

Inline filter FSL Series

● Port size: $\phi 4$ to $\phi 10$



Features

- Compact/lightweight/space saving inline
Uses a lightweight, compact resin body
- Diverse range of model variations
Select the flow rate from 100, 200 or 500, and the port size from $\phi 4$, $\phi 6$, $\phi 8$ or $\phi 10$.
- Use either positive or negative pressure
Positive pressure can also be used in the same way as a conventional vacuum inline filter
- Easy maintenance
Replacing the element is easy as the main body can be removed and attached without tools.

Specifications

Model No.	FSL100		FSL200		FSL500		
Descriptions							
Port size mm	$\phi 4$	$\phi 6$	$\phi 4$	$\phi 6$	$\phi 6$	$\phi 8$	$\phi 10$
Working fluid	Air						
Operating ambient temperature °C	0 to 50 (no freezing)						
Max. working pressure MPa	0.8 (*1)						
Vacuum working pressure kPa	-100						
Proof pressure MPa	1.2						
Nominal filtration rating μm	10 (Collection efficiency 95%)						
Filtration area cm^2	4.7		7.5		12.7		
Recommended processing flow rate (*2) $\ell/\text{min(ANR)}$	10		15	20	25	50	60
Weight g	8	8.5	21	22	35	34	39

*1: The max. working pressure is the value at 20°C.

When using in other temperature ranges, refer to the "Relation of working temperature and max. working pressure" on page 584.

*2: Initial flow rate at initial pressure loss 3 kPa or less under negative pressure. When using with positive pressure, refer to the "Flow characteristics" on page 583.

How to order

● Inline filter

FSL **500** - **1010** - **B**

A Series

B Vacuum side port size -
Pad side port size

C Attachment options

Code	Content
A Series	
100	FSL100 Series
200	FSL 200 Series
500	FSL 500 Series
B Vacuum side port size - Pad side port size	
44	Push-in fitting $\phi 4$ - Push-in fitting $\phi 4$
66	Push-in fitting $\phi 6$ - Push-in fitting $\phi 6$
88	Push-in fitting $\phi 8$ - Push-in fitting $\phi 8$
1010	Push-in fitting $\phi 10$ - Push-in fitting $\phi 10$
C Attachment options	
Blank	None
B	Bracket

◆ Series - port size combination table

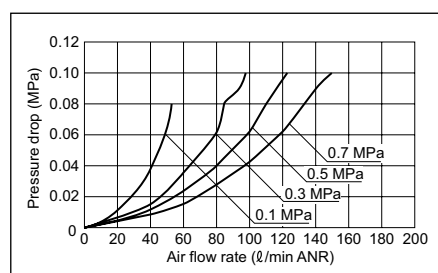
Port size	44	66	88	1010
Model No.				
FSL100	●	●		
FSL200	●	●		
FSL500		●	●	●

is not available.

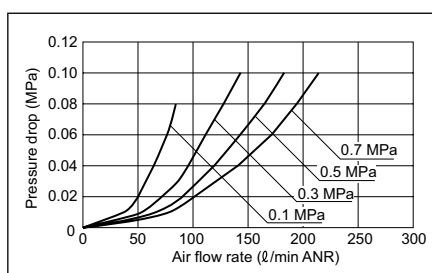
Flow characteristics

*The flow characteristics graph gives reference values, and does not guarantee the values.

