

Table type rotary actuator
Basic type/high accuracy type

GRC/GRC-K Series

● Size: 5, 10, 20, 30, 50, 80

JIS symbol



Specifications

Descriptions		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	
Logical torque ^{Note 1} N·m		0.5	1.0	2.0	3.0	5.2	8.1	
Actuation		Rack & pinion type						
Working fluid		Compressed air						
Max. working pressure MPa		1.0						
Min. working pressure ^{Note 2} MPa	Basic type	0.10						
	High accuracy type	-	0.15		0.10			
	With shock absorber	0.25	0.20	0.15				
Withstanding pressure MPa		1.6						
Ambient temperature °C		0 to 60 (no freezing)						
Port size		M5				Rc1/8		
Cushion	Basic type/high accuracy type	Rubber cushion						
	With shock absorber	Shock absorber						
	Shock absorber model no.	NCK-0.3		NCK-0.7		NCK-1.2	NCK-2.6	
Allowable energy absorption ^J	Basic type/high accuracy type	0.005	0.008	0.03		0.04	0.11	
	With shock absorber	0.46	0.59	1.15	1.71	2.33	2.78	
Shock absorber stroke mm		3.5	3.5	5	5	5.5	6.5	
Lubrication		Not required (when lubricating, use turbine oil ISOVG32.)						
Volumetric capacity ^{Note 3} cm ³		90°	1.3	3.5	7.0	10.5	18.1	28.3
Oscillating angle adjusting range ^{Note 4}	Basic type/high accuracy type	180°	3.4	6.6	13.4	20.0	34.4	53.7
		90°	0° to 100°					
	With shock absorber	180°	90° to 190°					
		90°	90° ± 6°					
Oscillating time adjusting range ^{Note 5} s/90°		180° ± 6°						
Oscillating time adjusting range ^{Note 5} s/90°		0.2 to 1.5						
Table deflection (reference value) ^{Note 6}	Basic type	±0.17°			±0.23°	±0.26°	±0.32°	
	High accuracy type	-	±0.026°					

Note 1: Theoretical torque is value when working pressure 0.5MPa.

Note 2: To push through the rubber cushion integrated in basic and high accuracy type, 0.3 MPa and over applicable pressure is required.

Note 3: Volumetric capacity is value within oscillating angle adjusting range when maximum oscillating angle.

Note 4: Oscillating angle adjusting range is value when adjusted by both side stopper bolts (shock absorber).

Note 5: Oscillating time adjusting range is value when working pressure 0.5 MPa.

Note 6: Displacement of table at 100mm away from the center of rotation is shown on technical data (page 51).

Switch specifications

- 1 color/2 color indicator

Descriptions	Proximity 2 wire			Proximity 3 wire		
	T1H/T1V	T2H/T2V	T2YH/T2YV	T3H/T3V	T3PH/T3PV (Custom order)	T3YH/T3YV
Applications	Programmable controller, relay, small solenoid valve	Programmable controller		Programmable controller, relay		
Output method	-			PNP output		
Power voltage	-			10 to 28 VDC		
Load voltage	85 to 265 VAC	10 to 30 VDC		30 VDC or less		
Load current	5 to 100mA	5 to 20mA (Note 1)		100mA or less		50mA or less
Light	LED (ON lighting)	LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	Green LED (ON lighting)	Red/green LED (ON lighting)
Leakage current	1mA or less with 100 VAC 2mA or less with 200 VAC	1mA or less		10 μ A or less		

- With preventive maintenance output

Descriptions	Proximity 3 wire		Proximity 4 wire		Proximity 3 wire		Proximity 4 wire	
	T2YFH/V		T3YFH/V		T2YMH/V		T3YMH/V	
Applications	Programmable controller		Programmable controller, relay		Programmable controller		Programmable controller, relay	
Output method	NPN output							
Light	Red/green LED (ON lighting)							
	Installation position adjustment section		-		Yellow LED (ON lighting)			
Regular output	Preventive maintenance output		-		-			
	Power voltage		10 to 28 VDC		-		10V to 28 VDC	
	Load voltage		30 VDC or less		10 to 30 VDC		30 VDC or less	
	Load current		50mA or less		5 to 20mA		50mA or less	
Preventive maintenance Output	Leakage current		10 μ A or less		1.2mA or less		10 μ A or less	
	Load voltage		30 VDC or less					
	Load current		50mA or less		5 to 20mA or less		50mA or less	
	Leakage current		10 μ A or less					

Note 1: Refer to Ending 1 for other switch specifications.

Note 2: Maximum load current: 20mA above is the value at 25°C. The current will be lower than 20mA if ambient temperature around switch is higher than 25°C. (5 to 10mA when 60°C)

Minimum oscillating angle with switch

Size	5	10	20	30	50	80
T type proximity	20°	15°	17.5°	12.5°	12.5°	12.5°
T type 2 color indicator						

Theoretical torque table

(Unit: N·m)

Size	Working pressure (MPa)									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
5	-	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
10	-	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
20	-	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0
30	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
50	1.0	2.1	3.1	4.1	5.2	6.2	7.3	8.3	9.3	10.4
80	1.6	3.2	4.9	6.5	8.1	9.7	11.3	13.0	14.6	16.2

Product weight

(Unit: kg)

Oscillating angle	90°				180°		Outer mount shock absorber weight	Switch weight (per switch)		
	Basic type		High accuracy type		Basic type				High accuracy type	
Model no.	GRC- 5		-		0.43		-		0.20	0.02
	GRC-10		0.50		0.56		0.58		0.30	
	GRC-20		0.80		0.88		0.90		0.40	
	GRC-30		1.30		1.25		1.50		0.50	
	GRC-50		2.10		2.10		2.40		0.60	
	GRC-80		2.60		2.70		3.00		0.70	

Clean room specifications (Catalog No. CB-033SA)

- Dust preventive structure for inside the clean room

GRC - - **P73** GRC-K - - **P73**
 GRC - - **P53** GRC-K - - **P53**

RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/
BHG
LHA
LHAG
HKP
HLA/
HLB
HLAG/
HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2
-HC
CKH2
CKLB2
NCK/
SCK/FCK
FJ
FK
Ending
Table type rotary actuator
Oscillation, rotation drive type

GRC/GRC-K Series

How to order

● Without switch

GRC - **10** - **90** - **A1**

● With switch

GRC - **30** - **180** - **T2H*** - **R** - **A2**

A Model no.

B Size

C Port thread type

D Oscillating angle

E Switch model no.

⚠ Note on model no. selection

Note 1: Port position of basic type/high accuracy type is provided on side surface.

Note 2: Can not be attached outer mount shock absorber on basic type/high accuracy type later. If it will be installed later, select optional A3 type.

Note 3: If an outer mount shock absorber is retrofit on the A3 type, the state will be the same as the A1 type. Consult with CKD on A2 type use.

