

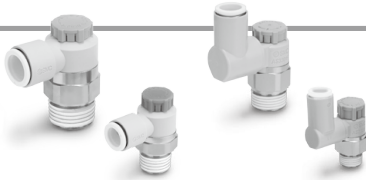
Series 10-AS-FG

Push-lock Type

RoHS

Speed Controller with One-touch Fitting
Stainless Steel Type (Elbow/Universal)

How to Order



Elbow type

Universal type

• Applicable tubing O.D. ^{Note 1)}

Metric size		Inch size	
02	ø2	01	ø1/8"
23	ø3.2 ^{Note 2)}	03	ø5/32"
04	ø4	07	ø1/4"
06	ø6		

Note 1) For selecting applicable tubing O.D., refer to the "Model" on the table below.

The color of the release button is white (metric, inch).

Note 2) Use ø1/8" tube.

Body size

1	M5 x 0.8 10-32UNF
---	----------------------

Port size

M5	M5 x 0.8 10-32UNF
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Body size 1

10-AS 1 2 0 1 FG - M5 - 06 A

Body size 2/3/4

10-AS 2 2 0 1 FG - 01 - 06 S A

Clean series

Body size

2	1/8, 1/4
3	3/8
4	1/2

Type

2	Elbow
3	Universal

Control type ^{Note 1)}

0	Meter-out
1	Meter-in

Note) Meter-out and meter-in types can be visually identified by color of the knob.

Meter-out: Gray
Meter-in: Light blue

Stainless steel type
(Stainless steel 303)

Note 1) The material can be visually identified by color of the release button.

Stainless steel type: White

Note 2) White is also used for inch size.

Thread type

Nil	R
N	NPT

Port size

01	1/8
02	1/4
03	3/8
04	1/2

• Push-lock type

• Seal method

Nil	Without sealant
S	With sealant

• Applicable tubing O.D. ^{Note 1)}

Metric size		Inch size	
23	ø3.2 ^{Note 2)}	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"
08	ø8	09	ø5/16"
10	ø10	11	ø3/8"
12	ø12	13	ø1/2"
16	ø16		

Note 1) For selecting applicable tubing O.D., refer to the "Model" on the table below.

The color of the release button is white (metric, inch).

Note 2) Use ø1/8" tube.

Model

Model		Port size	Seal method	Applicable tubing O.D.													
Elbow type	Universal type			Metric size						Inch size							
				2 ^{Note 2)}	3.2	4	6	8	10	12	16	1/8"	5/32"	1/4"	5/16"	3/8"	1/2"
10-AS12□1FG-M5	10-AS13□1FG-M5	M5 x 0.8	Gasket seal	● ^{Note 3)}	●	●	●						●	●	●		
10-AS12□1FG-U10/32	10-AS13□1FG-U10/32	10-32UNF	Gasket seal	● ^{Note 3)}	●	●	●						●	●	●		
10-AS22□1FG-01	10-AS23□1FG-01	R NPT	Sealant ^{Note 1)}		●	●	●	●	● ^{Note 3)}				●	●	●	●	
10-AS22□1FG-02	10-AS23□1FG-02			1/8		●	●	●	●	●				●	●	●	●
10-AS32□1FG-02	10-AS33□1FG-02	1/4			●	●	●	●					●	●	●	●	
10-AS32□1FG-03	10-AS33□1FG-03	3/8			●	●	●	●					●	●	●	●	
10-AS42□1FG-04	10-AS43□1FG-04	1/2											●	●	●	●	●

Note 1) "Without sealant" type can be selected as a standard option.

Note 2) Only polyurethane tubing is applicable for ø2.

Note 3) Universal type is not available.

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)}
Grease	Fluorine grease
Cleanliness class (ISO class)	Class 5

Note) Use caution at the max. operating pressure when using polyurethane tubing. (Refer to the **WEB catalog** for details.)

