

Micro Mist Separator AMD Series

RoHS

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.

Modular connection is possible with AMD150C to 550C.
(For details, refer to page 266.)



AMD150C to 550C

AMD650/850

Symbol



(Drain cock specifications)



(Auto drain specifications)



Made to Order
(For details, refer to page 272.)

Model

Model	AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
Rated flow (L/min (ANR)) ^{Note)}	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
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5

Note) Max. flow capacity at 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Rate Characteristics" (page 234) and "Maximum Flow Capacity Line" (page 233).

Model/Free Standing Type

Model	AMD900	AMD1000
Rated flow (L/min (ANR))	24000	40000
Port size	50(2B), 80(3B), 100(4B)JIS 10K FF flange	100(4B), 150(6B)JIS 10K FF flange
Weight (kg)	220	430

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa ^{Note 3)}
Min. operating pressure ^{Note 1)}	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration rating	0.01 μm (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 mg/m ³ (ANR) ^{Note 2)} (Before saturated with oil, less than 0.01 mg/m ³ (ANR) ≈0.008 ppm)
Element replacement period	2 years (1 year for free standing type) or when pressure drop reached 0.1 MPa

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

Note 2) When the inlet oil mist density is 30 mg/m³ (ANR).

Note 3) 0.97 MPa for free standing type

Accessory Part No.

Applicable model	AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Caution

Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

HAA
HAW

AT

IDF
IDU

IDF
 FS

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

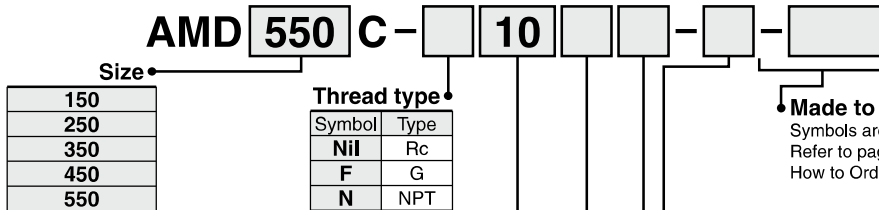
AD

GD

How to Order



AMD150C to 550C



Port size:

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

Accessory:

Symbol	Description
Nil	—
B	Bracket *1

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

Made to Order

Symbols are only added at the end for Made to Order. Refer to page 272 and later for the contents of Made to Order, How to Order, and the applicable models.

Option *3

- Multiple options can be selected.
- Refer to the table on the lower left for the available combinations.
- Indicate symbols in alphabetical order.

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female thread *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	White vaseline

*5 Without a valve function

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

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

Auto Drain Specifications/Option Combinations

○: All types of auto drain 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

Auto drain *2 *3

Symbol	Description
Nil	Without auto drain (With drain cock *4)
C	N.C. (Normally closed) Drain port is closed when pressure is not applied.
D	N.O. (Normally open) Drain port is open when pressure is not applied.

*2 Refer to page 265 for proper use of the auto drain. (Only one auto drain specification can be selected.)

*3 Refer to the table on the left for the available combinations of the auto drain specifications and options.

*4 When the option J is selected, the auto drain and drain cock are not available.

Options

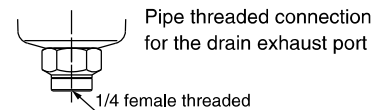
Symbol F: Rubber material: FKM

FKM 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.

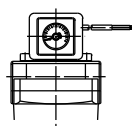
Symbol J: Drain guide 1/4 female threaded



Symbol R: IN-OUT reversal direction

Flow direction: Right to left
(Flow direction of the standard: Left to right)

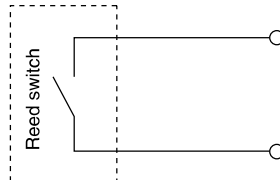
Symbol S: With differential pressure switch (with indicator)



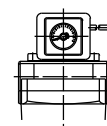
Clogging of the element can be observed visually or with an electrical signal.

* 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)



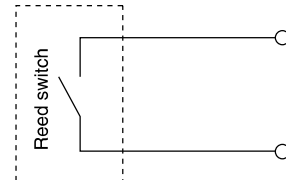
Symbol U: With differential pressure switch (with indicator)



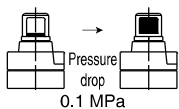
Clogging of the element can be observed visually or with an electrical signal.

