

## Stainless Steel Speed Controller (Elbow Type) Series ASG

### Material:

### Stainless steel 316

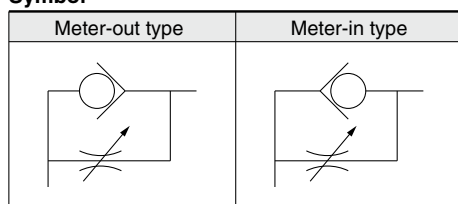
(Sealant: Special FKM  
 (Seat ring: Stainless steel 303))

### Applicable tubing materials

- FEP
- Soft nylon
- PFA
- Polyurethane
- Nylon
- Polyolefin



### Symbol



Compatible with the Food Sanitation Law  
 (Material of the component parts meets the apparatus  
 and container packaging standards.)

### Flow Rate and Effective Area

Model	ASG22□F-M5	ASG32□F-01	ASG42□F-02	ASG52□F-03	ASG62□F-04				
Tubing O.D. (mm)	ø4, ø6	ø4, ø6, ø8	ø6, ø8, ø10	ø8, ø10, ø12	ø12				
C values: Sonic conductance dm <sup>3</sup> /(s·bar)	Free flow	0.3	0.55	0.7	1.2	1.4	2.4	2.8	4.8
	Controlled flow	0.3	0.55	0.6	1.2	1.2	1.7	2.4	4.7
b values: Critical pressure ratio	Free flow	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.3
	Controlled flow	0.2	0.25	0.25	0.3	0.3	0.25	0.25	0.25

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

### Model

Elbow type	Port size	Applicable tubing O.D. (mm)				
		4	6	8	10	12
ASG22□F-M5	M5 x 0.8	●	●			
ASG32□F-01	R1/8	●	●	●		
ASG42□F-02	R1/4		●	●	●	
ASG52□F-03	R3/8			●	●	●
ASG62□F-04	R1/2					●

### Specifications

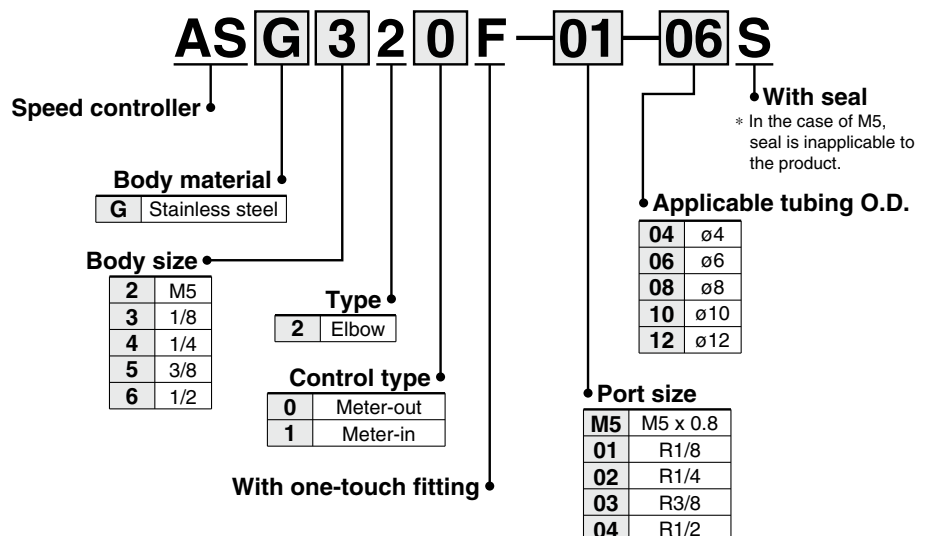
Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Number of needle rotations	10 turns (8 turns <sup>Note 1)</sup> )
Applicable tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane <sup>Note 3)</sup> , Polyolefin

Note 1) In case of ASG22□F-M5

Note 2) Please be cautious of the max. operating pressure when soft nylon or polyurethane tubing is used.

Note 3) When polyurethane tubing is used, please use an inner sleeve.

