

Main Line Filter

Series AFF

Can remove impurities such as oil, water and foreign matter in compressed air and can improve the function of a dryer in the downstream, extend the life of precision filter, and prevent trouble with the equipment.

Modular connection is possible with AFF2C to 22C.

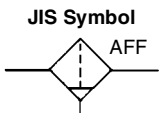
(For details, refer to page 204.)



AFF2C to 22C



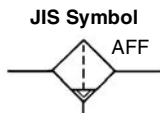
AFF37B/75B



(Drain cock specifications)



AFF75A to 220A



(Auto drain specifications)



Made to Order

(For details, refer to page 210.)

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.

Model

Model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B	AFF75A	AFF125A	AFF150A	AFF220A
Rated flow ^{Note)} (l/min (ANR))	300	750	1500	2200	3700	6000	12000	12000	22000	28000	42000
Port size	$1/8, 1/4$	$1/4, 3/8$	$3/8, 1/2$	$1/2, 3/4$	$3/4, 1$	$1, 1 1/2$	$1 1/2, 2$	50(2B)	80(3B)	100(4B)	100(4B)
	JIS 10K FF flange										
Mass (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5	50	52	72	87



Note) Max. flow at 0.7 MPa.

Max. flow varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 156) 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 rating	3 μm (Filtration efficiency: 99%)
Element life	2 years (1 year for A type) or when pressure drop reached 0.1 MPa

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

Accessory/For AFF2C to 22C, AFF37B/75B

Applicable model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Accessory/For AFF75A to 220A

Applicable model	AFF75A	AFF125A	AFF150A	AFF220A
Auto drain (2 pcs. each)	AD402-03-2			
Pressure gauge (2 pcs. each)	G46-15-02			
Companion flange (2 pcs. each)	50(2B)JIS 10K FF flange	80(3B)JIS 10K FF flange	100(4B)JIS 10K FF flange	
Anchor bolt (3 pcs. each)	AI-2S			

Model Selection

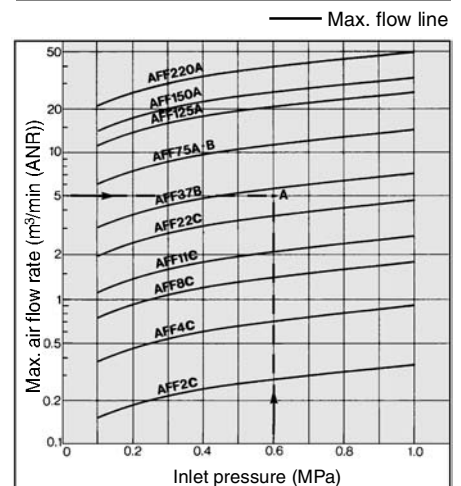
Select a model in accordance with the following procedure taking the inlet pressure and the max. air flow rate into consideration.
(Example) Inlet pressure: 0.6 MPa
Max. air flow rate: 5 m^3/min (ANR)

- Obtain the intersecting point A of inlet pressure and max. air flow rate in the graph.
- The AFF37B 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



How to Order



AFF2C to 22C

AFF 22C - [] - [] - [] - [] - [] - []

Body size		Thread type	
Symbol	Applicable compressor output (guide)	Symbol	Type
2C	2.2 kW	Nil	Rc
4C	3.7 kW	F	G*1
8C	7.5 kW	N	NPT
11C	11 kW		
22C	22 kW		

*1 Conforms to ISO1179-1.

Symbol	Size	Applicable body size					Accessory	
		2C	4C	8C	11C	22C	Symbol	Description
01	1/8	●					Nil	—
02	1/4	●	●				B	Bracket *2
03	3/8		●	●				
04	1/2			●	●			
06	3/4				●	●		
10	1					●		

*2 Bracket is included, (but not assembled).
*3 The model with bracket is not available for -X15 and -X17.

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

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 gauge 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.)

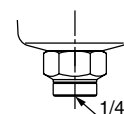
Symbol F: Rubber material: Fluororubber

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



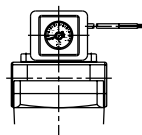
Can be piped to the drain exhaust port.

