

Speed Controller with One-Touch Fitting Elbow Type/Universal Type

Series AS

Features

- ➔ Minimises installation time and cost
- ➔ Accepts nylon and polyurethane tubing
- ➔ Wide variety of sizes
- ➔ Body swivels 360°
- ➔ Accurate speed control even at low velocity



Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa (tube ø2: 0.7MPa)
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft Nylon, Polyurethane
Option	With seal ^{Note 3)} , Hexagon lock nut, Electroless nickel plated specifications ^{Note 4)}

Note 1) In case of types AS1201F-M5 and AS1211F-M5.
In case of types AS1301F-M5 and AS1311F-M5.
Note 2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.
Note 3) Types with M3 and M5 port sizes are not available with sealant.
Note 4) Brass parts are all electroless nickel plated.

Applicable tubing: ø2

■ Applicable tubing O.D.: Metric Size

How to Order

AS 2 2 1 1F - 01 - 06 S

Body size

1	M3, M5 standard
2	1/8, 1/4 standard
3	3/8 standard
4	1/2 standard

Type

2	Elbow
3	Universal

Applicable tubing ø2 only available for elbow type.

Control method

0	Meter-out
1	Meter-in

With one-touch fitting

Port size

M3	M3
M5	M5
01	1/8
02	1/4
03	3/8
04	1/2

Applicable tubing O.D.

Metric size

02	ø2
23	ø3.2*
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

* Use ø1/8 tubing.

Lock nut configuration

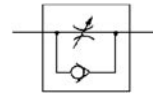
Nil	Standard (Round)
K	Hexagon type

Sealant

Nil	-
S	With sealant

* S is not necessary with M3 and M5, which are not available with sealant. Gaskets are standardized instead.

Symbol



Model

⊙ indicates that electroless nickel plated model (N specification) is the standardized.

Port size	Applicable tubing O.D.						Applicable cylinder tubing O.D. mm	Elbow type		Universal type		
	Metric size							Meter-out	Meter-in	Meter-out	meter-in	
	2	3.2	4	6	8	10	12					
M3	⊙	⊙	⊙					2.5, 4, 6	AS1201F-M3	AS1211F-M3	AS1301F-M3	AS1311F-M3
M5	⊙	⊙	⊙					6, 10, 16, 20	AS1201F-M5	AS1211F-M5	AS1301F-M5	AS1311F-M5
R1/8			⊙	⊙	⊙	⊙	⊙	20, 25, 32	AS2201F-01	AS2211F-01	AS2301F-01	AS2311F-01
R1/4				⊙	⊙	⊙	⊙	20, 25, 32, 40	AS2201F-02	AS2211F-02	AS2301F-02	AS2311F-02
R1/4					⊙	⊙	⊙	40, 50, 63	AS3201F-02	AS3211F-02	AS3301F-02	AS3311F-02
R3/8					⊙	⊙	⊙	40, 50, 63	AS3201F-03	AS3211F-03	AS3301F-03	AS3311F-03
R1/2						⊙	⊙	63, 80, 100	AS4201F-04	AS4211F-04	AS4301F-04	AS4311F-04

Note 1) *Elbow type only

Note 2) The meter-out and meter-in types are visually distinguished by the lock nut.

The lock nut of the meter-out type is electroless nickel plated while that of the meter-in type is black zinc chromate plated.

Metal Elbow Speed Controller with Built-in One-Touch Fitting Elbow Type

Series **AS**

Spatter Proof

Features

- ➔ Metal body and flame resistant resin one-touch fitting cassette (to UL94 standard V-0).
- ➔ Ideal for heavy duty applications.
- ➔ Body swivels 360°.
- ➔ Meter-in and meter-out options.



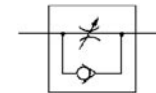
■ Applicable tubing O.D.: Metric Size

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1))
Applicable tubing material	Nylon, Soft nylon, Polyurethane
Option	Hexagon lock nut, Electroless nickel plated specifications Note 2)

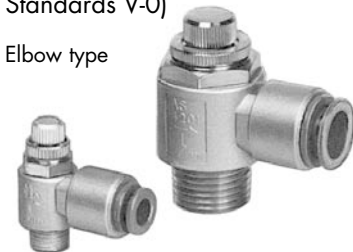
The meter-in and meter-out types are visually distinguished by the lock nut.
The lock nut of the meter-out type is electroless nickel plated while that of the meter-in type is black zinc chromate plated.
Note 1) In case of size M5.
Note 2) Brass parts are all electroless nickel plated.

Symbol



Use of flame resistant resin for one-touch fittings. (Equivalent to UL-94 Standards V-0)

Elbow type



Model

● indicates that electroless nickel plated model (N specification) is the standardized.

Port size	Applicable tubing O.D.					Applicable cylinder tubing I.D. mm	Elbow type	
	Metric size						Meter-out	Meter-in
M5	4	6	8	10	12	6, 10, 16, 20	AS1201-M5	AS1211-M5
R1/8		●	●			20, 25, 32	AS2201-01	AS2211-01
R1/4		●	●			20, 25, 32, 40	AS2201-02	AS2211-02
R3/8			●	●		40, 50, 63	AS3201-03	AS3211-03
R1/2				●	●	63, 80, 100	AS4201-04	AS4211-04

How to Order

AS 3 2 0 1 - 03 - F 10 S

- Body size

1	M5 standard
2	1/8, 1/4 standard
3	3/8 standard
4	1/2 standard
- Elbow type

0	Meter-out
1	Meter-in
- Control method

0	Meter-out
1	Meter-in
- Thread

M5	M5
01	R1/8
02	R1/4
03	R3/8
04	R1/2
- Lock nut configuration

Nil	Standard (Round)
K	Hexagon lock nut
- With sealant

* S is not required with M5, which do not have sealant. Types with gasket are standardized instead.
- With one-touch fitting
- Tubing port size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Speed Controller with One-Touch Fitting In-Line Type

Series AS

Features

- ➔ Minimises installation time and cost
- ➔ Accepts nylon and polyurethane tubing
- ➔ Wide variety of sizes
- ➔ Speed may accurately be controlled even at low velocity
- ➔ Constant speed easily set
- ➔ Retainer prevents accidental loss of needle



■ Applicable tubing O.D.: Metric Size

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa (tube $\varnothing 2$: 0.7MPa)
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane
Option	Hexagon lock nut

Note 1) In case of AS1001F.

Note 2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.

Model

● indicates that electroless nickel plated model is standardized.

Model	Applicable tubing O.D.						Applicable cylinder tubing inside dia. mm
	Metric size						
	2	3.2	4	6	8	10	
AS1001F	●						2.5, 4, 6, 10
AS1001F		●	●	●			6, 10, 16, 20
AS2001F			●	●			20, 25, 32
AS2051F				●	●		20, 25, 32, 40
AS3001F				●	●	●	40, 50, 63
AS4001F					●	●	63, 80, 100

How to Order

AS 400 1F-12

Body size ●

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

Lock nut configuration ●

Nil	Standard (Round)
K	Hexagon type

Applicable tubing O.D. ●

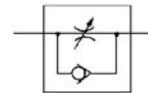
Metric size

02	$\varnothing 2$	08	$\varnothing 8$
23	$\varnothing 3.2^*$	10	$\varnothing 10$
04	$\varnothing 4$	12	$\varnothing 12$
06	$\varnothing 6$		

* Use a $\varnothing 1/8$ tube.

With one-touch fitting ●

Symbol



AS In-Line Type

Applicable tubing O.D. mm	Model
	Inline Type
2	AS1001F-02
3.2	AS1001F-23
4	AS1001F-04
	AS2001F-04
6	AS1001F-06
	AS2001F-06
	AS2051F-06
	AS3001F-06

Applicable tubing O.D. mm	Model
	Inline Type
8	AS2051F-08
	AS3001F-08
10	AS3001F-10
	AS4001F-10
12	AS3001F-12
	AS4001F-12

Dual Speed Controller with One-Touch Fitting Universal Type

Series **ASD**

Features

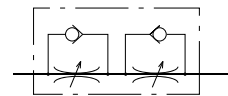
- ➔ Meter-in and meter-out are combined in a single body.
- ➔ Ideal for high precision speed control of miniature cylinder.
- ➔ Prevents cylinders "shooting out".
- ➔ Ideal for speed control in applications where load ratio changes during cylinder operation.
- ➔ Ideal for single acting cylinders with low speed in both directions.
- ➔ All external brass parts are electroless nickel plated.

Lurch Prevention



■ Applicable tubing O.D.: Metric Size

Symbol



Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1)
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane
Option	Hexagon lock nut

Note 1) In case of ASD230F.

Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane is used.

