

# Quick Fitting Type Speed Control Valve

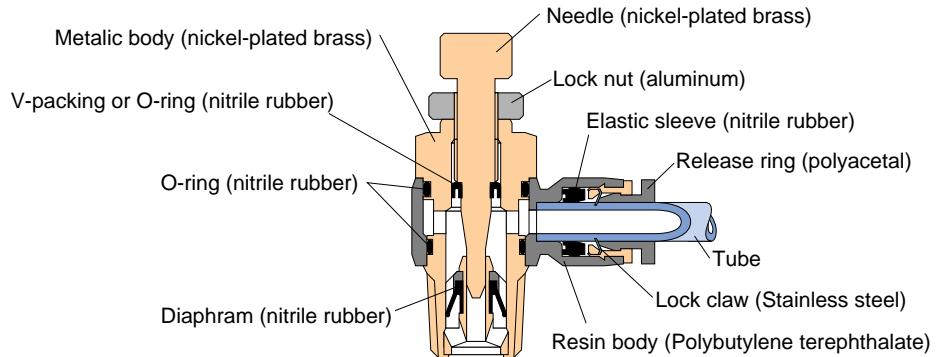
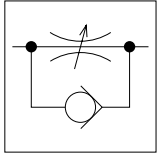
## Speed Controller Standard Type

### Features

■ The Speed Controller controls the operation speed of a driving device.

### Construction

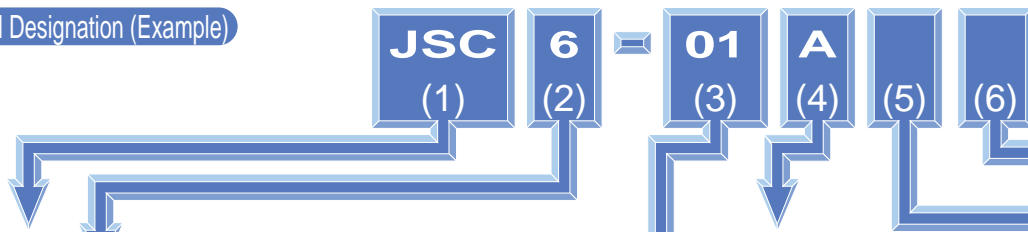
Graphical representation



### Specification

Fluid admitted	Air	
Service pressure range	0 ~ 150psi	0 ~0.9MPa
Check valve operating pressure	7.25psi	0.05Mpa
Service temperature range	32 ~ 140°F	0 ~60°C

### Model Designation (Example)



(1)Type

(2)Tube dia.

Tube dia.	mm size				
Code	4	6	8	10	12
Size(mm)	φ4	φ6	φ8	φ10	φ12

Tube dia.	inch size					
Code	5/32	3/16	1/4	5/16	3/8	1/2
Size(mm)	φ5/32	φ3/16	φ1/4	φ5/16	φ3/8	φ1/2

(3)Thread size

Thread size	Metric thread(mm)	Taper pipe thread			
Code	M5	01	02	03	04
Size	M5×0.8	R1/8	R1/4	R3/8	R1/2

Thread size	Unified fine thread	American standard taper pipe thread			
Code	U10	N1	N2	N3	N4
Size	10~32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(4)Control direction

A : Meter-out control

(Inscription "A" on needle top or silver-color lock nut) (\*1)

B : Meter-in control

(Inscription "B" on needle top or black-color lock nut) (\*2)

\*Do not make this entry for JSU.