Flow Rate and Sonic Conductance

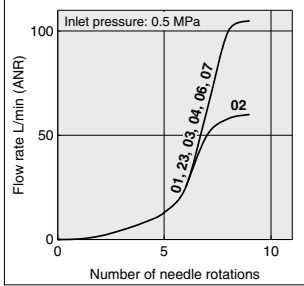
Model	10-AS12□1FG-M5		10-AS22□1FG-□01		10-AS22□1FG-□02				10-AS32□1FG			10-AS42□1FG			
	10-AS13□1FG-M5		10-AS23□1FG-□01		10-AS23□1FG-□02				10-AS33□1FG			10-AS43□1FG			
Tubing O.D.	Metric size	ø2	ø3.2 ø4 ø6	ø3.2	ø4	ø6 ø8 ø10	ø3.2	ø4	ø6	ø8 ø10	ø6	ø8	ø10 ø12	ø10	ø12 ø16
	Inch size	—	ø1/8" ø1/4" ø5/32"	ø1/8"	ø5/32"	ø1/4" ø5/16"	ø1/8"	ø5/32"	—	ø1/4" ø5/16" ø3/8"	ø1/4"	ø5/16"	ø3/8"	ø3/8"	ø1/2"
C values: Sonic conductance dm ³ /(s·bar)	Free flow	0.2	0.3	0.4	0.6	0.6	0.7	1.0	1.3	1.5	1.6	1.7	2.5	4.4	4.8
	Controlled flow	0.2	0.3	0.4	0.7	0.8	0.6	0.9	1.3		2.1	2.4	3.3	4.4	4.9
b values: Critical pressure ratio	Free flow	0.3	0.4	0.2		0.3	0.3		0.4	0.4			0.3	0.3	
	Controlled flow	0.2		0.2		0.3	0.3			0.3			0.3	0.3	

Note 1) 10-32UNF has the same specification as M5.

Note 2) C and b values are for controlled flow with the needle fully open and free flow with the needle fully closed.

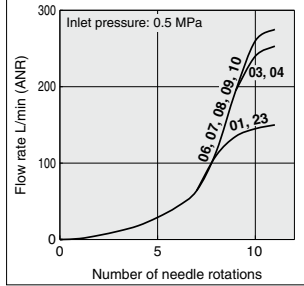
Needle Valve/Flow Rate Characteristics

10-AS1201FG-M5, 10-AS1211FG-M5
10-AS1301FG-M5, 10-AS1311FG-M5

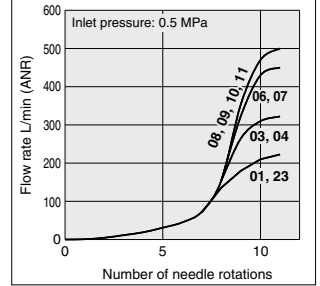


Note) -U10/32 has the same specification as M5.

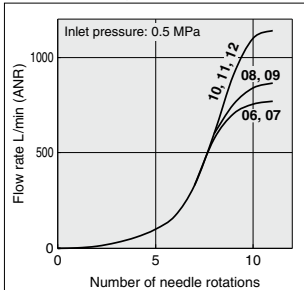
10-AS2201FG-01, 10-AS2211FG-01
10-AS2301FG-01, 10-AS2311FG-01



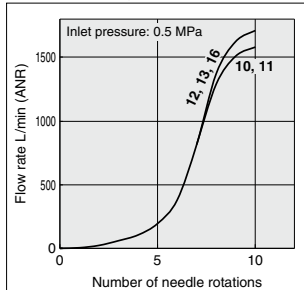
10-AS2201FG-02, 10-AS2211FG-02
10-AS2301FG-02, 10-AS2311FG-02



10-AS3201FG, 10-AS3211FG
10-AS3301FG, 10-AS3311FG



10-AS4201FG, 10-AS4211FG
10-AS4301FG, 10-AS4311FG



Note) The numbers above the flow rate characteristic curves in the charts show the applicable tubing outside diameter as defined by the product number.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