Model

Model	Port size	Applicable tubing O.D.				
		Metric size				
		4	6	8	10	12
ASD230F-M5	M5	●	●			
ASD330F-01	R1/8		●	●		
ASD430F-02	R1/4		●	●	●	
ASD530F-02	R1/4		●	●	●	●
ASD530F-03	R3/8		●	●	●	●
ASD630F-04	R1/2				●	●

How to Order

ASD 3 30F-01-06 S

Body size	
2	M5 standard
3	1/8 standard
4	1/4 standard
5	3/8 standard
6	1/2 standard

Type	
3	Universal

With one-touch fitting

Port size	
M5	M5
01	1/8
02	1/4
03	3/8
04	1/2

Metric size	
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Lock nut configuration	
Nil	Standard (Round)
K	Hexagon type

• With sealant

* S is not required with M5, which do not have sealant.
Types with gasket are standardized instead.

• Applicable tubing O.D.

ASD Universal Type

Meter-in and meter-out control.
Lurch prevention.
Speed control of single acting cylinder.

Applicable tubing O.D. mm	Connection thread	Model
		Universal type
4	M5	ASD230F-M5-04
	M5	ASD230F-M5-06
6	R1/8	ASD330F-01-06S
	R1/4	ASD430F-02-06S
		ASD530F-02-06S
	R3/8	-03-06S
8	R1/8	ASD330F-01-08S
	R1/4	ASD430F-02-08S
		ASD530F-02-08S
	R3/8	-03-08S

Applicable tubing O.D. mm	Connection thread	Model
		Universal type
10	R1/4	ASD430F-02-10S
		ASD530F-02-10S
	R3/8	-03-10S
	R1/2	ASD630F-04-10S
12	R1/4	ASD530F-02-12S
	R3/8	-03-12S
	R1/2	ASD630F-04-12S



FOR MORE DETAILS
SEE OUR SPECIFIC CATALOGUES,
PRODUCTS CD'S OR ONLINE INFORMATION

Speed Controller with Residual Pressure Exhaust Valve Elbow/Universal Type

Residual Pressure Exhaust

Series AS FE

Features

- ➔ Residual pressure easily released with one push of button.
- ➔ Red colour release button.
- ➔ One-touch fitting as standard.
- ➔ Meter-in and meter-out flow styles.



Elbow type

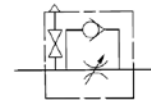
Universal type

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations
Effective sectional area of residual pressure exhaust valve	0.8mm ²
Applicable tubing material	Nylon, Soft nylon, Polyurethane

■ Applicable tubing O.D.: Metric Size

Symbol



Residual pressure exhaust from cylinder.
Residual pressure easily exhausted with one push.

Model

Port size	Applicable tubing O.D.					Applicable cylinder tubing I.D. mm	Elbow type		Universal type	
	Metric size						Meter-out	Meter-in	Meter-out	Meter-in
R1/8	●	●	●	●*		20, 25, 32	AS2201FE-01	AS2211FE-01	AS2301FE-01	AS2311FE-01
R1/4	●	●	●	●		20, 25, 32, 40	AS2201FE-02	AS2211FE-02	AS2301FE-02	AS2311FE-02
R3/8		●	●	●	●	40, 50, 63	AS3201FE-03	AS3211FE-03	AS3301FE-03	AS3311FE-03
R1/2				●	●	63, 80, 100	AS4201FE-04	AS4211FE-04	AS4301FE-04	AS4311FE-04

Note 1) *Elbow type only.

Note 2) Visual distinction between meter-out and meter-in types.

The meter-out and meter-in types can be visually distinguished by the lock nut.

The lock nut of the meter-out type is electroless nickel plated while that of the meter-in type is black zinc chromate plated.

How to Order

AS 2 2 1 1FE 01-06 SK

Body size

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

Type

2	Elbow
3	Universal

Control method

0	Meter-out
1	Meter-in

With one-touch fitting

With residual pressure exhaust valve

Hexagon lock nut

With sealant

Applicable tubing O.D.

Metric size	
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Port size

01	R1/8
02	R1/4
03	R3/8
04	R1/2

Stainless Steel Speed Controller with One-Touch Fitting Elbow Type/Universal Type

Corrosion Resistance

Series **AS-FG**

Features

- ➔ *Stainless specifications for use in corrosive environments. Stainless steel 303 used for metal parts.*
- ➔ *Light colours to match equipment.*
- ➔ *Threads with and without seal are available as standard.*



Specifications

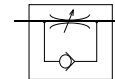
Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In case of AS1201FG, AS1211FG, AS1301FG, AS1311FG.

Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane or soft polyurethane is used.

■ Applicable tubing O.D.: Metric Size

Symbol



Use of SUS303 for metal parts.

Model

Port size	Applicable tubing O.D.						Applicable cylinder tubing I.D. mm	Elbow type		Universal type	
	Metric size							Meter-out	Meter-in	Meter-out	Meter-in
	3.2	4	6	8	10	12					
M5	●	●	●				6,10,16,20	AS1201FG-M5	AS1211FG-M5	AS1301FG-M5	AS1311FG-M5
R1/8	●	●	●	●	●	*	20,25,32	AS2201FG-01	AS2211FG-01	AS2301FG-01	AS2311FG-01
R1/4		●	●	●	●	●	20,25,32,40	AS2201FG-02	AS2211FG-02	AS2301FG-02	AS2311FG-02
R1/4			●	●	●	●	40,50,63	AS3201FG-02	AS3211FG-02	AS3301FG-02	AS3311FG-02
R3/8			●	●	●	●	40,50,63	AS3201FG-03	AS3211FG-03	AS3301FG-03	AS3311FG-03
R1/2					●	●	63,80,100	AS4201FG-04	AS4211FG-04	AS4301FG-04	AS4311FG-04

Note 1) The meter-in and meter-out types are visually distinguished by the flow direction symbol on the resin body.
Note 2) *Elbow type only.



Universal type



How to Order

AS 2 3 1 1 F G - 01 - 06 S

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 (SUS303)

Sealant

Nil	—
S	With sealant

* S is not required with M5, which do not have sealant. Types with gasket are standardized instead.

Port size

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

Applicable tubing O.D. Metric size

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

* Use a ø1/8 tubing.

Stainless Steel Speed Controller with One-Touch Fitting In-Line Type

Corrosion Resistance

Series AS-FG

Features

- ➔ Stainless specifications for use in corrosive environments. Stainless steel 303 used for metal parts.
- ➔ Light colours to match equipment.
- ➔ Threads with and without seal are available as standard.



■ Applicable tubing O.D.: Metric Size

Specifications

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

Note 1) In case of AS1001FG.

Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane or soft polyurethane is used.

Model

Model	Applicable tubing O.D.						Applicable cylinder tubing I.D. mm
	Metric size						
	3.2	4	6	8	10	12	
AS1001FG	●	●	●				6, 10, 16, 20
AS2001FG		●	●				20, 25, 32
AS2051FG			●	●			20, 25, 32, 40
AS3001FG			●	●	●	●	40, 50, 63
AS4001FG					●	●	63, 80, 100

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

Applicable tubing O.D. Metric size

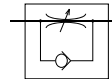
23	ø3.2 *
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

With one-touch fitting

Stainless steel specifications (SUS303)

* Use a ø1/8 tubing.

Symbol



AS-FG In-Line Type

Use of Stainless steel SUS303 for metal parts.



Applicable tubing O.D. mm	Model
	In-line type
3.2	AS1001FG-23
4	AS1001FG-04
	AS2001FG-04
6	AS1001FG-06
	AS2001FG-06
	AS2051FG-06
	AS3001FG-06

Applicable tubing O.D. mm	Model
	In-line type
8	AS2051FG-08
	AS3001FG-08
10	AS3001FG-10
	AS4001FG-10
12	AS3001FG-12
	AS4001FG-12

Stainless Steel Dual Speed Controller with One-Touch Fitting Universal Type

Series **ASD-FG**

Corrosion Resistance Lurch Prevention

Features

- ➔ Two flow control valves and check valves have been integrated.
- ➔ Prevention of stick-slip phenomenon, and speed control of a single acting cylinder.
- ➔ Stable speed control is achievable even with load fluctuations.



■ Applicable tubing O.D.: Metric Size

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In case of ASD230FG.

Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane or soft polyurethane is used.

Model

Model	Port size	Applicable tubing O.D.				
		Metric size				
		4	6	8	10	12
ASD230FG-M5	M5	●	●			
ASD330FG-01	R1/8		●	●		
ASD430FG-02	R1/4		●	●	●	
ASD530FG-02	R1/4		●	●	●	●
ASD530FG-03	R3/8		●	●	●	●
ASD630FG-04	R1/2				●	●

How to Order

ASD 3 30FG -01-06 S

Body size	
2	M5 standard
3	1/8 standard
4	1/4 standard
5	3/8 standard
6	1/2 standard

Type
3 Universal
With one-touch fitting
Stainless steel specifications (SUS303)

Port size	
M5	M5
01	1/8
02	1/4
03	3/8
04	1/2

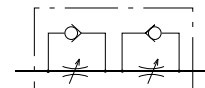
Applicable tubing O.D.
Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

With sealant

* S is not required with M5, which do not have sealant. Types with gasket are standardized instead.