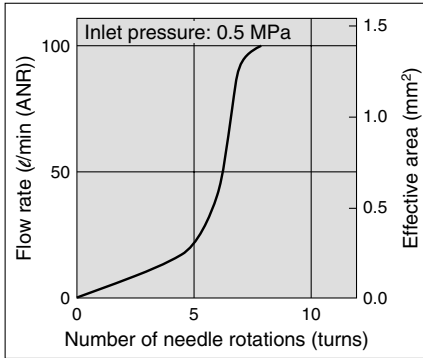
### How to Order



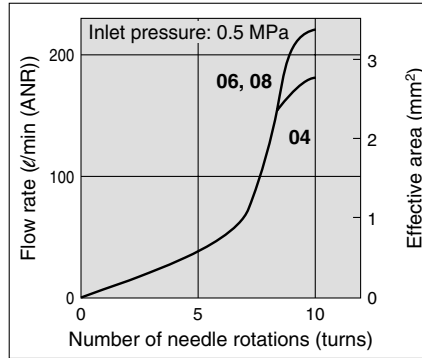
# Series ASG

## Needle Valve: Flow Characteristics

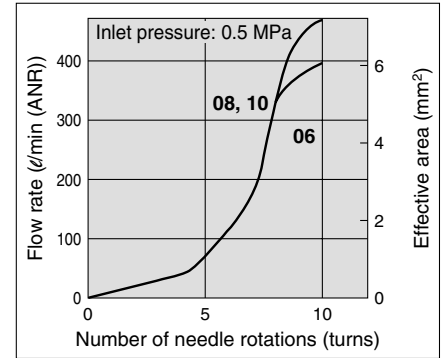
**ASG220F-M5**  
**ASG221F-M5**



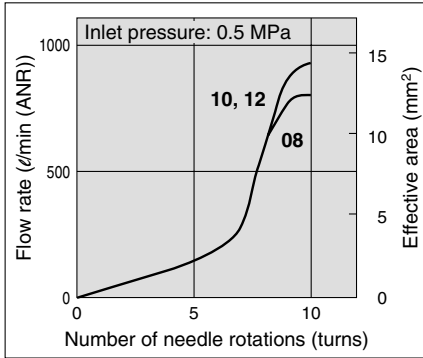
**ASG320F-01**  
**ASG321F-01**



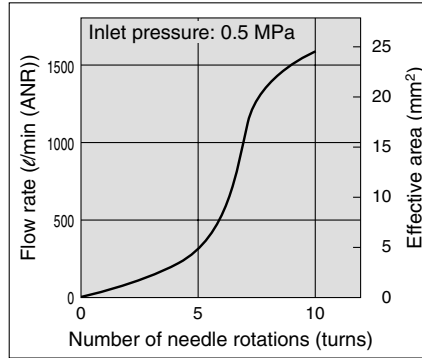
**ASG420F-02**  
**ASG421F-02**



**ASG520F-03**  
**ASG521F-03**



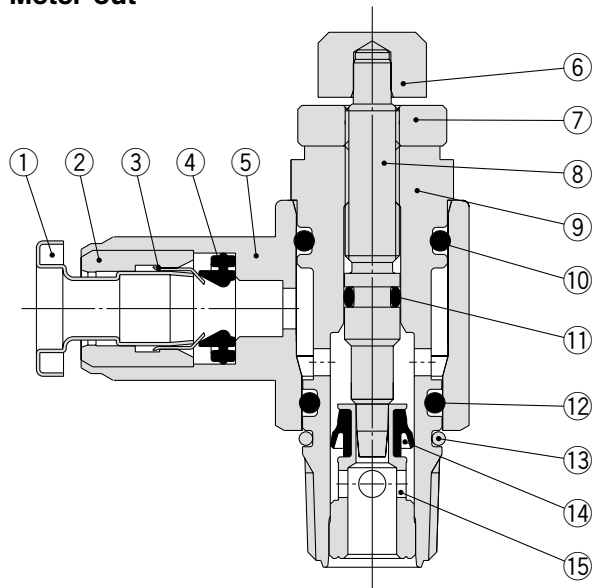
**ASG620F-04**  
**ASG621F-04**



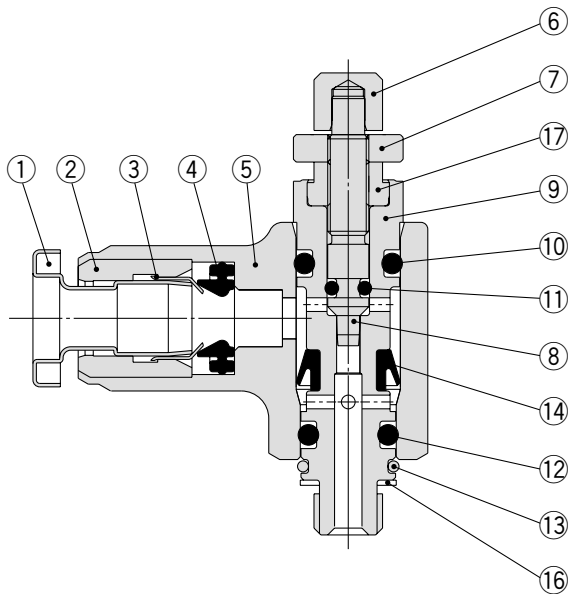
