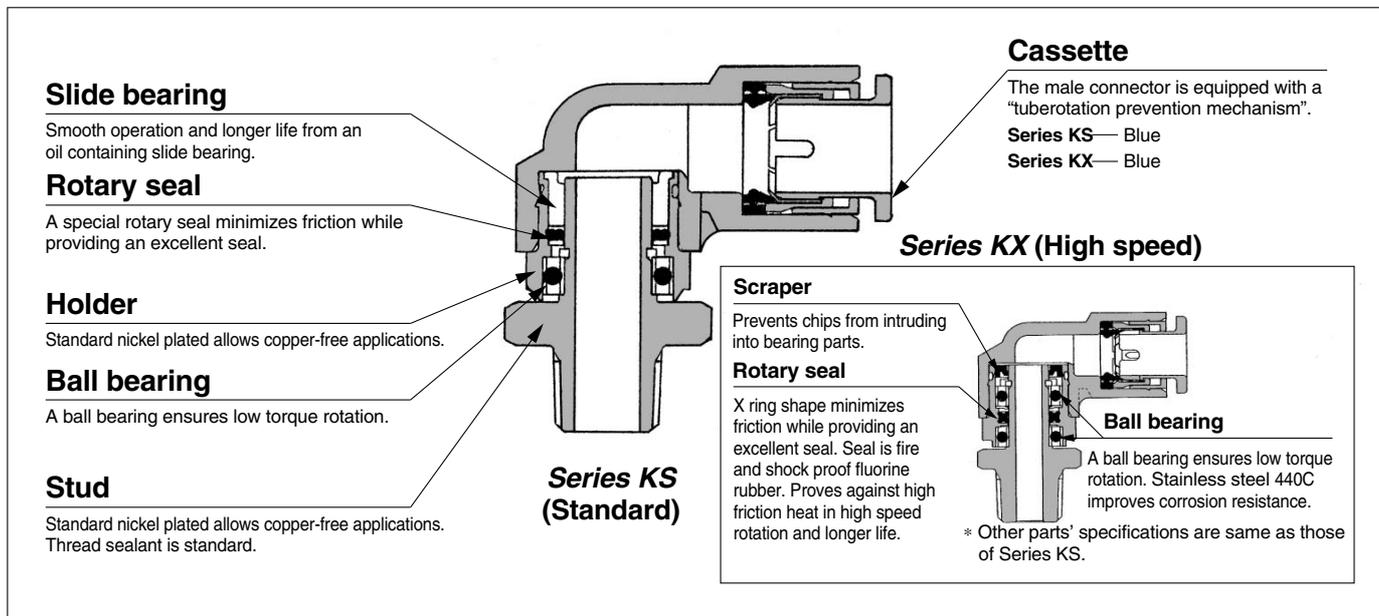


Rotary One-touch Fittings Standard Type/High Speed Type Series **KS/KX**



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.



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	

Series KS/Series KX

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

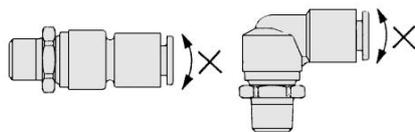
- K
- M
- H
- D
- MS
- T
- VMG

⚠ 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.

⚠ Caution

- Implement the tube piping in such a way that lateral load should not be applied on the ball bearings, otherwise it may adversely affect the life expectancy.
A flexible polyurethane tube is recommended when the lateral load is applied.



Series KS/KX

Male connector: KSH (Standard)

<M5, M6>



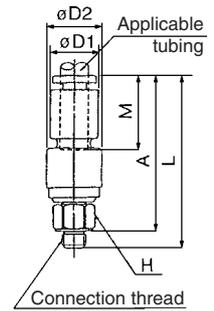
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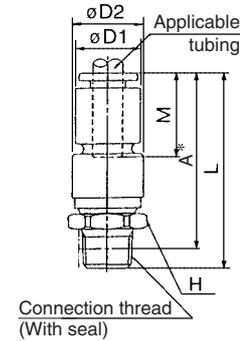
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L	A	M	Min. port size	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5 x 0.8	KSH04-M5	8	10.4	12	36.5	33	16	2.5	4.0	4.0	9
	M6 x 1	KSH04-M6	37			34						
	1/8	KSH04-01S	38									
6	M5 x 0.8	KSH06-M5	8	12.8	14	37.5	33.5	17	2.5	4.0	4.0	12
	M6 x 1	KSH06-M6	38			34						
	1/8	KSH06-01S	39.5				35.5					
	1/4	KSH06-02S	42.5			36.5						
	3/8	KSH06-03S	44									
8	1/8	KSH08-01S	17	15.2	17	44	40	18.5	6	26.1	18.0	23
	1/4	KSH08-02S	47			41						
	3/8	KSH08-03S	48									
10	1/4	KSH10-02S	22	18.5	22	54	48	21	7	36.3	29.5	55
	3/8	KSH10-03S	55			48.5						
	1/2	KSH10-04S	57.5									
12	3/8	KSH12-03S	24	20.9	24	57	50.5	22	8	46.1	16.1	75
	1/2	KSH12-04S	60			52						

* Reference dimensions after R thread installation.

