

Speed Controller with One-touch Fitting

Stainless Steel Type Push-lock Type

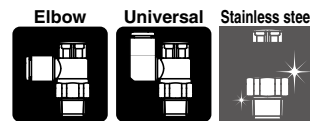
Elbow Type/Universal Type

AS-FG Series

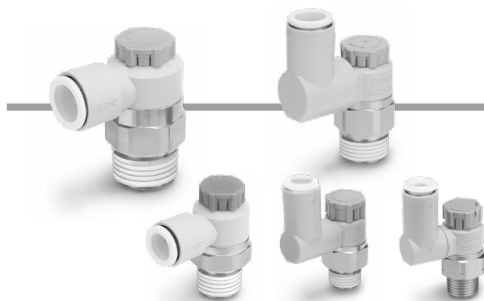
In-line Type

AS-FG Series

This product (standard product) is a secondary battery compatible product. For details on specifications and dimensions, refer to the [Web Catalog](#).



How to Order



Applicable tubing O.D. *1

Metric size		Inch size	
02	ø2	01	ø1/8"
23	ø3.2 *2	03	ø5/32"
04	ø4	07	ø1/4"
06	ø6		

*1 For selecting applicable tubing O.D., refer to the "Model" on the [Web Catalog](#). The color of the release button is white (metric, inch).

*2 Use ø1/8" tube.

Body size

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

Port size

M5	M5 x 0.8
U10/32	10-32 UNF

Body size 1

Body size 2/3/4

AS 1 2 0 1 FG - M5 - 06 A

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

Body size

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

Type

2	Elbow
3	Universal

Control type *1

0	Meter-out
1	Meter-in

*1 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)

* The material can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.

Thread type

Nil	R
N	NPT
G	G

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

* Face seal method is used for the G thread type.
Select "Nil/Without sealant."
Example) AS2201FG-G01-06A

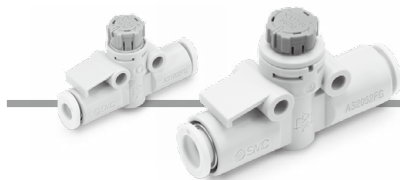
Applicable tubing O.D. *1

Metric size		Inch size *3	
23	ø3.2 *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		

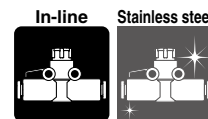
*1 For selecting applicable tubing O.D., refer to the "Model" on the [Web Catalog](#). The color of the release button is white (metric, inch).

*2 Use ø1/8" tube.

*3 Only the metric size is available for the G thread type.



How to Order



AS 200 2 FG - 06 A

Body size

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

With One-touch fittings

Stainless steel type (Stainless steel 303)

* The material can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.

Applicable tubing O.D. *1

Metric size		Inch size	
23	ø3.2 *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"

*1 For selecting applicable tubing O.D., refer to the "Model" on the [Web Catalog](#).

*2 Use ø1/8" tubing.

Speed Controller with Indicator Stainless Steel Series

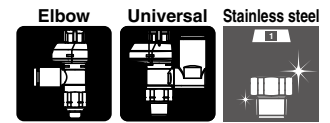
Elbow Type/Universal Type

AS-FSG Series

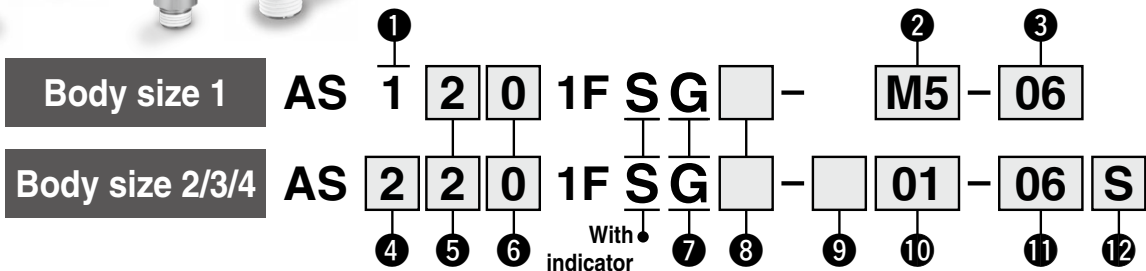
In-line Type

AS-FSG Series

This product (standard product) is a secondary battery compatible product. For details on specifications and dimensions, refer to the [Web Catalog](#).