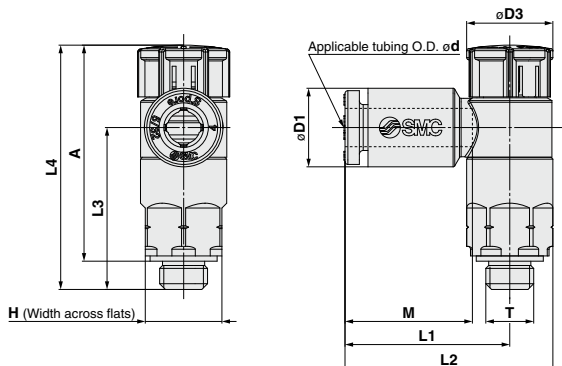
Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

Dimensions/ **Elbow type**

Seal method: Gasket seal
For M5, 10-32UNF



Metric Size

Model	d	T	H	D1	D3	L1	L2	L3	L4 Note 1)		A Note 2)		M	Weight [g]
									Unlocked	Locked	Unlocked	Locked		
10-AS12□1FG-M5-02A	2	M5 x 0.8 10/32UNF	8	5.8	9.4	15.8	20.3	16.9	26.5	25.4	23.5	22.4	11.9	5
10-AS12□1FG-U10/32-02A				7.2										
10-AS12□1FG-M5-23A	3.2			8.2		17.2	21.7	16.5					13.3	
10-AS12□1FG-U10/32-23A				9.4										
10-AS12□1FG-M5-04A	4			18.6		23.1	16.5	13.3					6	
10-AS12□1FG-U10/32-04A	6			10.4										
10-AS12□1FG-M5-06A	6	10.4	18.6	23.1	16.5	13.3	6							
10-AS12□1FG-U10/32-06A		10.4												

Note 1) Reference dimensions

Note 2) Reference dimensions of threads after installation

Inch Size

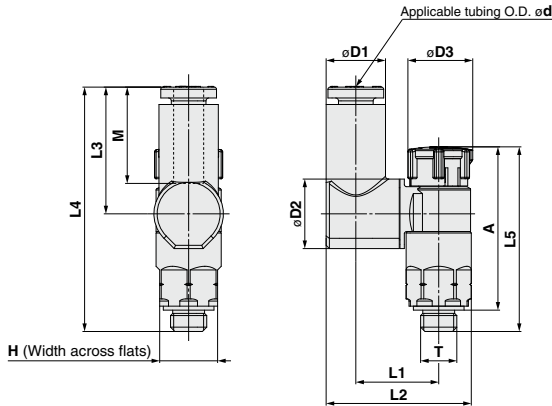
Model	d	T	H	D1	D3	L1	L2	L3	L4 Note 1)		A Note 2)		M	Weight [g]	
									Unlocked	Locked	Unlocked	Locked			
10-AS12□1FG-M5-01A	1/8"	M5 x 0.8 10/32UNF	8	7.2	9.4	17.2	21.7	16.9	26.5	25.4	23.5	22.4	13.3	5	
10-AS12□1FG-U10/32-01A				8.2											
10-AS12□1FG-M5-03A	5/32"			11.2		18.6	23.1	16.5					13.3		6
10-AS12□1FG-U10/32-03A				9.4											
10-AS12□1FG-M5-07A	1/4"			11.2		18.6	23.1	16.5					13.3		6
10-AS12□1FG-U10/32-07A				9.4											

Note 1) Reference dimensions

Note 2) Reference dimensions of threads after installation

Dimensions/ Universal type

Seal method: Gasket seal
For M5, 10-32UNF



Metric Size

Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	Weight [g]
											Unlocked	Locked	Unlocked	Locked		
10-AS13□1FG-M5-23A	3.2	M5 x 0.8 10/32UNF	8	7.2	9.6	9.4	11.6	19.7	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
10-AS13□1FG-U10/32-23A																
10-AS13□1FG-M5-04A	8.2			11.5			20.1									
10-AS13□1FG-U10/32-04A																
10-AS13□1FG-M5-06A	10.4	21.2	20.4	36.6												
10-AS13□1FG-U10/32-06A																

Note 1) Reference dimensions
Note 2) Reference dimensions of threads after installation

