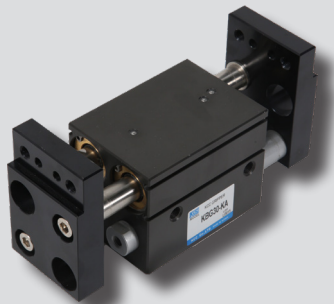


KBG series



KBG-30KA

Features

- Dual piston type with rack & pinion principle
- Increased efficiency design with piston at the bottom
- Sensor is applicable with embedded neodymium magnet on the piston
- Improved hardness and lubrication with no magnet on the guide rack
- With pin hole for body and jaw positioning

How to order

KBG - 20 K A - S80 + A93 2

① ② ③ ④ ⑤ ⑥ ⑦

① Series

KBG	Block gripper
-----	---------------

② Bore size

12	Ø12	30	Ø30
16	Ø16	40	Ø40
20	Ø20		

③ Structure type

K	New structure (KCC development model)
J	Old structure compatible products

④ Jaw direction

A	Vertical
B	90°

※ For type B, the open and close of the air port are changed, and the size of the jaw is different due to the difference between the shaft distance, so the dimensions do not match with the B type of other companies.

⑤ Long stroke option

	KBG-12	KBG-16	KBG-20	KBG-30	KBG-40
Nil(Standard)	(20)	(30)	(40)	(60)	(100)
S(Long)	40	60	80	120	developing

※ The standard stroke can be omitted.

⑥ Auto switch

Reed A/S		Solid state A/S		Notes
Order name	Model	Order name	Model	
A93(V)	D-A93(V)K	F-9□(V)	D-F9□(V)K	□ = N, P, B
A93N	D-A93KN	F-9□(V)	D-F9□(V)K	
A93(V)S	D-A93(V)K-S	F-9□(V)	D-F9□(V)K	

※ Refer to Auto Switch Catalogue for more information.

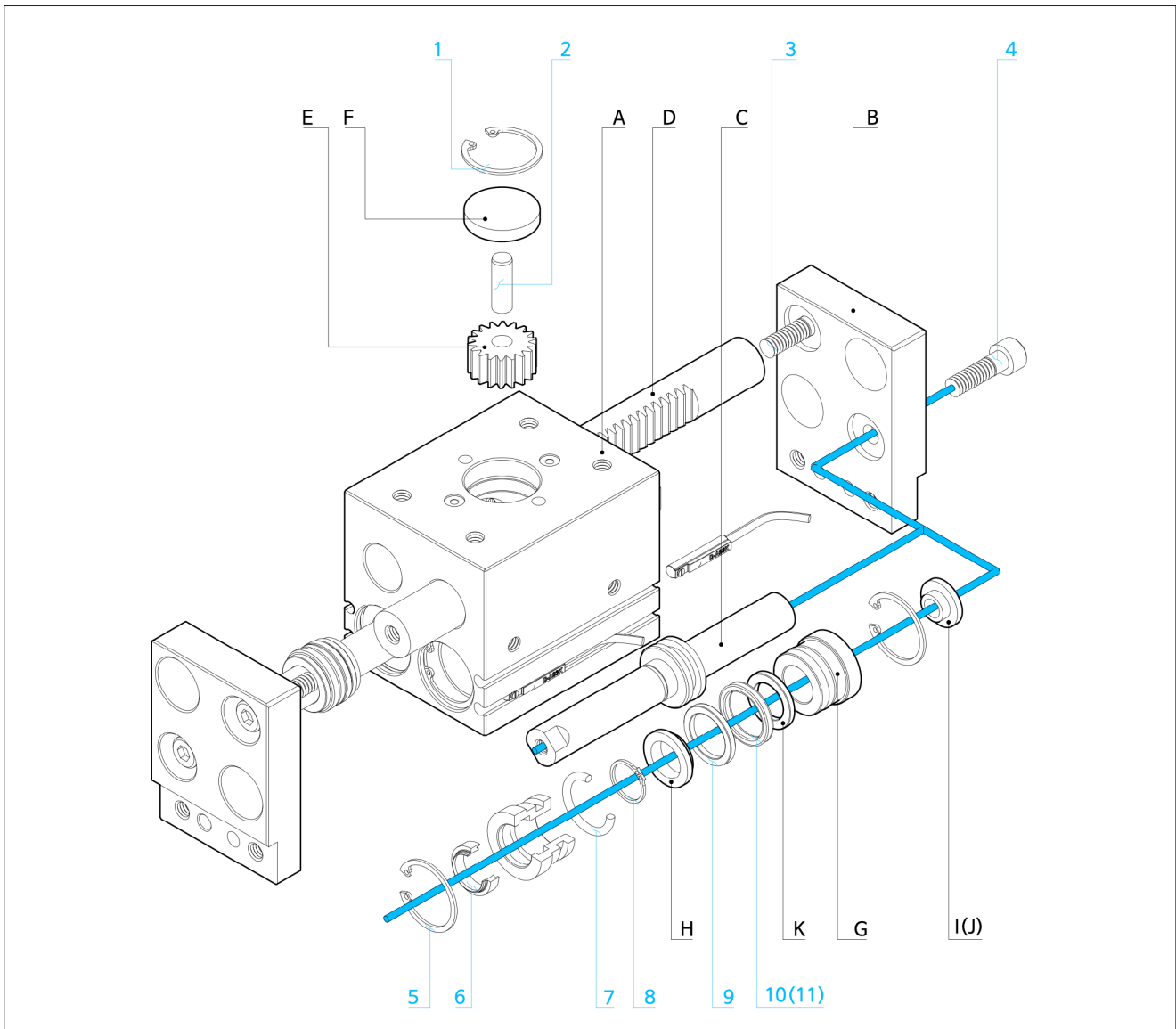
⑦ Quantity of sensor parts

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

Specifications

	KBG-12	KBG-16	KBG-20	KBG-30	KBG-40
Fluid	Compressed air				
Operating Pressure	3~7kgf/cm ² (0.3~0.7MPa)				
Ambient Temperature	0~60℃				
Stroke(mm)	2x10	2x15	2x20	2x30	2x50
Port size	M5			Rc(PT) 1/8	
Air consumption(CC/Cycle)	3	9	16.1	60.7	188.5
Max. gripping point(mm)	40	60	80	120	160
Frequency(Cycle/min)	60	50	50	40	30
Repeat Accuracy(mm)	±0.01 (After initial 100 operation) / ±0.2 (After 1 million operation)				
Gripping force(N) ※ P = Mpa, L=mm	$\frac{124.0xP}{1+0.009xL}$	$\frac{222.9xP}{1+0.008xL}$	$\frac{299.9xP}{1+0.006xL}$	$\frac{754.7xP}{1+0.004xL}$	$\frac{1,460.4xP}{1+0.003xL}$
Weight(kg)	0.32	0.53	1.18	2.83	5.28

