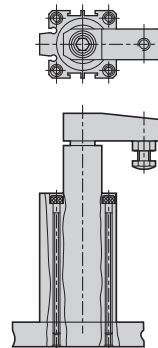


## Mounting type

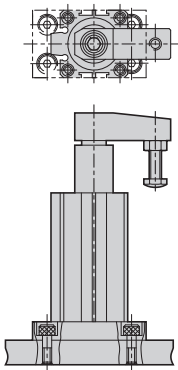
### Base mounting type



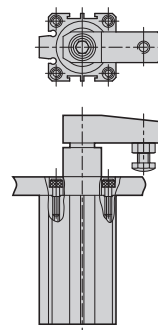
### Top mounting type



### Base mounting type - F



### Top mounting type



**SCR(L)**  
Swing  
Clamp  
Cylinder

**HER**  
Double Rod  
Swing Clamp  
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Pneumatic  
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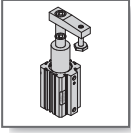
**HN**   
Threaded  
Body  
Cylinder

**HS**   
Hydraulic  
Support  
Cylinder

**HCF**  
Compact  
Hydraulic  
Cylinder

**HCS**  
Compact  
Hydraulic  
Cylinder

**HCC**  
Compact  
Cylinder



# SCR (L) series - SWING CLAMP CYLINDER

**New**

External dimensions

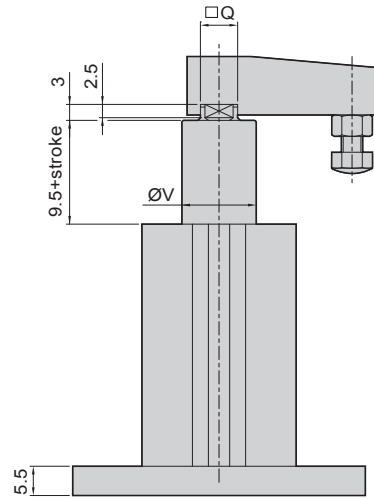
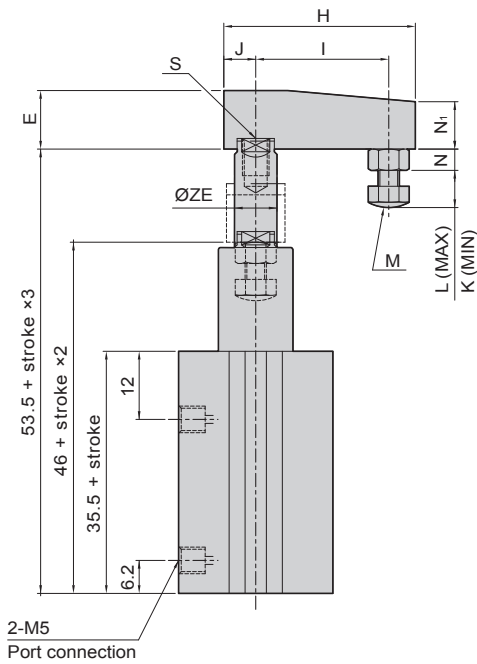
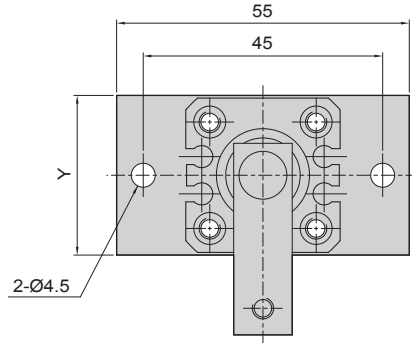
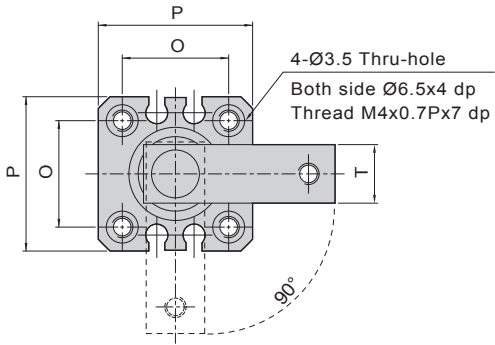
CHELIC PNEUMATIC

