

Speed Controller with One-touch Fittings Stainless Series

Series AS-FG

In-line Type



Model

Model	Applicable tubing O.D.											Applicable cylinder bore size (mm)		
	Metric size						Inch size							
	3.2	4	6	8	10	12	1/8"	5/32"	3/16"	1/4"	5/16"		3/8"	1/2"
AS1001FG	●	●	●				●	●	●	●				6, 10, 16, 20
AS2001FG		●	●					●	●	●				20, 25, 32
AS2051FG			●	●					●	●	●			20, 25, 32, 40
AS3001FG			●	●	●	●			●	●	●			40, 50, 63
AS4001FG					●	●						●	●	63, 80, 100

Specifications

Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Number of needle rotations	10 turns (8 turns ⁽¹⁾)
Applicable tubing material ⁽²⁾	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In the case of AS1001FG type

Note 2) Use caution regarding the max. operating pressure when soft nylon or polyurethane, or soft polyurethane tubing is used.

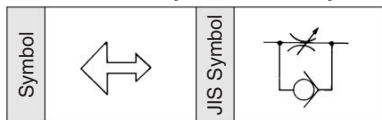
(Refer to pages 15-6-3 to 15-6-5 for details.)

Flow Rate and Effective Area

Model		AS1001FG	AS2001FG	AS2051FG	AS3001FG			AS4001FG			
Tubing O.D.	Metric size	ø3.2 ø4 ø6	ø4 ø6	ø6 ø8	ø6 ø8	ø6 ø8 ø10 ø12	ø6 ø8	ø10 ø12	ø10 ø12		
	Inch size	ø1/8" ø5/32" ø3/16"	ø5/32" ø3/16" ø1/4"	ø3/16" ø1/4"	ø3/16" ø1/4" ø5/16"	ø1/4" ø5/16" ø3/8"	ø3/8" ø1/2"	ø3/8" ø1/2"	ø3/8" ø1/2"		
Controlled flow (Free flow)	Flow rate (ℓ/min (ANR))	100	130	230	290	460	420	660	920	1050	1390
	Effective area (mm ²)	1.5	2	3.5	4.5	7	6.5	10	14	16	21

Note) Flow rate values are measured at 0.5 MPa and 20°C.

Flow Direction Symbols on Body



AS

ASP

ASN

AQ

ASV

AK

ASS

ASR

ASF

Series AS-FG

How to Order

AS 200 1 F G -06

Body size

100	M5 standard
200	1/8 standard
205	1/4 standard
300	3/8 standard
400	1/2 standard

With One-touch fittings

Stainless steel specifications (SUS303)

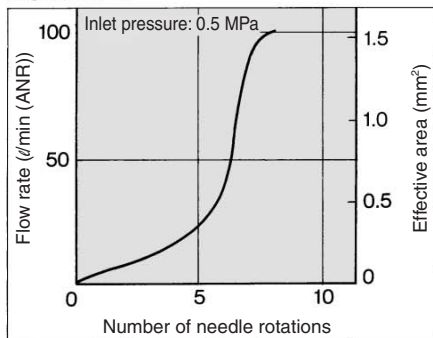
Applicable tubing O.D.

Metric size		Inch size	
23	ø3.2 *	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	05	ø3/16"
08	ø8	07	ø1/4"
10	ø10	09	ø5/16"
12	ø12	11	ø3/8"
		13	ø1/2"

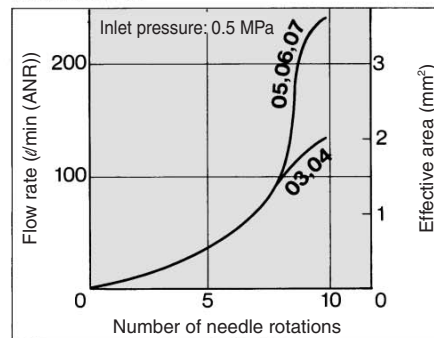
* Use ø1/8" tube.

Needle Valve/Flow Characteristics

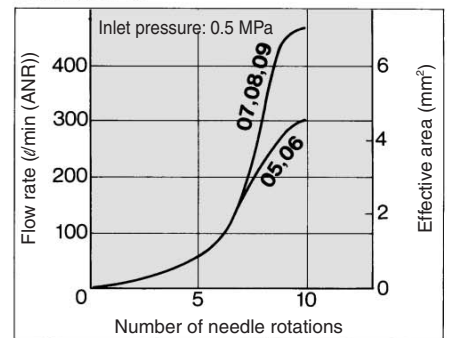
AS1001FG



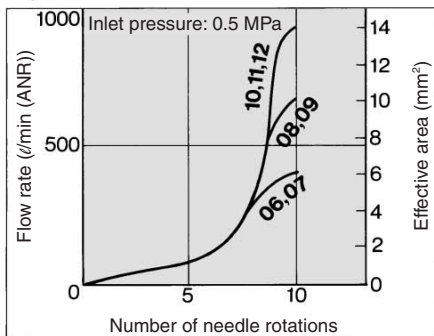
AS2001FG



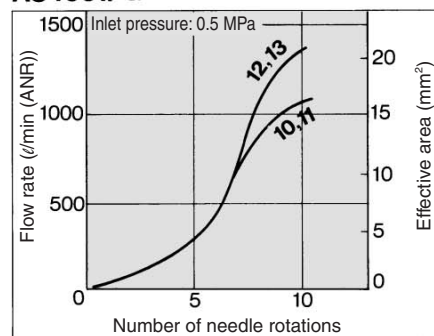
AS2051FG



AS3001FG

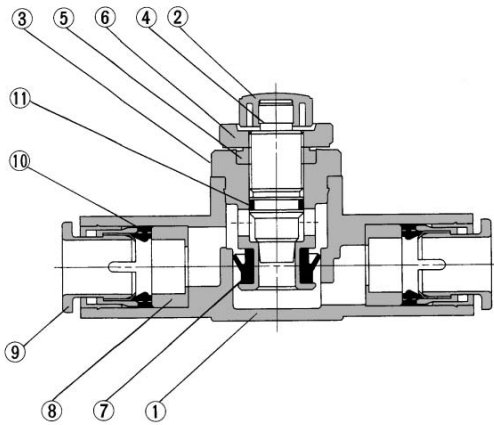


AS4001FG



Speed Controller with One-touch Fittings Stainless Series, In-line Type **Series AS-FG**

