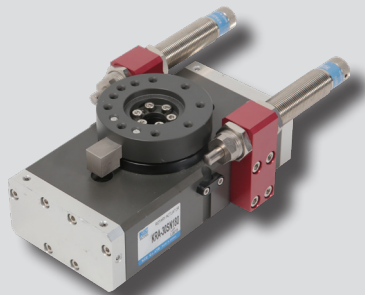


# KRA series



KRA-30SN180

### Features

- Dual Piston method with rack and pinion.
- Strongest rotational torque.
- Weight reduction by improving the internal structure.
- Able to be built in air cushion to maximize absorption effect.

### How to order

KRA 20 - S N 090 -   SX N + PA30 N 2 x 2

① Series

KRA	Rotary actuators
-----	------------------

② Bore size

16	Ø16	30	Ø30
20	Ø20	40	Ø40
25	Ø25	50	Ø50

③ Rotary type

S	Standard (90°, 180°)
C	Compact type (90°)

※ S type and C type has different position hole for mounting.

④ Air Cushion

N	Standard (Without air cushion)
K	KCC's independently developed air cushion

※ For the better effect, it is recommended to attach a shock absorber.

⑤ Rotation angle

090	90°
180	180°

⑥ Rotation angle adjustment

Nil	Standard
A	Rear adjustment type

⑦ Shock absorber

SB	With shock absorber (standard)
SX	Without shock absorber
ST	With stopper

⑧ Shock absorber color

Nil	Black (Standard)
N	Nickel plating

⑨ Sensor set

N	Without sensor
PA30	Sensor(Body length: 30mm)+Bracket ※Ø16 Not apply
PA18	Sensor(Body length: 18mm)+Bracket ※Ø40, Ø50 Not apply
PB	Bracket (Without sensor)