## Construction

### Elbow type

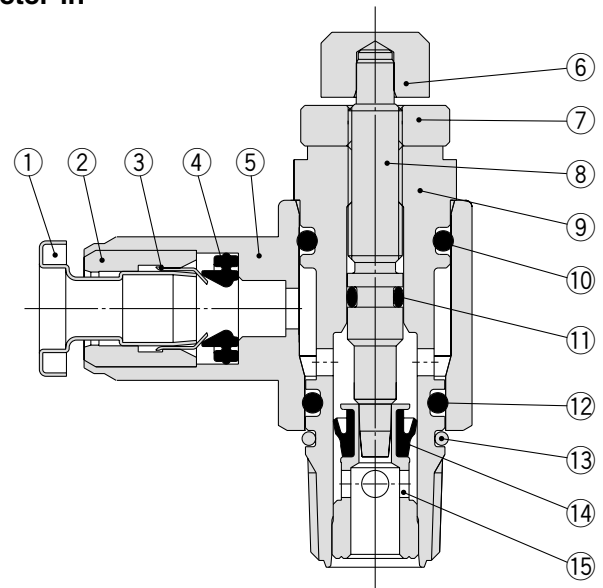
#### Meter-out



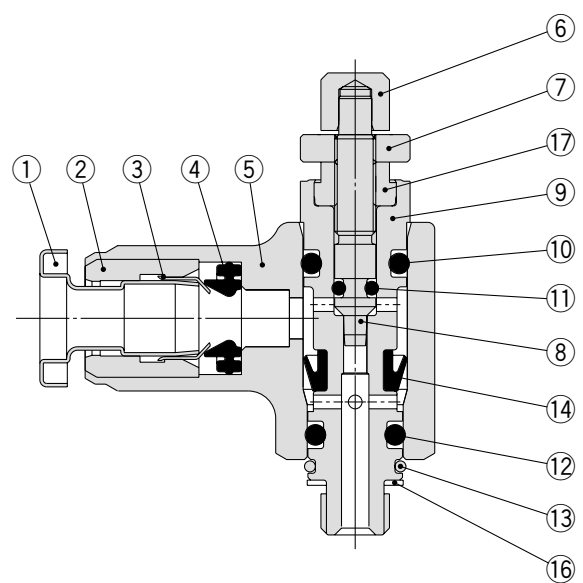
#### M5 port



#### Meter-in



#### M5 port



## Component Parts

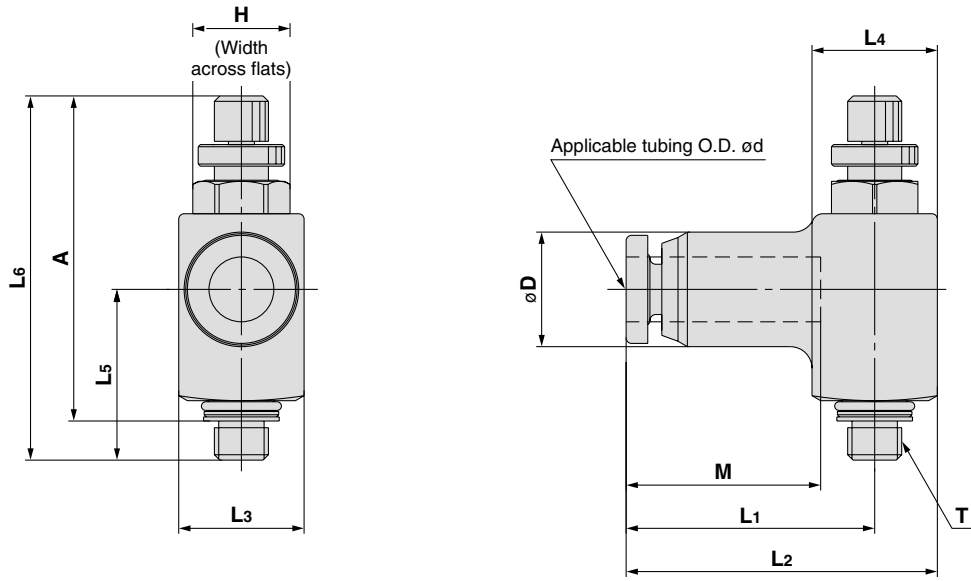
No.	Description	Material
1	Release button	Stainless steel 316
2	Guide	Stainless steel 316
3	Chuck	Stainless steel 316
4	Seal	Special FKM
5	Body A	Stainless steel 316
6	Handle	Stainless steel 316
7	Lock nut	Stainless steel 316
8	Needle	Stainless steel 316
9	Body B	Stainless steel 316

