

# Clean Gas Filter: Cartridge Type/Disc Style Series SFA100/200/300

Precision filtration for general gases used in the electronic industry, etc.

Compressed air, Nitrogen, etc.

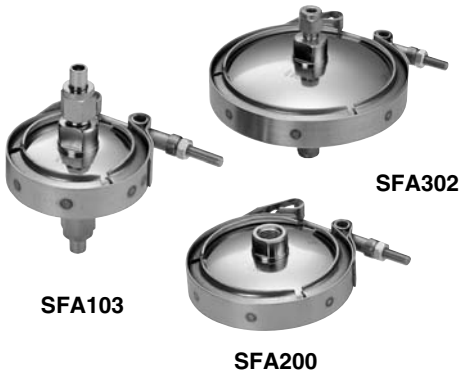
PTFE membrane element is made into a cartridge. (Filtration 0.01 μm (Filtering efficiency 99.99%))

Made into a cartridge by polyester holder and fluorine rubber (FKM) gasket.

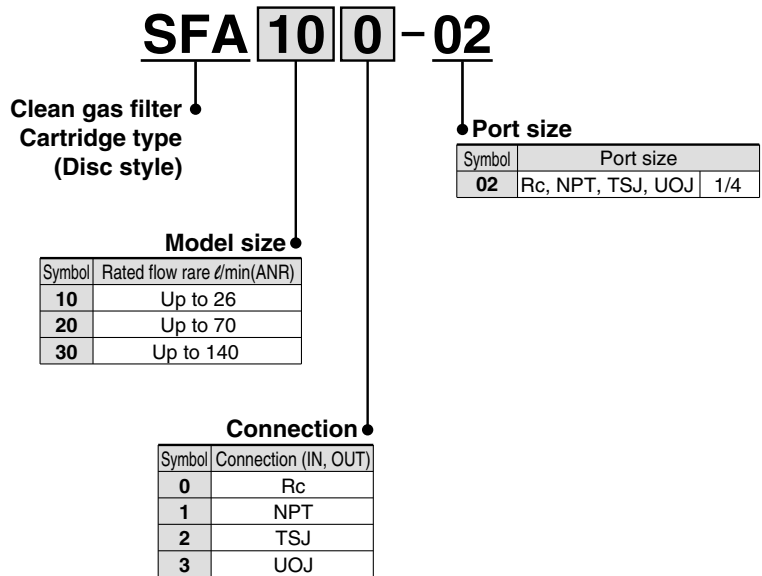
All products are tested at the time of shipment.

Purification test  
Airtight test

Elements are replaceable.



## How to order



## Model

Model	Rated flow rate l/min (ANR) <sup>Note 1)</sup>	Connection	Filtration area cm <sup>2</sup>	Element part no. <sup>Note 2)</sup>	Mass kg
SFA100-02	26	Rc 1/4 (Female thread)	13.85	ED001S-X10V	0.34
SFA101-02		NPT 1/4 (Female thread)			
SFA200-02	70	Rc 1/4 (Female thread)	33.18	ED101S-X10V	0.44
SFA201-02		NPT 1/4 (Female thread)			
SFA300-02	140	Rc 1/4 (Female thread)	56.75	ED201S-X10V	0.66
SFA301-02		NPT 1/4 (Female thread)			
SFA102-02	26	TSJ 1/4 Tube Swage Joint	13.85	ED001S-X10V	0.38
SFA202-02	70		33.18	ED101S-X10V	0.49
SFA302-02	140		56.75	ED201S-X10V	0.70
SFA103-02	26	UOJ 1/4 Union O-ring Joint	13.85	ED001S-X10V	0.42
SFA203-02	70		33.18	ED101S-X10V	0.53
SFA303-02	140		56.75	ED201S-X10V	0.75

Note 1) Inlet pressure 0.7 MPa, at pressure drop 0.02 MPa

Note 2) Element part numbers include numbers 3 to 7 in the construction figure. (Refer to page 226.)