How to Order



1 Body size

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

2 Port size

M5	M5 x 0.8
U10/32	10-32 UNF

6 Control type*1

0	Meter-out
1	Meter-in

*1 Meter-out and meter-in types can be visually identified by color of the knob.
Meter-out: Gray
Meter-in: Light blue

11 Applicable tubing O.D.*1

Metric size	Inch size*3
23	ø3.2*2
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16

3 Applicable tubing O.D.*1

Metric size	Inch size
02	ø2
23	ø3.2*2
04	ø4
06	ø6
01	ø1/8"
03	ø5/32"
07	ø1/4"

*1 For selecting applicable tubing O.D., refer to the "Model" on the [Web Catalog](#). Metric size and inch size types can be visually identified by color of the release button. Stainless steel type: White
White is also used for inch size.

*2 Use ø1/8" tubing.

7 Stainless steel type

* Metric size and inch size types can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.

4 Body size

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

5 Type

2	Elbow
3	Universal

9 Thread type

Nil	R
N	NPT
G	G

10 Port size

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

12 Seal method

Nil	Without sealant
S	With sealant

* Face seal type is used for the G thread type. Select "Nil/Without sealant".
Example) AS2201FSG-G01-06

8 Indicator window direction

		Elbow	Universal
Nil	0°	●	—
1	180°	●	●
2	90°	●	—
3	270°	●	—

* Orientation of indicator direction is fixed when manufacturing, and cannot be changed by the user. In addition, the universal type is only available with 180° setting.



How to Order



1 Body size

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

2 Stainless steel type (Stainless steel 303)

* The material can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.

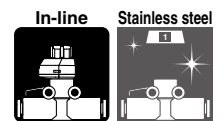
4 Applicable tubing O.D.*1

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

*1 For selecting applicable tubing O.D., refer to the "Model" on the [Web Catalog](#).
*2 Use ø1/8" tubing.

3 Indicator direction

		2	3
Nil	0°	Index plate	Index plate
1	180°	Index plate	Index plate
	90°	Index plate	Index plate
	270°	Index plate	Index plate



Clean Speed Controller with One-touch Fitting

This product (only the stainless steel metal parts type) is a secondary battery compatible product. For details, refer to the [Web Catalog](#).

AS-FPQ/AS-FPG Series

RoHS

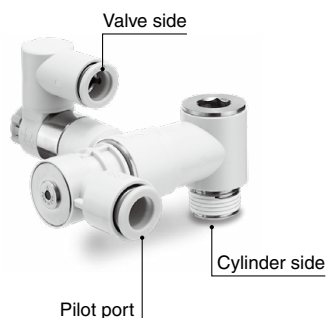


**AS-FPQ: Brass (electroless nickel plated) and
AS-FPG: Stainless steel 304 are now available as a series.**

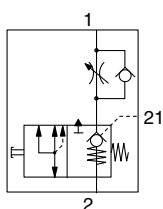
Speed Controller with Pilot Check Valve Stainless Steel Type

This product (standard product) is a secondary battery compatible product. For details on specifications and dimensions, refer to the **Web Catalog**.

ASP-G Series



Symbol



Model with residual pressure release function

Model

Horizontal type

Port size	Pilot port size	Applicable tubing O.D.				
		Metric size				
		4	6	8	10	12
M5 x 0.8	ø4	●	●	—	—	—
10-32UNF		●	●	—	—	—
R1/8	ø6	—	●	—	—	—
NPT1/8		—	●	—	—	—
G1/8	ø8	—	●	—	—	—
R1/4		—	—	●	—	—
NPT1/4	ø8	—	—	●	—	—
G1/4		—	—	●	—	—
R3/8	ø10	—	—	—	●	—
NPT3/8		—	—	—	●	—
G3/8	ø10	—	—	—	●	—
R1/2		—	—	—	—	●
NPT1/2	ø12	—	—	—	—	●
G1/2		—	—	—	—	●

Specifications

Fluid	Air
Proof pressure	1.05 MPa
Max. operating pressure	0.7 MPa
Min. operating pressure	0.1 MPa
Pilot check valve operating pressure	50% or more of the cylinder supply pressure {0.1 (0.15 ^{*1}) MPa or more}
Ambient and fluid temperatures	-5 to 60°C (No freezing)
Applicable tubing material	Nylon, Soft nylon, Polyurethane, FEP, PFA ^{*2}

*1 The value in brackets is for the AKP-□-M5/U10.

*2 Use caution at the max. operating pressure when using soft nylon or polyurethane tubing. (Refer to the **Web Catalog** for details.)

