

Gear-type Linear Rotary Cylinder

Industries served



AUTOMATION
INDUSTRY



MACHINE TOOL
INDUSTRY



TESTING
EQUIPMENT



AUTOMOTIVE

JRB Series

Bore size: Ø32, Ø40



Dual-action Mechanism

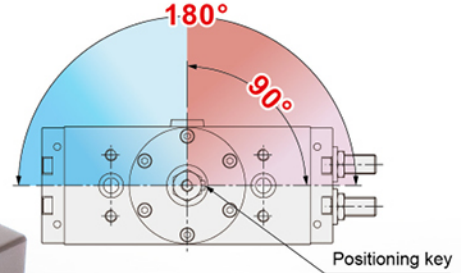
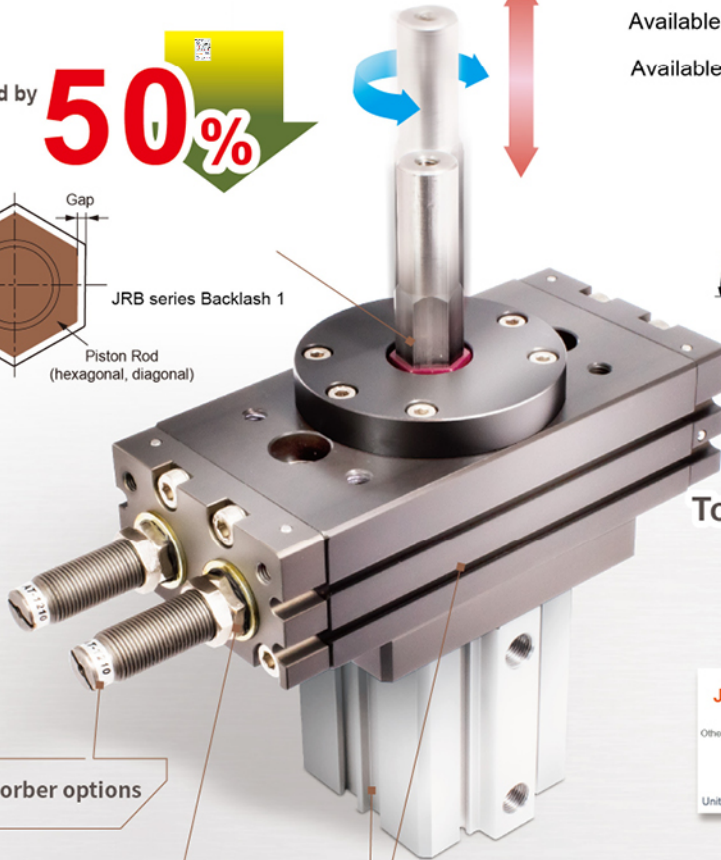
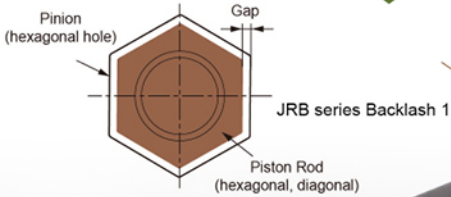
Vertical + Rotation at same time

Available for linear action and rotary action.

Available at **90°** and **180°** rotary angles.

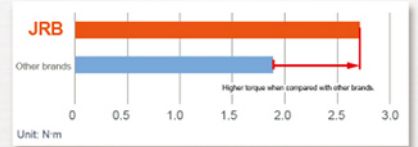
Backlash reduced by
when rotating.

50%



Torque increased by

22%



Shockabsorber options

Angle Adjust Mechanism

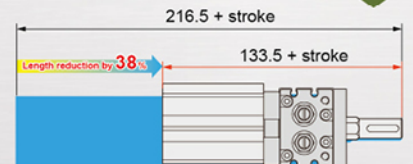
The rotation angle can be adjusted $\pm 5^\circ$

Sensor installation groove

Available for installing Linear Actuation Unit and Rotary Unit.

