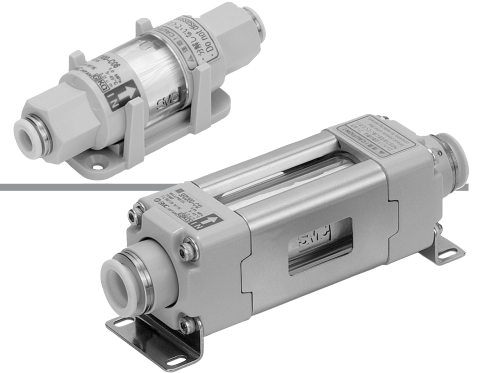


# Clean Air Filter Series SFD



## How to Order

SFD 1 0 0 C08 □

Clean air filter

Size

Symbol	Max. flow rate
1	100 ℓ/min (ANR)
2	500 ℓ/min (ANR)

Case material

Symbol	Material
0	Resin
1	Aluminum
2	Stainless steel

Symbol 1 and 2 are made to order.  
For details, refer to page 5.

Option

Symbol	Option
Nil	None
B	Bracket (SFD100 only)

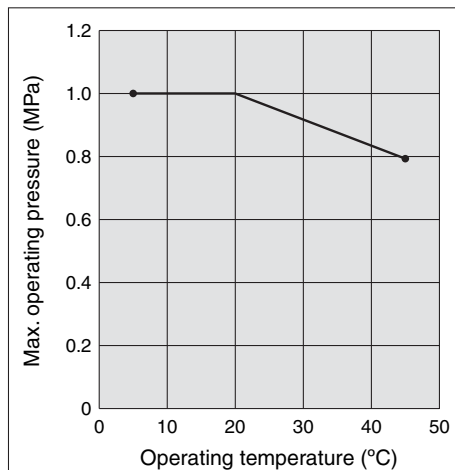
\* The brackets are provided with the SFD200 series as a standard product. (Nil)

Port size

Symbol	Connection size	Note
C04	ø4	Clean one-touch fitting (KP series)
C06	ø6	
C08	ø8	
C10	ø10	
C12	ø12	SFD200 only
02	Rc 1/4	Female thread SFD100/200
N02	NPT 1/4	
F02	G 1/4	

Different diameters for IN and OUT ports are made to order.  
For details, refer to page 6.

## Relationship between Operating Temperature and Max. Operating Pressure



## Specifications

Model	SFD10□	SFD20□
Port size	One-touch fitting ø4, ø6, ø8 Rc, NPT, G 1/4	One-touch fitting ø8, ø10, ø12 Rc, NPT, G 1/4
Fluid	Air (Nitrogen)	Air (Nitrogen)
Air flow capacity	Up to 100 ℓ/min (ANR)	Up to 500 ℓ/min (ANR)
Nominal filtration rating <sup>Note 1)</sup>	0.01 μm (99.99%)	
Max. operating pressure <sup>Note 2)</sup>	1.0 MPa (in case of nitrogen: 0.99 MPa)	
Operating temperature	5 to 45°C	
Initial pressure drop	0.03 MPa (at inlet pressure 0.7 MPa, maximum flow)	
Element proof differential pressure <sup>Note 3)</sup>	0.5 MPa	
Proof pressure	1.5 MPa	
Element service life	1 year, or when the pressure drop reaches 0.1 MPa.	

Note 1) Measured under SMC's specified conditions

Note 2) The maximum operating pressure is at 20°C. For other temperatures, refer to the figure on the left (relationship between the operating temperature and maximum operating pressure).

Note 3) This means that the element does not break at 0.5 MPa. See "Specific Product Precautions"