Flow Rate and Sonic Conductance

Model		ASP-□-M5/U10	ASP-□-□01	ASP-□-□02	ASP-□-□03	ASP-□-□04
Port size		M5 10-32UNF	1/8	1/4	3/8	1/2
Tubing O.D.	Metric size	ø4 ø6	ø6	ø8	ø10	ø12
	C values: Sonic conductance dm ³ /(s·bar)	Free flow	0.25	0.58	1.06	2.19
	Controlled flow	0.22	0.46	1.06	1.69	3.09
b values: Critical pressure ratio	Free flow	0.20	0.20	0.15	0.15	0.20
	Controlled flow	0.30	0.20	0.25	0.20	0.30

Caution

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For flow control equipment precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: <https://www.smcworld.com>



How to Order

Horizontal type

ASP-UB06GE-G01S

● **Type**

U	Universal
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● **Piping type**

B	Horizontal
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● **Applicable tubing O.D.**

Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

* For selecting applicable tubing O.D., refer to the "Model" on page 11-1.

● **Material**

G	Stainless steel type
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● **Residual pressure release**

E	With
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● **Seal method**

Nil	Without sealant
S	With sealant

* Select "Nil: Without sealant" for M5, 10-32UNF, and G thread types.
Example) ASP-UB06GE-G01

● **Port size**

M5 *1	M5
U10 *1	10-32UNF
01	1/8
02	1/4
03	3/8
04	1/2

*1 Use the M5 or U10 port size model in a circuit that uses an exhaust center valve. These sizes cannot be used in a circuit that uses a closed center valve only because the responsiveness of the intermediate stop of the actuator may be slow. Therefore, if you want to use those models in a circuit with a closed center valve only, contact us.

● **Thread type**

Nil	R
N	NPT
G	G

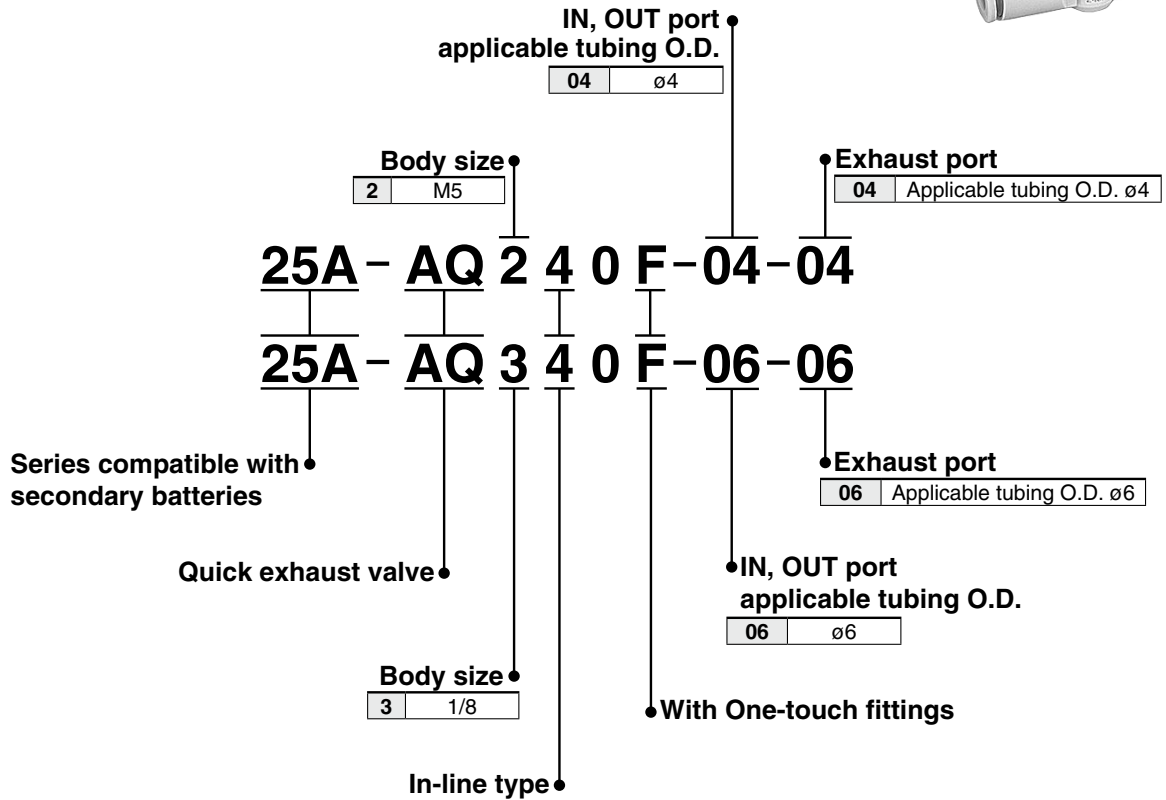
* Select (R: Nil) for connection thread port size M5 or U10.

Quick Exhaust Valve with One-touch Fittings

RoHS

25A-AQ240F/340F Series

How to Order



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).

