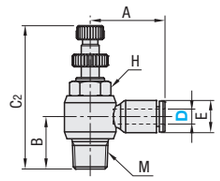
Speed Controller

Flow Rate Control Valves with One-Touch Coupling

Points of Comparison Versus Similar Products | Compared to the C-VALUE part, the adjustment finger part is made of metal and is strong enough for repeated adjustments. It has also been plated to improve corrosion-resistant properties.

■Standard Type (Meter Out / In)

Meter Out SPSNL SPJNLS Meter-In SPSNN



M Material Polybutylene Terephthalate
Thread: Brass (Nickel Plating)
(For SPJNLS, SUS304)

RoHS 10

Part Number Type	D	Nominal	Color (*)	A	B	C2	E	Wrench Flats H	Thread Size M	Mass (g)	SPSNL SPSNN Unit Price 1 - 9 pc(s).	SPSNL SPSNN Volume Discount Rate 10~30	SPJNLS Unit Price 1 - 9 pc(s).	SPJNLS Volume Discount Rate 10~30
SPSNL SPJNLS (Meter Out) SPSNN (Meter In)	4	M5	B (Black) W (White)	19.1(20.8)	10(12.4)	29.45(30.2)	9(10)	8	M5x0.8	9				
		1		20.9(23.1)	14.65(16.2)	40.05(38.4)	9(10)	10(13)	R1/8	21				
	6	M5		20.95(22.3)	11.2(12.2)	29.45(30.2)	11.2(12.5)	8	M5x0.8	10				
		1		21.95(24.1)	14.65(15.7)	40.05(38.4)	11.2(12.5)	10(13)	R1/8	22				
		2		23.95(25.8)	18.2(20.0)	48(45.7)	11.2(12.5)	14(16)	R1/4	38(40)				
	8	1		25.1(25.3)	15.65(15.4)	40.05(38.4)	13.6(14.5)	10(13)	R1/8	23				
		2		27.6(27.2)	19.3(19.0)	48(45.7)	13.6(14.5)	14(16)	R1/4	41				
		3		28.6(29.5)	21.4(21.3)	54.2(52.4)	13.6(14.5)	19	R3/8	71(65)				
	10	2		29.6(29.9)	20.8(19.0)	48(45.7)	16.3(17.5)	14(16)	R1/4	46(44)				
		3		30(31.7)	23(21.8)	54.2(52.4)	16.3(17.5)	19	R3/8	74(68)				
		4		32.9(33.9)	26.5(25.2)	59.8(58.8)	16.3(17.5)	24	R1/2	106(112)				
	12	3		35.9(32.0)	24.7(21.7)	54.2(52.4)	19.7(20.0)	19	R3/8	77(69)				
		4		38.9(35.2)	28.2(25.7)	59.8(58.8)	19.7(20.0)	24	R1/2	109(113)				

Dimensions in ( ) are for SPJNLS.
The picture and drawing indicate SPSNL and SPSNN. For SPJNLS, refer to the CAD data.
For SPSNN (Meter-In), the ring is red.
* Color is applicable to SPJNLS only.

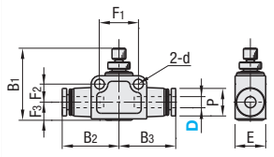
■Specifications

Applicable Fluid	Air
Operating Temp. Range	0 ~ 60°C
Operating Pressure Range	0.05~0.7MPa

Ordering Example: Part Number - Nominal - Color
SPSNL4 - M5

■Union Straight In-line

SPJYS

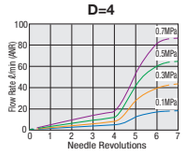


M Material Polybutylene Terephthalate
Thread: Brass (Nickel Plating)

RoHS 10

Part Number Type	D	B1 Max.	B1 Min.	B2	B3	P	E	d	F1	F2	F3	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
SPJYS	4	28.6	25.9	20.4	20.4	10.5	11	3.2	14	6.5	6.5	13		
	6	41.5	35.7	24.9	24.9	13	15	4.3	20	8.5	11	29		
	8	46	39.8	27.4	27.4	15	18	4.3	22	9.5	12	43		
	10	55.6	48	31.7	31.7	18	21	4.3	26	11	12	71		
	12	55.9	48.4	37.2	37.2	21	28	4.3	32	13	16	115		

D=4



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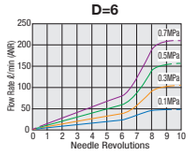

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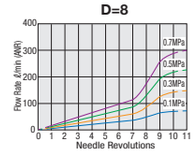

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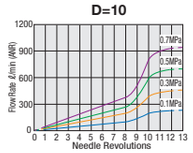

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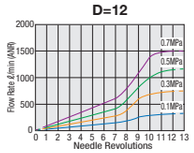


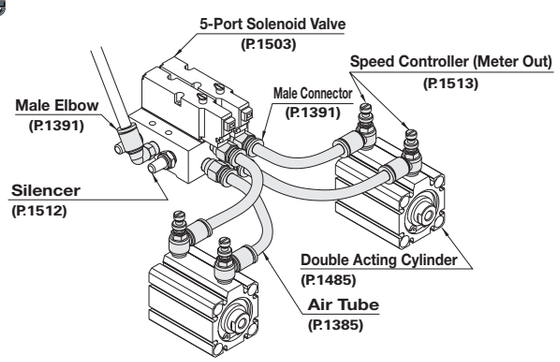
■Specifications

Applicable Fluid	Air
Operating Temp. Range	0 ~ 60°C
Operating Pressure Range	0.1~0.9MPa
Check Valve Operating Pressure	0.05MPa

*Operating pressure is set at ambient temperature (20°C).