Total length reduced by

38%



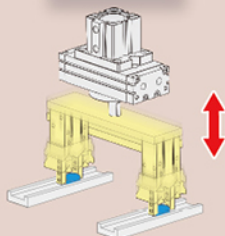
Gear-type design

A stable structure to extend product life cycle

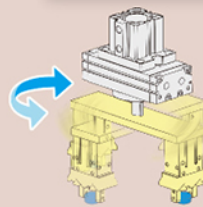
Application example

Approach the workpiece through linear action and then change the working position by rotary action.

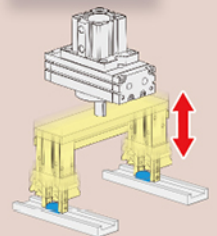
Downward gripping



Change rotating direction



Downward unloading



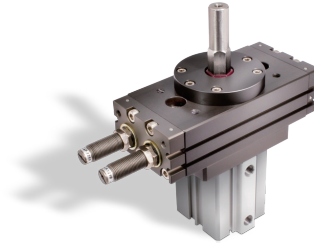
JRB series Rectilinear Rotary Cylinder

Product features/ Code of order

CHELIC

Feature

- Max. torque up to 2.2 N·m
- Max. liner stroke in 90 mm
- Alternative swing angle at 90° or 180°



Specification

Item	Bore size (mm)	32	40
Action		Double acting	
Fluid		Air	
Pressure range kgf / cm ² (kPa)	Linear unit	1.5 ~ 7 (150 ~ 700)	
	Rotary unit	2 ~ 7 (200 ~ 700)	
Ambient and fluid temperature	°C	5 ~ 60	
Diameter of linear cylinder	mm	32	40
Torque force	N·m	0.9	1.8
Allowable kinetic energy	J	0.007	0.025
Rotation angle	°	90, 180	
Lubrication		Lubrication free type	

Code of order **JRB 32 - 180 - 10 - 9B 2**



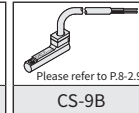
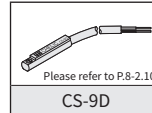
1	Mark	Bore size (mm)
	32	Ø32
	40	Ø40

2	Mark	Rotation angle
	90	90°
	180	180°

3	Mark	Liner stroke(mm)
	10	10
	20	20
	30	30
	40	40
	50	50
	75	75
	90	90

4	Mark	Sensor switch
	None	Without sensor switch
	9D	CS-9D
	9B	CS-9B

Image

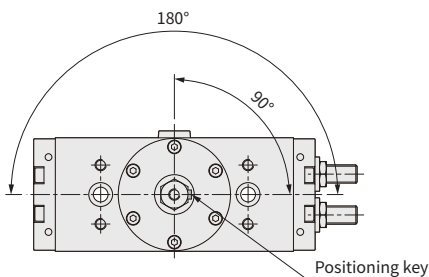


5	Mark	Sensor quantity
	1	With 1 sensor switch
	2	With 2 sensor switch
	3	With 3 sensor switch
	4	With 4 sensor switch

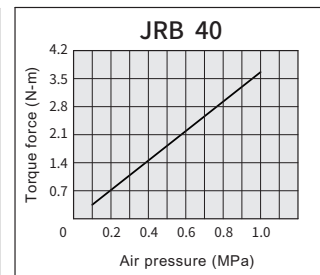
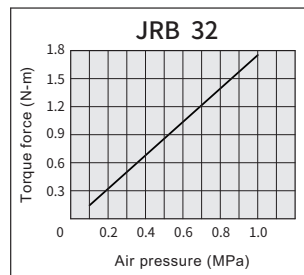
- Sensor q'ty to linear unit: 2
- Sensor q'ty to rotary unit: 2

Rotation range

Rotation angle of positioning key as seen from the linear spindle side.



