Filter for Cleaning Solvent
Quick Change Filter
Series FQ1

No tools required. Takes only 60 seconds for element replacement.

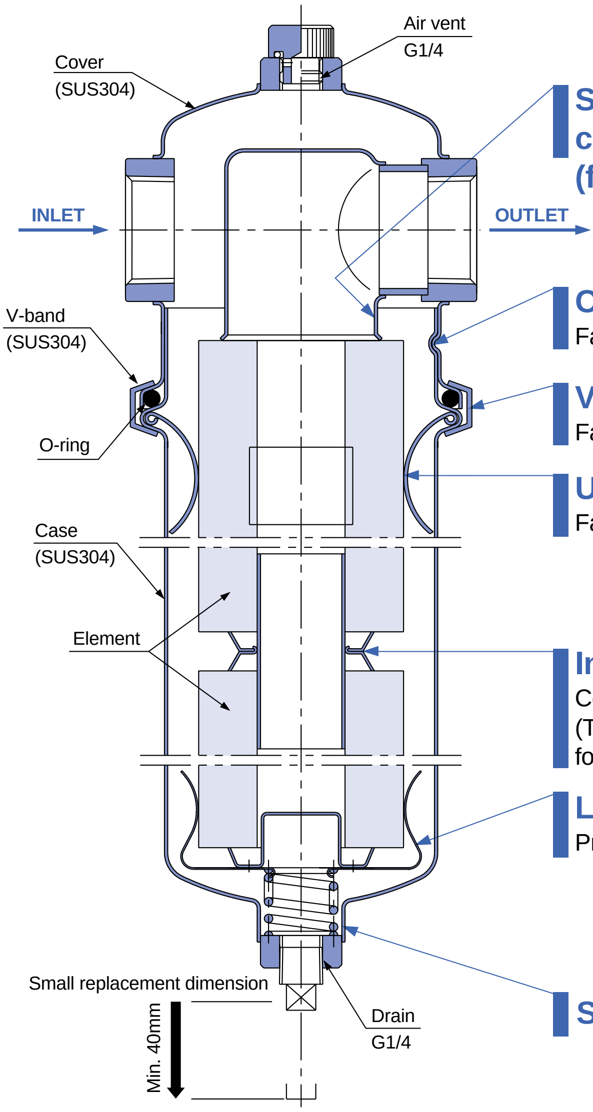
Element replacement in only 60 seconds

Replacement in less than two minutes is possible including removal of liquid.

Removing liquid .... 45 seconds

Removing the case
Replacing the element .... 51 seconds
Installing the case

PATENT PENDING



S.O.E. (Single Open Element) can be installed. (for made to order products)

Case holding mechanism
Facilitates element replacement.

V-band holding mechanism
Facilitates V-band fastening.

Upper element holder
Facilitates centering of the element.

Intermediate element holder
Connects upper and lower elements securely.
(Two L250 elements substitute for one L500 element.)

Lower element holder
Prevents the element from tilting.

Smooth drainage of liquid

Quick Change Filter

Series FQ1

No tools required, easy element replacement

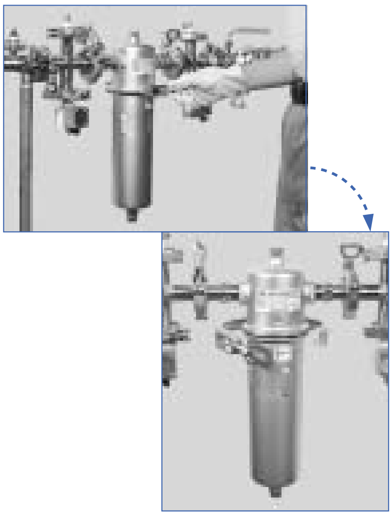
Removing the element

1 Stop liquid flowing into the filter. (If there are valves before and after the filter, close these valves.)

2 Release pressure inside the filter completely by loosening the air vent plug.

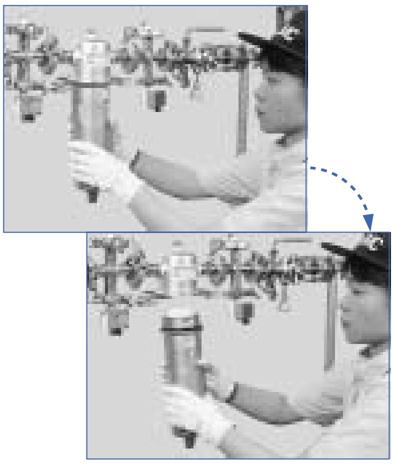
3 Discharge fluid inside the filter by removing the drain plug.

4 Remove the stopper from the retainer by loosening the wing bolt on the V-band.



5 To extract the element from the case, rotate the case counterclockwise about 20 degrees until it stops, then lower it by about 40mm and remove it from the cover.

Note) When two L250 elements are used, do not discard the intermediate holder and lower element holder attached under the element, since they are reused.



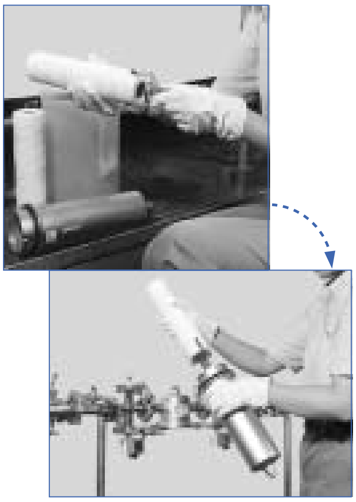
6 Clean the inside of the case, gaskets, seals, holders, plugs, etc., with a pure fluid or solvent.

Installing the element

1 Make sure that O-rings are not damaged or deformed. If needed, replace with new ones.

2 Set the lower element holder under the element, and place them in the case.

[When using two L250 elements]
Insert the intermediate holder into the lower part of the second element (upper level), and then place them into the case after inserting one side of the intermediate holder into the upper part of the element that is attached to the lower holder.



3 Align the indentations of the case with the projections of the cover, lift the case upward by about 10mm and rotate it clockwise about 20 degrees.

4 Mount it in such a way that the entire flanged perimeter of the cover and case are held by the retainer of the V-band.

5 Set the stopper on the retainer while holding down the V-band outside perimeter, and then tighten the wing bolt to the prescribed position.

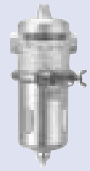
6 Tighten the drain plug.

