

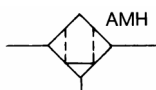
Micro Mist Separator with Prefilter AMH

Series AMH can separate and remove aerosol state oil mist in compressed air and remove carbon or dust of more than $0.01\mu\text{m}$. It should be used as prefilter of compressed air for precision instruments or clean room required for higher clean air.

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



Symbol



P.4.6-21

Model

Model	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
Rated flow (l/min(ANR)) ⁽¹⁾	200	500	1000	2000	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note 1) Max. flow capacity at a pressure of 0.7MPa. It varies depending on operating pressure. Refer to "Flow Characteristics"(p.4.6-17) and figure of "Max. air flow" (p.4.6-15).

Specifications

Fluid	Compressed air
Max. operating pressure	1.0MPa
Min. operating pressure ⁽¹⁾	0.05MPa
Proof pressure	1.5MPa
Ambient and fluid temperature	5 to 60°C
Filtration rating	0.01 μm (95% particle size collection)
Oil mist removal rate	Max.0.1mg/m ³ (ANR) ⁽²⁾ (At saturation of element oil, less than 0.01mg/m ³ (ANR){0.008ppm})
Element life	2 years or when pressure drop reaches 0.1MPa

Note 1) With N.O.auto drain : 0.15MPa

Note 2) At filter inlet oil concentration 30mg/m³(ANR)

Accessories (Options)

Applicable models	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
Bracket assembly (With cap bolt, spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

How to Select

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

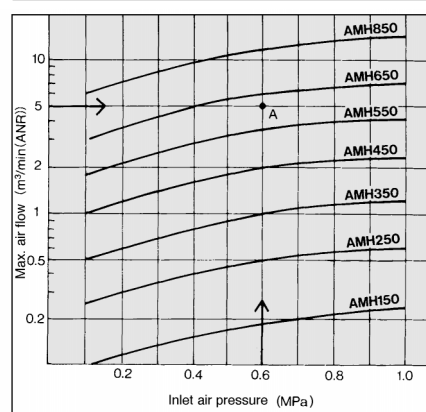
(Example) Inlet pressure : 0.6MPa
Max. air flow capacity : 5m³/min(ANR)

- Select the point of contact A of inlet pressure and max. air flow capacity in the graph.
- Select the type whose max. air flow capacity is over that point: AMH650.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate 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.

Max. Air Flow



Micro Mist Separator with Prefilter Series *AMH*

How to Order

AMH150 to AMH850

AMH 250 03 B J

Body size	
150	1/8
250	1/4
350	3/8
450	1/2
550	3/4
650	1
850	1 1/2

Thread	
—	Rc(PT)
F	G(PF)
N	NPT

Port size			
01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Accessories(Options)*

Symbol	Description
—	None
B	Bracket
C	N.C.auto drain
D	N.O.auto drain

* Refer to the table below for accessory/option combinations.

Options

J	Drain guide 1/4 ^B female thread
R	IN/OUT reversal
T	Element service indicator



Note) Refer to p.4-7-7 regarding "How to Order" of case assembly.

Table: Accessory/Option combinations

◎ Available □ Not available ○ Depends on model

Accessories Options			Accessories		Options			Applicable models						
			C	D	J	R	T	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
Accessories	N.C. auto drain	C				○	○	○	○	○	○	○		
	N.O. auto drain	D				○	○	○	○	○	○	○	○	○
Options	Drain guide 1/4B	-J				○	○	○	○	○	○	○	○	
	IN/OUT reversal	-R	○	○	○		○	○	○	○	○	○	○	○
	Element service indicator	-T	○	○	○		○	○	○	○	○	○	○	○

⚠ Precautions

Be sure to read before handling. Refer to p.0-26 and 0-27 for Safety Instructions and common precautions on the products mentioned in this catalog, and refer to p.4.0-5 to 4.0-7 for precautions on every series.