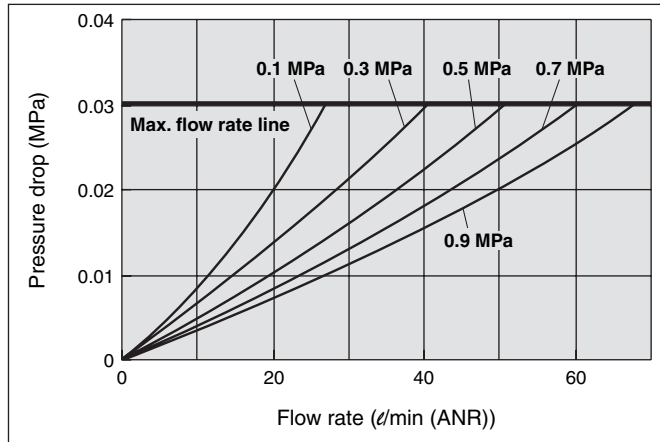
Model	Port size	Rated flow (ℓ/min (ANR)) <sup>Note)</sup>	Weight
SFD100	ø4 (One-touch fitting)	60	35 g
	ø6 (One-touch fitting)	80	35 g
	ø8 (One-touch fitting)	100	35 g
	Rc, NPT, G 1/4	100	35 g
SFD101	Rc, NPT, G 1/4	100	60 g
SFD102	Rc, NPT, G 1/4	100	150 g
SFD200	ø8 (One-touch fitting)	300	190 g
	ø10 (One-touch fitting)	400	190 g
	ø12 (One-touch fitting)	500	190 g
	Rc, NPT, G 1/4	500	260 g