Effective output

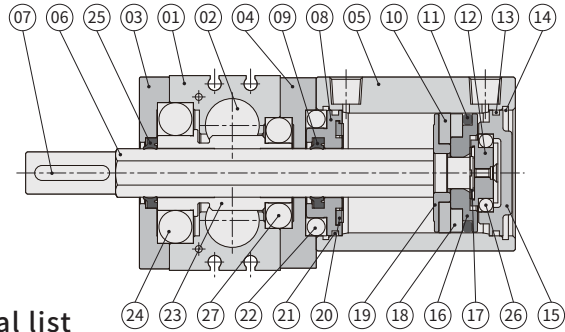


JRB series Rectilinear Rotary Cylinder

Product features

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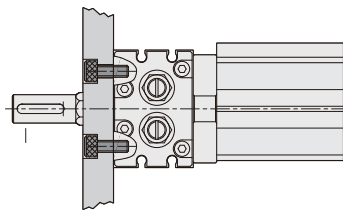
Internal structure



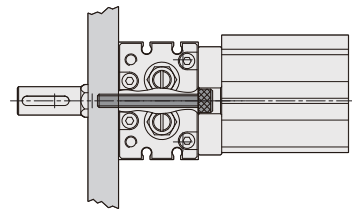
Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	15	bottom cover	Aluminum alloy
02	Finger	Stainless steel	16	Piston	Aluminum alloy
03	Rod	Aluminum alloy	17	Cushion gasket	NBR
04	Oval piston	Carbon steel	18	Magnet	Plastic magnet
05	Base	Stainless steel	19	Magnet cap	Aluminum alloy
06	Finger cap	POM	20	Cushion gasket	NBR
07	Centering sleeve	Alloy steel	21	O-ring	NBR
08	Front cover	Aluminum alloy	22	Bearing	—
09	Shaft packing	Polyurethane	23	Gear Shaft	NBR
10	Wear ring	POM	24	Bearing	—
11	Piston packing	NBR	25	Shaft packing	Polyurethane
12	Rotating block	Aluminum alloy	26	Bearing	—
13	O-ring	NBR	27	Bearing	—
14	Clip	Alloy steel			

Mounting type



● Front-side mounting type



● Rear mounting type

Linear cylinder actuation force table

Bore size (mm)	Operating	Piston area (cm ²)	Air pressure (kgf / cm ²)						
			1.5	2	3	4	5	6	7
32	Push	8.04	12	16	24.1	32.1	40.2	48.2	56.2
	Pull	6.79	10.1	13.5	20.3	27.1	33.9	40.7	47.5
40	Push	12.56	18.8	25.1	37.6	50.2	62.8	75.3	87.9
	Pull	10.86	16.3	21.7	32.6	43.4	54.3	65.2	76

Note: All of above are theoretical data. Before actual adoption, the frictional resistance and mechanical efficiency shall be taken into consideration.