<M5, M6>



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Male Connector: KXH (High speed)

<M5, M6>



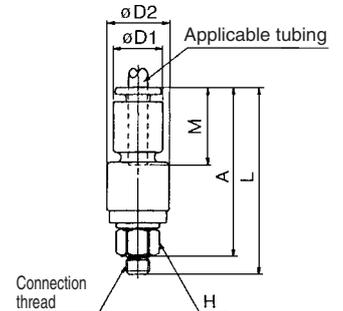
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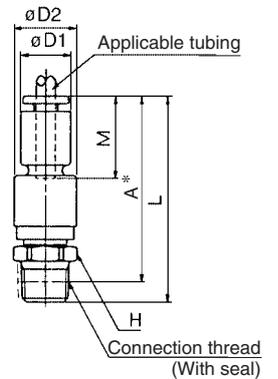
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L	A	M	Min. port size	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5 x 0.8	KXH04-M5	8	10.4	13	38.5	35	16	2.5	4.0	4.0	11
	M6 x 1	KXH04-M6	39			36						
	1/8	KXH04-01S	40									
6	M5 x 0.8	KXH06-M5	8	12.8	15	39.5	36	17	2.5	4.0	4.0	15
	M6 x 1	KXH06-M6	40			36						
	1/8	KXH06-01S	42				38					
	1/4	KXH06-02S	45			39						
	3/8	KXH06-03S	46									
8	1/8	KXH08-01S	17	15.2	18	46	42	18.5	6	26.1	18.0	28
	1/4	KXH08-02S	49			43						
	3/8	KXH08-03S	50									
10	1/4	KXH10-02S	22	18.5	23.5	58	52	21	7	36.3	29.5	68
	3/8	KXH10-03S	59			53						
	1/2	KXH10-04S	62									
12	3/8	KXH12-03S	24	20.9	26	60	54	22	8	46.1	46.1	88
	1/2	KXH12-04S	63			55						

* Reference dimensions after R thread installation.

<M5, M6>



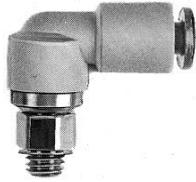
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Rotary One-touch Fittings Series **KS/KX**

Male Elbow: KSL (Standard)

<M5, M6>



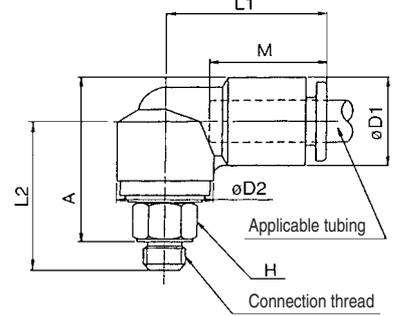
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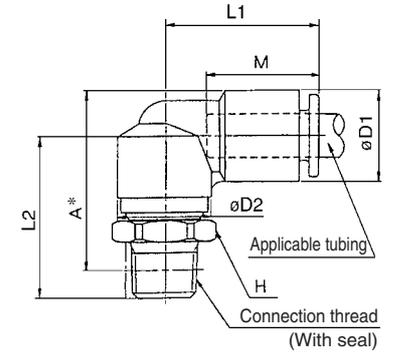
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm ²)		Weight (g)	
											Nylon	Urethane		
4	M5 x 0.8	KSL04-M5	8	10.4	12	21	20.5	22	16	2.5	3.5	3.5	9	
	M6 x 1	KSL04-M6	21				23.5						14	
	1/8	KSL04-01S	12				22						23.5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

* Reference dimensions after R thread installation.

<M5, M6>



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- M
- H
- D
- MS
- T
- VMG

Male Elbow: KXL (High speed)

<M5, M6>



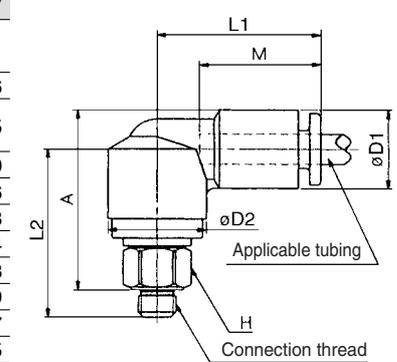
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Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm ²)		Weight (g)	
											Nylon	Urethane		
4	M5 x 0.8	KXL04-M5	8	10.4	13	22	22.5	24	16	2.5	3.5	3.5	11	
	M6 x 1	KXL04-M6	23				25						16	
	1/8	KXL04-01S	12				24						25	
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				28						17	
	1/8	KXL06-01S	14				25						28	17
	1/4	KXL06-02S	28				29						17	
	3/8	KXL06-03S	29				32						17	
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	
	1/4	KXL10-02S	38				42						69	
10	3/8	KXL10-03S	22	18.5	23.5	32	39	39	21	7	30.5	25.0	77	
	1/2	KXL10-04S	42				43						95	
	3/8	KXL12-03S	40				44						89	
12	1/2	KXL12-04S	24	20.9	26	35	43	45	22	8	35.1	35.1	106	

* Reference dimensions after R thread installation.

<M5, M6>



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