Structure

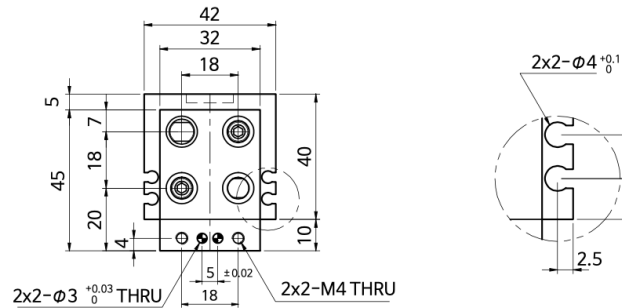
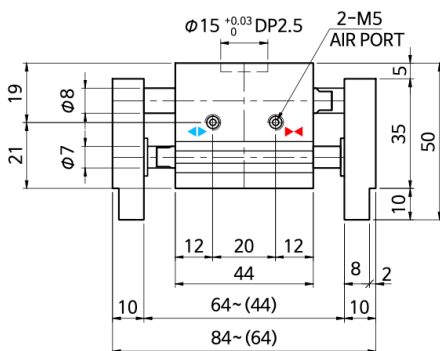
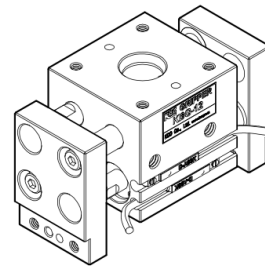
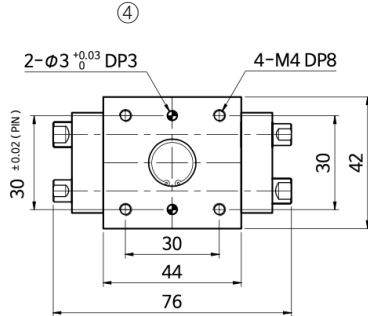


No	Parts	Material	Remark
A	Gripper Body	Aluminum alloy	Hard Anodizing
B	JAW	Aluminum alloy	Black Anodizing
C	Piston	Stainless steel	
D	Guide rack	Steel alloy	Hard chromium plating
E	Pinion	Steel alloy	Nitriding
F	Hinge cover	Stainless steel	
G	Rod cover	Copper alloy	
H	Magnet cover	Aluminum alloy	
I	Piston holder	Stainless steel	
J	Rack holder	Stainless steel	
K	Damper	Urethane rubber	

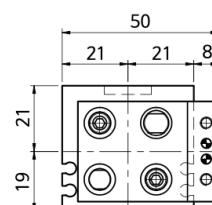
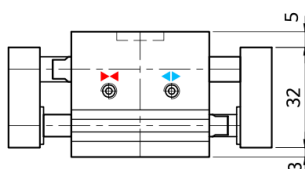
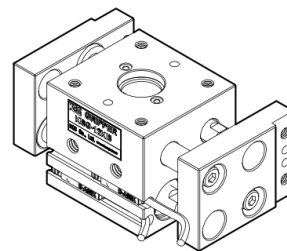
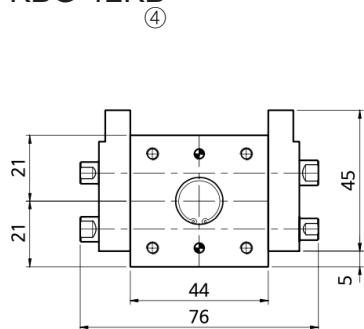
No	Parts	Remark
1	Snap ring	
2	Dowel pin	
3	Guide rack bolt	
4	Piston bolt	
5	Snap ring	
6	Rod packing	
7	O-ring(Rod cover)	
8	Snap ring	
9	Neodymium Magnet	
10	Piston packing	
11	Wear ring	Only KBG-30, 40

Dimensions-Standard

KBG-12KA

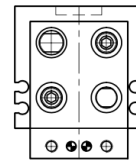
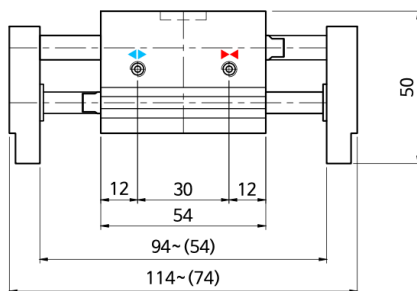
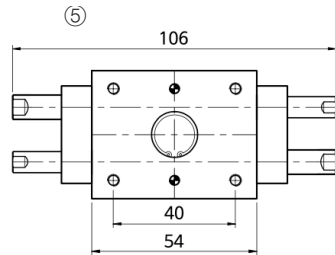


KBG-12KB

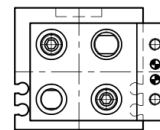
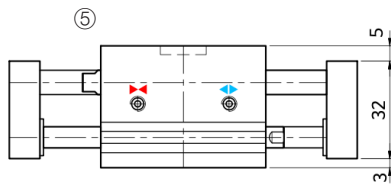


