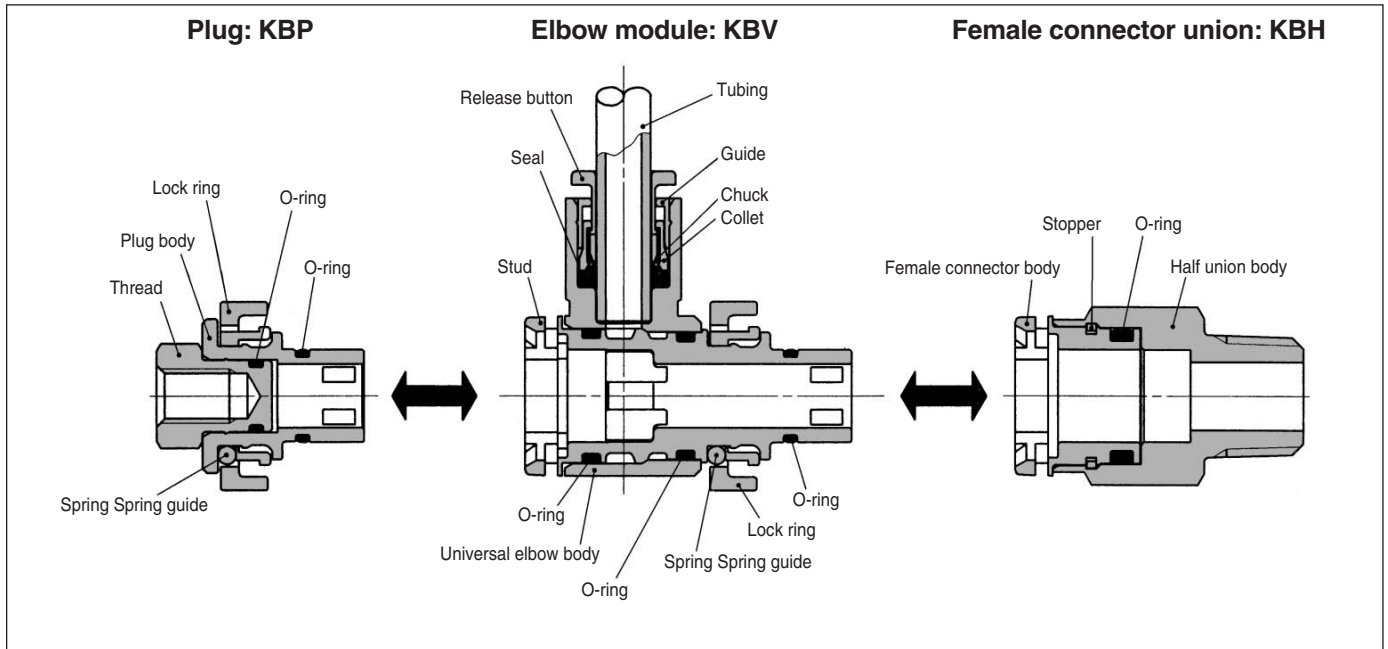


Piping Module

Series KB



Suitable for centralized distribution of supply air

Easy distribution utilizing One-touch fittings

One-touch fitting installation without the use of tools.

Locking system makes the use of tools unnecessary and piping more efficient.

Air output direction possible through 360°

Universal construction allows for changes in air output direction after connections are completed.



Applicable Tubing

| | |
|-----------------|---------------------------------|
| Tubing material | Nylon, Soft nylon, Polyurethane |
| Tubing O.D. | ø4, ø6, ø8, ø10, ø12, ø16 |

Applicable Thread Size

| | |
|---------------|--|
| Male thread | R 1/8, R 1/4, R 3/8, R 1/2 |
| Female thread | M5 x 0.8, M6 x 1, Rc 1/8, Rc 1/4, Rc 3/8, Rc 1/2 |

Specifications

| | | |
|-------------------------------|---|---|
| Fluid | Air | |
| Maximum operating pressure | 1.0 MPa | |
| Operating vacuum pressure | -100 kPa | |
| Proof pressure | 3.0 MPa | |
| Ambient and fluid temperature | -5 to 60°C (No freezing) | |
| Thread | Mounting section | JIS B 0203 (Taper thread for piping) |
| | Nut section | JIS B 0211 Class 2 (Metric fine thread) |
| Sealant (Male thread) | With thread seal | |
| Copper-free (Standard) | Brass parts are all electroless nickel plated | |

