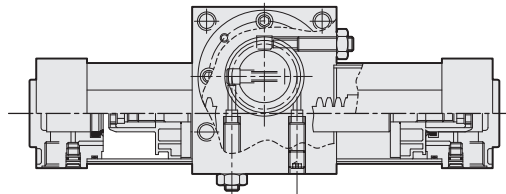
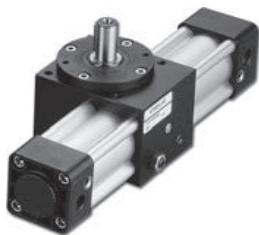


# RTH series - Rotary cylinder

Operating specification and Ordering expression

CHELIC PNEUMATIC

## Internal structure



## Specification

Item	Model	RTH40 - □	RTH63 - □	RTH80 - □
Operation		Double acting		
Fluid		Air		
Torque	N·m	10	40	60
Axis size		Ø16	Ø24	Ø28
Rotation angle		90° , 180°		
Adjustment angle		±5°		
Prot size		G 1/4	G 3/8	
Pressure range	kgf/cm <sup>2</sup> (Kpa)	1.5 ~ 7 ( 150 ~ 700 )		
Temperature range	°C	-10° ~ 60°		
Mass	MAX	10 kg	12 kg	20 kg

**RTM**  
Rotary  
Cylinder

**RTB**  
Rotary  
Cylinder

**RTBM**  
Rotary  
Cylinder

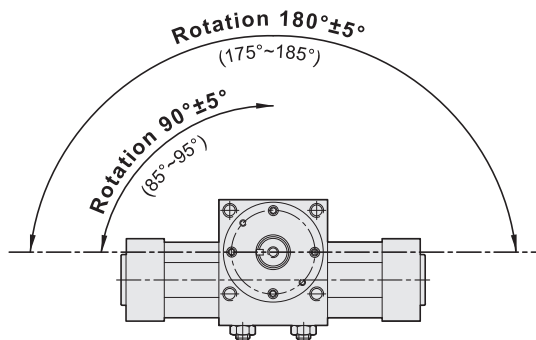
**RTZB**  
Rotary  
Cylinder

**RTP**  
Rotary  
Cylinder

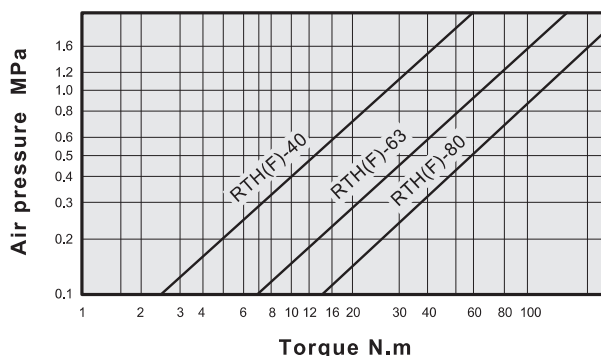
**RTH**  
Rotary  
Cylinder

**RTU**  
Hydraulic  
Cylinder

## The range of rotation angle



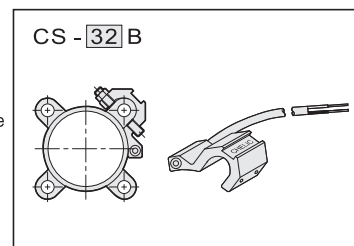
## Output characteristics



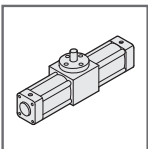
## How to order

RTH	63	180	F	SB	2
Model	Torque	Rotation angle	Rod type	Sensor switch	
RTH series	40 : Ø40mm	90° - 90°	None : Single rod ( Rod / Outer ditch )	[SB] : Sensor switch code	[2] : Number of sensor switch
Rotary cylinder	63 : Ø63mm 80 : Ø80mm	180° - 180°	F: Inner hole type ( Without rod / inner ditch )	1= 1 PCS 2= 2 PCS (option)	
			2D : Double rod ( Double rod / Outer ditch )	Sensor switch :	
				Use for CS32B - Ø40	
				Use for CS50B - Ø63	
				Use for CS80B - Ø80	

