

# 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  $\mu\text{m}$ .  
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.

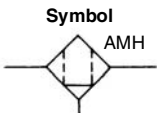
Modular connection is possible with AMH150C to 550C.  
(For details, refer to page 204.)



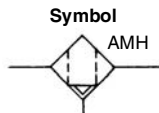
AMH150C to 550C



AMH650/850



(Drain cock specifications)



(Auto drain specifications)



**Made to Order**

(For details, refer to page 210.)

## Model

Model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Rated flow (l/min (ANR)) <small>Note)</small>	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 182) and "Maximum Air Flow" below.

## Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure*1	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Nominal filtration density	0.01 $\mu\text{m}$ (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 $\text{mg}/\text{m}^3$ (ANR)*2 (Before saturated with oil, less than 0.01 $\text{mg}/\text{m}^3$ (ANR) $\approx$ 0.008 ppm)
Element life	2 years or when pressure drop reached 0.1 MPa

\*1 With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

\*2 Oil mist density at 30  $\text{mg}/\text{m}^3$  (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

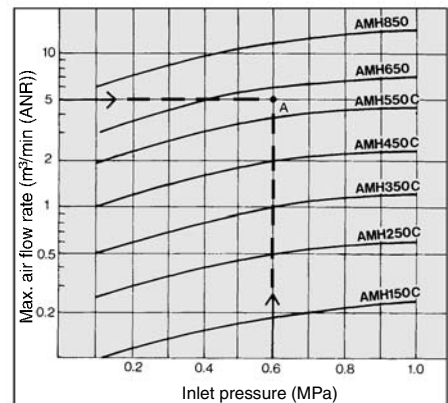
Select a model in accordance with the following procedure taking the inlet pressure and the max. air flow rate into consideration.  
(Example) Inlet pressure: 0.6 MPa  
Max. air flow rate: 5  $\text{m}^3/\text{min}$  (ANR)

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 before handling.

Refer to front matters 42 and 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

## How to Order



### AMH150C to 550C

AMH **550C** - [ ] - [ ] - [ ] - [ ]

Body size •

150C
250C
350C
450C
550C

Thread type •

Symbol	Type
Nil	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
Nil	—
B	Bracket *2

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

\*3 The model with bracket is not available for -X15 and -X17.

• 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
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.211
X15	With IN-OUT flange *3	P.212
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.212
X26	N.C., N.O. auto drain, drain piping type	P.213

• Option \*4

Symbol	Description
Nil	—
F	Rubber material: Fluororubber
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	With element service indicator
V	Degreasing wash, *7 white vaseline

\*5 Drain piping and piping for a stop valve such as ball valve are required.

\*6 Differential pressure switch is included, (but not assembled).

\*7 Only body/housing is degreasing washed.

(Note) Order "U" if conformity to the EU directive is required.

• Auto drain \*4

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

\*4 Refer to "Drain Exhaust Specifications/Option Combinations". (Only one drain exhaust method can be selected.)

### Drain Exhaust Specifications/Option Combinations

○ : All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△ : N.C. auto drain ("C" specification) is not available.

▼ : Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	Nil	F	H	R	S	U	T	V
Nil		○	△	○			Note	○
F	○		▼	○				▼
H	△	▼		△				▼
R	○	○	△				Note	○
S								
U	Note			Note				
T								○
V	○	▼	▼	○				○

Note: Only one drain exhaust method can be selected.

■ : Not available

### Options

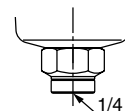
#### Symbol F: Rubber material: Fluororubber

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



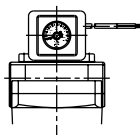
Can be piped to the drain exhaust port.

1/4 female threaded

#### 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.)

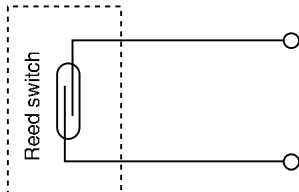
#### Symbol S: With differential pressure switch (with indicator)



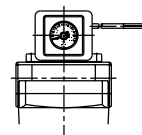
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

\* The rated contact voltage is different from "U".