(5)Specification

K : Spring return type

Check valve operating pressure→0.02MPa(2.9 psi)

[Service pressure range→0 ~ 0.5MPa(0~73 psi)]

No code : Standard specification

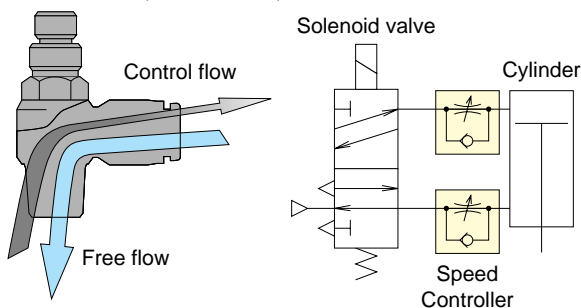
(6)Hexagon flat-to-flat specification

U: Hexagon flat-to-flat inch spec. (NPT)

No code: Hexagon flat-to-flat mm spec.

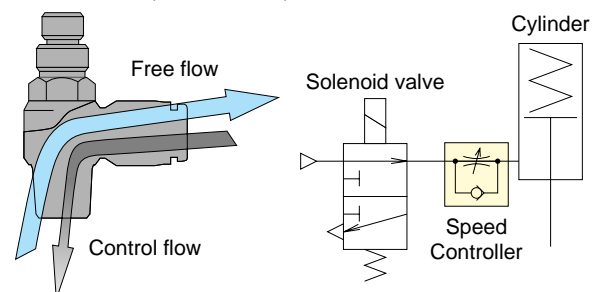
\*1.Meter-out control

■ The flow rate of air entering from the thread side can be controlled, whereas air entering from the joint side comes out from the thread side at the same (not controlled) flow rate.

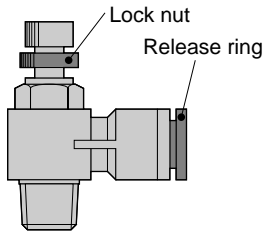


\*2.Meter-in control

■ The flow rate of air entering from the joint side can be controlled, whereas air entering from the thread side comes out from the Joint side at the same (not controlled) flow rate.



## How to identify speed controller types



	Release ring Shape · Color	Plastic body Color	Lock nut color	
			Atype	Btype
Standard type	Circle · Black	Black	Silver	Black
Mini type	Oval · Black	Black	Silver	Black
Large flow type	Circle · Black	Black	Blue	—
SUS303 equiv. anti_corrosive type	Circle · Dark blue	Black	Silver	Black
Clean-room Ready type	Circle · Light blue	Light blue	Silver	Black

### ⚠ Detailed Safety Instructions

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on page 7 and "Common Safety Instructions for Controllers" on pages 43.

#### ⚠ Warning

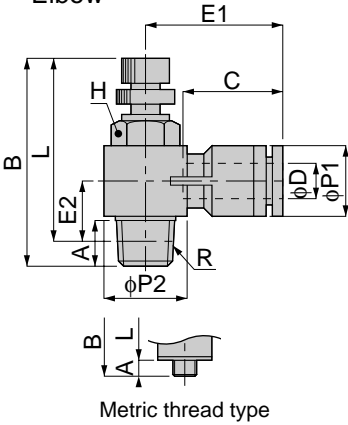
- Adjust the speed of the actuator by opening the needle gradually from the fully closed position. With the needle open, there are chances of the actuator flying out. Turn the needle clockwise to close or counterclockwise to open.
- Do not subject the product with a rotatable resin to forcible swinging or rotation. Otherwise the body may suffer damage or develop leakage.

#### ⚠ Caution

- The Speed Controller is designed to tolerate some air flow at fully. Therefore do not use it for applications that permits no air flow.