7 When air release is completed, tighten the air vent plug.

SMC

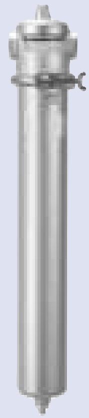
Filter Housings

FQ1010
Element size
L125 (125mm)



FQ1011
Element size
L250 (250mm)

FQ1012
Element size
L500 (500mm)

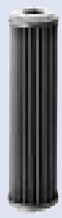


Filter Elements

(Standard elements)

Fiber element
- Nominal filtration accuracy: 0.5 to 100µm
- Ideal for a relatively high level of impurities
- Ideal for use as a prefilter
- Material: PP (EHM ... x 3)
  Cotton (EH)

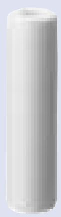
Micromesh element
- Nominal filtration accuracy: 5 to 105µm
- High filtration accuracy with stainless steel micromesh
- Pleated type provides three times more filtration area than a cylinder.
- Easy element cleaning and regeneration
- Material: SUS304 (EM100, EM200)
  SUS316 (EM500, EM600)



(Made to order elements)

HEPO II element
- Absolute filtration accuracy: 2 to 13µm
- US FDA compatible
- Nonwoven fabric element with high filtration accuracy of more than 99% removal and without fiber outflow and release of chemical components
- Material: PP (EJ102S ... x 0)

PP depth element
- Nominal filtration accuracy: 1 to 75µm
- Material: PP
  EJ202S ... x 11 (L125)
  EJ302S ... x 11 (L250)
  EJ402S ... x 11 (L500)



Membrane element
- Absolute filtration accuracy: 0.2, 0.4µm
- Material: PP (ED102S ... x 0)
  CA (ED111S ... x 0)

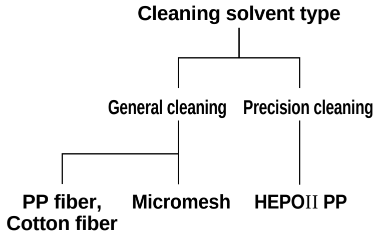
Note) PP: Poly propylene

Series FQ1
Model Selection

Selecting the Element and Housing

1 Selecting the element

According to the type and the cleaning level of a cleaning solvent, select corresponding element and seal types by referring to the "Standard Element Fluid Compatibility" table on the right.



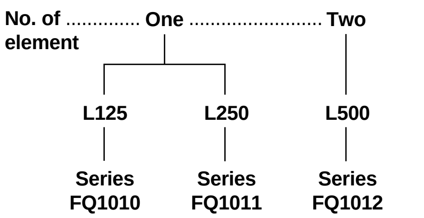
- Specifications: Select desired temperature conditions and filtration accuracy from the "Standard Element Selection Guide" on the right.

2 Calculating the number of elements

- Verify the recommended flow rate of the selected element with the "Standard Element Selection Guide".
- Find a value for the formula, Necessary flow rate ÷ Recommended flow rate, rounding up to the nearest whole number. The value obtained is the number of necessary elements (equivalent to L250).

3 Selecting the housing

Select a housing type to hold the elements selected in 2.



∗ Consult SMC if the number of elements calculated in 2 exceeds two.
- Make sure whether the operating temperature range, pressure and cleaning solvent type meet the specifications.

4 Determining the filter model

Determine the filter model from the element type and the number of elements selected in 1 and 2, and the housing type selected in 3, referring to "How to Order".

Standard Element Fluid Compatibility

Cleaning level and Element / Cleaning solvent type		General cleaning (Nominal filtration accuracy 105µm ↔ 0.5µm)				Precision cleaning (Absolute filtration accuracy 13µm ↔ 2µm)	Applicable seal material and cleaning solvent	
	Name	Fiber element	Fiber element	Micro-mesh element	Micro-mesh element	HEPO II element	Nitrile rubber	Fluoro rubber
	Material	PP	Cotton	SUS304	SUS316	PP	NBR	FPM
	Element part no.	EHM ... x 3	EH	EM	EM	EJ		
	Element symbol	Q	H	M	L	R		
Water	Potable water	Suitable	Optimal	Optimal	Suitable	Optimal	Optimal	Suitable
Water	Industrial water	Optimal	Suitable	Optimal	Suitable	Unsuitable	Optimal	Suitable
Water	Distilled water	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Optimal	Optimal	Suitable
Water	Ion exchange water	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Optimal	Optimal	Suitable
Water	Pure water, Ultrapure water	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Optimal	Optimal	Suitable
Petroleum	Gas oil, Kerosene	Optimal	Suitable	Suitable	Optimal	Optimal	Optimal	Suitable
Petroleum	Xylene	Unsuitable	Optimal	Unsuitable	Optimal	Unsuitable	Unsuitable	Optimal
Alkali	Ammonia	Optimal	Unsuitable	Optimal	Suitable	Optimal	Optimal	Unsuitable
Alkali	Sodium hydroxde	Optimal	△Note)	Optimal	Suitable	Optimal	Optimal	Unsuitable
Chlorine, Fluorine	Trichlorethylene	Unsuitable	Optimal	Unsuitable	Optimal	Unsuitable	Unsuitable	Optimal
Chlorine, Fluorine	Methylene chloride	Unsuitable	Optimal	Unsuitable	Optimal	Unsuitable	Unsuitable	Optimal
Alcohol	Isopropyl alcohol (IPA)	Optimal	Suitable	Optimal	Suitable	Optimal	Suitable	Optimal

∗ For detailed element specifications, refer to the applicable element symbol in the "Standard Element Selection Guide" below. Furthermore, consult SMC for other fluids.

Note) △: Can be used at low temperatures and low concentration.

Made to Order

■ PP depth element EJ
- General cleaning
- Nominal filtration accuracy: 1 to 75µm
- Water, alkali, or alcohol bases

■ Membrane element ED
- Precision cleaning
- Absolute filtration accuracy: 0.2, 0.4µm
- Water, alkali, or alcohol bases

Standard Element Selection Guide

Cleaning level	Name	Element symbol	Material	Element part no.	Temperature range (°C)	Filtration accuracy (µm)	Recommended flow rate (l/min) Pressure loss: 0.01 to 0.02MPa Fluid: Water equiv.	Differential pressure resistance (MPa)
General cleaning	Fiber element	Q	PP	EHM ... x 3	0 to 100	(Nominal) 0.5	5	0.2
		H	Cotton	EH		1	15	
						5	25	
						10		
						20		
						50	30	
						75		
						100		
	Micro-mesh element	M	SUS304	EM1, 2	0 to 100	(Nominal) 5	25	0.7
						10		
						20		
		L	SUS316	EM5, 6	0 to 250	40	30	
						74		
						105		
Precision cleaning	HEPO II element	R	PP	EJ	0 to 80	(Absolute) 2	30	0.5
						4		
						6		
						13		