No.	Description	Material
10	O-ring	Special FKM
11	O-ring	Special FKM
12	O-ring	Special FKM
13	Ring	Stainless steel 316
14	U-seal	FKM
15	Seat ring	Stainless steel 303
16	Gasket	Stainless steel 316, Special FKM
17	Needle guide	Stainless steel 316

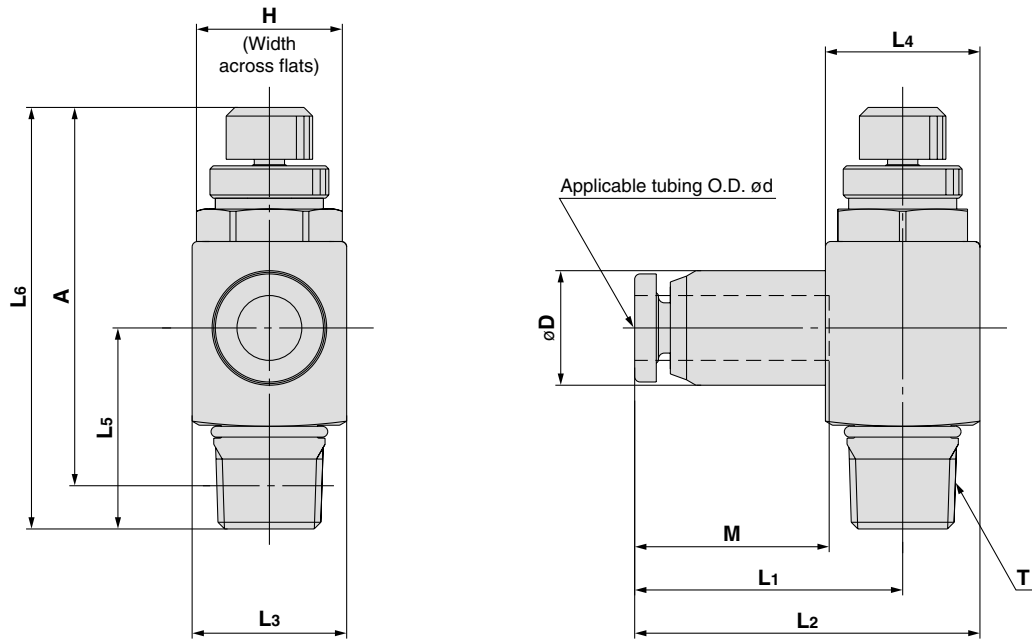
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## Dimensions

### ASG22□F-M5



### ASG32□F-01 ASG42□F-02 ASG52□F-03 ASG62□F-04



Model	Applicable tubing O.D. ød	T	H	D	L1	L2	L3	L4	L5	L6		A <sup>Note)</sup>		M	Weight (g)
										Max.	Min.	Max.	Min.		
ASG22□F-M5-04	4	M5 x 0.8	8	10.6	23	28.8	11.6		15.8	37.2	33.7	33.7	30.2	18.2	25.2
ASG22□F-M5-06	6			13	23.6	30.6									
ASG32□F-01-04S	4			10.6	24.8	32	14.3							18.2	39.4
ASG32□F-01-06S	6	1/8	12	13	25.4	32.6	14.3		18.6	44	39	40	35	18.8	42.4
ASG32□F-01-08S	8			15	27.5	35.5	16							20.9	52.4
ASG42□F-02-06S	6			13	27.3	36.2	17.9							18.8	76.8
ASG42□F-02-08S	8	1/4	17	15	29.4	38.3	17.9		24.2	53.5	48.5	47.5	42.5	20.9	80.3
ASG42□F-02-10S	10			18	31.9	41.4	19							23	93.6
ASG52□F-03-08S	8			15	31.1	41.7	21.2							20.9	117.0
ASG52□F-03-10S	10	3/8	19	18	33.6	44.2	21.2		26.5	58.7	53.7	52.7	47.7	23	124.9
ASG52□F-03-12S	12			20.8	35.4	46.3	21.8							24.8	137.8
ASG62□F-04-12S	12	1/2	24	20.8	37.6	50.5	25.8		30	65.9	58.4	54.3	46.8	24.8	186.8

Note) Reference thread dimensions after installation.