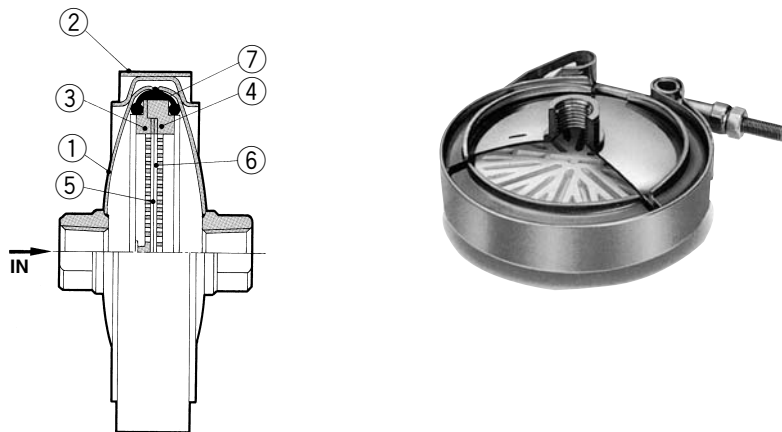
# Series SFA100/200/300

## Specifications

<b>Operating fluid</b>		Air, Nitrogen
<b>Operating pressure</b> <small>Note 1)</small>		Max. 0.99 MPa, Vacuum $1.3 \times 10^{-6}$ kPa
<b>Operating temperature</b>		5 to 80°C
<b>Element proof differential pressure</b>		Max. 0.1 MPa
<b>Element reverse differential pressure</b>		Max. 0.05 MPa
<b>Filtration</b> <small>Note 2)</small>		0.01 $\mu\text{m}$ (Filtering efficiency 99.99%)
<b>Purification in the outlet side</b>		Particle with 0.1 $\mu\text{m}$ or larger 0 pcs/6 $\ell$
<b>Main material</b>	<b>Case</b>	Stainless steel 316 (Interior/Exterior: Electrolytic polishing)
	<b>Filter medium</b>	PTFE membrane
	<b>Seal</b>	Fluororubber (FKM)
<b>Packaging</b>		Antistatic sealed double package

Note 1) The maximum operating pressure is 0.99 MPa since this product does not conform to the High Pressure Gas Safety Law.  
 Note 2) Based on SMC's measuring conditions. (Refer to Technical Data SM-86-009.)

## Construction

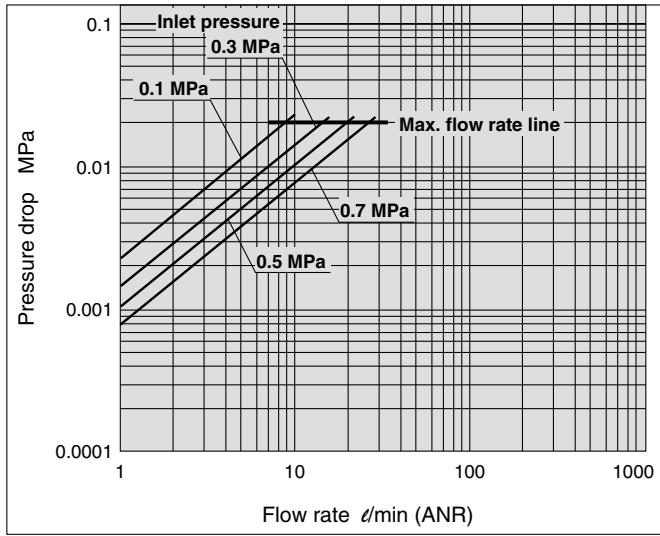


No.	Description	Material	Note
1	Case	Stainless steel 316	Electrolytic polishing (Interior/Exterior)
2	V-clamp	Stainless steel 304	—
3	Holder 1	Polyester	Cartridge element
4	Holder 2		
5	Filter medium	PTFE	
6	Seal	FKM	
7	V-seal		

# Clean Gas Filter: Cartridge Type/Disc Style **Series SFA100/200/300**

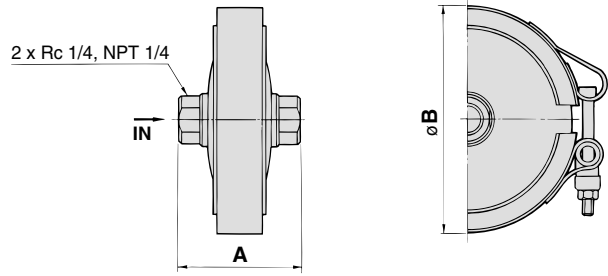
**Flow Characteristics** Fluid: Compressed air Inlet temperature: 20°C