Dimensions-Option

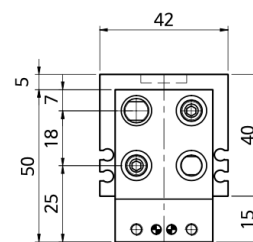
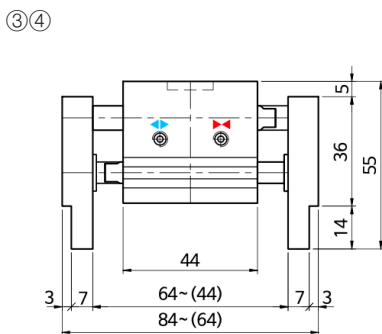
KBG-12KA-S40



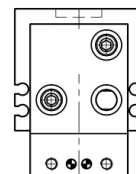
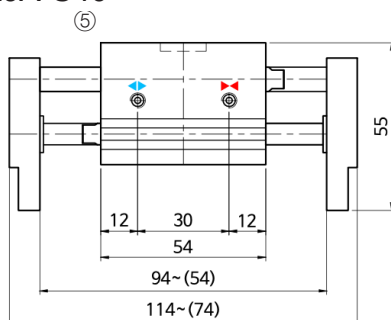
KBG-12KB-S40



KBG-12JA

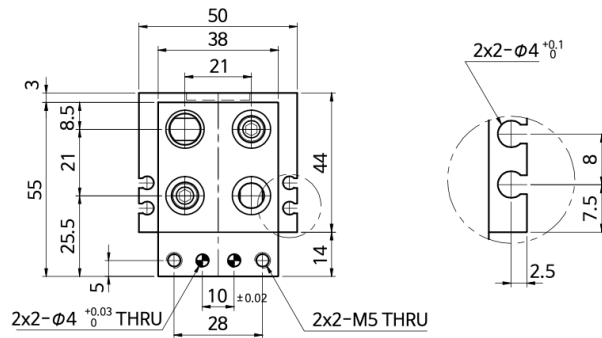
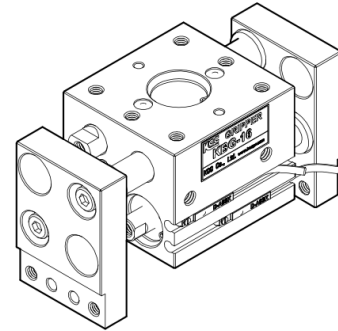
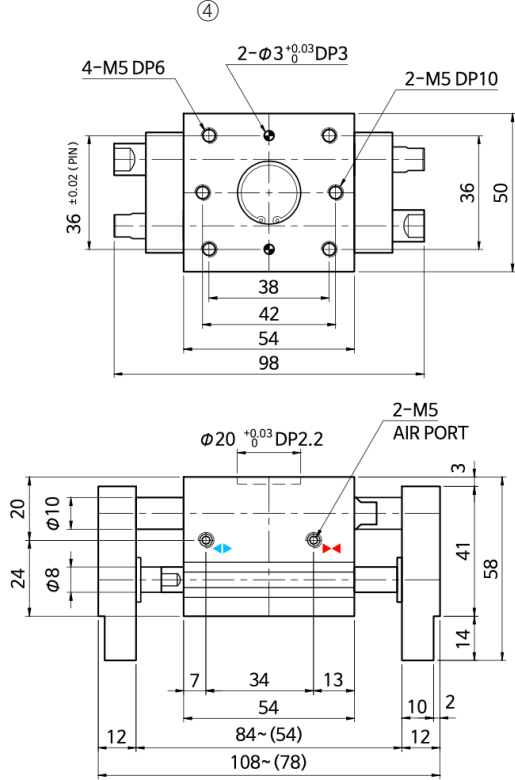


KBG-12JA-S40

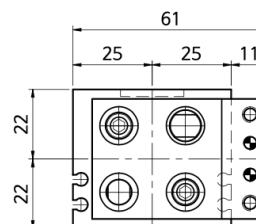
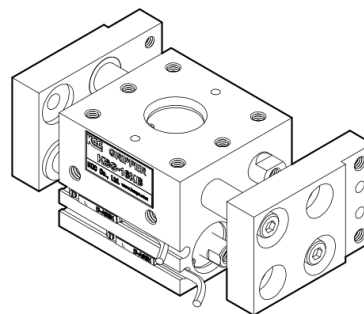
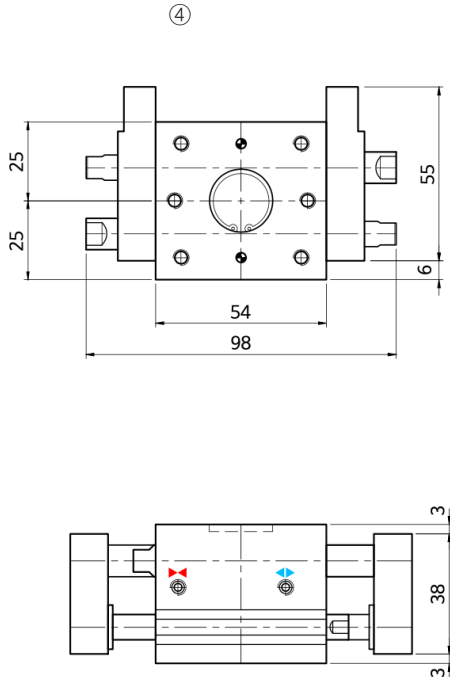