<Example of model number>

GRC-10-180-T2V-D-A1

Double acting

A Model no. : Basic type

B Size : 10

C Port thread type : Rc thread

D Oscillating angle : 180°

E Switch model no. : Proximity 2 wire
Radial lead wire/lead wire 1m

F Switch quantity : Two

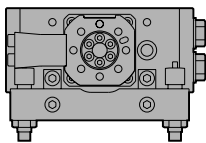
G Option : With outer mount shock absorber
Installation position (1)

F Switch quantity

Outer mount shock absorber installation drawing

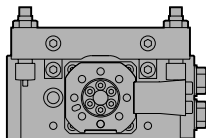
GRC*-A1

(Installation position 1)



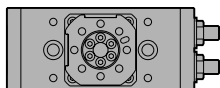
GRC*-A2

(Installation position 2)



GRC*-A3

(Installation position 3)



G Option

Symbol	Descriptions
A Model no.	
GRC	Basic type
GRC-K	High accuracy type

B Size (0.5MPa)			
Model no.	Logical 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)	●	●

C Port thread type	
Blank	Rc thread
NN	NPT thread (size 50 and over) (custom order)
GN	G thread (size 50 and over) (custom order)

D Oscillating angle	
90	90°
180	180°

E Switch model no.					
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire	
T1H*	T1V*	Proximity	1 color indicator type	2-wire	
T2H*	T2V*			2-wire	
T3H*	T3V*			3-wire	
T3PH*	T3PV*		1 color indicator type (custom order)	3-wire	
T2YH*	T2YV*		2 color indicator type	With preventive maintenance output	2-wire
T3YH*	T3YV*				3-wire
T2YFH*	T2YFV*				3-wire
T3YFH*	T3YFV*				4-wire
T2YMH*	T2YMV*				3-wire
T3YMH*	T3YMV*			4-wire	

*Lead wire length	
Blank	1m (standard)
3	3m (option)
5	5m (option)

F Switch quantity	
R	With clockwise rotation 1 piece
L	With counterclockwise rotation 1 piece
D	Two

G Option	
Blank	Hexagon socket head set screw type stopper with urethane rubber
A	With outer mount shock absorber
A1	Installation position (1)
A2	Installation position (2)
A3	Outer mount shock absorber later installation (installation groove machined)

How to order switch

- Only switch body

SW - T2H3

Switch model no.
(Item **B** previous page)

How to order repair kits

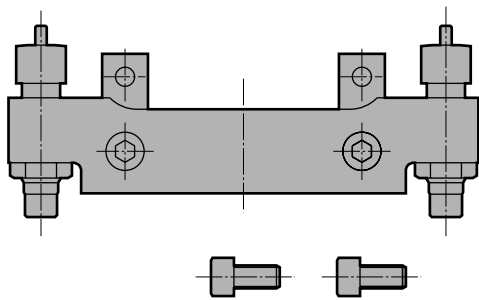
- Sets of packing seal repair parts, etc.

GRC - 5 K

Size
(Item **B** previous page)

How to order outer mount shock absorber set

- Sets of plate, shock absorber and lever
- Used when installing external shock absorber onto A3 type later.



GRC - 5 - A 2

Size

C Oscillating angle	
1	90° specifications
2	180° specifications

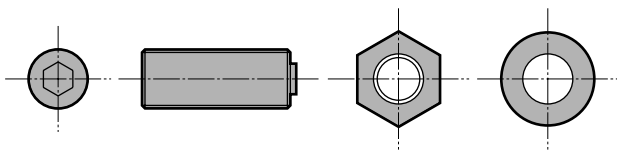
Indicate 1 or 2 for **D**.
Note: Set descriptions differ between 90° specifications and 180° specifications.
The figure shows the 90° specification.

How to order stopper bolt set for adjustable angle

- Sets of hexagon head hole set screw with urethane hexagon nut and plain washer
- Used with no outer mount shock absorber

GRC - 5 S

Size
(Item **B** previous page)

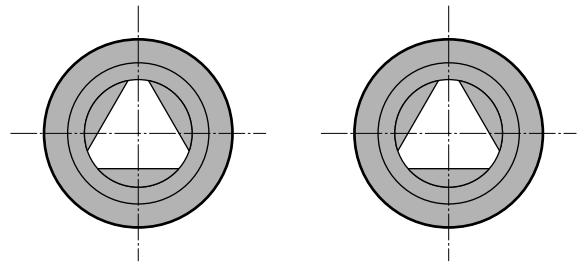


How to order seal washer set

- Used at seal washer replacement
- Seal washer 2 pcs.

GRC - 5 D

Size
(Item **B** previous page)

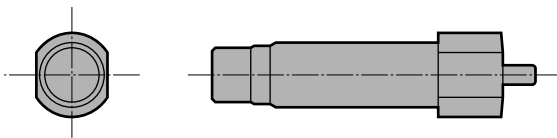


How to order shock absorber set for adjustable angle

- Sets of shock absorber and stopper

GRC - 5 - A01

Size
(Item **B** previous page)



Applicable shock absorber model No.

Model	Shock absorber model no.
GRC-5	NCK-00-0.3
GRC-10	NCK-00-0.3
GRC-20	NCK-00-0.7
GRC-30	NCK-00-0.7
GRC-50	NCK-00-1.2
GRC-80	NCK-00-2.6

RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/ BHG
LHA
LHAG
HKP
HLA/ HLB
HLAG/ HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Table type rotary actuator
Oscillation, rotation drive type

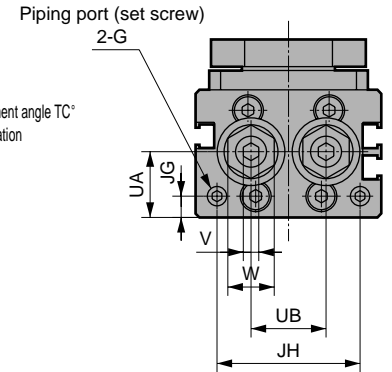
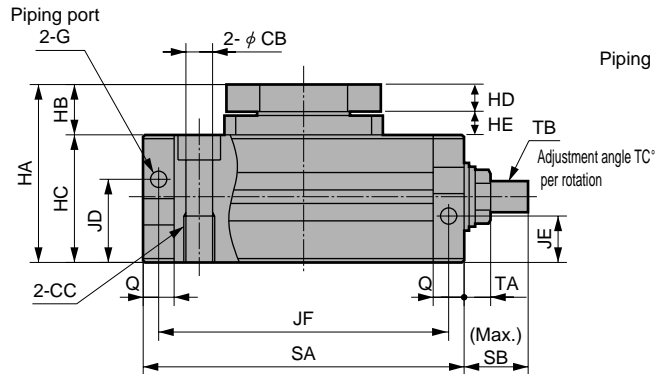
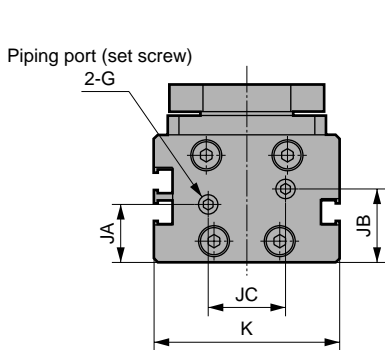
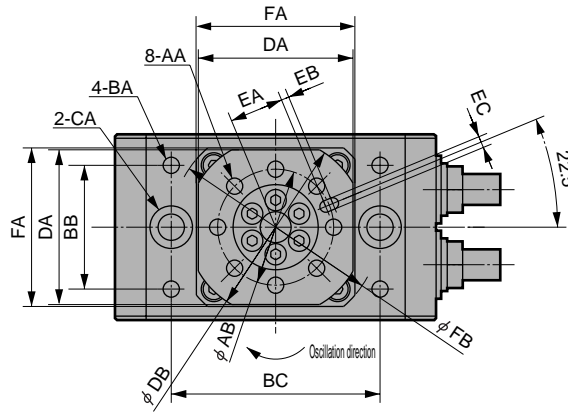
GRC/GRC-K Series