Elbow



Metric thread type

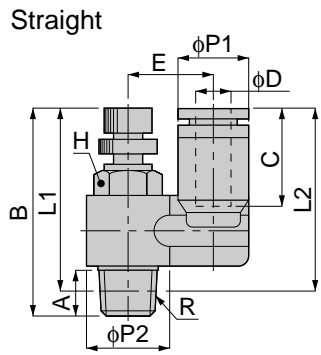


Model	Tube dia. φD	R	A	B		L		φP1	φP2	C	E1	E2	H	Mass (g)
				max	min	max	min							
JSC 4-M5□(K)	4	M5×0.8	3	29.5	27	26.5	24	10	10	15	20	6.5	8	8.5
JSC 4-01□(K)		R1/8	8	40.5	34	36.5	30							
JSC 6-M5□(K)	6	M5×0.8	3	29.5	27	26.5	24	12.5	14.5	17	24	7.5	8	9.5
JSC 6-01□(K)		R1/8	8	40.5	34	36.5	30							
JSC 6-02□(K)		R1/4	11	47.5	41	41.5	35							
JSC 6-03□		R3/8	12	53.5	46.5	47	40							
JSC 8-01□(K)	8	R1/8	8	40.5	34	36.5	30	14.5	18.5	18.5	27	11.5	10	20
JSC 8-02□(K)		R1/4	11	47.5	41	41.5	35							
JSC 8-03□		R3/8	12	53.5	46.5	47	40							
JSC 8-04□		R1/2	15	59	51.5	51	43.5							
JSC 10-02□(K)	10	R1/4	11	47.5	41	41.5	35	18	22	20.5	31	14.5	14	40.5
JSC 10-03□		R3/8	12	53.5	46.5	47	40							
JSC 10-04□		R1/2	15	59	51.5	51	43.5							
JSC 12-03□	12	R3/8	12	53.5	46.5	47	40	21.5	28	23.5	37	18	19	71
JSC 12-04□		R1/2	15	59	51.5	51	43.5							
JSC 1/4-M5□(K)	1/4	M5×0.8	3	29.5	27	26.5	24	12.5	14.5	17	24	7.5	8	9.5
JSC 1/4-01□(K)		R1/8	8	40.5	34	36.5	30							
JSC 1/4-02□(K)		R1/4	11	47.5	41	41.5	35							
JSC 5/16-01□(K)	5/16	R1/8	8	40.5	34	36.5	30	14.5	18.5	18.5	27	11.5	10	20
JSC 5/16-02□(K)		R1/4	11	47.5	41	41.5	35							
JSC 5/16-03□		R3/8	12	53.5	46.5	47	40							
JSC 3/8-02□(K)	3/8	R1/4	11	47.5	41	41.5	35	18	18.5	20.5	31	14.5	14	40.5
JSC 3/8-03□		R3/8	12	53.5	46.5	47	40							