## SFA10□



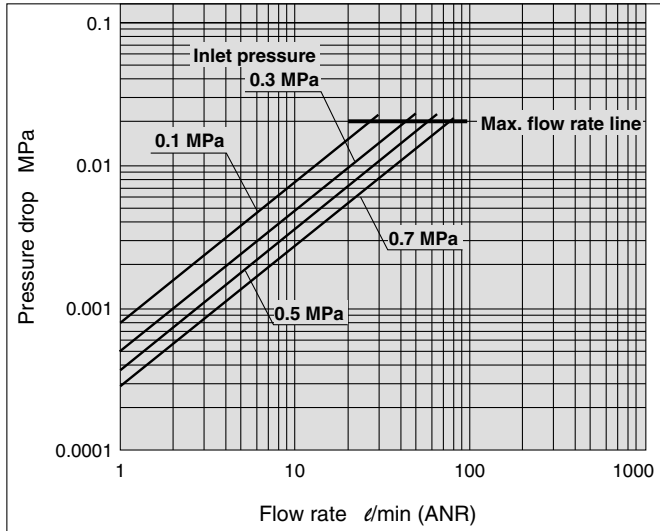
## Dimensions

SFA100/101, SFA200/201, SFA300/301

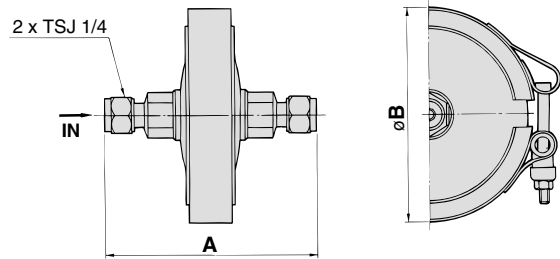


Model	Connection	A	øB
SFA100-02	Rc 1/4	46	76
SFA101-02	NPT 1/4	46	76
SFA200-02	Rc 1/4	51	96
SFA201-02	NPT 1/4	51	96
SFA300-02	Rc 1/4	59	120
SFA301-02	NPT 1/4	59	120

## SFA20□

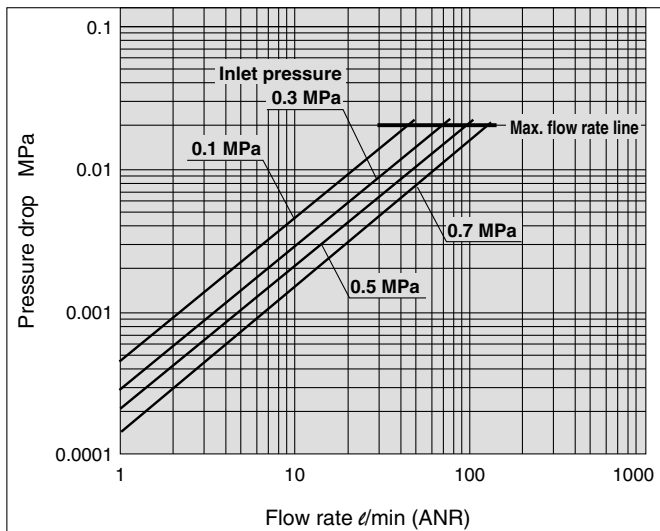


SFA102, SFA202, SFA302

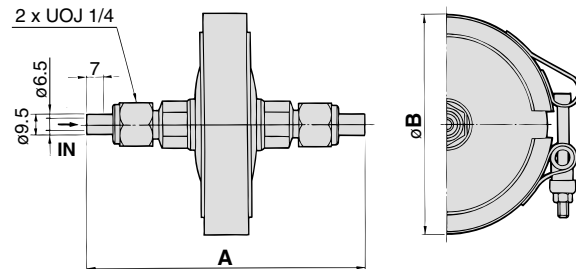


Model	Connection	A	øB
SFA102-02	TSJ 1/4 (Tube Swage Joint)	89	76
SFA202-02		93	96
SFA302-02		101	120

## SFA30□



SFA103, SFA203, SFA303



Model	Connection	A	øB
SFA103-02	UOJ 1/4 (Union O-ring Joint)	117	76
SFA203-02		122	96
SFA303-02		130	120

# Clean Gas Filter: Cartridge Type/Straight Style Series **SFB100**

Precision filtration for general gases used in the electronic industry, etc.

Compressed air, Nitrogen, etc.

PTFE membrane element is made into a cartridge. (Filtration 0.01 μm (Filtering efficiency 99.99%))

Made into a cartridge by polyester holder and fluorine rubber (FKM) gasket.

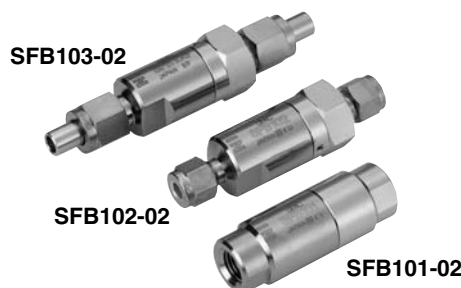
All products are tested at the time of shipment.