Dimensions



- GRC basic type
- GRC-K high accuracy type

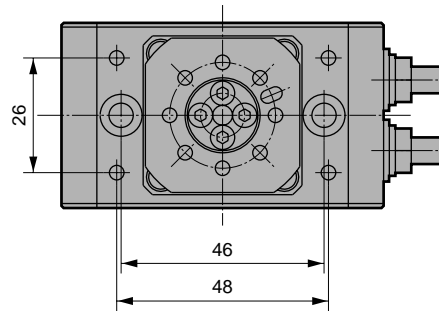
- RRC
- GRC**
- RV3*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/BHG
- LHA
- LHAG
- HKP
- HLA/HLB
- HLAG/HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2
- CKL2 *-HC
- CKH2
- CKLB2
- NCK/SCK/FCK
- FJ
- FK



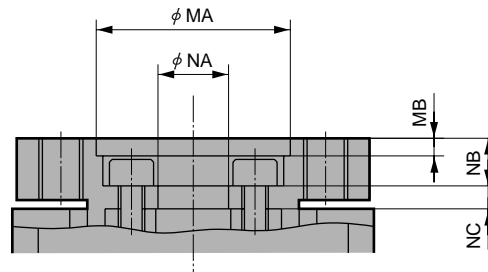
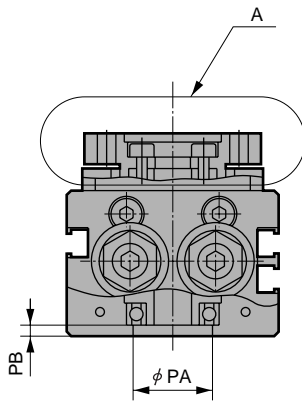
Size	AA	AB	BA	BB	BC	CA	CB	CC	DA	DB	EA	EB	EC	FA	FB	G	HA	HB
5	M4 depth 7	24	M4 depth 6.5	26	48	Spot face φ9.5 depth 5.4	5.2	M6 depth 12	35	42	11	2	3 ^{+0.07} +0.02 depth 3.5	36	48h9	M5	43	13
10	M5 depth 7	30	M5 depth 7	32	54	Spot face φ11 depth 6.5	6.6	M8 depth 12	40	46	14	2	3 ^{+0.07} +0.02 depth 3.5	41	54h9	M5	46	13
20	M6 depth 9	36	M6 depth 8	42	62	Spot face φ11 depth 6.5	6.9	M8 depth 12	47	55	17	2	4 ^{+0.07} +0.02 depth 4.5	48	64h9	M5	53	16
30	M6 depth 9	44	M6 depth 8	52	74	Spot face φ14 depth 8.6	8.7	M10 depth 15	58	67	21	2	4 ^{+0.07} +0.02 depth 4.5	59	78h9	M5	55	18
50	M8 depth 13	50	M8 depth 12	60	88	Spot face φ17.5 depth 10.8	10.5	M12 depth 18	66	74	24	2	5 ^{+0.07} +0.02 depth 5.5	69	92h9	Rc1/8	71	23
80	M8 depth 13	54	M8 depth 12	66	94	Spot face φ17.5 depth 10.8	10.5	M12 depth 18	69	80	26	2	5 ^{+0.07} +0.02 depth 5.5	76	101h9	Rc1/8	80	25

Size	SA		SB	TA	TB	TC	UA	UB	V	W	X	LD		RD	
	90°	180°										90°	180°	90°	180°
5	73	90	14	6.5	M6 x 1	8.7	16.6	16	3	10	12.6	21.5	25.5	22.5	25.5
10	83	107	15	4.9	M8 x 0.75	4.9	17.1	19.4	4	11	13.1	24.5	30.5	26	30.5
20	96	125	17	6.1	M10 x 1	5.7	17.6	24	5	13	13.6	31	37.5	31	37.5
30	121	165	25	6.1	M10 x 1	3.8	17.6	34	5	13	13.6	38.5	49.5	40	49.5
50	144	192	29.5	7	M12 x 1	3.5	24.6	35	6	14	20.6	48.5	61	51	61
80	150	198	29.5	7	M12 x 1	3.5	27.1	36	6	14	23.1	51.5	64	54	64

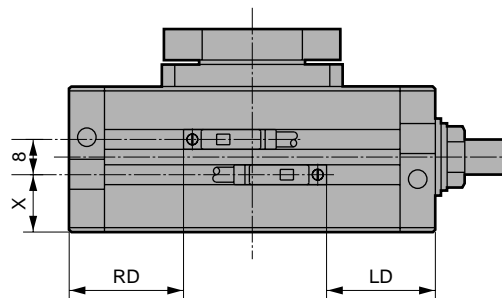
GRC-5



Position of 4-BA and 2-CA differ for GRC-5 only.