SMC

Series FQ1

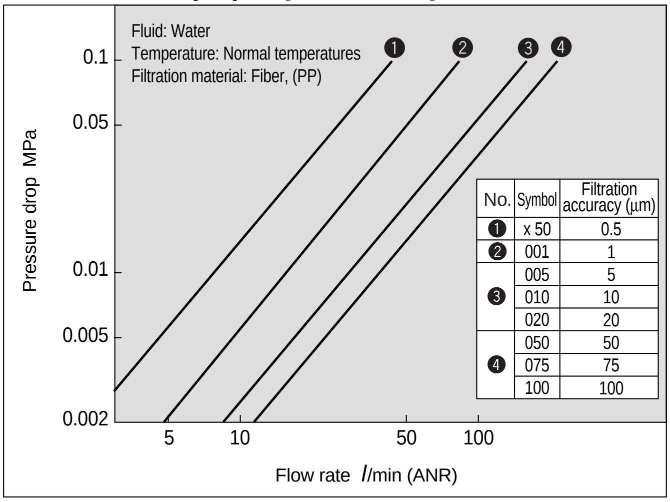
Specifications

Model		FQ1010	FQ1011	FQ1012
No. of built-in elements (L: Element length in mm)		1 (L125)	1 (L250)	2 (L250 x 2)
Operating pressure		Maximum 1MPa		
Operating temperature		Maximum 80°C (Not exceeding boiling point)		
Port size Rc		1/2, 3/4	1/2, 3/4, 1	3/4, 1
Material	Housing/Seal	SUS304/NBR or FPM		
	Element Note)	Cotton, PP, SUS304, SUS316, etc.		
Element replacement differential pressure (recommended)		Maximum 0.1MPa		
Weight kg		Approx. 1.5	Approx. 1.9	Approx. 2.7

Note) For FQ1010, only micromesh elements and PP depth elements are used.

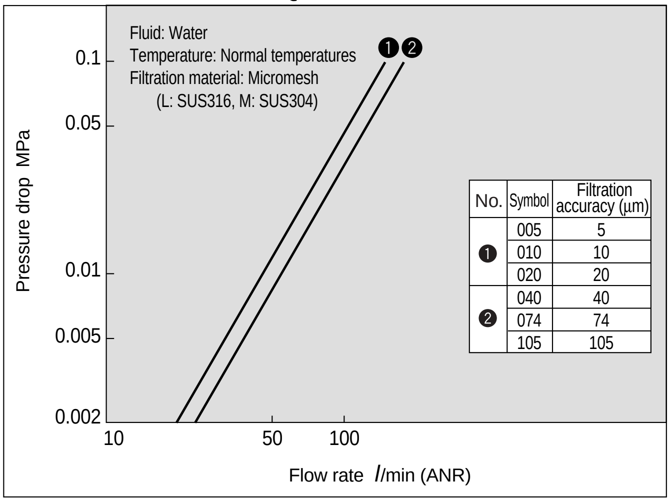
Flow Characteristics

Fiber element (PP): FQ1011N-06-Q Symbol



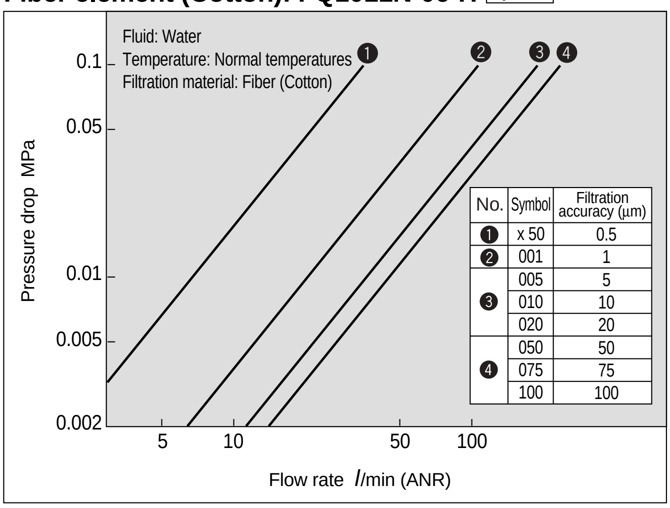
No.	Symbol	Filtration accuracy (μm)
❶	x 50	0.5
❷	001	1
❸	005	5
	010	10
	020	20
❹	050	50
	075	75
	100	100

Micromesh element: FQ1011N-06 L/M Symbol



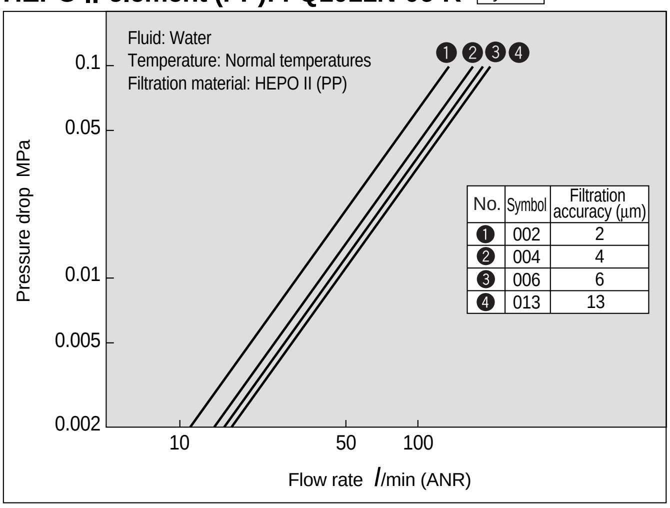
No.	Symbol	Filtration accuracy (μm)
❶	005	5
	010	10
	020	20
❷	040	40
	074	74
	105	105

Fiber element (Cotton): FQ1011N-06-H Symbol



No.	Symbol	Filtration accuracy (μm)
❶	x 50	0.5
❷	001	1
❸	005	5
	010	10
	020	20
❹	050	50
	075	75
	100	100

HEPO II element (PP): FQ1011N-06-R Symbol



No.	Symbol	Filtration accuracy (μm)
❶	002	2
❷	004	4
❸	006	6
❹	013	13

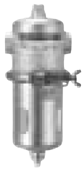
Note) The recommended flow rate is the rate for an initial pressure drop of 0.01 to 0.02 MPa.

How to Order Filters

<Applicable element dimensions: ø65 x 125mm>

FQ1 0 1 0 N — 04 — M005N — B

- **FQ1**: Model symbol (In-line filters)
- **0**: Housing material
- **1**: Element sealing method
- **0**: Element size 125mm
- **N**: Housing O-ring material
- **04**: Bore size
- **M005N**: Element type. Select from tables on the right.
- **B**: Options



Bore size

04	Rc 1/2
06	Rc 3/4

Housing O-ring material

N	NBR
V	FPM

Element sealing method

1	Flat gasket (D.O.E)

Options

Nil	N/A
B	Bracket
P*	Quick plug

* A square plug set is normally used for the drain unit.