Purification test

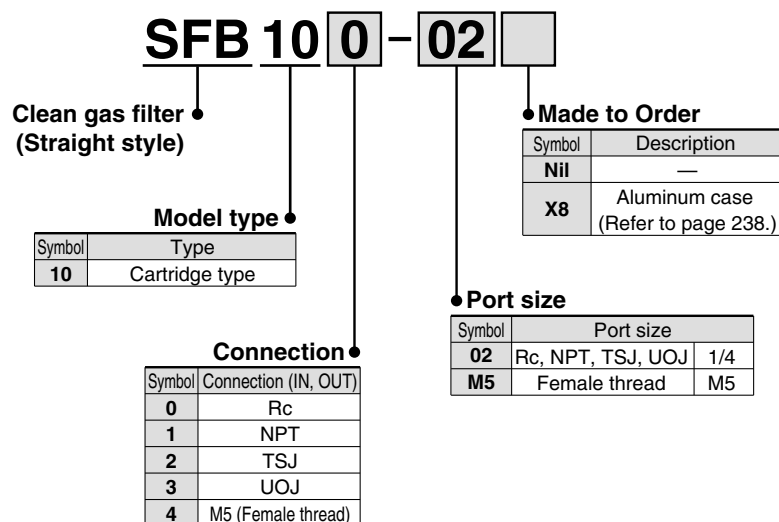
Airtight test

Elements are replaceable.

Bracket is included as a standard.



## How to order



## Specifications

Operating fluid	Air, Nitrogen	
Operating pressure <sup>Note1)</sup>	Max. 0.99 MPa, Vacuum 1.3 x 10 <sup>-6</sup> kPa	
Operating temperature	5 to 80°C	
Element proof differential pressure	Max. 0.5 MPa	
Element reverse differential pressure	Max. 0.07 MPa	
Filtration <sup>Note2)</sup>	0.01 μm (Filtering efficiency 99.99%)	
Purification in the outlet side	Particle with 0.1 μm or larger 0 pcs/6 ℓ	
Main material	Case/Cover	Stainless steel 316 (Interior/Exterior: Electrolytic polishing)
	Filter medium	PTFE membrane
	Seal	Fluororubber (FKM)
Packaging	Antistatic sealed double package	

Note 1) The maximum operating pressure is 0.99 MPa since this product does not conform to the High Pressure Gas Safety Law.

Note 2) Based on SMC's measuring conditions. (Refer to Technical Data SM-86-009.)

## Model

Model	Rated flow rate ℓ/min (ANR) <sup>Note)</sup>	Connection	Filtration area cm <sup>2</sup>	Element part no.	Mass kg
SFB100-02	45	Rc 1/4 (Female thread)	10	ED301S-X10V (Including O-rings)	0.15
SFB101-02		NPT 1/4 (Female thread)			
SFB102-02		TSJ 1/4			
SFB103-02		UOJ 1/4			
SFB104-M5		M5 (Female thread)			

Note) Inlet pressure 0.7 MPa, at pressure drop 0.02 MPa

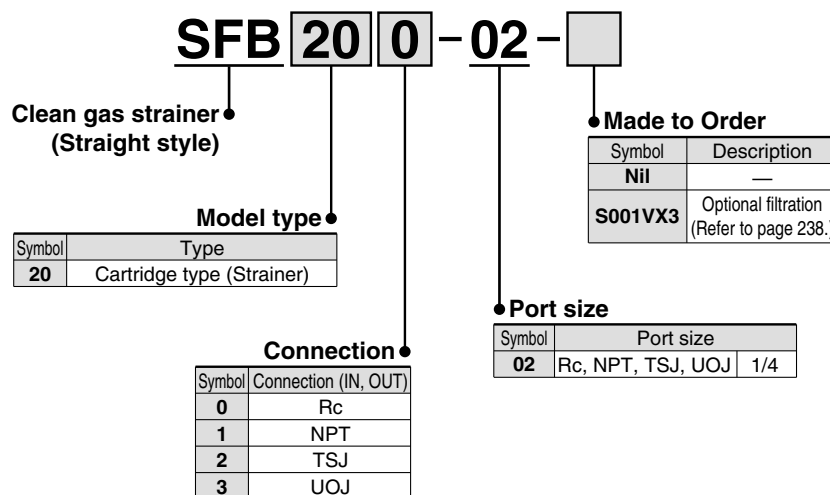
# Clean Gas Strainer: Cartridge Type/Straight Style Series **SFB200**

**Cartridge made of stainless steel 316 sintered metallic element (Nominal filtration: 120 μm)**

Clean gas strainers made of an element (120 μm, stainless steel 316 sintered metal) to protect regulators and vacuum regulators are also available.