1/4 female thread

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.)

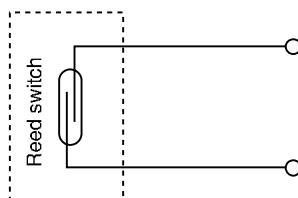
Symbol S: With differential pressure switch (with indicator)



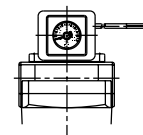
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* 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)



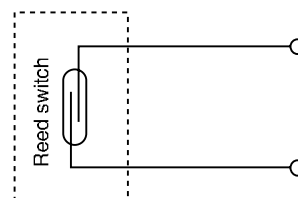
Symbol U: With differential pressure switch (with indicator)



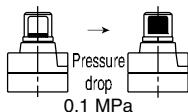
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* 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



AFF37B/75B

AFF 37B - [] **10** [] [] - [] - []

Body size

Symbol	Applicable compressor output (guide)
37B	37 kW
75B	75 kW

Thread type

Symbol	Type
Nil	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		37B	75B
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 75B is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 205) to the ball valve if NPT 3/8 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	AFF37B	AFF75B	
Auto drain specifications	N.O. auto drain	D	◻	◻	◎	◎	◎	◎	
Option	Drain guide 1/4	J	◻	◻	◎	◎	◎	◻	
	IN-OUT reversal direction	R	◎	◎	◻	◎	◎	◎	
	With element service indicator	T	◎	◎	◎	◻	◎	◎	

AFF75A to 220A

AFF 75A - **20** **D** []

Standard size (Applicable compressor)

Symbol	Compressor output
75A	75 kW
125A	110 to 125 kW
150A	150 kW
220A	180 to 220 kW

Port size

Symbol	Size	Applicable body size			
		75A	125A	150A	220A
20	50(2B) JIS 10K FF flange	●	—	—	—
30	80(3B) JIS 10K FF flange	—	●	—	—
40	100(4B) JIS 10K FF flange	—	—	●	●

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	—	—
X13	Mist separator for high flow rate (Nominal filtration rating: 0.3 μm)	P.214

Accessory

Symbol	Description
Nil	—
D	Auto drain
G	Pressure gauge
F	Companion flange
L	Anchor bolt



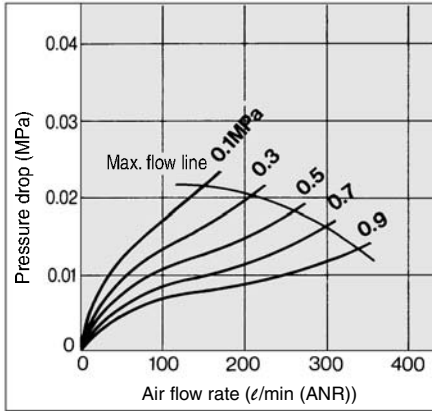
Series AFF

Flow Characteristics (Representative values) / Select the model taking the max. flow capacity into consideration. (Element oil saturation)

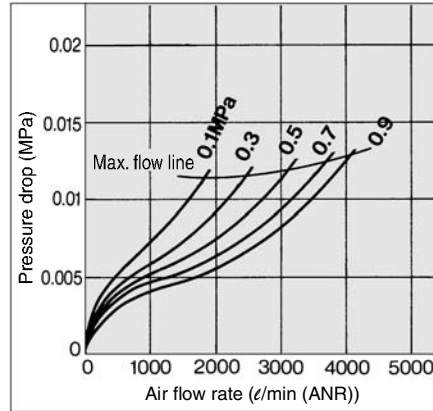


Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.