Principal Parts Material

| | |
|------------------------|--------------------------|
| Body | C3604BD, PBT, POM |
| Stud | POM |
| Lock ring | POM |
| Spring | Stainless steel 304WPB |
| Spring guide | POM |
| Stopper | POM |
| Thread | C3604BD |
| Guide | Stainless steel 304, POM |
| Collet, Release button | POM |
| Seal, O-ring | NBR |
| Chuck | Stainless steel 304 |

K□

M□

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MS

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VMG

3

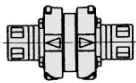
Other Pipng Material: KBN, KBD, KBR (P. 15-3-116)

KB N 1

Model
Body size

Nipple: KBN

| Model |
|-------|
| KBN1 |
| KBN2 |
| KBN3 |
| KBN4 |

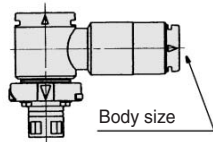


KB D 2-1

Model
Body size

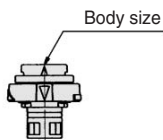
Elbow Different Diameter Female Connector Module: KBD

| Model |
|--------|
| KBD2-1 |
| KBD3-2 |
| KBD4-3 |



Different Diameter Module: KBR

| Model |
|--------|
| KBR2-1 |
| KBR3-2 |
| KBR4-3 |



4

Plug/Cap: KBP, KBC (P. 15-3-117)

KB P 1

Model
Body size

Plug: KBP

| Model |
|-------|
| KBP1 |
| KBP2 |
| KBP3 |
| KBP4 |

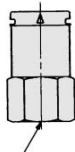
Bracket mounting thread
M6 x 1 x 8 ℓ



Cap: KBC

| Model |
|-------|
| KBC1 |
| KBC2 |
| KBC3 |
| KBC4 |

Bracket mounting thread
M6 x 1 x 8 ℓ



5

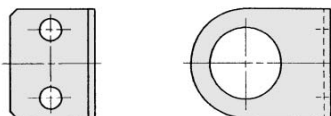
Bracket: KBX (P. 15-3-117)

