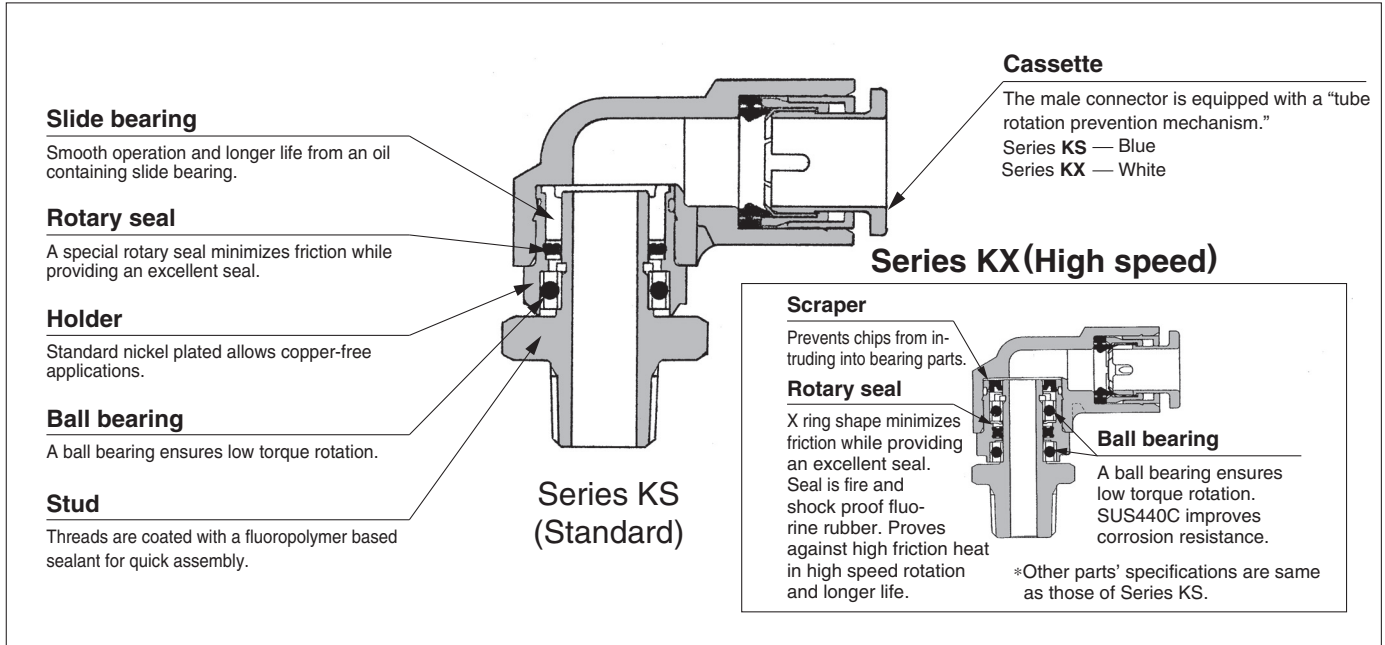


Rotary One-touch Fittings

Series *KS/KX*

(Standard)

(High Speed)

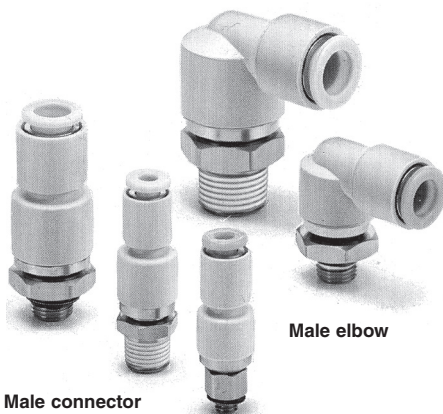


Low torque rotation style Rotary One-touch fittings

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/KX

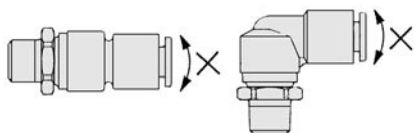
Series KS/Series KX

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

Precautions

Caution

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



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

Male connector: KSH (Standard)