Dimensions-Standard

KBG-16KA

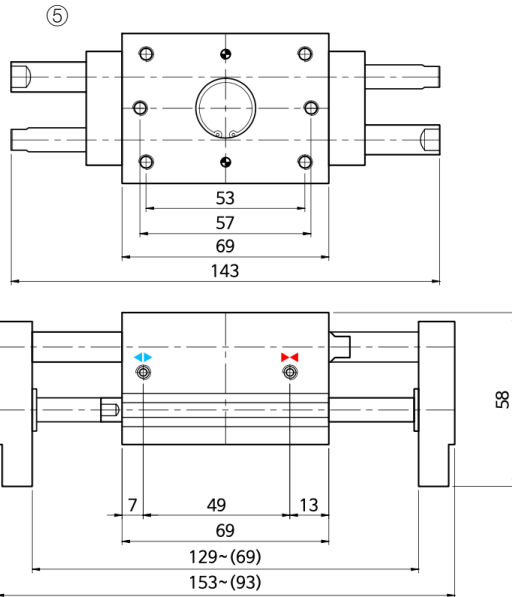


KBG-16KB

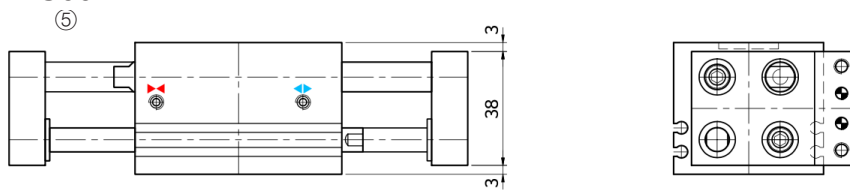


Dimensions-Option

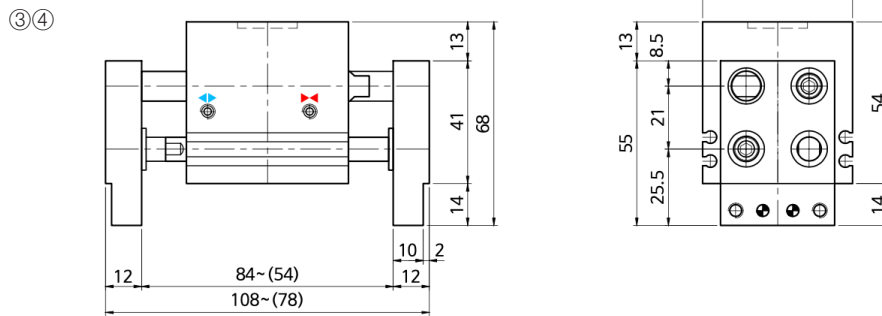
KBG-16KA-S60



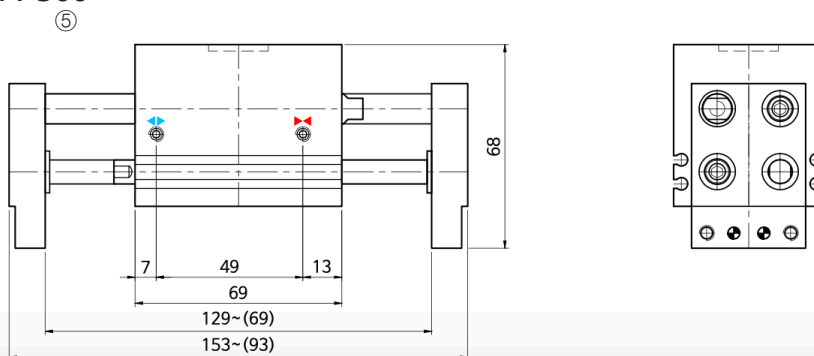
KBG-16KB-S60



KBG-16JA

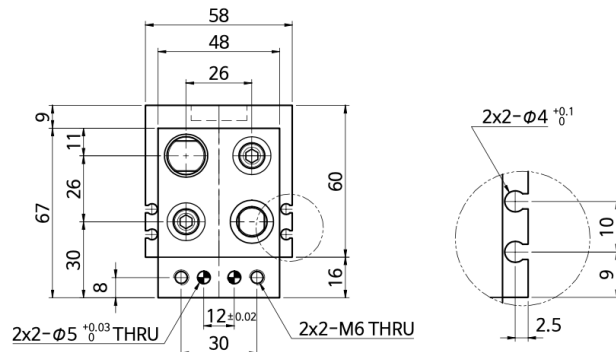
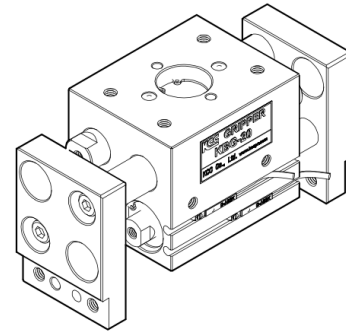
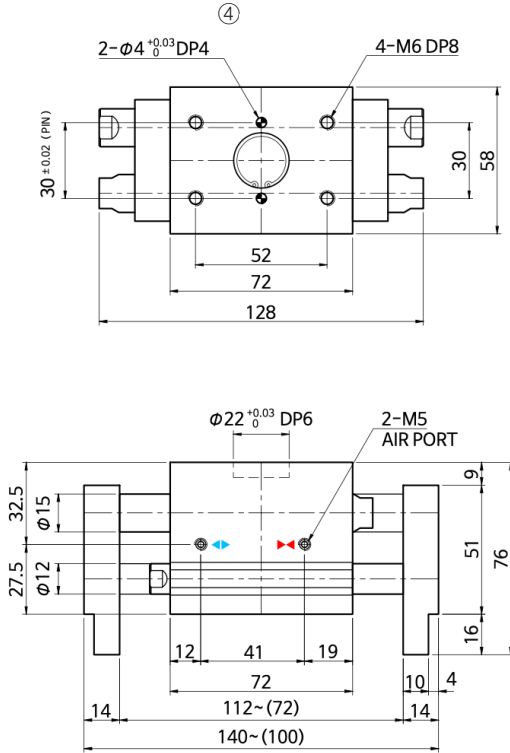


