

Pneumatic Cylinders I  
Catalog No. CB-029SA

Table rotary actuator  
Basic/high accuracy

# GRC/GRC-K Series

● Size: 5/10/20/30/50/80

JIS symbol



## Specifications

Item	GRC-5	GRC-10 GRC-K-10	GRC-20 GRC-K-20	GRC-30 GRC-K-30	GRC-50 GRC-K-50	GRC-80 GRC-K-80
Size	5	10	20	30	50	80
Theoretical torque <sup>Note1</sup> N·m	0.5	1.0	2.0	3.0	5.2	8.1
Actuation	Rack and pinion mechanism					
Working fluid	Compressed air					
Max. working pressure MPa	1.0					
Min. working pressure <sup>*2</sup> MPa	Basic					
	High accuracy					
	With external shock absorber					
Proof pressure MPa	1.6					
Ambient temperature °C	0 to 60 (no freezing)					
Port size	M5				Rc1/8	
Cushion	Basic/high accuracy					
	With external shock absorber					
	Shock absorber model No.					
Allowable absorbed energy J	Basic/high accuracy					
	With external shock absorber <sup>*6</sup>					
Shock absorber stroke mm	3.5	3.5	5	5	5.5	6.5
Lubrication	Not available					
Volumetric capacity <sup>*3</sup> cm <sup>3</sup>	90°	1.3	3.5	7.0	10.5	18.1
	180°	3.4	6.6	13.4	20.0	34.4
Oscillating angle adjusting range <sup>*4</sup>	Basic/high accuracy					
	90°					
	180°					
	With external shock absorber					
Oscillating time adjusting range <sup>*5 *7</sup> s/90°	90°					
	180°					
Table deflection (reference value)	Basic					
	High accuracy					

- \*1: The theoretical torque is value at working pressure 0.5 MPa.
- \*2: To push through the rubber cushion integrated in basic and high accuracy type, 0.3 MPa and over working pressure is required.
- \*3: Volumetric capacity is value within oscillating angle adjusting range when max. oscillating angle.
- \*4: Oscillating angle adjusting range is value when adjusted by both side stopper bolts (shock absorber).
- \*5: Oscillating time adjusting range is value at working pressure 0.5 MPa.
- \*6: The values in the table indicate the absorbed energy at the maximum oscillation speed.
- \*7: For types with shock absorbers, this is the time until impact with the tip of the shock absorber (end of the rod). (This is not the oscillation time to the end of the shock absorber stroke.)

### Compatibility table by variation

Applicable size		Standard	High accuracy	Fine speed	High accuracy/fine speed
			K	F	KF
Torque 0.5 to 8.1 N·m	P4	●	●		
	P40	●(*1)	●(*1)		
	P42	▲	▲		

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

\*1: Even when P40 is selected for the external stopper option, electrolytic nickel plating is used for the stopper part.  
\*2: Zinc plating is used in part of the bearings - the sealing washer of the angle adjustment unit.

### How to order

● Without switch



● With switch



A Model No.

B Size

C Oscillating angle

D Switch model No.

E Switch quantity

F Option

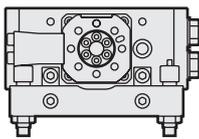
### ⚠ Precautions for model No. selection

- \*1: Port position of basic/high accuracy type is provided on the side surface. Other ports are plugged.
- \*2: The external shock absorber cannot be retrofitted onto the basic/high accuracy type. Select the A3 type as an option if retrofitting.
- \*3: If an external shock absorber is retrofitted on the A3 type, the features will be the same as the A1 type. Consult CKD for A2 type.

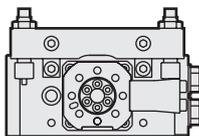
Code	Item		
<b>A Model No.</b>			
GRC	Basic		
GRC-K	High accuracy		
<b>B Size (0.5 MPa)</b>			
Model No.	Theoretical torque	GRC	GRC-K
5	0.5 [N·m]	●	—
10	1.0 [N·m]	●	●
20	2.0 [N·m]	●	●
30	3.0 [N·m]	●	●
50	5.2 [N·m]	●	●
80	8.1 [N·m]	●	●
<b>C Oscillating angle</b>			
90	90°		
180	180°		
<b>D Switch model No.</b>			
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.			
<b>E Switch quantity</b>			
R	With clockwise rotation detection 1 piece		
L	With counterclockwise rotation detection 1 piece		
D	2		
<b>F Option</b>			
Blank Hexagon socket set screw stopper with urethane			
<b>A With external shock absorber</b>			
A1	Installation position ①		
A2	Installation position ②		
A3	External shock absorber retrofitting (mounting groove machined)		

### External shock absorber mounting drawing

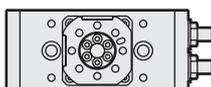
GRC\*-A1  
(Installation position ①)



GRC\*-A2  
(Installation position ②)



GRC\*-A3  
(Installation position ③)



### Related products

		Speed controller						
Model No.	Appearance	Port size (Rc or R)			Compatible tube O.D.			Page
		M3	M5	1/8	4(ø4)	6(ø6)	8(ø8)	
SC3W-M5- *-P4			●		●	●		530
SC3W-6- *-P4				●	●	●	●	

Specify the compatible tube O.D. code for \*.

P4 Series

Pneumatic cylinders  
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Pneumatic valves

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Speed controller

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Fitting  
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Silencer  
Tube

Gas generator  
Fluid control components

Motor specification  
Motorless specifications  
Electric actuator