Rotary One-touch Fittings
Standard Type/High Speed Type
Series KS/KX

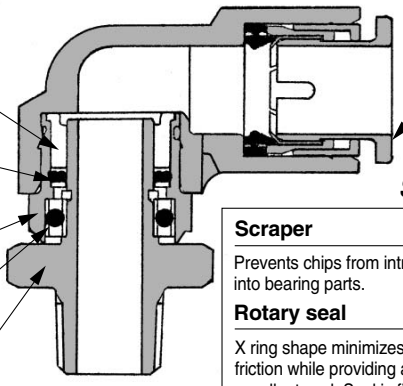
Slide bearing
Smooth operation and longer life from an oil containing slide bearing.

Rotary seal
A special rotary seal minimizes friction while providing an excellent seal.

Holder
Standard nickel plated allows copper-free applications.

Ball bearing
A ball bearing ensures low torque rotation.

Stud
Standard nickel plated allows copper-free applications. Thread sealant is standard.



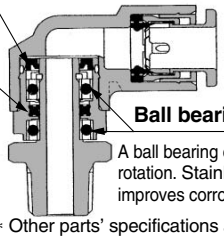
Series KS **(Standard)**

Cassette
The male connector is equipped with a "tuberotation prevention mechanism".
Series KS— Blue
Series KX— Blue

Series KX **(High speed)**

Scraper
Prevents chips from intruding into bearing parts.

Rotary seal
X ring shape minimizes friction while providing an excellent seal. Seal is fire and shock proof fluorine rubber. Proves against high friction heat in high speed rotation and longer life.



Ball bearing
A ball bearing ensures low torque rotation. Stainless steel 440C improves corrosion resistance.

∗ Other parts' specifications are same as those of Series KS.

Low torque rotation style Rotary One-touch fittings

Applicable to use for oscillating and rotating sections in robots.

Copper-free specifications Brass parts are all electroless nickel plated.

Thread seal is standard.

Male elbow

Male connector

Applicable Tubing

Tubing material Note)	Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Note) Use caution about the max. operating pressure for soft nylon and polyurethane.

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	JIS B 0203 (Taper thread for piping), JIS B 0209, class 2 (Metric coarse thread)

Rotating Torque/Allowable Number of Rotations

Applicable tubing O.D.		ø4	ø6	ø8	ø10	ø12
Rotating torque (N·m) Note)		0.006	0.012	0.014	0.020	0.022
Allowable number of rotations	**Series KS**	8.4	8.4	6.7	5	4.2
	Series KX	25	20	20	16.7	16.7

Note) Rotating torque under pressure 0.5 MPa

Principal Parts Material

Model	**Series KS**	**Series KX**
Body	PBT	
Stud, Holder, Guide	C3604BD (Electroless nickel plated), Stainless steel 304	
Chuck, Retainer	Stainless steel (Stainless steel 304) (1) (Retainer (C) of Series KX: C3604BD (electroless nickel plated))	
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 steel 440C
Gasket	Stainless steel (Stainless steel 304), NBR	

Male Elbow: KSL (Standard)

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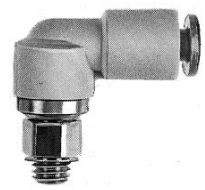

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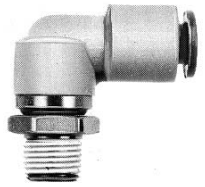

Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm^2) Nylon	Effective area (mm^2) Urethane	Weight (g)
4	M5 x 0.8	**KSL04-M5**	8	10.4	12	21	20.5	22	16	2.5	3.5	3.5	9
	M6 x 1	**KSL04-M6**					21						
	1/8	**KSL04-01S**	12				22	23.5					14
6	M5 x 0.8	**KSL06-M5**	8	12.8	14	23	21	23.5	17	2.5	3.5	3.5	12
	M6 x 1	**KSL06-M6**					21.5	24		3	5.0	5.0	
	1/8	**KSL06-01S**	14				23	25.5		4	8.6	8.6	17
	1/4	**KSL06-02S**					26	26.5					23
8	1/8	**KSL08-01S**	17	15.2	17	26	26.5	30	18.5	6	21.6	14.9	23
	1/4	**KSL08-02S**					29.5	31					29
	3/8	**KSL08-03S**					31	32					38
10	1/4	**KSL10-02S**	22	18.5	22	31.5	34	37.5	21	7	30.5	25.0	56
	3/8	**KSL10-03S**					35	38					64
	1/2	**KSL10-04S**					38	39.5					82
12	3/8	**KSL12-03S**	24	20.9	24	34	36.5	40.5	22	8	35.1	35.1	76
	1/2	**KSL12-04S**					39.5	42					93

∗ Reference dimensions after R thread installation.

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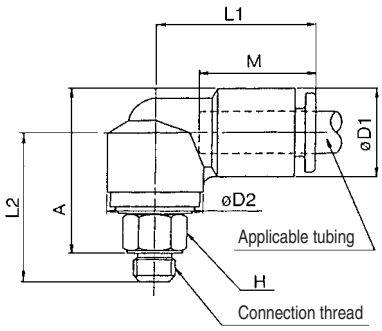

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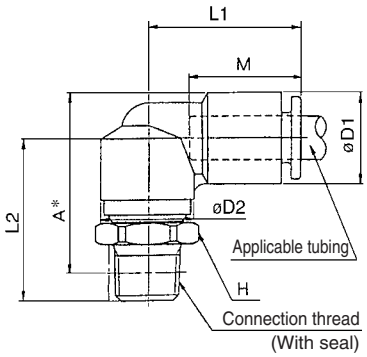

Male Elbow: KXL (High speed)

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Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm^2) Nylon	Effective area (mm^2) Urethane	Weight (g)
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	**KXL04-M6**					23						
	1/8	**KXL04-01S**	12				24	25					16
6	M5 x 0.8	**KXL06-M5**	8	12.8	15	24	23.5	26	17	2.5	3.5	3.5	15
	M6 x 1	**KXL06-M6**					24			3	5.0	5.0	
	1/8	**KXL06-01S**	14				25	28		4	8.6	8.6	20
	1/4	**KXL06-02S**					28	29					26
8	1/8	**KXL08-01S**	17	15.2	18	27	29	32	18.5	6	21.6	14.9	28
	1/4	**KXL08-02S**					32	33					34
	3/8	**KXL08-03S**					33	34					43
10	1/4	**KXL10-02S**	22	18.5	23.5	32	38	42	21	7	30.5	25.0	69
	3/8	**KXL10-03S**					39						77
	1/2	**KXL10-04S**					42	43					95
12	3/8	**KXL12-03S**	24	20.9	26	35	40	44	22	8	35.1	35.1	89
	1/2	**KXL12-04S**					43	45					106

∗ Reference dimensions after R thread installation.

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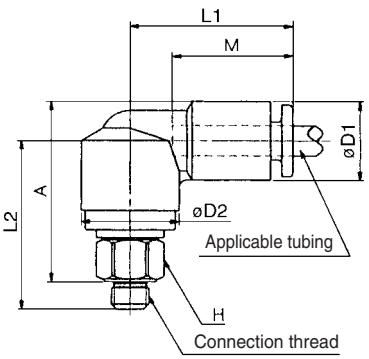

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