Symbol



ASD-FG Universal Type

Use of Stainless steel 303 for metal parts.
Lurch prevention.
Speed control of single acting cylinder.



Applicable tubing O.D. mm	Connection thread	Model
		Universal type
4	M5	ASD230FG-M5-04
	M5	ASD230FG-M5-06
6	R1/8	ASD330FG-01-06S
	R1/4	ASD430FG-02-06S
	R1/4	ASD530FG-02-06S
	R3/8	-03-06S
8	R1/8	ASD330FG-01-08S
	R1/4	ASD430FG-02-08S
	R1/4	ASD530FG-02-08S
	R3/8	-03-08S

Applicable tubing O.D. mm	Connection thread	Model
		Universal type
10	R1/4	ASD430FG-02-10S
	R1/4	ASD530FG-02-10S
	R3/8	-03-10S
12	R1/2	ASD630FG-04-10S
	R1/4	ASD530FG-02-12S
	R3/8	-03-12S
12	R1/2	ASD630FG-04-12S

Stainless Steel Speed Controller Elbow Type

Series ASG

Corrosion Resistance



Features

- ➔ SUS316 and special FKM construction to improve the resistance to corrosion.
- ➔ Elbow design to allow the rotation of the tubing connection ports and suit installation to air cylinders.
- ➔ Meter-in and meter-out type control.
- ➔ One-touch fittings and 5 body sizes.
- ➔ Applicable tubing: FEP, PFA, Nylon, Soft nylon, Polyurethane and Polyolefin.
- ➔ Conforms to food sanitation laws.

Flow Rate and Effective Area

Model	ASG22IF-M5	ASG32IF-01	ASG42IF-02	ASG52IF-03	ASG62IF-04				
Tubing O.D. (mm)	ø4, ø6	ø4, ø6, ø8	ø6, ø8, ø10	ø8, ø10, ø12	ø12				
Controlled (free) flow	Flow rate (l/min (ANR))	100	180	230	390	460	790	920	1580
	Effective area (mm ²)	1.5	2.7	3.5	6	7	12	14	24

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

Model

Elbow type	Port size	Applicable tubing O.D. (mm)					Applicable cylinder bore size (mm)
		4	6	8	10	12	
ASG22IF-M5	M5 x 0.8	●	●				6, 10, 16, 20
ASG32IF-01	R1/8	●	●	●			20, 25, 32
ASG42IF-02	R1/4		●	●	●		20, 25, 32, 40
ASG52IF-03	R3/8			●	●	●	40, 50, 63
ASG62IF-04	R1/2					●	63, 80, 100

Specifications

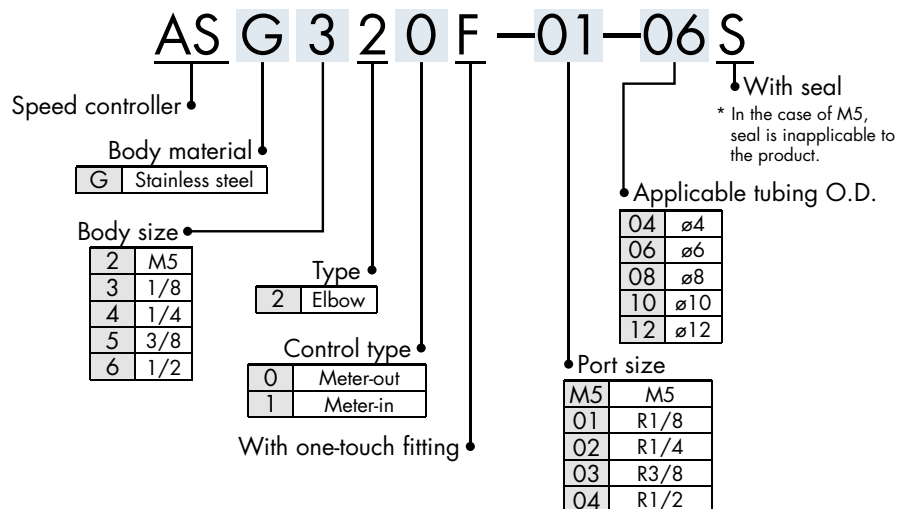
Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60C (No freezing)
Number of needle rotations	10 turns (8 turns ^{Note 1)})
Applicable tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane ^{Note 3)} , Polyolefin

Note 1) In case of ASG22IF-M5

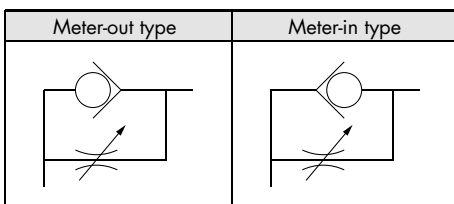
Note 2) Please be cautious of the max. operating pressure when soft nylon or polyurethane tubing is used.

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

How to Order



Symbol



Conforms to Food Sanitation Laws
(Material of the component parts meets the apparatus and container packaging standards.)

Speed Controller for Low Speed Operation with One-Touch Fitting Elbow Type/Universal Type

Low Speed Operation

Series **AS-FM**

Features

- ➔ Suitable for low speed applications; 10-50mm/sec
- ➔ Accurate control of low speed cylinders with effective orifice for control flow at 1/10 of standard types
- ➔ Possible to operate cylinders at low speed for working strokes and high speed for return strokes
- ➔ Easy control with 10 turns (20 turns for M5 type) of needle rotation

Specifications

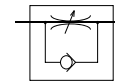
Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (20 rotations <small>Note 1)</small>)
Applicable tubing material	Nylon, Soft nylon, Polyurethane, Soft poly urethane
Option	With sealant

Note 1)In case of AS1201FM, AS1211FM, AS1301FM, AS1311FM.



■ Applicable tubing O.D.: Metric Size

Symbol



Speed control in the range of 10 to 50 mm/s

Model

Port size	Applicable tubing O.D.					Elbow type		Universal type	
	Metric size					Meter-out	Meter-in	Meter-out	Meter-in
	3.2	4	6	8	10				
M5	●	●	●			AS1201FM-M5	AS1211FM-M5	AS1301FM-M5	AS1311FM-M5
R1/8	●	●	●	●		AS2201FM-01	AS2211FM-01	AS2301FM-01	AS2311FM-01
R1/4		●	●	●	●	AS2201FM-02	AS2211FM-02	AS2301FM-02	AS2311FM-02

How to Order

AS 2 2 1 1 F M - 01 - 06 S

Body size

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

Type

2	Elbow
3	Universal

Control method

0	Meter-out
1	Meter-in

With one-touch fitting
For low speed control

Port size

M5	M5
01	1/8
02	1/4

Sealant

Nil	—
S	With sealant

* S is not required with M5, which do not have sealant. Types with gasket are standardized instead.

Applicable tubing O.D. Metric size

23	ø3.2*
04	ø4
06	ø6
08	ø8
10	ø10

* Use a ø1/8 tubing.



Flow Control



FOR MORE DETAILS
SEE OUR SPECIFIC CATALOGUES,
PRODUCTS CD's OR ONLINE INFORMATION

Speed Controller for Low Speed Operation In-Line Type

Low Speed Operation

Series AS-FM

Features

- ➔ Suitable for low speed applications; 10-50mm/sec.
- ➔ Accurate control of low speed cylinders with effective orifice for control flow at 1/10 of standard types.
- ➔ Possible to operate cylinders at low speed for working strokes and high speed for return strokes.
- ➔ Easy control with 10 turns (20 turns for M5 type) of needle rotation.
- ➔ All brass parts electroless - nickel plated.



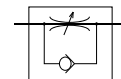
Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (20 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In case of AS1001FM.
Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane or soft polyurethane is used.

■ Applicable tubing O.D.: Metric Size

Symbol



Model

Model	Applicable tubing O.D.				Applicable cylinder tubing I.D. mm
	Metric Size				
	3.2	4	6	8	
AS1001FM	●	●	●		6, 10, 16, 20
AS2001FM		●	●		20, 25, 32
AS2051FM			●	●	20, 25, 32, 40

Speed control in the range of 10 to 50 mm/s

Applicable tubing O.D. mm	Model
	Inline Type
3.2	AS1001FM-23
	AS1001FM-04
4	AS2001FM-04
	AS1001FM-06
6	AS2001FM-06
	AS2051FM-06
8	AS2051FM-08

How to Order

AS 200 1 F M-06

Body size

100	M5 standard
200	1/8 standard
205	1/4 standard

With one-touch fitting

For low speed control

Applicable tubing O.D.
Metric size

23	ø3.2*
04	ø4
06	ø6
08	ø8

* Use a ø1/8 tubing.