Inch Size

Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	Weight [g]
											Unlocked	Locked	Unlocked	Locked		
10-AS13□1FG-M5-01A	1/8"	M5 x 0.8 10/32UNF	8	7.2	9.6	9.4	11.6	19.7	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
10-AS13□1FG-U10/32-01A																
10-AS13□1FG-M5-03A	8.2			11.5			20.1									
10-AS13□1FG-U10/32-03A																
10-AS13□1FG-M5-07A	11.2	21.6	20.2	36.5												
10-AS13□1FG-U10/32-07A																

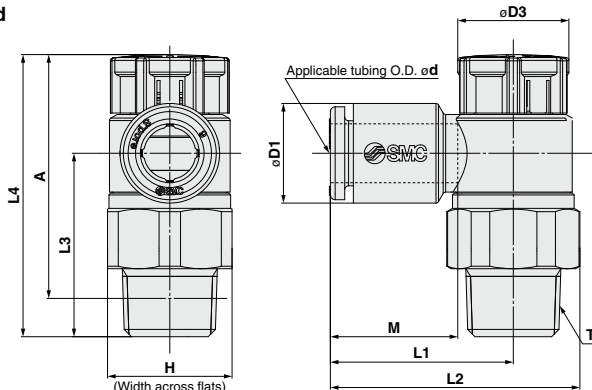
Note 1) Reference dimensions
Note 2) Reference dimensions of threads after installation

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

Push-lock Type Speed Controller with One-touch Fitting 10-AS-FG

Dimensions/ Elbow type

Seal method: Sealant
For R, NPT thread



Metric Size

Model	d	T	H	D1	D3	L1	L2	L3	L4 Note 1)		A Note 1)		M	Weight [g]
									Unlocked	Locked	Unlocked	Locked		
10-AS22□1FG-01-23(S)A	3.2	1/8	13 (12.7)	7.2	12	19.1	26.2	19.1	30.6	29.2	27.5	26.1	13.3	9 (9)
10-AS22□1FG-01-04(S)A	4			8.2										10 (9)
10-AS22□1FG-01-06(S)A	6			10.4										11 (10)
10-AS22□1FG-01-08(S)A	8			13.2										12 (11)
10-AS22□1FG-01-10(S)A	10	15.9	15.9	15.6	12 (11)									
10-AS22□1FG-02-23(S)A	3.2	1/4	17 (17.5)	7.2	13	20.9	30.2 (30.3)	22.6	36.6	35	31.1	29.5	13.3	17 (18)
10-AS22□1FG-02-04(S)A	4			8.2										17 (18)
10-AS22□1FG-02-06(S)A	6			10.4										18 (19)
10-AS22□1FG-02-08(S)A	8			13.2										19 (20)
10-AS22□1FG-02-10(S)A	10	15.9	15.9	15.6	19 (20)									
10-AS32□1FG-02-06(S)A	6	1/4	19	10.4	16.6	21.8	32.1	36.4	50	48.4	44.5	42.9	13.3	40 (40)
10-AS32□1FG-02-08(S)A	8			13.2										41 (41)
10-AS32□1FG-02-10(S)A	10			15.9										42 (42)
10-AS32□1FG-02-12(S)A	12			18.5										43 (43)
10-AS32□1FG-03-06(S)A	6	3/8	19	10.4	16.6	21.8	32.1	28.7	42.3	40.7	37.1	35.5	13.3	29 (30)
10-AS32□1FG-03-08(S)A	8			13.2										30 (31)
10-AS32□1FG-03-10(S)A	10			15.9										31 (32)
10-AS32□1FG-03-12(S)A	12			18.5										32 (33)
10-AS42□1FG-04-10(S)A	10	1/2	24 (23.8)	15.9	18.8	27.4	40.3 (40.2)	36.2	50.8	49.2	43.7	42.1	15.6	52 (51)
10-AS42□1FG-04-12(S)A	12			18.5										53 (53)
10-AS42□1FG-04-14(S)A	14			21.2										54 (54)
10-AS42□1FG-04-16(S)A	16			23.8										55 (57)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