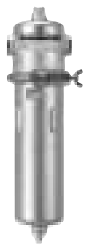
Housing material

Symbol	Cover	Case
0	SUS304	SUS304

<Applicable element dimensions: ø65 x 250mm>

FQ1 0 1 1 N — 06 — Q005 — B

- **FQ1**: Model symbol (In-line filters)
- **0**: Housing material
- **1**: Element sealing method
- **1**: Element size 250mm
- **N**: Housing O-ring material
- **06**: Bore size
- **Q005**: Element type. Select from tables on the right.
- **B**: Options



Bore size

04	Rc 1/2
06	Rc 3/4
10	Rc 1

Housing O-ring material

N	NBR
V	FPM

Element sealing method

1	Flat gasket (D.O.E)

Options

Nil	N/A
B	Bracket
P*	Quick plug

* A square plug set is normally used for the drain unit.

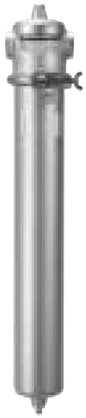
Housing material

Symbol	Cover	Case
0	SUS304	SUS304

<Applicable element dimensions: ø65 x 250mm (2 pcs.)>

FQ1 0 1 2 N — 10 — Q005 — B

- **FQ1**: Model symbol (In-line filters)
- **0**: Housing material
- **1**: Element sealing method
- **2**: Element size 500mm (250mm x 2)
- **N**: Housing O-ring material
- **10**: Bore size
- **Q005**: Element type. Select from tables on the right.
- **B**: Options



Bore size

06	Rc 3/4
10	Rc 1

Housing O-ring material

N	NBR
V	FPM

Element sealing method

1	Flat gasket (D.O.E)

Options

Nil	N/A
B	Bracket
P*	Quick plug

* A square plug set is normally used for the drain unit.

Housing material

Symbol	Cover	Case
0	SUS304	SUS304

Element and Seal Part Numbers

1. Fiber element (PP)

Dimensions	Element symbol	Filtration accuracy (µm)	Part number
ø65 x 250mm	QX50	0.5	EHM10AX3
	Q001	1	EHM39R10AYX3
	Q005	5	EHM23R10AYX3
	Q010	10	EHM19R10AYX3
	Q020	20	EHM15R10AX3
	Q050	50	EHM11R10AX3
	Q075	75	EHM10R10AX3
	Q100	100	EHM8R10AX3

2. Fiber element (Cotton)

Dimensions	Element symbol	Filtration accuracy (µm)	Part number
ø65 x 250mm	HX50	0.5	EH10G
	H001	1	EH39R10GV
	H005	5	EH23R10GV
	H010	10	EH19R10GV
	H020	20	EH15R10G
	H050	50	EH11R10G
	H075	75	EH10R10G
	H100	100	EH8R10G

3. Micromesh element (SUS304) Bonding material: Epoxy resin

Dimensions	Element symbol	Filtration accuracy (µm)	Part number
ø65 x 250mm	M005□	5	EM100-005□
	M010□	10	EM100-010□
	M020□	20	EM100-020□
	M040□	40	EM100-040□
	M074□	74	EM100-074□
	M105□	105	EM100-105□
ø65 x 125mm	M005□	5	EM200-005□ x 4
	M010□	10	EM200-010□ x 4
	M020□	20	EM200-020□ x 4
	M040□	40	EM200-040□ x 4
	M074□	74	EM200-074□ x 4
	M105□	105	EM200-105□ x 4

Note) Specity seal material in place of "□" (N for NBR or V for FPM).

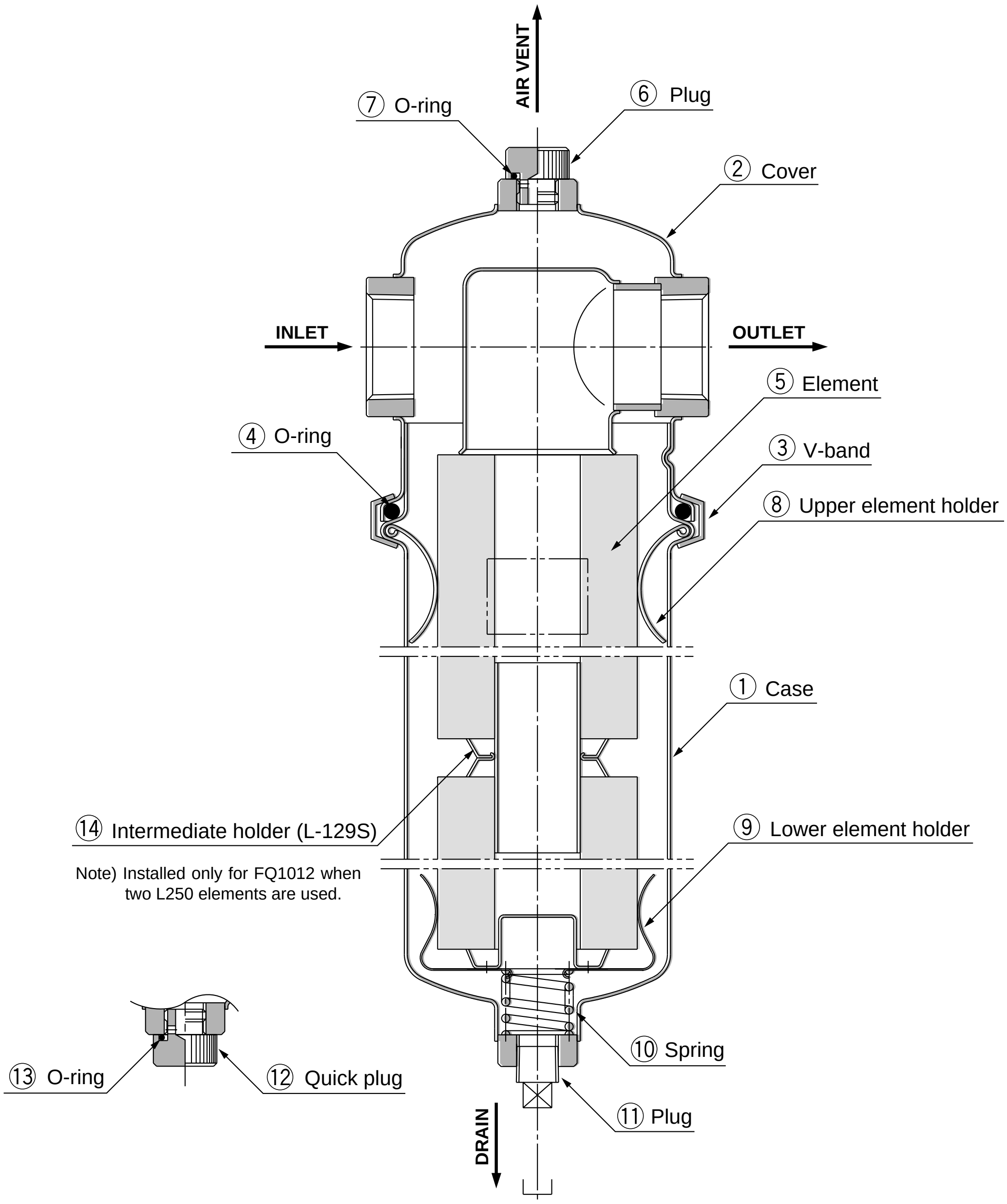
4. Micromesh element (SUS316) Bonding material: Nickel solder

