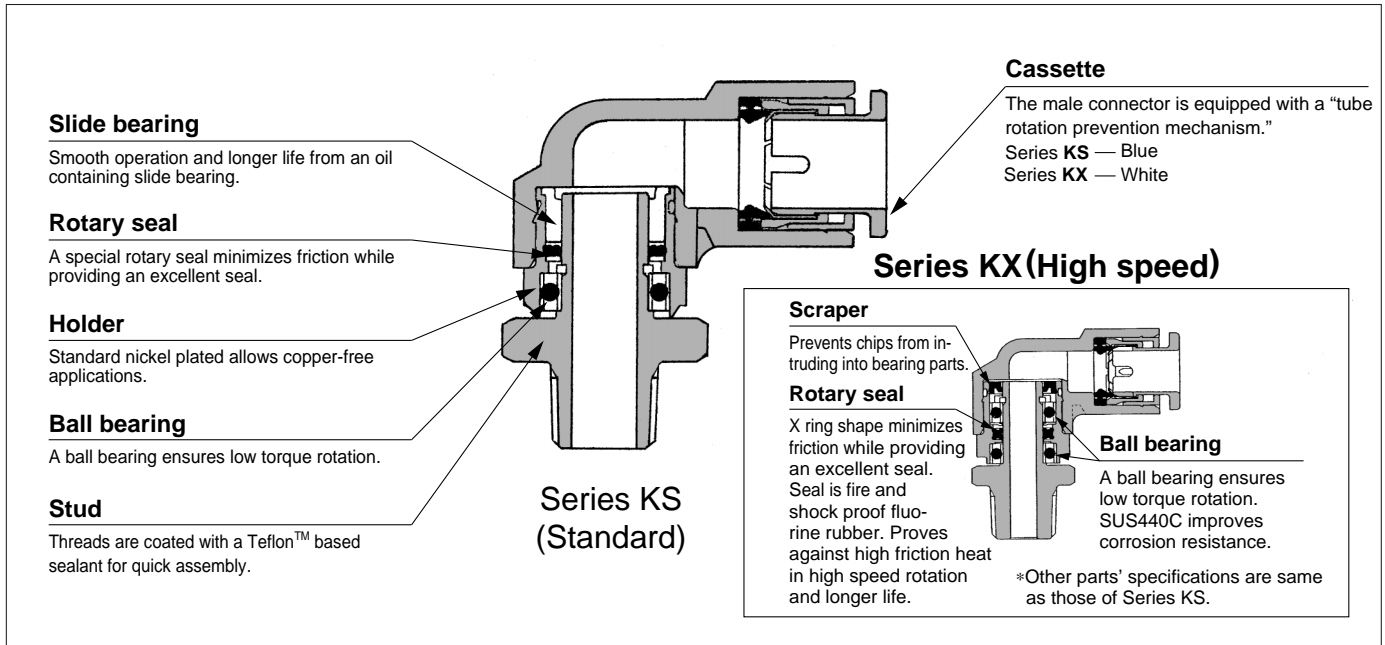


Rotary One-touch Fittings

Series *KS/KX*

(Standard)

(High Speed)

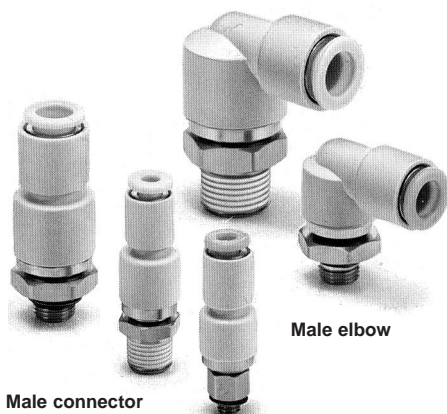


Low torque rotation style Rotary One-touch fittings

Applicable to use for oscillating and rotating sections in robots.

Brass parts are all electroless nickel plated.

Thread sealant is standard.



Applicable Tubing

| | |
|------------------------------|---------------------------------|
| Tube material ⁽¹⁾ | Nylon, Soft nylon, Polyurethane |
| Tube O.D. | ø4, ø6, ø8, ø10, ø12 |

Note1) Be careful about the max. operating pressure for Soft nylon and Polyurethane.