Flow Control

Dual Speed Controller for Low Speed Operation Universal Type Series **ASD-FM**

Low Speed Operation Lurch Prevention

Features

- ➔ Two flow control valves and check valves integrated.
- ➔ Prevention of a stick-slip phenomenon, and speed control of a single acting cylinder.
- ➔ Stable speed control is achievable even with load fluctuations.
- ➔ Low speed control for small bore cylinders.



Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (20 rotations Note 1))
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In case of ASD230FM.

Note 2) Pay attention to the maximum operating pressure when soft nylon, polyurethane or soft polyurethane is used.

■ Applicable tubing O.D.: Metric Size

Symbol



Speed control and lurch prevention in the range of 10 to 50 mm/s.
Low speed control of single acting cylinder.
Speed control of small bore cylinder.

Model

Model	Port size	Applicable tubing O.D.			
		Metric size			
		4	6	8	10
ASD230FM-M5	M5	●	●		
ASD330FM-01	R1/8		●	●	
ASD430FM-02	R1/4		●	●	●

Applicable tubing O.D. mm	Connection thread	Model
		Universal type
4	M5	ASD230FM-M5-04
		ASD230FM-M5-06
6	R1/8	ASD330FM-01-06S
	R1/4	ASD430FM-02-06S
8	R1/8	ASD330FM-01-08S
	R1/4	ASD430FM-02-08S
10	R1/4	ASD430FM-02-10S

How to Order

ASD 3 3 0 F M - 01 - 06 S

Body size

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

Type

3	Universal
---	-----------

With one-touch fitting
For low speed control

Port size

M5	M5
01	1/8
02	1/4

Applicable tubing O.D. Metric size

04	ø4
06	ø6
08	ø8
10	ø10

● With sealant
* S is not required with M5, which do not have sealant. Types with gasket are standardized instead.

Tamper Proof Speed Controller Elbow/Universal Type

Series AS 1F

Features

- ➔ Tamper resistant adjustment.
- ➔ Body swivels 360°.
- ➔ Accurate speed control at low velocity.
- ➔ Meter-in and meter-out option.
- ➔ Retainer prevents accidental loss of needle.
- ➔ Available as elbow or universal body type.



■ Applicable tubing O.D.: Metric Size

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note1))
Applicable tubing material <small>Note 2)</small>	Nylon, Soft nylon, Polyurethane

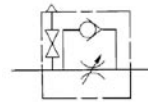
Note1) In case of AS1201F-M5 and AS1211F-M5 types.

In case of AS1301F-M5 and AS1311F-M5 types.

Note2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.

Note3) Brass parts of standard products are all electroless nickel plated.

Symbol



Flow rate control with special tools for safety measures.

Elbow type



Universal type



Special tool (AS-T-1)



Model

Port size	Applicable tubing O.D.					Applicable cylinder tubing I.D. mm	Elbow type		Universal type	
	Metric size						Meter-out	Meter-in	Meter-out	Meter-in
	3.2	4	6	8	10 12					
M5	●	●	●			6,10,16,20	AS1201F-M5	AS1211F-M5	AS1301F-M5	AS1311F-M5
R1/8	●	●	●	●	●*	20,25,32	AS2201F-01	AS2211F-01	AS2301F-01	AS2311F-01
R1/4		●	●	●	●	20,25,32,40	AS2201F-02	AS2211F-02	AS2301F-02	AS2311F-02
R1/4			●	●	●	40,50,63	AS3201F-02	AS3211F-02	AS3301F-02	AS3311F-02
R3/8			●	●	●	40,50,63	AS3201F-03	AS3211F-03	AS3301F-03	AS3311F-03
R1/2				●	●	63,80,100	AS4201F-04	AS4211F-04	AS4301F-04	AS4311F-04

Note 1) *Elbow type only.

Note 2) The meter-in and meter-out types are visually distinguished by the flow direction symbol on the resin body.

How to Order

AS 2 2 1 1 F — 01 — 06 S T

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 method

0	Meter-out
1	Meter-in

With one-touch fitting

Port size

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

Applicable tubing O.D.

Metric size

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

* Use ø1/8 tube.

Adjusting type

T	Tamper proof
D	Flat head screwdriver

With sealant

Note) S is not necessary in case of types with a M5 port, which do not have sealant. Types with gasket are standardized.

Tamper Proof Speed Controller In-Line Type

Series **AS** **1F**

Features

- ➔ Tamper resistant adjustment.
- ➔ Constant speed easily set.
- ➔ Retainer prevents accidental loss of needle.
- ➔ Optional holder gives flexibility of mounting.
- ➔ Wide variety of sizes.
- ➔ All brass parts electroless - nickel plated.



■ Applicable tubing O.D.: Metric Size

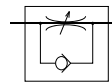
Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note1))
Applicable tubing material <small>Note 2)</small>	Nylon, Soft nylon, Polyurethane

Note1) In case of AS1001F.

Note2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.

Symbol



Flow control with special tools.
For safety measures.



Model

Model	Applicable tubing O.D.						Applicable cylinder tubing I.D. mm
	Metric size						
	3.2	4	6	8	10	12	
AS1001F	●	●	●				6, 10, 16, 20
AS2001F		●	●				20, 25, 32
AS2051F			●	●			20, 25, 32, 40
AS3001F			●	●	●	●	40, 50, 63
AS4001F				●	●		63, 80, 100

How to Order

AS 200 1F -06 T

Body size

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

Adjusting type

T	Tamper proof
D	Flat head screwdriver

Applicable tubing O.D.
Metric size

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

*Use ø1/8 tube.

With one-touch fitting

Applicable tubing O.D. mm	Model
	In-line type
3.2	AS1001F-23T/D
	AS1001F-04T/D
4	AS2001F-04T/D
	AS1001F-06T/D
6	AS2001F-06T/D
	AS2051F-06T/D
	AS3001F-06T/D
	AS3001F-06T/D

Applicable tubing O.D. mm	Model
	In-line type
8	AS2051F-08T/D
	AS3001F-08T/D
10	AS3001F-10T/D
	AS4001F-10T/D
12	AS3001F-12T/D
	AS4001F-12T/D

Tamper Proof Dual Speed Controller Universal Type

Series **ASD** **1F**

Features

- ➔ Tamper resistant adjustment.
- ➔ Meter-in and meter-out combined in same body.
- ➔ Prevents cylinders shooting out.
- ➔ Ideal for single acting cylinders with low speed in both directions.
- ➔ Universal body can rotate through 360°

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 1)
Applicable tubing material ^{Note 2)}	Nylon, Soft nylon, Polyurethane

Note 1) In case of ASD230F.

Note 2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.
(Refer to Best Pneumatics for more information.)

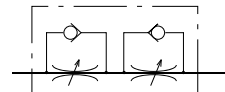
Note 3) Brass parts of standard products are all electroless nickel plated.

Lurch Prevention



■ Applicable tubing O.D.: Metric Size

Symbol



Model

Model	Port size	Applicable tubing O.D.				
		Metric size				
		4	6	8	10	12
ASD230F-M5	M5	●	●			
ASD330F-01	R1/8		●	●		
ASD430F-02	R1/4		●	●	●	
ASD530F-02	R1/4		●	●	●	●
ASD530F-03	R3/8		●	●	●	●
ASD630F-04	R1/2				●	●

Lurch prevention.
Speed control of single acting cylinder.
Flow rate control with special tools for safety measures.

Applicable tubing O.D. mm	Connection thread	Model	Applicable tubing O.D. mm	Connection thread	Model
		Universal type			Universal type
4	M5	ASD230F-M5-04T/D	10	R1/4	ASD430F-02-10ST/D
	M5	ASD230F-M5-06T/D			ASD530F-02-10ST/D
	R1/8	ASD330F-01-06ST/D			-03-10ST/D
6	R1/4	ASD430F-02-06ST/D		R1/2	ASD630F-04-10ST/D
		ASD530F-02-06ST/D		R1/4	ASD530F-02-12ST/D
	R3/8	-03-06ST/D		R3/8	-03-12ST/D
8	R1/8	ASD330F-01-08ST/D	R1/2	ASD630F-04-12ST/D	
	R1/4	ASD430F-02-08ST/D			
		ASD530F-02-08ST/D			
R3/8	-03-08ST/D				



How to Order

ASD 3 3 0 F - 01 - 06 S D

Body size

2	M5 standard
3	1/8 standard
4	1/4 standard
5	3/8 standard
6	1/2 standard

Type

3	Universal
---	-----------

With one-touch fitting

Port size

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

Applicable tubing O.D.

Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Adjusting type

T	Tamper proof
D	Flat head screwdriver

With sealant

Note) S is not necessary in case of types with a M5 port, which do not have sealant. Types with gasket are standardized.