## How to order



## Specifications

<b>Operating fluid</b>	Air, Nitrogen	
<b>Operating pressure</b>	Max. 0.99 MPa, Vacuum 1.3 x 10 <sup>-6</sup> kPa	
<b>Operating temperature</b> <sup>Note)</sup>	5 to 80°C	
<b>Element proof differential pressure</b>	Max. 1.0 MPa	
<b>Element reverse differential pressure</b>	Max. 1.0 MPa	
<b>Nominal filtration</b>	120 μm	
<b>Main material</b>	<b>Case/Cover</b>	Stainless steel 316 (Interior/Exterior: Electrolytic polishing)
	<b>Seal</b>	Fluororubber (FKM)
	<b>Filter medium</b>	Stainless steel 316 sintered metal
<b>Packaging</b>	Antistatic sealed double package	

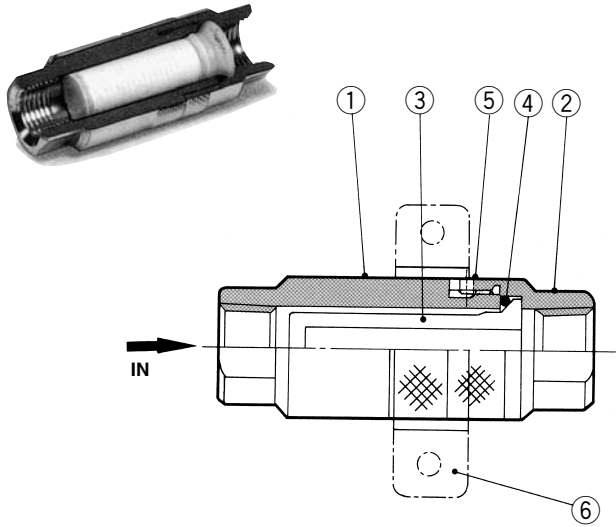
## Model

Model	Rated flow rate $l/min$ (ANR) <sup>Note)</sup>	Connection	Filtration area $cm^2$	Element part no.	Mass $kg$
<b>SFB200-02</b>	400	Rc 1/4 (Female thread)	10	ES001S-120V (Including O-rings)	0.16
<b>SFB201-02</b>		NPT 1/4 (Female thread)			
<b>SFB202-02</b>		TSJ 1/4			
<b>SFB203-02</b>		UOJ 1/4			