## Sensor switch



■ Sensor switch formulation refer P.6-2.20 DN series

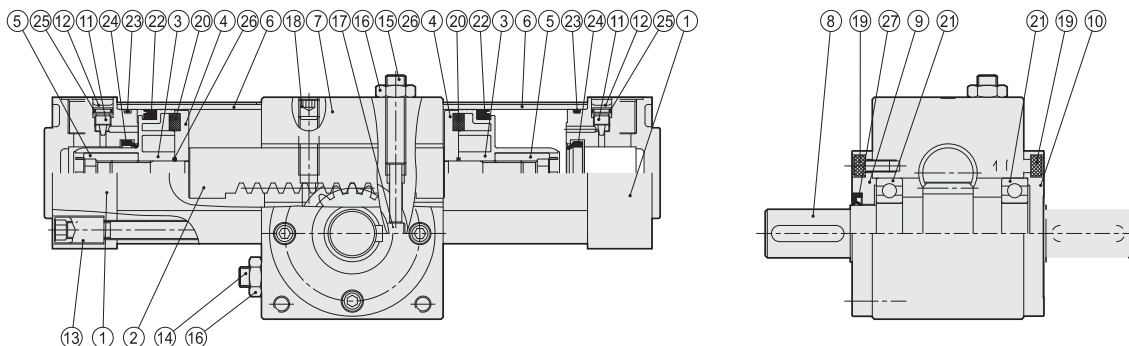


# RTH series - Rotary cylinder

## Components and Material list

CHELIC PNEUMATIC

### Internal structure



### How to order

Bore size	Seal kit
40	RTH40 - NO.22,23,24,26,27
63	RTH63 - NO.22,23,24,26,27
80	RTH80 - NO.22,23,24,26,27

Bore size	Seal kit
40	RTH-2D40 - NO.22,23,24,26,27
63	RTH-2D63 - NO.22,23,24,26,27
80	RTH-2D80 - NO.22,23,24,26,27

Bore size	Seal kit
40	RTH-F40 - NO.22,23,24,26,27
63	RTH-F63 - NO.22,23,24,26,27
80	RTH-F80 - NO.22,23,24,26,27

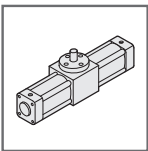
### Components and Material list

No.	Item	Material	No.	Item	Material
01	End cap	Aluminum alloy	15	Adjusting screw	Alloy steel
02	Rack	Alloy steel	16	Lock nut	Alloy steel
03	Piston body	Aluminum alloy	17	Stopper pin	Alloy steel
04	Magnet holder	Aluminum alloy	18	Set screw	Alloy steel
05	Piston nut	Alloy steel	19	Screw	Alloy steel
06	Cylinder tube	Aluminum alloy	20	Magnet	Resinous magnet
07	Housing	Aluminum alloy	21	Ball bearing	Bearing steel
08	Pinion shaft	Alloy steel	22	Piston packing	NBR
09	End cover	Aluminum alloy	23	Cylinder gasket	NBR
10	End cover	Aluminum alloy	24	Cushion packing	NBR
11	Cushion needle	Alloy steel	25	Cushion packing	NBR
12	Washer	Spring steel	26	Piston packing	NBR
13	Tie screw	Alloy steel	27	Rod packing	NBR
14	Adjusting screw	Alloy steel			

### Weight

Unit : Kg

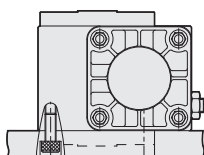
Bore size	RTH model		RTH-2D model		RTH-F model		Sensor switch
	90°	180°	90°	180°	90°	180°	
Ø 40	3.00	3.10	3.05	3.15	2.84	2.94	0.065
Ø 63	5.40	5.80	5.55	5.95	5.07	5.47	0.066
Ø 80	9.75	10.30	9.999	10.54	9.19	9.74	0.086