Check Valve with One-touch Fittings **25A-AKH Series**



How to Order



Straight type

25A - AKH 04 - 00

Series compatible with secondary batteries

Applicable tubing O.D.
Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).

Rotary One-touch Fittings

25A-KX Series

RoHS

High Speed Type



How to Order

25A - KX H 06 - 01S

Series compatible with secondary batteries

Rotary One-touch fittings
High speed type

Model

Symbol	Model
H	Male connector
L	Male elbow

Bore size

Thread connection	Symbol	Size	Male thread seal method
	M5	M5 x 0.8	Gasket seal
01S	R1/8	With sealant	
	R1/4		
G01	G1/8	Face seal	
	G1/4		



Applicable tubing O.D.

Symbol	Size
04	ø4
06	ø6
08	ø8
10	ø10

Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10

KX Series

Model	Connection thread	Applicable tubing O.D. [mm]			
		ø4	ø6	ø8	ø10
Male connector 25A-KXH 	M5 x 0.8	●	●		
	R 1/8		●	●	
	R 1/4				●
	G 1/8		●	●	
	G 1/4				●
Male elbow 25A-KXL 	M5 x 0.8	●	●		
	R 1/8		●	●	
	R 1/4				●
	G 1/8		●	●	
	G 1/4				●

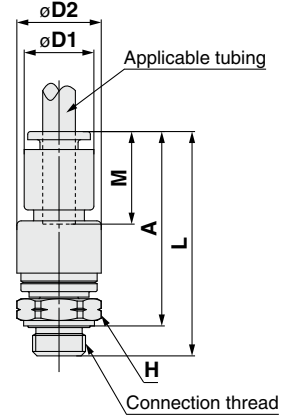
* The 25A- series specifications are the same as those of the standard model. For the G thread dimensions, refer to page 258-2 for details.

For details, refer to the [Web Catalog](#).

Male Connector: KXH (High speed)



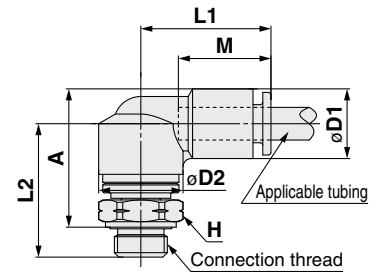
Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	øD1	øD2	L	A	M	Min. port size	Effective area [mm ²]		Weight [g]
										Nylon	Urethane	
6	G1/8	25A-KXH06-G01	14	12.8	15.5	41.2	35.7	17	4	10.4	10.4	21
8	G1/8	25A-KXH08-G01	17	15.2	18	46.1	40.6	18.5	6	26.1	18	30
10	G1/4	25A-KXH10-G02	22	18.5	24.5	55.1	48.6	21	7	36.3	29.5	67



Male Elbow: KXL (High speed)



Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	øD1	øD2	L1	L2	A	M	Min. port size	Effective area [mm ²]		Weight [g]
											Nylon	Urethane	
6	G1/8	25A-KXL06-G01	14	12.8	15.5	24	24.5	25.4	17	4	8.6	8.6	21
8	G1/8	25A-KXL08-G01	17	15.2	18	27	28.5	30.6	18.5	6	21.6	14.9	30
10	G1/4	25A-KXL10-G02	22	18.5	24.5	32	35.2	37.9	21	7	30.5	25	68