Speed Controller with Pilot Check Valve Universal Type

Drop Prevention

Series **ASP**

Features

- ▶ Two individual products combined into one unit
- ▶ Compact, space saving solution which can be directly mounted to the actuator
- ▶ One touch fitting makes piping easier and body swivels 360°
- ▶ Brass parts electroless nickel plated as standard
- ▶ The speed controller with pilot check valve is used to stop the cylinder in mid stroke for extended periods of time when air is cut-off



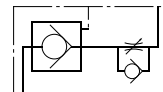
■ Applicable tubing O.D.: Metric Size

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Pilot check valve operating pressure	50% or more the operating pressure
Ambient and fluid temperature	-5 to 60C (With no condensation)
Number of needle rotations	10 rotations
Applicable tubing material	Nylon, Soft nylon, Polyurethane

Note) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.

Symbol



Connection thread⑥



Connection thread⑥

Model

Model	Port size	Applicable tubing O.D.				Pilot port
		6	8	10	12	
ASP330F-01	R1/8	●	●			M5
ASP430F-02	R1/4	●	●			Rc1/8
ASP530F-03	R3/8		●	●		Rc1/8
ASP630F-04	R1/2			●	●	Rc1/4

Note) Brass parts are all electroless nickel plated.

Built-in pilot check valve to prevent drop down.
Temporary intermediate stop.

Applicable tubing O.D. mm	Connection thread⑥	Connection thread⑥	Model
			Universal type
6	R1/8	M5	ASP330F-01-06S
	R1/4	Rc1/8	ASP430F-02-06S
8	R1/8	M5	ASP330F-01-08S
	R1/4	Rc1/8	ASP430F-02-08S
	R3/8	Rc1/8	ASP530F-03-08S
10	R3/8	Rc1/8	ASP530F-03-10S
	R1/2	Rc1/4	ASP630F-04-10S
12	R1/2	Rc1/4	ASP630F-04-12S

How to Order

ASP 3 30F-01-06 S

- Pilot check valve
- Body size

3	1/8 Standard
4	1/4 Standard
5	3/8 Standard
6	1/2 Standard
- Type

3	Universal
---	-----------
- With one-touch fitting
- Applicable tubing O.D. Metric size

06	ø6
08	ø8
10	ø10
12	ø12
- With sealant
- Port size

Symbol	Cylinder side	Pilot port
01	R1/8	M5
02	R1/4	Rc1/8
03	R3/8	Rc1/8
04	R1/2	Rc1/4

Speed Controller for Clean Room Elbow Type

Series AS-FPQ/FPG



AS-FPG/Stainless steel (SUS304)
Release button color: Light blue

AS-FPQ/Brass (Electroless nickel plated)
Release button color: Light grey

Features

- ➔ Polypropylene one touch fitting
- ➔ Low particulate generating - ideal for clean room
- ➔ Meter-out and meter-in flow styles

Specifications

Particle generation grade	Grade 1 Note 1)
Proof pressure (20°C)	1.5MPa
Max. operating pressure (20°C)	1MPa Note 2)
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (With no condensation)
Number of needle rotations	10 rotations (8 rotations Note 3))

Note 1) Refer to the particle generation grading chart.
Note 2) The max. operating pressure is one at 20°C.
Note 3) AS12□1FP□ only.

■ Applicable tubing O.D.: Metric Size

Recommended Applicable Tubing

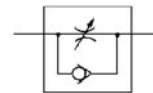
Tubing material	Clean series polyurethane tubing: Series 10-
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Polyurethane tubing: Series TU, Nylon tubing: Series T,
Soft nylon tubing: Series TS can also be used though with lower degree of cleanliness.

Model

Port size	Applicable tubing O.D.					Applicable cylinder tubing I.D. mm	Elbow type	
	Metric size						Meter-out	Meter-in
	4	6	8	10	12			
M5	●	●				6, 10, 16, 20	AS1201FP□-M5	AS1211FP□-M5
R1/8	●	●	●			20, 25, 32	AS2201FP□-01	AS2211FP□-01
R1/4	●	●	●	●		20, 25, 32, 40	AS2201FP□-02	AS2211FP□-02
R3/8		●	●	●	●	40, 50, 63	AS3201FP□-03	AS3211FP□-03
R1/2				●	●	63, 80, 100	AS4201FP□-04	AS4211FP□-04

Symbol



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

With one-touch fitting

Metal part material

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

Type

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

Control method

0	Meter-out
1	Meter-in

Clean specification

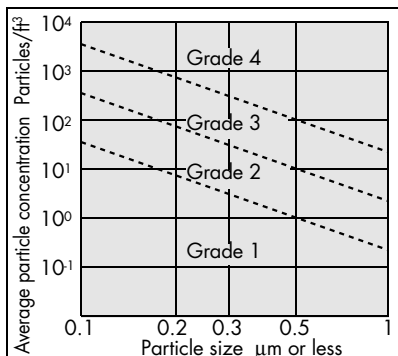
Port size

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

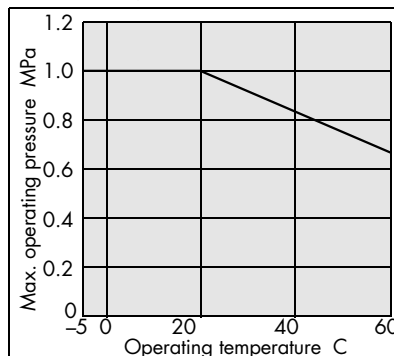
Applicable tubing O.D. Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Particulate Generation Grade Classifications



Relation between Operating Temp. and Max. Operating Pressure



Residual Pressure Exhaust Valve with One-Touch Fitting

Series **KE**

Residual Pressure Exhaust

➔ Residual pressure inside the cylinder is released to the atmosphere by pressing the button.

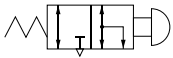
Without push button guard
With one-touch fitting

With push button guard
With one-touch fitting

With push button guard
Rc screw



Symbol



Applicable tubing O.D. mm	Model
6	KEA06
8	KEA08
10	KEA10
12	KEA12

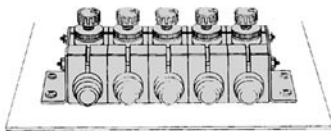
Applicable tubing O.D. mm	Model
6	KEB06
8	KEB08
10	KEB10
12	KEB12

Connection thread	Model
Rc1/4	KEC-02
Rc3/8	KEC-03

Speed Controller Holder

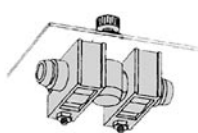
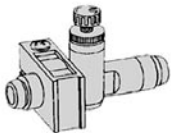
Series **TMH**

➔ Holder to secure an in-line type speed controller with one-touch fitting.



In-line speed controllers and applicable holders

Body size	Tubing size	Applicable tubing					
		23 ø3.2	04 ø4	06 ø6	08 ø8	10 ø10	12 ø12
AS1001F	TMH-23J						
AS2001F			TMH-04J	TMH-06J			
AS2051F				TMH-06	TMH-08		
AS3001F						TMH-10	TMH-12
AS4001F							



Multiple Fitting Holder

Series **TMA**

➔ To secure series KE□ exhaust valves.
To secure union tee KQT, union elbow KQL, straight union KQH.



Model

Model	Stations	Applicable exhaust valve	Applicable one-touch fittings		
			Union tee	Union elbow	Straight union
TMA-06	8	KEA06	KQ2T06-00	KQ2L06-00	KQ2H06-00
		KEB06	KQT06-00	KQL06-00	KQH06-00
TMA-08	8	KEA08	KQ2T08-00	KQ2L08-00	KQ2H08-00
		KEB08	KQT08-00	KQL08-00	KQH08-00
		KEC-02			
TMA-10	6	KEA-10	KQ2T10-00	KQ2L10-00	KQ2H10-00
		KEB-10	KQT10-00	KQL10-00	KQH10-00
TMA-12	6	KEA-12	KQ2T12-00	KQ2L12-00	KQ2H12-00
		KEB-12	KQT12-00	KQL12-00	KQH12-00
		KEC-03			



FOR MORE DETAILS
SEE OUR SPECIFIC CATALOGUES,
PRODUCTS CD's OR ONLINE INFORMATION

Metering Valve with Silencer

Series **ASN2**

Features

- ➔ Superior sound reducing performance.
- ➔ Cylinder speed easily set.
- ➔ Retainer prevents accidental loss of needle.

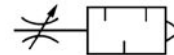


Specifications

Proof pressure	1.5 MPa
Operating pressure range	0 to 1 MPa
Ambient and fluid temperature	- 5 to 60°C (No freezing)
Number of needle rotations	10 turns (8 turns ^{Note1})

Note) () is the case of ASN2-M5.

