

Speed controller, elbow with push-in fitting

SC3W Series

● Port size: M3, M5, R1/8 to R1/2

JIS symbol



Specifications

Item	SC3W																														
	SC3W-M3		SC3W-M5			SC3W-6			SC3W-8			SC3W-10			SC3W-15																
Compatible tube O.D. mm	ø3.2	ø4	ø3.2	ø4	ø6	ø4	ø6	ø8	ø6	ø8	ø10	ø6	ø8	ø10	ø12	ø10	ø12														
Working fluid	Compressed air																														
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)																														
Min. working pressure MPa	0.05 (≈7.3 psi, 0.5 bar)																														
Proof pressure MPa	1.5 (≈220 psi, 15 bar)																														
Fluid temperature °C	5 (41°F) to 60 (140°F) (no freezing. *3)																														
Ambient temperature °C	0 (32°F) to 60 (140°F) (no freezing)																														
Port size	M3		M5			R1/8			R1/4			R3/8			R1/2																
Weight g	4.9	5.7	7.9	8.8	9.6	25	26	27	50	51	54	63.7	75	78	81	134	138														
Dial value (needle position) (times)	10 (14) or more		10 (16) or more			10 (15) or more			13 or more			13 or more			14 or more																
Free flow	Flow rate l/min(ANR)	27(20)		87(80)			210(210)			270(270)			270			470		500		530		650		1000		1100		1500		1600	
	Eff. X-sectional area mm ²	0.4(0.3)		1.3(1.2)			3.2(3.2)			4.0(4.0)			4.0			7		7.5		8		10		15		16		22		24	
Controlled flow	Flow rate l/min(ANR)	20(5.9)		80(6.7)			190(13)			240(13)			240			430		470		470		650		930		1000		1500		1600	
	Eff. X-sectional area mm ²	0.3(0.08)		1.2(0.1)			2.8(0.2)			3.6(0.2)			3.6			6.5		7		7.0		10		14		15		22		24	

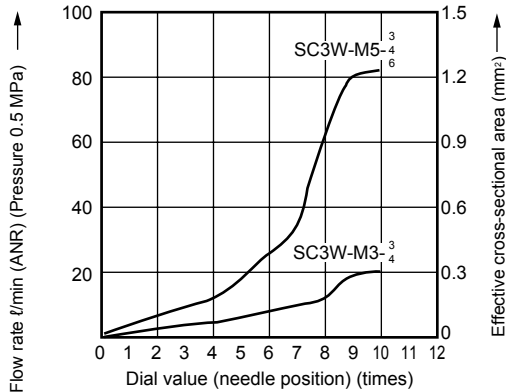
*1: Flow rate is the atmospheric pressure conversion value at pressure 0.5 MPa.

*2: Values in () indicate low speed.

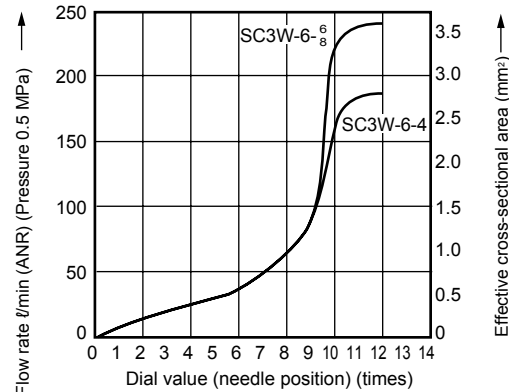
*3: Freezing may occur due to adiabatic expansion depending on the air quality (dew point).