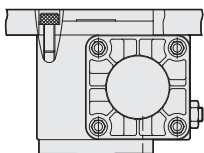
# RTH series - Rotary cylinder

## Mounting type and External dimensions

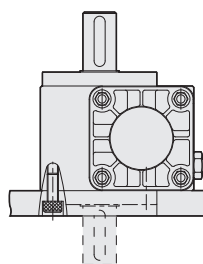
CHELIC PNEUMATIC



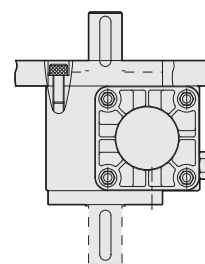
● Inner hole type  
( Bottom mounting )



● Inner hole type  
( Top mounting )

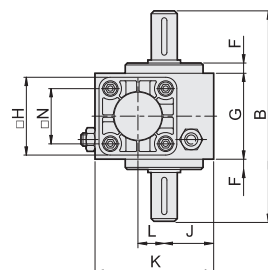
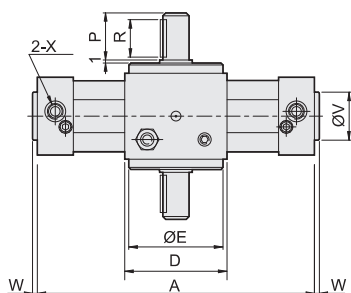
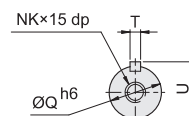
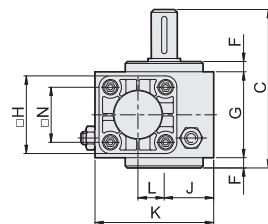
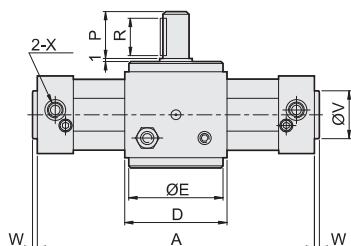
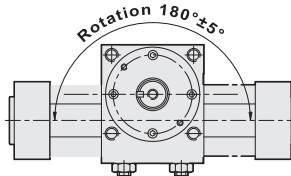
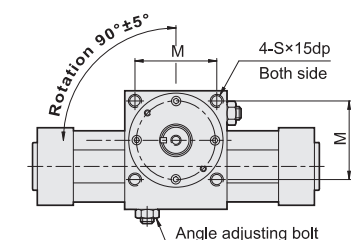


● Standard/Double rod  
( Bottom mounting )



● Standard/Double rod  
( Top mounting )

### ► RTH series



**RTM**  
Rotary  
Cylinder

**RTB**  
Rotary  
Cylinder

**RTBM**  
Rotary  
Cylinder

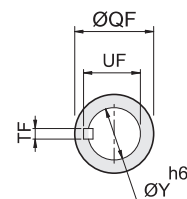
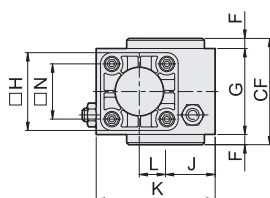
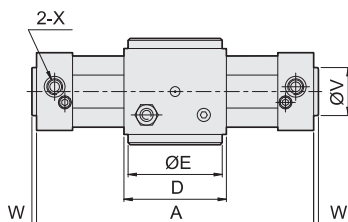
**RTZB**  
Rotary  
Cylinder