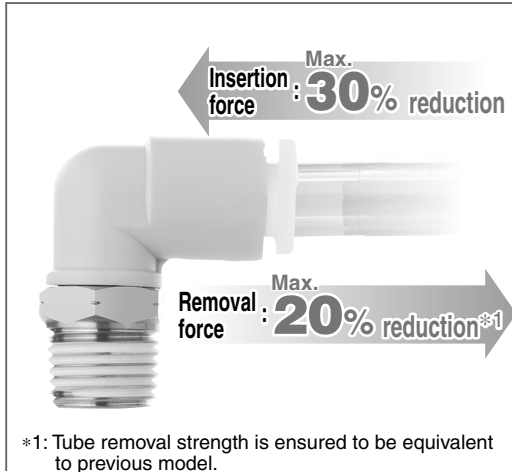
One-touch Fittings Stainless Steel

KQ2-G Series

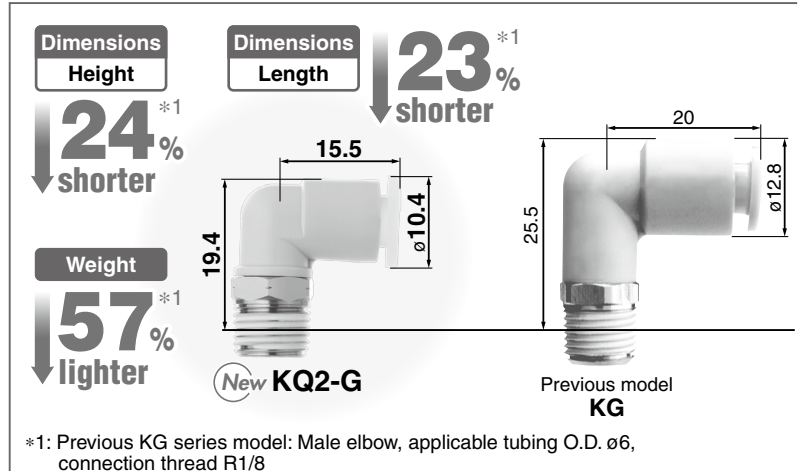
RoHS

Metal material: **Stainless steel 303**

Improved tube insertion/removal



Compact and lightweight



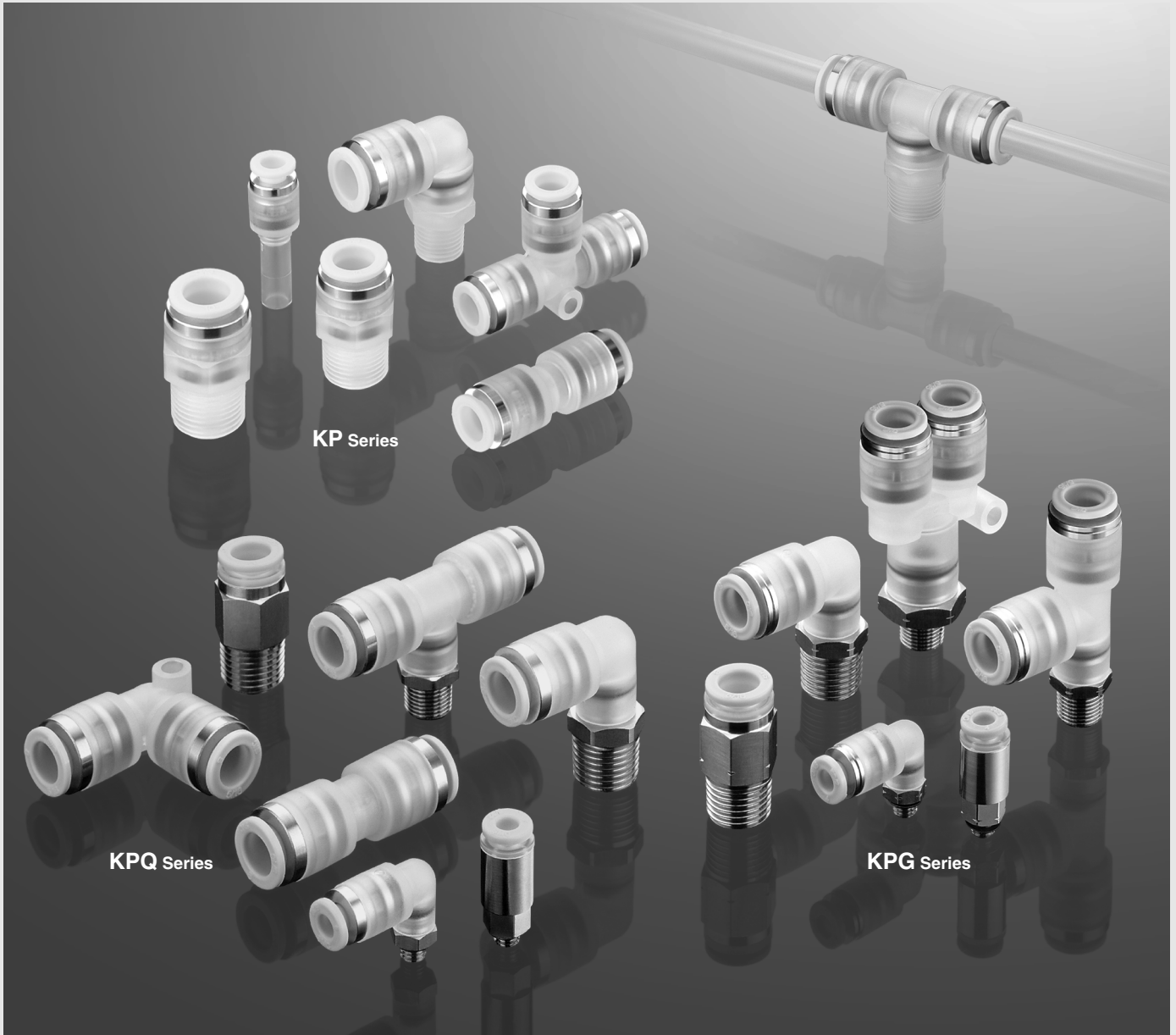
Body type: total of **27** models



This product (only the stainless steel metal parts type) is a secondary battery compatible product. For details, refer to the [Web Catalog](#).