* 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



Clogging of the element can be observed visually.
0.1 MPa

Symbol V: White vaseline

The body/housing is degreased, and the grease used for the parts requiring lubrication has been changed to white vaseline.



How to Order

AMD650/850



Size

650
850

Thread type

Symbol	Type
Nil	Rc
F	G
N	NPT

Port size

Symbol	Port size	650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Accessory

Symbol	Description
Nil	—
B	Bracket *1

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

Auto drain *2

Symbol	Description
Nil	Without auto drain (With drain cock *3 *4)
D	N.O. (Normally open) Drain port is open when pressure is not applied.

- *2 Refer to the table on the right for the available combinations of the auto drain specifications and options.
- *3 When the option J is selected, the auto drain and drain cock are not available.
- *4 Body size 850 is equipped with a ball valve (Rc 3/8). Mount a piping adapter IDF-AP609 (page 267) to the ball valve if NPT 3/8 female threaded is required.

Made to Order
Symbols are only added at the end for Made to Order. Refer to page 272 and later for the contents of Made to Order, How to Order, and the applicable models.

- Option** *3
- Multiple options can be selected.
 - Refer to the table below for the available combinations.
 - Indicate symbols in alphabetical order.

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

*5 Without a valve function

Auto Drain Specifications/Option Combinations

⊙: Available □: Not available

Auto drain specifications/Option		Auto drain specifications				Option		Applicable model	
		D	J	R	T	AMD650	AMD850		
Auto drain specifications	N.O. auto drain	D	□	⊙	⊙	⊙	⊙	⊙	
Option	Drain guide 1/4	J	□	⊙	⊙	□	□	□	
	IN-OUT reversal direction	R	⊙	⊙	⊙	⊙	⊙	⊙	
	With element service indicator	T	⊙	⊙	⊙	⊙	⊙	⊙	

Free standing type AMD9□, 10□



Size

9
10

Auto drain

Symbol	Description
00	With manual drain cock
10	With auto drain

*6 Auto drain is N.O. (Normally open). Drain port is open when pressure is not applied.

Port size

Symbol	Port size	Applicable size	
		AMD9□0	AMD10□0
20	50(2B)JIS 10K FF flange	●	—
30	80(3B)JIS 10K FF flange	●	—
40	100(4B)JIS 10K FF flange	●	●
60	150(6B)JIS 10K FF flange	—	●

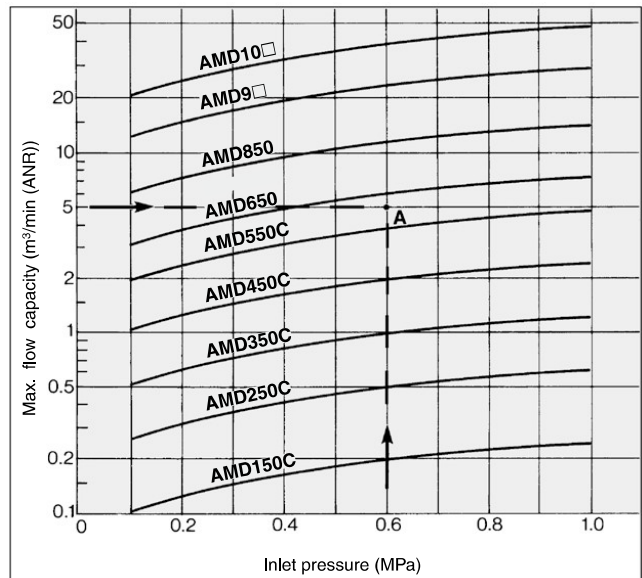
Model Selection

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

- Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
- The AMD650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity 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 Flow Capacity Line



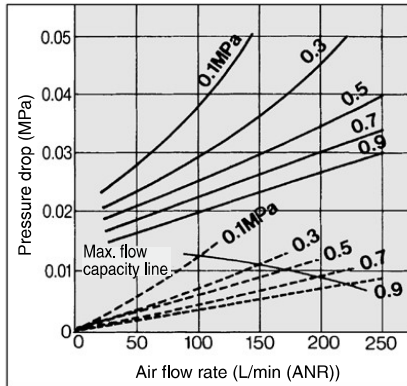
- HAA
- HAW
- AT
- IDF
- IDU
- IDF
- FS
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD**
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