Note) The maximum flow rate when the inlet pressure is 0.7 MPa

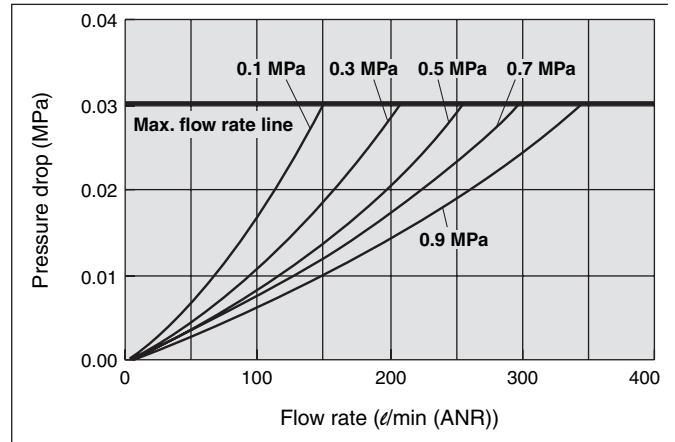
# Series SFD

## Flow Characteristics

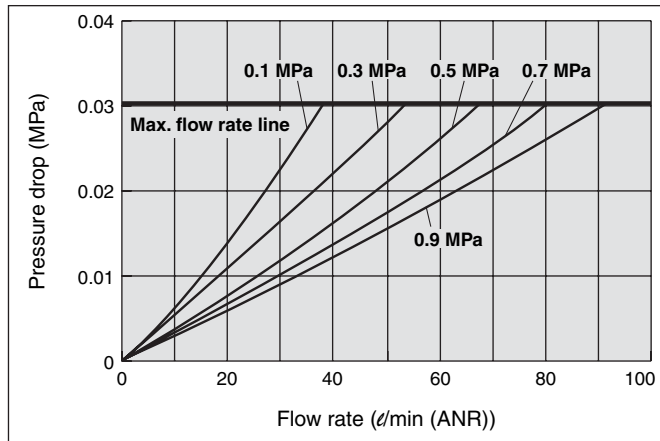
### SFD100-C04



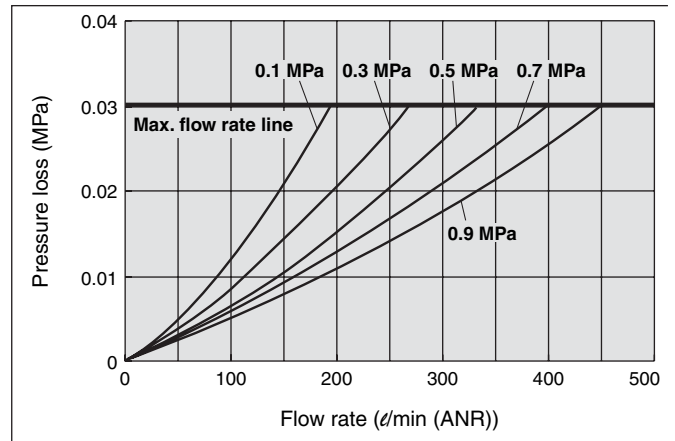
### SFD200-C08



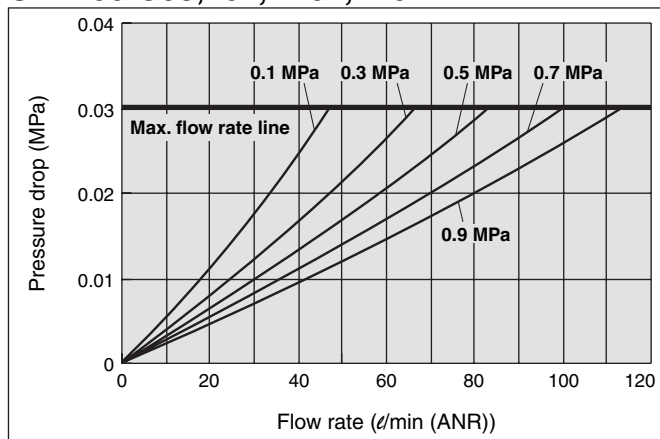
### SFD100-C06



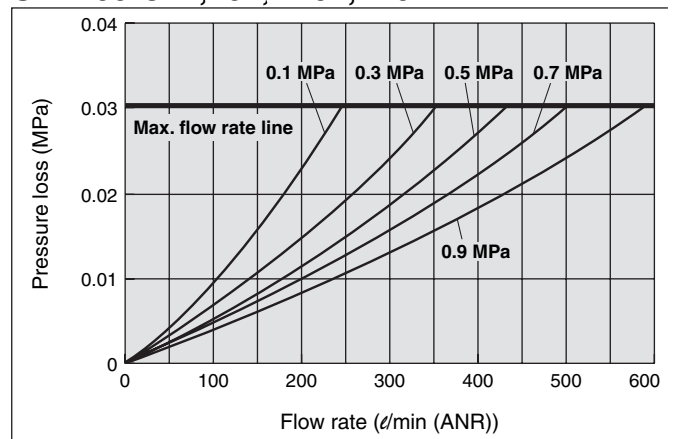
### SFD200-C10



### SFD100-C08, -02, -N02, -F02

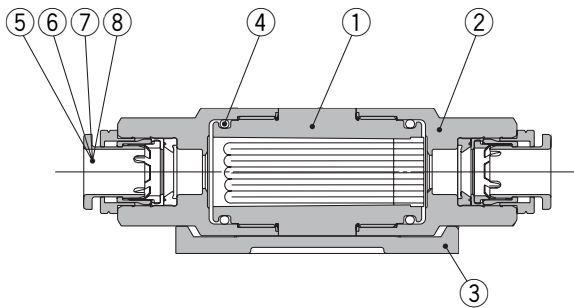


### SFD200-C12, -02, -N02, -F02

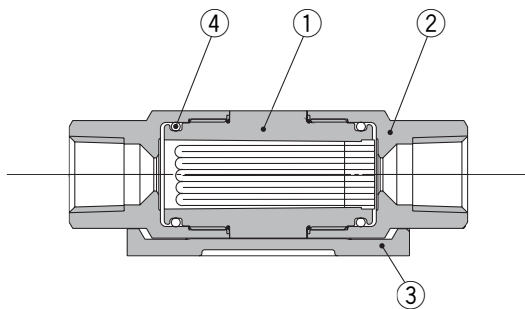


**Construction**

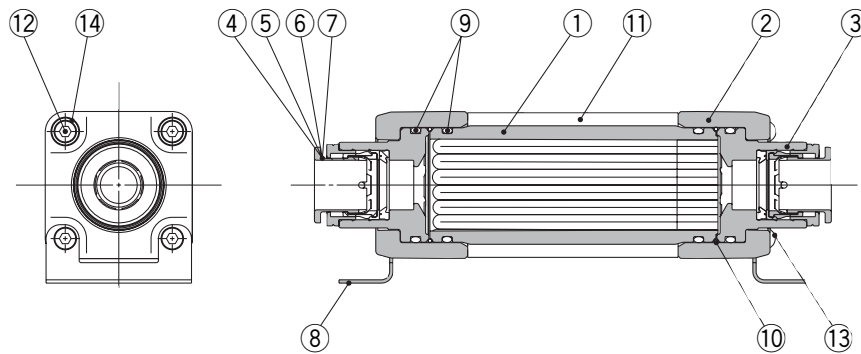
**SFD100-C□**



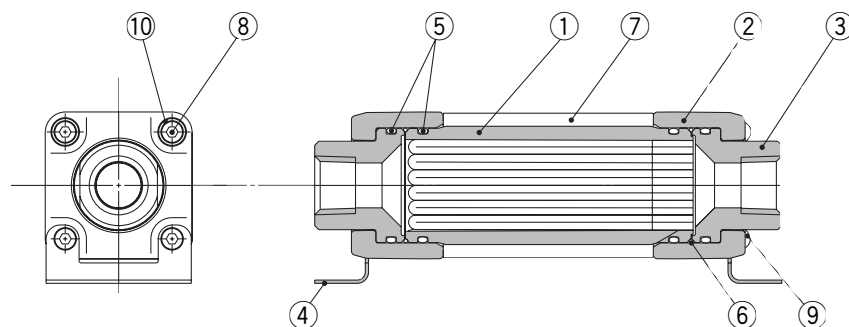
**SFD100-□02**



**SFD200-C□**



**SFD200-□02**



**Component Parts**

No.	Description	Material	Note
	<b>Element</b>	Case: Clear resin	
2	<b>Cover</b>	Resin	
3	<b>Bracket</b>	Resin	
4	<b>O-ring</b>	Rubber	
5	<b>Seal</b>	Rubber	
6	<b>Cushion</b>	Rubber	
7	<b>Stopper</b>	Stainless steel alloy	
8	<b>Cassette</b>	Stainless steel alloy	

**Replacement Parts**

No.	Description	Part no.	Note
	<b>Bracket set</b>	SFD-BR100	With 2 countersunk head screws (M3)

**Component Parts**

No.	Description	Material	Note
	<b>Element</b>	Case: Clear resin	
2	<b>Cover</b>	Resin	
3	<b>Bracket</b>	Resin	