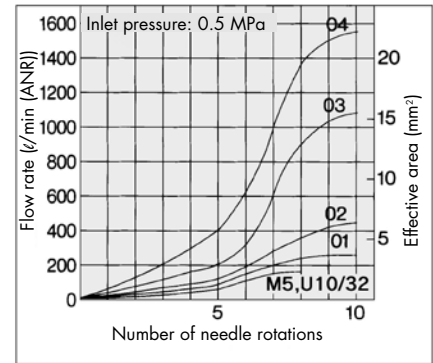
Symbol



Model

Model	Port size	Effective area (mm ²)	Weight (g)
ASN2-M5	M5	1.8	5
ASN2-01	1/8	3.6	17
ASN2-02	1/4	6.5	34
ASN2-03	3/8	16.6	55
ASN2-04	1/2	24.5	107

Needle Valve/ Flow Characteristics



How to Order

ASN2 — **03** —

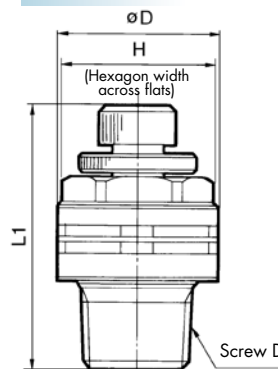
Option

Nil	None
S	With seal

Port size

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

Dimensions



Model	Screw D	øD	L1		H
			Min	Max	
ASN2-M5	M5	10	20.5	23.3	8
ASN2-01	1/8	15	30	35	12
ASN2-02	1/4	20	34.2	39.2	17
ASN2-03	3/8	25	37	42	19
ASN2-04	1/2	30	49	54	24

Quick Exhaust Valve

Series AQ

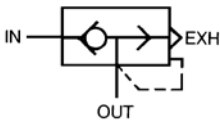
Features

- ➔ High exhaust characteristics
- ➔ Port sizes from M5 ~ 3/4
- ➔ High flow capacity

Specifications

Fluid	Air	
Proof pressure	1.5 MPa	
Max. operating pressure	AQ15□0	0.7 MPa
	AQ2000 to 5000	1 MPa
Min. operating pressure	AQ15□0	0.1 MPa
	AQ2000 to 5000	0.05 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)	

Symbol



How to Order

AQ 2 0 0 0 - F 02

Standard size

1	1/8
2	1/4
3	3/8
5	3/4

Type

Symbol	Type	Applicable model
0	Diaphragm	AQ2 to AQ5
5	Lip	AQ1 Only

Standard

0	M5
1	1/8

Note) "AQ15□0" only

Thread type

Nil	Metric thread (M5)
F	G

Port size

Port size	Applicable series
M5	M5 AQ1500
01	1/8 AQ1510/2000
02	1/4 AQ2000/3000
03	3/8 AQ3000
04	1/2 AQ5000
06	3/4 AQ5000

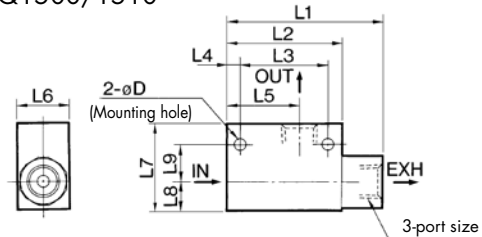


Model

Model	Port size	Effective area (mm ²)		Weight (g)
		IN → OUT	OUT → EXH	
AQ1500-M5	M5	2	2.8	25
AQ1510-01	1/8	4	5.8	45
AQ2000-01	1/8	25	25	110
AQ2000-02	1/4	35	40	105
AQ3000-02	1/4	40	42	215
AQ3000-03	3/8	60	70	205
AQ5000-04	1/2	105	115	690
AQ5000-06	3/4	135	180	650

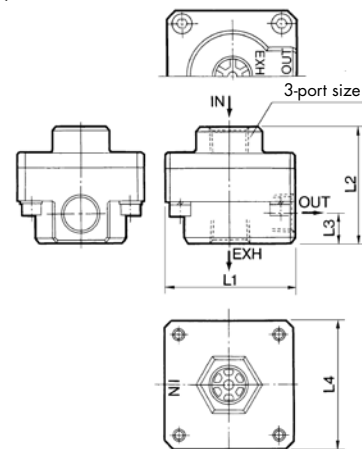
Dimensions

AQ1500/1510



Model	Port size	L1	L2	L3	L4	L5	L6	L7	L8	L9	D
AQ1500	M5	23	20	14	3	12.5	12	15	5.5	6.5	3.1
AQ1510	1/8	45	33	25	4	21	15	25	8	11	4.3

AQ2000/3000/5000



Model	Port size	L1	L2	L3	L4
AQ2000	1/8, 1/4	45	40	10	45
AQ3000	1/4, 3/8	56	50	12.5	56
AQ5000	1/2, 3/4	85	75	18	85

Quick Exhaust Valve with One-Touch Fitting

Series AQ240F/340F

Features

- ➔ Option of built-in silencer or facility to pipe exhaust away.
- ➔ Minimises installation time and cost.
- ➔ Integral one-touch fittings.
- ➔ Accepts Nylon and Polyurethane tubing.
- ➔ Compact lightweight design.



With silencer

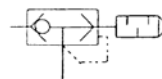
With exhaust port fitting

Specifications

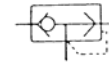
Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Min. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material ^(Note)	Nylon, Soft nylon, Polyurethane

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

Symbol

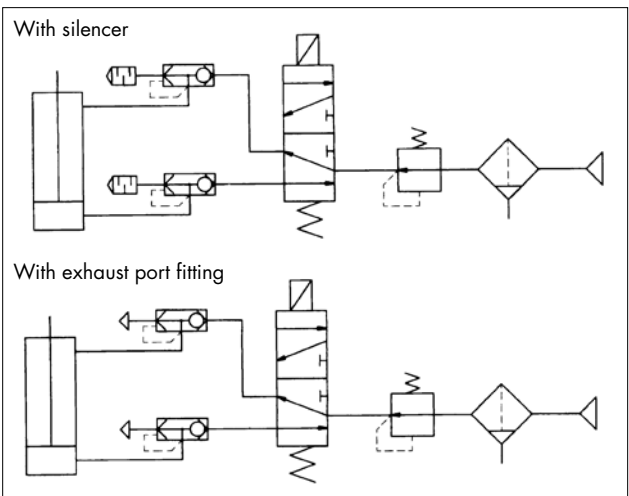


With silencer



With exhaust port fitting

Circuit

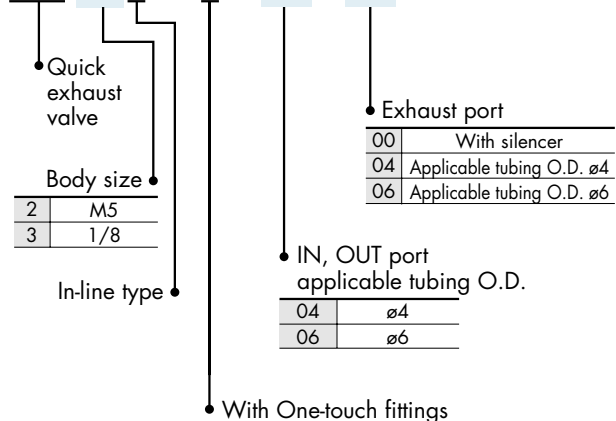


Model

Model	Applicable tubing O.D.			Effective area (mm ²)	
	4	6	1/4"	IN → OUT	OUT → EXH.
AQ240F-04-□	●			1.7	2.5
AQ240F-06-□		●		2.4	2.7
AQ340F-06-□		●		4	4

How to Order

AQ 2 4 0 F - 06 - 06



Note) Brass parts are all electroless nickel plated.

Speed Exhaust Controller Elbow Type/Tee Type

Quick Exhaust

Series **ASV**

Features

- ➔ Three functions from a single component
- ➔ Minimises installation time and cost
- ➔ Accepts nylon and polyurethane tubing
- ➔ Wide variety of sizes M3 to 1/2
- ➔ Integral One Touch fitting - 4mm to 12mm
- ➔ Excellent control characteristics
- ➔ Compact design



Elbow type

Tee type

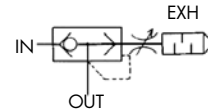
■ Applicable tubing O.D.: Metric Size

Specifications

Series	ASV120F	ASV220F	ASV310F, 410F	ASV510F
Proof pressure	1.5MPa			
Max. operating pressure	1MPa			
Min. operating pressure	0.1MPa			
Ambient and fluid temperature	-5 to 60°C (With no condensation)			
Number of needle rotations	10 rotations	8 rotations	12 rotations	15 rotations
Applicable tubing material ^{Note 1)}	Nylon, Soft nylon, Polyurethane			
Option	Hexagon lock nut		With spatter cover, Hexagon lock nut	

Note 1) Pay attention to the maximum operating pressure when soft nylon, polyurethane is used.