AMD Series

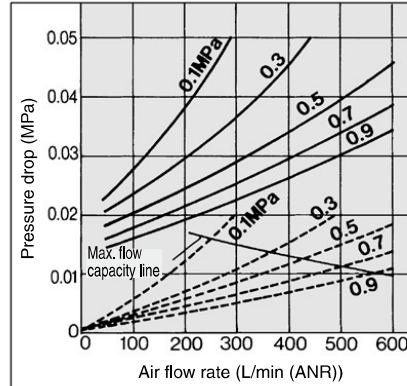
Flow Rate Characteristics (Representative values) Select the model under the max. flow capacity line. (— Element oil saturation - - - - Initial condition)

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

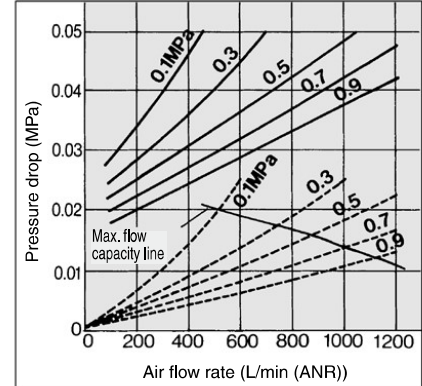
AMD150C



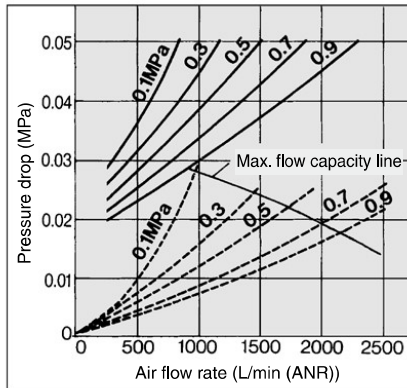
AMD250C



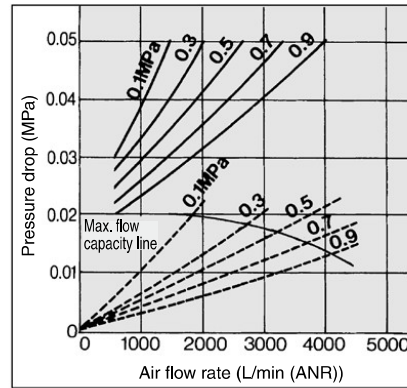
AMD350C



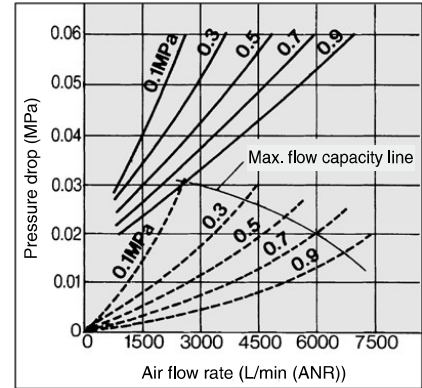
AMD450C



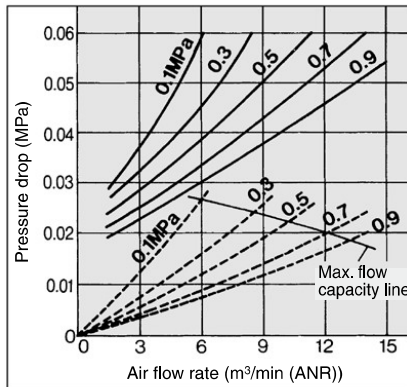
AMD550C



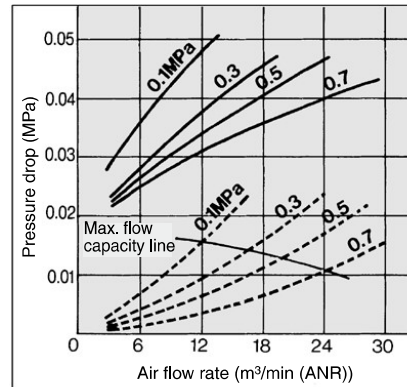