KBG-16JA-S60

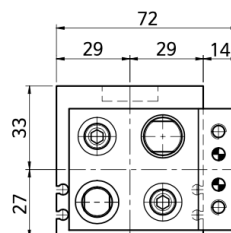
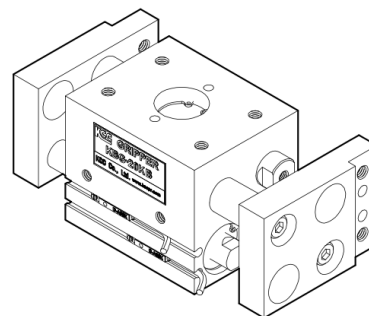
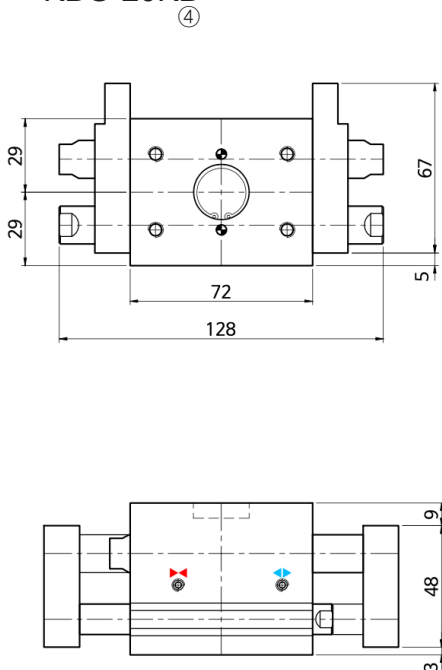


Dimensions-Standard

KBG-20KA

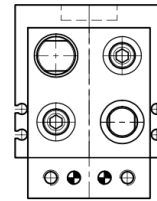
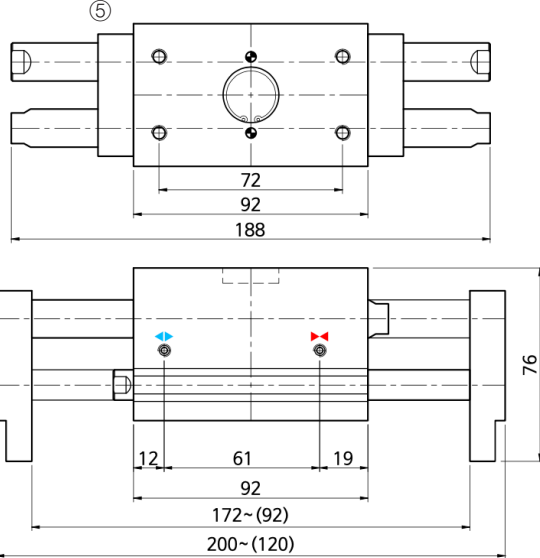


KBG-20KB

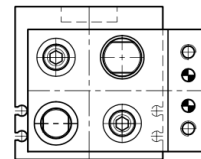
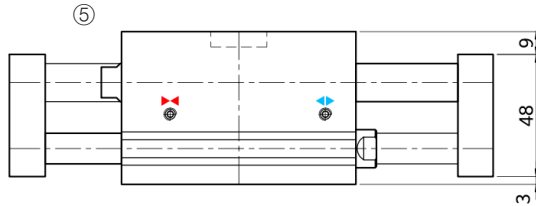


Dimensions-Option

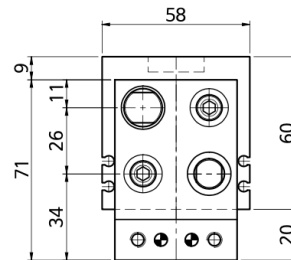
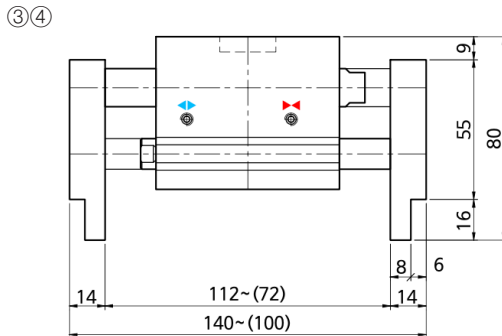
KBG-20KA-S80



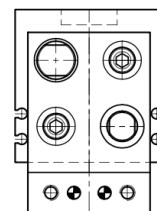
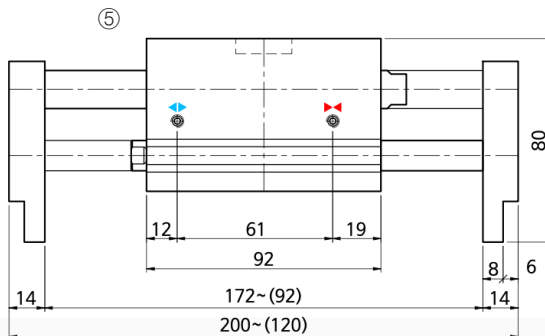
KBG-20KB-S80



KBG-20JA

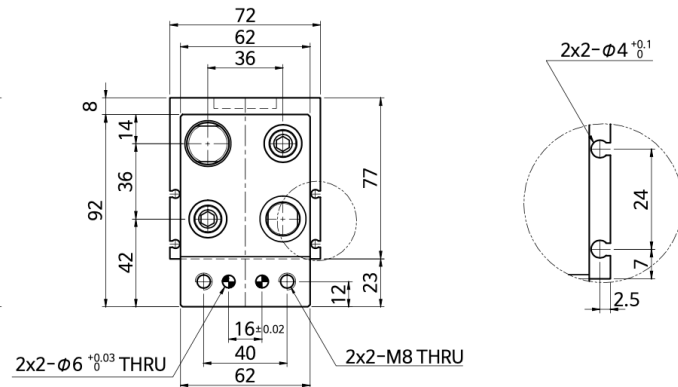
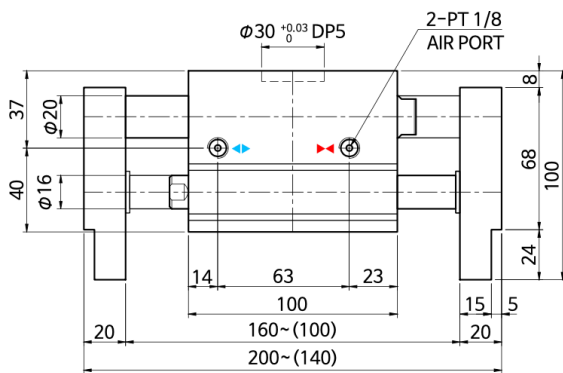
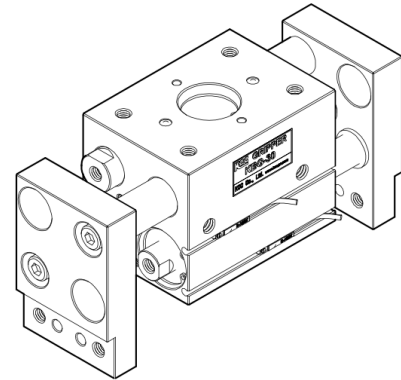
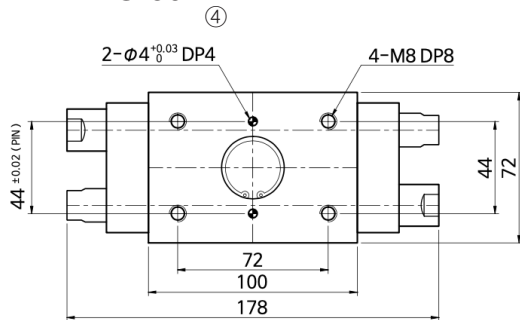