Note) Inlet pressure 0.7 MPa, at pressure drop 0.02 MPa

# Series SFB100/200

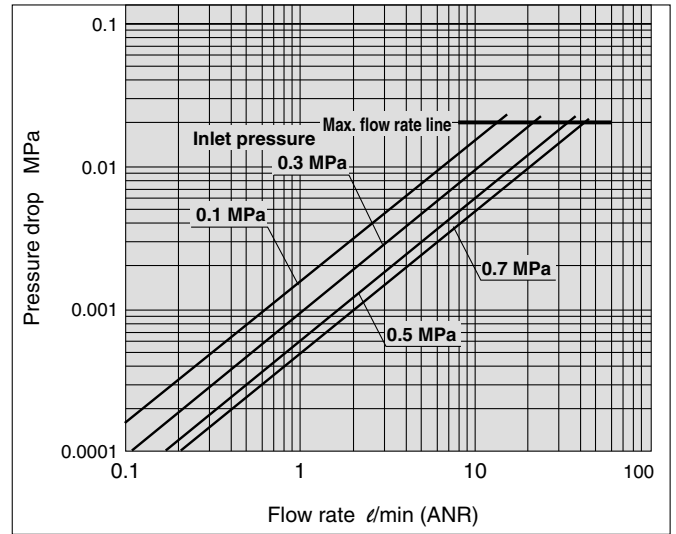
## Construction



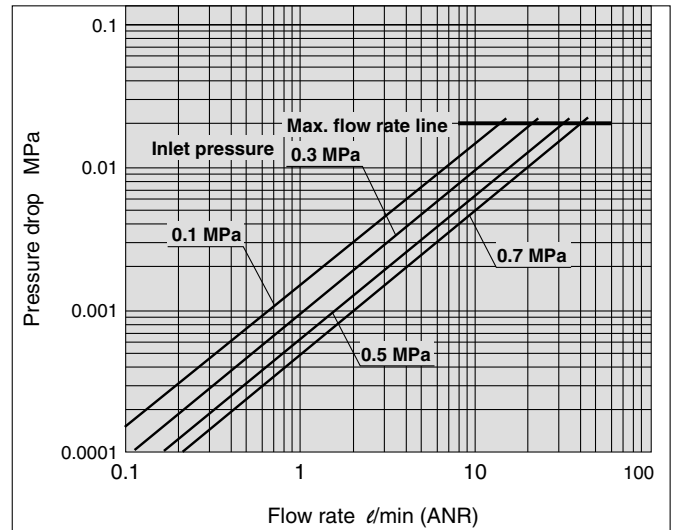
No.	Description	Material	Note
1	Case	Stainless steel 316	Electrolytic polishing (Interior/Exterior)
2	Cover		
3	Clean gas filter	PTFE membrane	For SFB10□
	Clean gas strainer	Stainless steel 316 sintered metal	For SFB20□
4	O-ring	FKM	—
5	Hexagon socket head screw	Stainless steel 304	M3
6	Bracket		—

## Flow Characteristics Fluid: Compressed air Inlet temperature: 20°C

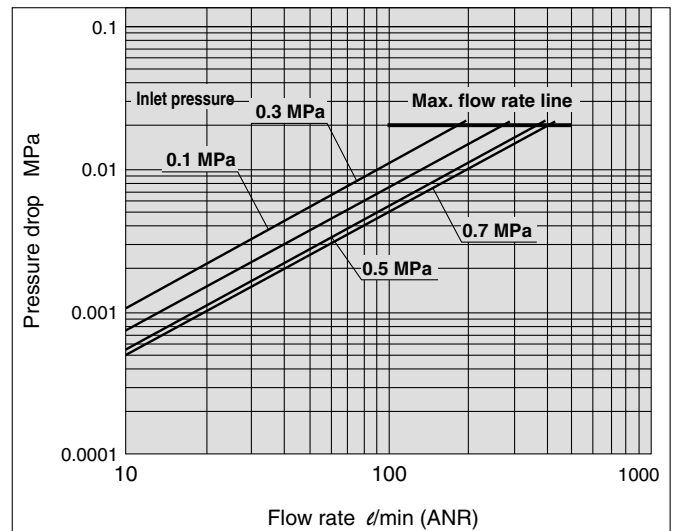
### SFB104-M5



### SFB10□-02

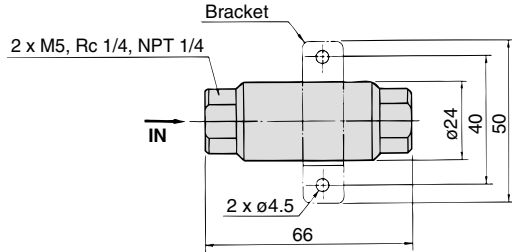


### SFB20□-02



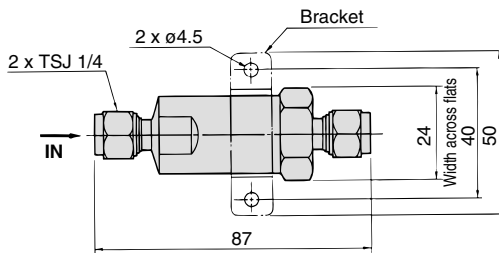
## Dimensions

**SFB100/200:** Rc 1/4  
**SFB101/201:** NPT 1/4  
**SFB104:** M5

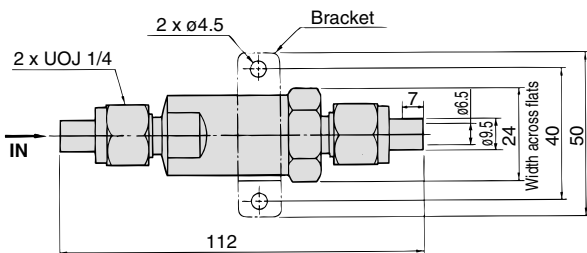


Model	Connection
<b>SFB100-02, 200-02</b>	Rc 1/4
<b>SFB101-02, 201-02</b>	NPT 1/4
<b>SFB104-M5</b>	M5

**SFB102-02, SFB202-02:** TSJ 1/4 (Tube Swage Joint)



**SFB103-02, SFB203-02:** UOJ 1/4 (Union O-ring Joint)



# Clean Gas Filter: Disposable Type/Straight Style Series **SFB300**

**Precision filtration for gases used in the semiconductor process**

Compressed air, Nitrogen, etc.