Dimensions	Element symbol	Filtration accuracy (µm)	Part number
ø65 x 250mm	L005□	5	EM500-005□
	L010□	10	EM500-010□
	L020□	20	EM500-020□
	L040□	40	EM500-040□
	L074□	74	EM500-074□
	L105□	105	EM500-105□
ø65 x 125mm	L005□	5	EM600-005□ x 4
	L010□	10	EM600-010□ x 4
	L020□	20	EM600-020□ x 4
	L040□	40	EM600-040□ x 4
	L074□	74	EM600-074□ x 4
	L105□	105	EM600-105□ x 4

Note) Specity seal material in place of "□" (N for NBR or V for FPM).

Elements other than **1** to **4** listed above are also available.
Refer to "Made to Order" elements on pages 7 and 8 for details.

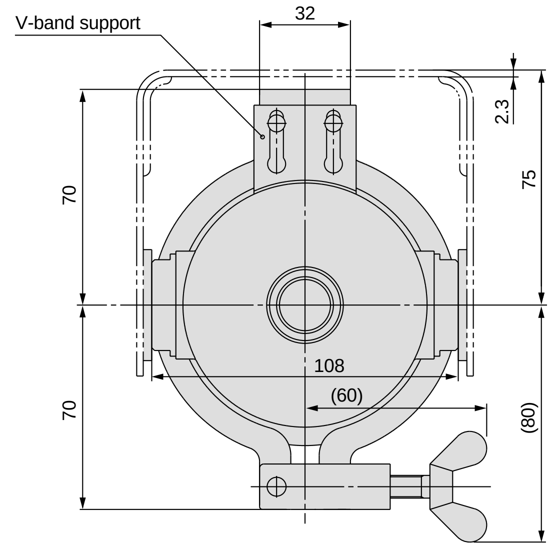
Construction



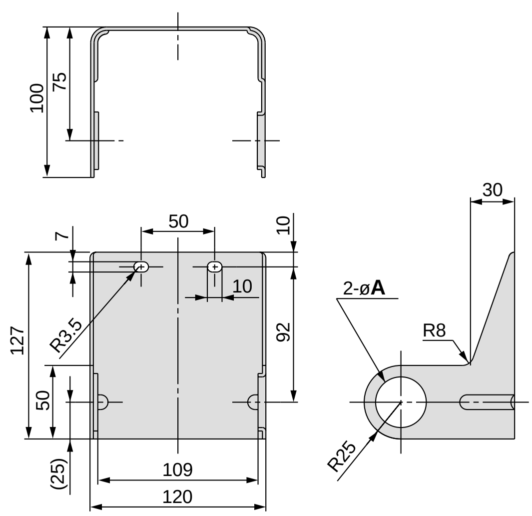
Replacement parts: Seals

No.	Description	Part number	Dimensions (mm)	Material
④	**O-ring**	JIS B2401-1A-P85	I.D. 84.6 x ø5.7	NBR
		JIS B2401-4D-P85		FPM
⑦ ⑬	**O-ring**	JIS B2401-1A-P11	I.D. 10.8 x ø2.4	NBR
		JIS B2401-4D-P11		FPM