Flow characteristics

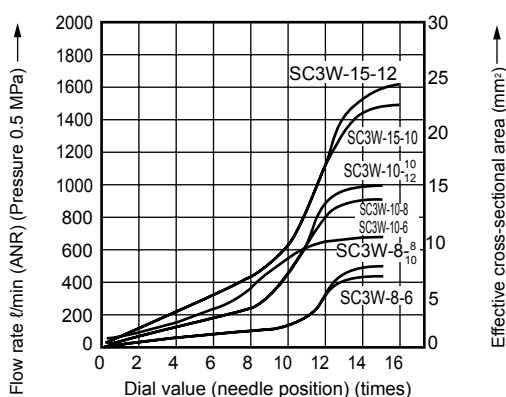
● Standard (port size M3, M5)



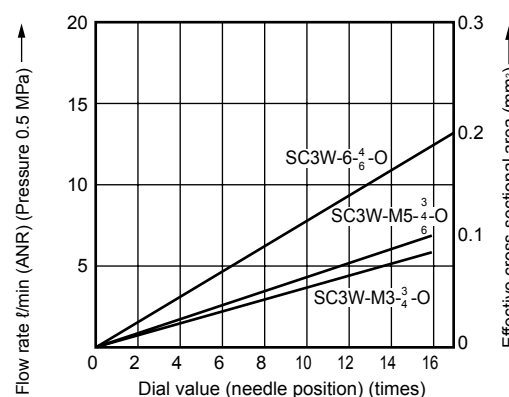
● Standard (port size 6)



● Standard (port size 8, 10, 15)



● Low speed



How to order



Model No.

A Port size

B Compatible tube O.D.

C Option *1
*2
*3

Code	Description
A Port size	
M3	M3×0.5
M5	M5×0.8
6	R1/8
8	R1/4
10	R3/8
15	R1/2
B Compatible tube O.D.	
	Piping size
	M3 M5 6 8 10 15
3	ø3.2 ● ●
4	ø4 ● ● ●
6	ø6 ● ● ● ●
8	ø8 ● ● ● ●
10	ø10 ● ● ● ● ●
12	ø12 ● ● ● ● ● ●
C Option	
Blank	Meter-out
I	Meter-in (Push ring color: black)
K	Hexagon lock nut
O	Low speed
P6	Copper and PTFE free specifications

Not available

⚠ Precautions for model No. selection

- *1: The options are listed in alphabetical order.
- *2: "K" can be selected for port sizes M3 and M5 only.
- *3: "O" can be selected for Compatible tube O.D. "4" (ø4), "6" (ø6) and port size M3, M5 and "6" (R1/8) only.

[Example of model No.]

SC3W-M5-4-I

- A** Port size : M5×0.8
- B** Compatible tube O.D.: ø4
- C** Option : meter-in

Ozone-proof specifications (Ending Page 9)

SC3W— — P11

Clean-room specifications (Catalog No. CB-033SA)

- Anti-dust generation structure for use in cleanrooms

SC3W— — P7*

Specifications for rechargeable battery (Catalog No. CC-1226A)