AMD650



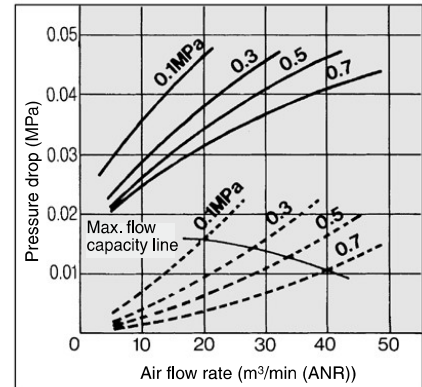
AMD850



AMD9□

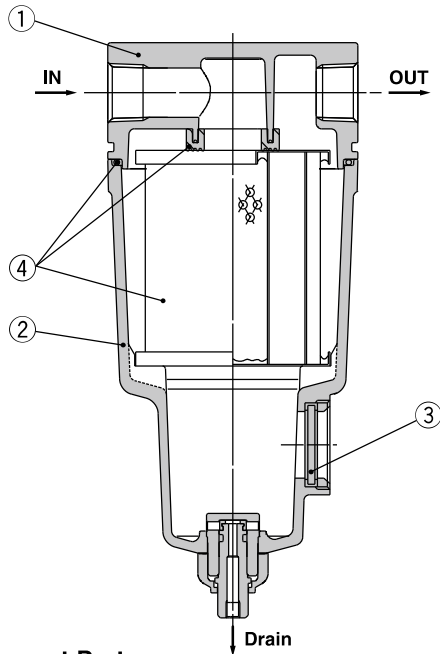


AMD10□

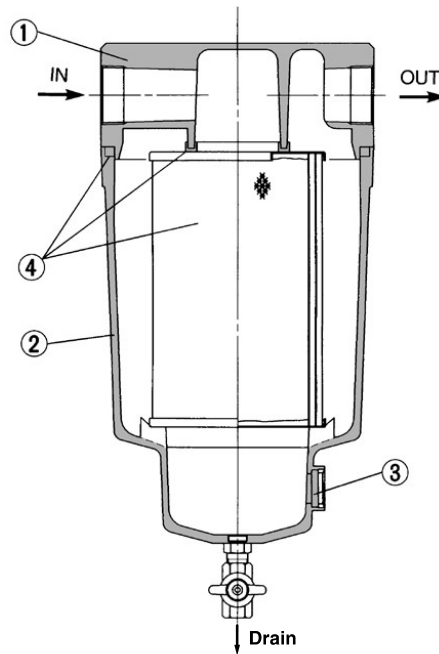


Construction

AMD150C to 550C, AMD650



AMD850



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Inner/outer surface coating
2	Housing (Case)	Aluminum alloy	—
3	Sight glass	Tempered glass	—

Note) The figure shows the drain cock specification.

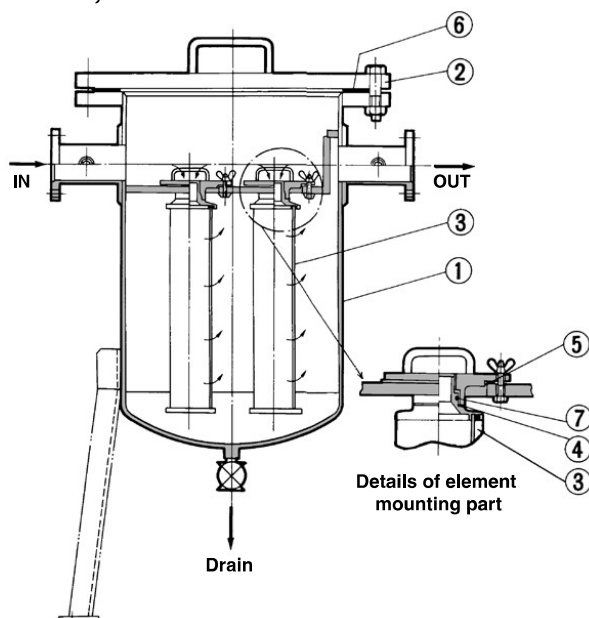
Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 236 through to 239 for details.

