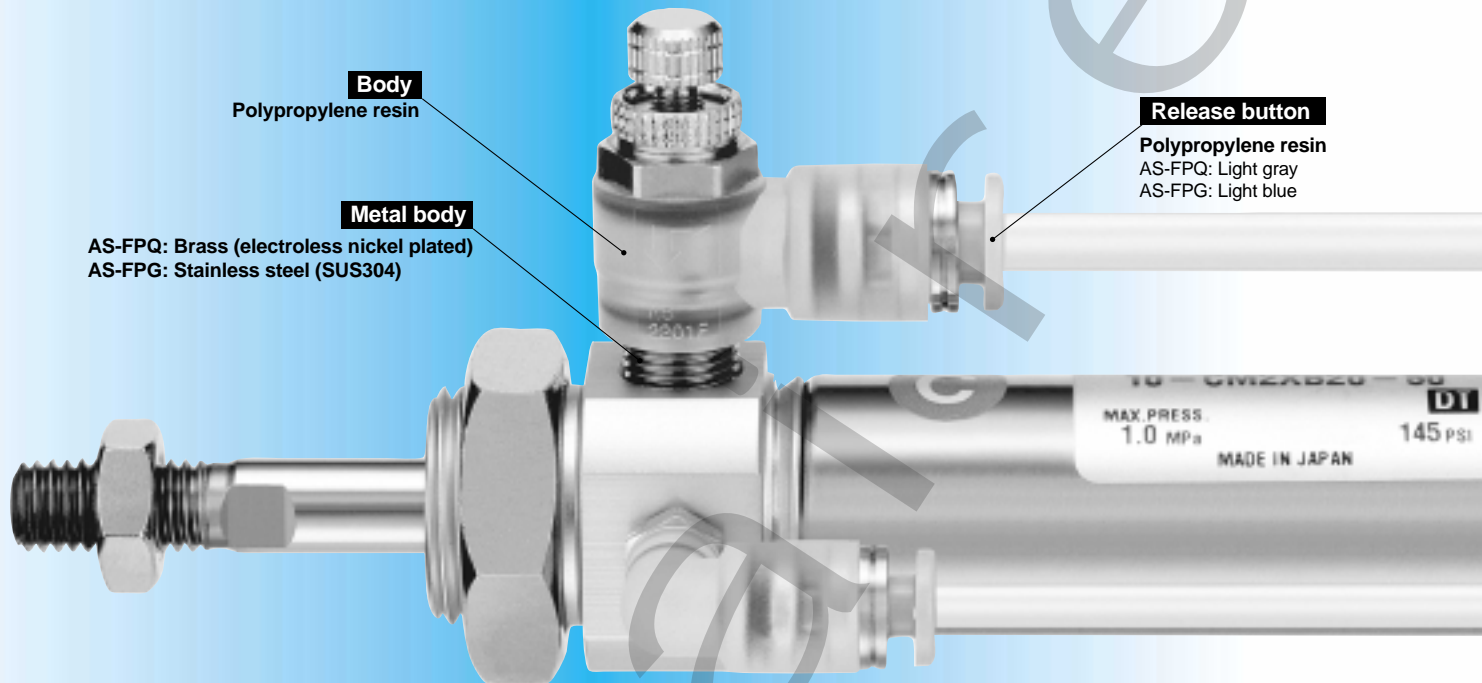


Speed Controller with One-touch Fitting for Clean Room Series **AS-FPQ/AS-FPG**



**AS-FPQ: Brass (electroless nickel plated) and
AS-FPG: Stainless steel (SUS304) are now available as a series.**

Low particulate generating speed controllers designed for use in clean rooms



Speed Controller with
One-touch Fitting for Clean Room

Series AS-FPQ/FPG



Series AS-FPQ
Brass (electroless nickel plated)

Series AS-FPG
Stainless steel (SUS304)

Elbow type	Port size	Applicable tube O.D. (mm)					Applicable cylinder bore size (mm)
		4	6	8	10	12	
AS12□1FP□-M5	M5 x 0.8	●	●	●	●	●	6, 10, 16, 20
AS22□1FP□-01	R 1/8	●	●	●	●	●	20, 25, 32
AS22□1FP□-02	R 1/4	●	●	●	●	●	20, 25, 32, 40
AS32□1FP□-03	R 3/8	●	●	●	●	●	40, 50, 63
AS42□1FP□-04	R 1/2	●	●	●	●	●	63, 80, 100

