

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending



Metering valve with silencer

SMW2 Series

● Port size: R1/8 to R1/4

JIS symbol



Features

- Compact, light weight, high flow
Volume reduced by 50%, and weight reduced by 80% compared with conventional series, while maximum effective sectional area in the class is achieved.
- Damping effect 23dB (A) and over
P.P. sintering element with high damping effect integrated into the body to maintain low noise level.
- Provided push lock type needle
Knob with push lock mechanism enables easy and secure locking.
- Environmental friendly design
Using plastic material only, sorting at disposing is eliminated.

Specifications

Descriptions	SMW2-6A	SMW2-8A
Working fluid	Compressed air	
Max. working pressure MPa	0.7	
Min. working pressure MPa	0	
Withstanding pressure MPa	1.05	
Fluid temperature °C	5 to 60	
Ambient temperature °C	-10 to 60 (no freezing)	
Ambient humidity %RH	85 or less	
Port size R	1/8	1/4
Product weight g	4.5	5
Applicable cylinder bore size mm	ø20 to ø50	ø32 to ø75
Number of needle turn	9	
Damping effect (Note 2) dB [A]	23 and over	28 and over
Flow (Note 1) ℓ/min. (ANR)	370	660
Effective sectional area mm ²	5.6	9.9

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

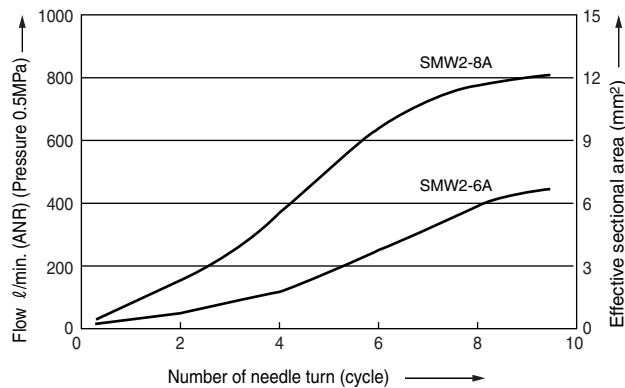
Note 2: Damping effect at maximum flow rate is shown.

How to order

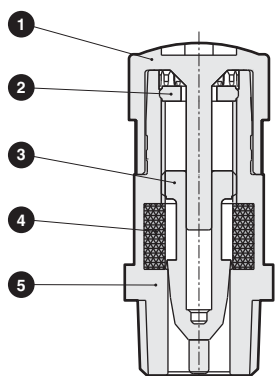
SMW2 - 6A

Symbol	Descriptions
A	Port size
6A	R1/8
8A	R1/4

Flow characteristics

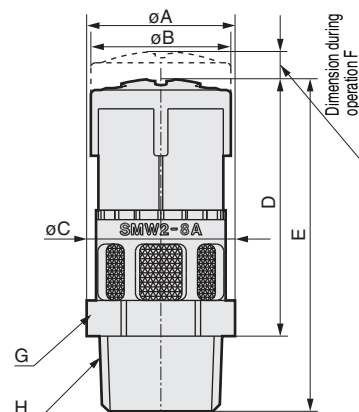


Internal structure and parts list



No.	Parts name	Material
1	Knob	PBT
2	Guide ring	Polyamide
3	Needle	Polyamide
4	Element	PP sintering resin
5	Body	Polyamide

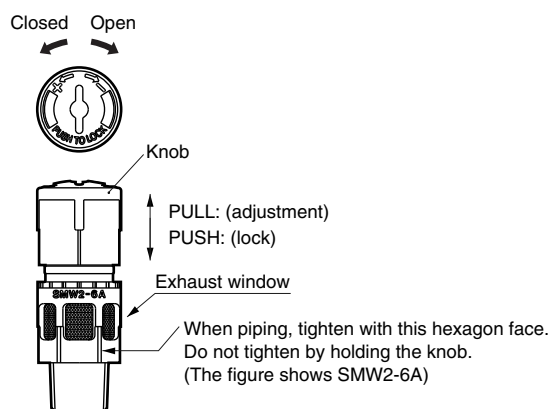
Dimensions



Symbol	A	B	C	D	E	F	G	H
Model no.							Opposite side of hexagon	Port size
SMW2-6A	13.5	14.9	13.8	27.4	35.4	2.9	12	R1/8
SMW2-8A	15.8	14.9	13.8	27.4	35.4	2.9	14	R1/4

How to use

- The needle lock is released when the knob is pulled, and is locked when pressed.
- Pull the knob and release the lock before adjusting the flow rate.
The knob opens when turned to the right and closes when turned to the left.
- Return the knob to the closed state, and gradually open it to adjust speed.
- After adjusting speed, press the knob and confirm that the needle is locked.



⚠ Safety Precautions

■ Design & Selection

- This product cannot be used as a stop valve with zero leakage.
Due to structure, a few leakage could occur.
- Depending on air quality (dew point), the exhaust port could freeze due to adiabatic expansion.

■ Installation & Adjustment

- The needle is designed to open and close by turning lightly with the fingers.
Turning the needle too far when fully opened or closed could damage internal parts.
- Return the knob to the closed state, and gradually open it to adjust speed. If the needle is opened, the actuator could pop out suddenly and pose a hazard, open the needle after confirming that it is fully closed.

- The tightening torque for the pipe thread is shown in Table 1.
Screws loosen easily under high temperatures, so when the ambient temperature is 40°C and over, mount with the upper torque limit (1.0N·m).

Model no.	Tightening torque (N·m)
SMW2-6A	0.5 to 1.0
SMW2-8A	0.5 to 1.0

Table 1. Recommended tightening torque

- When piping, use a tool and tighten with the hexagon face below the exhaust window.
Do not tighten or remove pipes with the knob. Internal damage could result.
- Sealant is not applied on threads. If use in this state, screws do not loose but some leakage could result. When using in middle speed range, wrap sealing tape around the joint.

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