- Structure compatible with rechargeable battery manufacturing process

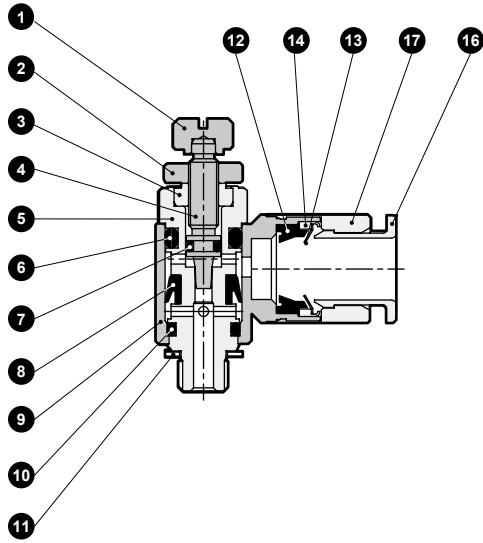
SC3W— — P4

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

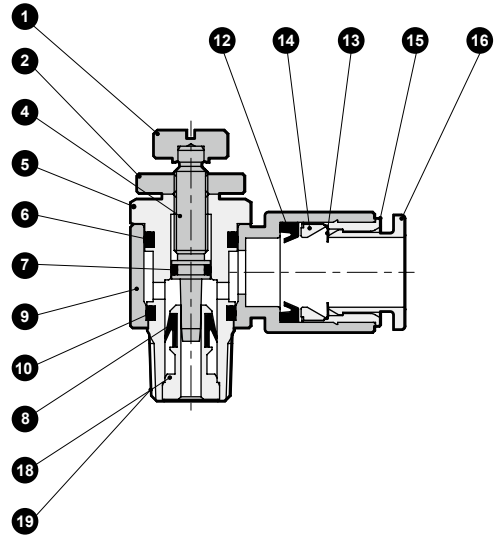
F.R.L. Internal structure and parts list

- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRISens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

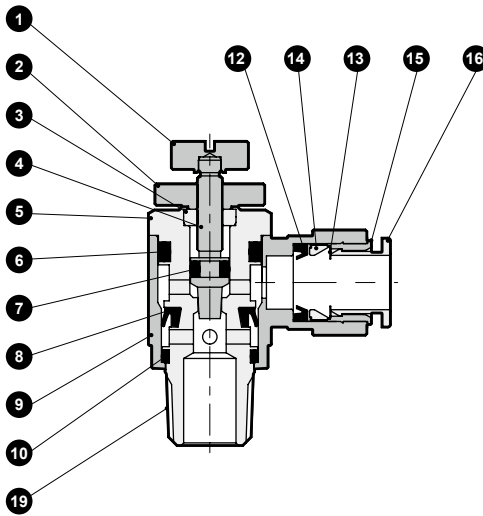
● Port size: M3, M5



● Port size: 6, 10 (ø6 only)



● Port size: 8, 10, 15



No.	Part name	Material	No.	Part name	Material
1	Knob	Copper alloy	11	Gasket	Steel + nitrile rubber (M5 only)
2	Lock nut	Copper alloy	12	Packing	Nitrile rubber
3	Gland nut	Copper alloy	13	Chuck	Stainless steel
4	Needle	Stainless steel	14	Chuck holder	M3,M5 Copper alloy R1/8 to Polyetherimide
5	Rotary shaft	Copper alloy (M3, stainless steel)	15	Outer ring	Copper alloy
6	O-ring	Nitrile rubber	16	Push ring	Polybutylene terephthalate (flame-resistant resin *2)
7	O-ring	Nitrile rubber	17	Fitting body	Copper alloy
8	Packing	Hydrogenated nitrile rubber	18	Check part	Copper alloy
9	Rotor	Polybutylene terephthalate (flame-resistant resin *2)	19	Sealant	Fluorinated resin
10	O-ring	Nitrile rubber			

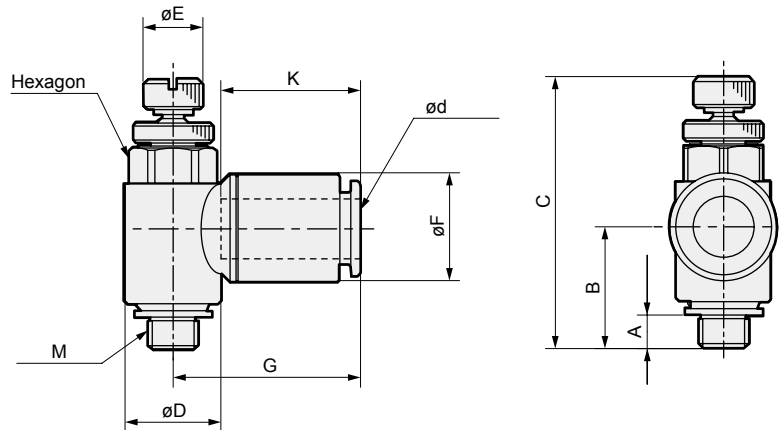
*1 All the copper alloy parts have electroless nickel plating.