Low particulate generation

Clean performance

Environmental resistance

Excellent

Speed Controller with One-touch Fitting for Clean Room

Elbow Type

Series AS-FPQ/FPG

AS-FPQ/Brass (electroless nickel plated)

Release button color: Light gray

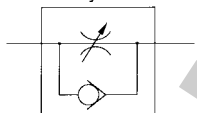


AS-FPG/Stainless steel (SUS304)

Release button color: Light blue



JIS symbol



Flow direction symbols on body

	Meter-out type	Meter-in type
Symbol		
JIS symbol		

Models

Elbow type	Port size	Applicable tubing O.D. (mm)					Applicable cylinder bore size (mm)
		4	6	8	10	12	
AS12□1FP□-M5	M5 x 0.8	●	●				6, 10, 16, 20
AS22□1FP□-01	R 1/8	●	●	●			20, 25, 32
AS22□1FP□-02	R 1/4	●	●	●	●		20, 25, 32, 40
AS32□1FP□-03	R 3/8		●	●	●	●	40, 50, 63
AS42□1FP□-04	R 1/2				●	●	63, 80, 100

Specifications

Particulate generation grade	Grade 1 Note 1)
Proof pressure	1.5MPa
Maximum operating pressure	1MPa
Minimum operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (with no freezing)
Number of needle rotations	10 rotations (8 rotations Note 2))

Note 1) Refer to particulate generation grade classifications.

Note 2) For AS12□1FP□

Flow Rate and Effective Area

Model		AS12□1FP□-M5			AS22□1FP□-01			AS22□1FP□-02			AS32□1FP□-03			AS42□1FP□-04	
Tubing O.D.	Metric sizes	ø4	ø4	ø6	ø4	ø6	ø8	ø6	ø8	ø10	ø10	ø12			
		ø6		ø8			ø10			ø12					
Controlled (free) flow	Flow rate /min (ANR)	100	180	230	260	390	460	660	790	920	1580	1710			
	Effective area mm ²	1.5	2.7	3.5	4	6	7	10	12	14	24	26			

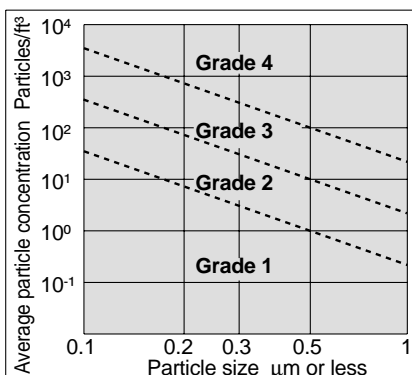
Note) Flow rate values are at a pressure of 0.5MPa, and temperature of 20°C.

Recommended Applicable Tubing

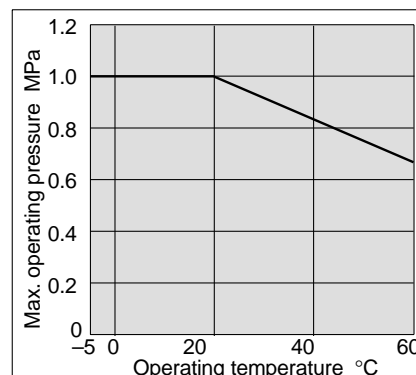
Tubing material	Clean series polyurethane tubing: Series 10
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Polyurethane tubing: Series TU, Nylon tubing: Series T and Soft nylon tubing: Series TS can also be used. However, the degree of clean performance will decline.