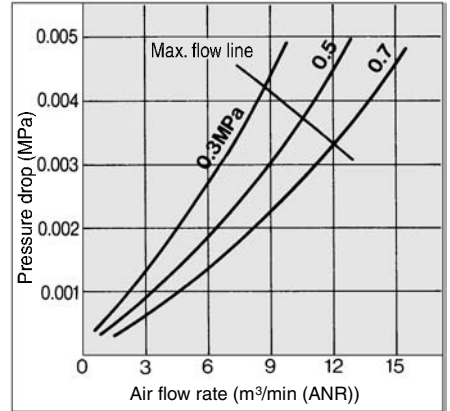
AFF2C



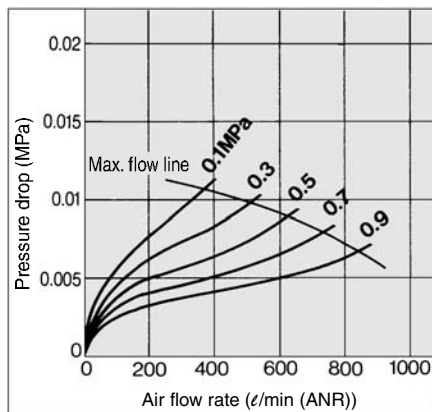
AFF22C



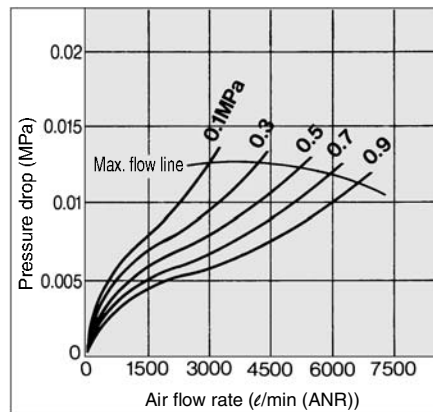
AFF75A



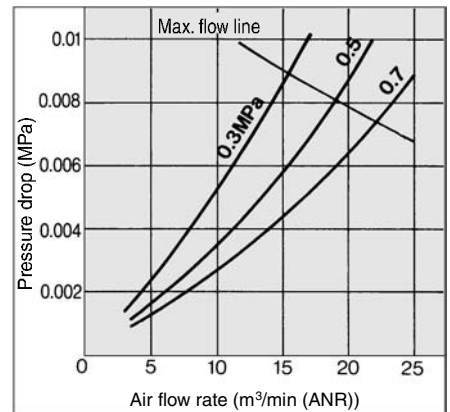
AFF4C



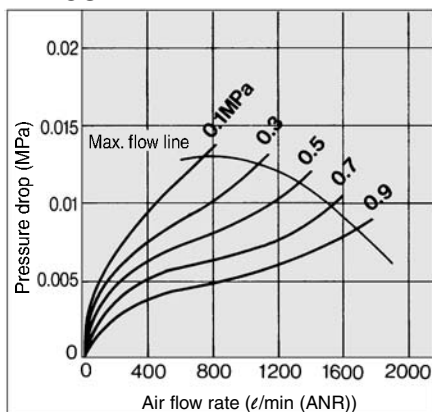
AFF37B



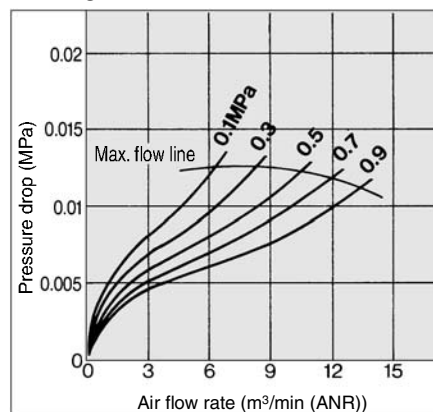
AFF125A



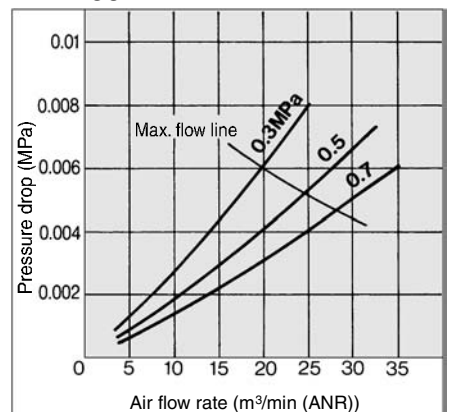
AFF8C



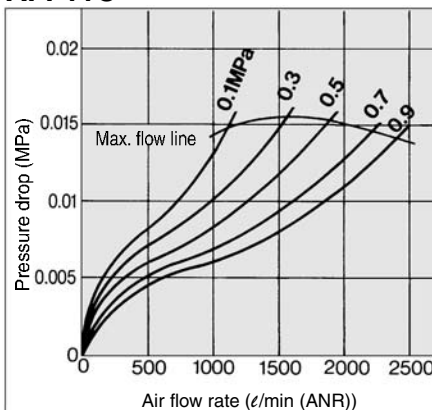