KBG-20JA-S80

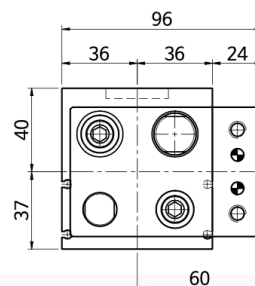
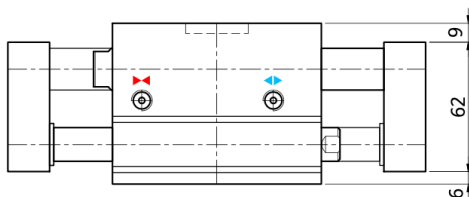
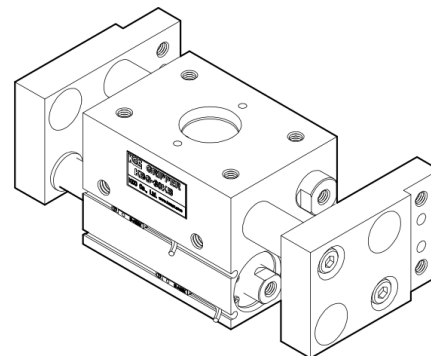
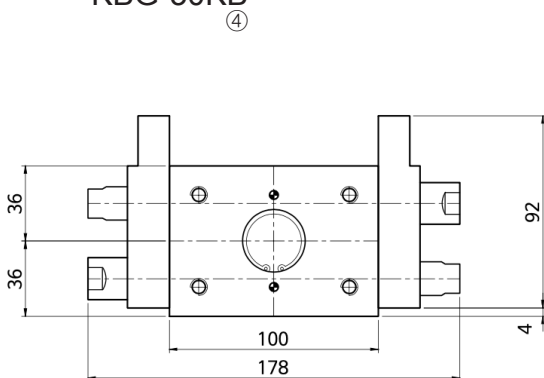