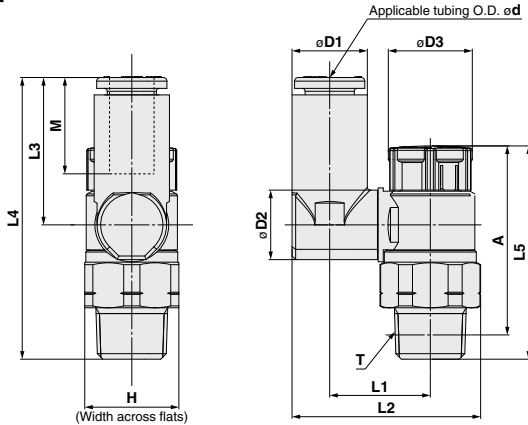
Inch Size

Model	d	T	H	D1	D3	L1	L2	L3	L4 Note 1)		A Note 2)		M	Weight [g]
									Unlocked	Locked	Unlocked	Locked		
10-AS22□1FG-01-01(S)A	1/8"	1/8	13 (12.7)	7.2	12	19.1	26.2	19.1	30.6	29.2	27.5	26.1	13.3	9 (9)
10-AS22□1FG-01-03(S)A	5/32"			8.2										10 (9)
10-AS22□1FG-01-07(S)A	1/4"			11.2										11 (10)
10-AS22□1FG-01-09(S)A	5/16"			13.2										12 (11)
10-AS22□1FG-02-01(S)A	1/8"	1/4	17 (17.5)	7.2	13	20.9	30.2 (30.3)	22.6	36.6	35	31.1	29.5	13.3	17 (18)
10-AS22□1FG-02-03(S)A	5/32"			8.2										18 (19)
10-AS22□1FG-02-07(S)A	1/4"			11.2										19 (20)
10-AS22□1FG-02-09(S)A	5/16"			13.2										20 (21)
10-AS22□1FG-02-11(S)A	3/8"	15.5	15.5	19 (20)										
10-AS32□1FG-02-07(S)A	1/4"	1/4	19	11.2	16.6	21.8	32.1	36.4	50	48.4	44.5	42.9	13.3	40 (40)
10-AS32□1FG-02-09(S)A	5/16"			13.2										41 (41)
10-AS32□1FG-02-11(S)A	3/8"			15.5										42 (42)
10-AS32□1FG-03-07(S)A	1/4"			11.2										43 (43)
10-AS32□1FG-03-09(S)A	5/16"	3/8	19	13.2	16.6	22.7	33	28.7	42.3	40.7	37.1	35.5	13.3	29 (30)
10-AS32□1FG-03-11(S)A	3/8"			15.5										30 (31)
10-AS42□1FG-04-11(S)A	3/8"			15.5										31 (32)
10-AS42□1FG-04-13(S)A	1/2"			19.3										32 (33)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

