

Series 10-AS-FG

Stainless Steel Speed Controller with One-touch Fittings (Elbow/Universal type)

How to Order

RoHS

10 – **AS** **2** **3** **1** **1** **F** **G** **01** **06**

• Clean series

• Body size

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

• Type

2	Elbow
3	Universal

• Control type

0	Meter-out
1	Meter-in

• With One-touch fitting

Stainless steel specifications (Stainless steel 303)

• Lock nut option

Nil	Hexagon lock nut
J	Round lock nut

• Applicable tubing O.D. (Note)

Metric size

23	ø3.2*
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Note) Refer to the following Model list for selection of applicable tubing O.D.
* ø1/8" tubing should be used.

• Port size

M5	M5 x 0.8
01	R1/8
02	R1/4
03	R3/8
04	R1/2



Model

Elbow type	Universal type	Port size	Applicable tubing O.D.					
			Metric size					
			3.2	4	6	8	10	12
10-AS12□1FG-M5	10-AS13□1FG-M5	M5 x 0.8	●	●	●			
10-AS22□1FG-01	10-AS23□1FG-01	R1/8	●	●	●	●	●*	
10-AS22□1FG-02	10-AS23□1FG-02	R1/4		●	●	●	●	
10-AS32□1FG-02	10-AS33□1FG-02	R1/4			●	●	●	●
10-AS32□1FG-03	10-AS33□1FG-03	R3/8			●	●	●	●
10-AS42□1FG-04	10-AS43□1FG-04	R1/2					●	●

Note 1) The meter-out and meter-in types can be visually determined by the flow direction symbol on the resin body.

Note 2) * Elbow type only.

Specifications

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)
Applicable tubing material	Polyurethane ^{Note 1)}
Grease	Fluorine grease
Cleanliness class (ISO class)	Class 5

Note 1) The maximum operating pressure for polyurethane (at 20 °C) is 0.8 MPa.
(Refer to the **WEB catalog** for details.)

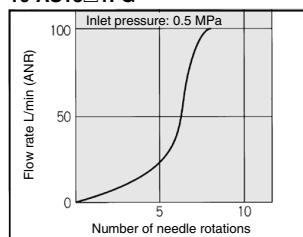
Flow Rate and Sonic Conductance

Model		10-AS12□1FG 10-AS13□1FG	10-AS22□1FG-□01 10-AS23□1FG-□01	10-AS22□1FG-□02 10-AS23□1FG-□02			10-AS32□1FG 10-AS33□1FG			10-AS42□1FG 10-AS43□1FG		
Tubing O.D.	Metric size	ø3.2 ø4 ø6	ø3.2 ø4	ø6 ø8 ø10	ø4	ø6 ø8 ø10	ø6	ø8 ø10 ø12	ø6	ø8 ø10 ø12	ø10 ø12	
	Flow rate L/min (ANR)	100	180	230	260	390	460	660	790	920	1580	1710
Controlled flow Free flow	Sonic conductance dm ³ /(s·bar)	0.28	0.50	0.64	0.72	1.1	1.3	1.8	2.2	2.6	4.4	4.8
	Critical pressure ratio	Controlled flow	0.2	0.25	0.3	0.25	0.25	0.2	0.2	0.2	0.25	0.3
	Free flow	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3

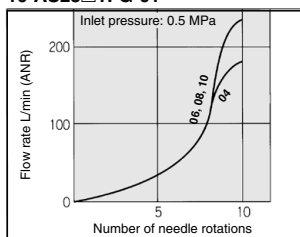
Note) Supply pressure: 0.5 MPa, Temperature: 20°C.