Symbol



Model

Model	Port size	Applicable tubing O.D.				
		4	6	8	10	12
ASV120F-M3	M3	●				
ASV220F-M5	M5	●	●			
ASV310F-01	R1/8		●	●		
ASV310F-02	R1/4		●	●		
ASV410F-01	R1/8			●	●	
ASV410F-02	R1/4			●	●	
ASV410F-03	R3/8			●	●	
ASV510F-02	R1/4				●	●
ASV510F-03	R3/8				●	●
ASV510F-04	R1/2				●	●

 Integration of a quick exhaust valve and an exhaust restrictor.
Permits high-speed cylinder operation.

Applicable tubing O.D. mm	Connection thread	Model	
		Elbow type	Tee type
4	M3	ASV120F-M3-04	
	M5	ASV220F-M5-04	
6	M5	ASV220F-M5-06	
Applicable tubing O.D. mm	Connection thread	Model	
		Elbow type	Tee type
6	R1/8	ASV310F-01-06S	
	R1/4	-02-06S	
8	R1/8	ASV310F-01-08S	
	R1/4	-02-08S	
	R1/8	ASV410F-01-08S	
Applicable tubing O.D. mm	Connection thread	Model	
		Elbow type	Tee type
8	R1/4	ASV410F-02-08S	
	R3/8	-03-08S	
10	R1/8	ASV410F-01-10S	
	R1/4	-02-10S	
10	R3/8	-03-10S	
	R1/4	ASV510F-02-10S	
	R3/8	-03-10S	
12	R1/2	-04-10S	
	R1/4	ASV510F-02-12S	
	R3/8	-03-12S	
12	R1/2	-04-12S	

How to Order

ASV 3 1 0 F - 01 - 06 S

Body size

1	M3 standard
2	M5 standard
3	1/8 standard
4	1/4 standard
5	3/8 standard

Model

1	Union tee
2	Elbow ^{Note 1)}

Note 1) Only M3 and M5 for the elbow type.

With one-touch fitting

Port size

M3	M3
M5	M5
01	R1/8
02	R1/4
03	R3/8
04	R1/2

Applicable tubing O.D.

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Lock nut configuration

Nil	Standard (Round)
K	Hexagon type

Sealant

Symbol	Sealant	Applicable model
Nil	Without sealant	ASV120F, 220F
S	With sealant	ASV310F, 410F, 510F

Check Valve

Series **EAK**

Features

- ➔ High flow capacity
- ➔ Low cracking pressure: 0.2 bar
- ➔ A wide variation of models

Specifications

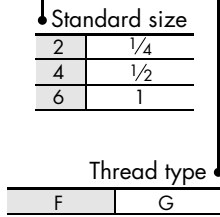
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1 MPa
Minimum operating pressure	0.02 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)

Model

Model	Port size	Effective area (mm ²)	Weight (g)
EAK2000-01	1/8	25	105
EAK2000-02	1/4	27.5	100
EAK4000-02	1/4	47	155
EAK4000-03	3/8	85	150
EAK4000-04	1/2	95	140
EAK6000-06	3/4	200	345
EAK6000-10	1	230	315

How to Order

EAK 2 000— F 02

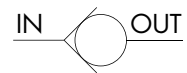


Port size

Port size	Applicable series
01	1/8 EAK2000
02	1/4 EAK2000/4000
03	3/8 EAK4000
04	1/2 EAK4000
06	3/4 EAK6000
10	1 EAK6000

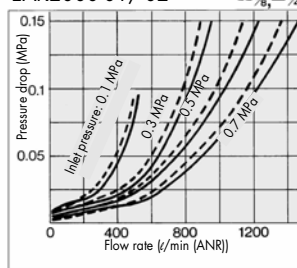


Symbol

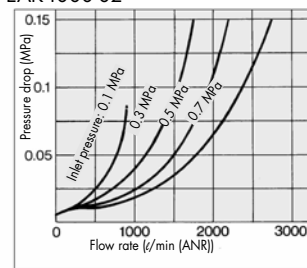


Flow Characteristics

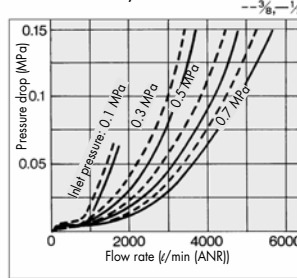
EAK2000-01/-02



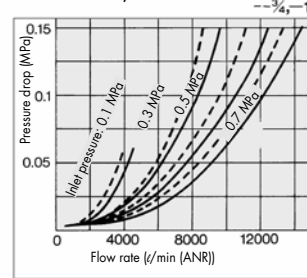
EAK4000-02



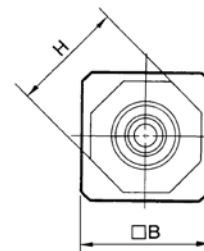
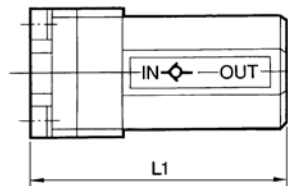
EAK4000-03/-04



EAK6000-06/-10



Dimensions



Model	Port size	L1	B	H
EAK2000-01/02	1/8, 1/4	50	25	22
EAK4000-02/03/04	1/4, 3/8, 1/2	67	36	36
EAK6000-06/10	3/4, 1	95	50	50

Check Valve with One-Touch Fitting

Series **AKH/AKB**

Features

- ➔ 3 configurations provide design solutions based on the operating conditions.
- ➔ Straight type, Male Connector type and Bushing type.
- ➔ Can be used for vacuum (-100kPa).



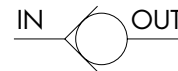
Specifications

Fluid	Air
Proof pressure	1.5 MPa
Operating pressure range	-100 kPa to 1 MPa
Cracking pressure	0.005 MPa
Ambient temperature and operating fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material ^[Note]	Nylon, Soft nylon, Polyurethane

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

■ Applicable tubing O.D.: Metric Size

Symbol



How to Order

Straight type **AKH 04- 00**

Male connector type **AKH 04 A - 01 S**

Applicable tubing O.D.

Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

• With seal (Standard)
* M5 not required.

• Thread type

Nil	R
-----	---

• Port size

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

• Check valve free flow direction

A	From male thread to One-touch fitting	
B	From One-touch fitting to male thread	

Applicable Tubing O.D./Port Size Combinations

Metric size

Model	Applicable tubing O.D.	R thread				
		M5	1/8	1/4	3/8	1/2
AKH04□	ø4	●	●			
AKH06□	ø6	●	●	●		
AKH08□	ø8		●	●	●	
AKH10□	ø10			●	●	●
AKH12□	ø12				●	●

How to Order

Bushing type **AKB 01 A - 01 S**

Body size

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

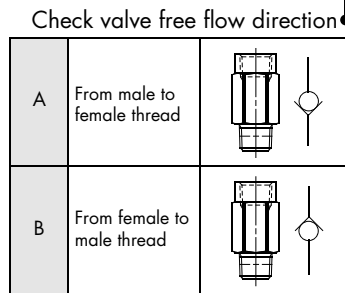
Thread type

Nil	R
-----	---

Port size

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

With seal (Standard)



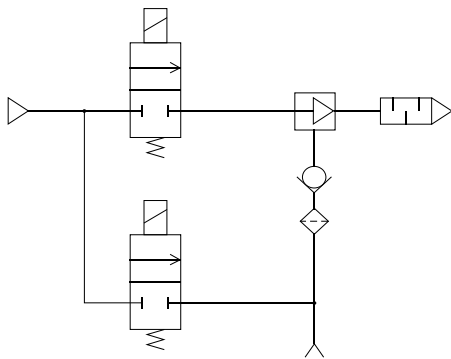
Female/Male Threads Combinations

R thread

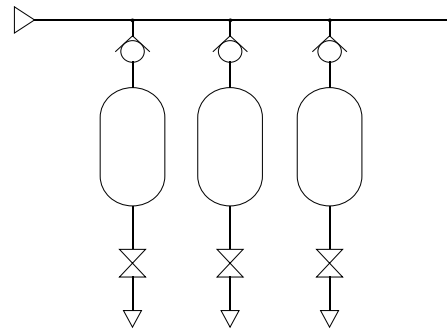
Model	Female thread Rc	Male thread R			
		1/8	1/4	3/8	1/2
AKB01□	1/8	●			
AKB02□	1/4		●		
AKB03□	3/8			●	
AKB04□	1/2				●

Application Example for Check Valve with One-touch Fitting

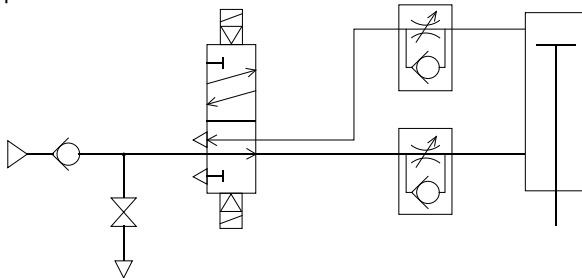
Prevention of reverse flow to vacuum source*
(Simple vacuum holding)



Tank pressure reverse flow prevention



Drop prevention*



* A certain amount of leakage is allowed in the specifications of this product.
Please note that it is not suitable for holding over an extended period of time.