A section details



Switch installation position

	HC	HD	HE	JA	JB	JC	JD	JE	JF		JG	JH	K	MA	MB	NA	NB	NC	PA	PB	Q
									90°	180°											
	30	7	6	15	18	16	21	11.5	65	82	5.6	29	42	17H9	2	4H9	5.5	2.4	12H9	3.5	8
	33	7	6	15	19	20	21.5	12	75	99	5.6	37	48	22H9	2	8H9	5.5	2.4	18H9	2.5	8
	37	9	7	14.5	20.5	27	22	13	86	115	5.6	47	58	27H9	2	11H9	6.5	3.9	20H9	2.5	10
	37	9	9	14.5	20.5	37	22	13	111	155	5.6	57	68	32H9	2	13H9	7.5	2.9	26H9	2.5	10
	48	13	10	21.5	27.5	36	32.5	17.5	129	177	8.1	58	75	37H9	4	14H9	10.5	5.3	28H9	4.5	15
	55	13	12	24	30	40	35	19	135	183	8.1	58	80	40H9	3	17H9	9.5	4.4	36H9	3.5	15

- RRC
- GRC**
- RV3*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/BHG
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- LHAG
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- HLA/HLB
- HLAG/HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2
- CKL2 *-HC
- CKH2
- CKLB2
- NCK/SCK/FCK
- FJ
- FK
- Ending

Table type rotary actuator
Oscillation, rotation drive type

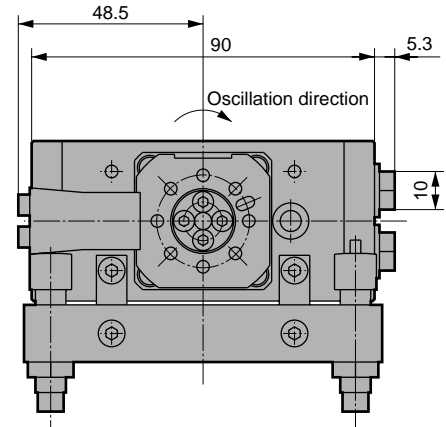
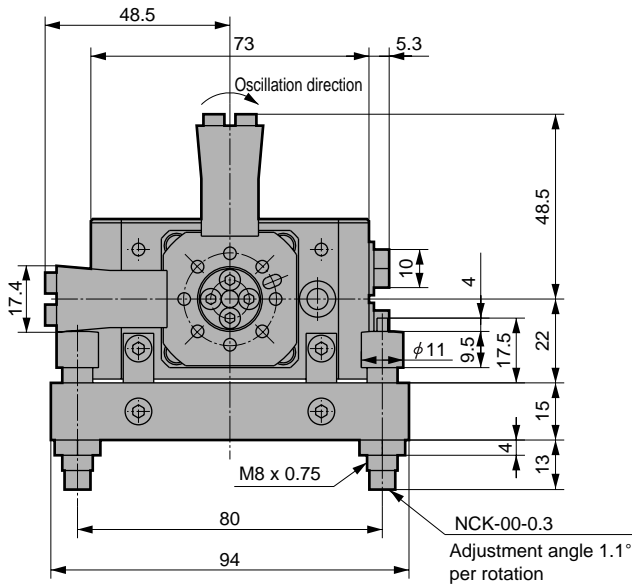
Dimensions: with outer mount shock absorber size 5



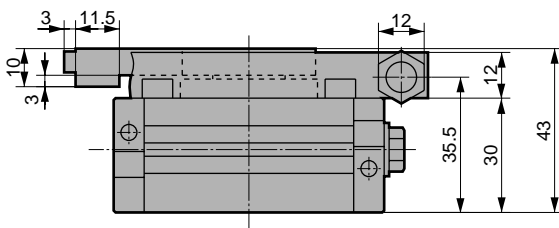
RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2-*/-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

● GRC-5-*-A1/A2

Note: The drawing is for A1 type (installation position (1))

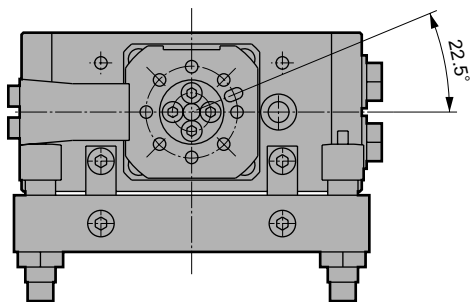


180° specifications

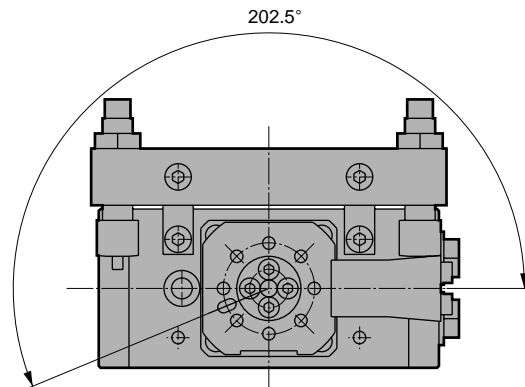


90° specifications

Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top.



GRC-5-*-A1



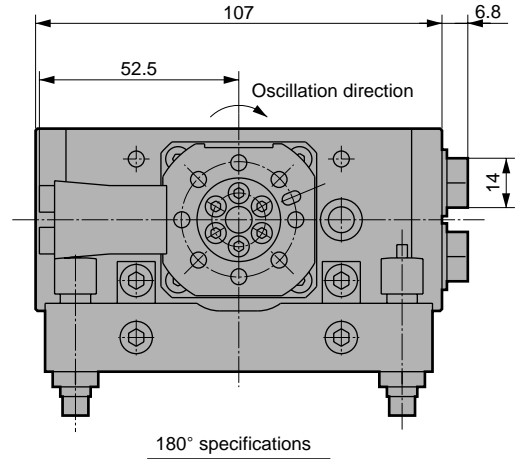
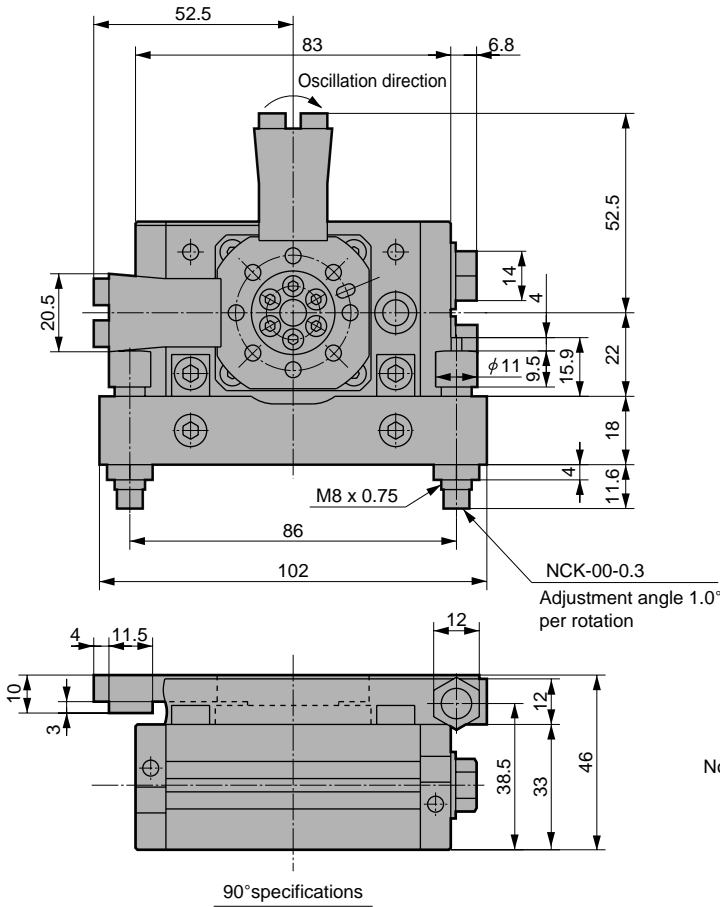
GRC-5-*-A2

