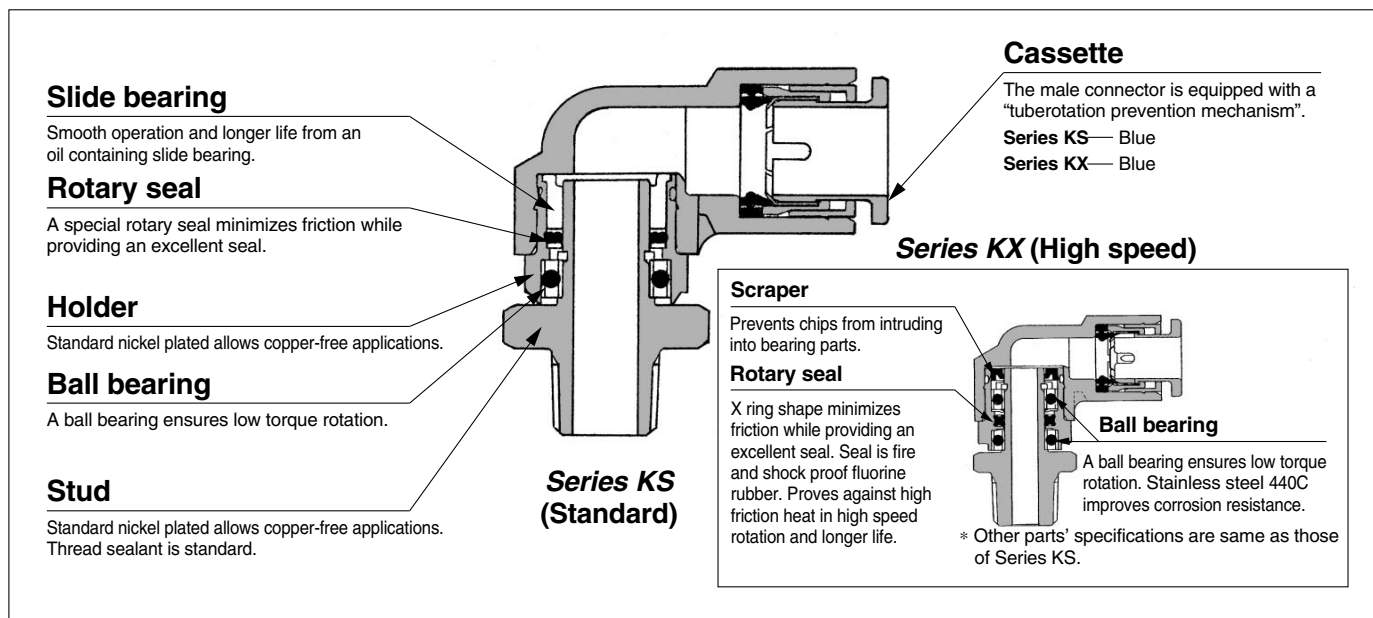


Rotary One-touch Fittings

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)}	Series KS	0.006	0.012	0.014	0.020	0.022
	Series KX	8.4	8.4	6.7	5	4.2
Allowable number of rotations		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 ☐

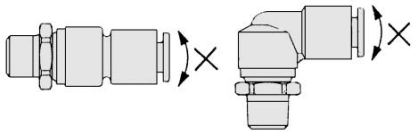
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⚠ Precautions

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.

⚠ Caution

1. 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>



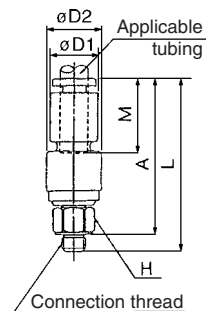
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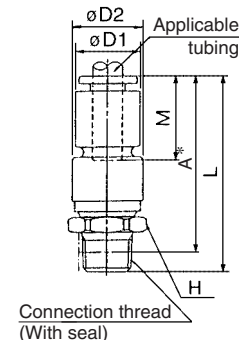
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L	A	M	Min. port size	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5 x 0.8	KSH04-M5	8	10.4	12	36.5	33	16	2.5	4.0	4.0	9
	M6 x 1	KSH04-M6	12			37	34					14
	1/8	KSH04-01S	12			38	34					14
6	M5 x 0.8	KSH06-M5	8	12.8	14	37.5	33.5	17	2.5	4.0	4.0	12
	M6 x 1	KSH06-M6	14			38	34					17
	1/8	KSH06-01S	14			39.5	35.5					23
	1/4	KSH06-02S	14			42.5	36.5					23
	1/8	KSH08-01S	17			44	40					29
8	1/4	KSH08-02S	17	15.2	17	47	41	18.5	6	26.1	18.0	37
	3/8	KSH08-03S	17			48	41.5					55
	1/4	KSH10-02S	22			54	48					63
10	3/8	KSH10-03S	22	18.5	22	55	48.5	21	7	36.3	29.5	81
	1/2	KSH10-04S	24			57.5	49.5					75
	3/8	KSH12-03S	24			57	50.5					92
12	1/2	KSH12-04S	24	20.9	24	60	52	22	8	46.1	16.1	92
	1/2	KSH12-04S	24			60	52					92

* Reference dimensions after R thread installation.