**PTFE membrane with high reliability**

**Filtration 0.01 μm (Filtering efficiency 99.99%)**

**All products are tested at the time of shipment.**

Purification test  
Helium leak test  
Pressure holding test

**Bracket is included as a standard.**



## How to order

**SFB 30 0 - 02**

Clean gas filter  
(Straight style)

Port size

Symbol	Port size
02	Rc, NPT, TSJ, UOJ 1/4

Model type

Symbol	Type
30	Disposable type (Narrow size)
31	Disposable type (Long size)

Connection

Symbol	Connection (IN, OUT)
0	Rc
2	TSJ
5	URJ

\* SFB31: Only 5 is selectable.

## Model

Model	Rated flow rate ℓ/min (ANR) <small>Note)</small>	Connection	Filtration area cm <sup>2</sup>	Mass kg
SFB300-02	45	Rc 1/4 (Female thread)	10	0.14
SFB302-02		TSJ 1/4		0.15
SFB305-02		URJ 1/4		0.14
SFB315-02		URJ 1/4		0.15

Note) Inlet pressure 0.7 MPa, at pressure drop 0.02 MPa

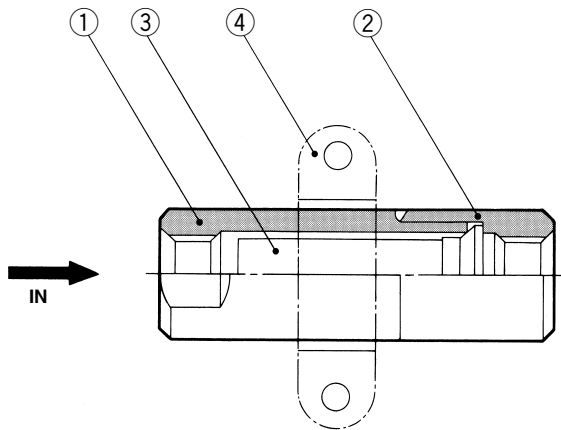


## Specifications

<b>Operating fluid</b>		Air, Nitrogen
<b>Operating pressure</b> <small>Note 1)</small>		Max. 0.99 MPa, Vacuum $1.3 \times 10^{-6}$ kPa
<b>Operating temperature</b>		5 to 120°C
<b>Element proof differential pressure</b>		Max. 0.5 MPa
<b>Element reverse differential pressure</b>		Max. 0.07 MPa
<b>Filtration</b> <small>Note 2)</small>		0.01 $\mu\text{m}$ (Filtering efficiency 99.99%)
<b>Purification in the outlet side</b>		Particle with 0.1 $\mu\text{m}$ or larger 0 pcs/6 $\ell$
<b>Helium leak volume</b>		$4.0 \times 10^{-9}$ Pa·m <sup>3</sup> /sec or less
<b>Main material</b>	<b>Case/Cover</b>	Stainless steel 316 (Interior/Exterior: Electrolytic polishing)
	<b>Filter medium</b>	PTFE membrane
	<b>O-ring</b>	Stainless steel 304

Note 1) The maximum operating pressure is 0.99 MPa since this product does not conform to the High Pressure Gas Safety Law.  
Note 2) Based on SMC's measuring conditions. (Refer to Technical Data SM-86-009.)

## Construction

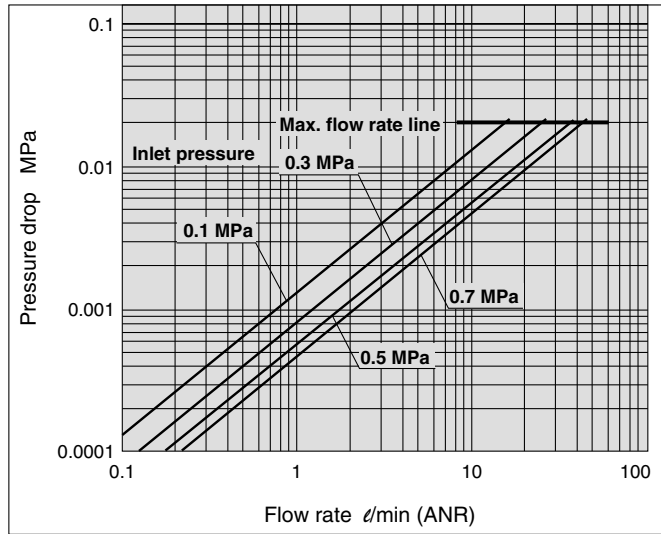


No.	Description	Material	Note
1	<b>Case</b>	Stainless steel 316	Electrolytic polishing (Interior/Exterior)
2	<b>Cover</b>		
3	<b>Element</b>	PTFE membrane	
4	<b>Bracket</b>	Stainless steel 316 sintered metal	