⑩ Sensor output type

N	NPN
P	PNP

⑪ Sensor wire length

2	2m (Standard)
3	3m
5	5m

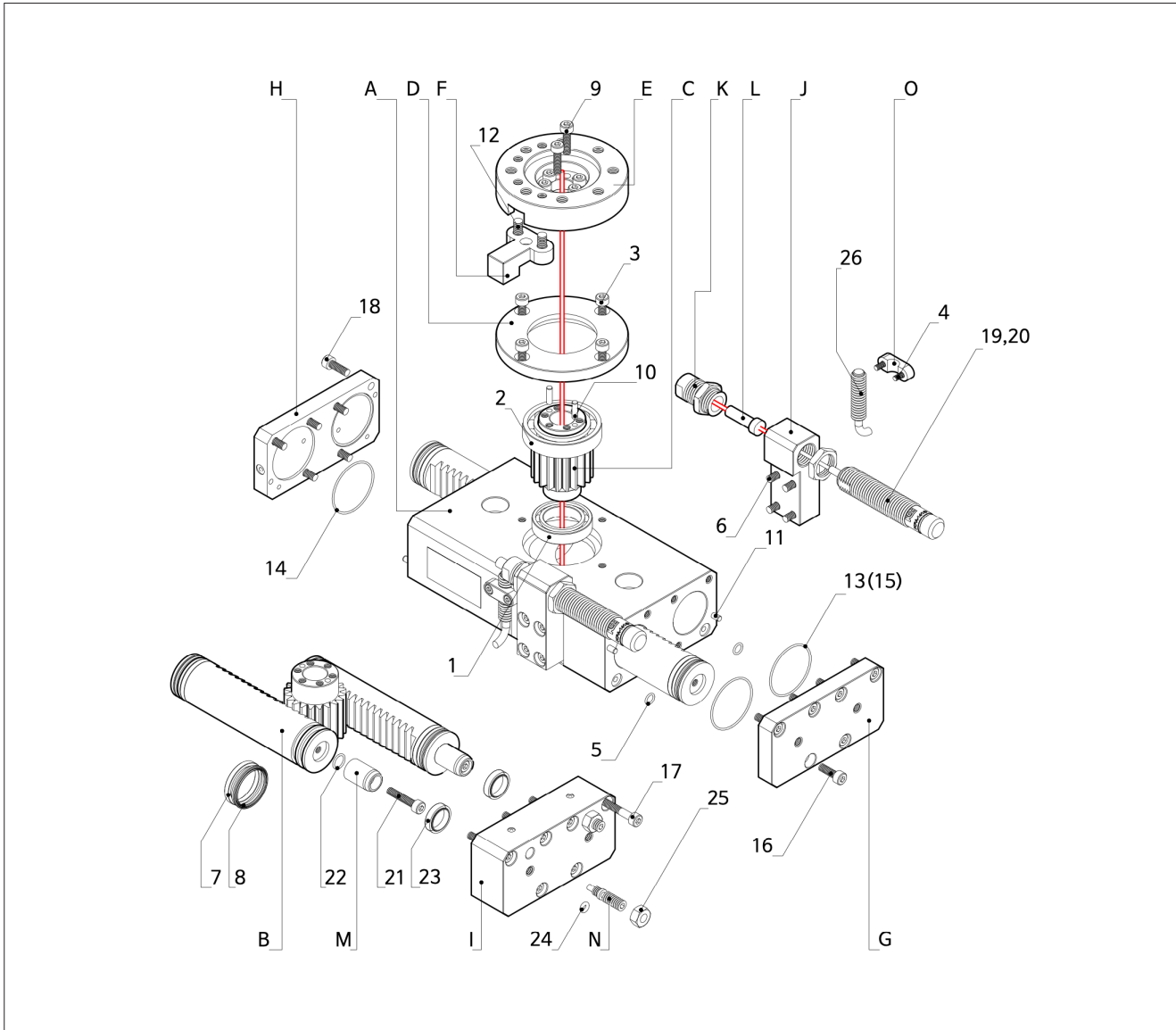
⑫ Quantity of sensor parts

#	Quantity of sensor
---	--------------------

### Specifications

	KRA16		KRA20		KRA25		KRA30		KRA40		KRA50		
	90°	180°	90°	180°	90°	180°	90°	180°	90°	180°	90°	180°	
Port size	M5		Standard: Rc(PT) 1/8, Air Cushion: M5				Rc(PT) 1/8						
Operating Pressure	2~8kgf/cm <sup>2</sup> (0.2~0.8MPa)												
Ambient Temperature	0~60℃												
Effective torque (N.m) ※ P = Air pressure	MPa	2.4xP	5.9xP	11.6xP	16.6xP	35.7xP	69.9xP						
	kgf/cm <sup>2</sup>	0.23xP	0.58xP	1.14xP	1.63xP	3.5xP	6.85xP						
Air consumption(CC/Cycle)	9.5	19	23.6	47.4	45.7	91.5	73.2	131.8	141.4	282.8	277.4	554.9	
Additional cushion weight(Kg)			+0.13		+0.14		+0.23		+0.39		+0.48		
Weight(kg)	S	0.81	0.79	1.72	1.68	2.44	2.37	3.56	3.46	6.45	6.26	11.23	11.14
	C			1.48		1.98		2.96		5.14			

**Structure**

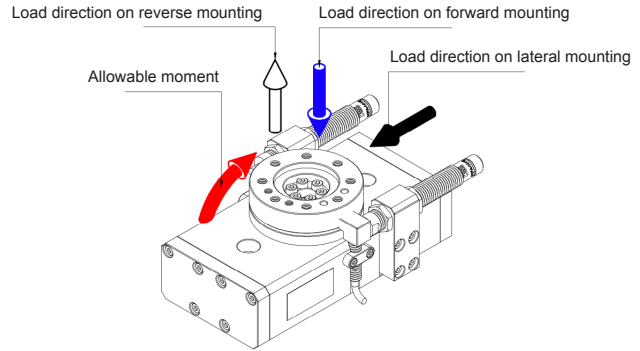
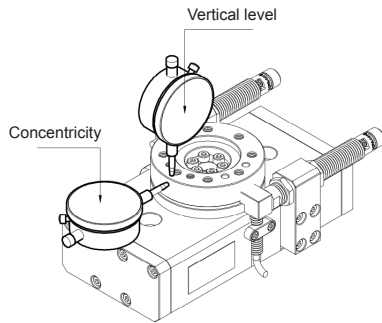


No	Parts	Material	Remark
A	Rotary body	Aluminum alloy	Hard anodizing
B	Rack piston	Steel alloy	Heat treatment
C	Piston gear	Steel alloy	Heat treatment
D	Bearing cover	Aluminum alloy	Coloring anodizing
E	Turn table	Aluminum alloy	Hard anodizing
F	Stopper block	Steel alloy	Heat treatment
G	Side cover-R	Aluminum alloy	Coloring anodizing