Clean One-touch Fittings

KP/KPQ/KPG Series



Stainless Steel 316 Fittings

KQG2 Series

RoHS

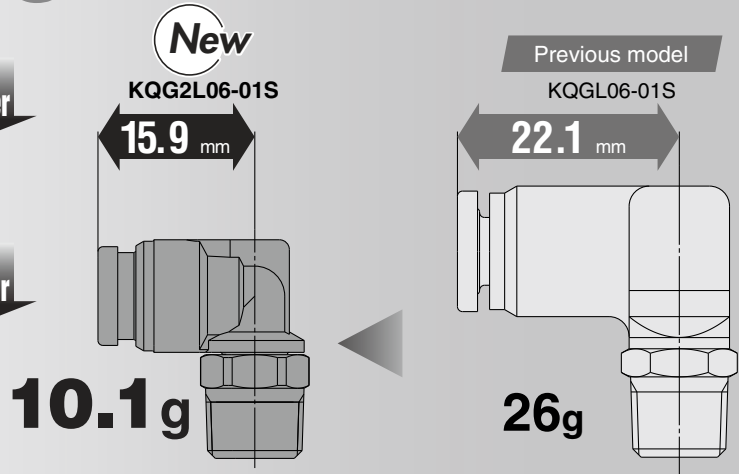
Compact and Light



Approx. **30%** **Shorter**
* KQG2L06-01S



Approx. **62%** **Lighter**
* KQG2L06-01S



Material

Stainless steel 316

Seal parts: Special FKM

Fluid temperature

-5 to 150°C

Applicable tubing

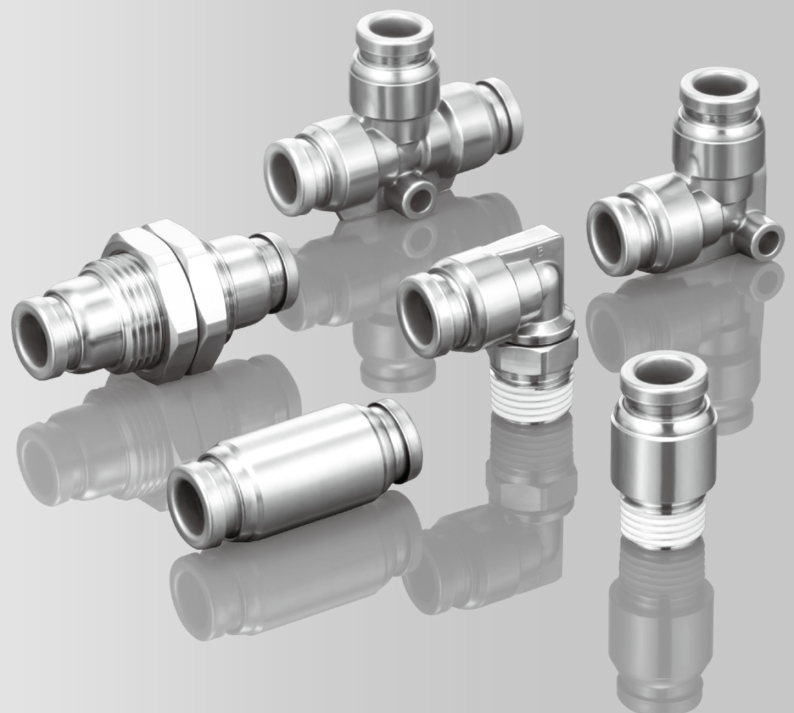
Metric size, Inch size

Connection thread

M, R, Rc, UNF, NPT

- Grease-free/Can be used with steam.
- Certified to meet current Food Sanitation Law standards.

(Component materials have met apparatuses and container-packages standards.)