# Series SFB300

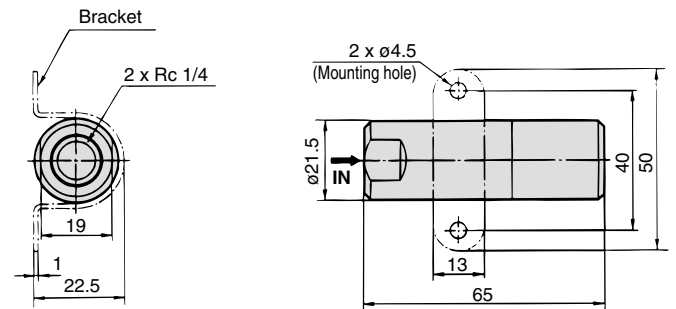
**Flow Characteristics** Fluid: Compressed air Inlet temperature: 20°C

## SFB30□-02

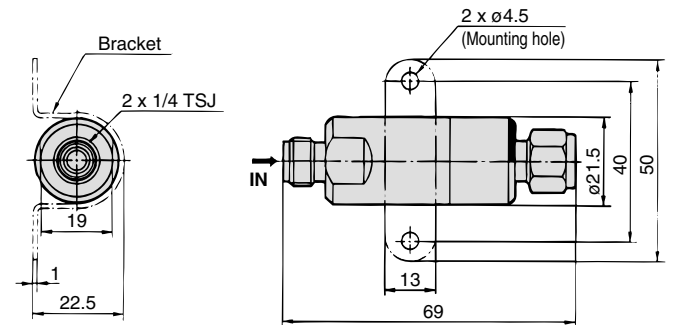


## Dimensions

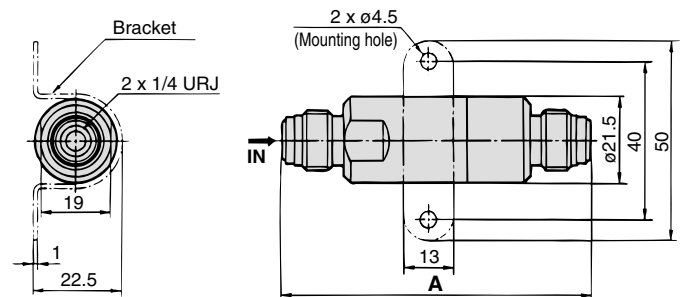
### SFB300-02: Rc 1/4



### SFB302-02: TSJ 1/4 (Tube Swage Joint)



### SFB305-02, SFB315-02: URJ 1/4 (Union Ring Joint)



Model	A
SFB305-02	79
SFB315-02	84

# Clean Gas Filter: Disposable Type/Multiple Disc Style Series **SFC100**

Precision filtration for gases used in the semiconductor process

Compressed air, Nitrogen, etc.

PTFE membrane with high reliability

Filtration 0.01 μm (Filtering efficiency 99.99%)

All products are tested at the time of shipment.

Purification test  
Helium leak test  
Pressure holding test



## How to order

**SFC 10 0 - 02**

Clean gas filter  
Disposable type  
(Multiple style)

Port size

Symbol	Port size
02	Rc, TSJ, URJ 1/4
03	Rc, TSJ, URJ 3/8

Model type

Symbol	Rated flow rate $l/min$ (ANR)
10	Up to 240

Connection

Symbol	Connection (IN, OUT)
0	Rc
2	TSJ
5	URJ

## Model

Model	Rated flow rate $l/min$ (ANR) <sup>Note</sup>	Connection	Filtration area $cm^2$	Mass kg
SFC100-02	240	Rc 1/4 (Female thread)	300	0.35
SFC100-03		Rc 3/8 (Female thread)		0.36
SFC102-02		TSJ 1/4		0.40
SFC102-03		TSJ 3/8		0.41
SFC105-02		URJ 1/4		0.44
SFC105-03		URJ 3/8		0.49

Note) Inlet pressure 0.7 MPa, at pressure drop 0.02 MPa