Specifications

| | |
|--------------------------------|--------------------------|
| Operating fluid | Air |
| Max. operating pressure | 1.0MPa |
| Max. operating vacuum pressure | -100kPa |
| Proof pressure | 3.0MPa |
| Ambient and fluid temperature | -5 to 60°C (No freezing) |
| Thread | JIS B0203, JIS B0209 |

Rotating Torque/Allowable Number of Rotations

| Applicable tube O.D. | | ø4 | ø6 | ø8 | ø10 | ø12 |
|-------------------------------------|------------------|-------|-------|-------|-------|-------|
| Rotating torque (Nm) ⁽¹⁾ | | 0.006 | 0.012 | 0.014 | 0.020 | 0.022 |
| Allowable number of rotations (rpm) | Series KS | 500 | 500 | 400 | 300 | 250 |
| | Series KX | 1500 | 1200 | 1200 | 1000 | 1000 |



Note1) Value under pressure 0.5MPa

Component Materials

| Principal element | Series KS | Series KX |
|-----------------------------------|---|---------------------|
| Body | PBT | |
| Stud, Holder, Guide | C3604BD (electroless nickel plated), SUS304 | |
| Chuck, Retainer | Stainless steel (SUS304) ⁽¹⁾ | |
| Collet, Release button, Snap ring | Polyacetal | |
| O ring, Packing | NBR | |
| Rotary seal | NBR | FPM |
| Slide bearing | Oil-containing polyacetal | — |
| Scraper | — | NBR |
| Ball bearing | Bearing steel | Stainless (SUS440C) |
| Gasket | Stainless steel (SUS304), NBR | |

Note1) Retainer (C) of Series KX: C3604BD (electroless nickel plated)

Series KS/Series KX

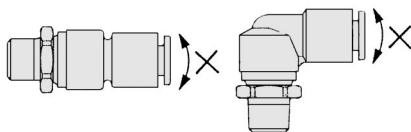
| Model | Connection thread | Applicable tube O.D. (mm) | | | | |
|--|-------------------|---------------------------|----|----|-----|-----|
| | | ø4 | ø6 | ø8 | ø10 | ø12 |
| Male connector KSH KXH  | M5 X 0.8 | ● | ● | | | |
| | M6 X 1.0 | ● | ● | | | |
| | R(PT) 1/8 | ● | ● | ● | | |
| | R(PT) 1/4 | | ● | ● | ● | |
| | R(PT) 3/8 | | | ● | ● | ● |
| | R(PT) 1/2 | | | | ● | ● |
| Male elbow KSL KXL  | M5 X 0.8 | ● | ● | | | |
| | M6 X 1.0 | ● | ● | | | |
| | R(PT) 1/8 | ● | ● | ● | | |
| | R(PT) 1/4 | | ● | ● | ● | |
| | R(PT) 3/8 | | | ● | ● | ● |
| | R(PT) 1/2 | | | | ● | ● |

Precautions

Be sure to read before handling.
 Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalog, and refer to p.2.0-7 and 2.0-8 for more detailed precautions of every series.

Caution

① Minimize the load shown below to protect the ball bearing. A flexible polyurethane tube is recommended.



K

M

H

D

MS

T

Series KS/KX

Male connector: KSH (Standard)