4	<b>O-ring</b>	Rubber	

**Replacement Parts**

No.	Description	Part no.	Note
	<b>Bracket set</b>	SFD-BR100	With 2 countersunk head screws (M3)

**Component Parts**

No.	Description	Material	Note
	<b>Element</b>	Case: Clear resin	
2	<b>Cover</b>	Aluminum alloy	
3	<b>Fitting body</b>	Resin	
4	<b>Seal</b>	Rubber	
5	<b>Cushion</b>	Rubber	
6	<b>Stopper</b>	Stainless steel alloy	
7	<b>Cassette</b>	Stainless steel alloy	
8	<b>Bracket</b>	Stainless steel alloy	
9	<b>O-ring A</b>	Rubber	
10	<b>O-ring B</b>	Rubber	
	<b>Rod cover</b>	Stainless steel alloy	
12	<b>Tie-rod</b>	Stainless steel alloy	
13	<b>Cap nut</b>	General type steel	Nicke platec
14	<b>Plain washer</b>	General type steel	Nicke platec

**Replacement Parts**

No.	Description	Part no.	Note
	<b>Element set</b>	SFD-EL200	With 2 O-rings

**Component Parts**

No.	Description	Material	Note
	<b>Element</b>	Case: Clear resin	
2	<b>Cover</b>	Aluminum alloy	
3	<b>Fitting body</b>	Stainless steel alloy	
4	<b>Bracket</b>	Stainless steel alloy	
5	<b>O-ring A</b>	Rubber	
6	<b>O-ring B</b>	Rubber	
7	<b>Rod cover</b>	Stainless steel alloy	
8	<b>Tie-rod</b>	Stainless steel alloy	
9	<b>Cap nut</b>	General type steel	Nicke platec
10	<b>Plain washer</b>	General type steel	Nicke platec