AFF75B



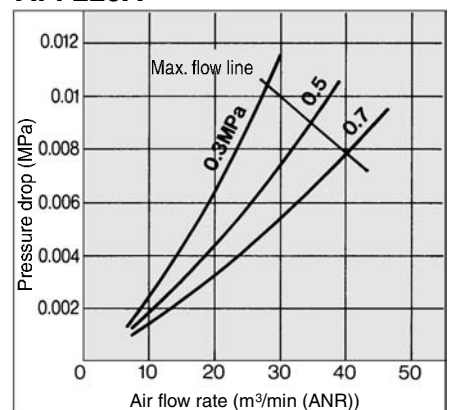
AFF150A



AFF11C

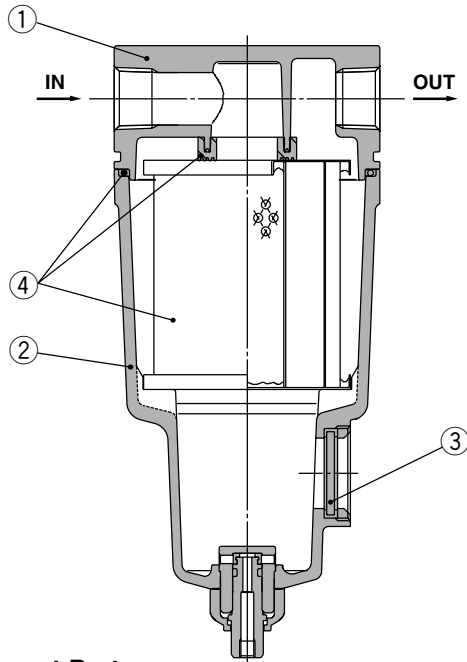


AFF220A

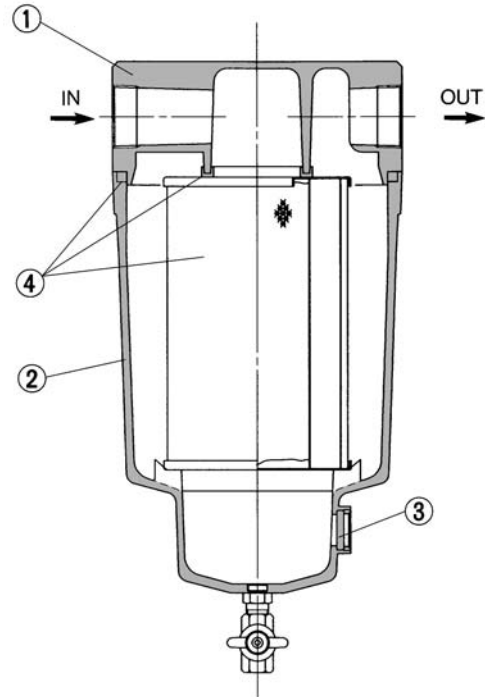


Construction

AFF2C to 22C, AFF37B



AFF75B



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 AFF75B 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. Please refer to pages 158 through to 160 for details.