Stainless Steel 316 Fittings

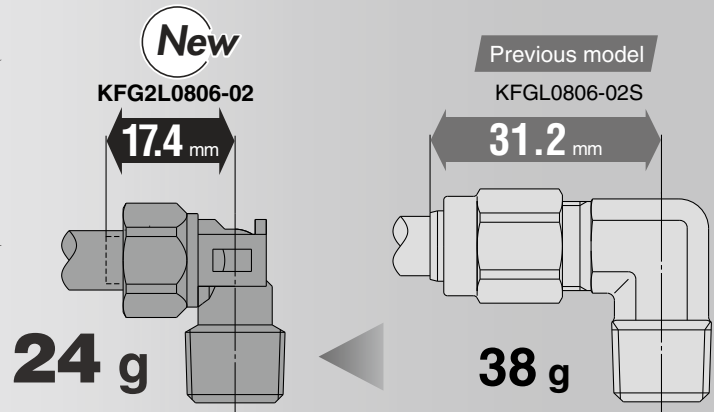
KFG2 Series

RoHS

Compact and Light

Dimensions **Approx. 44% Shorter**
* KFG2L0806-02

Weight **Approx. 37% Lighter**
* KFG2L0806-02



Material

Stainless steel 316

Rubber material is not used.
(Except swivel elbow)

- Grease-free/Can be used with steam.
- Certified to meet current Food Sanitation Law standards.
(Component materials have met apparatuses and container-packages standards.)

Fluid temperature

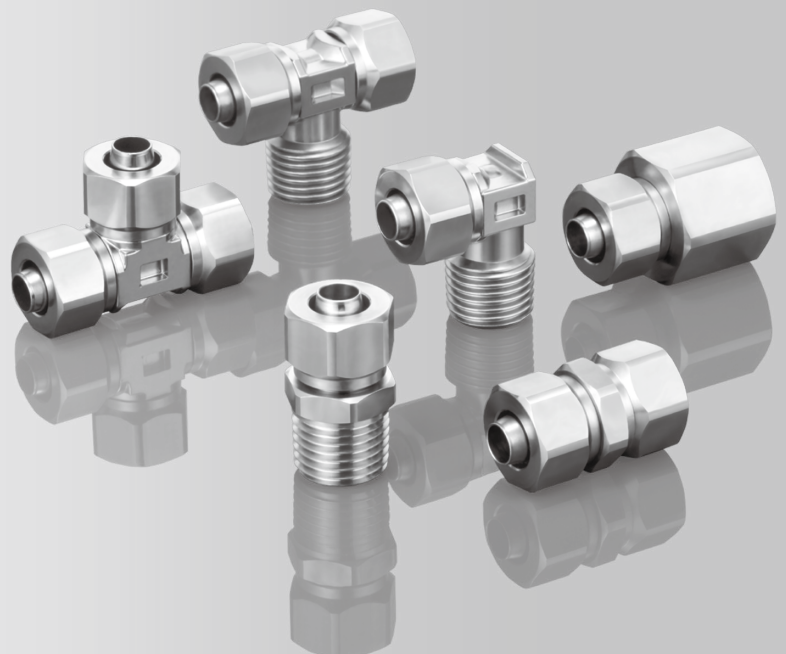
-65 to 260°C
(Swivel elbow: -5 to 150°C)

Applicable tubing

Metric size, Inch size

Connection thread

R, Rc, NPT



Miniature Fittings Stainless Steel 316

MS Series

Applicable Tubes: $\varnothing 3.2$, $\varnothing 4$, $\varnothing 6$ Connection Thread: M5, R 1/8

RoHS

This product (standard product) is a secondary battery compatible product. For details, refer to the [Web Catalog](#).

For use in corrosive environments
Stainless steel 316

Compact piping space

Tube has a large retaining force. Hose nipple assures easy installation and removal.

Line up various types

Possible for special tubing in the same direction. Accepts many types of plastic tubing

Hose nipple and hose elbow

Accepts nylon, soft nylon, and polyurethane tubing.



Made to Order
(Refer to the [Web Catalog](#) for details.)

Hose nipple

Barb

Configuration for easy insertion into the tube
Holds the tube tightly.

Body

Stainless steel 316

Gasket

Low tightening torque
Tight seal

Tube

Possible for combination use of nylon tubing and polyurethane tubing.

Cap nut

Certainly hold the tube by manual clamping
Easy removal of tube by loosening
Stainless steel 316

Barb fitting

Barb

Configuration for easy insertion into the tube
Holds the tube tightly.

Body

Stainless steel 316

Tube

Gasket

Low tightening torque
Tight seal

Specifications

Applicable tubing material	Nylon	Soft nylon	Polyurethane	PFA (1)	FEP (2)	Modified PTFE (3)	Wear resistant polyurethane (4)
Applicable tubing O.D./I.D.	$\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 3.18/\varnothing 2.18$ $\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 3.18/\varnothing 2$ $\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$	$\varnothing 4/\varnothing 2.5$ $\varnothing 6/\varnothing 4$
Fluid	Air, N ₂ , Water (5, 6, 7)						
Maximum operating pressure (at 20°C)	1.5 MPa	1 MPa	0.8 MPa	1 MPa	1.5 MPa	1.4 MPa	0.8 MPa
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)						
Connection size	M5, R1/8			M5			
Thread	JIS B0205 (Metric fine thread) JIS B0203 (Taper thread for piping)			JIS B0205, Class 2 (Metric fine thread)			

Note 1), Note 2), Note 3), Note 4) Applicable only for hose nipple type.