Dimensions: with outer mount shock absorber size 10, 20



● GRC-10-*-A1/A2

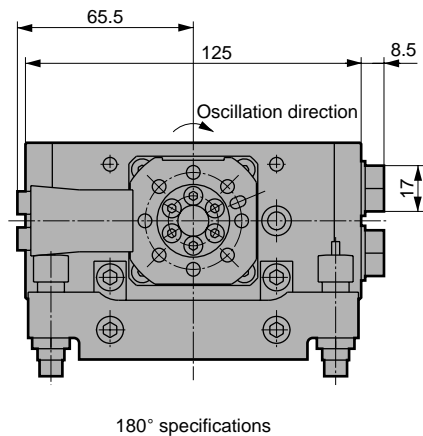
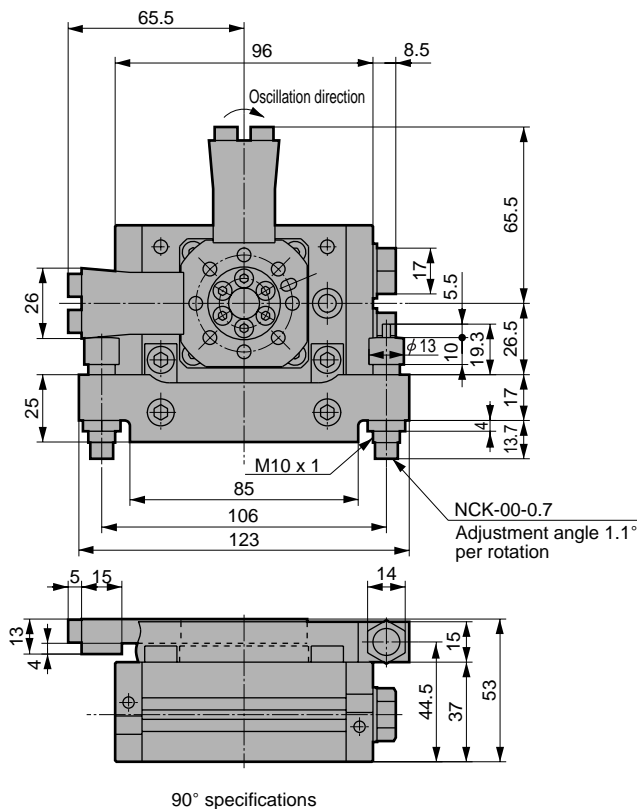
Note: The drawing is for A1 type (installation position (1)).



Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top. (Refer to GRC-5-*-A1/A2.)

● GRC-20-*-A1/A2

Note: The drawing is for A1 type (installation position (1)).



Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top. (Refer to GRC-5-*-A1/A2.)

RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/BHG
LHA
LHAG
HKP
HLA/HLB
HLAG/HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HLB
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2*-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

Table type rotary actuator
Oscillation, rotation drive type

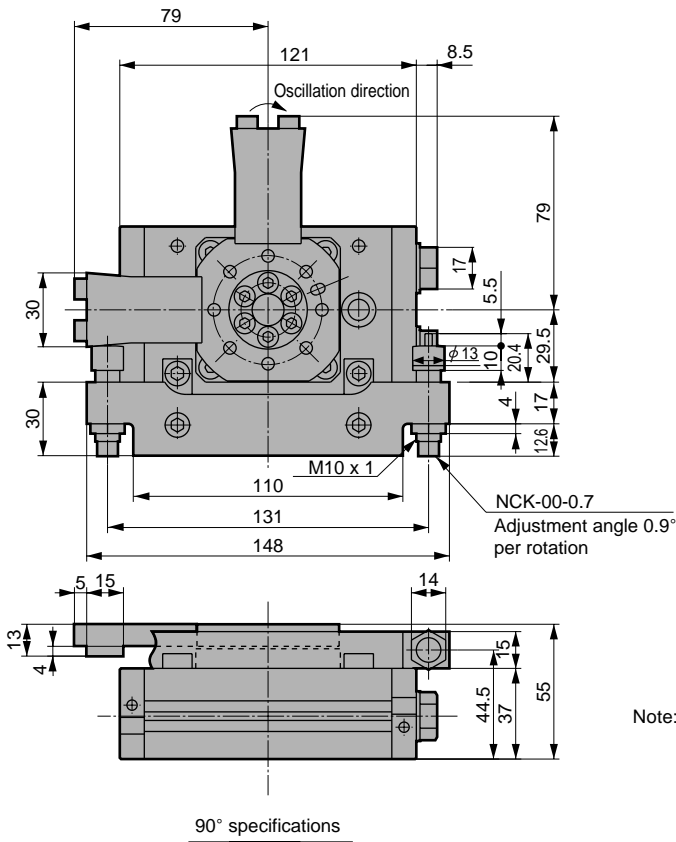


Dimensions: with outer mount shock absorber size 30, 50

- RRC
- GRC**
- RV3*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/BHG
- LHA
- LHAG
- HKP
- HLA/HLB
- HLAG/HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2
- CKL2*-HC
- CKH2
- CKLB2
- NCK/SCK/FCK
- FJ
- FK
- Ending