Particulate Generation Grade Classifications



Relation of Operating Temperature and Maximum Operating Pressure



Series AS-FPQ/FPG

How to Order

AS 2 2 1 1 F P Q 01 06

Body size

1	M5 standard
2	1/8, 1/4 standard
3	3/8 standard
4	1/2 standard

Type

2	Elbow
---	-------

Control type

0	Meter-out
1	Meter-in

Applicable tubing O.D. Metric sizes

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Port size

M5	M5 x 0.8
01	1/8
02	1/4
03	3/8
04	1/2

With One-touch fitting

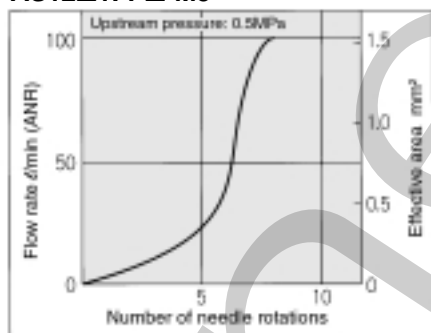
Clean specification

Metal part material

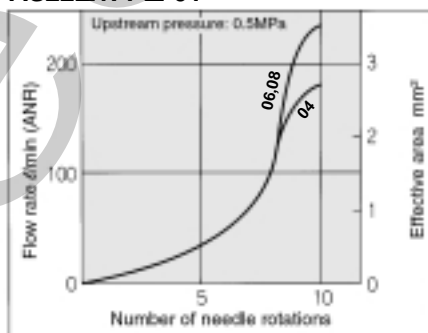
Q	Brass (electroless nickel plated)
G	Stainless steel (SUS304)

Needle Valve/Flow Characteristics

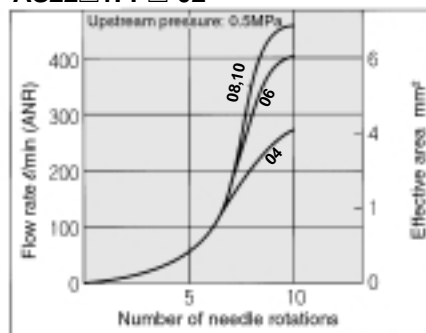
AS12□1FP□-M5



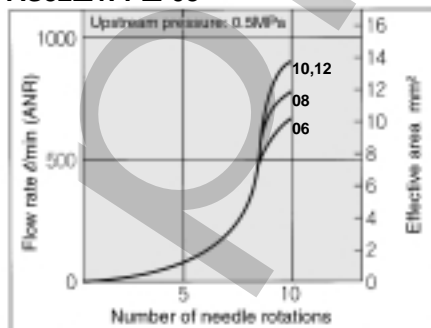
AS22□1FP□-01



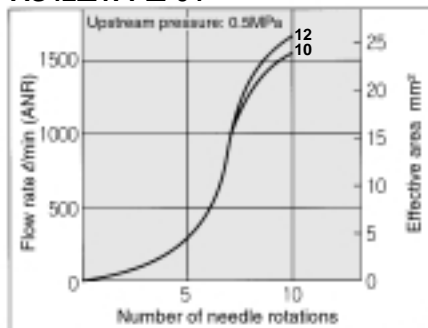
AS22□1FP□-02



AS32□1FP□-03



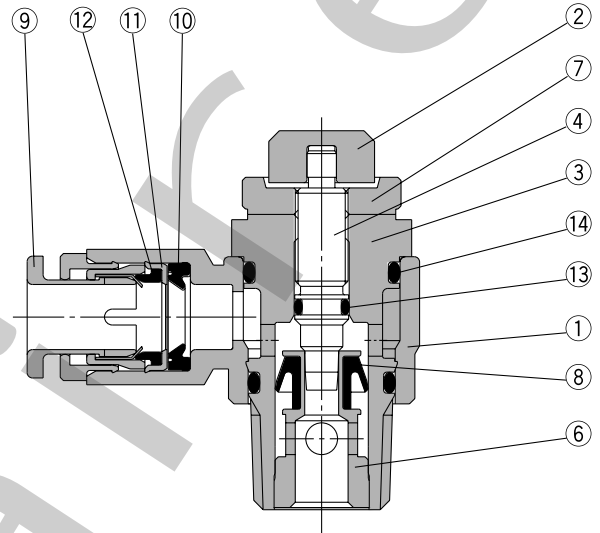
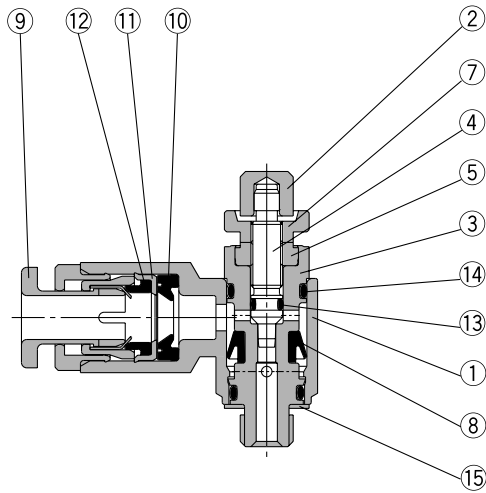
AS42□1FP□-04