<M5, M6>



<R(PT)>



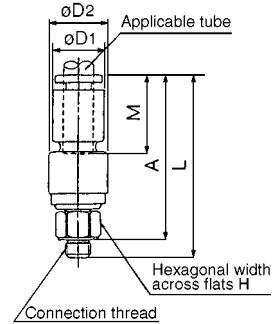
| Tube O.D. (mm) | Connection thread R(PT) | Part No. | H (Hex.) | D1 | D2 | L | | M | Min. hole dia. | Effective area (mm ²) | | Weight (g) |
|----------------|-------------------------|-----------|----------|------|------|------|------|------|----------------|-----------------------------------|----------|------------|
| | | | | | | | | | | Nylon | Urethane | |
| 4 | M5 X 0.8 | KSH04-M5 | 8 | 10.4 | 12 | 36.5 | 33 | 16 | 2.5 | 4.0 | 4.0 | 9 |
| | M6 X 1.0 | KSH04-M6 | | | | 37 | | | | | | |
| | 1/8 | KSH04-01S | 12 | 38 | 34 | 14 | | | | | | |
| 6 | M5 X 0.8 | KSH06-M5 | 8 | 12.8 | 14 | 37.5 | 33.5 | 17 | 2.5 | 4.0 | 4.0 | 12 |
| | M6 X 1.0 | KSH06-M6 | | | | 38 | 34 | | | | | |
| | 1/8 | KSH06-01S | 14 | 39.5 | 35.5 | 17 | | | | | | |
| | 1/4 | KSH06-02S | 14 | 42.5 | 36.5 | 23 | | | | | | |
| | 1/8 | KSH08-01S | 17 | 44 | 40 | 23 | | | | | | |
| 8 | 1/4 | KSH08-02S | 17 | 15.2 | 17 | 47 | 41 | 18.5 | 6 | 26.1 | 18.0 | 29 |
| | 3/8 | KSH08-03S | | | | 48 | 41.5 | | | | | 37 |
| | 1/4 | KSH10-02S | | | | 54 | 48 | | | | | 55 |
| 10 | 3/8 | KSH10-03S | 22 | 18.5 | 22 | 55 | 48.5 | 21 | 7 | 36.3 | 29.5 | 63 |
| | 1/2 | KSH10-04S | | | | 57.5 | 49.5 | | | | | 81 |
| | 3/8 | KSH12-03S | | | | 57 | 50.5 | | | | | 75 |
| 12 | 1/2 | KSH12-04S | 24 | 20.9 | 24 | 60 | 52 | 22 | 8 | 46.1 | 16.1 | 92 |



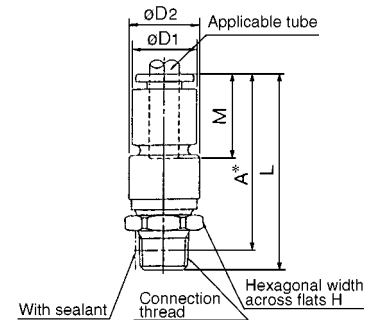
SKS, #1 to #15

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>



Male connector: KXH (High speed)

<M5, M6>



<R(PT)>



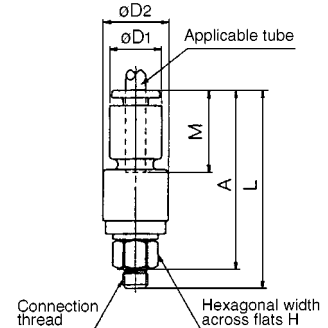
| Tube O.D. (mm) | Connection thread R(PT) | Part No. | H (Hex.) | D1 | D2 | L | | M | Min. hole dia. | Effective area (mm ²) | | Weight (g) | |
|----------------|-------------------------|-----------|----------|------|------|------|----|------|----------------|-----------------------------------|----------|------------|----|
| | | | | | | | | | | Nylon | Urethane | | |
| 4 | M5 X 0.8 | KXH04-M5 | 8 | 10.4 | 13 | 38.5 | 35 | 16 | 2.5 | 4.0 | 4.0 | 11 | |
| | M6 X 1.0 | KXH04-M6 | | | | 39 | | | | | | | |
| | 1/8 | KXH04-01S | 12 | 40 | 36 | 16 | | | | | | | |
| 6 | M5 X 0.8 | KXH06-M5 | 8 | 12.8 | 15 | 39.5 | 36 | 17 | 2.5 | 4.0 | 4.0 | 15 | |
| | M6 X 1.0 | KXH06-M6 | | | | 40 | 36 | | | | | | |
| | 1/8 | KXH06-01S | 14 | 42 | 38 | 20 | | | | | | | |
| | 1/4 | KXH06-02S | 14 | 45 | 39 | 26 | | | | | | | |
| | 1/8 | KXH08-01S | 17 | 46 | 42 | 28 | | | | | | | |
| 8 | 1/4 | KXH08-02S | 17 | 15.2 | 18 | 49 | 43 | 18.5 | 6 | 26.1 | 18.0 | 34 | |
| | 3/8 | KXH08-03S | | | | 50 | 44 | | | | | 42 | |
| | 1/4 | KXH10-02S | | | | 58 | 52 | | | | | 68 | |
| 10 | 3/8 | KXH10-03S | 22 | 18.5 | 23.5 | 59 | 53 | 21 | 7 | 36.3 | 29.5 | 76 | |
| | 1/2 | KXH10-04S | | | | 62 | | | | | | 53 | 94 |
| | 3/8 | KXH12-03S | | | | 60 | | | | | | 54 | 88 |
| 12 | 1/2 | KXH12-04S | 24 | 20.9 | 26 | 63 | 55 | 22 | 8 | 46.1 | 46.1 | 105 | |