● GRC-30*-A1/A2

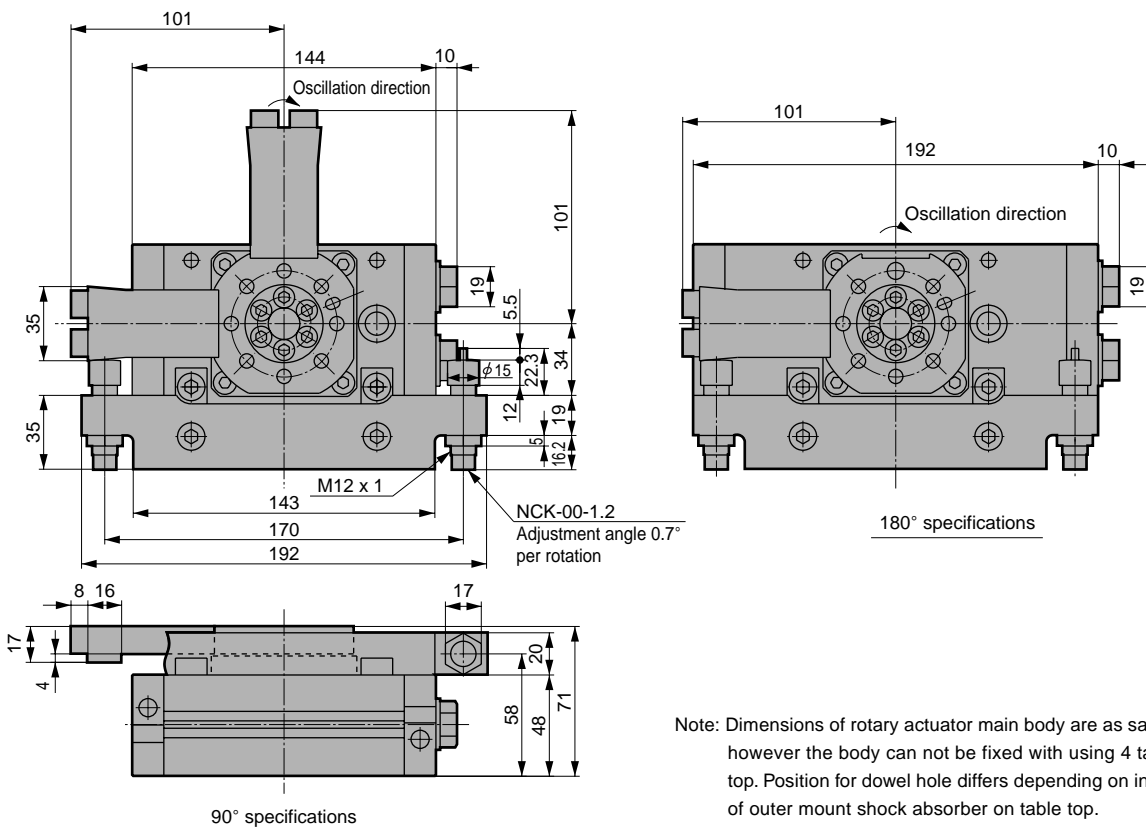
Note: The drawing is for A1 type (installation position (1)).



Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top. (Refer to GRC-5*-A1/A2.)

● GRC-50*-A1/A2

Note: The drawing is for A1 type (installation position (1)).

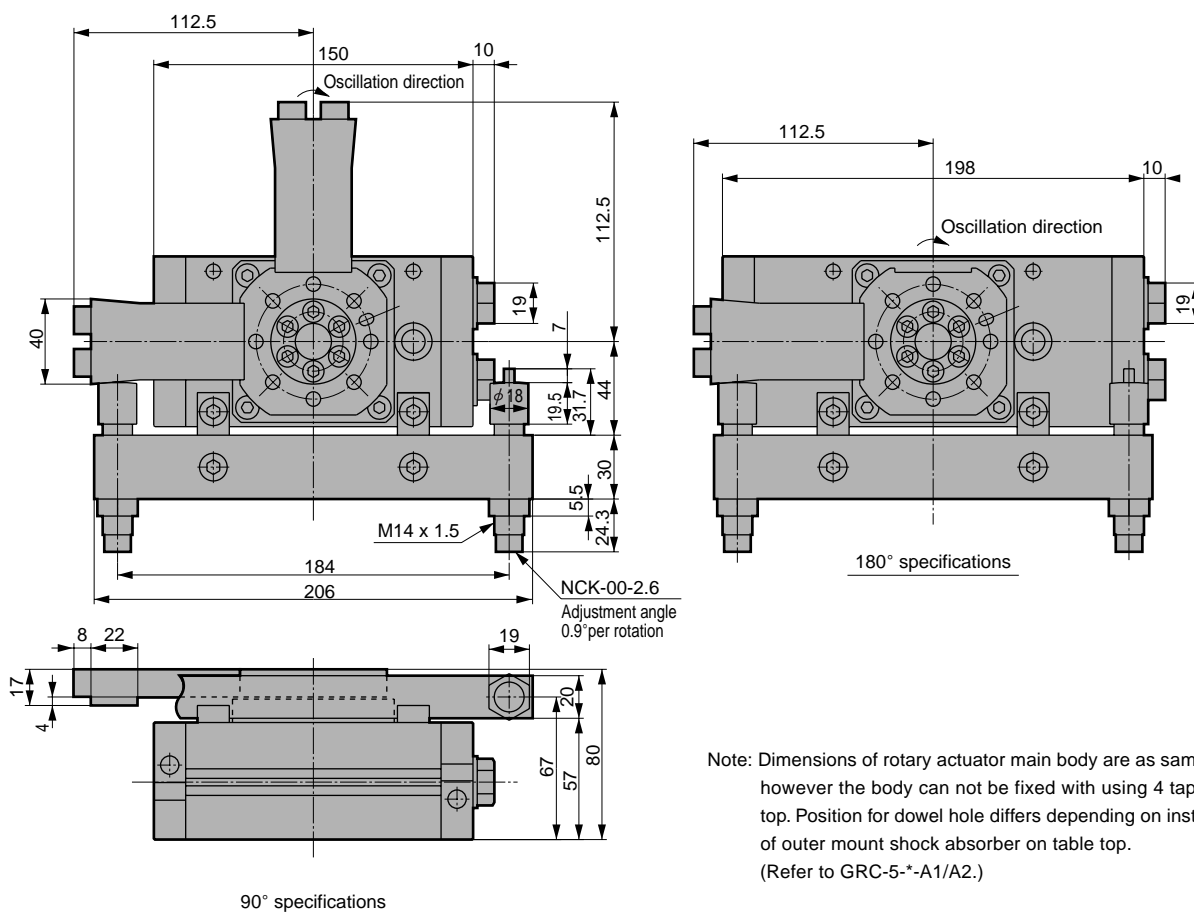


Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top. (Refer to GRC-5*-A1/A2.)

Dimensions: with outer mount shock absorber size 80

● GRC-80-*-A1/A2

Note: The drawing is for A1 type (installation position (1)).



Note: Dimensions of rotary actuator main body are as same as basic type, however the body can not be fixed with using 4 taps on main body top. Position for dowel hole differs depending on installation position of outer mount shock absorber on table top.
(Refer to GRC-5-*-A1/A2.)