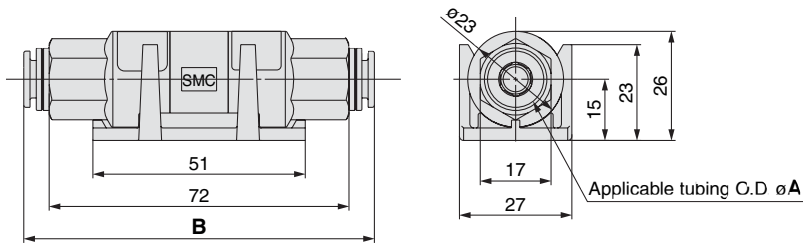
**Replacement Parts**

No.	Description	Part no.	Note
1	<b>Element set</b>	SFD-EL200	With 2 O-rings

# Series SFD

## Dimensions

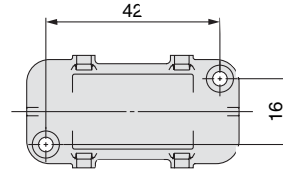
### SFD100-C□



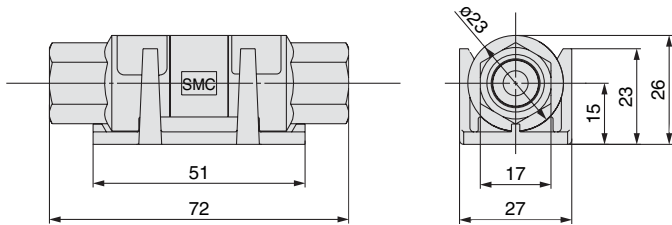
### SFD100-C□ Dimensions

Model	A	B	
SFD100-	C04	4	83
	C06	6	83
	C08	8	84

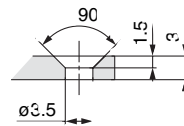
### Bracket mounting dimensions



### SFD100-□02

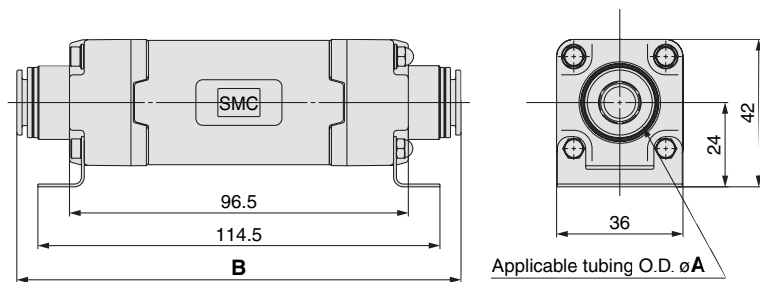


### Hole shape for bracket mounting



\* Use a countersunk head screw (M3) for bracket mounting.

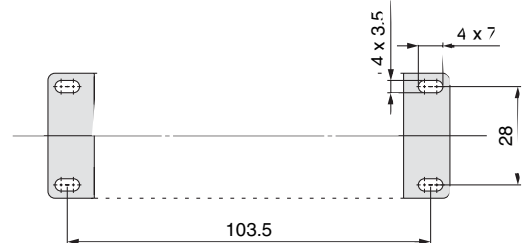
### SFD200-C□



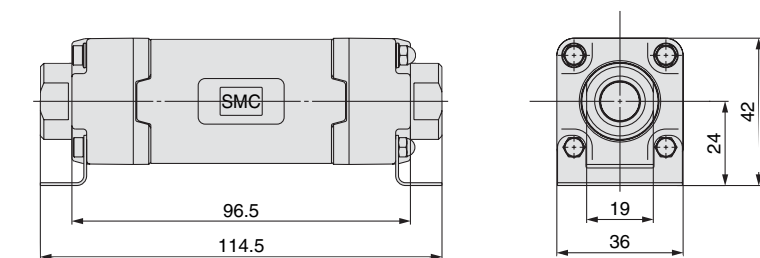
### SFD200-C□ Dimensions

Model	A	B	
SFD200-	C08	8	127
	C10	10	128
	C12	12	128

### Bracket mounting dimensions



### SFD200-□02



# Series SFD Made to Order 1

Contact us for detailed specifications, delivery and prices



## 1 Metal Case

**SFD 1 0 1 - 02**

Clean air filter

Size

Symbol	Max. flow rate
1	100 l/min (ANR)

\* The SFD2 is not applicable.

Case material

Symbol	Material
1	Aluminum
2	Stainless steel

Port size

Symbol	Connection size
02	Rc 1/4
N02	NPT 1/4
F02	G 1/4

\* The metal case is not available with a clean one-touch fitting.  
\* The bracket is provided as a standard product.

Meta case suitable for an atmosphere exposed to organic solvents and chemicals



### Specifications

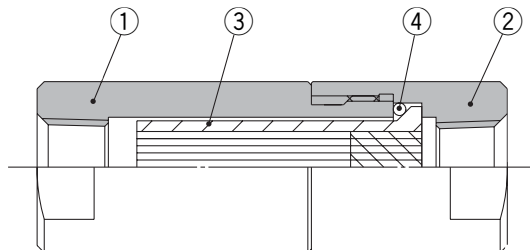
The specifications are the same as the standard product. Refer to "Specifications" on page 1.