unit:mm

unit:inch

Model	Tube dia.φD inch(mm)	NPT	A	B		L		φP1	φP2	C	E1	E2	H	Weight (oz)
				MAX	MIN	MAX	MIN							
JSC 5/32-U10□(K)U	5/32(3.97)	10-32UNF	0.14	1.16	1.06	1.02	0.93	0.39	0.39	0.59	0.79	0.26	5/16	0.29
JSC 5/32-N1□(K)U	5/32(3.97)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.39	0.57	0.59	0.85	0.41	7/16	0.61
JSC 3/16-U10□U	3/16(4.76)	10-32UNF	0.14	1.16	1.06	1.02	0.93	0.49	0.39	0.67	0.94	0.30	5/16	0.34
JSC 3/16-N1□U	3/16(4.76)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.49	0.57	0.67	0.93	0.41	7/16	0.70
JSC 3/16-N2□U	3/16(4.76)	NPT 1/4	0.43	1.87	1.61	1.63	1.38	0.49	0.73	0.67	1.00	0.47	9/16	1.28
JSC 3/16-N3□U	3/16(4.76)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	0.49	0.87	0.67	1.14	0.59	3/4	2.29
JSC 1/4-U10□(K)U	1/4(6.35)	10-32UNF	0.14	1.16	1.06	1.02	0.93	0.49	0.39	0.67	0.94	0.30	5/16	0.33
JSC 1/4-N1□(K)U	1/4(6.35)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.49	0.57	0.67	0.93	0.41	7/16	0.69
JSC 1/4-N2□(K)U	1/4(6.35)	NPT 1/4	0.43	1.87	1.61	1.63	1.38	0.49	0.73	0.67	1.00	0.47	9/16	1.27
JSC 1/4-N3□U	1/4(6.35)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	0.49	0.87	0.67	1.14	0.59	3/4	2.26
JSC 5/16-N1□U	5/16(7.94)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.57	0.57	0.73	1.06	0.45	7/16	0.74
JSC 5/16-N2□U	5/16(7.94)	NPT 1/4	0.43	1.87	1.61	1.63	1.38	0.57	0.73	0.73	1.12	0.51	9/16	1.32
JSC 5/16-N3□U	5/16(7.94)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	0.57	0.87	0.73	1.14	0.59	3/4	2.28
JSC 5/16-N4□U	5/16(7.94)	NPT 1/2	0.59	2.32	2.03	2.01	1.71	0.57	1.10	0.73	1.22	0.71	1	3.61
JSC 3/8-N2□U	3/8(9.53)	NPT 1/2	0.43	1.87	1.61	1.63	1.38	0.71	0.71	0.81	1.22	0.57	9/16	1.43
JSC 3/8-N3□U	3/8(9.53)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	0.71	0.87	0.81	1.24	0.65	3/4	2.39
JSC 3/8-N4□U	3/8(9.53)	NPT 1/2	0.59	2.32	2.03	2.01	1.17	0.71	1.10	0.81	1.34	0.71	1	3.71
JSC 1/2-N3□U	1/2(12.7)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	0.85	0.87	0.93	1.46	0.71	3/4	2.50
JSC 1/2-N4□U	1/2(12.7)	NPT 1/2	0.59	2.32	2.03	2.01	1.71	0.85	1.10	0.93	1.44	0.77	1	3.81



Metric thread type



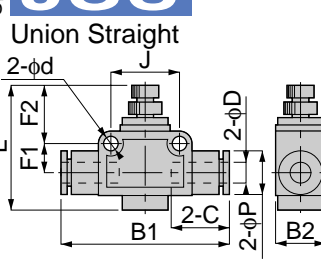
unit:mm

Model	Tube dia. φD	R	A	B		L1		L2	φP1	φP2	C	E	H	Mass (g)
				max	min	max	min							
JSS 4-M5□(K)	4	M5×0.8	3	29.5	27	26.5	24	24	10	10	15	10.5	8	9
JSS 4-01□(K)		R1/8	8	40.5	34	36.5	30	29		14.5		13	10	19
JSS 6-M5□(K)	6	M5×0.8	3	29.5	27	26.5	24	26	12.5	10	17	12	8	10
JSS 6-01□(K)		R1/8	8	40.5	34	36.5	30	31		14.5		14	10	20
JSS 6-02□(K)		R1/4	11	47.5	41	41.5	35	32		18.5		17	14	37.5
JSS 8-01□(K)	8	R1/8	8	40.5	34	36.5	30	32.5	14.5	14.5	18.5	15	10	21.5
JSS 8-02□(K)		R1/4	11	47.5	41	41.5	35	33.5		18.5		18	14	39
JSS 8-03□		R3/8	12	53.5	46.5	47	40	37.5		22		19	19	67
JSS 10-02□(K)	10	R1/4	11	47.5	41	41.5	35	36	18	18.5	20.5	20	14	42.5
JSS 10-03□		R3/8	12	53.5	46.5	47	40	40		22		21	19	70.5
JSS 12-03□	12	R3/8	12	53.5	46.5	47	40	42.5	21.5	22	23.5	22.5	19	74
JSS 12-04□		R1/2	15	59	51.5	51	43.5	47		28		24	114	
JSS 1/4-M5□(K)	1/4	M5×0.8	3	29.5	27	26.5	24	26	12.5	10	17	12	8	10
JSS 1/4-01□(K)		R1/8	8	40.5	34	36.5	30	31		14.5		14	10	20
JSS 1/4-02□(K)		R1/4	11	47.5	41	41.5	35	32		18.5		17	14	37.5
JSS 5/16-01□(K)	5/16	R1/8	8	40.5	34	36.5	30	32.5	14.5	14.5	18.5	15	10	21.5
JSS 5/16-02□(K)		R1/4	11	47.5	41	41.5	35	33.5		18.5		18	14	39
JSS 5/16-03□		R3/8	12	53.5	46.5	47	40	37.5		22		19	19	68
JSS 3/8-02□(K)	3/8	R1/4	11	47.5	41	41.5	35	36	18	18.5	20.5	22.5	14	42.5
JSS 3/8-03□		R3/8	12	53.5	46.5	47	40	40		22		19	70.5	



unit:inch

Model	Tube dia. φD inch(mm)	NPT	A	B		L1		L2	φP1	φP2	C	E	H	Weight (oz)
				MAX	MIN	MAX	MIN							
JSS 5/32-U10□(K)U	5/32(3.97)	10-32UNF	0.14	1.16	1.06	1.02	0.93	0.93	0.39	0.39	0.59	0.41	5/16	0.26
JSS 5/32-N1□(K)U	5/32(3.97)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	1.14	0.39	0.57	0.59	0.51	7/16	0.70
JSS 3/16-U10□U	3/16(4.76)	10-32UNF	0.14	1.16	1.06	1.02	0.93	1.00	0.49	0.39	0.67	0.47	5/16	0.36
JSS 3/16-N1□U	3/16(4.76)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	1.22	0.49	0.57	0.67	0.55	7/16	0.74
JSS 3/16-N2□U	3/16(4.76)	NPT 1/4	0.43	1.87	1.64	1.63	1.38	1.26	0.49	0.73	0.67	0.67	9/16	1.32
JSS 1/4-U10□(K)U	1/4(6.35)	10-32UNF	0.14	1.16	1.06	1.02	0.93	1.00	0.49	0.39	0.67	0.47	5/16	0.35
JSS 1/4-N1□(K)U	1/4(6.35)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	1.22	0.49	0.57	0.67	0.55	7/16	0.73
JSS 1/4-N2□(K)U	1/4(6.35)	NPT 1/4	0.43	1.87	1.64	1.63	1.38	1.26	0.49	0.73	0.67	0.67	9/16	1.31
JSS 5/16-N1□U	5/16(7.94)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	1.28	0.57	0.57	0.73	0.59	7/16	0.79
JSS 5/16-N2□U	5/16(7.94)	NPT 1/4	0.43	1.87	1.61	1.63	1.38	1.32	0.57	0.73	0.73	0.71	9/16	1.37
JSS 5/16-N3□U	5/16(7.94)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	1.48	0.57	0.87	0.73	0.75	3/4	2.38
JSS 3/8-N2□U	3/8(9.53)	NPT 1/4	0.43	1.87	1.61	1.63	1.38	1.42	0.71	0.73	0.81	0.79	9/16	1.50
JSS 3/8-N3□U	3/8(9.53)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	1.57	0.71	0.87	0.81	0.83	3/4	2.50
JSS 1/2-N3□U	1/2(12.7)	NPT 3/8	0.47	2.11	1.83	1.85	1.57	1.67	0.85	0.87	0.93	0.89	3/4	2.61
JSS 1/2-N4□U	1/2(12.7)	NPT 1/2	0.59	2.32	2.03	2.01	1.71	1.85	0.85	1.10	0.93	0.89	1	3.98



unit:mm

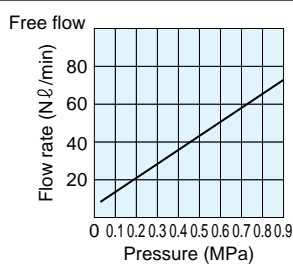
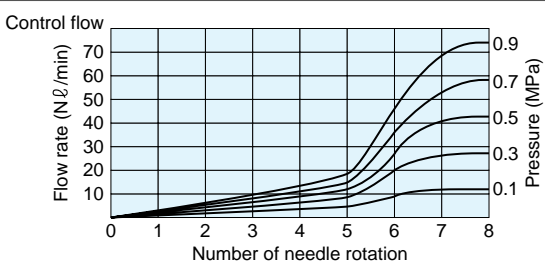
Model	Tube dia. φD	B1	B2	L		φP	C	J	φd	F1	F2	mass (g)
				max	min							
JSU 4(K)	4	41.5	11	29.5	26	10.5	15	14	3.2	6.5	13	12.5
JSU 6(K)	6	50	15	41.5	36	13	17	20	4.3	8.5	16.5	28.5
JSU 8	8	55	18	46	40.5	15	18.5	22	4.3	9.5	19	43
JSU 10	10	64	21	52	45.5	18	20.5	26	4.3	11	23	68.5
JSU 12	12	75	28	56	49	21	23.5	32	4.3	13	20.5	115
JSU 1/4	1/4	50	15	41.5	36	13	17	20	4.3	8.5	17	28.5
JSU 5/16	5/16	55	18	46	40.5	15	18.5	22	4.3	9.5	19	43
JSU 3/8	3/8	64	21	52	45.5	18	20.5	26	4.3	11	23	68.5



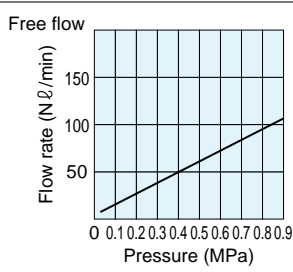
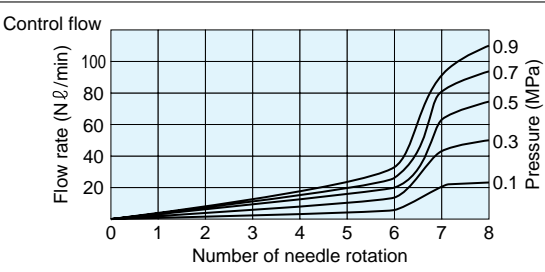
Flow characteristics

Elbow type, Straight type

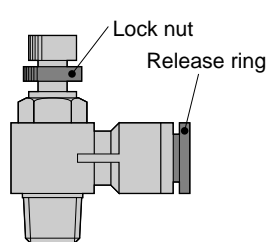
JSC 4-M5K      JSS 4-M5K  
6-M5K          6-M5K  
1/4-M5K        1/4-M5K



JSC 4-M5        JSS 4-M5  
6-M5            6-M5  
1/4-M5         1/4-M5



## How to identify speed controller types



	Release ring Shape · Color	Plastic body Color	Lock nut color	
			Atype	Btype
Standard type	Circle · Black	Black	Silver	Black
Mini type	Oval · Black	Black	Silver	Black
Large flow type	Circle · Black	Black	Blue	—
SUS303 equiv. anti_corrosive type	Circle · Dark blue	Black	Silver	Black
Clean-room Ready type	Circle · Light blue	Light blue	Silver	Black

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Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on page 7 and "Common Safety Instructions for Controllers" on pages 43.

### ⚠ Warning

- Adjust the speed of the actuator by opening the needle gradually from the fully closed position. With the needle open, there are chances of the actuator flying out. Turn the needle clockwise to close or counterclockwise to open.
- Do not subject the product with a rotatable resin to forcible swinging or rotation. Otherwise the body may suffer damage or develop leakage.

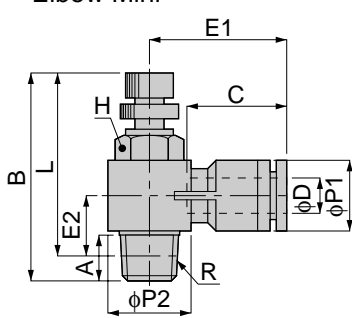
### ⚠ Caution

- The Speed Controller is designed to tolerate some air flow at fully. Therefore do not use it for applications that permits no air flow.