Construction

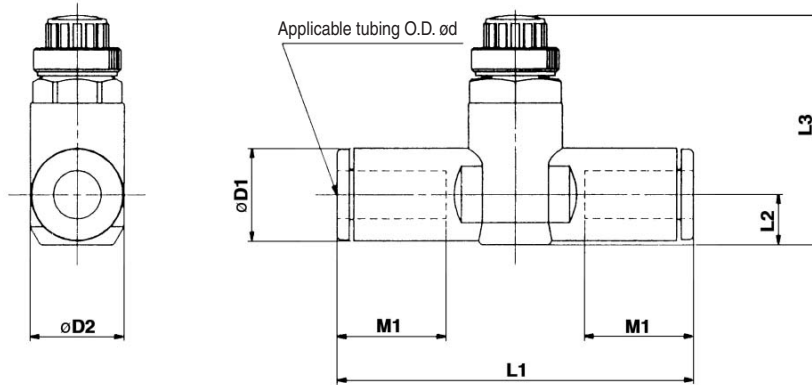


Component Parts

No.	Description	Material	Note
①	Body A	PBT	
②	Handle	PBT	
③	Body B	Stainless steel 303	
④	Needle	Stainless steel 303	
⑤	Needle guide	Stainless steel 303	
⑥	Lock nut	Stainless steel 303	
⑦	U seal	HNBR	
⑧	Spacer	PBT ^{Note)}	
⑨	Cassette	POM, Stainless steel	
⑩	Seal	NBR	
⑪	O-ring	NBR	

Note) $\phi 3/16"$, $\phi 3/8"$ and $\phi 1/2"$ are made of stainless steel 303.
AS1001FG($\phi 3.2$, $\phi 4$, $\phi 6$, $\phi 1/8"$, $\phi 5/32"$, $\phi 1/4"$),
AS2001FG($\phi 4$, $\phi 6$, $\phi 5/32"$) are POM.

Dimensions



Metric Size

Model	d	D1	D2	L1	L2	L3		M1	Weight (g)	
						Max.	Min.			
AS1001FG-23	3.2	8.4	10	38	4.5	23.5	20.7	12.7	6	
AS1001FG-04	4	9.3		39.2	5.2	24.2	21.4		7	
AS1001FG-06	6	11.6		40.7	6.2	25.2	22.4		13.5	8
AS2001FG-04	4	9.3	11.8	40.7	5.2	32.6	27.6	12.7	12	
AS2001FG-06	6	11.6		44.8	6.3	33.7	28.7		13.5	13
AS2051FG-06	6	12.8		53.2	6.7	35.2	30.2		17	26
AS2051FG-08	8	15.2	14.8	59.8	8.1	32.6	27.6	18	31	
AS3001FG-06	6	12.8		59	7.4	38.3	33.3		17	18
AS3001FG-08	8	15.2		64.4	8.2	39.1	34.1		18	21
AS3001FG-10	10	18.5	19.8	71.6	9.8	40.6	35.6	21	32	
AS3001FG-12	12	20.9		76	11	41.8	36.8		22	33
AS4001FG-10	10	18.5		51.1	43.6	21	36			
AS4001FG-12	12	20.9	26.5	82	11.3	52.1	44.6	22	40	

Inch Size

Model	d	D1	D2	L1	L2	L3		M1	Weight (g)	
						Max.	Min.			
AS1001FG-01	1/8"	8.4	10	38	4.5	23.5	20.7	12.7	6	
AS1001FG-03	5/32"	9.3		39.2	5.2	24.2	21.4		7	
AS1001FG-05	3/16"	11.4		48.7	6.2	25.2	22.4		16.5	8
AS1001FG-07	1/4"	12	11.8	40.7	5.2	32.6	27.6	12.7	12	
AS2001FG-03	5/32"	9.3		40.7	6.2	33.6	28.6		16.5	18
AS2001FG-05	3/16"	11.4		50	6.2	33.6	28.6		16.5	18
AS2001FG-07	1/4"	13.2	14.8	52.2	7.1	34.5	29.5	17	21	
AS2051FG-05	3/16"	11.4		52.2	6.2	34.6	29.6		16.5	24
AS2051FG-07	1/4"	13.2		54.4	7.1	35.5	30.5		17	26
AS2051FG-09	5/16"	15.2	19.8	59.8	8.1	32.6	27.6	18	31	
AS3001FG-07	1/4"	13.2		59	7.4	38.3	33.3		17	42
AS3001FG-09	5/16"	15.2		64.4	8.2	39.1	34.1		18	46
AS3001FG-11	3/8"	17.9	26.5	70.8	9.5	40.3	35.3	21	53	
AS4001FG-11	3/8"	17.9		76.9	10.3	51	43.5		21	97
AS4001FG-13	1/2"	21.7		83.1	11.6	52.4	44.9		22	106

AS

ASP

ASN

AQ

ASV

AK

ASS

ASR

ASF