### Flow Characteristics

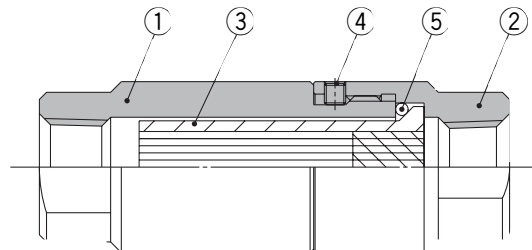
The flow characteristics are the same as the SFD100-02. Refer to "Flow Characteristics" on page 2.

## Construction

### SFD101-02



### SFD102-02



### Component Parts

No.	Description	Material	Note
1	Case	Aluminum alloy	
2	Cover	Aluminum alloy	
3	Element	Case: Clear resin	
4	O-ring	Rubber	

### Component Parts

No.	Description	Material	Note
1	Case	Stainless steel alloy	
2	Cover	Stainless steel alloy	
3	Element	Case: Clear resin	
4	Hex. socket head set screw	Stainless steel alloy	
5	O-ring	Rubber	

### Replacement Parts

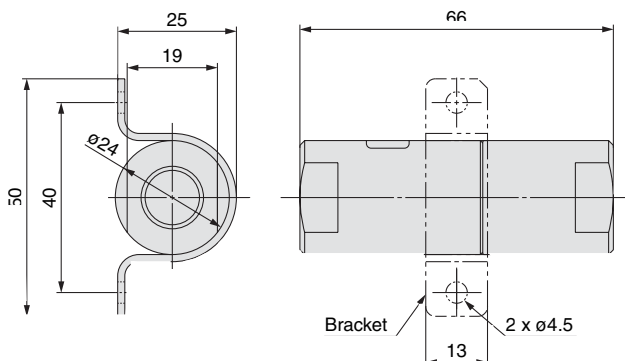
No.	Description	Part no.	Note
1	Element set	SFD-EL101	With O-ring
2	Bracket	SFD-BR101	

### Replacement Parts

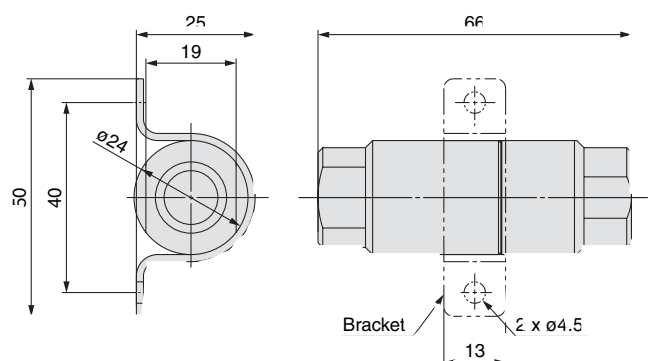
No.	Description	Part no.	Note
1	Element set	SFD-EL101	With O-ring
2	Bracket	SFD-BR101	

## Dimensions

### SFD101-02



### SFD 102-02

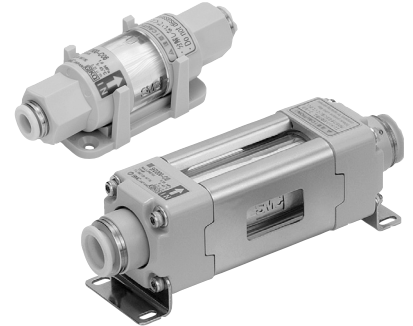
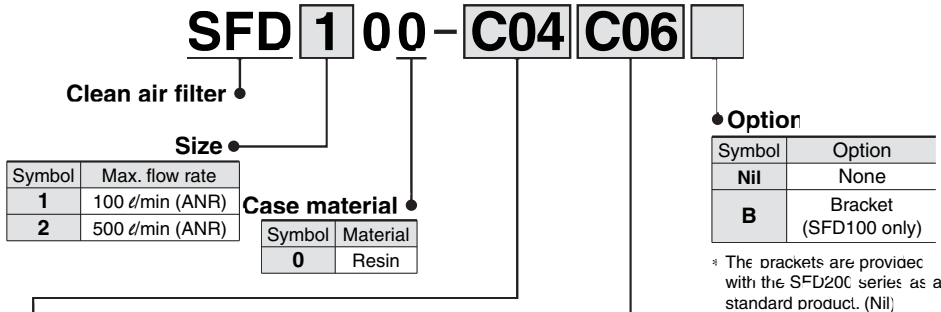


# Series SFD Made to Order 2

Contact us for detailed specifications, delivery and prices



## 2 Different Diameters for IN and OUT Ports



### IN side connection symbol

IN side connection symbol	Connection size	Clean one-touch fitting (KP series)
C04	ø4	
C06	ø6	
C08	ø8	
C10	ø10	
C12	ø12	
O2	Rc 1/4	
N02	NPT 1/4	
F02	G 1/4	

### OUT side connection symbol

OUT side connection symbol	Connection size	Clean one-touch fitting (KP series)
C04	ø4	
C06	ø6	
C08	ø8	
C10	ø10	
C12	ø12	
O2	Rc 1/4	
N02	NPT 1/4	
F02	G 1/4	

\* IN/OUT combination is the below table.