**RTP**  
Rotary  
Cylinder

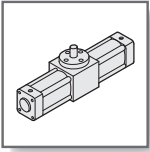
**RTH**  
Rotary  
Cylinder

**RTU**  
Hydraulic  
Cylinder

### ► Female axis (F)



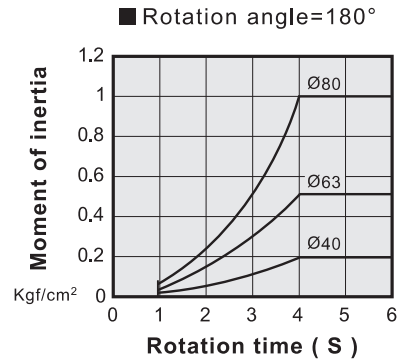
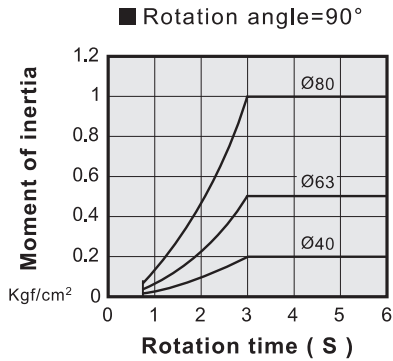
Model	A		B	C	CF	D	E	F	G	H	J	K	L	M	N	NK	P	Q	QF	R	S	T	TF	U	UF	V	W	X	Y	Z
	90°	180°																												
RTH40	263	326	143	112	81	75	72	8	65	53	37.5	93	27.5	60	38	M5	30	16	25	25	M6	5	5	18	16.5	35	4	G1/4	14	M6
RTH63	306	377	181	138	95	90	82	10	75	75	42.5	110	30	70	56.5	M8	42	24	30	36	M8	8	6	27	22	45	5	G3/8	19	M8
RTH80	343	428	221	170	119	105	96	12	95	95	51.5	135	36	82	72	M8	50	28	35	45	M10	8	6	31	27.5	45	6	G3/8	24	M10



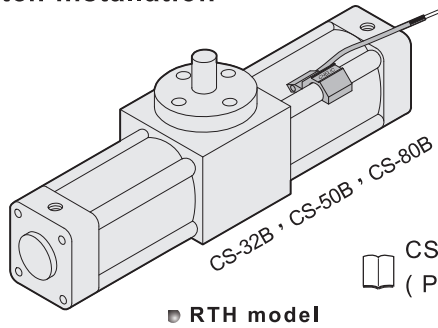
# RTH series - Rotary cylinder

Sensor switch operating range and Sensing location **CHELIC PNEUMATIC**

## ▶ Moment of inertia table



## ▶ Sensor switch installation

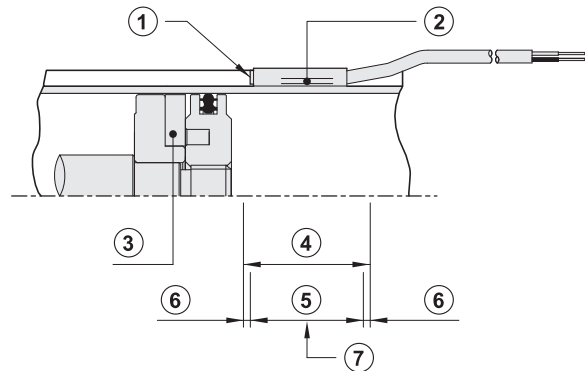


CS-32B, CS-50B, CS-80B  
( Please refer to P.6-2.20 for sensor switch specification )

## ▶ Setting and Operating of sensor switch

### ● CS - 32 B

- ① Indicator light
- ② Sensor switch
- ③ Magnet
- ④ Operating range
- ⑤ Setting range
- ⑥ Response differential
- ⑦ Idea sensing location



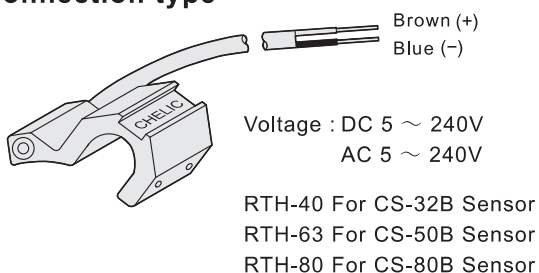
## ▶ Sensing range

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 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)

## ▶ Connection type



Unit : mm

Model	CS - 32E	
Bore size	Operating range (F)	Response differential(R)
RTH-40	12	2 ~ 3
RTH-63	15	2 ~ 3
RTH-80	20	2 ~ 3