Note 5) Barb fitting, barb elbow and barb tee are not compatible with water.

Note 6) Deionized water is not recommended for use as it may affect the material used in the fittings.

In addition, it is known to degrade the water quality.

Note 7) As the universal nipple comes with grease, it cannot be used when N₂ is used as clean, dry air.

Principal Parts Material

Material	Body	Gasket
	Stainless steel 316	PVC, Nylon 66, GF30%

Rectangular Multi-connector

25A-KDM Series

No. of Connecting Tubes: 20



How to Order

25A - KDM 20 - 06

Series compatible with secondary batteries •

No. of connecting tubes •

• Tubing O.D.

Metric size

Symbol	Size	Color of release button
23	ø3.2	Blue
04	ø4	
06	ø6	

Inch size

Symbol	Size	Color of release button
01	ø1/8"	Red
03	ø5/32"	
07	ø1/4"	

Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
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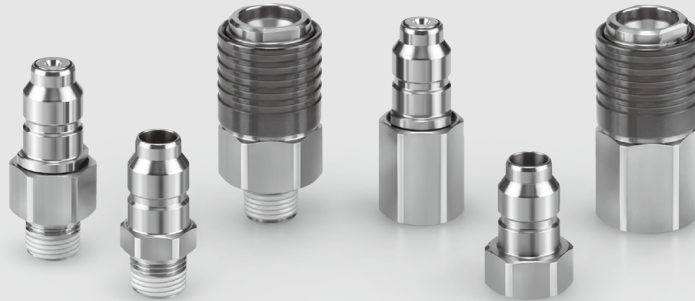
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).

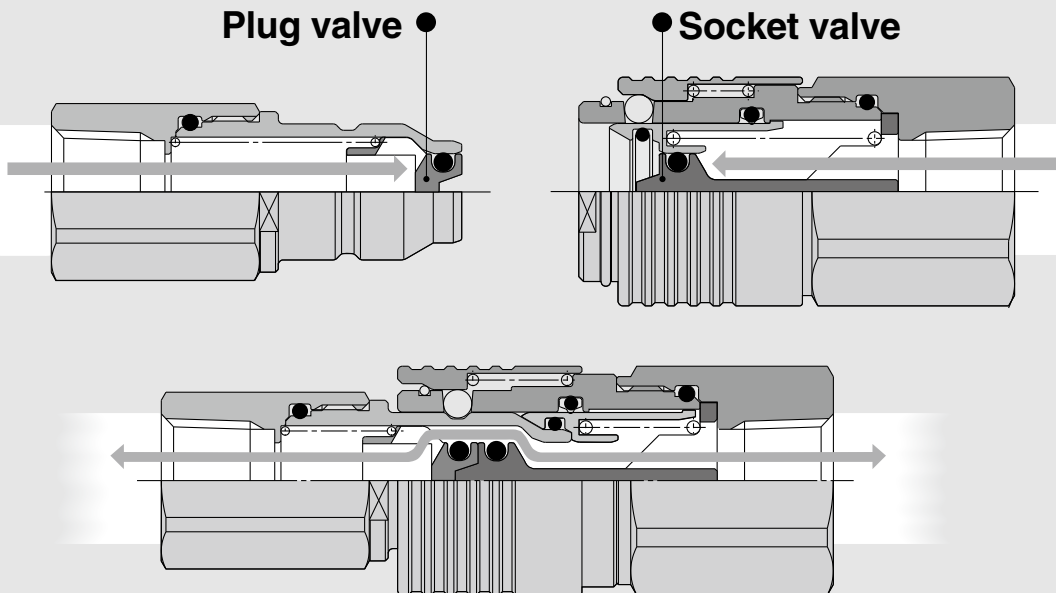
S Couplers Stainless steel type

KKA Series

RoHS



- **Body material: Stainless steel 304**
Seal material: Fluororubber (Special FKM)
- **Both plug and socket have an integral check valve.**
Available with and without check valves depending on the operating conditions.
- **Reduces liquid dripping when the plug and socket are uncoupled.**
Liquid dripping: 0.02 to 0.77 cm³ at each removal
Aeration: 0.1 to 2.7 cm³ at each removal



- **Non-greased specification (standard)**
Allows smooth installation and removal even without grease
 - O-ring: Fluorine coated
 - Sliding parts of plug and socket: Fluorine coated is used.
- **Fluid: Water, Air**
- **Operating temperature range: -5 to 150°C**

Note) This product should not be used with steam.