KB X 6

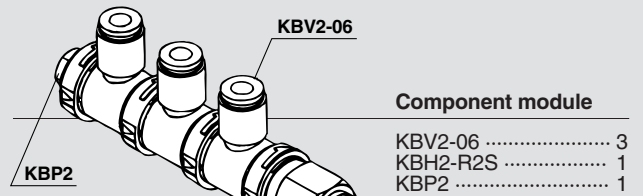
Model
Applicable thread size

Bracket: KBX

| Model |
|-------|
| KBX6 |
| KBX12 |
| KBX14 |
| KBX16 |
| KBX20 |
| KBX22 |

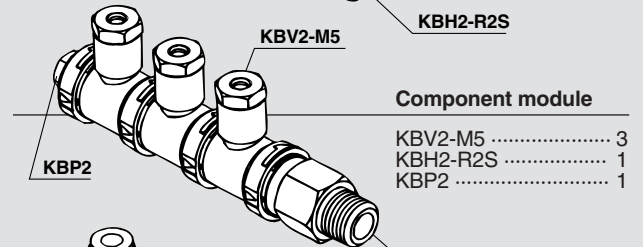


Combination Examples



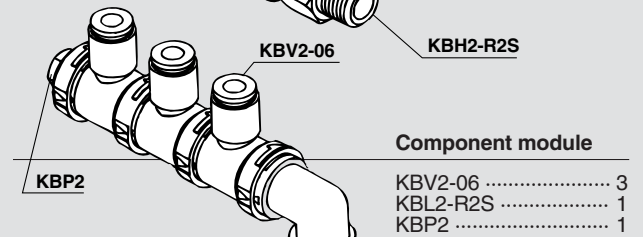
Component module

| | |
|----------|---|
| KBV2-06 | 3 |
| KBH2-R2S | 1 |
| KBP2 | 1 |



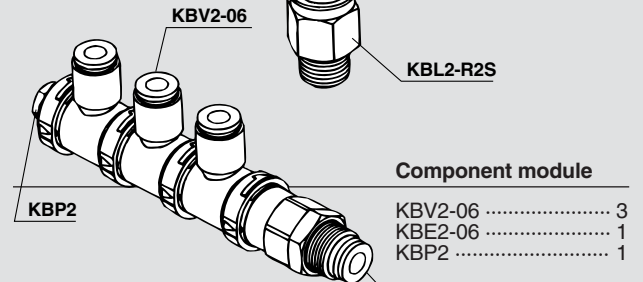
Component module

| | |
|----------|---|
| KBV2-M5 | 3 |
| KBH2-R2S | 1 |
| KBP2 | 1 |



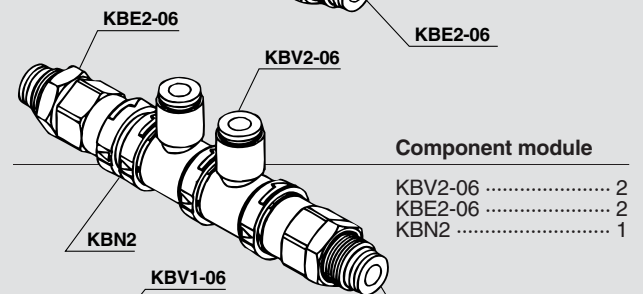
Component module

| | |
|----------|---|
| KBV2-06 | 3 |
| KBL2-R2S | 1 |
| KBP2 | 1 |



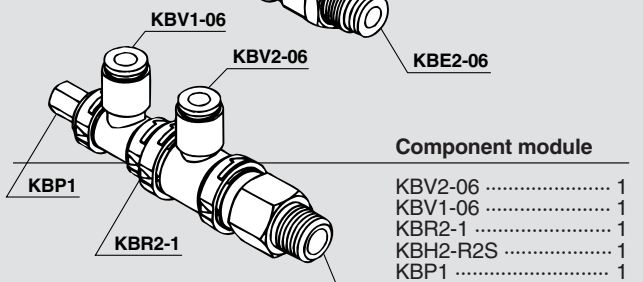
Component module

| | |
|---------|---|
| KBV2-06 | 3 |
| KBE2-06 | 1 |
| KBP2 | 1 |



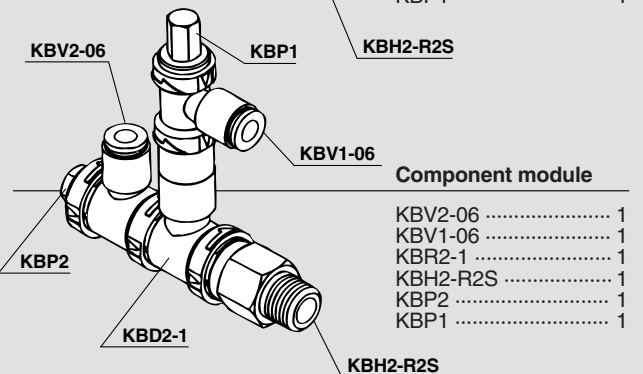
Component module

| | |
|---------|---|
| KBV2-06 | 2 |
| KBE2-06 | 2 |
| KBN2 | 1 |



Component module

| | |
|----------|---|
| KBV2-06 | 1 |
| KBV1-06 | 1 |
| KBR2-1 | 1 |
| KBH2-R2S | 1 |
| KBP1 | 1 |



Component module

| | |
|----------|---|
| KBV2-06 | 1 |
| KBV1-06 | 1 |
| KBR2-1 | 1 |
| KBH2-R2S | 1 |
| KBP2 | 1 |
| KBP1 | 1 |

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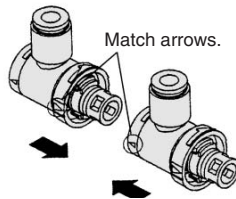
⚠️ Precautions

Be sure to read before handling. Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

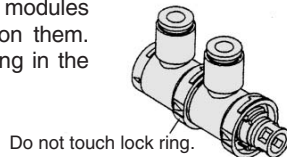
How to Install

⚠️ Caution

1. Insert each piping module by matching the arrows on the lock ring and the body of the other module. Insert together. If it becomes difficult to match both modules, rotate modules to left and right while pushing together. When a match is not done, piping material will eject under pressure.



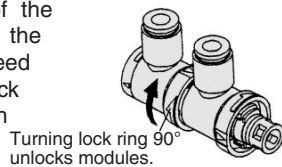
2. Confirm insertion by turning modules to right and left or pulling on them. But do not touch the lock ring in the process.



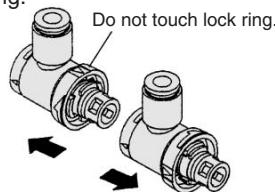
How to Remove

⚠️ Caution

1. Exhaust the pressure in pipe before removing. If lock is released under pressure, piping material will eject. Turn the lock ring 90° clockwise (in the direction of the arrow). This will cancel out the affects of the lock ring. You need not hold lock ring in place. Lock ring will hold automatically in this position.