JRB

JRM

RM

RB

RMT

RTL

JRB series Rectilinear Rotary Cylinder

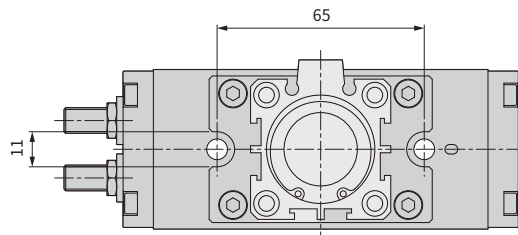
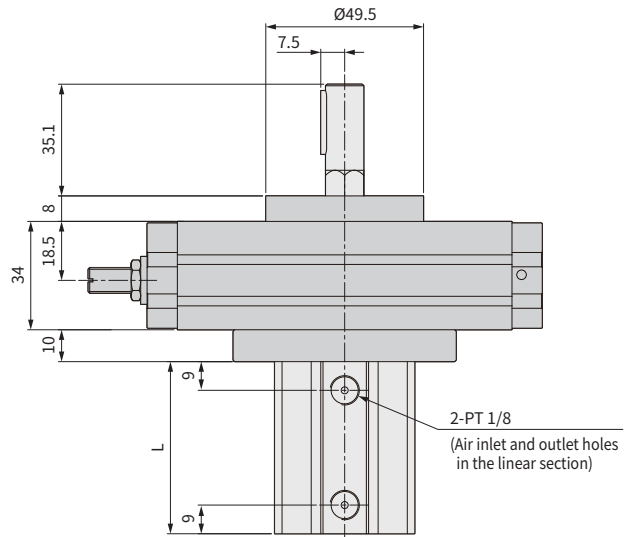
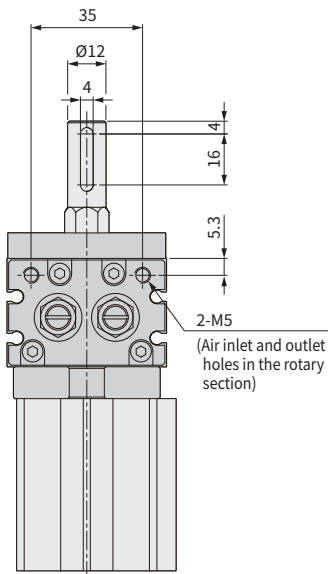
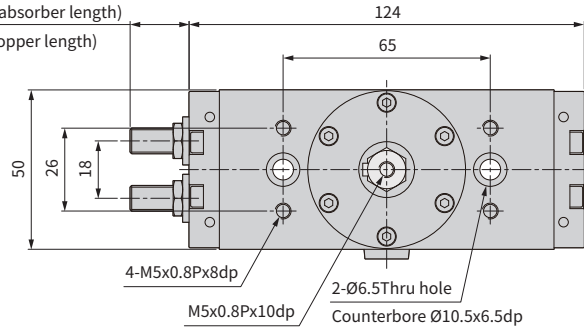
Dimensions / JRB 32

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JRB 32

Max. 27.1 (Retraction stroke end shock absorber length)

Max. 19 (Retraction stroke end metal stopper length)



Unit: mm

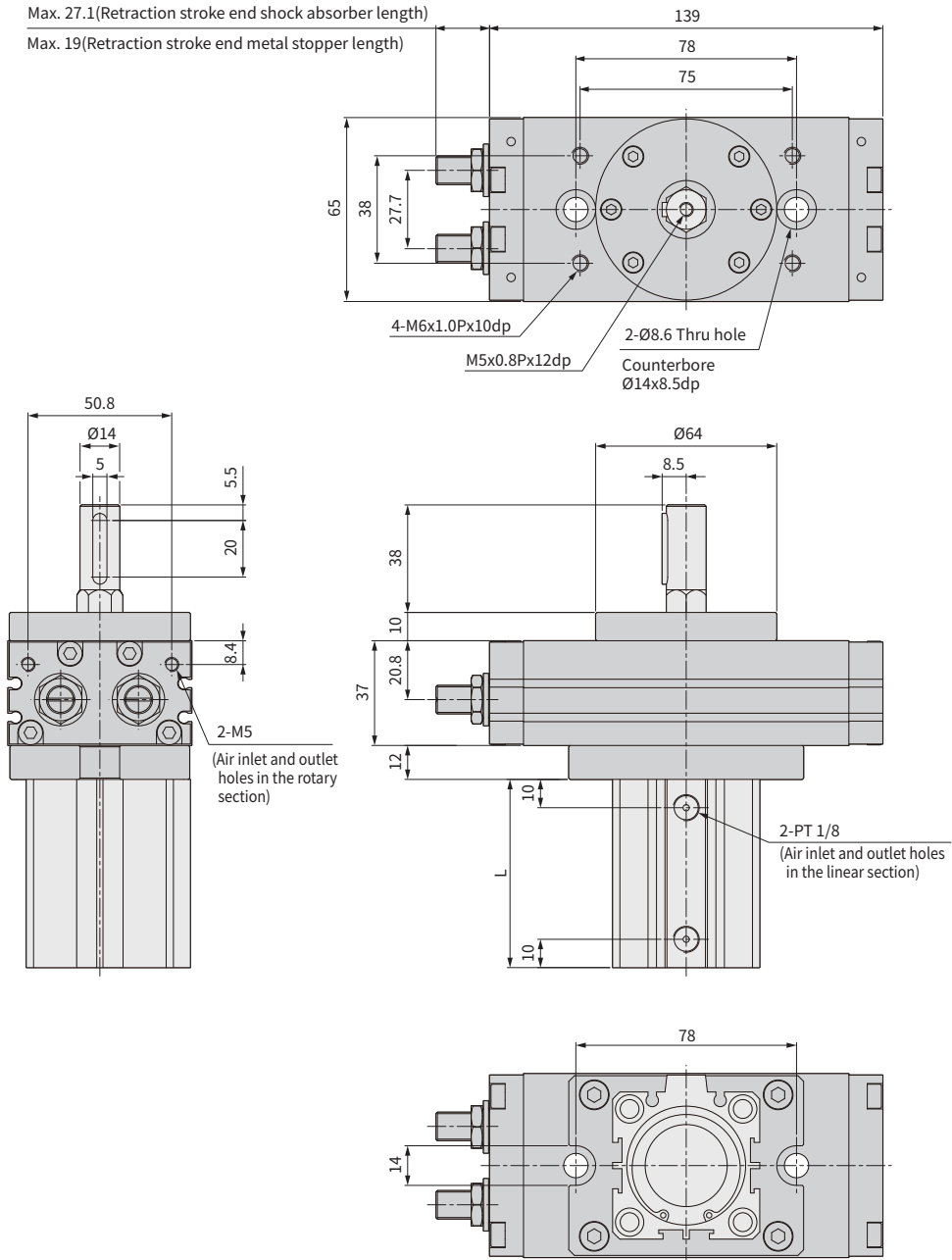
Mark	Stroke	10	20	30	40	50	75	90
L		44	54	64	74	84	109	124