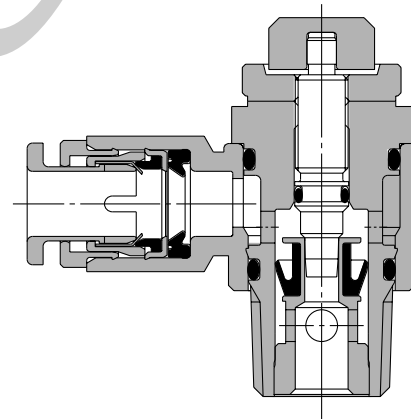
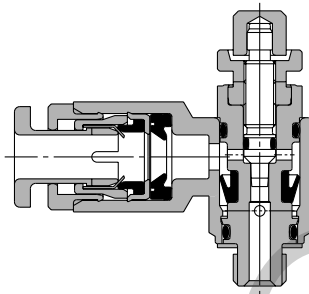
Speed Controller for Clean Room Series AS-FPQ/FPG

Construction

Meter-out type M5 type



Meter-in type M5 type



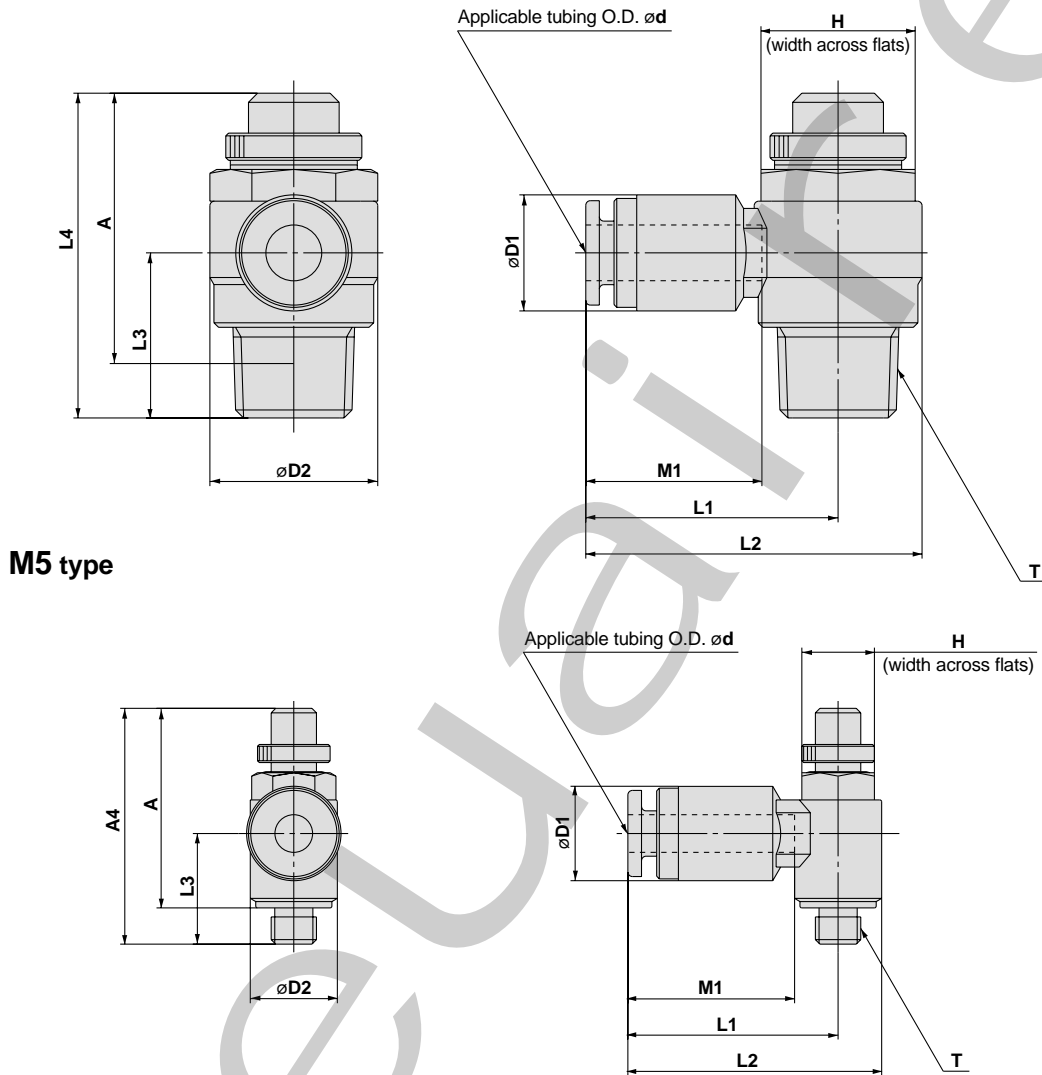
Parts list

No.	Description	AS□□□1FPQ		AS□□□1FPG	
		Material	Note	Material	Note
1	Body A	Polypropylene resin		Polypropylene resin	
2	Knob	Brass	Electroless nickel plated	SUS304	
3	Body B	Brass	Electroless nickel plated	SUS304	
4	Needle	Brass	Electroless nickel plated	SUS304	
5	Needle guide	Brass	Electroless nickel plated	SUS304	
6	Seat ring	Brass	Electroless nickel plated	SUS304	
7	Lock nut	Brass	Electroless nickel plated	SUS304	
8	U seal	HNBR		HNBR	
9	Cassette	Polypropylene resin SUS304, Brass	Brass parts are electroless nickel plated	Polypropylene resin SUS304	
10	Seal	NBR		NBR	
11	Stopper	SUS304		SUS304	
12	Cushion	NBR		NBR	
13	O-ring	NBR		NBR	
14	O-ring	NBR		NBR	
15	Gasket	NBR, SUS304		NBR, SUS304	

SUS304: SUS304 Stainless steel

Series AS-FPQ/FPG

Dimensions



M5 type

Model	Tubing O.D. d	T	H	D1	D2	L1	L2	L3	L4		A Note 1)		M1	Weight (g) Note 2)	