2. Remove the modules by pulling apart. Do not touch the lock ring. After removal, the lock ring will return to normal position automatically because of a return spring. When removed, it automatically rotates 90° in the opposite direction as its spring is built into the lock ring.



Others

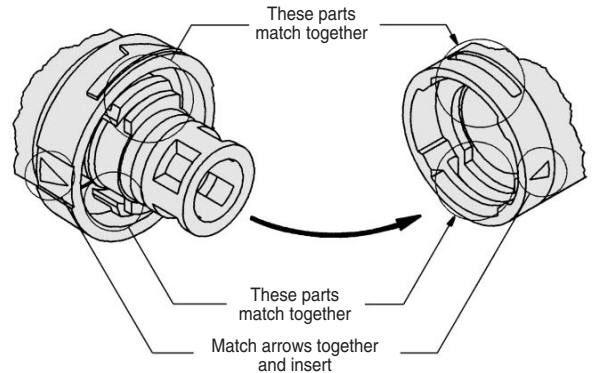
⚠️ Caution

1. When connecting piping material to each other, do not apply a bending force, etc. Piping material may be deformed or damaged. If unit is longer than 5 stations, please use brackets or it may result in deformation of the piping material by bends, deflection, etc.
2. Each type of module materials is capable of being piped with all other materials.
3. When attaching female connector union and female connector elbow union, use the body's hexagon surface and tighten threads with a suitable wrench. Use the root nearest the thread when tightening with a wrench. Hex. across flats may be deformed, if using an improper wrench for hex. across flats.

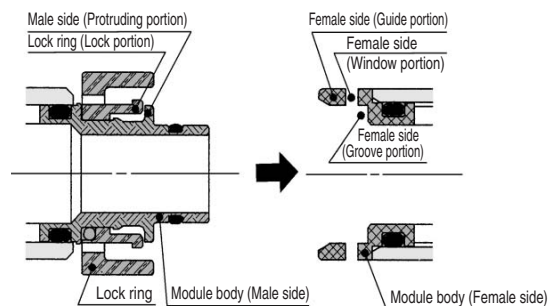
Piping Module-Insertion and Removal Structural Drawing

Piping module-Male side

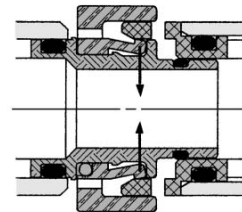
Piping module-Female side



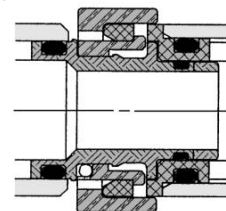
1. Match arrows together and insert piping module male side into female side.



2. By inserting the lock ring, the lock portion touches female side guide portion and falls into the direction shown with the arrow.



3. By pushing tighter, lock portion goes over female side guide portion and snaps into window slot portion. Male side protruding portion snaps into female side groove portion. This performs the function of a detent.



Male module inserted fully into position.

4. To remove, rotate lock ring 90° to release lock portion from female side window slot, then the lock is released. Removal is complete.

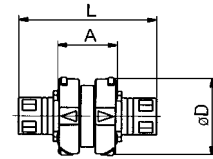
Series KB

3 Other Piping Material

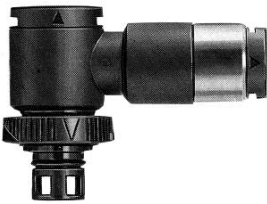
Nipple: KBN



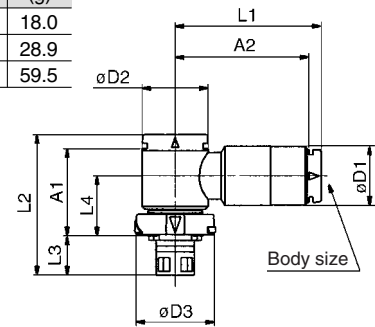
| Model | D | L | A | Weight (g) |
|-------|------|------|------|------------|
| KBN1 | 16.8 | 35.0 | 14.0 | 2.9 |
| KBN2 | 21.0 | | 15.0 | 4.6 |
| KBN3 | 28.6 | 39.0 | 16.5 | 7.2 |
| KBN4 | 30.4 | 41.5 | 17.0 | 10.2 |