Max. contact capacity: 10 VA AC, 10 W DC  
Rated contact voltage (max. operating current): 125 V AC (0.08 A), 30 V DC (0.33 A)



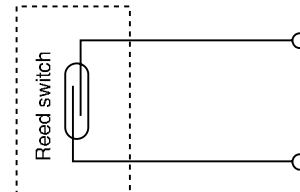
#### Symbol U: With differential pressure switch (with indicator)



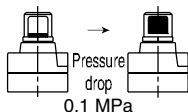
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

\* The rated contact voltage is different from "S".

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



#### Symbol T: With element service indicator



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

#### 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
Nil	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
Nil	—
B	Bracket *1 *2

\*1 Bracket is included, (but not assembled).

\*2 The model with bracket is not available for -X15 and -X17.

#### 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
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.211
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.211
X15	With IN-OUT flange *2	P.212
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *2	P.212
X26	N.C., N.O. auto drain, drain piping type	P.213
X12	White vaseline specifications	P.213

#### Option \*3

Symbol	Description
Nil	—
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

#### Auto drain \*3

Symbol	Description
Nil	Drain cock (Without auto drain) *4
D	N.O. auto drain

\*3 Refer to "Auto Drain Specifications/Option Combinations".

\*4 Body size 850 is equipped with a ball valve (Rc3/8 female threaded). Mount a piping adapter IDF-AP609 (page 205) to the ball valve if NPT3/8 female threaded is required.



Note) Refer to "How to Order Bowl Assembly" on page 206.


### Auto Drain Specifications/Option Combinations

○: Available □: Not available

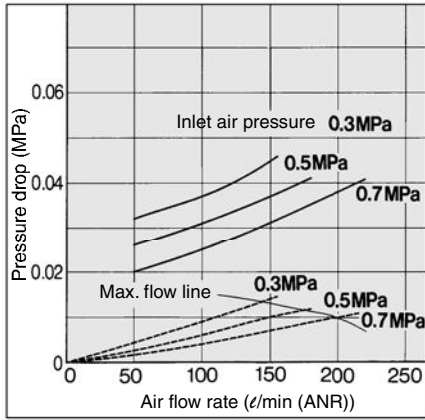
Auto drain specifications/Option			Auto drain specifications	Option			Applicable model	
			D	J	R	T	AMH650	AMH850
Auto drain specifications	N.O. auto drain	D	□	□	○	○	○	○
	Drain guide 1/4	J	□	○	○	○	○	□
Option	IN-OUT reversal direction	R	○	○	□	○	○	○
	With element service indicator	T	○	○	○	□	○	○

# Series AMH

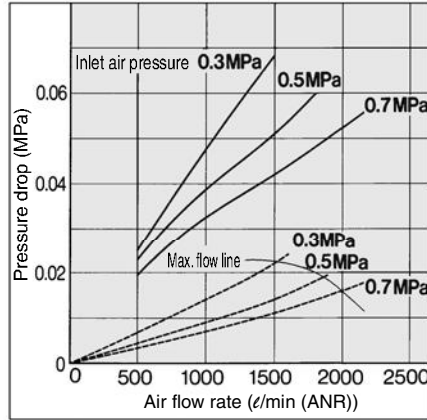
**Flow Characteristics (Representative values)** Select the model taking the max. flow capacity into consideration. ( — Element oil saturation - - - - Initial condition)

 Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.