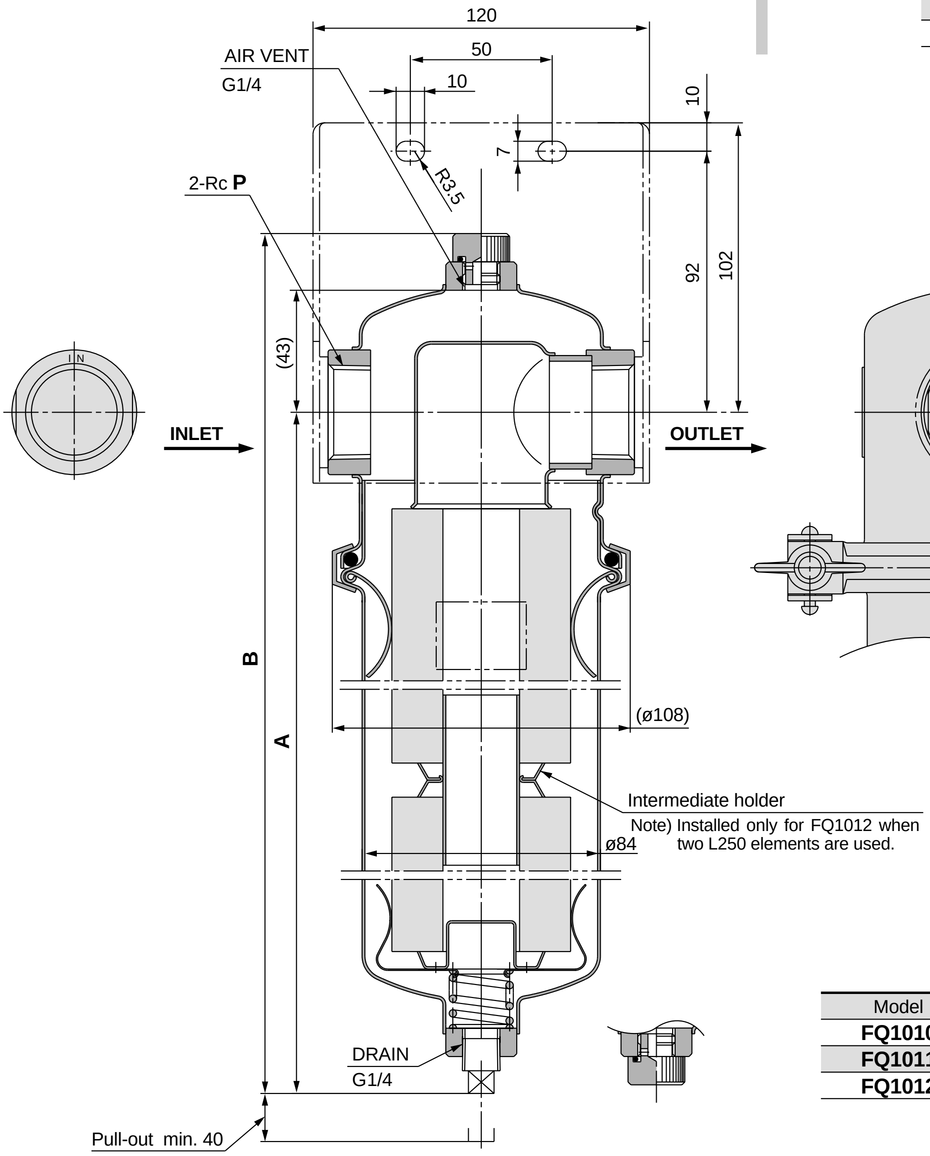
Dimensions

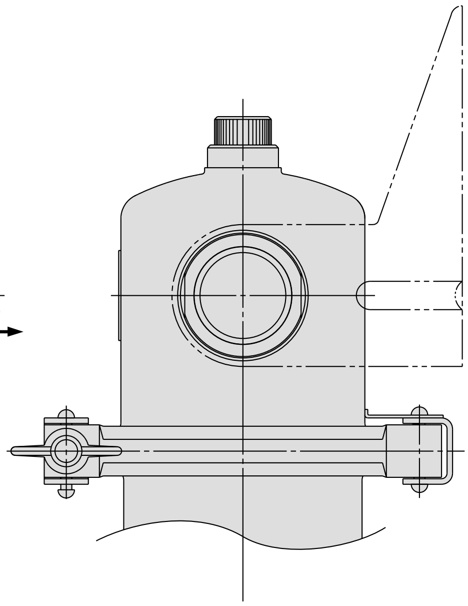


Bracket



Part number	A	Applicable bore size
BP-13S	34.5	Rc 1
BP-14S	27.5	Rc 3/4
BP-15S	22	Rc 1/2





Model	A	B	P	No. of elements
FQ1010	204	267	1/2, 3/4	L125 x 1
FQ1011	332	395	1/2, 3/4, 1	L250 x 1
FQ1012	593	656	3/4, 1	L250 x 2

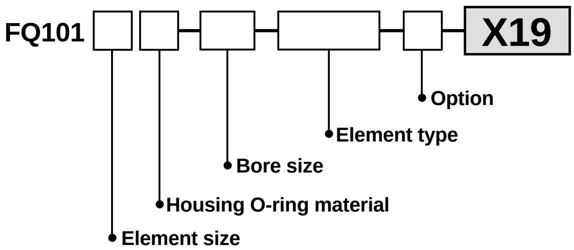
Series FQ1

Made to Order

Consult SMC for detailed dimentions, specifications and lead times.

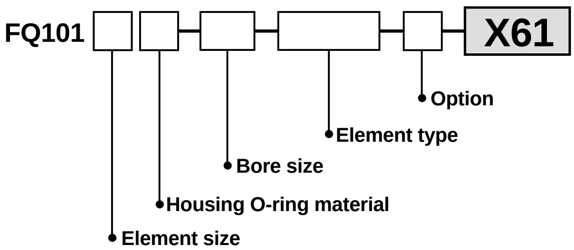
1 Without V-band Support –X19

Useful for reverse IN-OUT installation, as the position of the V-band can be changed.

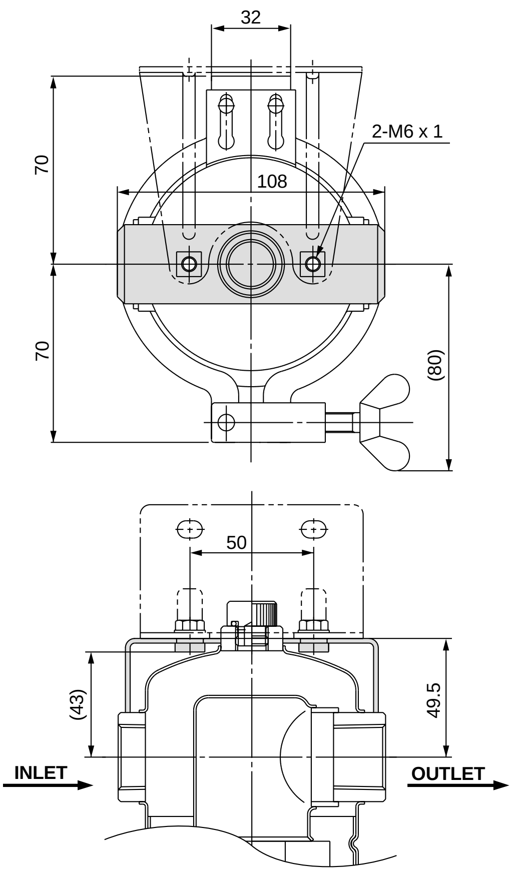


2 Conventional Bracket Type –X61

Conventional brackets can be installed.

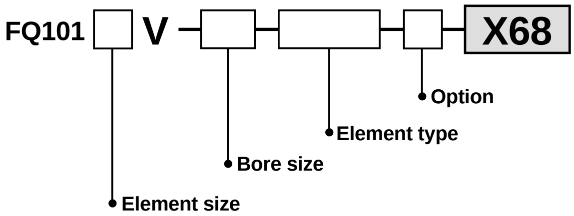


Dimensions

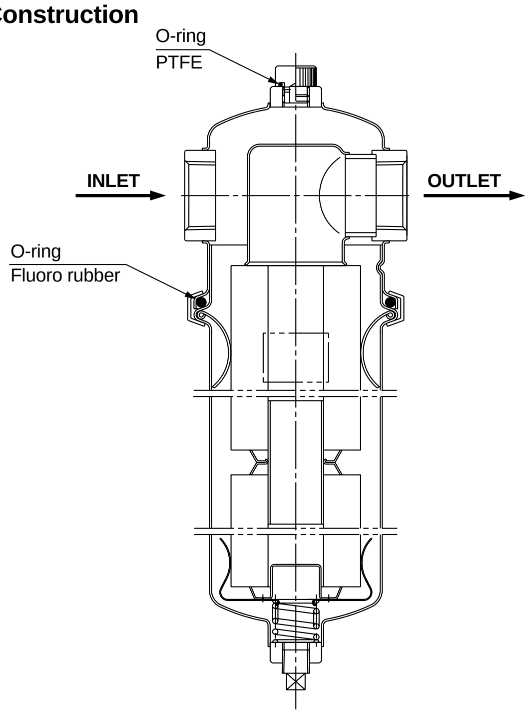


3 Chemical Resistant Type –X68

O-ring materials have been changed to special fluoro rubber and PTFE, improving chemical resistance.



Construction



■ Special fluoro rubber O-ring (AL-88XS) chemical resistance

Applicable solvents	
Hydrocarbon	Gasoline
	Fuel C
	Hexane
	Benzene
	Toluene
Hydrogen halide	Chloroform
Ketone	Acetone
	MEK
Ester	Ethyl acetate
Amide	Formaldehyde
	DMF
Alcohol	Methanol
	Ethylene glycol
Ether	1, 4-dioxane
	MTBE
	TAME
Amine	Pyridine
	Butyl amine
Gasohol	Fuel C: Methanol = 75/25
	Fuel C: Methanol = 50/50
	Fuel C: Methanol = 25/75

∗ Consult SMC for fluids other than those listed.