Elbow Different Diameter Female Connector Module: KBD



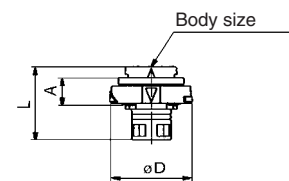
| Model | D1 | D2 | D3 | L1 | L2 | L3 | L4 | A1 | A2 | Weight (g) |
|--------|------|------|------|------|------|------|------|------|------|------------|
| KBD2-1 | 15.2 | 17.6 | 21.0 | 39.0 | 36.0 | 10.1 | 15.5 | 22.5 | 35.5 | 18.0 |
| KBD3-2 | 20.9 | 25.2 | 28.6 | 38.0 | 42.6 | 11.4 | 19.5 | 27.0 | 34.5 | 28.9 |
| KBD4-3 | 26.5 | 32.3 | 30.4 | 44.5 | 55.0 | 12.2 | 24.0 | 38.5 | 40.0 | 59.5 |



Different Diameter Module: KBR



| Model | D | L | A | Weight (g) |
|--------|------|------|------|------------|
| KBR2-1 | 21.0 | 21.5 | 8.0 | 2.8 |
| KBR3-2 | 28.6 | 25.0 | 10.0 | 4.3 |
| KBR4-3 | 30.4 | 30.5 | 14.0 | 8.8 |

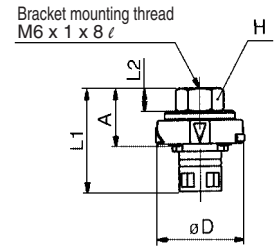


4 Plug/Cap

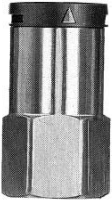
Plug: KBP



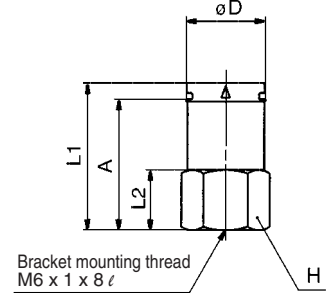
| Model | H (width across flats) | D | L1 | L2 | A | Weight (g) |
|-------------|------------------------------|------|------|------|------|---------------|
| KBP1 | 8 | 16.8 | 29.5 | 11.5 | 19.0 | 5.6 |
| KBP2 | 10 | 21.0 | 23.0 | 5.0 | 12.5 | 6.8 |
| KBP3 | 14 | 28.6 | 25.5 | | 14.0 | 13.4 |
| KBP4 | 19 | 30.4 | 27.0 | | 15.0 | 24.0 |



Cap: KBC



| Model | H (width across flats) | D | L1 | L2 | A | Weight (g) |
|-------------|------------------------------|------|------|------|------|---------------|
| KBC1 | 14 | 13.6 | 30.0 | 13.0 | 26.5 | 23.4 |
| KBC2 | 17 | 17.6 | 32.5 | | 28.5 | 37.0 |
| KBC3 | 19 | 25.2 | 35.5 | 14.0 | 31.5 | 46.7 |
| KBC4 | 24 | 27.0 | 34.0 | 15.0 | 29.5 | 74.4 |



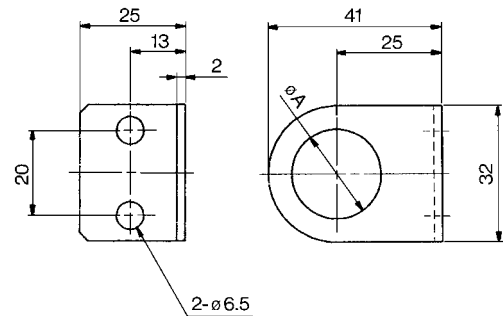
5 Bracket

Bracket: KBX



| Model | A | Applicable model | Weight (g) |
|--------------|----|---------------------|---------------|
| KBX6 | 7 | KBP, KBC | 27.5 |
| KBX12 | 13 | KBE1-04 | 26.1 |
| KBX14 | 15 | KBE1-06, KBE2-06 | 25.4 |
| KBX16 | 17 | KBE2-08, KBE3-08 | 24.4 |
| KBX20 | 21 | KBE2-10, KBE3-10 | 22.6 |
| KBX22 | 23 | KBE3-12, KBE4-12 | 21.6 |

* In the case of KBX6, use the enclosed mounting screws designed for KBP (plug) and KBC (cap).
Screw size: Cross recessed round head screw (M6 x 1 x 8 ℓ)
Screw color: Black


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