Safety Speed Control Valve (SSC Valve)

Series **EASS**

Features

- ➔ Meter out type - a control valve with cylinder speed control, fixed throttle and rapid air supply function.
- ➔ Meter-in type - a control valve with cylinder speed control function and rapid air supply function.



Specifications

Fluid	Air
Max. operating pressure	0.7 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Set pressure	0.1 to 0.5 MPa

Model

Style	Model	Port size	Effective area (mm ²)		Weight (g)
			Controlled flow	Free flow	
Meter-out control	ASS100	1/8	2.4	9.5	97
	ASS300	1/4, 3/8	14.5	22.0	220
	ASS500	1/2, 3/4	52.0	55.0	580
	ASS600	3/4, 1	80.0	90.0	950
Meter-in control	ASS110	1/8	2.4	5.4	97
	ASS310	1/4, 3/8	16.5	23.0	220

How to Order

EASS 3 00 — F 02 B

Body size

1	1/8
3	3/8
5	3/4
6	1

Thread type

F	G
---	---

Type

00	Meter-out control type
10	Meter-in control type

Accessory

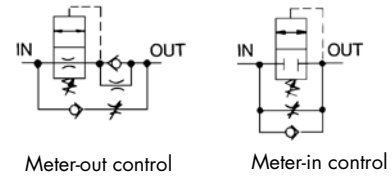
Nil	None
B	With bracket

Port size

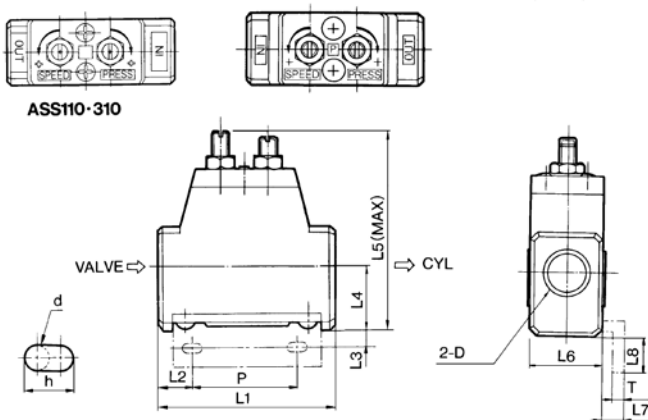
Port size	Applicable series	
01	1/8	ASS100/110
02	1/4	ASS300/310
03	3/8	ASS300/310
04	1/2	ASS500
06	3/4	ASS500/600
10	1	ASS600

* Meter-in type is available only for ASS110 and ASS310.

Symbol



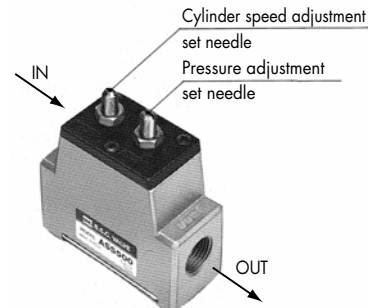
Dimensions



Model	D	L1	L2	L3	L4	L5	L6	L7	L8	P	d	h	T	
ASS100	ASS110	1/8	50	17	4	14	52	20	5	9	20	5	10	2
ASS300	ASS310	1/4, 3/8	63	16.5	5	23	73	26	6	12	30	6	12	3.2
ASS500	—	1/2, 3/4	90	30.5	6	27	99	38	6	13	35	7	14	2.3
ASS600	—	3/4, 1	112	26	6	31	116	46	6	14	65	7	14	3.2

Mounting and Adjusting of SSC Valve

Mounting: Mount IN on the direction control valve side, and OUT on the cylinder side.



Bracket Part No.

Model	Part no.
ASS1□0	XT14-82-3-1
ASS3□0	XT14-105-5-1
ASS500	XT14-89-2-1
ASS600	XT14-85-2-1

Air Saving Valve Pressure Valve/Flow Valve

Series ASR/ASQ

Features

- ➔ Air consumption reduced by 25%.
- ➔ Reduces piping processes and saves space.
- ➔ Simplified 2 pressure control circuit.
- ➔ Improved cylinder response.

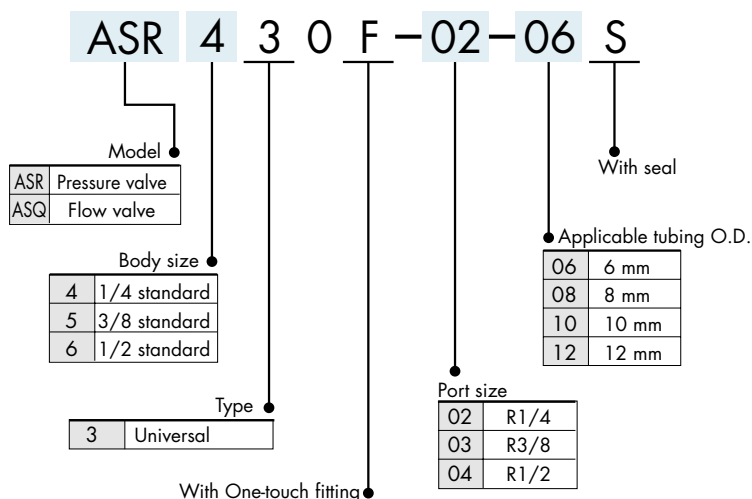
Specifications

Proof pressure	1.5 MPa	
Maximum operating pressure	1.0 MPa	
Set pressure range	Variable	0.1 to 0.3 MPa
	Fixed (option)	0.2 MPa
Ambient and fluid temperature	-5 to 60°C (with no freezing)	
Number of needle rotations	10 rotations	
Applicable tubing material	Nylon, Soft nylon, Polyurethane	

Model

Model		Port size	Applicable tubing O.D. (mm)			
Pressure valve	Flow valve		6	8	10	12
ASR430F-02	ASQ430F-02	R1/4	●	●	●	
ASR530F-02	ASQ530F-02	R1/4	●	●	●	●
ASR530F-03	ASQ530F-03	R3/8	●	●	●	●
ASR630F-03	ASQ630F-03	R3/8			●	●
ASR630F-04	ASQ630F-04	R1/2			●	●

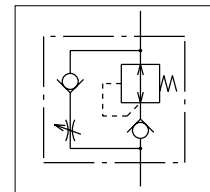
How to Order



Pressure valve: Series ASR



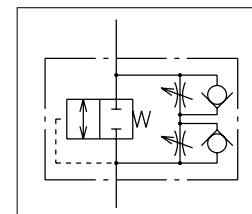
Regulator with check valve and flow control valve integrated into a single construction



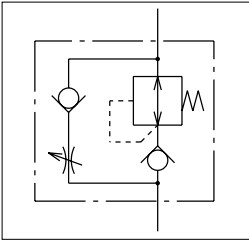
Flow valve: Series ASQ



Pilot valve and two-way flow control valve integrated into a single construction



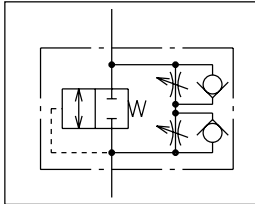
PFC Valve: ASR



PFC valve
A regulator with check valve and a flow control valve are integrated in one body.



QFC Valve: ASQ



QFC valve
A pilot type switching valve and 2 direction flow control valve are integrated in one body.



Variable Set Pressure Type

Applicable tubing O.D. mm	Connection thread	Model
6	R1/4	ASR430F-02-06S
	R1/4	ASR530F-02-06S
	R3/8	-03-06S
8	R1/4	ASR430F-02-08S
	R1/4	ASR530F-02-08S
	R3/8	-03-08S
10	R1/4	ASR430F-02-10S
	R1/4	ASR530F-02-10S
	R3/8	-03-10S
	R3/8	ASR630F-03-10S
	R1/2	-04-10S
12	R1/4	ASR530F-02-12S
	R3/8	-03-12S
	R3/8	ASR630F-03-12S
	R1/2	-04-12S

Variable Set Pressure Type

Applicable tubing O.D. mm	Connection thread	Model
6	R1/4	ASQ430F-02-06S
	R1/4	ASQ530F-02-06S
	R3/8	-03-06S
8	R1/4	ASQ430F-02-08S
	R1/4	ASQ530F-02-08S
	R3/8	-03-08S
10	R1/4	ASQ430F-02-10S
	R1/4	ASQ530F-02-10S
	R3/8	-03-10S
	R3/8	ASQ630F-03-10S
	R1/2	-04-10S
12	R1/4	ASQ530F-02-12S
	R3/8	-03-12S
	R3/8	ASQ630F-03-12S
	R1/2	-04-12S



FOR MORE DETAILS
SEE OUR SPECIFIC CATALOGUES,
PRODUCTS CD'S OR ONLINE INFORMATION