<M5, M6>



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Male Connector: KXH (High speed)

<M5, M6>



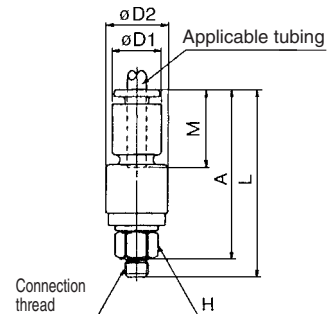
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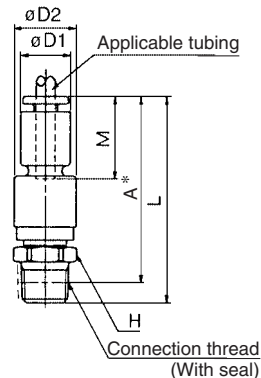
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L	A	M	Min. port size	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5 x 0.8	KXH04-M5	8	10.4	13	38.5	35	16	2.5	4.0	4.0	11
	M6 x 1	KXH04-M6	12			39	36					16
	1/8	KXH04-01S	12			40	36					16
6	M5 x 0.8	KXH06-M5	8	12.8	15	39.5	36	17	2.5	4.0	4.0	15
	M6 x 1	KXH06-M6	14			40	36					20
	1/8	KXH06-01S	14			42	38					26
	1/4	KXH06-02S	14			45	39					28
	1/8	KXH08-01S	17			46	42					34
8	1/4	KXH08-02S	17	15.2	18	49	43	18.5	6	26.1	18.0	42
	3/8	KXH08-03S	17			50	44					68
	1/4	KXH10-02S	22			58	52					76
10	3/8	KXH10-03S	22	18.5	23.5	59	52	21	7	36.3	29.5	94
	1/2	KXH10-04S	24			62	53					88
	3/8	KXH12-03S	24			60	54					105
12	1/2	KXH12-04S	24	20.9	26	63	55	22	8	46.1	46.1	105
	1/2	KXH12-04S	24			63	55					105

* Reference dimensions after R thread installation.

<M5, M6>

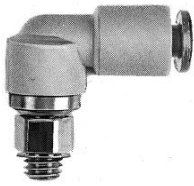


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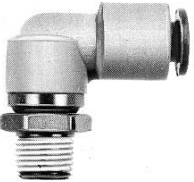


Male Elbow: KSL (Standard)

<M5, M6>



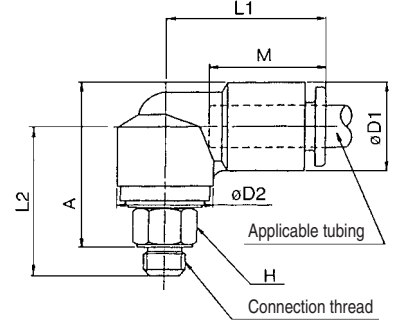
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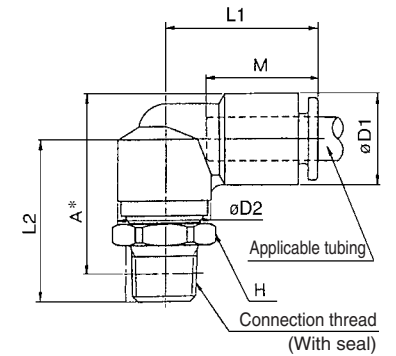
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm ²)		Weight (g)		
											Nylon	Urethane			
4	M5 x 0.8	KSL04-M5	8	10.4	12	21	20.5	22	16	2.5	3.5	3.5	9		
	M6 x 1	KSL04-M6	21				23.5	14							
	1/8	KSL04-01S	12				22						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

* Reference dimensions after R thread installation.

<M5, M6>



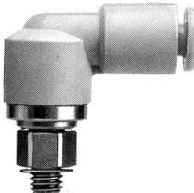
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K
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Male Elbow: KXL (High speed)

<M5, M6>



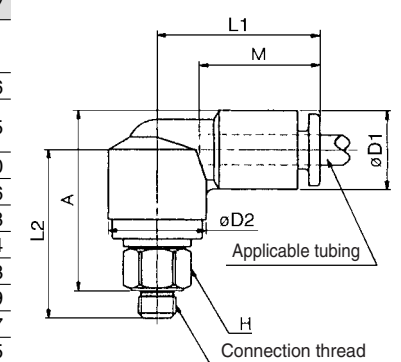
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Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	D1	D2	L1	L2	A	M	Min. port size	Effective area (mm ²)		Weight (g)	
											Nylon	Urethane		
4	M5 x 0.8	KXL04-M5	8	10.4	13	22	22.5	24	16	2.5	3.5	3.5	11	
	M6 x 1	KXL04-M6	23				25						16	
	1/8	KXL04-01S	12				24						25	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	20		
	1/8	KXL06-01S	14				25			28	4	8.6	8.6	26
	1/4	KXL06-02S					28			29	28			
	1/8	KXL08-01S					29			32	34			
8	1/4	KXL08-02S	17	15.2	18	27	32	33	18.5	6	21.6	14.9	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	42	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>



<R>