H	Side cover-RC	Aluminum alloy	Coloring anodizing
I	Side cover-L	Aluminum alloy	Coloring anodizing
J	Stopper bracket	Aluminum alloy	Coloring anodizing
K	Stopper head	Carbon steel	Heat treatment
L	Stopper bar	Carbon steel	Heat treatment
M	Cushion ring	Carbon steel	Heat treatment
N	Cushion needle	Carbon steel	
O	Sensor bracket	Resin	

No	Parts
1	Ball bearing
2	Ball bearing
3	Low head wrench bolt
4	Wrench bolt
5	O-Ring
6	Wrench bolt
7	Wear ring
8	Piston packing
9	Wrench bolt
10	Dowel pin
11	Dowel pin
12	Low head wrench bolt
13	O-Ring
14	O-Ring
15	O-Ring

No	Parts
16	Wrench bolt
17	Wrench bolt
18	Wrench bolt
19	Shock absorber
20	Hex nut
21	Wrench bolt
22	O-Ring
23	Cushion packing
24	O-Ring
25	Hex nut
26	Proximity sensor

**Product Details**



Warranty range of rotary tables

	Unit	90°	180°
Vertical level	mm	0.05	0.08
Concentricity	mm	0.06	0.1

Loading (mounting) load and allowable moment

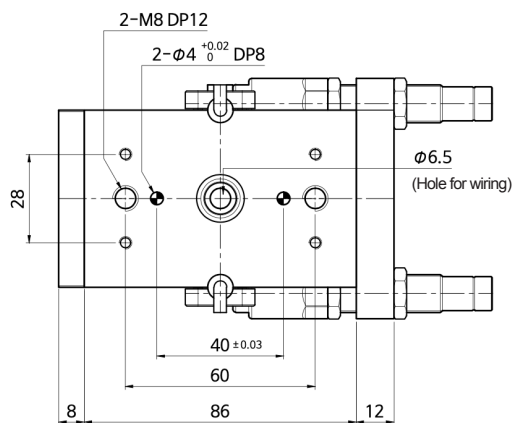
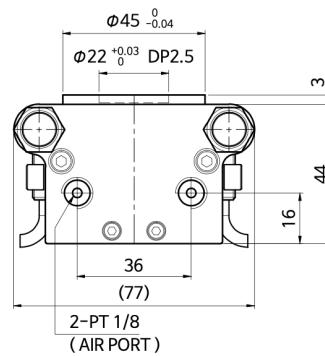
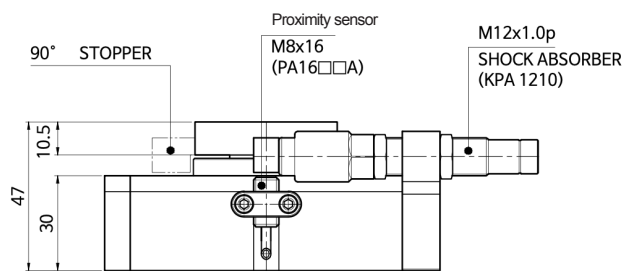
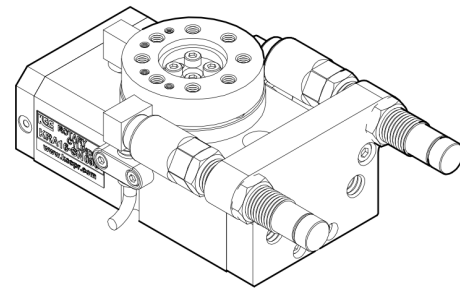
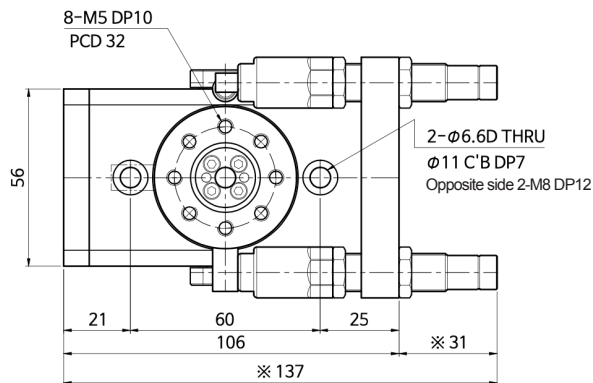
	Unit	KRA16	KRA20	KRA25	KRA30	KRA40	KRA50
Forward loading	kg	8	12	16	25	36	60
Reverse mounting	kg	6	9	12	19	27	45
Lateral mounting	kg	4.8	7.2	9.5	15	21.6	36
Allowable moment	N·m	3.7	5.5	9.8	18.6	25.5	37.2