Replacement Parts

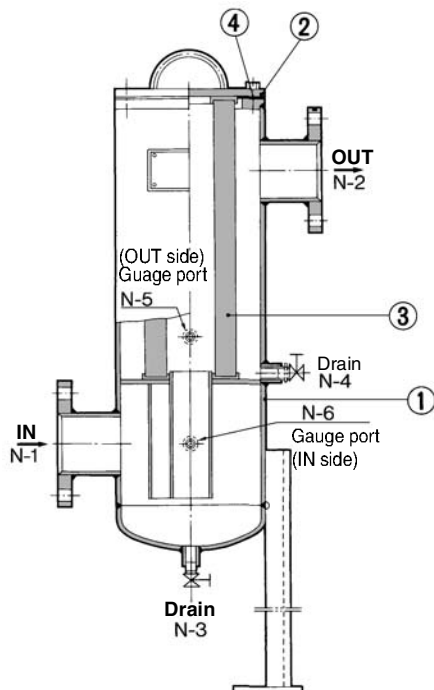
No.	Description	Material	Applicable model	Model						
				AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
4	Element assembly	Cotton paper, others	Except option F For option F	AFF-EL2B AFF-EL2B-F	AFF-EL4B AFF-EL4B-F	AFF-EL8B AFF-EL8B-F	AFF-EL11B AFF-EL11B-F	AFF-EL22B AFF-EL22B-F	AFF-EL37B	AFF-EL75B

* 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, X26, X37) are same as those for standard (see the above table).