Replacement Parts

No.	Description	Material	Applicable model	Model						
				AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
4	Element assembly	Glass fiber, others	Except option F	AMD-EL150	AMD-EL250	AMD-EL350	AMD-EL450	AMD-EL550	AMD-EL650	AMD-EL850
			For option F	AMD-EL150-F	AMD-EL250-F	AMD-EL350-F	AMD-EL450-F	AMD-EL550-F	—	—

- Element assembly: With gasket (1 pc.) and O-ring (1 pc.)
- Refer to page 280 for replacement of auto drain.

AMD9□, 10□0



Component Parts/Material

No.	Description	Model
		AMD9□, 10□
1	Case	Carbon steel
2	Cover	Carbon steel

Replacement Parts

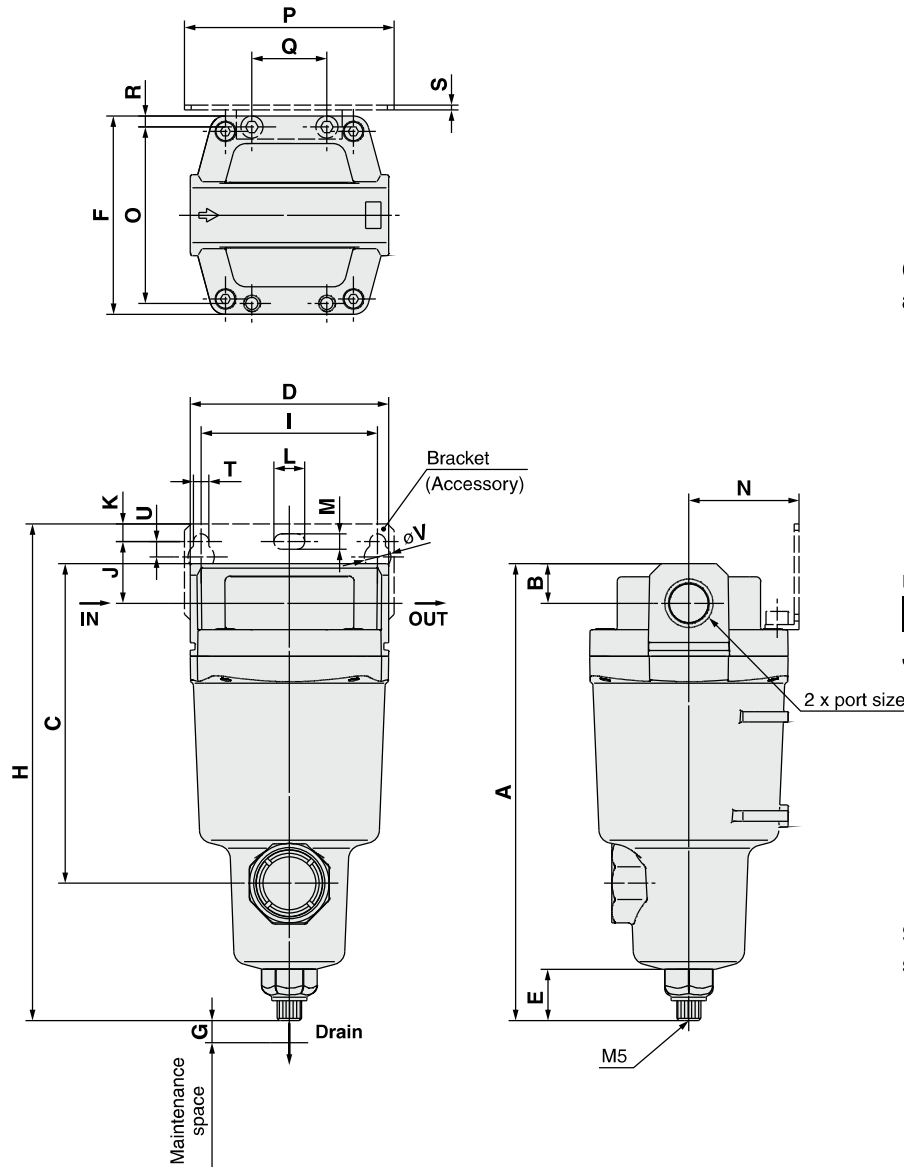
No.	Description	Material	Model	
			AMD9□	AMD10□
3	Element	—	63174 3 pcs.	63174 5 pcs.
4	Seal	NBR	63148 3 pcs.	63148 5 pcs.
5	Seal	NBR	O.D112 x I.D90 x T3 3 pcs.	O.D112 x I.D90 x T3 5 pcs.
6	Gasket	V#6500	AL-63S	AL-31S
7	O-ring	NBR	KA00061 3 pcs.	KA00061 5 pcs.