Dimensions-Standard

KBG-30KA

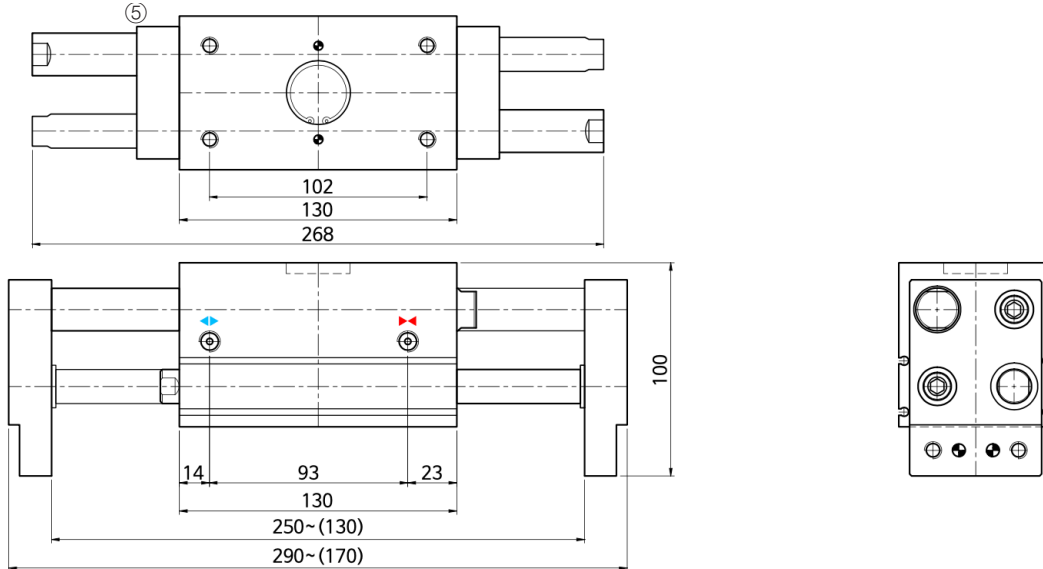


KBG-30KB

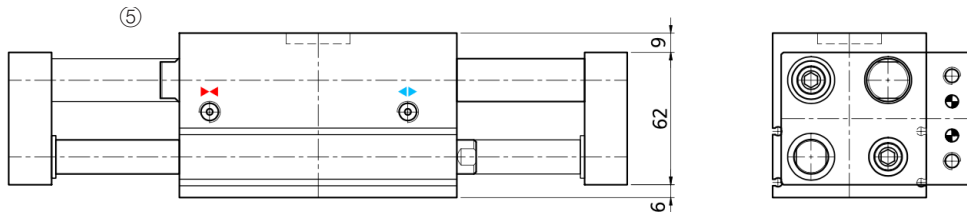


Dimensions-Option

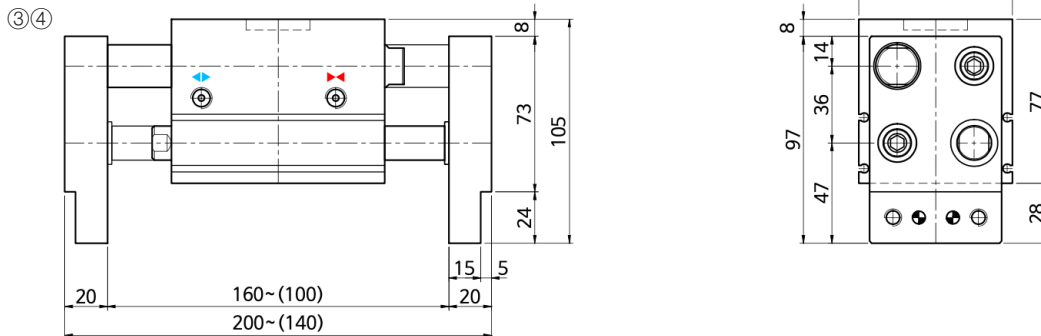
KBG-30KA-S120



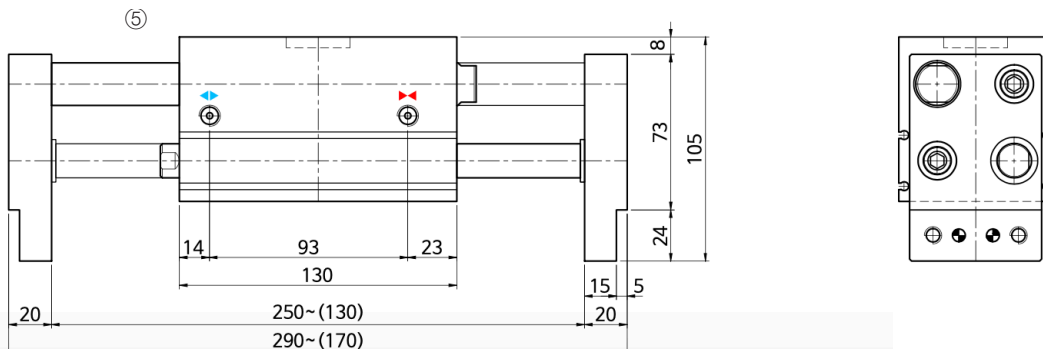
KBG-30KB-S120



KBG-30JA



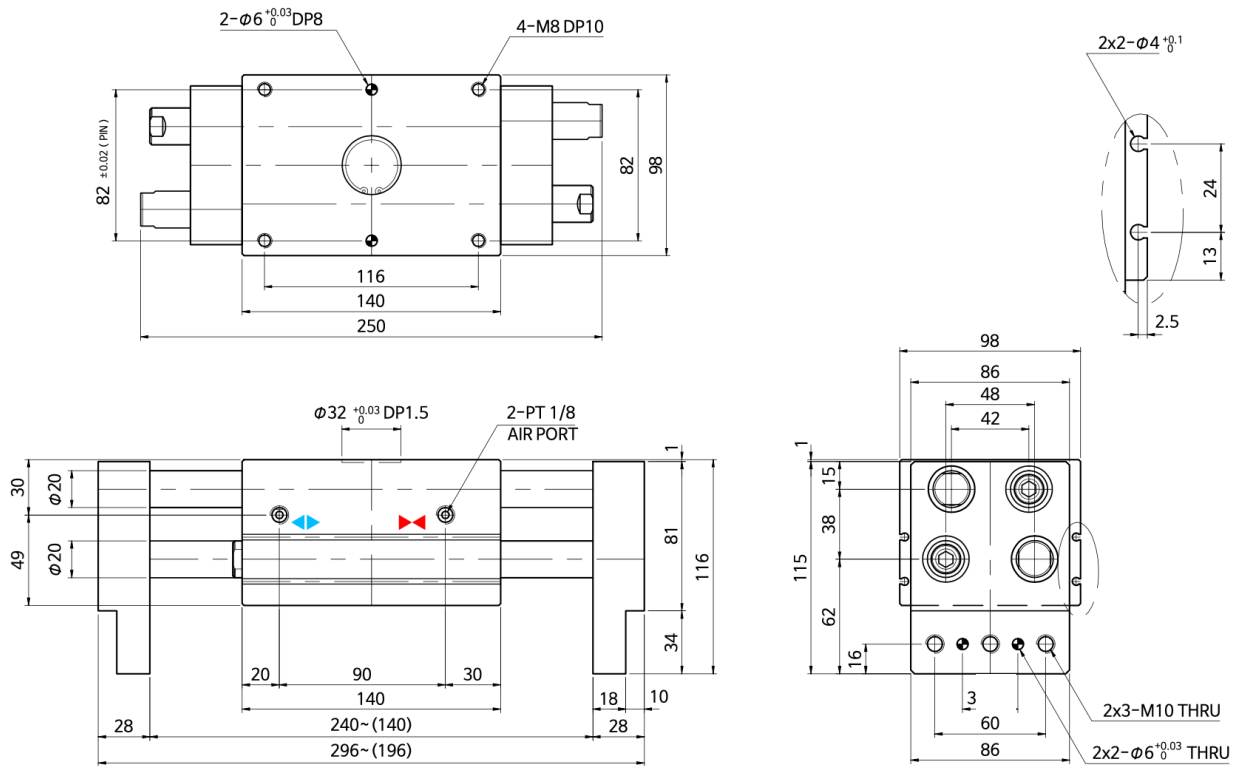
KBG-30JA-S120



Dimensions-Standard

KBG-40KA

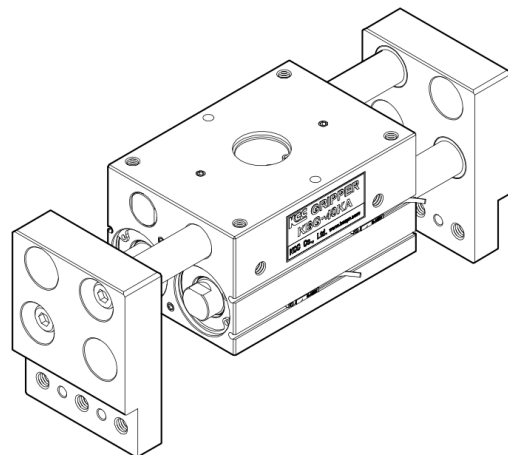
④



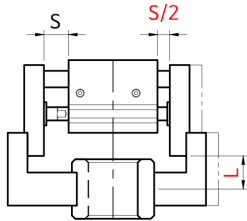
KBG-40KB

④

KBG-40KB Type can be manufactured after consultation as the dimensions are different for each company.