**Product Classification**

	180°	90°
Without Cushion	<p><b>SN180</b></p>	<p><b>SN090</b></p>
With Cushion	<p><b>SK180</b></p>	<p><b>SK090</b></p>
SN	<p>Standard and general-purpose products, 180° standard and a stopper block are added to control the rotation angle to 90°. The weight and price increase slightly by adding parts, but the installation dimensions are the same, so product replacement is easy.</p>	
□K	<p>With the addition of a cushion cover developed by KCC, it has excellent shock absorption ability and is easy to prepare for damage to the shock absorber. Adding a cushion cover increases weight and cost. In harsh environments, the cushion packing may need to be replaced periodically.</p>	
□□	<p>It is a compact 90° dedicated product with reduced product length and weight. The price is cheaper than other types, but care must be taken when selecting a product because the location of the through hole + mounting tab + fixing pin is different from that of the standard type.</p>	

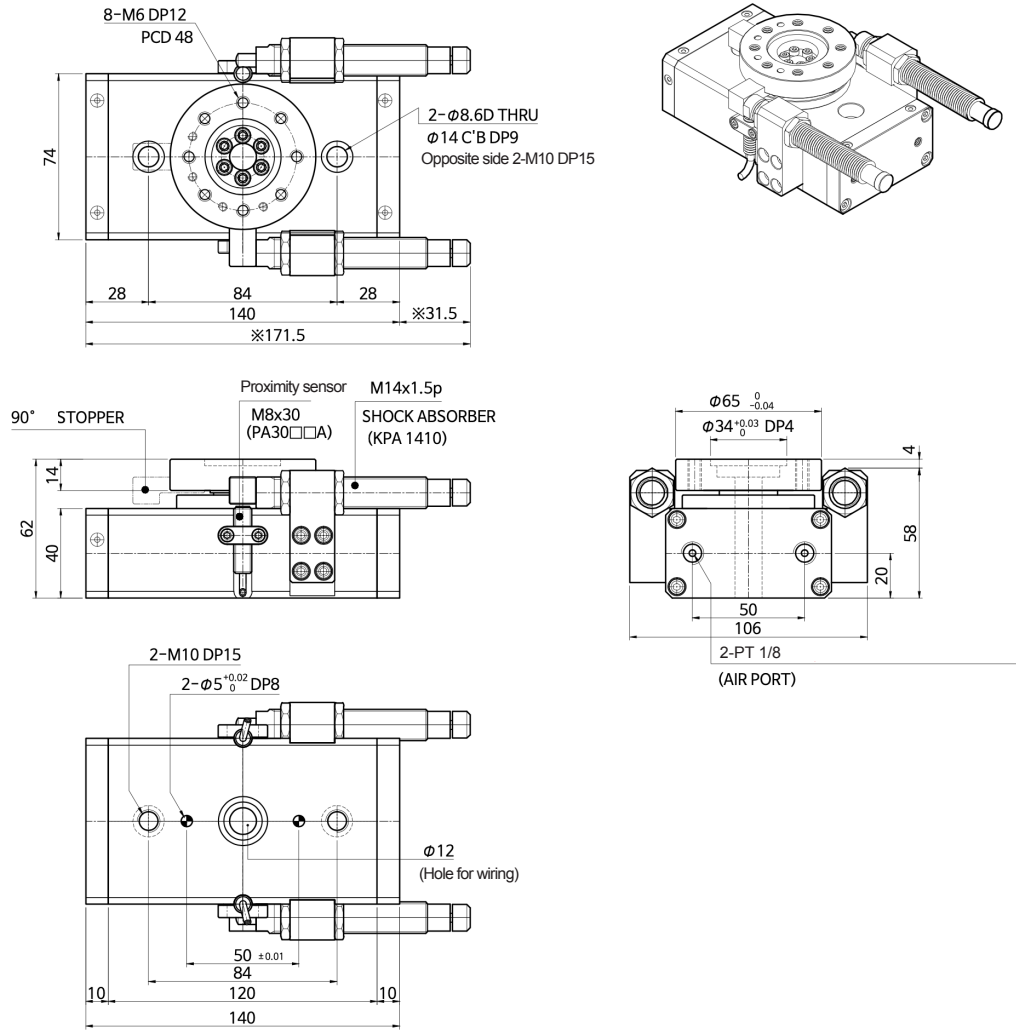
**Dimensions**

**KRA16-SN180(SN090): Standard**

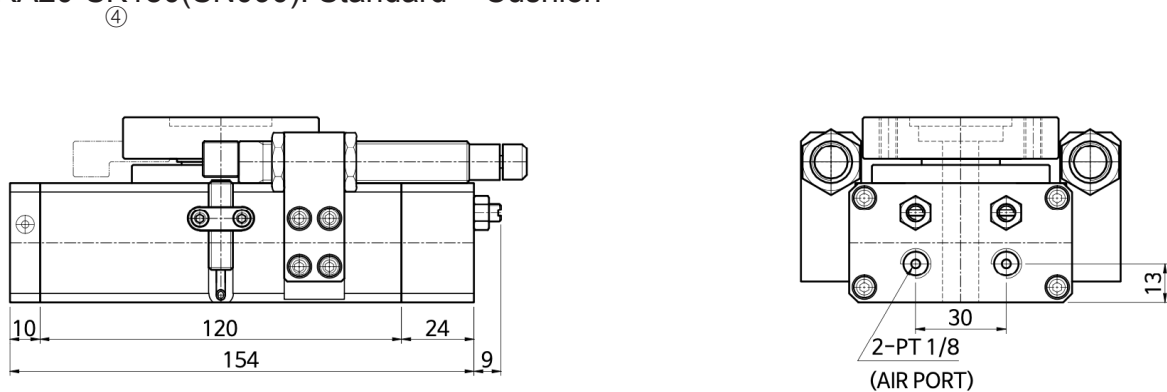


**Dimensions**

**KRA20-SN180(SN090): Standard**



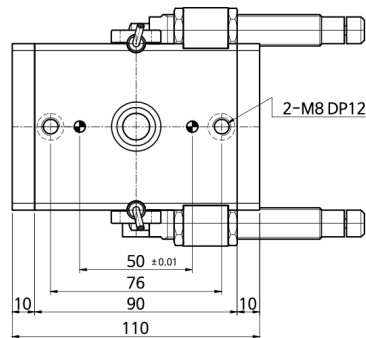
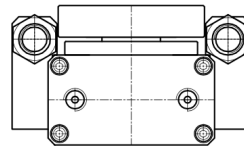
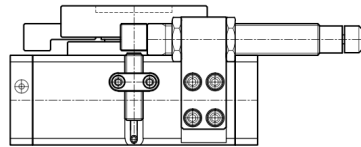
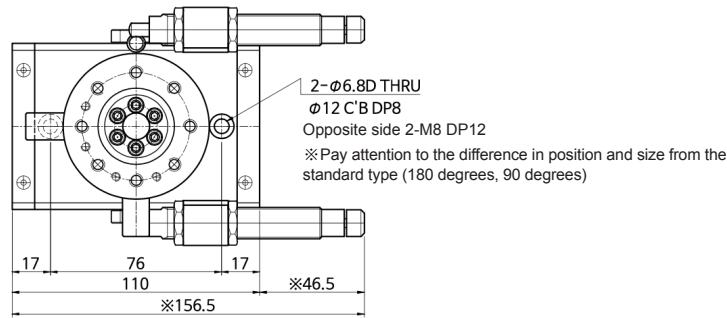
**KRA20-SK180(SN090): Standard + Cushion**



**Dimensions**

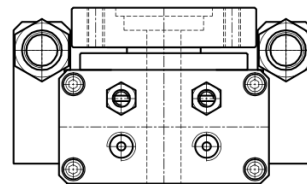
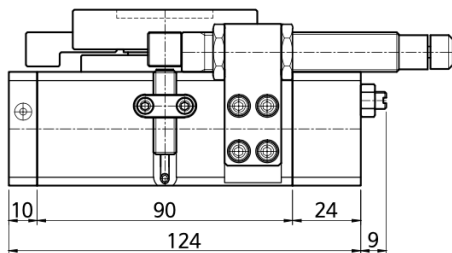
**KRA20-CN090: Compact type**

③④



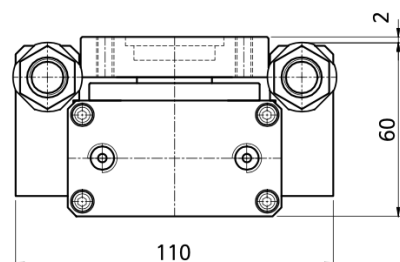
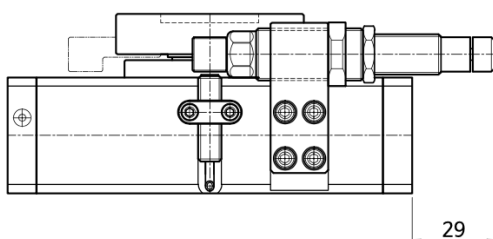
**KRA20-CK090: Compact type + Cushion**