## SCR(L) Ø12 · Ø16

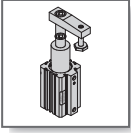
- Base mounting type



SCR(L) □ x □ ST



Bore size	E	H	I	J	K	L	M	N	N1	O	P	Q	S	T	V	Y	ZE
Ø12	8	29	20	5	6	15	M3x0.5p×25L Hexagon bolt	2.5	6.5	15.5	25	5	M3x0.5p×5.5 dp	8	11	25	6
Ø16	11	36	25	6	6	15	M4x0.7p×25L Hexagon bolt	3	9	20	29	7	M5x0.8p×6.5 dp	11	14	30	8



# SCR (L) series - SWING CLAMP CYLINDER

External dimensions

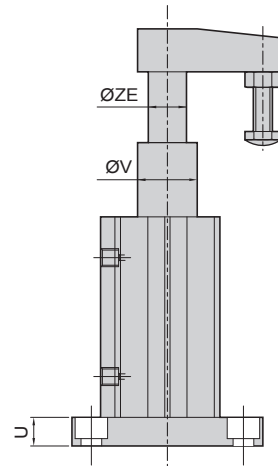
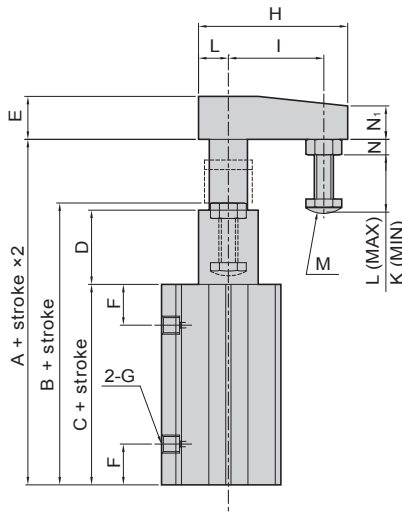
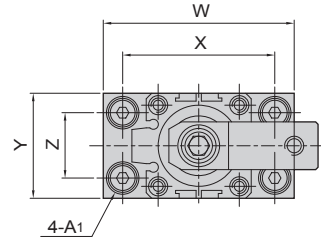
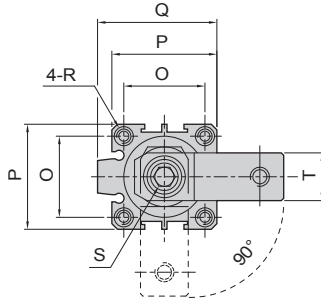
CHELIC PNEUMATIC

## SCR(L) Ø20 ~ Ø63

- Base mounting type



SCR(L) □ x □ ST



**SCR(L)**  
Swing  
Clamp  
Cylinder

**HER**  
Double Rod  
Swing Clamp  
Cylinder

**HSR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HBR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HFR(L)**  
Pneumatic  
Swing Clamp  
Cylinder

**HUR(L)**  
Hydraulic  
Swing Clamp  
Cylinder

**HUK**  
Hydraulic  
Compact  
Cylinder

**HN** □  
Threaded  
Body  
Cylinder

**HS** □  
Hydraulic  
Support  
Cylinder

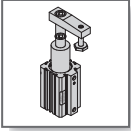
**HCF**  
Compact  
Hydraulic  
Cylinder

**HCS**  
Compact  
Hydraulic  
Cylinder

**HCQ**  
Compact  
Cylinder

Bore size	A	A <sub>1</sub>	B	C	D	E	F	G	H	I	J	K	L	M
Ø20	92.3	Thru-hole Ø5.5, Spot facing Ø9.5 x 5.5dp	82.3	59.5	20.3	15	7.5	M5x0.8p	51	35	9	4	12	M6x1.0px25L Hexagon bolt
Ø25	93.6	Thru-hole Ø6.5, Spot facing Ø11 x 6.5 dp	83.6	61.2	20	15	8	M5x0.8p	51	35	9	4	12	M6x1.0px25L Hexagon bolt
Ø32	113	Thru-hole Ø6.5, Spot facing Ø11 x 6.5 dp	98	64	31	18	9	PT 1/8	62.5	40	12.5	5.5	25	M8x1.25px40L Hexagon bolt
Ø40	116.9	Thru-hole Ø9 , Spot facing Ø14 x 8.5 dp	100	66.5	30.3	18	10	PT 1/8	62.5	40	12.5	5.5	25	M8x1.25px40L Hexagon bolt
Ø50	159.5	Thru-hole Ø9 , Spot facing Ø14 x 8.5 dp	140.9	78.6	59.6	22	10.8	PT 1/4	94	60	20	8	32	M10x1.5px50L Hexagon bolt
Ø63	162.8	Thru-hole Ø9 , Spot facing Ø14 x 8.5 dp	143.8	82.5	58.6	22	11	PT 1/4	94	60	20	8	32	M10x1.5px50L Hexagon bolt