*2 UL94 Standards V-0 equivalent

Dimensions

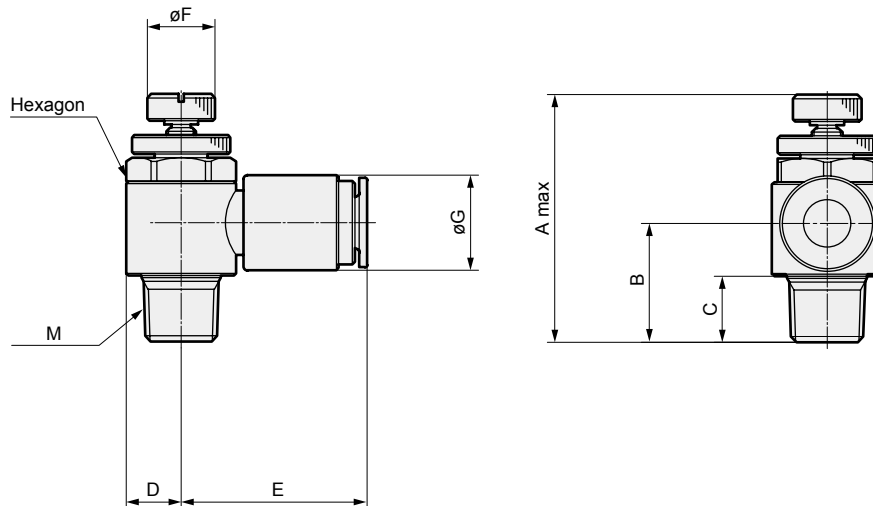


● SC3W-M₅³-*



Model No.	ød (Compatible tube O.D.)	M	A	B	C		D	E	F	G	K (tube insert length)	Hexagon
					MAX	MIN						
SC3W-M3-3	ø3.2	M3×0.5	2.4	11.4	27.6	25.1	7.4	5	7.5	15.5	11.7	7
SC3W-M3-4	ø4	M3×0.5	2.4	11.4	27.6	25.1	7.4	5	8.8	16.6	12.9	7
SC3W-M5-3	ø3.2	M5×0.8	3.4	12.4	30.6	27.2	9.6	6	7.5	16.0	11.7	8
SC3W-M5-4	ø4	M5×0.8	3.4	12.4	30.6	27.2	9.6	6	8.8	17.2	12.9	8
SC3W-M5-6	ø6	M5×0.8	3.4	12.4	30.6	27.2	9.6	6	10.8	18.8	14.0	8

● SC3W-₁₀⁶/₁₅⁸-* (same as low speed, standard (SC3W-6))



Model No.	M	Tube O.D.	A	B	C	D	E	F	G	Hexagon
SC3W-6-4	R1/8	ø4	38.4	16.2	8	7.3	23.1	9	10.0	13
SC3W-6-6		ø6	38.4	15.7	8	7.3	24.1	9	12.5	13
SC3W-6-8		ø8	38.4	15.4	8	7.3	25.3	9	14.5	13
SC3W-8-6	R1/4	ø6	51.2	25	11	9.5	27.2	12	13.8	17
SC3W-8-8		ø8	51.2	25	11	9.5	28.5	12	16.3	17
SC3W-8-10		ø10	51.2	24	11	9.5	32.0	12	19.3	17
SC3W-10-6	R3/8	ø6	52.4	23.1	12	11.3	28.3	14	12.5	19
SC3W-10-8		ø8	60.2	30.0	12	11.3	30.3	14	16.3	19
SC3W-10-10		ø10	60.2	30.0	12	11.3	33.8	14	19.3	19
SC3W-10-12		ø12	60.2	29.3	12	11.3	37.8	14	21.3	19
SC3W-15-10	R1/2	ø10	66.7	33.8	15	13.5	36.0	16	19.3	24
SC3W-15-12		ø12	66.7	33.8	15	13.5	40.0	16	21.3	24

- F.R.L.
- F.R.
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- R (Reg)
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- Dischrg etc
- Ending