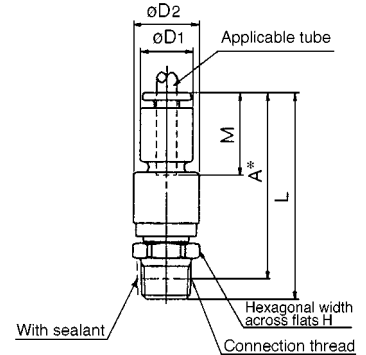
SKX, #1 to #15

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>



Rotary One-touch Fittings Series **KS/KX**

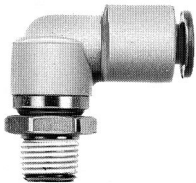
Male elbow: KSL (Standard)



<M5, M6>



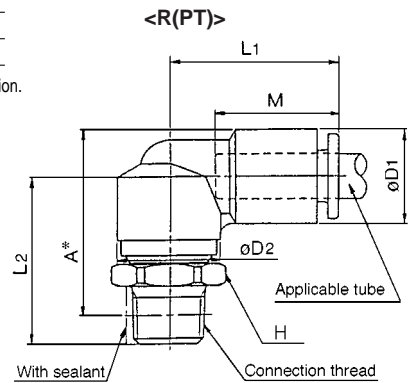
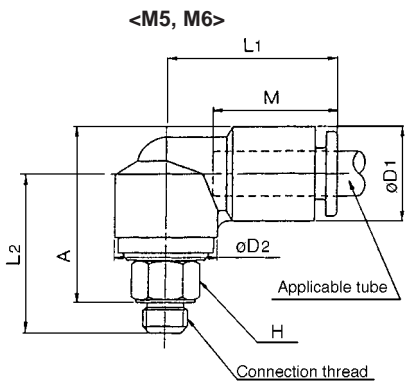
<R(PT)>



| Tube O.D. (mm) | Connection thread R(PT) | Part No. | H (Hex.) | D1 | D2 | L1 | L2 | A | M | Min. hole dia. | Effective area (mm ²) | | Weight (g) | |
|----------------|-------------------------|-----------|----------|------|----|------|------|------|------|----------------|-----------------------------------|----------|------------|------|
| | | | | | | | | | | | Nylon | Urethane | | |
| 4 | M5 X 0.8 | KSL04-M5 | 8 | 10.4 | 12 | 21 | 20.5 | 22 | 16 | 2.5 | 3.5 | 3.5 | 9 | |
| | M6 X 1.0 | KSL04-M6 | 12 | | | | 21 | | | | | | | 23.5 |
| 6 | 1/8 | KSL04-01S | 12 | 12.8 | 14 | 23 | 22 | 23.5 | 17 | 4 | 8.6 | 8.6 | 14 | |
| | M5 X 0.8 | KSL06-M5 | 8 | | | | 21 | | | | | | | 23.5 |
| | M6 X 1.0 | KSL06-M6 | 14 | | | | 23 | | | | | | | 25.5 |
| | 1/8 | KSL06-01S | 14 | | | | 26 | | | | | | | 26.5 |
| 8 | 1/8 | KSL08-01S | 14 | 15.2 | 17 | 26 | 26.5 | 30 | 18.5 | 6 | 21.6 | 14.9 | 23 | |
| | 1/4 | KSL08-02S | 17 | | | | 29.5 | | | | | | | 31 |
| | 3/8 | KSL08-03S | 17 | | | | 31 | | | | | | | 32 |
| 10 | 1/4 | KSL10-02S | 17 | 18.5 | 22 | 31.5 | 34 | 37.5 | 21 | 7 | 30.5 | 25.0 | 56 | |
| | 3/8 | KSL10-03S | 22 | | | | 35 | | | | | | | 38 |
| | 1/2 | KSL10-04S | 22 | | | | 36.5 | | | | | | | 39.5 |
| 12 | 3/8 | KSL12-03S | 24 | 20.9 | 24 | 34 | 38.5 | 40.5 | 22 | 8 | 35.1 | 35.1 | 76 | |
| | 1/2 | KSL12-04S | 24 | | | | 39.5 | | | | | | | 42 |

SKS, #16 to #30

*Reference dimensions after R(PT) thread installation.