Bore size	N	N <sub>1</sub>	O	P	Q	R	S	T	U	V	W	X	Y	Z	ZE
Ø20	5	12	24	34	—	Both side Ø4.3, Thread M5x0.8x6 dp : Spot facing Ø7x5 dp : Both side	M8x1.25p Bolt	16	8	19	62	48	35	22	12
Ø25	5	12	28	40	—	Both side Ø5.1, Thread M6x1x8 dp : Spot facing Ø8x6 dp : Both side	M8x1.25p Bolt	16	10	24	70	55	40	28	12
Ø32	6.5	14	34	44	50	Both side Ø5.1, Thread M6x1x8 dp : Spot facing Ø8x6 dp : Both side	M10x1.5p Bolt	20	10	30	76	60	46	30	16
Ø40	6.5	14	40	52	58	Both side Ø6.8, Thread M8x1.25x10 dp : Spot facing Ø9.5x8 dp : Both side	M10x1.5p Bolt	20	12	30	86	70	55	40	16
Ø50	8	18	48	62	71	Both side Ø6.8, Thread M8x1.25x10 dp : Spot facing Ø11x8.5 dp : Both side	M12x1.5p Bolt	26	12	39	96	80	63	40	20
Ø63	8	18	60	75	84.5	Both side Ø6.8, Thread M8x1.25x10 dp : Spot facing Ø11x8.5 dp : Both side	M12x1.5p Bolt	26	12	50	108	92	75	60	20

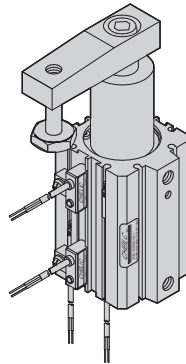


# SCR (L) series - SWING CLAMP CYLINDER

(with sensor switch)

Sensor switch operating range and Setting

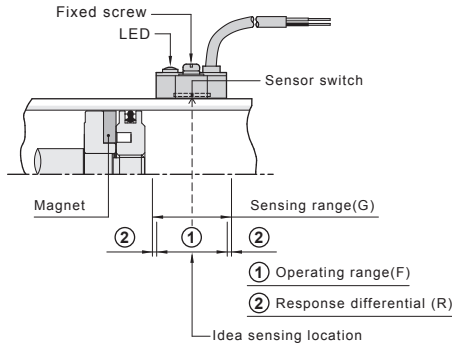
CHELIC PNEUMATIC



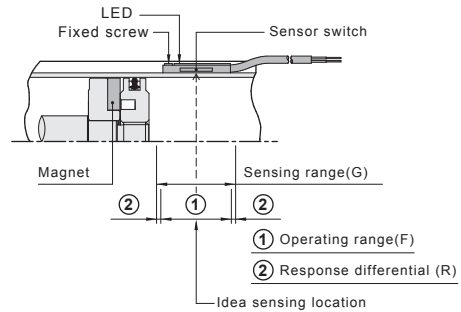
- CS - 30E
- CS - 9D
- CS - 9B
- CS - 9H Installation
- SCR(L) Series

## Setting and Operating of sensor switch

### ● CS - 30E



### ● CS - 9D(B)(H)



## ● 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.

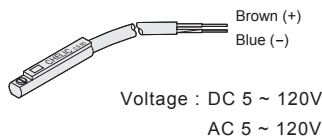
## ● Operating range

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)

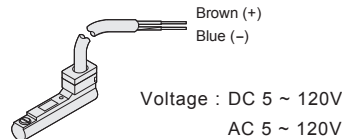
Model	CS-30E		CS-9D(B)	
	Operating range (F)	Response differential (R)	Operating range (F)	Response differential (R)
Ø12	—	—	6	1.5
Ø16	—	—	5	1.6
Ø20	9	1	8	1
Ø25	11	1	9	1
Ø32	8.5	1	7	1
Ø40	11	1	8	1
Ø50	11	1.2	9	1.2
Ø63	13	1.2	10.5	1.2

## ● Connection type

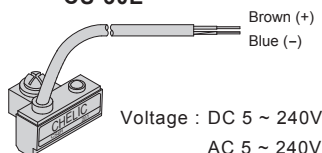
### CS-9D



### CS-9B



### CS-30E



### CS-9H