Needle Valve / Flow Rate Characteristics

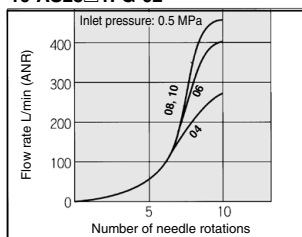
**10-AS12□1FG
10-AS13□1FG**



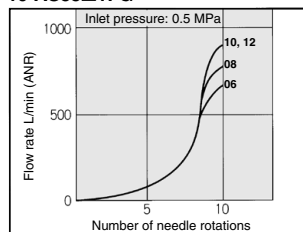
**10-AS22□1FG-01
10-AS23□1FG-01**



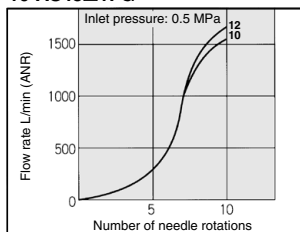
**10-AS22□1FG-02
10-AS23□1FG-02**



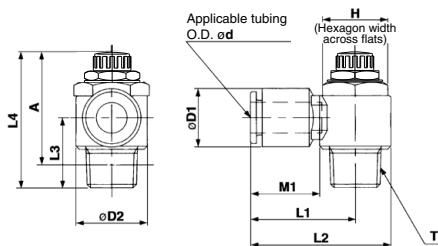
**10-AS32□1FG
10-AS33□1FG**



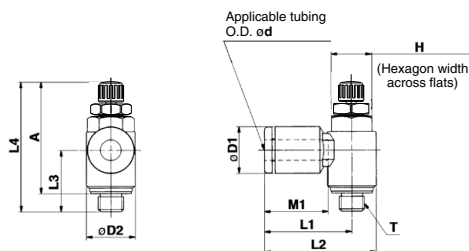
**10-AS42□1FG
10-AS43□1FG**



Dimensions / Elbow Type



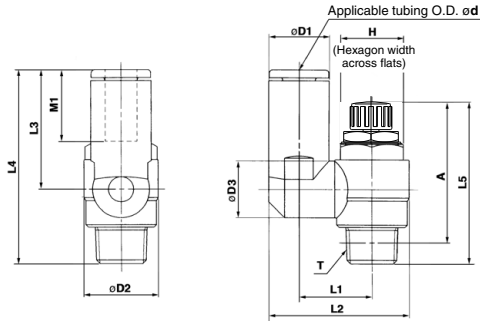
M5 type



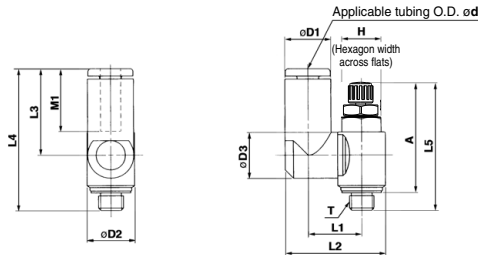
Model	d	T	H	D1	D2	L1	L2	L3	L4		A *		M1	Weight (g)	
									MAX.	MIN.	MAX.	MIN.			
10-AS12□1FG-M5-23	3.2	M5 x 0.8	8	8.4	9.6	17.3	22.1	12.3	28.6	25.8	25	22.2	12.7	7	
10-AS12□1FG-M5-04	4			9.3											
10-AS12□1FG-M5-06	6			11.6											
10-AS22□1FG-01-23	3.2	R1/8	12	9.3	14.2	20.4	27.5	14.3	36.1	31.1	32.1	27.1	12.7	16	
10-AS22□1FG-01-04	4			11.6									13.5	17	
10-AS22□1FG-01-06	6			15.2									18.5	19	
10-AS22□1FG-01-08	8			18.5		25.3	32.4						18.5	19	
10-AS22□1FG-01-10	10			18.5		33.1	40.2	15					21	21	
10-AS22□1FG-02-04	4	R1/4	17	10.4	18.5	25.2	34.4	18.2	40.4	35.4	34.4	29.4	16	32	
10-AS22□1FG-02-06	6			12.8									17		
10-AS22□1FG-02-08	8			15.2									18.5		34
10-AS22□1FG-02-10	10			18.5		35.3	44.5	20					21	36	
10-AS32□1FG-02-06	6	R1/4	17	12.8	18.5	27.8	39.3	21.8	48.8	43.8	42.8	37.8	17	60	
10-AS32□1FG-02-08	8			15.2									18.5		63
10-AS32□1FG-02-10	10			18.5									21.8		67
10-AS32□1FG-02-12	12			20.9		32.8	44.3						22	69	
10-AS32□1FG-03-06	6	R3/8	19	12.8	23	27.8	39.3	20.9	46.5	41.5	40.2	35.2	17	55	
10-AS32□1FG-03-08	8			15.2									18.5		63
10-AS32□1FG-03-10	10			18.5									20.9		67
10-AS32□1FG-03-12	12			20.9		32.8	44.3						22	61	
10-AS42□1FG-04-10	10	R1/2	24	18.5	28.6	33.6	47.9	25.4	57.6	50.1	49.6	42.1	21	100	
10-AS42□1FG-04-12	12			20.9									34.6		48.9