AFF75A to 220A



Component Parts

No.	Description	Material	Note
1	Case	SGP-E, SS400	
2	Cover	SS400	

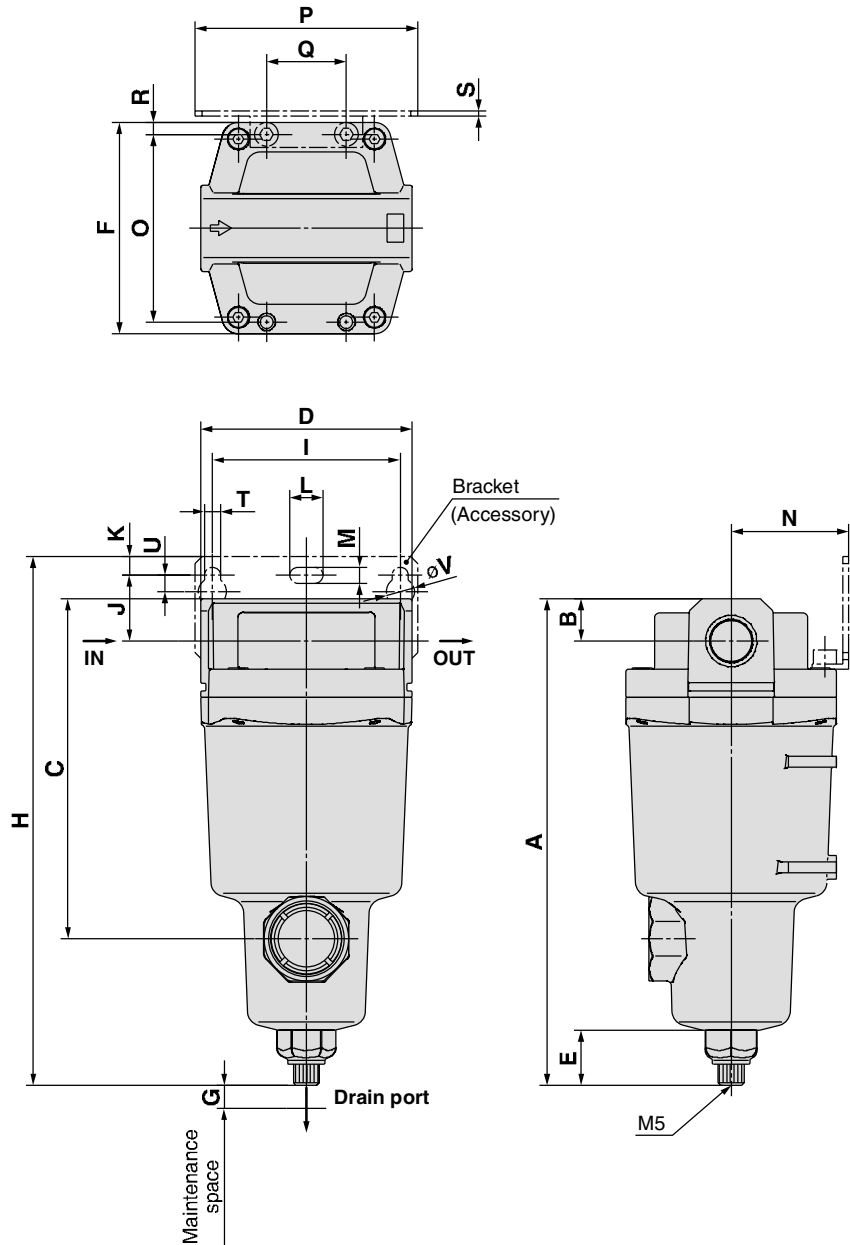
Replacement Parts

No.	Description	Material	Qty.	Model			
				AFF75A	AFF125A	AFF150A	AFF220A
3	Element	—	1	EC700-003N	EC800-003N	EC900-003N	
4	Seal	NBR	1	AL-33S	AL-34S	AL-35S	

Series AFF

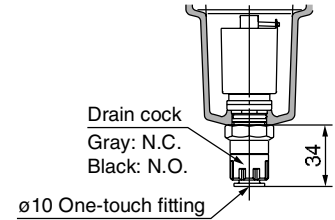
Dimensions

AFF2C to 22C

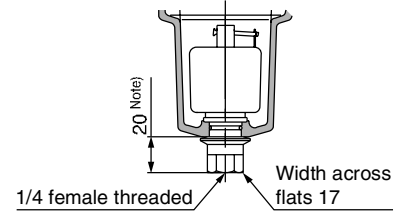


Auto drain

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



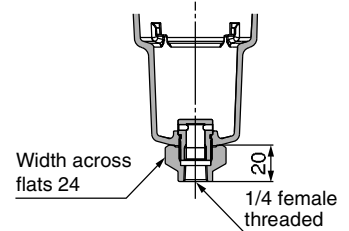
Combination of D: With auto drain (N.O.)
and H: For medium air pressure



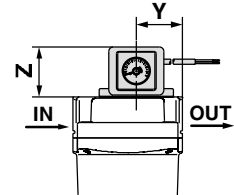
Note) 23 for AFF4C.