Made to Order

Consult SMC for detailed dimensions, specifications and lead times.

4 Nonstandard Elements for Precision Cleaning -X0

FQ101 □ □ – □ – □ – □ – X0

Element size
Housing O-ring material
Bore size
Element type
Select from tables below.
Option

Membrane PP element "ED102S ... Series X0" (zero)

- Material: PP
- Optimal for high precision filtration (99% or more) of various cleaning solvents (mainly alkali-base)
- Dimensions: ø70 x L250

Recommended flow rate

Absolute filtration accuracy (µm)	Recommended flow rate (l/min)*
0.2	5
0.4	

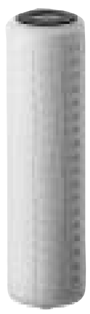
* Pressure loss: 0.01 to 0.02MPa
• Operating temperature: 0 to 70°C
• Differential pressure resistance: 0.5MPa/25°C

Element and seal part numbers

Dimensions	Element symbol	Filtration accuracy (µm)	Element part number
ø70 x 250	**UX20□**	0.2	ED102S-X20□X0
	UX40□	0.4	ED102S-X40□X0

Note) Specity seal material in place of "□" (N for NBR or V for FPM). The suffix of the filter model part number is "X0".

Membrane CA element "ED111S ... Series X0" (zero)



- Material: CA
- Optimal for high precision filtration (99% or more) of various kinds of water
- Dimensions: ø70 x L250

Recommended flow rate

Absolute filtration accuracy (µm)	Recommended flow rate (l/min)*
0.2	5
0.4	

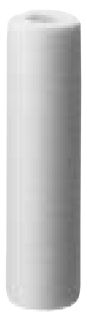
* Pressure loss: 0.01 to 0.02MPa
• Operating temperature: 0 to 80°C
• Differential pressure resistance: 0.5MPa/25°C

Element and seal part numbers

Dimensions	Element symbol	Filtration accuracy (µm)	Element part number
ø70 x 250	**DX20□**	0.2	ED111S-X20□X0
	DX40□	0.4	ED111S-X40□X0

Note) Specity seal material in place of "□" (N for NBR or V for FPM). The suffix of the filter model part number is "X0".

PP depth element "EJ202S, 302S, 402S ... Series X11"



- Material: Polypropylene and polyethylene
- No fiber separation due to thermal fusion of fibers
- A wide range of applications to various cleaning solvents
- Dimensions
  EJ202S: ø65 x L125
  EJ302S: ø65 x L250
  EJ402S: ø65 x L500

Recommended flow rate

Nominal filtration accuracy (µm)	Recommended flow rate (l/min)*
1, 3, 5, 10 25, 50, 75	30

* Pressure loss: 0.01 to 0.02MPa
• Operating temperature: 0 to 60°C
• Differential pressure resistance: 0.2MPa

Element and seal part numbers

Dimensions	Element symbol	Filtration accuracy (µm)	Element part number
ø65 x 125	**W001**	1	EJ202S-001X11
	W003	3	EJ202S-003X11
	W005	5	EJ202S-005X11
	W010	10	EJ202S-010X11
	W025	25	EJ202S-025X11
	W050	50	EJ202S-050X11
	W075	75	EJ202S-075X11
ø65 x 250	**W001**	1	EJ302S-001X11
	W003	3	EJ302S-003X11
	W005	5	EJ302S-005X11
	W010	10	EJ302S-010X11
	W025	25	EJ302S-025X11
	W050	50	EJ302S-050X11
	W075	75	EJ302S-075X11
ø65 x 500	**W001**	1	EJ402S-001X11
	W003	3	EJ402S-003X11
	W005	5	EJ402S-005X11
	W010	10	EJ402S-010X11
	W025	25	EJ402S-025X11
	W050	50	EJ402S-050X11
	W075	75	EJ402S-075X11

Note) Seals are not necessary. The suffix of the filter model part number is "X0".

Made to Order

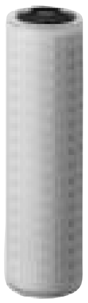
Consult SMC for detailed dimensions, specifications and lead times.

5 Nonstandard Elements for Precision Cleaning

FQ101 □ □ – □ – □ – □

- **Element size**
- **Housing O-ring material**
- **Bore size**
- **Element type** Select from tables below.
- **Option**

HEPO II element "Series EJ101S"



- Material: PET
- Optimal for high precision filtration (99% or more) of a wide range of fluids
- Dimensions: ø70 x L250 (EJ101S)

Recommended flow rate

Absolute filtration accuracy (μm)	Recommended flow rate (l/min)*
2	20
4	
6	
13	

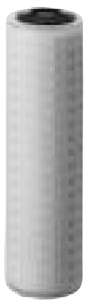
* Pressure loss: 0.01 to 0.02MPa
• Operating temperature: 0 to 80°C
• Differential pressure resistance: 0.5MPa/25°C

Element and seal part numbers

Dimensions	Element symbol	Filtration accuracy (μm)	Element part number
ø70 x 250	**J002□**	2	EJ101S-002□
	J004□	4	EJ101S-004□
	J006□	6	EJ101S-006□
	J013□	13	EJ101S-013□

Note) Specity seal material in place of "□" (N for NBR or V for FPM).
The suffix of the filter model part number is not necessary.

HEPO II element "Series EJ102S ... Series X0" (zero)



- All parts of this element are made of polypropylene, which is optimal for various cleaning solvents including alkali and organic solvents.
- Nearly fiber separation or release of chemicals, since fibers themselves are directly fused and no adhesives are used.
- Pressure loss is low and relatively long service life is provided due to a larger filtration area
- Dimensions: ø70 x L250

Recommended flow rate

Absolute filtration accuracy (μm)	Recommended flow rate (l/min)
2	20
4	
6	
13	

• Operating temperature: 0 to 80°C
• Differential pressure resistance: 0.5MPa

Element and seal part numbers

Dimensions	Element symbol	Filtration accuracy (μm)	Element part number
ø70 x 250	**R002□**	2	EJ102S-002□X0
	R004□	4	EJ102S-004□X0
	R006□	6	EJ102S-006□X0
	R013□	13	EJ102S-013□X0

Note) Specity seal material in place of "□" (N for NBR or V for FPM).

Series FQ1
Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by labels of **"Caution", "Warning" or "Danger"**. To ensure safety, be sure to observe these and other safety practices.

⚠ Caution : Operator error could result in injury or equipment damage.

⚠ Warning : Operator error could result in serious injury or loss of life.

⚠ Danger : In extreme conditions, there is a possible result of serious injury or loss of life.

⚠Warning

1. Determining the compatibility of the products described in this catalog is the responsibility of the person who designs the system or decides its specifications.