* Reference thread dimensions after being screwed in.

Dimensions / Universal Type



M5 type



Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5		A *		M1	Weight (g)		
											MAX.	MIN.	MAX.	MIN.				
10-AS13□1FG-M5-23	3.2	M5 x 0.8	8	8.4	9.6	9.3	10.8	19.8	17.5	28.7	28.6	25.8	25	22.2	12.7	7		
10-AS13□1FG-M5-04	4			9.3				20.3										
10-AS13□1FG-M5-06	6			11.6				21.4									20.6	
10-AS23□1FG-01-23	3.2	R1/8	12	8.4	14.2	10.9	14	24.4	22.9	37.2	36.1	31.1	32.1	27.1	12.7	17		
10-AS23□1FG-01-04	4			9.3				24.9									17.5	31.8
10-AS23□1FG-01-06	6			11.6				24.4									17.5	31.8
10-AS23□1FG-01-08	8			15.2				24.9									17.5	31.8
10-AS23□1FG-02-04	4			10.4				24.9									17.5	31.8
10-AS23□1FG-02-06	6			12.8				24.9									17.5	31.8
10-AS23□1FG-02-08	8	15.2	24.9	17.5	31.8													
10-AS23□1FG-02-10	10	R1/4	17	18.5	18.5	12.9	16.2	30.9	28.2	41.7	40.4	35.4	34.4	29.4	18.5	21		
10-AS23□1FG-02-04	4			10.4				30.6									21.9	40.1
10-AS23□1FG-02-06	6			12.8				30.6									21.9	40.1
10-AS23□1FG-02-08	8			15.2				30.6									21.9	40.1
10-AS23□1FG-02-10	10			18.5				30.6									21.9	40.1
10-AS33□1FG-02-06	6			12.8				30.6									21.9	40.1
10-AS33□1FG-02-08	8	15.2	30.6	21.9	40.1													
10-AS33□1FG-02-10	10	18.5	30.6	21.9	40.1													
10-AS33□1FG-02-12	12	R3/8	19	23	23	16.2	23	39.7	28.2	50	48.8	43.8	42.8	37.8	21.5	63		
10-AS33□1FG-02-06	6			12.8				38.5									25.2	47
10-AS33□1FG-02-08	8			15.2				38.5									25.2	47
10-AS33□1FG-02-10	10			18.5				38.5									25.2	47
10-AS33□1FG-02-12	12			20.9				38.5									25.2	47
10-AS33□1FG-03-06	6			12.8				38.5									25.2	47
10-AS33□1FG-03-08	8	15.2	38.5	25.2	47													
10-AS33□1FG-03-10	10	18.5	38.5	25.2	47													
10-AS33□1FG-03-12	12	20.9	38.5	25.2	47													
10-AS43□1FG-04-10	10	R1/2	24	18.5	28.6	16.2	25.8	49.4	32.6	58	57.6	50.1	49.6	42.1	21	104		
10-AS43□1FG-04-12	12			20.9				19.4									26.8	52

* Reference thread dimensions after M5 x 0.8, R thread being screwed in.

Directional Control Valves
Air Cylinders
Rotary Actuators
Air Grippers
Air Preparation Equipment
Modular F. R.
Pressure Control Equipment
Fittings & Tubing
Flow Control Equipment
Pressure Switches/ Pressure Sensors