Option

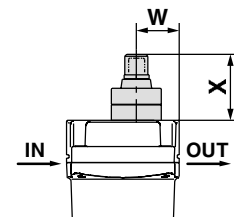
J: Drain guide 1/4 female threaded



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



T: With element service indicator

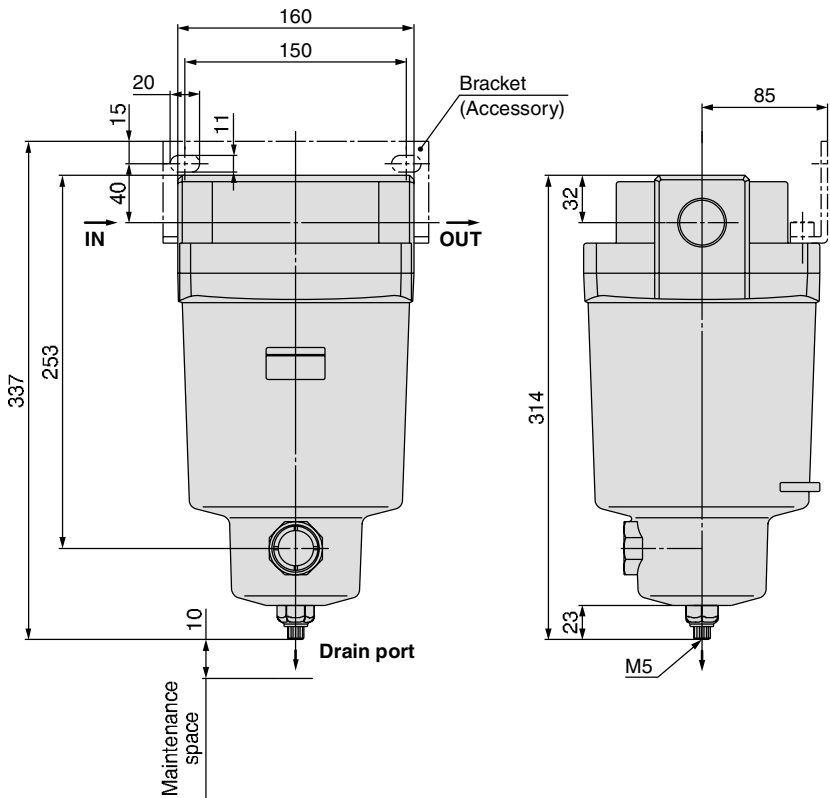
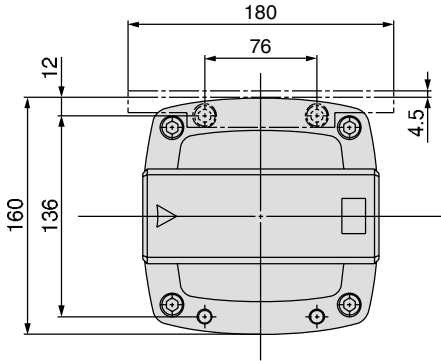


(mm)

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
AFF2C	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
AFF4C	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
AFF8C	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
AFF11C	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
AFF22C	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

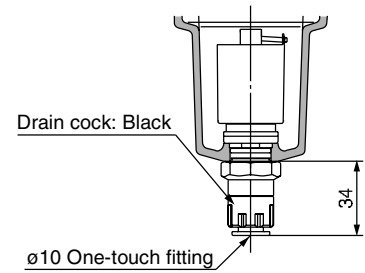
Dimensions

AFF37B



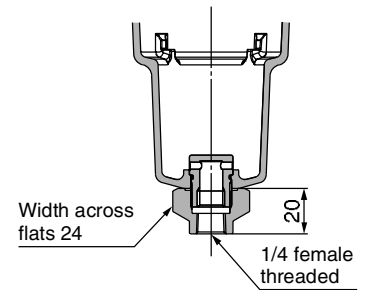
Auto drain

D: With auto drain (N.O.)