- HAA
- HAW
- AT
- IDF
- IDU
- IDF
- FS
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD**
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

AMD Series

Dimensions

AMD150C to 550C

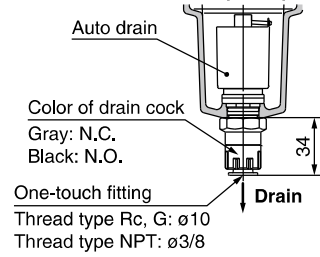


Note) The figure shows the drain cock specification.

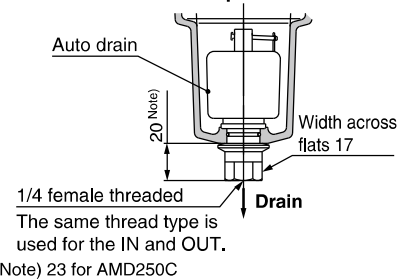
Auto drain

C: With auto drain (N.C.)

D: With auto drain (N.O.)

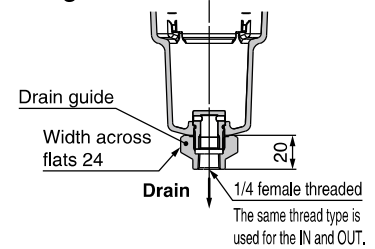


Combination of D: With auto drain (N.O.) and H: For medium air pressure

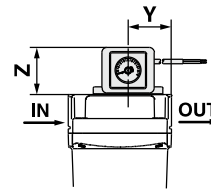


Option

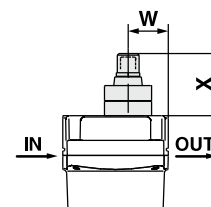
J: Drain guide 1/4 female threaded



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



T: With element service indicator

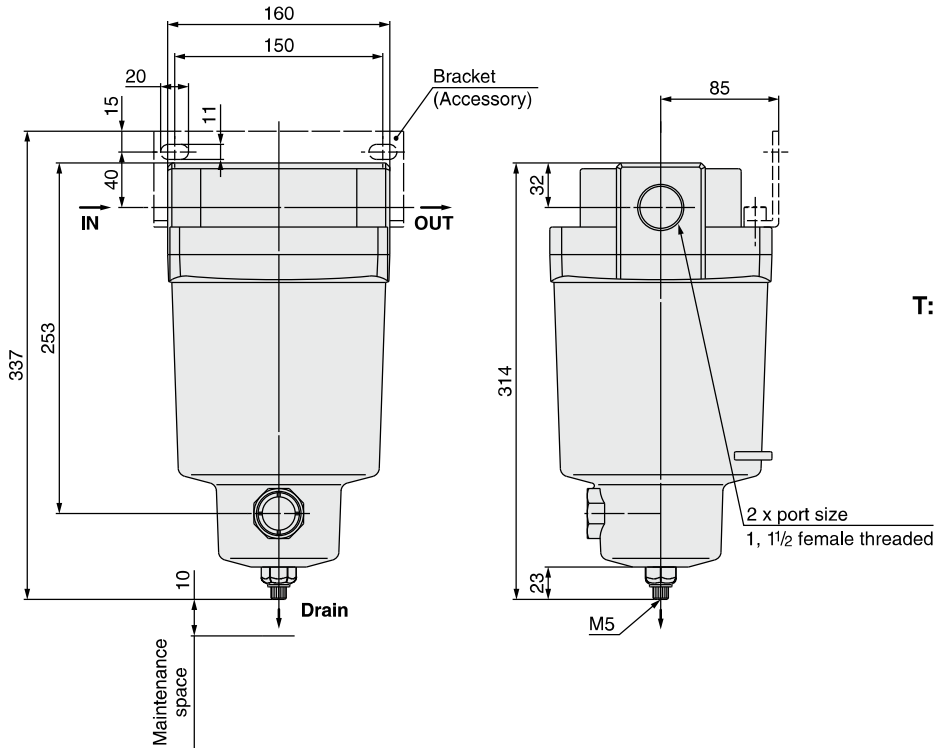
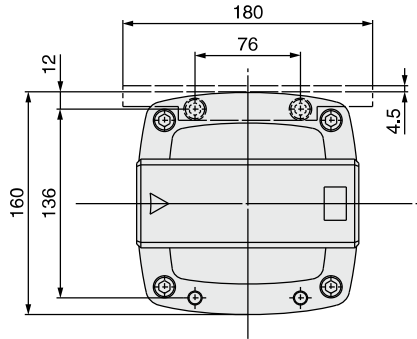