**JSC**  
MINI TYPE

Elbow Mini



Metric thread type



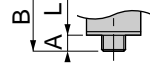
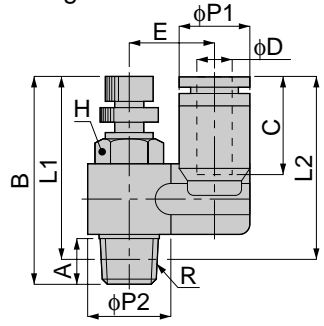
Model	Tube dia. φD	R	A	B		L		φP1	φP2	C	E1	E2	H	Mass (g)	unit:mm		
				max	min	max	min										
				JSC 3-M3M□(K)	3	M3×0.8	2.5									29.5	26.5
JSC 3-M5M□(K)	3	M5×0.8	3	30.5	27	27.5	25	8	10	11	15.5	6	8	7			
JSC 4-M3M□(K)	4	M3×0.8	2.5	29.5	26.5	27	24.5	8	10	11	15.5	6	8	6.5	1		
JSC 4-M5M□(K)		M5×0.8	3	30.5	27	27.5	25							7			
JSC 4-01M□(K)	4	R1/8	8	40	35	36	31	8	14.5	11	18	10.5	10	16.5	1		
JSC 6-M5M□(K)	6	M5×0.8	3	30.5	27	27.5	25	10.5	14.5	12	17.5	7	8	7.5			
JSC 6-01M□(K)		R1/8	8	40.5	35	36	31							18.5	10.5	10	17.5
JSC 6-02M□(K)		R1/4	11	47.5	41.5	41.5	35.5							18.5	12	14	34
JSC 1/8-M3M□(K)	1/8	M3×0.8	2.5	29.5	26.5	27	24.5	8	10	11	15.5	6	8	6.5	1		
JSC 1/8-M5M□(K)		M5×0.8	3	30.5	27	27.5	25							7			

unit:inch

Model	Tube dia.φD inch(mm)	R	A	B		L		φP1	φP2	C	E1	E2	H	Weight (oz)
				MAX	MIN	MAX	MIN							
JSC 1/8-U10M□(K)U	1/8(3.18)	10-32UNF	0.14	1.18	1.06	1.06	0.94	0.31	0.31	0.43	0.61	0.24	5/16	0.25
JSC 5/32-U10M□(K)U	5/32(3.97)	10-33UNF	0.14	1.18	1.06	1.06	0.94	0.31	0.31	0.43	0.61	0.24	5/16	0.25
JSC 5/32-N1M□U	5/32(3.97)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.31	0.57	0.43	0.71	0.41	7/16	0.61

**JSS**  
MINI TYPE

Straight Mini



Metric thread type



unit:mm

Model	Tube dia. φD	R	A	B		L1		L2	φP1	φP2	C	E	H	Mass (g)
				max	min	max	min							
JSS 3-M3M□(K)	3	M3×0.8	2.5	29.5	26.5	27	24	21.5	8	10	11	9	8	7
JSS 3-M5M□(K)		M5×0.8	3	30	27									7.5
JSS 4-M3M□(K)	4	M3×0.8	2.5	29.5	26.5	27	24	21.5	8	10	11.5	9	8	7
JSS 4-M5M□(K)		M5×0.8	3	30	27									7.5
JSS 4-01M□(K)	6	R1/8	8	40	34	36	30	25	8	14.5	12.5	10	17	17
JSS 6-M5M□(K)		M5×0.8	3	30	27									27
JSS 6-01M□(K)	1/8	R1/8	8	40	34	36	30	27	10.5	14.5	12	12.5	10	18
JSS 1/8-M3M□(K)		M3×0.8	2.5	29.5	26.5									27
JSS 1/8-M5M□(K)	M5×0.8	3	30	27										7.5