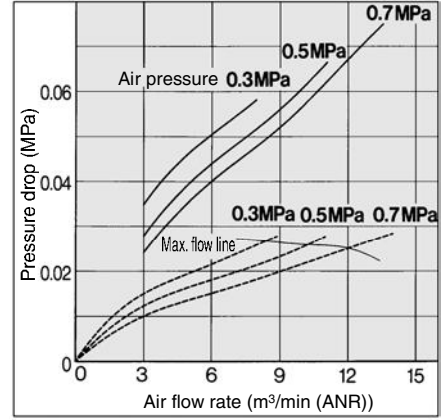
**AMH150C**



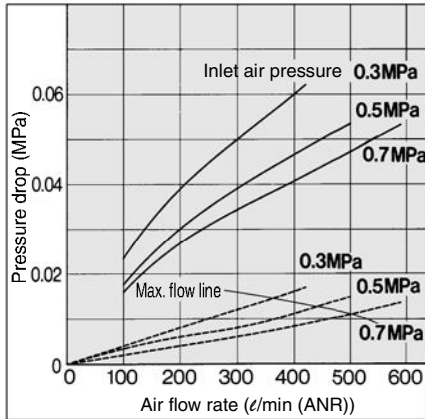
**AMH450C**



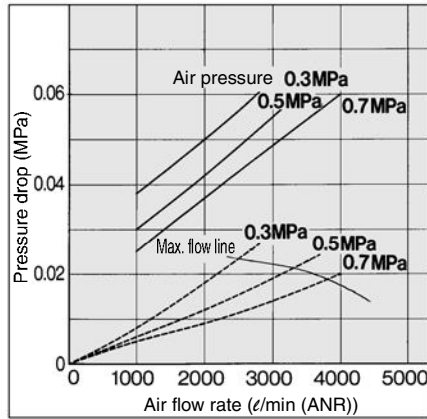
**AMH850**



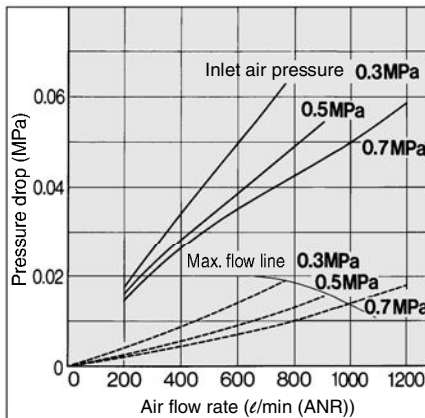
**AMH250C**



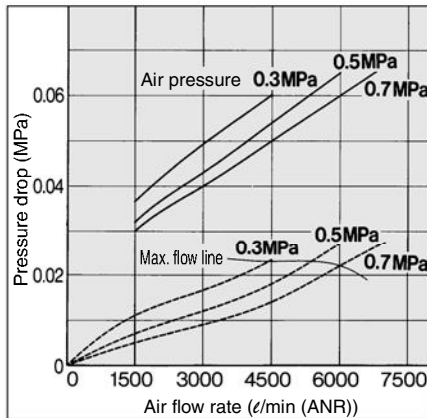
**AMH550C**



**AMH350C**

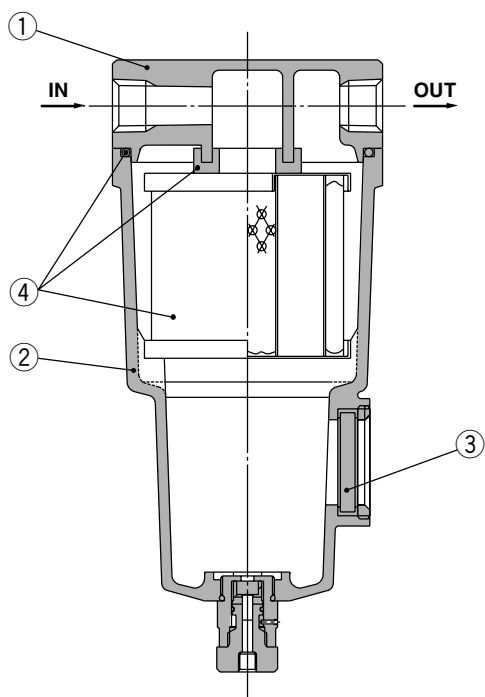


**AMH650**

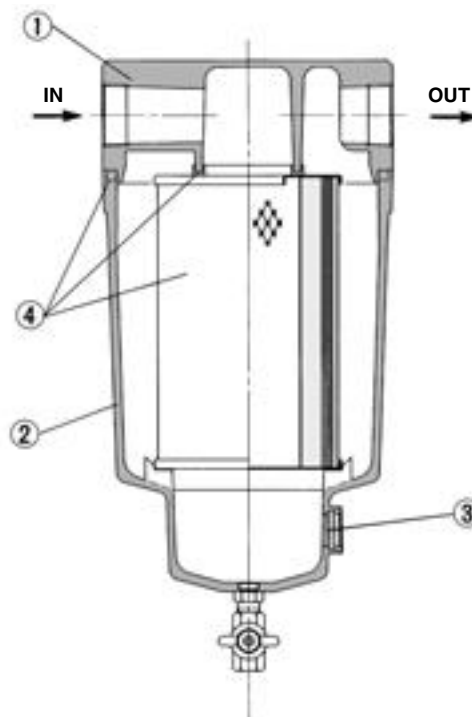


## Construction

### AMH150C to 550C, AMH650



### AMH850



### Component Parts

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

\* The AMH850 is aluminum casted.



Note) Refer to "How to Order Bowl Assembly" on page 206.



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 184 through to 186 for details.

### Replacement Parts

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

\* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

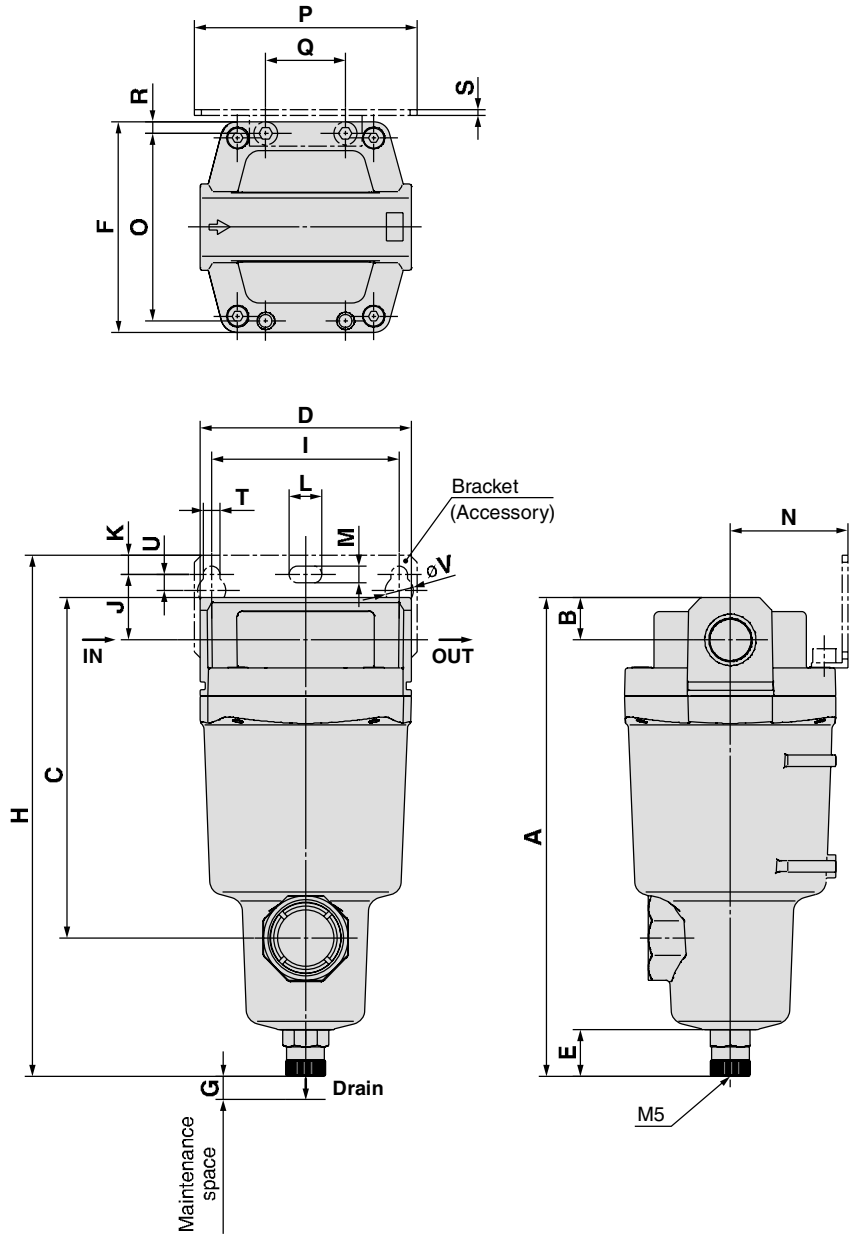
\* Refer to page 219 for replacement of auto drain.

\* Element assemblies for Made to Order (X6, X12, X15, X17, X20, X26, X37) are same as those for standard (see the above table).

# Series AMH

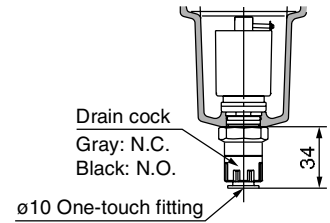
## Dimensions

### AMH150C to 550C

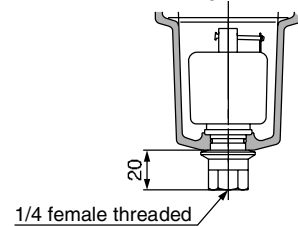


### Auto drain

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

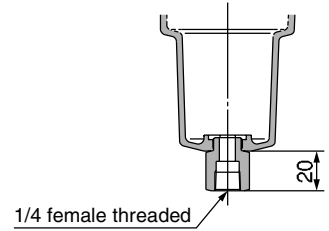


**Combination of D:** With auto drain (N.O.)  
**and H:** For medium air pressure

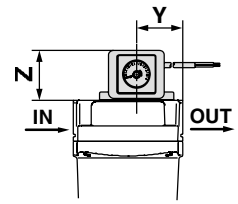


### Option

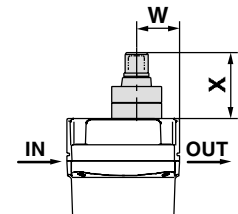
**J:** Drain guide 1/4 female threaded



**S, U:** With differential pressure switch (with indicator)



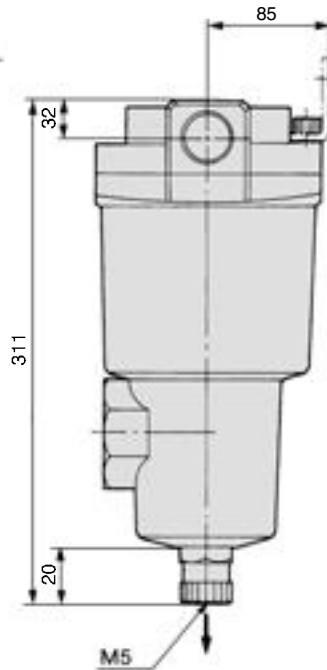
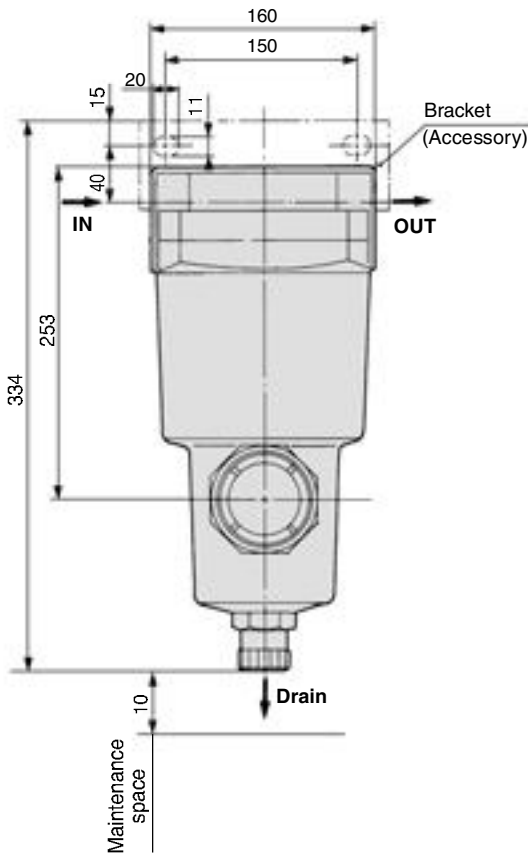
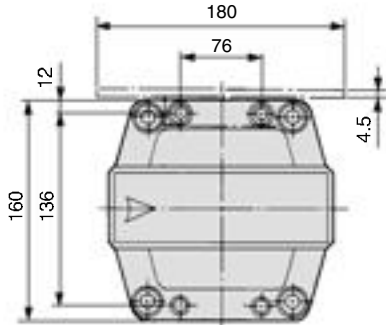
**T:** With element service indicator



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

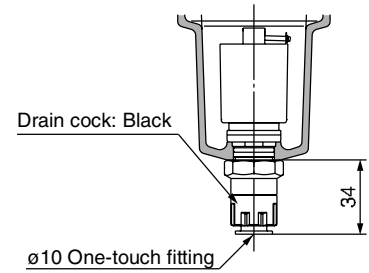
**Dimensions**

**AMH650**



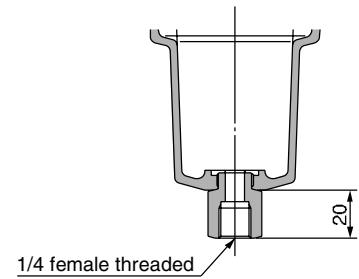
**Auto drain**

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

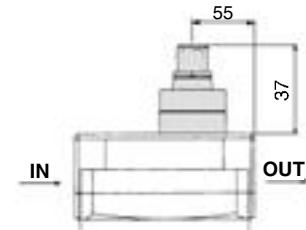


**Option**

**J: Drain guide 1/4 female threaded**



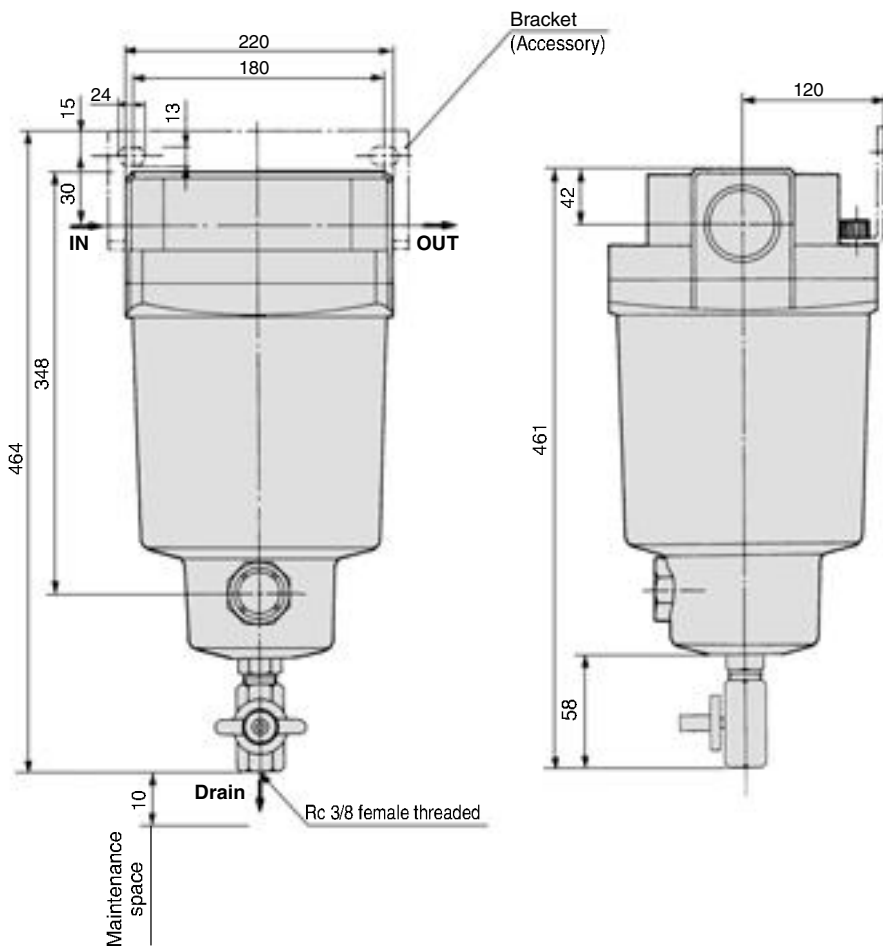
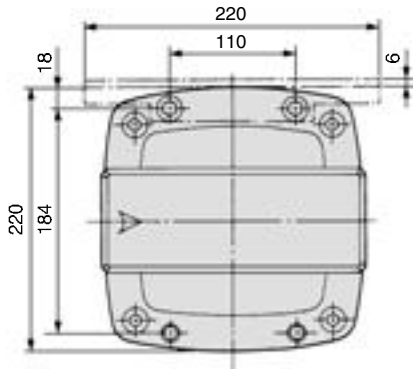
**T: With element service indicator**



# Series AMH

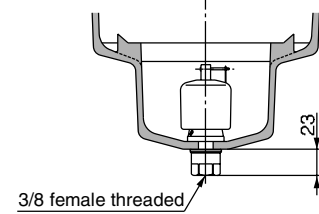
## Dimensions

### AMH850



### Auto drain

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



### Option

T: With element service indicator