									Max.	Min.	Max.	Min.		1*	2*
AS12□1FP□-M5-04	4	M5 x 0.8	8	10.4	9.6	23.2	28	12.2	28.3	25.5	25	22.2	18.4	7	7
AS12□1FP□-M5-06	6			12.8		29	19.4						8	8	
AS22□1FP□-01-04	4	R 1/8	12	10.4	14.2	25.3	32.4	14.3	36.4	31.4	32.4	27.4	18.4	17	17
AS22□1FP□-01-06	6			12.8		33.4	19.4						18	18	
AS22□1FP□-01-08	8			15.2		35.6	21.9						20	20	
AS22□1FP□-02-04	4	R 1/4	17	10.4	18.5	27.8	37	18.2	40.8	35.8	34.8	29.8	18.4	33	33
AS22□1FP□-02-06	6			12.8		37	19.4						33	33	
AS22□1FP□-02-08	8			15.2		39.6	21.9						35	35	
AS22□1FP□-02-10	10			18.5		47.5	23.8						38	38	
AS32□1FP□-03-06	6	R 3/8	19	12.8	23	30.4	41.9	20.9	46.9	41.9	40.6	35.6	19.4	59	55
AS32□1FP□-03-08	8			15.2		44.4	21.9						61	57	
AS32□1FP□-03-10	10			18.5		46.1	23.8						63	59	
AS32□1FP□-03-12	12			20.9		47.3	25						65	61	
AS42□1FP□-04-10	10	R 1/2	24	18.5	28.6	36.6	50.9	25.4	55.6	50.6	47.4	42.4	23.8	107	100
AS42□1FP□-04-12	12			20.9		52.5	25						109	102	

Note 1) Reference dimension for threads after installation

Note 2) 1* is the weight for type AS□□1FPQ (brass + electroless nickel plated), 2* is the weight for type AS□□1FPG (SUS304).