### SFD100 Different Diameter Combinations

IN port size	OUT port size					
	C04	C06	C08	O2	N02	F02
C04	●	—	●	●	●	●
C06	●	●	●	●	●	●
C08	—	●	●	●	—	—
O2	●	●	●	—	—	—
N02	●	●	●	—	—	—
F02	●	●	●	—	—	—

\* The symbol "—" stands for unavailable combination.

### SFD200 Different Diameter Combinations

IN port size	OUT port size					
	C08	C10	C12	O2	N02	F02
C08	●	—	●	●	●	●
C10	●	●	●	●	●	●
C12	—	●	●	●	—	—
O2	●	●	●	—	—	—
N02	●	●	●	—	—	—
F02	●	●	●	—	—	—

\* The symbol "—" stands for unavailable combination.

## Specifications

The specifications are the same as the standard models. Refer to "Specifications" on page 1.

## Flow Characteristics

When the IN and OUT ports have different diameters the flow characteristics will be those of the port with the smaller diameter. Refer to "Flow Characteristics" for the smaller diameter from the chart of standard product on page 2.

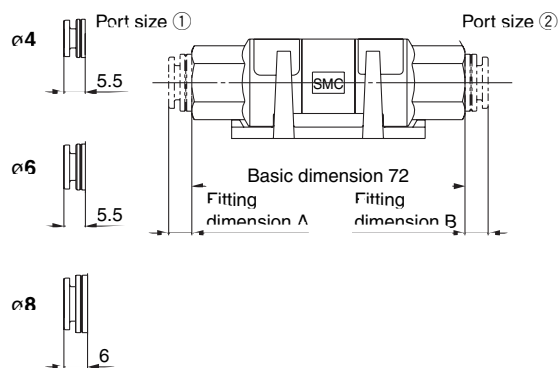
## Construction

The construction and materials are the same as the standard product. Refer to "Construction" on page 3.

## Dimensions

### SFD100 different diameters

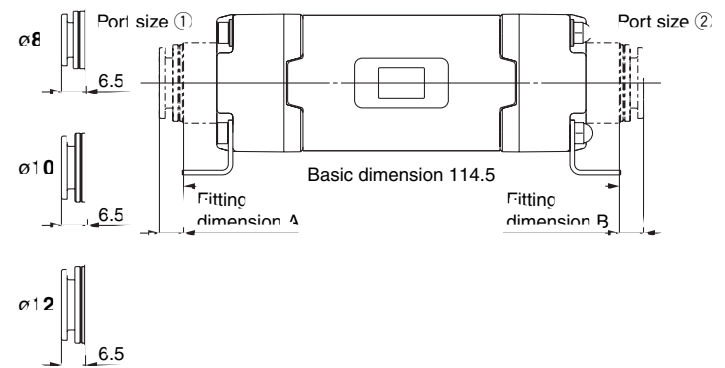
#### One-touch fitting dimensions



Model	Port size ①	Port size ②	Total length
SFD100-	C04 (C06)	C06 (C04)	83 (A + 72 + B)
	C04 (□02)	□02 (C04)	77.5 (72 + A)
	C06 (C08)	C08 (C06)	83.5 (A + 72 + B)
	C06 (□02)	□02 (C06)	77.5 (72 + A)
	C08 (□02)	□02 (C08)	78 (72 + A)

### SFD200 different diameters

#### One-touch fitting dimensions



Model	Port size ①	Port size ②	Total length
SFD200-	C08 (C10)	C10 (C08)	127.5 (A + 114.5 + B)
	C08 (□02)	□02 (C08)	121 (114.5 + A)
	C10 (C12)	C12 (C10)	127.5 (A + 114.5 + B)
	C10 (□02)	□02 (C10)	121 (114.5 + A)
	C12 (□02)	□02 (C12)	121 (114.5 + A)