Effective gripping force



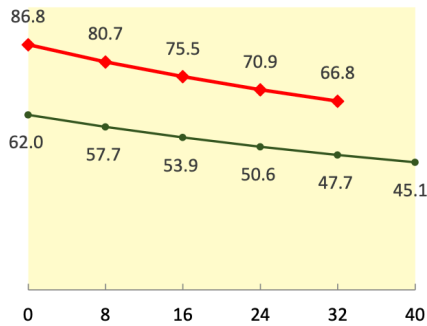
(This is a graph showing the standard type by dividing the maximum <L> value of the product by 5 when JAW is closed and open.

- ※ If you calculate the gripping force of the product X 1/5, 1/10, 1/20, you can calculate the work weight for each usage condition.
- ※ It is more stable if the <L> of the attachment is short, the coefficient of friction with the workpiece is large, and the weight is light.)

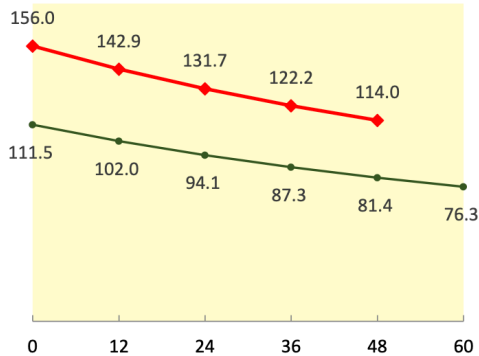
Gripping force [N] (Pressure = 0.5[MPa])

With a double rod type piston structure, the gripping force when close and open is the same.

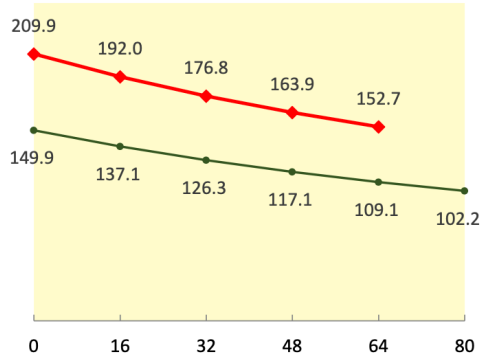
◆ KBG-12



◆ KBG-16

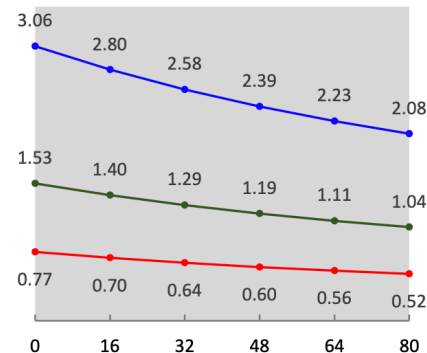
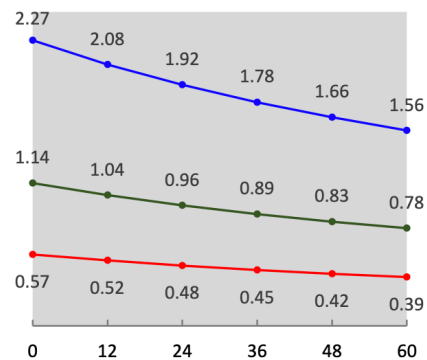
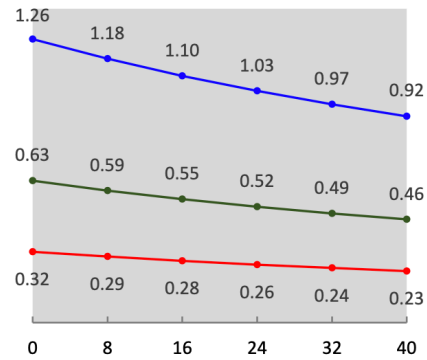


◆ KBG-20



WORK weight by condition when closed [kg] (Pressure = 0.5[MPa])

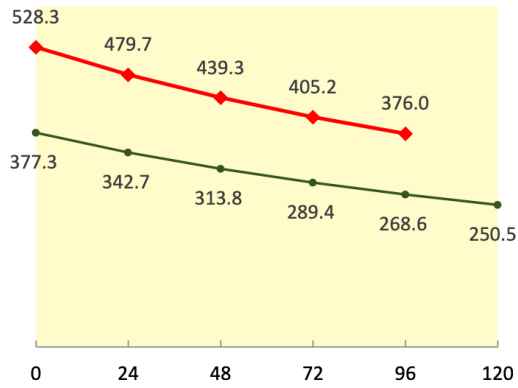
- (Condition of use) — (Fixed or slow moving)
- (Condition of use) — (General deceleration and acceleration such as linear motion)
- (Condition of use) — (Rapid deceleration and acceleration such as robot attachment or rotation)



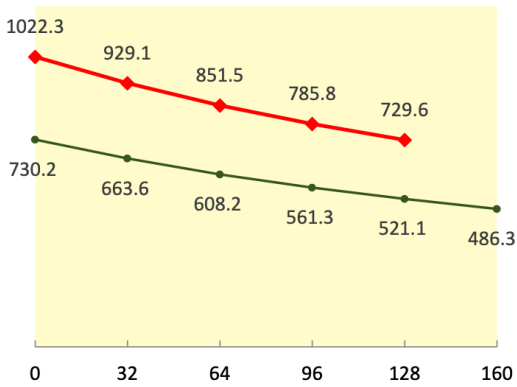
Effective gripping force

Gripping force [N] (Pressure = 0.5[MPa])

◆ KBG-30



◆ KBG-40



WORK weight by condition when closed [kg] (Pressure = 0.5[MPa])