<M5, M6>



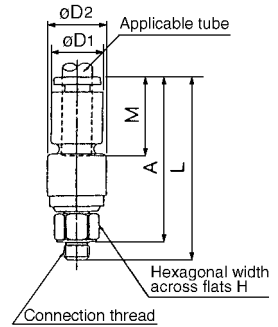
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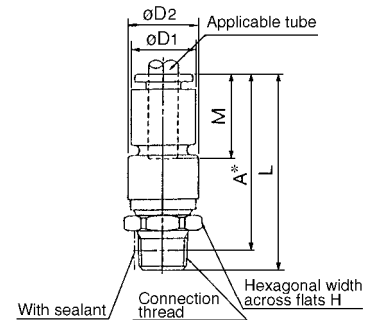
Tube O.D. (mm)	Connection thread R(PT)	Part No.	H (Hex.)	D1	D2	L	A	M	Min. hole dia.	Effective area (mm ²)		Weight (g)	
										Nylon	Urethane		
4	M5	KSH04-M5	8	10.4	12	36.5	33	16	2.5	4.0	4.0	9	
	M6	KSH04-M6	37			34						14	
	1/8	KSH04-01S	12			37.1						34	14
6	M5	KSH06-M5	8	12.8	14	37.5	33.5	17	2.5	4.0	4.0	12	
	M6	KSH06-M6	38			34						17	
	1/8	KSH06-01S	14			38.6						35.5	17
	1/4	KSH06-02S	14			42						36.5	23
8	1/8	KSH08-01S	8	15.2	17	43.1	40	18.5	6	26.1	18.0	23	
	1/4	KSH08-02S	17			46.5						41	29
	3/8	KSH08-03S	17			46.9						41.5	37
10	1/4	KSH10-02S	17	18.5	22	53.5	48	21	7	36.3	29.5	55	
	3/8	KSH10-03S	22			53.9						48.5	63
	1/2	KSH10-04S	22			56.6						49.5	81
12	3/8	KSH12-03S	24	20.9	24	55.9	50.5	22	8	46.1	16.1	75	
	1/2	KSH12-04S	24			59.1						52	92

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>



Male connector: KXH (High speed)

<M5, M6>



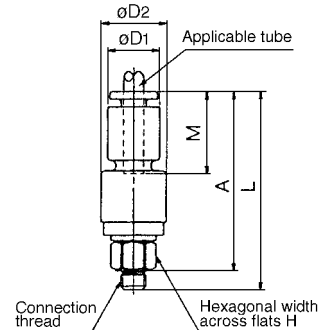
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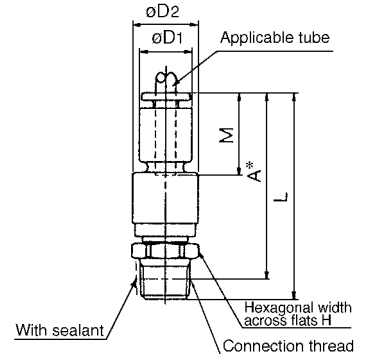
Tube O.D. (mm)	Connection thread R(PT)	Part No.	H (Hex.)	D1	D2	L	A	M	Min. hole dia.	Effective area (mm ²)		Weight (g)	
										Nylon	Urethane		
4	M5	KXH04-M5	8	10.4	13	38.5	35	16	2.5	4.0	4.0	11	
	M6	KXH04-M6	39			36						16	
	1/8	KXH04-01S	12			39.1						36	16
6	M5	KXH06-M5	8	12.8	15	39.5	36	17	2.5	4.0	4.0	15	
	M6	KXH06-M6	40			36						15	
	1/8	KXH06-01S	14			41.1						38	20
	1/4	KXH06-02S	14			44.5						39	26
8	1/8	KXH08-01S	8	15.2	18	45.1	42	18.5	6	26.1	18.0	28	
	1/4	KXH08-02S	17			48.5						43	34
	3/8	KXH08-03S	17			48.9						44	42
10	1/4	KXH10-02S	17	18.5	23.5	57.5	52	21	7	36.3	29.5	68	
	3/8	KXH10-03S	22			57.9						53	76
	1/2	KXH10-04S	22			61.1						53	94
12	3/8	KXH12-03S	24	20.9	26	58.9	54	22	8	46.1	46.1	88	
	1/2	KXH12-04S	24			62.1						55	105

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>



Series KS/KX

Male elbow: KSL (Standard)