Design

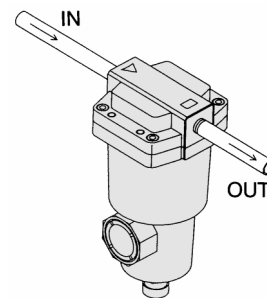
⚠ Caution

- Design the layout so that the mist separator is installed in an area that is less susceptible to pulsations. The element could be damaged if the difference in internal and external pressures exceeds 0.1MPa.
- When using the auto drain, connect the drain piping in the following range:
Normally closed (N.C.) }
Normally open (N.O.) }
Because tube fittings are provided, use a tube with a bore of 10mm, and keep the overall pipe length within 5m.
AMH850 type (N.O.)
Use a tube with a bore of 9mm or more, and keep the overall pipe length within 2.8m.
If the normally open (N.O.) auto drain is used, because it is designed so that the valve will not open unless the air pressure is 0.15MPa or higher, air could continue to blow out of the drainage discharge area if an air compressor with a small air discharge volume is used. Therefore, when using a compressor that is smaller than 3.7kW, make sure to use the normally closed (N.C.) auto drain.
- The bracket that is provided with the product is for supporting the product itself. Thus, it cannot support the piping or other items that are connected. If these items need to be supported, provide an additional support.

Mounting

⚠ Caution

- Verify the direction of the flow of the compressed air and the ">" mark that indicates the inlet of the product before connecting. It cannot be used if connected in the opposite direction.



- Make sure to install this product on horizontal piping. If it is installed diagonally, laterally, or upside down, the drainage that is separated by the element will splash to the secondary side.

Maintenance

⚠ Caution

- The replacement interval for the element is when the pressure drop reaches 0.1MPa or after 2 years of operation, whichever comes first. A pressure drop can be verified with the type with a clogging checker (-T) or with the type with a pressure differential gauge (Made to Order).
- When the element has reached its replacement interval, replace it immediately with a new element. Replace the O ring, the gasket, and the element with new parts.
- When using the type with a drain valve, drain guide, or a ball valve, discard the drainage before the drainage level reaches the center of the sight glass. If the drainage is not discarded properly, it will flow to the secondary side.

HA□

AT

ID□

AMG

AFF

AM□

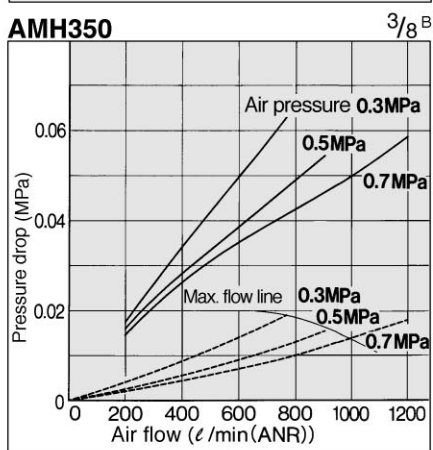
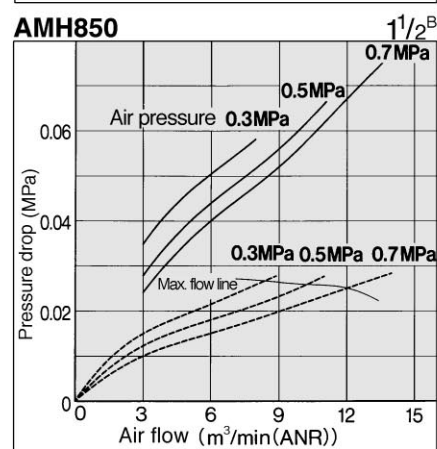
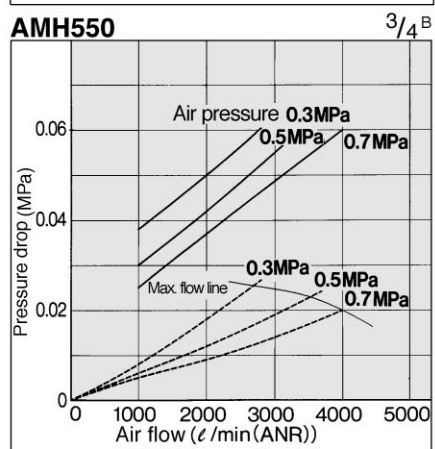
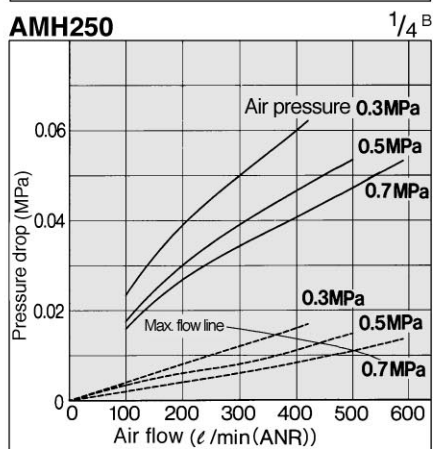
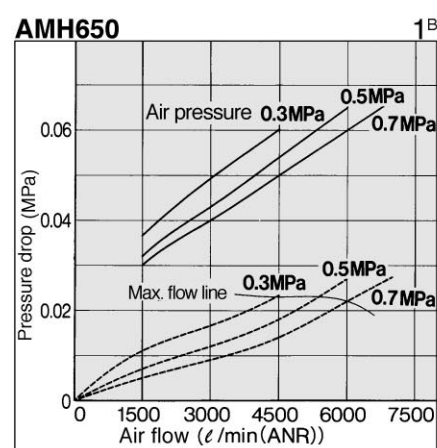
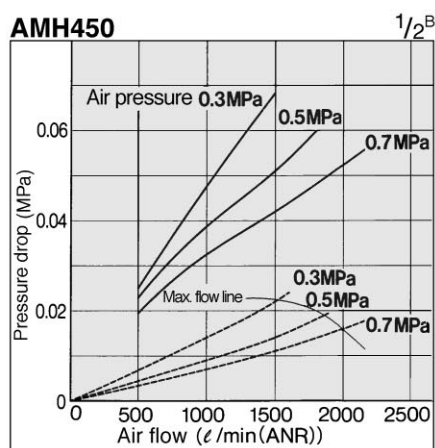
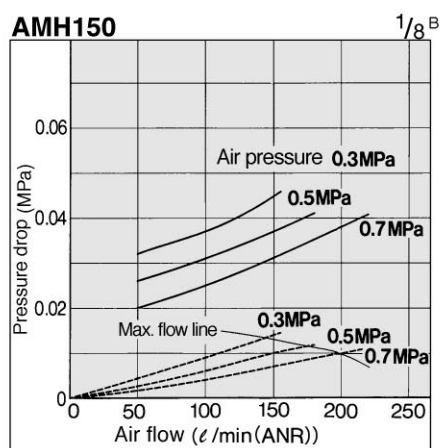
Related products

Series AMH

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



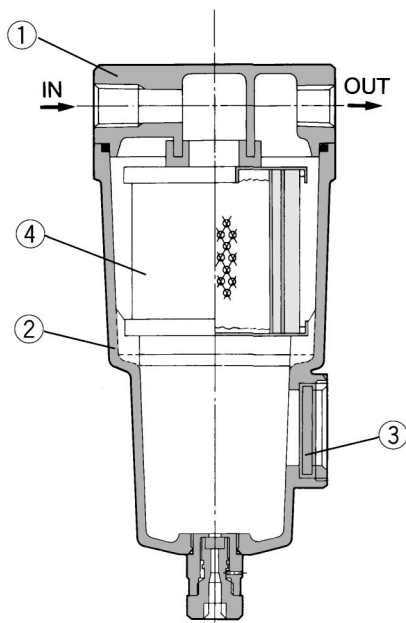
Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.



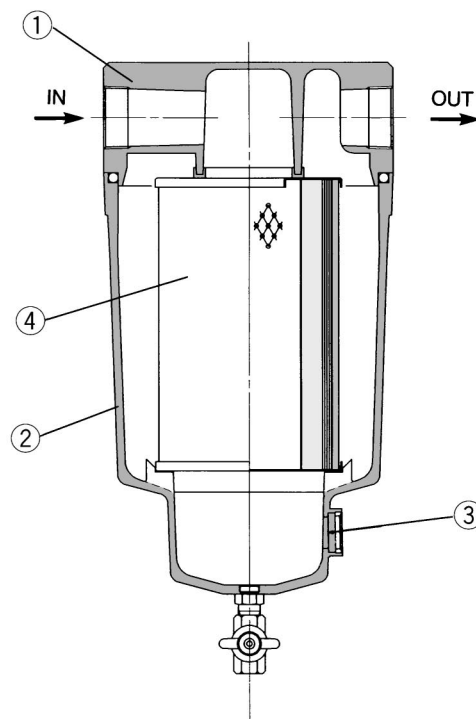
Micro Mist Separator with Prefilter *Series AMH*

Construction

AMH150 to AMH650



AMH850



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast	Chrome treatment
②	Housing	Aluminum die cast*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

Note) Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on p.4.6-19 and 4.6-20 for details.

*AMH850 is aluminum casting.

Replacement Parts

No.	Description	Material	Part No.						
			AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
④	Element assembly	Glass fiber NBR	AMH-EL150	AMH-EL250	AMH-EL350	AMH-EL450	AMH-EL550	AMH-EL650	AMH-EL850

*With gasket and O ring

HA□

AT

ID□

AMG

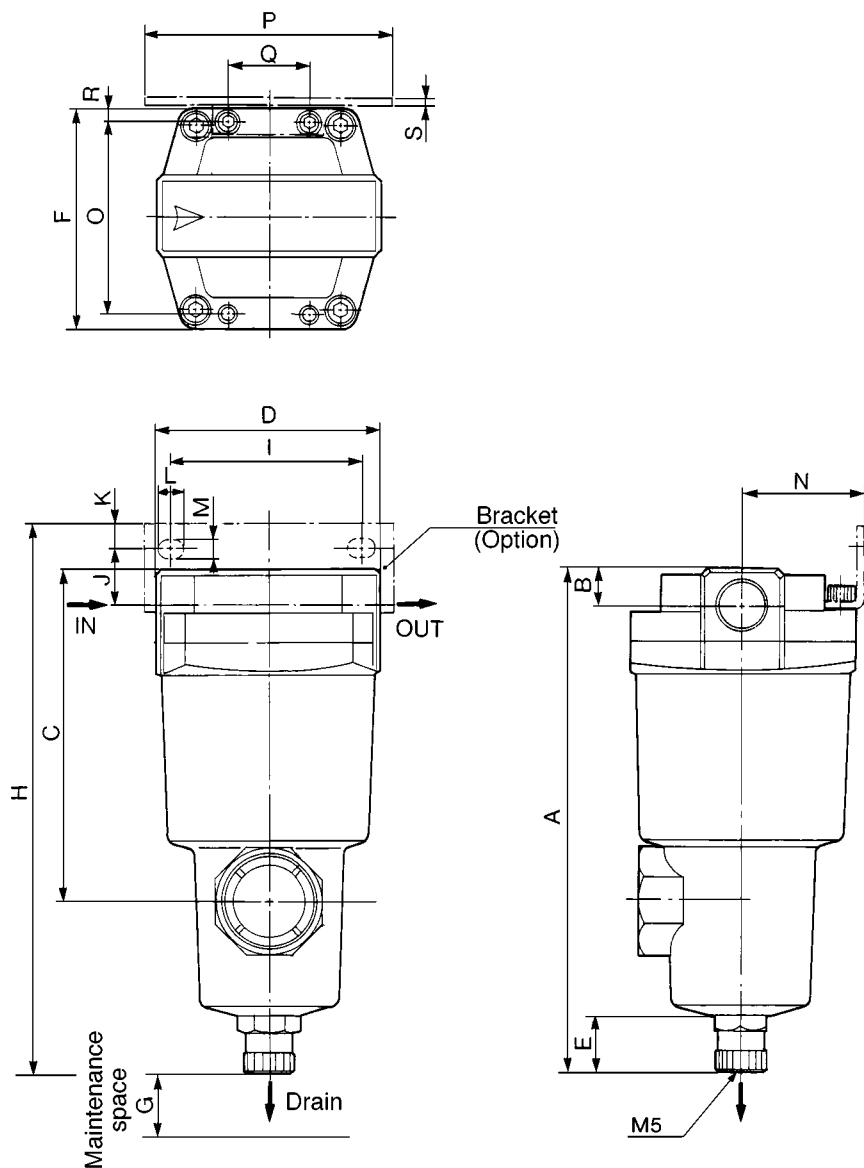
AFF

AM□

Related
products

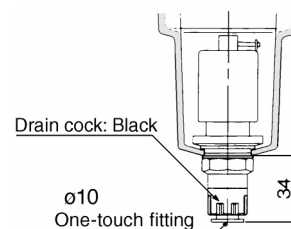
Series AMH

Dimensions: AMH150 to AMH650

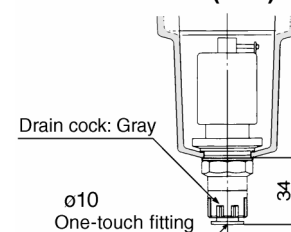


Accessories

D: With auto drain (N.O.)



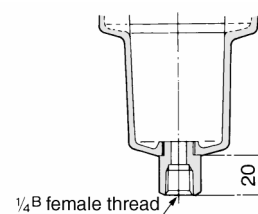
C: With auto drain (N.C.)



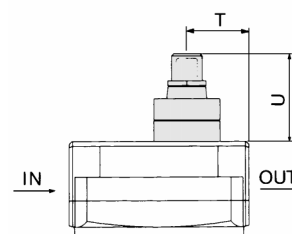
*N.C. auto drain not available for AM650.

Options

J: With drain guide



T: With element service indicator



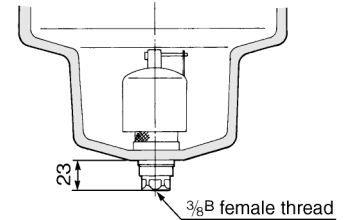
Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											Element service indicator		
									H	I	J	K	L	M	N	O	P	Q	R	S	T	U
AMH150	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6	24	37
AMH250	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2	27	37
	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2	27	37
AMH350	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3	32	37
	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3	32	37
AMH450	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2	37	37
	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2	37	37
AMH550	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AMH650	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5	55	37

Micro Mist Separator with Prefilter *Series AMH*

Dimensions: AMH850

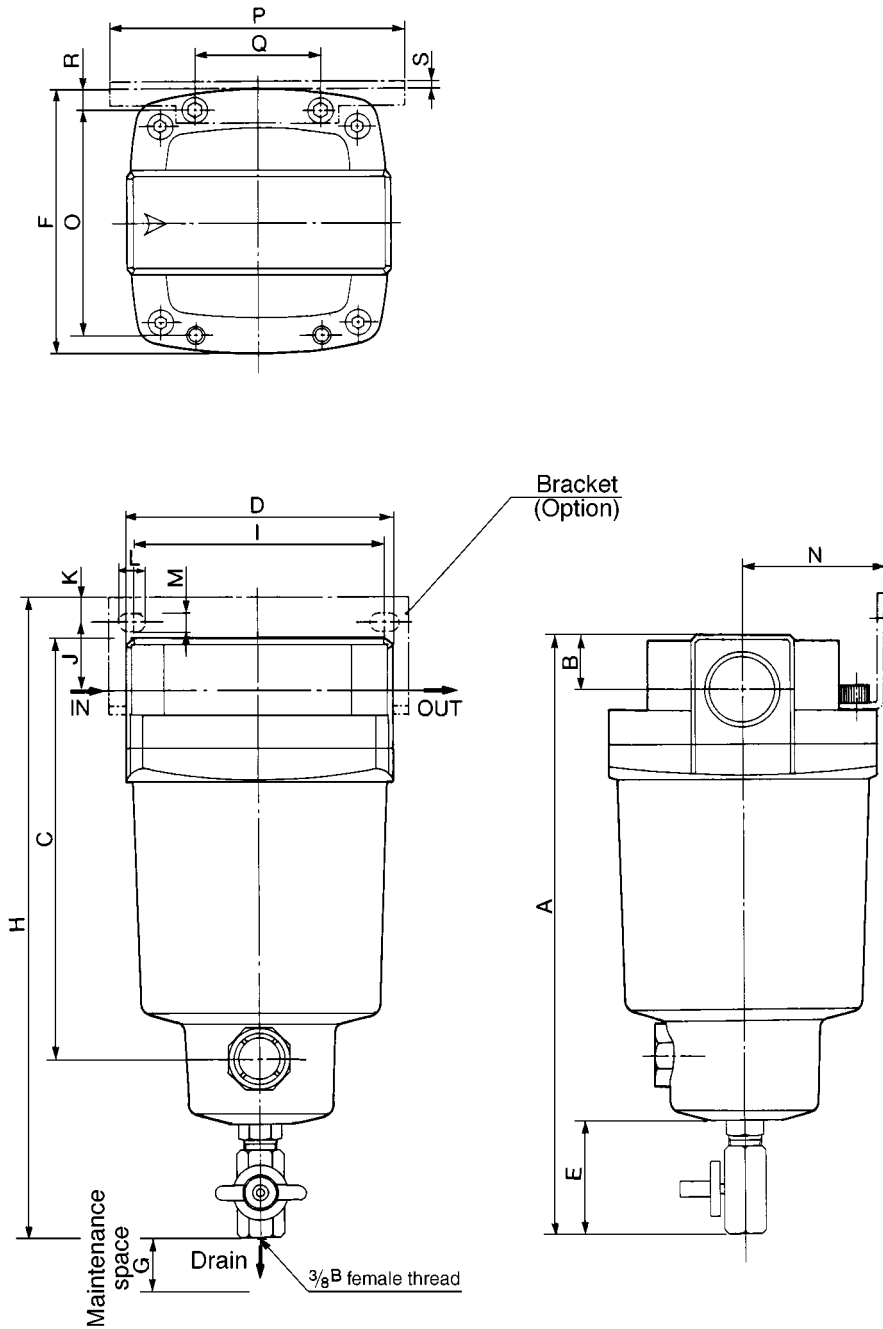
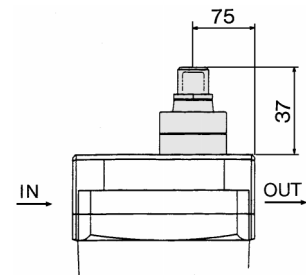
Accessory

D: With auto drain (N.O.)
for AMD850



Options

T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMH850	1½, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0

HA ☐

AT ☐

ID ☐

AMG ☐

AFF ☐

AM ☐

Related
products

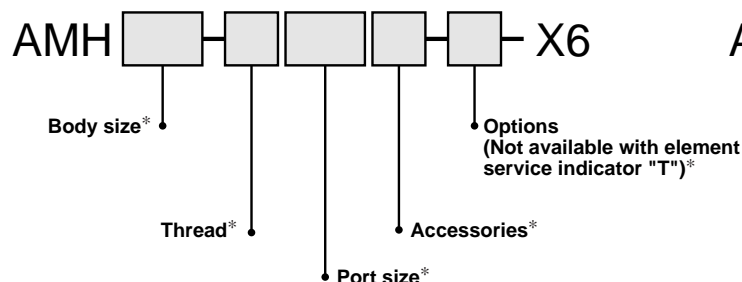
① With Pressure Differential Gauge (GD40-2-01)

A pressure differential gauge can be installed in the body to check the life of the filter element. It allows for easier piping and compact size.

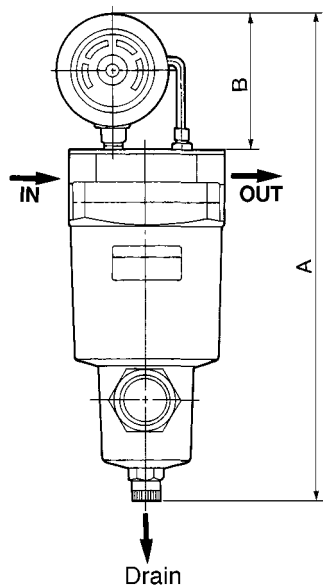
Specification

Applicable model	AMH150 to AMH850
------------------	------------------

How to Order *Refer to "How to Order" for standard type (p.4.6-16).



Dimensions



Model	Port size	A	B
AMH150	1/8, 1/4, 3/8	239	80
AMH250	1/4, 3/8	252	80
	1/2	258	
AMH350	3/8, 1/2	284	80
	3/4	290	
AMH450	1/2, 3/4	305	80
	1	312	
AMH550	3/4, 1	339	80
AMH650	1, 1 1/2	391	80
AMH850	1 1/2, 2	540.5	80

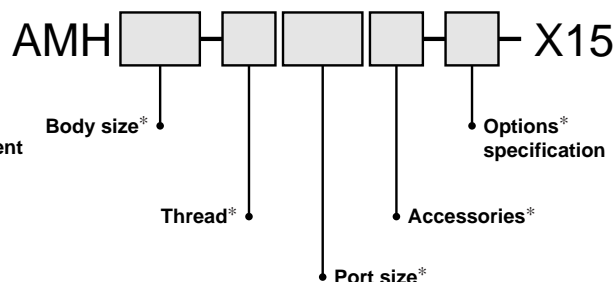
② With IN-OUT Flange

For easier flange piping.

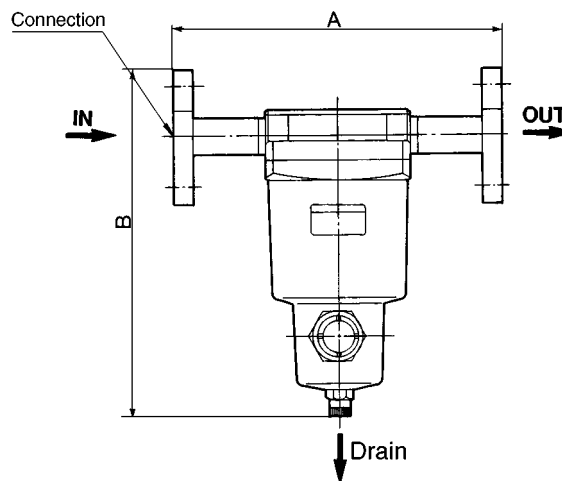
Specification

Applicable model	AMH450 to AMH850
------------------	------------------

How to Order *Refer to "How to Order" for standard type (p.4.6-16).



Dimensions



Model	Connection	A	B
AMH450	3/4B/FF/10K	240	256
AMH550	1B/FF/10K	260	300
AMH650	1 1/2 B/FF/10K	300	349
AMH850	2B/FF/10K	380	496.5

Precaution

Please refer to p.4.5-7 for with pressure differential gauge (GD40-2-01).