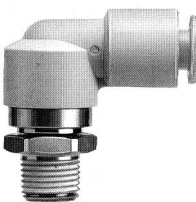


Male elbow: KXL (High speed)

<M5, M6>



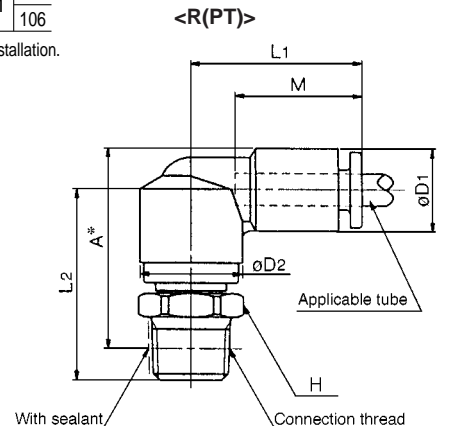
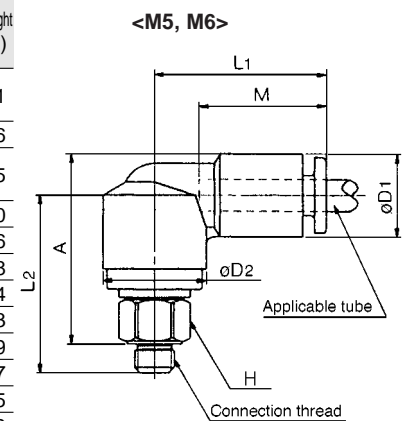
<R(PT)>



| Tube O.D. (mm) | Connection thread R(PT) | Part No. | H (Hex.) | D1 | D2 | L1 | L2 | A | M | Min. hole dia. | Effective area (mm ²) | | Weight (g) | |
|----------------|-------------------------|-----------|----------|------|------|----|------|----|------|----------------|-----------------------------------|----------|------------|----|
| | | | | | | | | | | | Nylon | Urethane | | |
| 4 | M5 X 0.8 | KXL04-M5 | 8 | 10.4 | 13 | 22 | 22.5 | 24 | 16 | 2.5 | 3.5 | 3.5 | 11 | |
| | M6 X 1.0 | KXL04-M6 | 12 | | | | 23 | | | | | | | 25 |
| 6 | 1/8 | KXL04-01S | 12 | 12.8 | 15 | 24 | 24 | 25 | 17 | 4 | 8.6 | 8.6 | 16 | |
| | M5 X 0.8 | KXL06-M5 | 8 | | | | 23.5 | | | | | | | 26 |
| | M6 X 1.0 | KXL06-M6 | 14 | | | | 24 | | | | | | | 28 |
| | 1/8 | KXL06-01S | 14 | | | | 25 | | | | | | | 28 |
| 8 | 1/4 | KXL06-02S | 14 | 15.2 | 18 | 27 | 28 | 29 | 18.5 | 6 | 21.6 | 14.9 | 20 | |
| | 1/8 | KXL08-01S | 17 | | | | 29 | | | | | | | 32 |
| | 3/8 | KXL08-03S | 17 | | | | 32 | | | | | | | 33 |
| 10 | 1/4 | KXL10-02S | 17 | 18.5 | 23.5 | 32 | 33 | 34 | 21 | 7 | 30.5 | 25.0 | 28 | |
| | 3/8 | KXL10-03S | 22 | | | | 38 | | | | | | | 42 |
| | 1/2 | KXL10-04S | 22 | | | | 39 | | | | | | | 43 |
| 12 | 3/8 | KXL12-03S | 24 | 20.9 | 26 | 35 | 40 | 44 | 22 | 8 | 35.1 | 35.1 | 69 | |
| | 1/2 | KXL12-04S | 24 | | | | 42 | | | | | | | 45 |

SKX, #16 to #30

*Reference dimensions after R(PT) thread installation.



- K
- M
- H
- D
- MS
- T