<M5, M6>



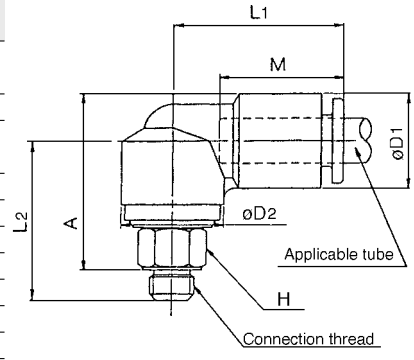
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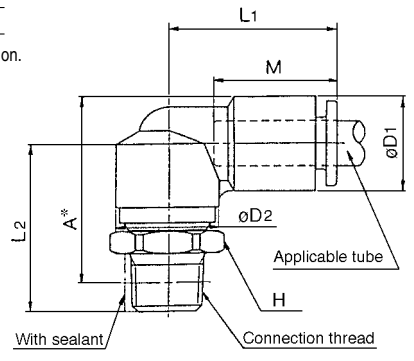
Tube O.D. (mm)	Connection thread R(PT)	Part No.	H (Hex.)	D1	D2	L1	L2		A	M	Min. hole dia.	Effective area (mm ²)		Weight (g)
							Nylon	Urethane						
4	M5	KSL04-M5	8	10.4	12	21	20.5	22	16	2.5	3.5	3.5	9	
	M6	KSL04-M6	8				21	23.5					14	
	1/8	KSL04-01S	12				21.1	23.5					14	
6	M5	KSL06-M5	8	12.8	14	23	21	23.5	17	2.5	3.5	3.5	12	
	M6	KSL06-M6	8				21.5	24					12	
	1/8	KSL06-01S	14				22.1	25.5					17	
	1/4	KSL06-02S	14				25.5	26.5					23	
	3/8	KSL06-03S	14				25.6	30					23	
8	1/8	KSL08-01S	17	15.2	17	26	29	31	18.5	6	21.6	14.9	29	
	1/4	KSL08-02S	17				29	31					23	
	3/8	KSL08-03S	17				29.9	32					38	
10	1/4	KSL10-02S	22	18.5	22	31.5	33.5	37.5	21	7	30.5	25.0	56	
	3/8	KSL10-03S	22				33.9	38					64	
	1/2	KSL10-04S	22				37.1	39.5					82	
12	3/8	KSL12-03S	24	20.9	24	34	35.4	40.5	22	8	35.1	35.1	76	
	1/2	KSL12-04S	24				38.6	42					93	

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>



Male elbow: KXL (High speed)

<M5, M6>



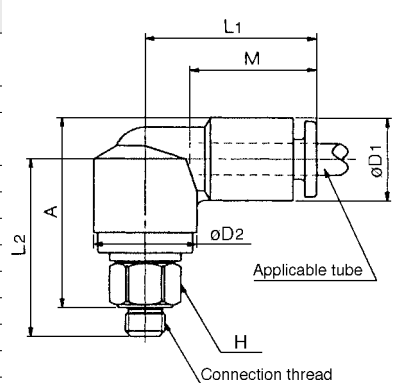
<R(PT)>



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	KXL04-M5	8	10.4	13	22	22.5	24	16	2.5	3.5	3.5	11	
	M6	KXL04-M6	8				23	25					16	
	1/8	KXL04-01S	12				23.1	25					16	
6	M5	KXL06-M5	8	12.8	15	24	23.5	26	17	2.5	3.5	3.5	15	
	M6	KXL06-M6	8				24	28					20	
	1/8	KXL06-01S	14				24.1	28					26	
	1/4	KXL06-02S	14				27.5	29					26	
	3/8	KXL06-03S	14				27.5	29					26	
8	1/8	KXL08-01S	17	15.2	18	27	28.1	32	18.5	6	21.6	14.9	28	
	1/4	KXL08-02S	17				31.5	33					34	
	3/8	KXL08-03S	17				31.9	34					43	
10	1/4	KXL10-02S	22	18.5	23.5	32	37.5	42	21	7	30.5	25.0	69	
	3/8	KXL10-03S	22				37.9	43					77	
	1/2	KXL10-04S	22				41.1	43					95	
12	3/8	KXL12-03S	24	20.9	26	35	38.9	44	22	8	35.1	35.1	89	
	1/2	KXL12-04S	24				42.1	45					106	

*Reference dimensions after R(PT) thread installation.

<M5, M6>



<R(PT)>