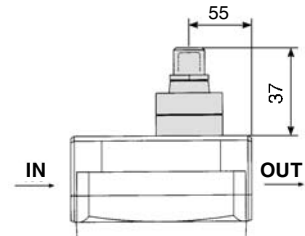


Option

J: Drain guide 1/4 female threaded



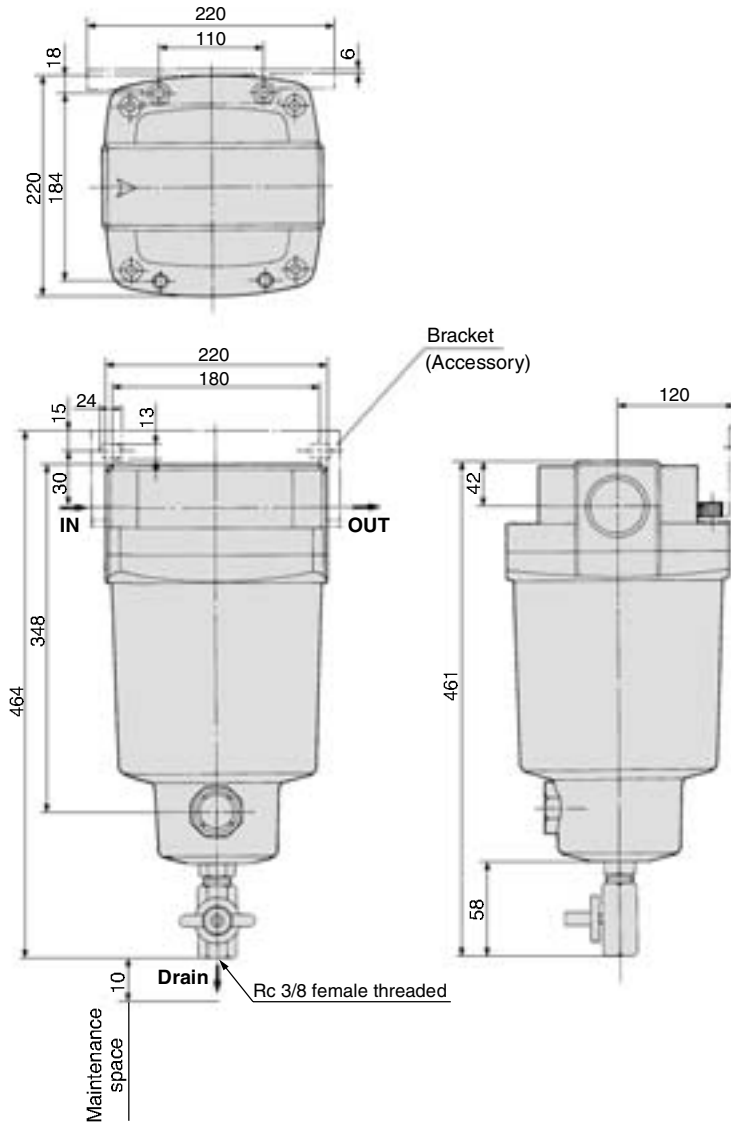
T: With element service indicator



Series AFF

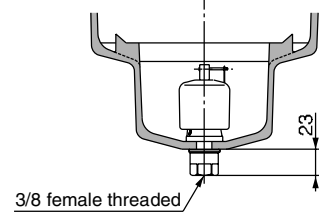
Dimensions

AFF75B



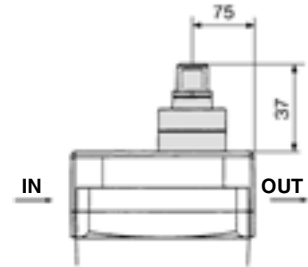
Auto drain

D: With auto drain (N.O.)
for AFF75B

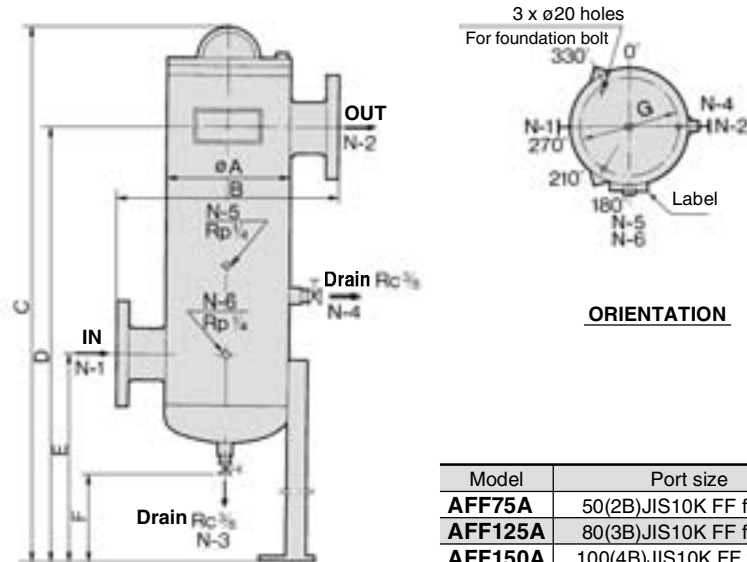


Option

T: With element service indicator



AFF75A to 220A



ORIENTATION

Model	Port size	øA	B	C	D	E	F	G
AFF75A	50(2B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184
AFF125A	80(3B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184
AFF150A	100(4B)JIS10K FF flange	250 (10B)	450	1178	980	540	265	236
AFF220A	100(4B)JIS10K FF flange	300 (12B)	500	1291	1070	670	325	282