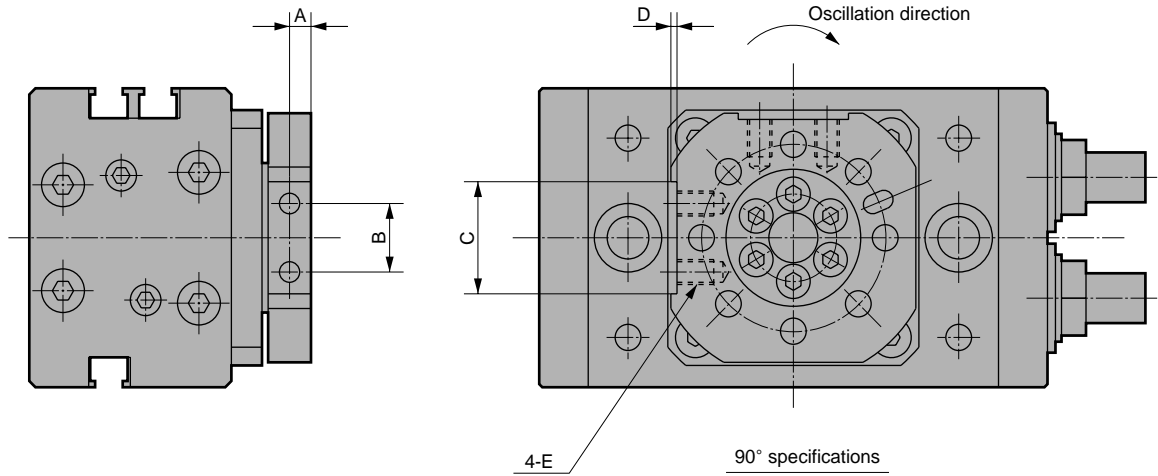
RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/ BHG
LHA
LHAG
HKP
HLA/ HLB
HLAG/ HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HLB
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 *-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Table type rotary actuator
Oscillation, rotation drive type

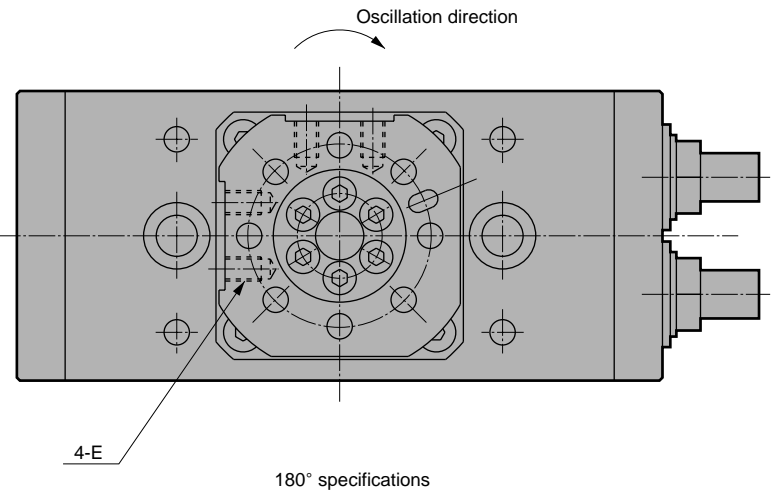
Dimensions: outer mount shock absorber later installation size 5 to 80



● GRC-*-A3



4-E 90° specifications



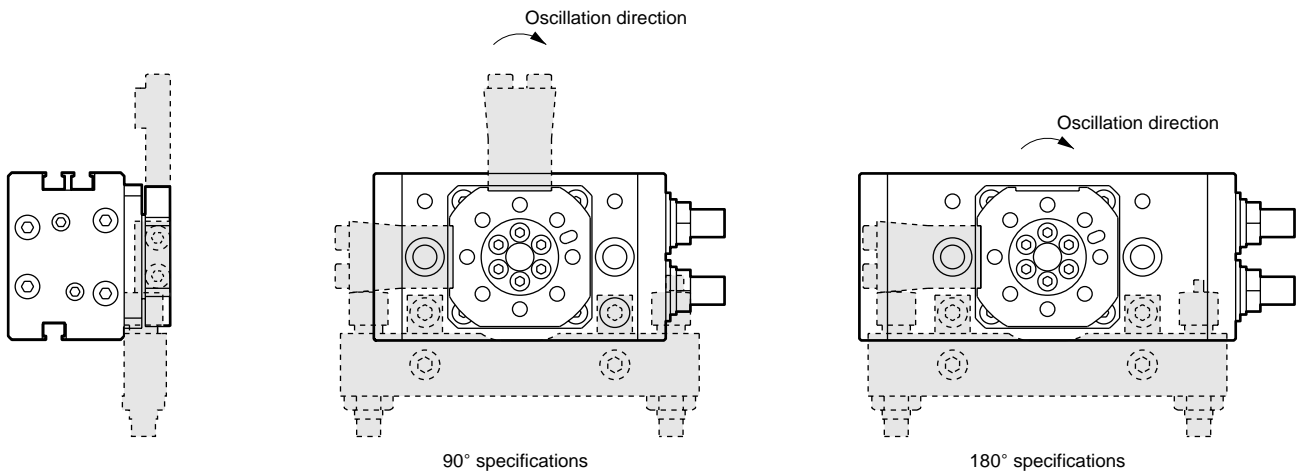
4-E 180° specifications

Size	A	B	C	D	E
5	3.5	8.4	15 ^{+0.3} ₀	1	M3 depth 6.5
10	3.8	11	18 ^{+0.3} ₀	1	M4 depth 6
20	4.5	13.4	23 ^{+0.3} ₀	1	M5 depth 7.5
30	4.5	17	27 ^{+0.3} ₀	2	M5 depth 8.5
50	6.9	18.4	32 ^{+0.3} ₀	2	M8 depth 9
80	6.9	20	36 ^{+0.3} ₀	2	M8 depth 9

When outer mount shock absorber set is installed. ((shaded section) shows outer mount shock absorber set.)

Note: When outer mount shock absorber set is installed on A3 type, A1 type is provided.

Consult with CKD on A2 type. (Refer to Page 34 for installation position.)



90° specifications

180° specifications

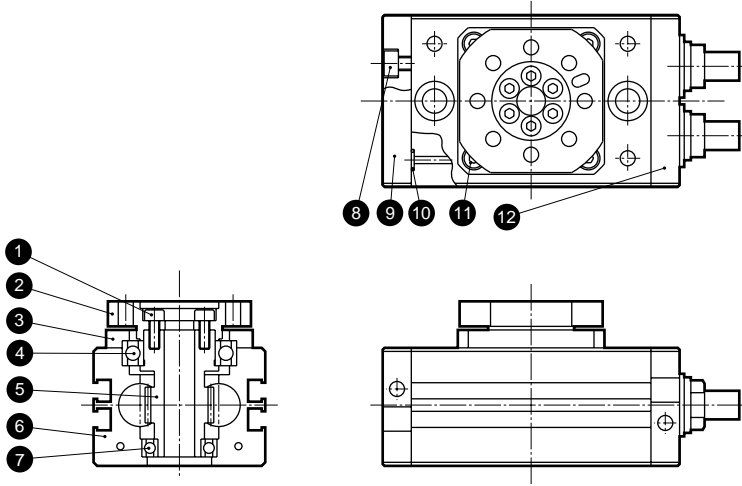
- RRC
- GRC**
- RV3*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/
BHG
- LHA
- LHAG
- HKP
- HLA/
HLB
- HLAG/
HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2
- CKL2
-*-HC
- CKH2
- CKLB2
- NCK/
SCK/FCK
- FJ
- FK
- Ending