(mm)

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
AMD150C	1/8, 1/4	161	10	99	63	23	63	10	176	56	20	5	6	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AMD250C	1/4, 3/8	175	14	113	76	23	76	10	193	66	24	8	6	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AMD350C	3/8, 1/2	207	18	145	90	23	90	10	225	80	28	8	7	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AMD450C	1/2, 3/4	228	20	166	106	23	106	10	249	90	31	10	9	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AMD550C	3/4, 1	262	24	200	122	23	122	15	281	100	33	10	9	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

Dimensions

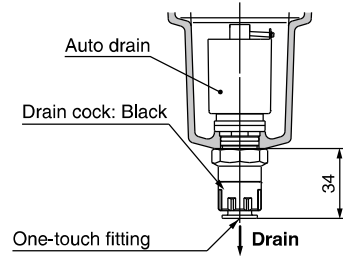
AMD650



Note) The figure shows the drain cock specification.

Auto drain

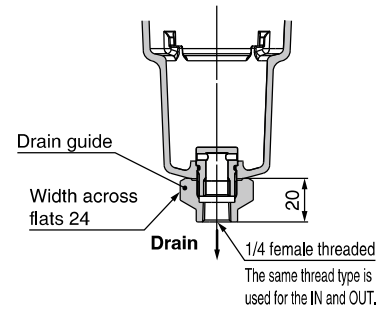
D: With auto drain (N.O.)



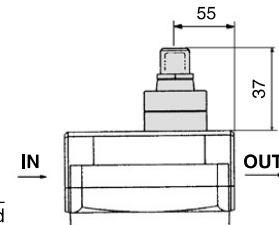
Thread type Rc, G: $\phi 10$
Thread type NPT: $\phi 3/8$

Option

J: Drain guide 1/4 female threaded



T: With element service indicator

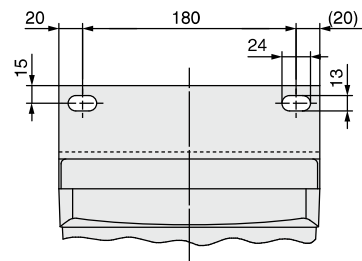
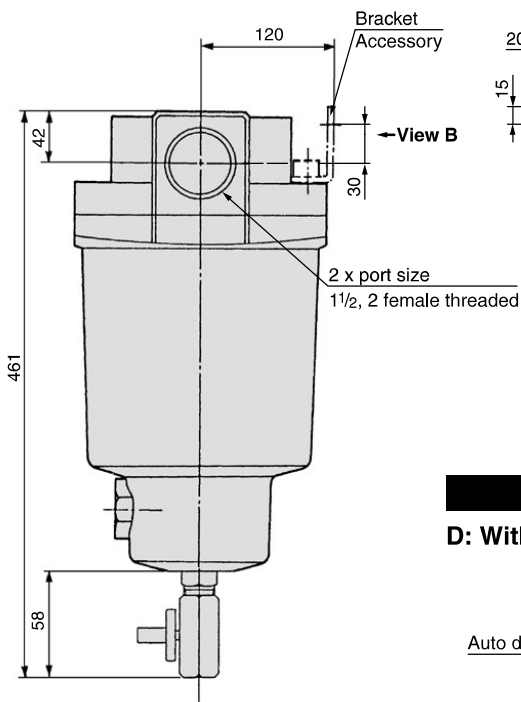
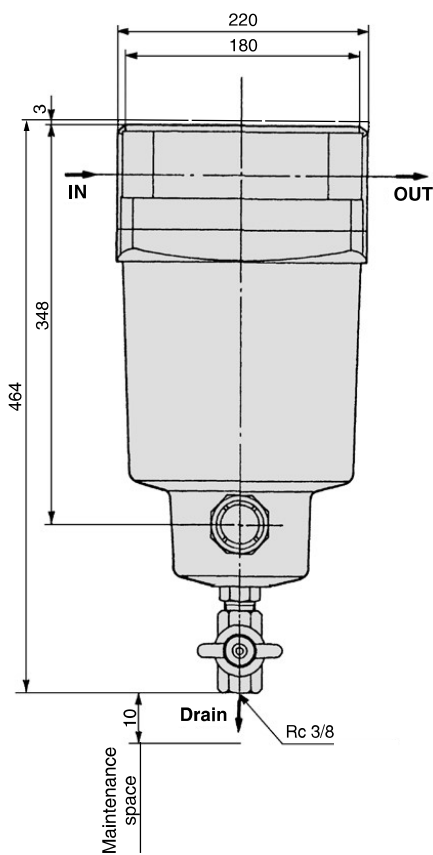
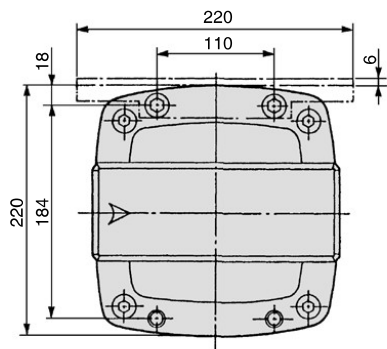