Since the products described here are used in various operating conditions, determining the compatibility with the specific system must be based on specifications or after analysis and/or tests to meet your specific requirements. Particularly, give due consideration when determining a fluid.

2. Only trained personnel should operate machinery and equipment.

Fluids can be dangerous if an operator is unfamiliar with them. Assembly, handling or repair of systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed after confirming that safety measures to prevent danger relating to fluids are adequately implemented.
2. When equipment is to be removed, confirm the safety process, the fluid flow and that there is no danger from residual fluid in the system.
3. Before machinery/equipment is restarted, confirm that there is no safety problem and restart it with caution.

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications.
2. The use of a fluid whose suitability causes concern due to its type and additives, etc.
3. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency shutdown circuits, press applications, brake circuits or safety equipment.

Series *FQ1*
Specific Product Precautions

Be sure to read before handling.
Refer to page 9 for safety instructions.

Design

⚠Caution

1. Do not apply pressure beyond the operating pressure range.

2. Do not use at temperatures beyond the operating temperature range.

3. Fluid

Do not use with gases.

4. Fatigue fracture

Be sure to implement necessary measures for the following operating conditions:

1) When surge pressure is applied to the element
2) When exposed to sliding or vibration due to insecure filter installation
3) When expansion, contraction, etc., is repeated due to thermal influence on the element.

5. Pressure drop

Adjust initial pressure drops to 0.01MPa to 0.02MPa or less.

6. Corrosion

Be aware that corrosion can be caused depending on operating conditions or environments.

Selection

⚠Warning

1. When selecting a model, a model that does not specification ranges after due consideration of the purpose of use, specification requirements, and operating conditions (fluid, pressure, flow rate, temperature, environment).

2. Do not use at temperatures at or above the boiling point of the fluid.

3. Never use with gases, including air.

4. Do not use in locations where pressure rises to 1MPa or more due to water hammer, surge pressure, etc.

⚠Caution

1. Design circuits so that back pressure or back flow will not occur. If back pressure occurs, it may damage the element.

Fluid

⚠Warning

1. Use a quick change filter for filtration of water, alkali and cleaning solvents, etc.

There may be circumstances where a seal or an O-ring deteriorates, causing leakage.

Piping

⚠Caution

1. Install and connect piping ensuring space necessary for maintenance work and inspections.

2. Before piping is connected, air blow (flush) or wash it thoroughly to remove chips, cutting oil and other impurities from inside the piping.

3. Install piping after confirming IN and OUT.

4. Connection

Be sure that chips from the pipe threads and sealing material do not get inside the piping.

Further, when sealant tape is used, leave 1.5 to 2 thread ridges exposed at the end of male threads.

5. Line flushing

Flush the piping lines at the time of initial use and when replacing the element.

6. Element replacement

1) Replace the element after removing the liquid from the piping and confirming that pressure inside the filter is zero (to assure safety).
Further more, conduct replacement using an IN, OUT differential pressure of 0.1MPa as a guide.
2) Start replacement after confirming that the temperature of the filter body is within a range of 0 to 40°C.
3) When setting the element, be sure that it does not tilt inside the case.

Operating Environment

⚠Caution

1. Discoloration or material deterioration may occur, in locations or atmospheres where there is a danger of corrosion. If corrosion progresses, the filter will lose its functions.

2. When used in locations where exposed to vibration or impact , fatigue fracture may occur.

Use it by implementing appropriate reinforcement.

Maintenance

⚠Caution

1. The pressure drop fluctuates depending on operating conditions. Since the pressure drop is one of the factors indicating filter characteristics, use the filter by setting a controlling standard.

2. Use tightening torque of 7.4 to 8.3N·m for the V-band coupling nut.

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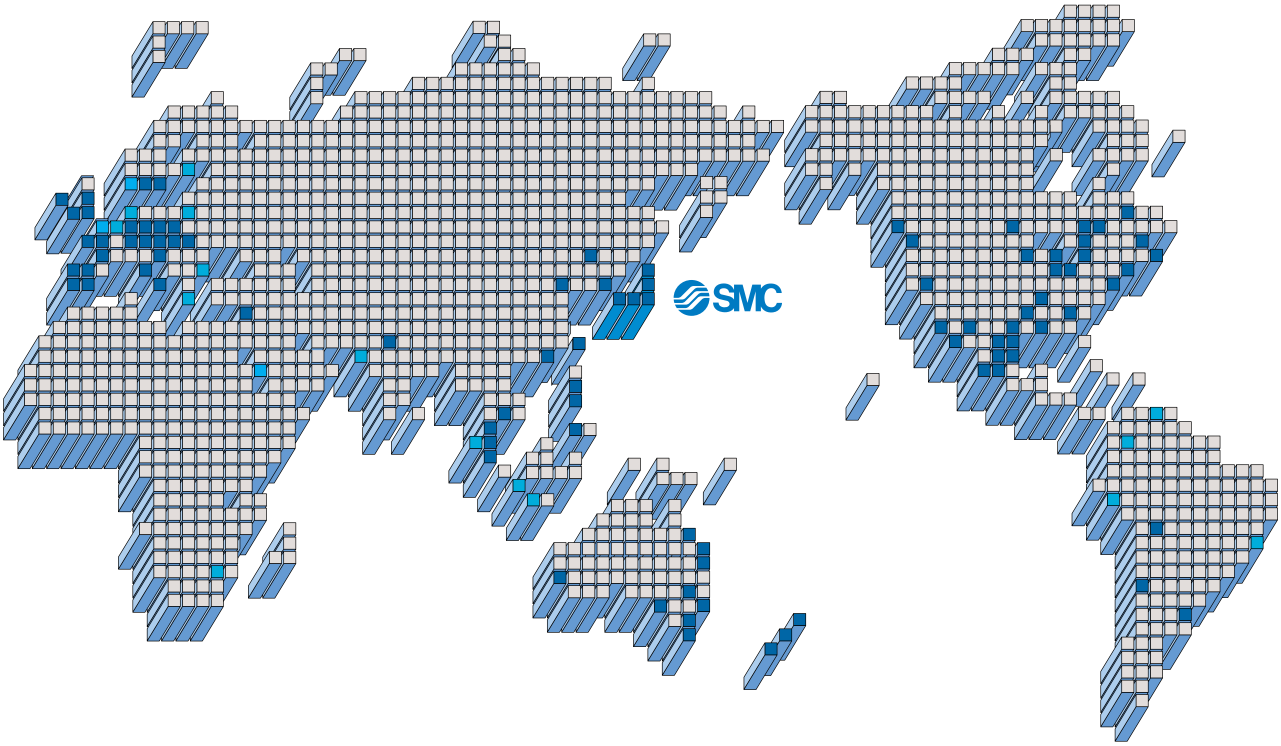

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