③④



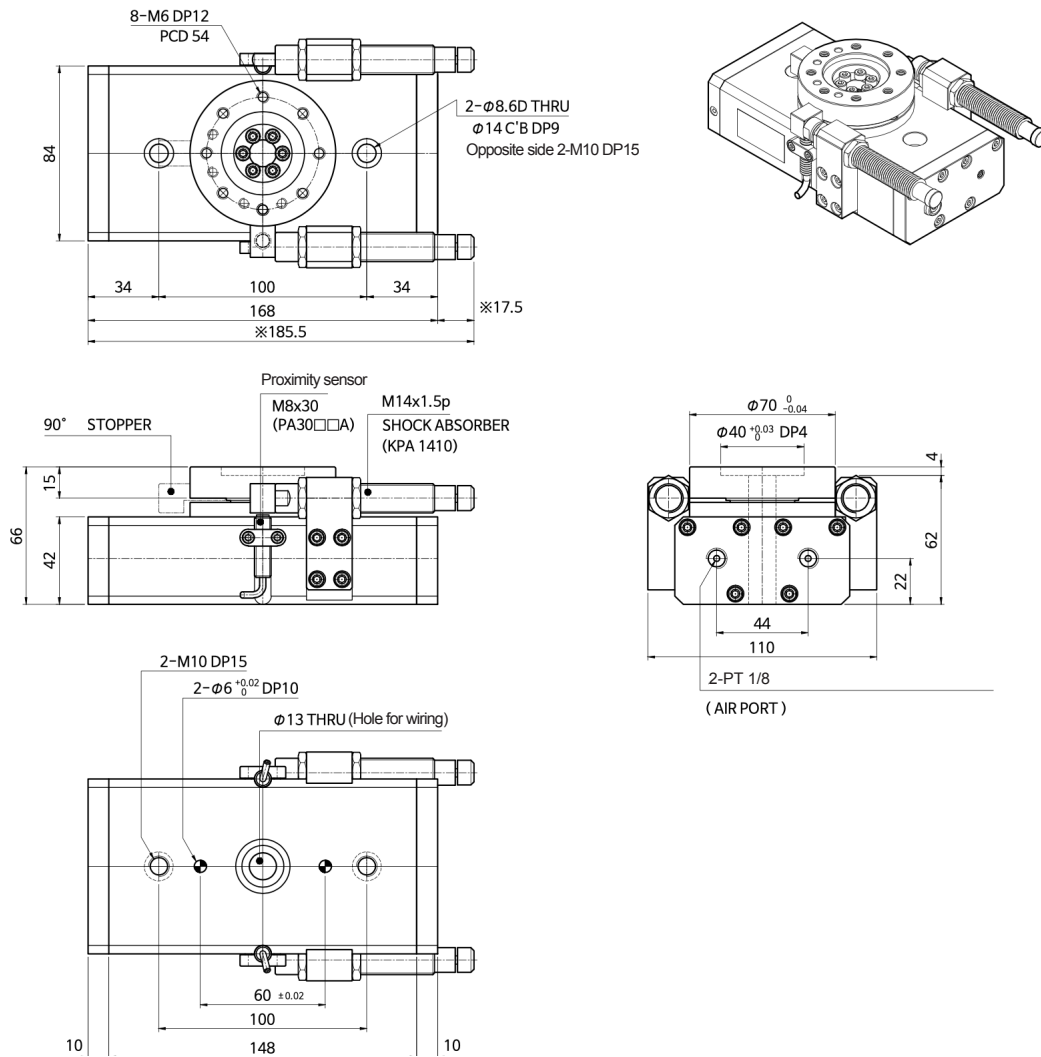
**KRA20-□□...-A: Rear adjustment type**

⑥

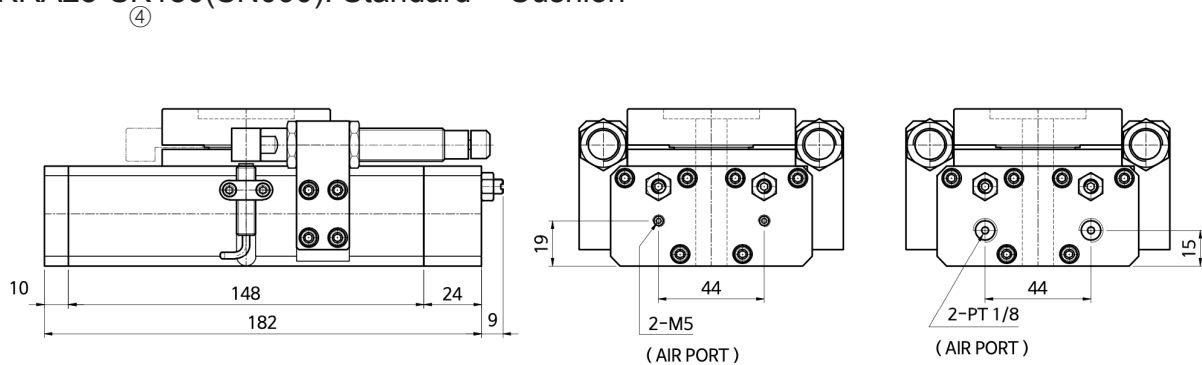


**Dimensions**

**KRA25-SN180(SN090): Standard**



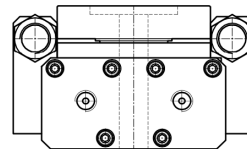
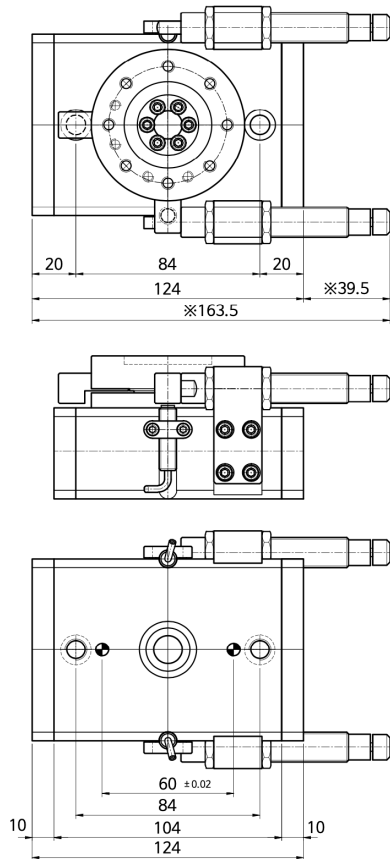
**KRA25-SK180(SN090): Standard + Cushion**



**Dimensions**

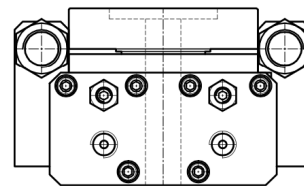
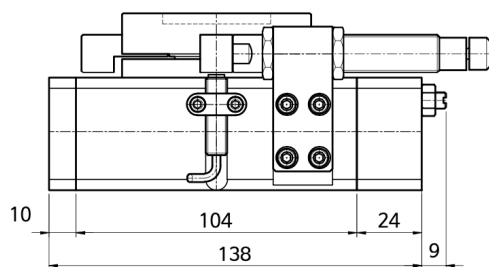
**KRA25-CN090: Compact type**

③④



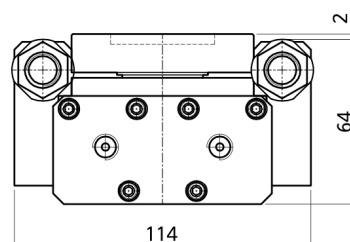
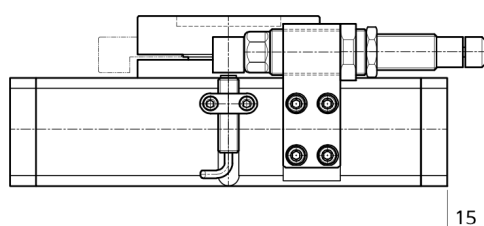
**KRA25-CK090: Compact type + Cushion**

③④



**KRA25-□□...-A: Rear adjustment type**

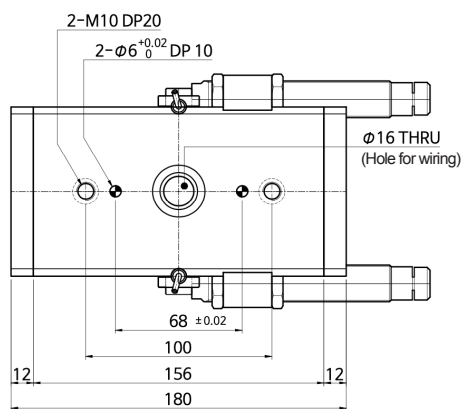
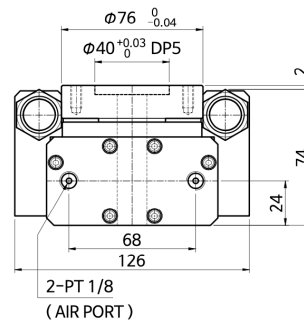
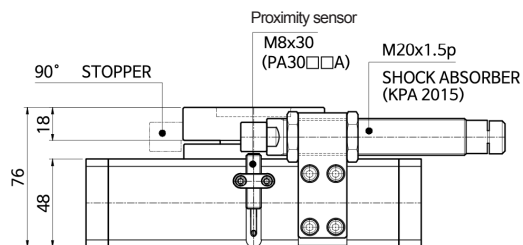
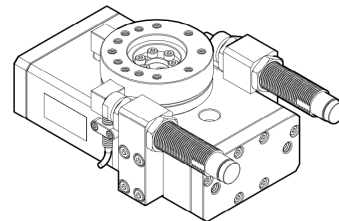
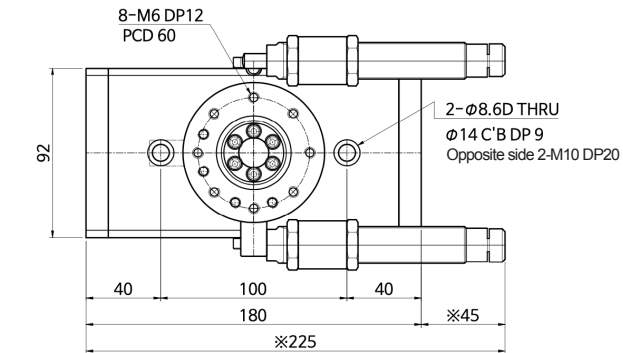
⑥



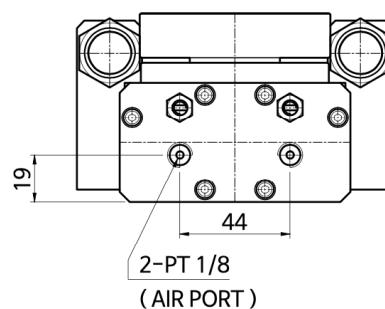
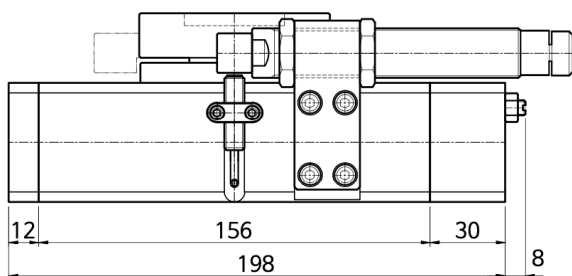


**Dimensions**

**KRA30-SN180(SN090): Standard**



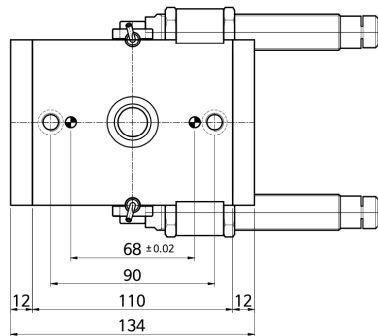
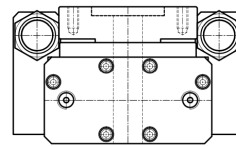
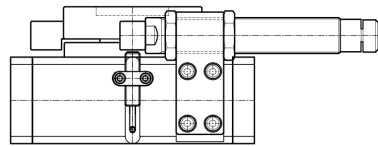
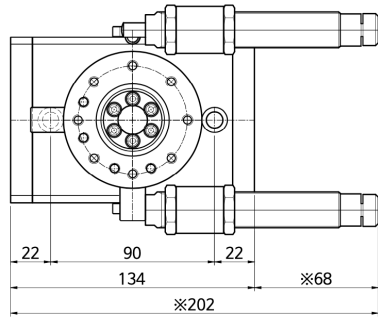
**KRA30-SK180(SN090): Standard + Cushion**



**Dimensions**

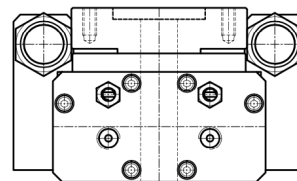
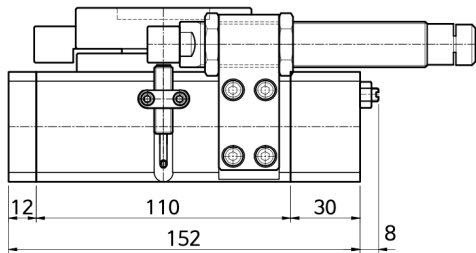
**KRA30-CN090: Compact type**

③④



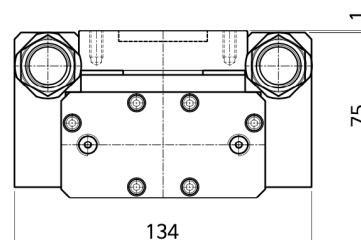
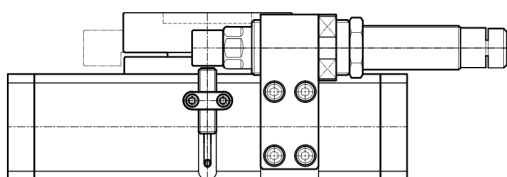
**KRA30-CK090: Compact type + Cushion**

③④



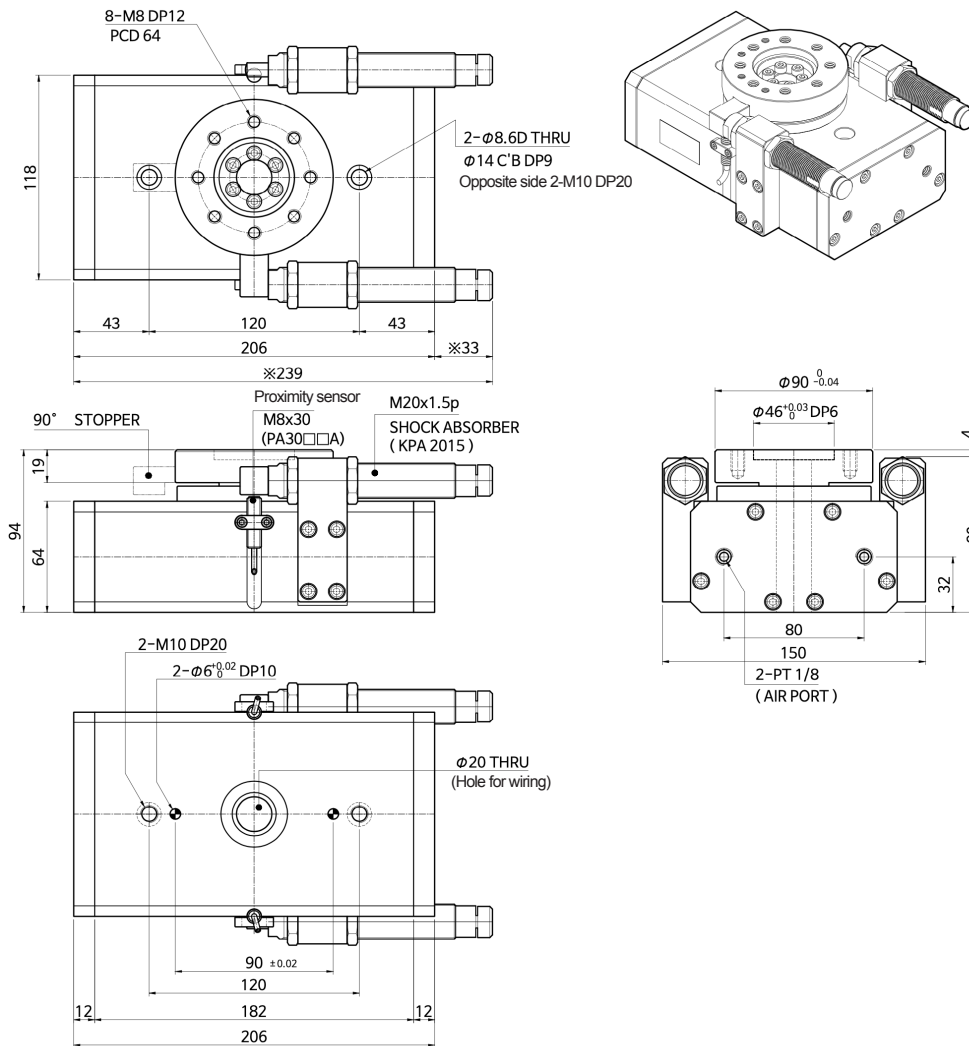
**KRA30-□□...-A: Rear adjustment type**

⑥



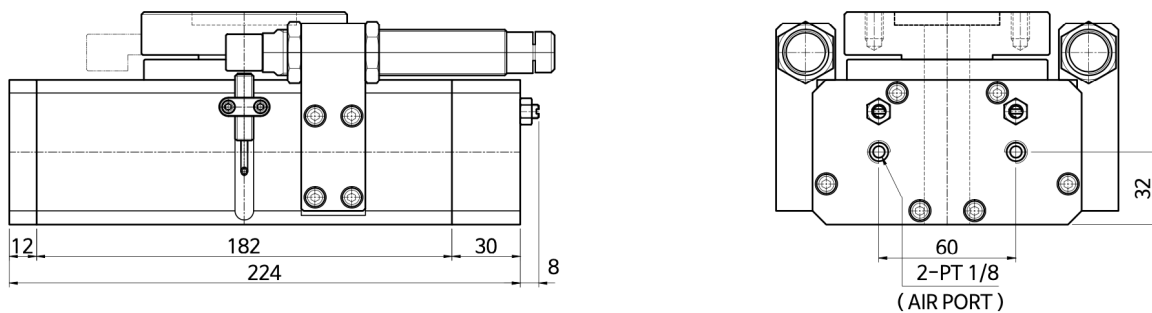
**Dimensions**

**KRA40-SN180(SN090): Standard**



**KRA40-SK180(SN090): Standard + Cushion**

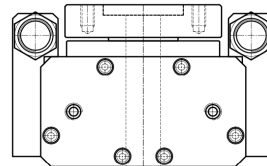
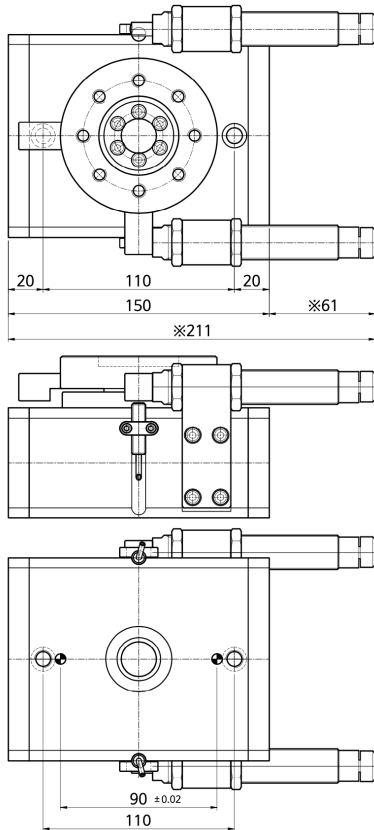
④