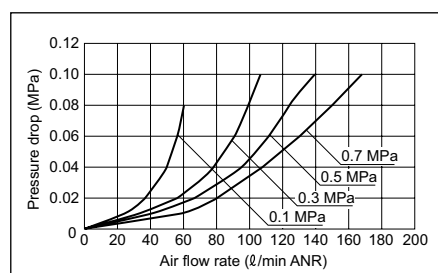
● FSL100-44



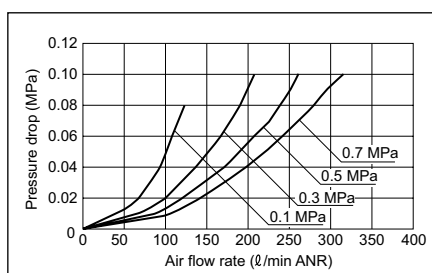
● FSL100-66



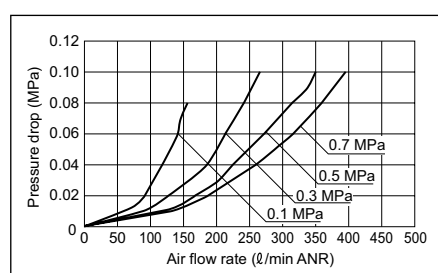
● FSL200-44



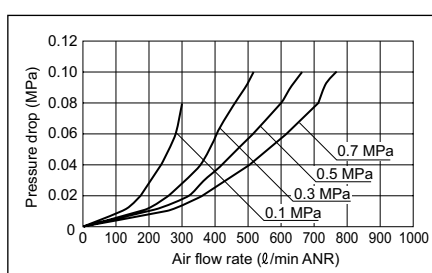
● FSL200-66



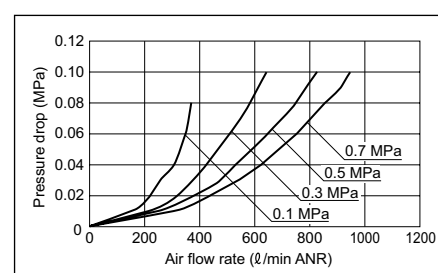
● FSL500-66



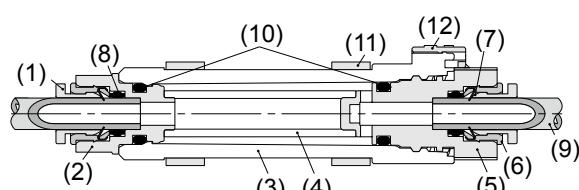
● FSL500-88



● FSL500-1010



Internal structure and parts list



No.	Part name	Material
(1)	Release ring	Acetal resin
(2)	Resin body A	Polybutylene terephthalate resin
(3)	Cover	Polyester resin
(4)	Filter element	Polyvinyl formal resin
(5)	Resin body B	Polybutylene terephthalate
(6)	Guide ring	Copper alloy, electroless nickeling
(7)	Lock claw	Stainless steel
(8)	Elastic sleeve	Nitrile rubber
(9)	Tube	-
(10)	O-ring	Nitrile rubber
(11)	Bracket	Acetal resin
(12)	Slide lock	Acetal resin

● Maintenance parts

· Filter element (No. (4))

Filter element model No.	Compatible model No.	Element size
VSFU-1L-E	FSL100	φ6 × φ4 × L25
FSL200-E	FSL200	φ11 × φ7 × L22
FSL500-E	FSL500	φ15 × φ11 × L27

· Bracket (No. (11))

Bracket model No.	Compatible model No.
FSL100-B	FSL100
VSFU-2-B	FSL200
VSFU-3-B	FSL500

Vacuum-related products

VSECV

VSRVV

VSLF

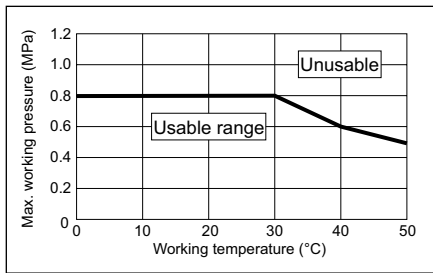
VSFB/VSFU
VSFJ

FSL

VSUS

VST

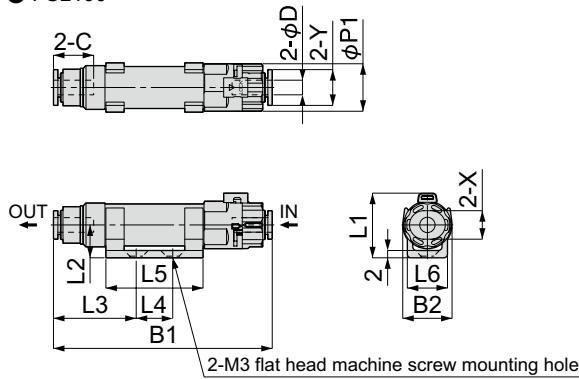
Relation of working temperature and max. working pressure



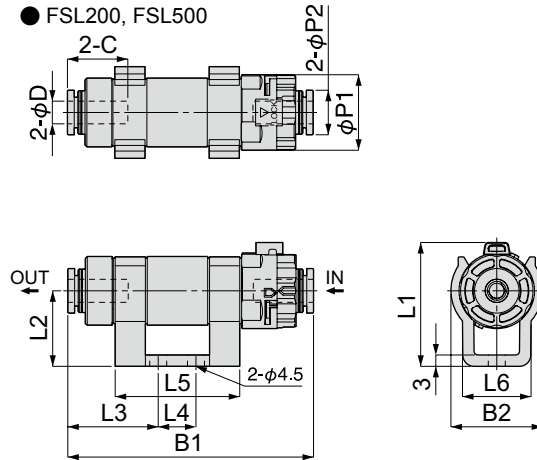
Dimensions

* The following dimensions show the state with the attached optional bracket mounted.

● FSL100



● FSL200, FSL500



Unit: mm

Type	Tube O.D. φD	C	B1	B2	L1	L2	L3	L4	L5	L6	φP1	φP2	X	Y
FSL100-44-□	4	11.3	60.7	13.5	18	9	23	10	26.6	11	13	-	7.8	9.8
FSL100-66-□	6	11.8	64.8	13.5	18	9	25.3	10	26.6	11	13	-	9.8	11.8
FSL200-44-□	4	14.9	61.1	24.3	33	20	20.3	10	33	18.2	20	9.9	-	-
FSL200-66-□	6	16	65.5	24.3	33	20	24.2	10	33	18.2	20	11.8	-	-
FSL500-66-□	6	17	72	28.3	39.6	24	19.6	14	39.5	20.2	25	11.8	-	-
FSL500-88-□	8	18.1	71.2	28.3	39.6	24	20.9	14	39.5	20.2	25	13.8	-	-
FSL500-1010-□	10	19.2	77.4	28.3	39.6	24	26.8	14	39.5	20.2	25	16.8	-	-

Usage methods

1. Replacing the filter element

- (1) Release the filter's inner pressure to the atmosphere.
- (2) Release the red slide lock. (In opposite direction from LOCK arrow)
- (3) Turn the fitting body 180° counterclockwise.
- (4) Remove the turned fitting body from the filter cover, and replace the filter element.
- (5) If necessary, remove the dust accumulated in the filter cover using air blow, etc.
- (6) Mount the element into the filter element fitting, insert into the main body, and turn the fitting body clockwise until it stops.
- (7) In the tightened state, confirm that the lock position arrow on the fitting body and the lock position arrow on the filter cover are aligned, and then lift the slide lock up (toward the LOCK arrow). Confirm that it is properly locked.