HAA
HAW
AT
IDF
IDU
IDF
<input type="checkbox"/> FS
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD <input type="checkbox"/>
GD

AMD Series

Dimensions

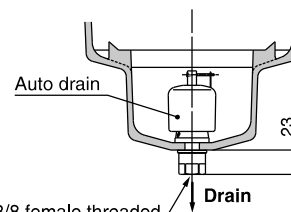
AMD850



Drawing of view B

Auto drain

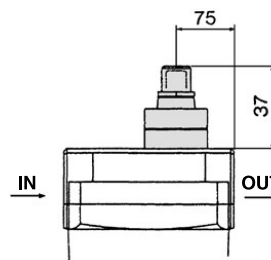
D: With auto drain (N.O.)



The same thread type is used for the IN and OUT.

Option

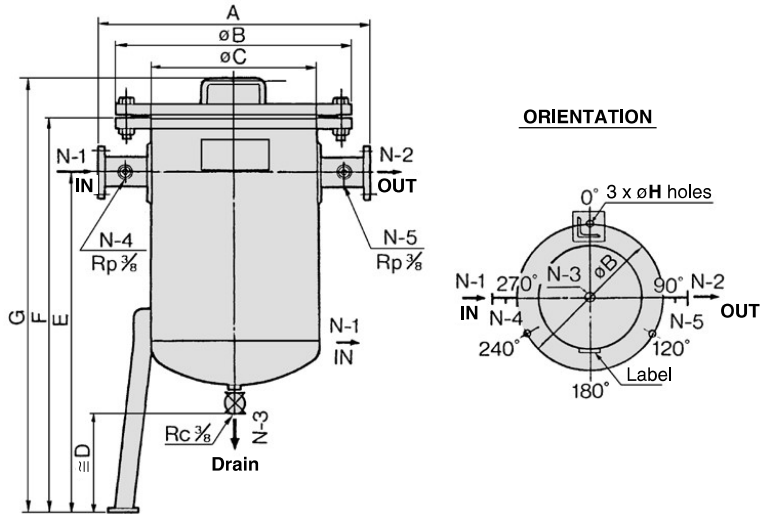
T: With element service indicator



Note) The figure shows the drain cock specification.

Dimensions

AMD9□, 10□



Model	Port size (Flange)	A	øB	øC	D	E	F	G	H
AMD9□	50(2B), 80(3B), 100(4B)JIS 10K FF flange	720	560	400	300	1320	1480	1585	24
AMD10□	100(4B), 150(6B)JIS 10K FF flange	870	745	550	300	1380	1610	1740	24

(mm)

- HAA
- HAW
- AT
- IDF
- IDU
- IDF
- FS
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD**
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD