Субмикрофильтр с предфильтром

AMH

G1/8 ~ G2

Представляет собой комбинацию из микрофильтра и субмикрофильтра (AM+AMD). Предназначен для финишной очистки сжатого воздуха от масляного тумана и твердых частиц размером свыше 0.01 мкм.

- Экономия средств и монтажного пространства
- Высокая пропускная способность
- Продолжительный срок службы
- Встроенный индикатор контроля состояния фильтрующего элемента (перепада давления)
- Легкая замена фильтрующего элемента
- Большой объем резервуара
- Модификации с устройством автоматического отвода конденсата
- Возможность модульного монтажа (для AMH150C ~ AMH550C)
- Возможность исполнения с уплотнениями из FKM (для AMH150C ~ AMH550C)



Технические характеристики

Типоразмер	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Присоединительная резьба	G1/8 G1/4	G1/4 G3/8	G3/8 G1/2	G1/2 G3/4	G3/4 G1	G1 G1 1/2	G1 1/2 G2
Номинальный расход воздуха (норм. л/мин) [1]	200	500	1000	2000	3700	6000	12000
Испытательное давление (МПа)	1.5 (2.0 – для исполнения с опцией H)						
Макс. рабочее давление (МПа)	1.0 (1.6 – для исполнения с опцией H)						
Мин. рабочее давление (МПа)	0.05						
Диапазон рабочих температур (°C)	5 ~ 60						
Тонкость фильтрации (мкм)	0.01						
Содержание масла на выходе [2]	Не более 0.1 мг/норм. м^3 (при насыщении маслом 0.01)						
Срок службы фильтр. элемента [3]	2 года или при достижении перепада давления больше 0.1 МПа						
Вес (кг)	0.38	0.55	0.9	1.4	2.1	4.2	10.5

1) при давлении на входе P1=0.7 МПа

2) при 30 мг/норм.м^3 на входе

3) индикатор контроля состояния фильтрующего элемента полностью выдвигается при перепада давления 0.1 МПа

Номер для заказа

Типоразмер	Присоединительная резьба	Номинальный расход воздуха (норм. л./мин.)	**Номер для заказа**	
				Исп. для высокого давления (1.6 МПа)
AMH150C	G1/8	200	**AMH150C-F01-T**	**AMH150C-F01-H**
	G1/4		**AMH150C-F02-T**	**AMH150C-F02-H**
AMH250C	G1/4	500	**AMH250C-F02-T**	**AMH250C-F02-H**
	G3/8		**AMH250C-F03-T**	**AMH250C-F03-H**
AMH350C	G3/8	1000	**AMH350C-F03-T**	**AMH350C-F03-H**
	G1/2		**AMH350C-F04-T**	**AMH350C-F04-H**
AMH450C	G1/2	2000	**AMH450C-F04-T**	**AMH450C-F04-H**
	G3/4		**AMH450C-F06-T**	**AMH450C-F06-H**
AMH550C	G3/4	3700	**AMH550C-F06-T**	**AMH550C-F06-H**
	G1		**AMH550C-F10-T**	**AMH550C-F10-H**
AMH650	G1	6000	**AMH650-F10-T**	
	G1 1/2		**AMH650-F14-T**	
AMH850	G1 1/2	12000	**AMH850-F14-T**	
	G2		**AMH850-F20-T**	

Размеры см. стр. 30

Конструкция и модульный монтаж см. стр. 34

Принадлежности (заказываются отдельно)

Типоразмер	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Крепежный угольник	**AM-BM101**	**AM-BM102**	**AM-BM103**	**AM-BM104**	**AM-BM105**	**BM56**	**BM57**
Переходная деталь	**Y200**	**Y300**	**Y400**	**Y500**	**Y600**	–	–
Сменный фильтрующий элемент	**AMH-EL150**	**AMH-EL250**	**AMH-EL350**	**AMH-EL450**	**AMH-EL550**	**AMH-EL650**	**AMH-EL850**

Выбор модели

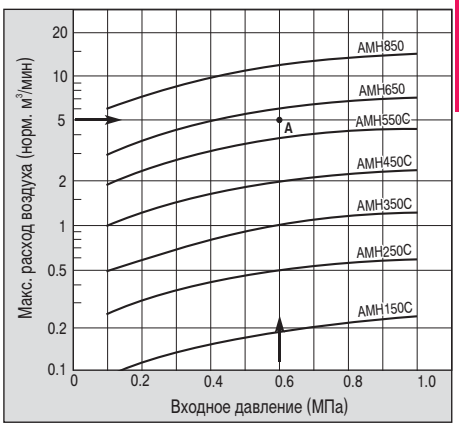
Модель субмикрофильтра с предфильтром выбирается по значениям входного давления и максимального расхода сжатого воздуха с использованием графика расходной характеристики.

Пример:

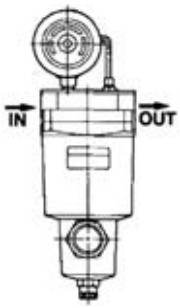
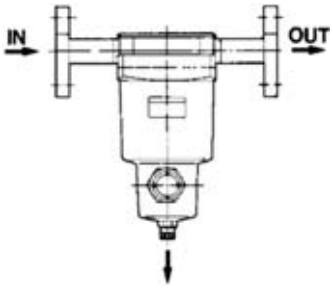
Входное давление 0.6 МПа, максимальный уровень расхода 5 норм. м^3/мин.

- На графике расходной характеристики находим точку пересечения **A** для значений давления питания 0.6 МПа и максимального расхода 5 норм. м^3/мин.
- Далее выбирается ближайшая к точке **A** кривая максимального расхода, расположенная выше. В данном случае это кривая для фильтра AMH650.

Не рекомендуется использовать данные устройства при расходах воздуха, превышающих расходы, указанные в технических характеристиках.



Специальные исполнения

AMH□-X37, AMH□C-U	AMH□-X6, AMH□C-X6	AMH□-X15, AMH□C-X15	AMH□C-F
			
Дифференциальное реле давления, сигнализирующее о достижении предельно допустимого перепада давления. *Контакты реле переключаются, когда разность между давлениями на входе и выходе достигает 0.1 МПа*	Дифференциальный манометр GD40-2-01. *Устанавливается на крышке фильтра и позволяет постоянно контролировать перепад давлений без дополнительных отводов от трубопроводов*	Фланцевое присоединение	Материал уплотнений FKM

AMH□D, AMH□C□D

Устройство автоматического отвода конденсата

Компания SMC сохраняет за собой право на внесение технических и размерных изменений

Micro Mist Separator with Pre-filter

Series AMH

Can separate and remove aerosol state oil mist in compressed air and remove particles such as carbon or dust of more than 0.01 μm.
Use this product as a pre-filter for compressed air for precision instruments or clean room requiring higher clean air.

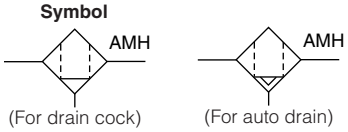
The conventional pneumatic pressure line, AM series + AMD series have been integrated to achieve a reduction in installation space and in piping labor.

Modular connection is possible with AMH150C to 550C.
(For details, refer to page 58.)



AMH150C to 550C **AMH650/850**

Symbol



(For drain cock) (For auto drain)

Made to Order
(For details, refer to page 63.)

Model

Model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Note) Rated flow (ℓ/min (ANR))	200	500	1000	2000	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	3/4, 1	1, 1 1/2	1 1/2, 2
Mass (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5

Note) Max. flow at 0.7 MPa.
Max. flow varies depending on the operating pressure.
Refer to "Flow Characteristics" (page 37) and "Maximum Air Flow" below.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure*	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Nominal filtration density	0.01 μm (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 mg/m³ (ANR)* (Before saturated with oil, less than 0.01 mg/m³ (ANR) ≈0.008 ppm)
Element life	2 years or when pressure drop reached 0.1 MPa

* With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)
* Oil mist density at 30 mg/m³ (ANR) blown out by compressor.

Accessory

Applicable model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

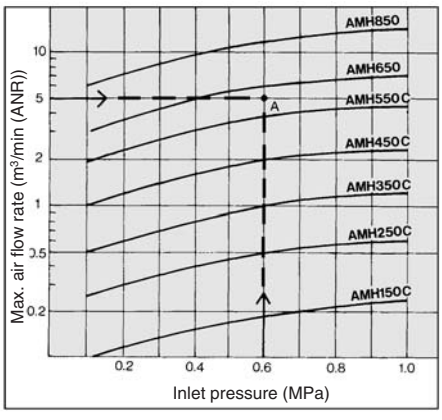
Model Selection

Select a model in accordance with the following procedure taking the inlet pressure and the max. air flow rate into consideration.
(Example) Inlet pressure: 0.6 MPa
Max. air flow rate: 5 m³/min (ANR)

1. Obtain the intersecting point A of inlet pressure and max. air flow rate in the graph.
2. The AMH650 is obtained when the max. flow line is above the intersecting point A in the graph.

Note) Make sure to select a model that has the max. flow line above the obtained intersecting point. With a model that has the max. flow line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Maximum Air Flow



⚠ Caution

Be sure to read this before handling.
Refer to back pages 1 and 2 for Safety Instructions, "Precautions for Handling Pneumatic Devices" (M-03-E3A) for Common Precautions, and back pages 3 through to 7 for Specific Product Precautions.

How to Order



AMH150C to 550C

AMH 550C – □ 10 □ □ – □ – □

Body size

150C
250C
350C
450C
550C

Thread type

Symbol	Type
—	Rc
F	G*1
N	NPT

*1 Conforms to ISO1179-1.

Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory

Symbol	Description
—	—
B	Bracket *2

*2 Bracket is included, (but not assembled).

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
—	—	—
X6	With differential pressure gauge (GD40-2-01)	P.64
X26	N.C., N.O. auto drain, drain piping type	P.65

Option *3

Symbol	Description
—	—
F	Rubber material: Fluororubber
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *4
R	IN-OUT reversal direction
U	With differential pressure switch (30 VDC) *5
T	With element service indicator
V	Degreasing wash,*6 white vaseline

*4 Drain piping and piping for a stop valve such as ball valve are required.
*5 Differential pressure switch is included, (but not assembled).
*6 Only body/housing is degreasing washed.

Auto drain *3

Symbol	Description
—	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

*3 Refer to the table below for the combination between the draining specification and option. (Only one draining specification is selectable).

Auto Drain Specifications/Option Combinations

◎: All draining specifications are available (including drain guide, J type).
△: N.C. auto drain (C type) is not available.
▼: N.C. auto drain (C type) and N.O. auto drain (D type) are not available.

	—	F	H	R	U	T	V
—		◎	△	◎	Note		◎
F	◎		▼	◎			▼
H	△	▼		△			▼
R	◎	◎	△		Note		◎
U	Note			Note			
T							◎
V	◎	▼	▼	◎		◎	

Note) one of them selectable □: Not available

Options

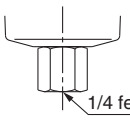
Symbol F: Rubber material: Fluororubber

Fluororubber is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded

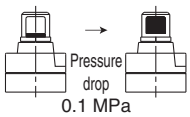


Can be pipied to the drain exhaust port.

Symbol R: IN-OUT reversal direction

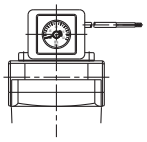
Air flow in the separator is changed to right to left.
(Air flow direction of the standard: Left to right.)

Symbol T: With element service indicator



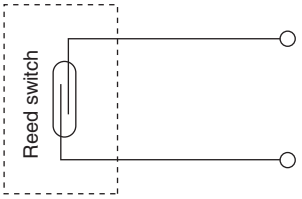
Saturation of the separator can be observed visually. (Element life check)

Symbol U: With differential pressure switch (with indicator)



Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 V DC (0.33 A)



Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AMH650/850

AMH **650** – □ **10** □ □ – □ – □

Body size

650
850

Thread type

Symbol	Type
—	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	**850**
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Accessory

Symbol	Description
—	—
B	Bracket *2

*2 Bracket is included, (but not assembled).

Option *2

Symbol	Description
—	—
J	Drain guide 1/4 female threaded *4
R	IN-OUT reversal direction
T	With element service indicator

*4 Drain piping and piping for a stop valve such as ball valve are required.

Auto drain *2

Symbol	Description
—	Drain cock (Without auto drain) *3
D	N.O. auto drain

*2 Refer to "Auto Drain Specifications/Option Combinations".
*3 Body size 850 is equipped with a ball valve (Rc3/8 female threaded). Mount a piping adapter IDF-AP609 (page 58) to the ball valve if NPT3/8 female threaded is required.

Made to Order
("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
—	—	—
X6	With differential pressure gauge (GD40-2-01)	P.64
X26	N.C., N.O. auto drain, drain piping type	P.65
X12	White vaseline specifications	P.65

Note) Refer to "How to Order Bowl Assembly" on page 59.

Auto Drain Specifications/Option Combinations

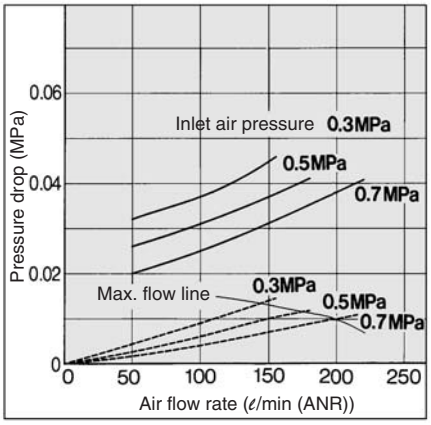
◎: Available □: Not available

Auto drain specifications/Option			Auto drain specifications	Option			Applicable model	
			D	**J**	**R**	**T**	**AMH650**	**AMH850**
Auto drain specifications	N.O. auto drain	**D**			◎	◎	◎	◎
Option	Drain guide 1/4	**J**			◎	◎	◎	
	IN-OUT reversal direction	**R**	◎	◎		◎	◎	◎
	With element service indicator	**T**	◎	◎	◎		◎	◎

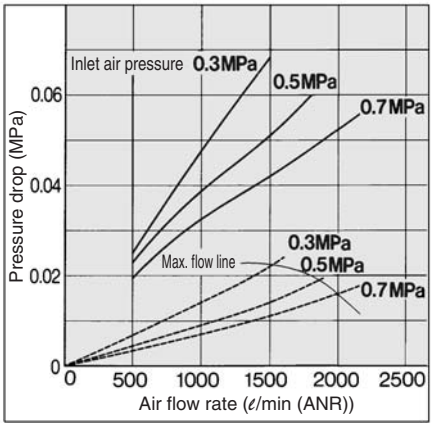
Flow Characteristics/Select the model taking the max. flow capacity into consideration. (—— Element oil saturation ---- Initial condition)

Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.
It may cause damage to the element.

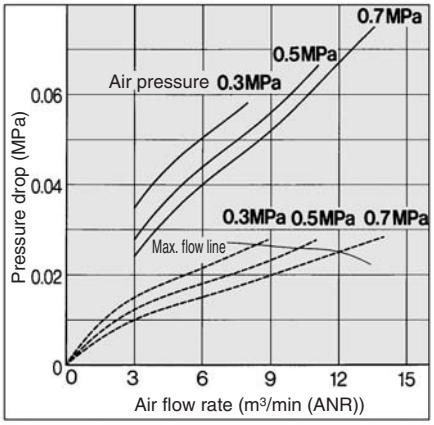
AMH150C



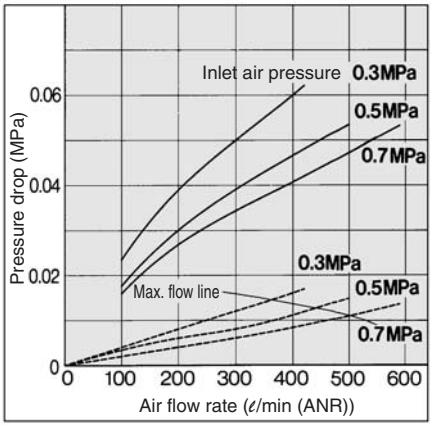
AMH450C



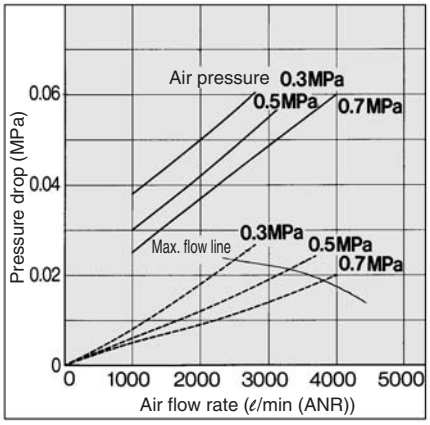
AMH850



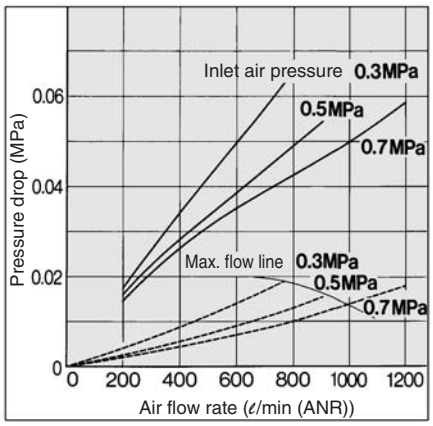
AMH250C



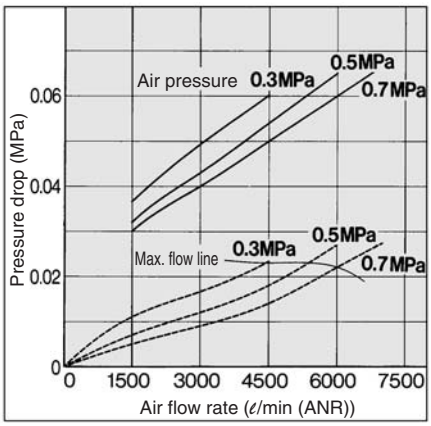
AMH550C



AMH350C

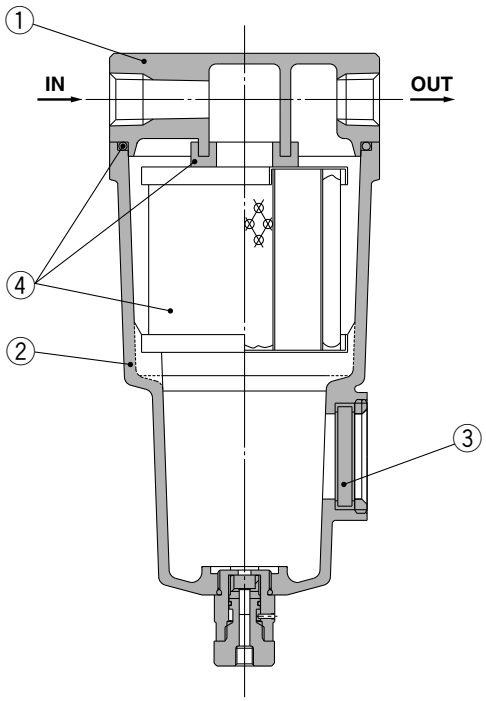


AMH650

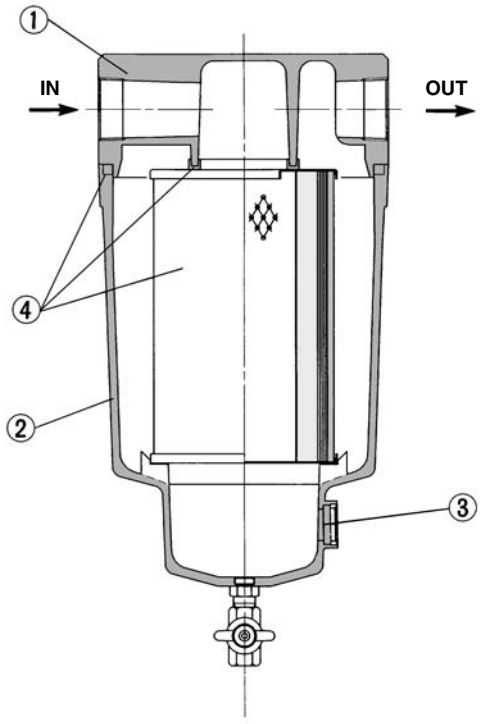


Construction

AMH150C to 550C, AMH650



AMH850



Component Parts

No.	Description	Material	Note
1	**Body**	Aluminum die-casted	Chrome treated
2	**Housing**	Aluminum die-casted*	Epoxy coating on inner surface
3	**Sight glass**	Tempered glass	—

∗ The AMH850 is aluminum casted.

Note) Refer to “How to Order Bowl Assembly” on page 59.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 39 through to 41 for details.

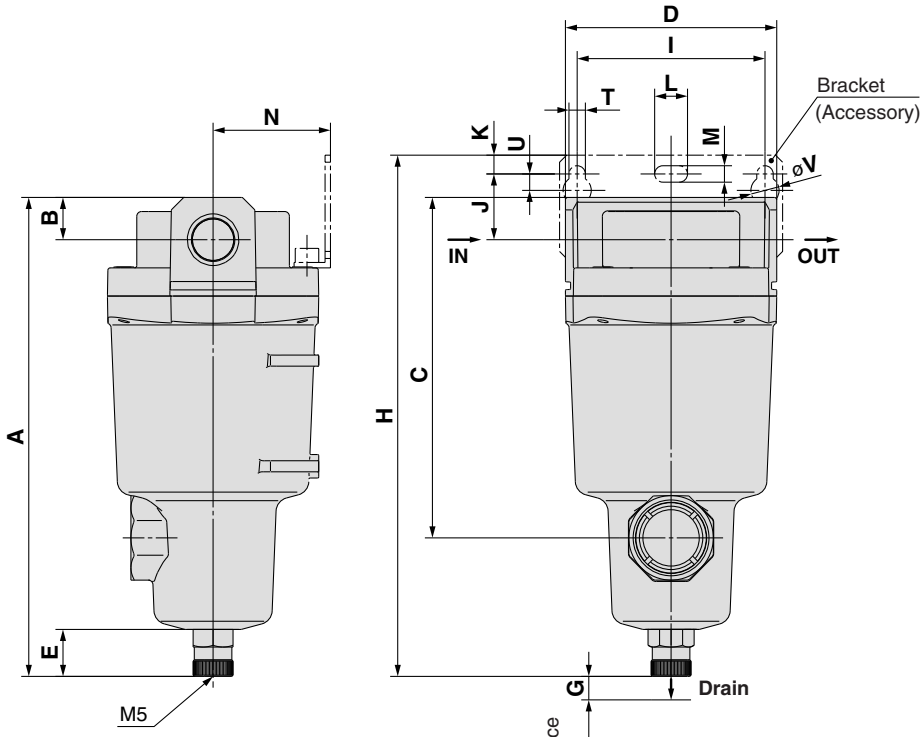
Replacement Parts

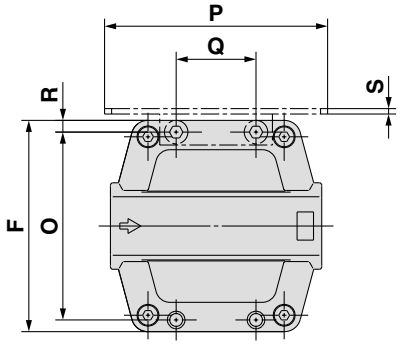
No.	Description	Material	Applicable model	Model						
				AMH150C	**AMH250C**	**AMH350C**	**AMH450C**	**AMH550C**	**AMH650**	**AMH850**
4	**Element assembly**	Glass fiber, others	Except option F	AMH-EL150	AMH-EL250	AMH-EL350	AMH-EL450	AMH-EL550	AMH-EL650	AMH-EL850
			For option F	AMH-EL150-F	AMH-EL250-F	AMH-EL350-F	AMH-EL450-F	AMH-EL550-F	—	—

∗ Element assembly: With gasket (1 pc.) and O-ring (1 pc.)
∗ Refer to back page 6 for replacement of auto drain.
∗ Element assemblies for Made to Order (X6, X12, X20, X26) are same as those for standard (see the above table).

Dimensions

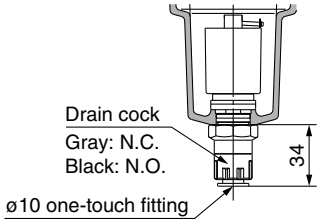
AMH150C to 550C



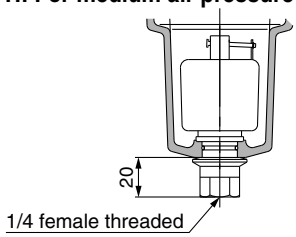


Auto drain

C: With auto drain (N.C.)
D: With auto drain (N.O.)

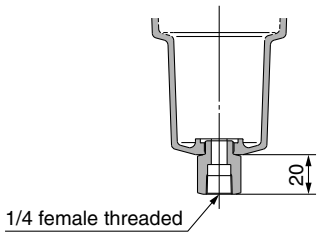


Combination of D: With auto drain (N.O.) and H: For medium air pressure

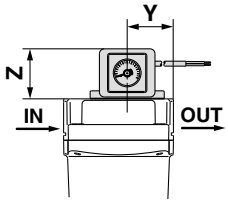


Option

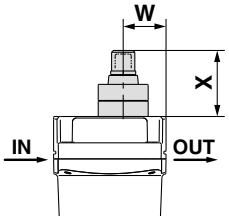
J: Drain guide 1/4 female threaded



U: With differential pressure switch (with indicator)



T: With element service indicator

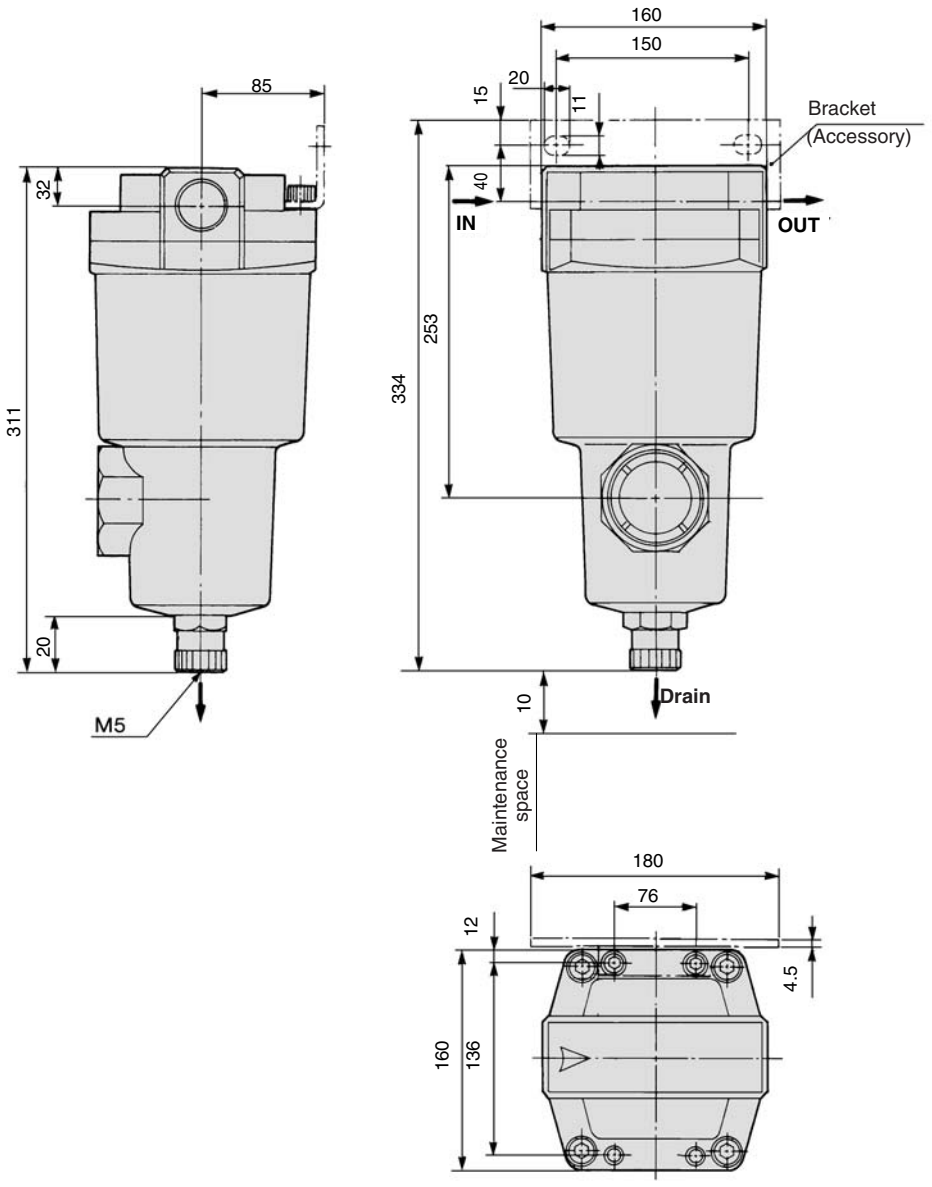


(mm)

Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions																Element service indicator related dimensions		Differential pressure switch related dimensions	
									H	I	J	K	T	U	L	M	V	N	O	P	Q	R	S	W	X	Y	Z
AMH150C	1/8, 1/4	158	10	99	63	20	63	10	173	56	20	5	6	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AMH250C	1/4, 3/8	172	14	113	76	20	76	10	190	66	24	8	6	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AMH350C	3/8, 1/2	204	18	145	90	20	90	10	222	80	28	8	7	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AMH450C	1/2, 3/4	225	20	166	106	20	106	10	246	90	31	10	9	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AMH550C	3/4, 1	259	24	200	122	20	122	15	278	100	33	10	9	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

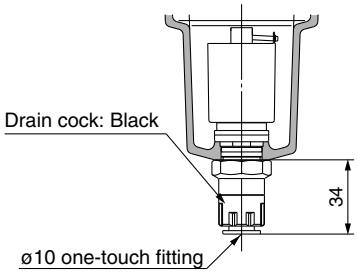
Dimensions

AMH650



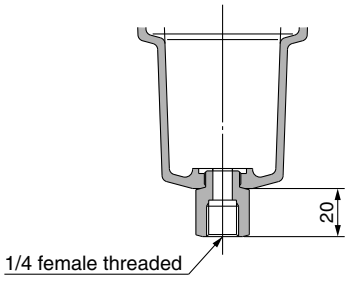
Auto drain

D: With auto drain (N.O.)

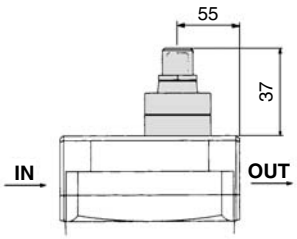


Option

J: Drain guide 1/4 female threaded

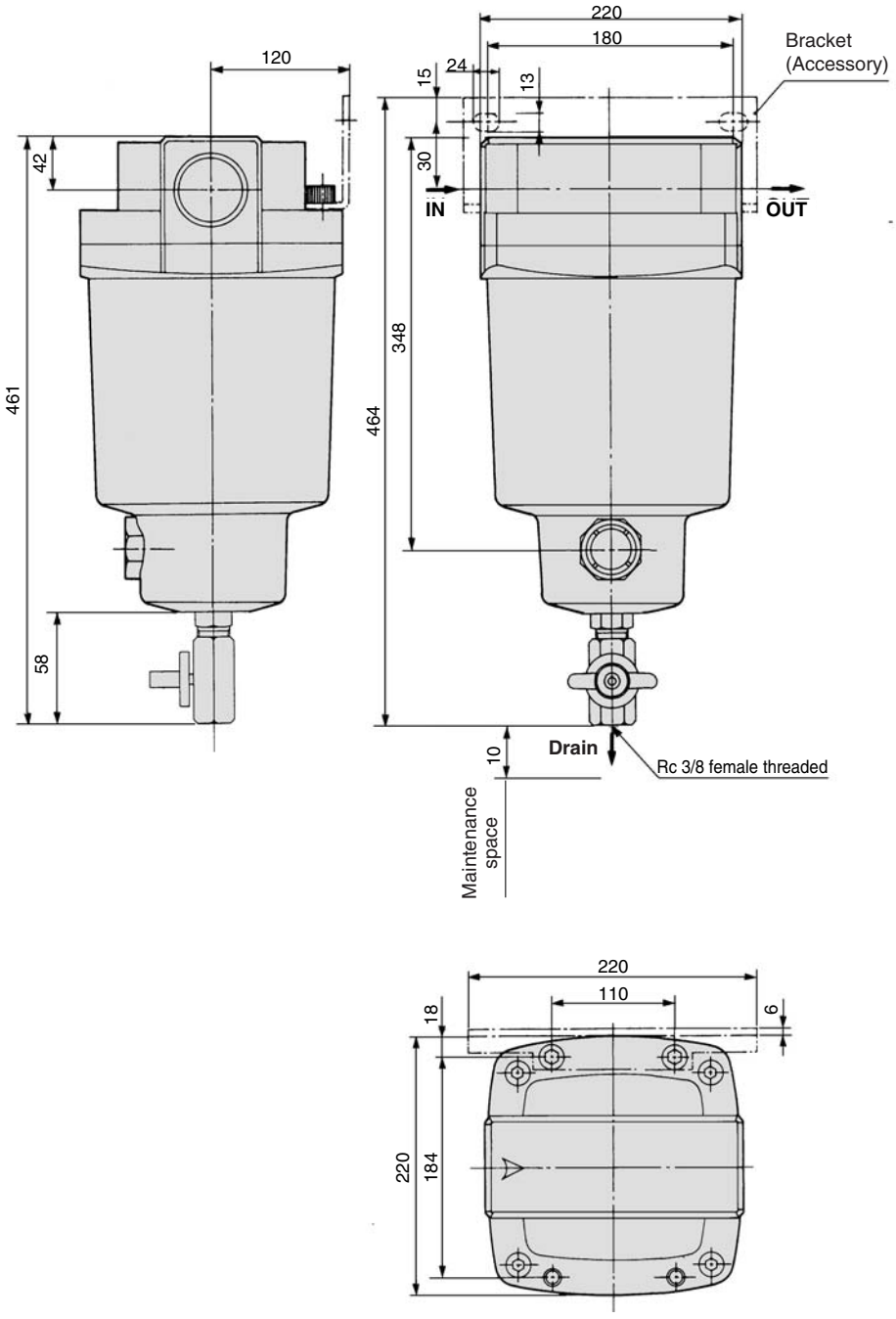


T: With element service indicator



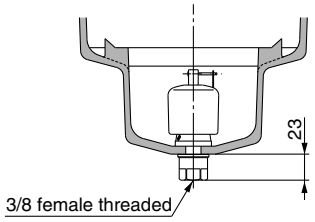
Dimensions

AMH850



Auto drain

D: With auto drain (N.O.) for AMH850



Option

T: With element service indicator