Ordering Example: Part Number
SPJYS10

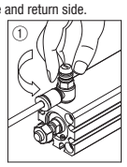
Example



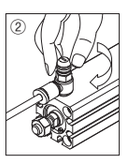
■Speed Adjusting Method

* It is necessary to adjust on both the cylinder rod push-out side and return side.

①When Increasing the Speed
1. Close all needles. (Clockwise)
2. Rotate anti-clockwise to increase the speed. Rotate slowly.
3. When desired speed is reached, tighten the Lock Nut.



②When Decreasing the Speed
1. Rotate clockwise to decrease speed.
2. When desired speed is reached, tighten the Lock Nut.



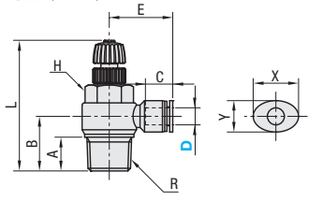
MiSUMi C-VALUE Speed Controller

Points of Comparison Versus Similar Products | Compared to the conventional high quality part, this is an economy part. It has not received RoHS Directive Inspection.

Similar Product Page P.1513

■Speed Controller (Meter Out / In)

EPSLA (Meter Out)
EPSLB (Meter In)



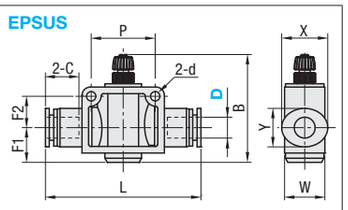
Part Number Type	Applicable Tube O.D. D	Thread Size Nominal	Thread SizeR	L (MIN)	L (MAX)	A	B	E	C	H	X	Y	Unit Price EPSLA	Unit Price EPSLB
EPSLA (Meter Out) EPSLB (Meter In)	4	M5	M5	29	32	4	10.7	20	15	8	11.9	10.5		
		1	R1/8	38	44	8	15	22	15	10	11.9	10.5		
	6	M5	M5	29	32	4	12	22	15	8	14	13		
		1	R1/8	38	44	8	15	23	15	10				
		2*	R1/4	44	51	11	19	25	15	14				-
	8	1	R1/8	38	44	8	16	25	17	10	16	14		
		2	R1/4	44	51	11	20	28	17	14				
	10	2	R1/4	44	51	11	21	32	21	14	20	17		
		3*	R3/8	49	55	12	23	33	21	19				-
	12	3*	R3/8	49	55	12	24	35	22	19	23	21		-

*marked sizes are only available for Meter Out. There are no Meter-In for these sizes.

Ordering Example: Part Number - Thread Nominal
EPSLA8 - 1

■Speed Controller Union Straight

EPSUS

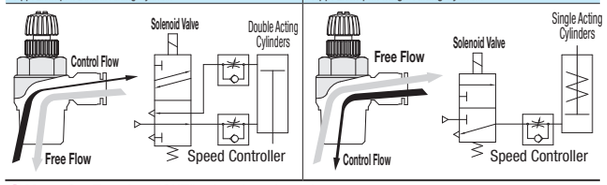


Part Number Type	Applicable Tube O.D. D	B (MIN)	B (MAX)	L	P	C	F1	F2	W	X	Y	d	Unit Price
EPSUS	4	28	31	40	14	14	6.5	6.5	12	12	11	3.2	
	6	41	48	48	20	16	11	9	15	14	13	4.3	
	8	44	52	52	22	17	12	10	18	16	14	4.3	
	10	48	55	55	26	20	13	11	21	20	17	4.3	
	12	52	58	58	32	22	16	13	28	23	21	4.3	

Ordering Example: Part Number
EPSUS10

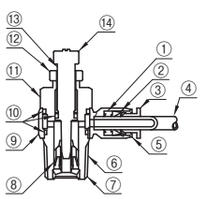
■Meter Out / In

Meter Out	Meter-In
• It controls the air entering from the threaded side. • It does not control the air that enters from the one-touch joint side. • App. Example: Double Acting Cylinder	• It controls the air that enters from the one-touch joint side. • It does not control the air entering from the threaded side. • App. Example: Single Acting Cylinder



Meter Out Type has "OUT" printed on the unit.

Speed Controller Part Diagram



No.	Part Name	Material	No.	Part Name	Material
①	Elastic Sleeve	NBR	⑧	Diaphragm	NBR
②	Lock Pawl	Stainless Steel	⑨	Resin Body	PBT
③	Release Ring	POM	⑩	O-Ring	NBR
④	Tube	PU / Nylon, etc.	⑪	Metal Body	Brass
⑤	Guide Ring	Zinc	⑫	Lock Nut	Aluminum
⑥	Seal Coating	PTFE	⑬	Needle	Brass
⑦	Metal Body	Brass	⑭	Leveling Nut	PA66

If the thread size is M5, fit an O-Ring (NBR) to the base of the thread.

■Tightening Torque Table

Type of Thread	Thread Size (symbol)	Tightening Torque (kgf.cm)	Tightening Torque (N)
Metric Thread	M5	15~19	1.4~1.8
Taper thread (R)	R1/8(1)	70~90	7~9
	R1/4(2)	120~140	12~14
	R3/8(3)	220~240	22~24
	R1/2(4)	280~300	27~29

Precautions for Use
(One-Touch Coupling / Speed Controller)
- Do not excessively twist, bend or pull on the joint body as it could cause damage. When tightening threads, refer to the tightening torque table above. Over-tightening could cause thread breakage and gasket deformation, which could cause leaks. Under-tightening could result in looseness in the threaded sections, which could cause leaks.

(Speed Controller)
- Do not use for the purpose of making the flow rate zero.