Dimensions/ Universal type

Seal method: Sealant
For R, NPT thread



Metric Size

Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	Weight
											Unlocked	Locked	Unlocked	Locked		[g]
10-AS23□1FG-01-23(S)A	3.2	1/8	13 (12.7)	7.2	9.6	12	13.3	24	17.5	36	30.6	29.2	27.5	26.1	13.3	10 (9)
10-AS23□1FG-01-04(S)A	4			8.2			13.9	25.1								20
10-AS23□1FG-01-06(S)A	6			10.4	16.4		26.2	20.4	38.8	14.2						12 (11)
10-AS23□1FG-01-08(S)A	8	1/4	17 (17.5)	13.2	10.2	13	16.4	30.1	21.5	40	36.6	35	31.1	29.5	13.3	18 (19)
10-AS23□1FG-02-04(S)A	4			8.2			16.5	29.9 (30)								17.5
10-AS23□1FG-02-06(S)A	6			11.2	19		33.8 (33.9)	21.4	43.9	15.6						46 (46)
10-AS23□1FG-02-08(S)A	8	1/4	17 (17.5)	13.2	12.9	13	19	34.9 (35)	23.5	46	36.6	35	31.1	29.5	13.3	20 (21)
10-AS23□1FG-02-10(S)A	10			15.9			20.9	38.1 (38.2)								24.7
10-AS33□1FG-02-06(S)A	6			11.2	12.9		16.6	20.2	36	21.4						57.8
10-AS33□1FG-02-08(S)A	8	1/4	19	13.2	17.4	16.6	23	37.1	23.5	59.9	50	48.4	44.5	42.9	13.3	43 (43)
10-AS33□1FG-02-10(S)A	10			15.9			41.2	26.1								62.5
10-AS33□1FG-02-12(S)A	12			18.5	23		42.5	28.3	64.7	17						48 (48)
10-AS33□1FG-03-06(S)A	6	3/8	19	11.2	12.9	16.6	20.2	36	21.4	50.1	42.3	40.7	37.1	35.5	13.3	32 (33)
10-AS33□1FG-03-08(S)A	8			13.2			20.2	37.1								23.5
10-AS33□1FG-03-10(S)A	10			15.9	23		41.2	26.1	54.8	15.6						37 (38)
10-AS33□1FG-03-12(S)A	12	18.5	23	42.5	28.3	57	17	38 (39)								
10-AS43□1FG-04-10(S)A	10	1/2	24 (23.8)	15.9	17.4	18.8	25.6	46.4 (46.3)	26.1	61.2	50.8	49.2	43.7	42.1	15.6	58 (57)
10-AS43□1FG-04-12(S)A	12			18.5			21	26.2								48.3 (48.2)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

Inch Size

Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	Weight
											Unlocked	Locked	Unlocked	Locked		[g]
10-AS23□1FG-01-01(S)A	1/8"	1/8	13 (12.7)	7.2	9.6	12	13.3	24	17.5	36	30.6	29.2	27.5	26.1	13.3	10 (9)
10-AS23□1FG-01-03(S)A	5/32"			8.2			13.9	25.1								20
10-AS23□1FG-01-07(S)A	1/4"			11.2	16.4		29.1	20.2	38.7	14.2						11 (10)
10-AS23□1FG-01-09(S)A	5/16"	1/4	17 (17.5)	13.2	10.2	13	16.4	30.1	21.5	40	36.6	35	31.1	29.5	13.3	18 (19)
10-AS23□1FG-02-03(S)A	5/32"			8.2			16.5	29.9 (30)								17.5
10-AS23□1FG-02-07(S)A	1/4"			11.2	19		33.8 (33.9)	21.4	43.9	15.6						46 (46)
10-AS23□1FG-02-09(S)A	5/16"	1/4	17 (17.5)	13.2	12.9	13	19	34.9 (35)	23.5	46	36.6	35	31.1	29.5	13.3	21 (22)
10-AS23□1FG-02-11(S)A	3/8"			15.9			20.9	38.1 (38.2)								24.7
10-AS33□1FG-02-07(S)A	1/4"			11.2	12.9		16.6	20.2	36	21.4						57.8
10-AS33□1FG-02-09(S)A	5/16"	3/8	19	13.2	17.4	16.6	23	37.1	23.5	59.9	50	40.7	37.1	35.5	13.3	43 (43)
10-AS33□1FG-02-11(S)A	3/8"			15.9			41.2	26.1								62.5
10-AS33□1FG-03-07(S)A	1/4"			11.2	23		42.5	28.3	64.7	17						38 (39)
10-AS33□1FG-03-09(S)A	5/16"	3/8	19	13.2	12.9	16.6	20.2	37.1	23.5	52.2	42.3	40.7	37.1	35.5	13.3	32 (33)
10-AS33□1FG-03-11(S)A	3/8"			15.9			23	41.2								26.1
10-AS43□1FG-04-11(S)A	3/8"			15.9	23		41.2	26.1	54.8	15.6						37 (38)
10-AS43□1FG-04-13(S)A	1/2"	1/2	24 (23.8)	15.9	17.4	18.8	25.6	46.4 (46.3)	26.1	61.2	50.8	49.2	43.7	42.1	15.6	58 (57)
10-AS43□1FG-04-13(S)A	1/2"			18.5			21	26.2								48.3 (48.2)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

- 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