GRC/GRC-K Series

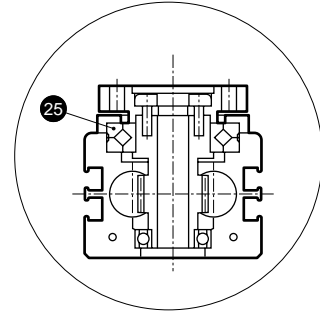
Internal structure and parts list

- RRC
- GRC**
- RV3*
- NHS
- HR
- LN
- FH100
- HAP
- BSA2
- BHA/BHG
- LHA
- LHAG
- HKP
- HLA/HLB
- HLAG/HLBG
- HEP
- HCP
- HMF
- HMFB
- HFP
- HLC
- HGP
- FH500
- HBL
- HDL
- HMD
- HJL
- BHE
- CKG
- CK
- CKA
- CKS
- CKF
- CKJ
- CKL2
- CKL2
-*HC
- CKH2
- CKLB2
- NCK/
SCK/FCK
- FJ
- FK

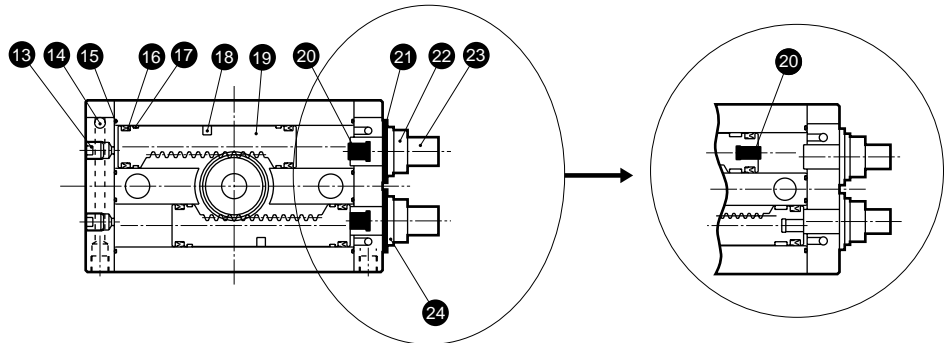
- GRC (basic type)
- GRC-K (high accuracy type)



Sectional view of high accuracy type



A cushion rubber position differs for GRC-*-5.



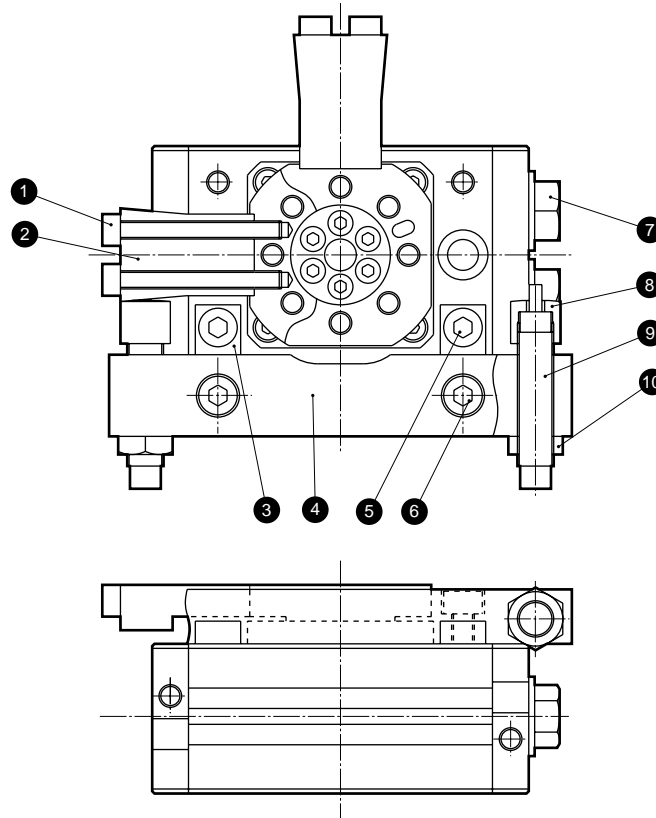
Part list

No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Hexagon socket head cap bolt	Stainless steel		13	Hexagon socket head set screw	Stainless steel	
2	Table	Aluminum alloy	Alumite	14	Steel ball	Stainless steel	
3	Bearing guard	Aluminum alloy (stainless steel for high accuracy type)	Alumite	15	Cylinder gasket	Nitrile rubber	
4	Ball bearing (1)	Alloy steel		16	Piston packing seal	Nitrile rubber	
5	Shaft	Alloy steel		17	Wear ring	Acetar resin	
6	Cylinder body	Aluminum alloy	Hard alumite	18	Magnet	Plastic (5.10 is special alloy.)	
7	Ball bearing (2)	Alloy steel		19	Piston	Stainless steel	
8	Hexagon socket head cap bolt	Stainless steel		20	Cushion rubber	Urethane rubber	
9	Head cover (1)	Aluminum alloy	Alumite	21	Seal washer	Steel /nitrile rubber	Galvanizing
10	Gasket	Nitrile rubber		22	Hexagon nut	Steel	Nickeling
11	Hexagon socket head cap bolt	Stainless steel		23	Stopper bolt	Alloy steel	Nickeling
12	Head cover (2)	Aluminum alloy	Alumite	24	Plain washer	Stainless steel	
				25	Cross roller bearing	Alloy steel	

Internal structure and parts list

● GRC-*-A (with outer mount shock absorber)

Note: The figure shows 90° specifications. 180° specifications use same material etc.



Part list

No.	Parts name	Material	Remarks
1	Hexagon socket head cap bolt	Stainless steel	
2	Lever	Carbon steel or alloy steel	Nickel/phosphorous plating
3	Connector	Steel	Nickeling
4	Plate	Aluminum alloy	Alumite
5	Hexagon socket head cap bolt	Stainless steel	
6	Hexagon socket head cap bolt	Stainless steel	
7	Hexagon head bolt	Stainless steel	
8	Stopper	Stainless steel	
9	Shock absorber		
10	Hexagon nut	Steel	Nickeling

Repair kits

Kit No.	Repair parts number
GRC-5K	
GRC-10K	
GRC-20K	10 15 16 17 20
GRC-30K	
GRC-50K	
GRC-80K	

Note 1: Specify the kit No. when ordering consumable parts.

Note 2: Avoid disassembling/repair, since high accuracy type uses highly controlled precision part.

When repairing high accuracy type, consult with CKD.

RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/ BHG
LHA
LHAG
HKP
HLA/ HLB
HLAG/ HLBG
HEP
HCP
HMF
HMFB
HFP
HLC
HGP
FH500
HLB
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2 -*-HC
CKH2
CKLB2
NCK/ SCK/FCK
FJ
FK
Ending

Table type rotary actuator
Oscillation, rotation drive type