**Dimensions**

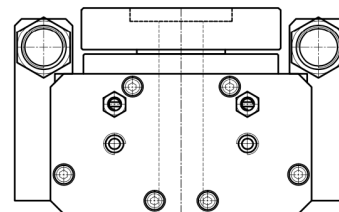
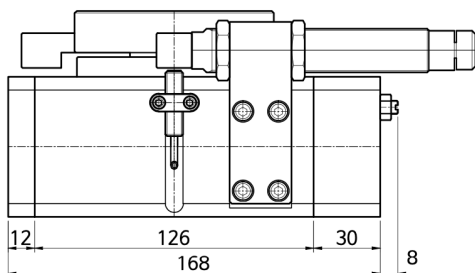
**KRA40-CN090: Compact type**

③④



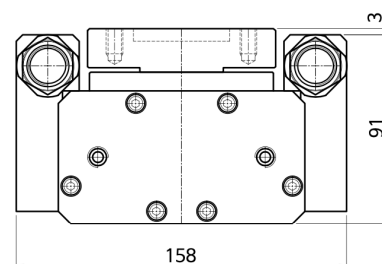
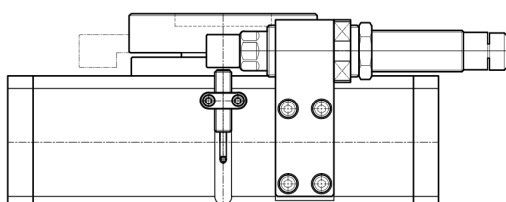
**KRA40-CK090: Compact type + Cushion**

③④



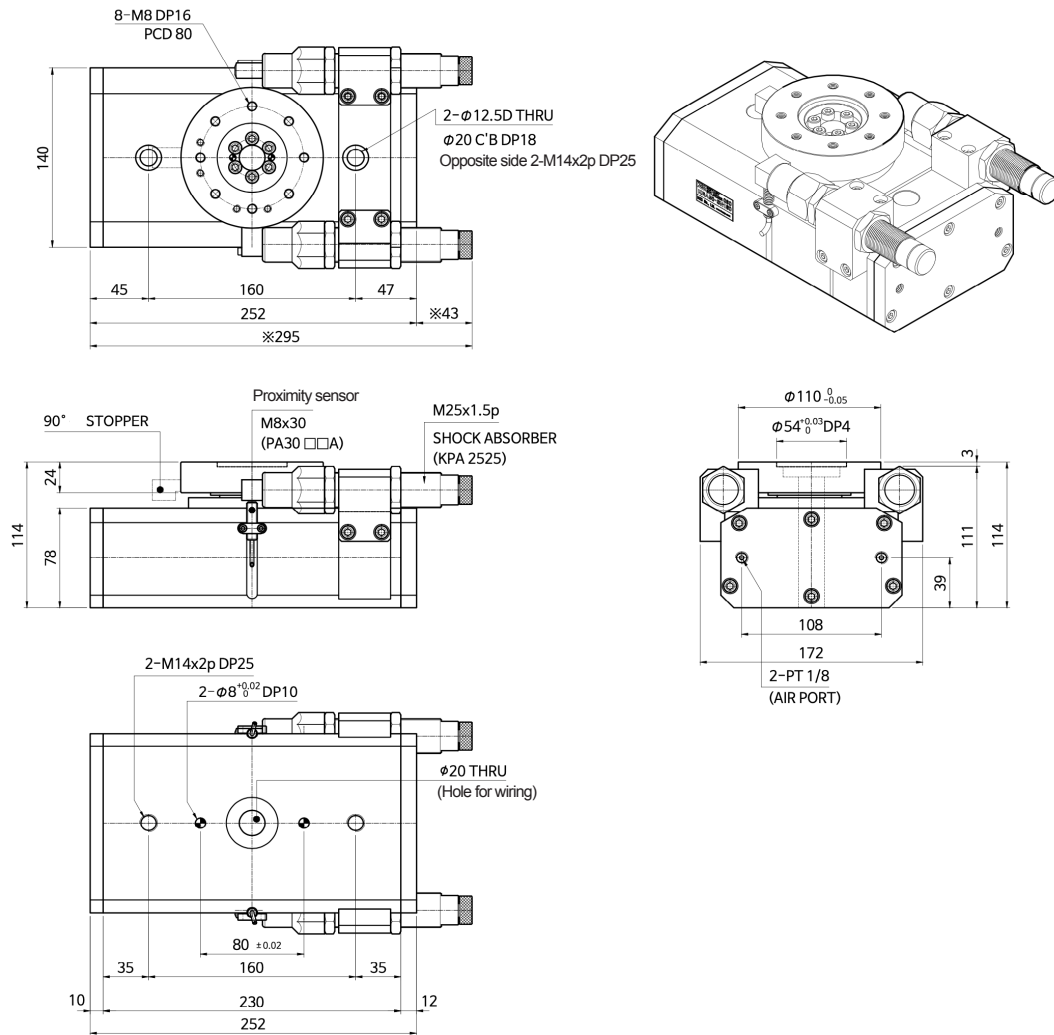
**KRA40-□□...-A: Rear adjustment type**

⑥



**Dimensions**

**KRA50-SN180(SN090): Standard**



**KRA50-SK180(SN090): Standard + Cushion**

④