JRB series Rectilinear Rotary Cylinder

Dimensions / JRB 40

CHELIC

JRB 40



JRB

JRM

RM

RB

RMT

RTL

Unit: mm

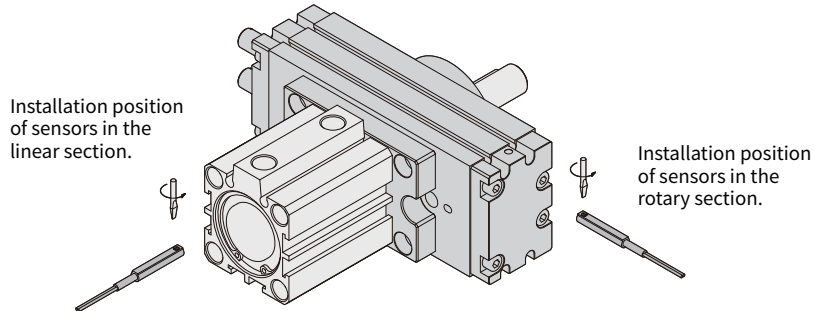
Mark \ Stroke	10	20	30	40	50	75	90
L	46.5	56.5	66.5	76.5	86.5	111.5	126.5

JRB series Rectilinear Rotary Cylinder

Mounting type and operation of sensor switch

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■ Sensor switch installation



■ Setting 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 deviation.

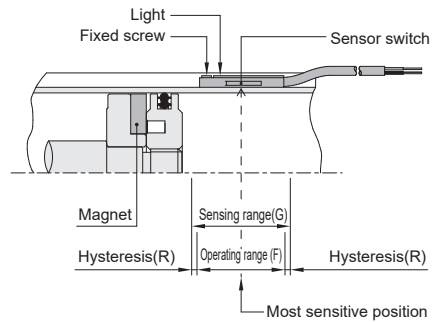
■ Operating range

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

Model	CS-9B, CS-9D	
Bore size	Operating range (F)	Hysteresis(R)
32	7	1
40	10	1

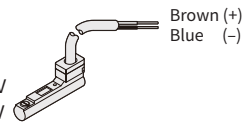
▶ Sensor switch setting and operating range



▶ Sensor switch introduction

CS-9B

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



CS-9D

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