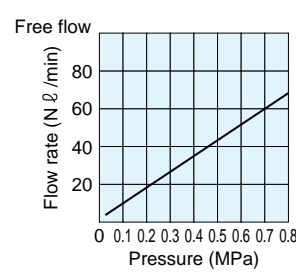
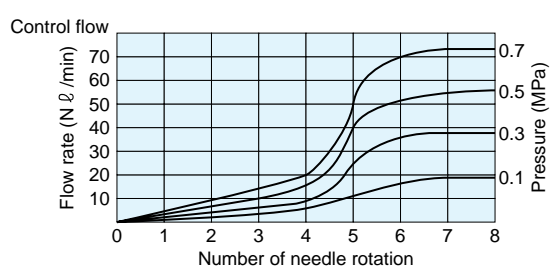
unit:inch

Model	Tube dia.φD inch(mm)	R	A	B		L		L2	φP1	φP2	C	E	H	Weight (oz)
				MAX	MIN	MAX	MIN							
JSS 1/8-U10M□(K)U	1/8(3.18)	10-32UNF	0.14	1.18	1.06	1.06	0.94	0.85	0.31	0.39	0.43	0.35	5/16	0.27
JSS 5/32-U10M□(K)U	5/32(3.97)	10-32UNF	0.14	1.18	1.06	1.06	0.94	0.85	0.31	0.39	0.45	0.35	5/16	0.26
JSS 5/32-N1M□U	5/32(3.97)	NPT 1/8	0.31	1.59	1.34	1.44	1.18	0.98	0.31	0.57	0.45	0.49	7/16	0.66

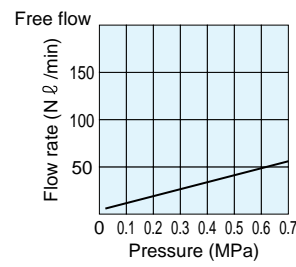
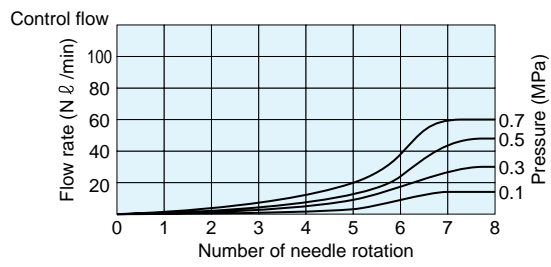
Flow characteristics

Elbow Mini · Straight Mini

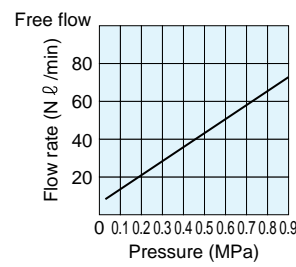
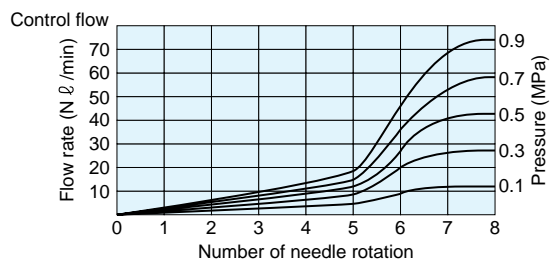
JSC 3-M3MK    JSS 3-M3MK  
3-M3M        3-M3M  
1/8-M3MK    1/8-M3MK  
1/8-M3M       1/8-M3M



JSC 4-M3MK    JSS 4-M3MK



JSC 3-M5MK    JSS 3-M5MK  
4-M5MK        4-M5MK  
6-M5MK        6-M5MK  
1/8-M5MK       1/8-M5MK



JSC 4-M3M        JSS 4-M3M

