Silencers/Exhaust Cleaner

Series AN□/Series AMC

		Series		Noise reduction	Nominal filtration rating (Reference values)	Oil mist removal ratio	
Silencers	**Standard type** Low back pressure Compact and easy mounting	***Series AN□00***		30 dB (A)	100 μm 150 μm	—	Page 5-10-2
	Compact type Space-saving compact type	***Series AN□03***		25 dB (A)	100 μm	—	Page 5-10-3
	Metal case type Exhaust in only one direction. Prevents scattering of mist and noise.	***Series 25□□***		19 dB (A)	—	—	Page 5-10-4
	BC sintered body type Ideal for the exhaust of a compact valve or pilot air.	***AN101-01*** ***AN110-01*** ***AN120-M5*** ***AN120-M3***		16 dB (A) 21 dB (A) 18 dB (A) 13 dB (A)	100 μm 70 μm	—	Page 5-10-5
	One-touch fitting connection type Can connect with One-touch fitting directly.	***Series AN□□□-KM□□***		25 dB (A) 30 dB (A) It differs depending upon the model.	100 μm	—	Page 5-10-6
	High noise reduction type Case adopts UL94-V0 grade flame resistant material.	***Series AN□02***		35 dB (A)	50 μm	—	Page 5-10-7
	High noise reduction type A high noise reduction type silencer keeps the noise level inside a plant below 85 dB (A).	***Series ANA1***		40 dB (A)	30 μm	—	Page 5-10-8
	High noise reduction type Series ANB1 has a larger effective area with the same port size as Series ANA1.	***Series ANB1***		38 dB (A)	30 μm	—	Page 5-10-9
Exhaust Cleaner	**Exhaust cleaner** Ensures clean plant air, reduces noise pollution by over 35 dB (A), and removes over 99.9% of all oil mist.	***Series AMC***		35 dB (A)	0.3 μm	99.9%	Page 5-10-11

Precautions/Specific Product Precautions — Page 5-10-13

Related Products

Exhaust Cleaner for Vaccum (Series AMV)
Exhaust Cleaner for Clean Room (Series AMP)

Page 5-10-15

VEX
AN
AMC

Silencer
Standard Type
Series AN□00

How to Order

AN **400** – **□** **04**

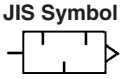
Body size
200
300
400
500
600
700
800
900

Thread type	
Nil	R
N	NPT

Port size	
02	1/4
03	3/8
04	1/2
06	3/4
10	1
12	1 1/4
14	1 1/2
20	2

Over 30 dB (A) noise reduction
Low back pressure
Compact and easy mounting

JIS Symbol



Specifications

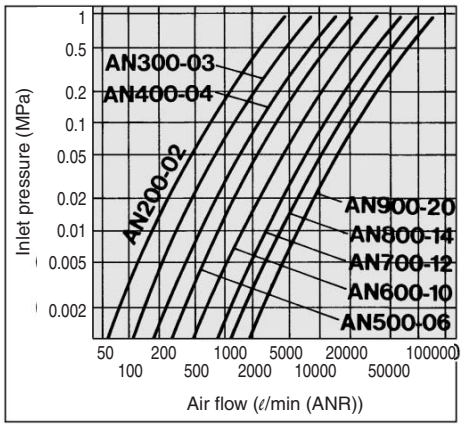
Fluid	Compressed air
Max. operating pressure (1)	1.0 MPa
Noise reduction	30 dB (A)
Ambient and fluid temperature	5 to 60°C (2)

Note 1) It indicates the inlet pressure for solenoid valve.
Note 2) It can operate in temperature between –10 to 60°C if there is no risk of the moisture in the air freezing.

Refer to page 5-10-13 for Precautions on these products.

Flow Characteristics (Initial conditions)

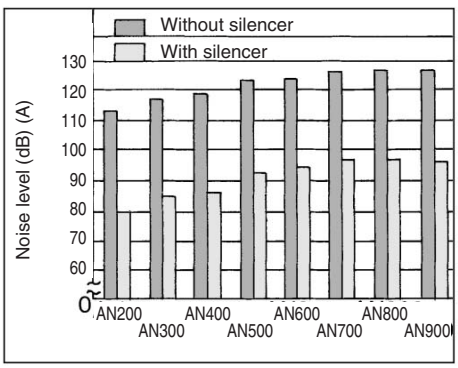
AN200 to 900



Noise Level (Initial conditions)

AN200 to 900

Condition: 0.5 MPa at inlet pressure of solenoid valve
Measurement distance: AN200 to 500 → 1 m, AN600 to 700 → 2 m, AN800 to 900 → 3 m

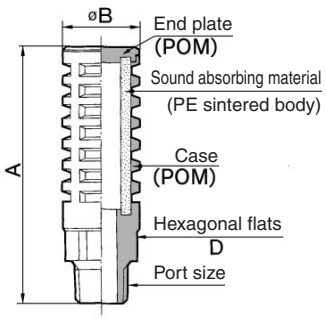


Model

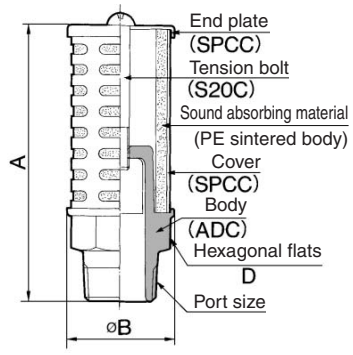
Model	Port size R	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm)		
					A	B	D
AN200-02	1/4	35	3 or less	17	63	22	19
AN300-03	3/8	60	5 or less	25	84	25	22
AN400-04	1/2	90	8 or less	35	92	30	27
AN500-06	3/4	160	12 or less	165	107	46	36
AN600-10	1	270	20 or less	225	132	50	41
AN700-12	1 1/4	440	30 or less	490	200	74	55
AN800-14	1 1/2	590	50 or less	580	233	74	60
AN900-20	2	960	80 or less	820	263	86	70

Construction/Parts/Dimensions

AN200 to 400



AN500 to 900



Note 1) About the display of product's material
POM: Polyacetal
PE: Polyethylene
SPCC: Carbon steel
S20C: Carbon steel
ADC: Aluminum alloy
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

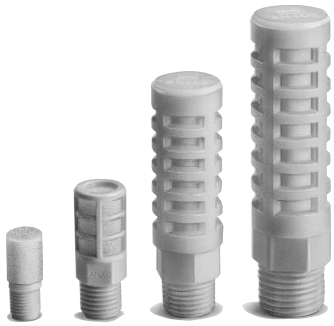
Silencer
Compact Type
Series AN□03

How to Order

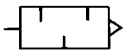
AN 403 □ 04

Body size	Thread type		Port size	
103	Nil	R	01	1/8
203	N	NPT	02	1/4
303			03	3/8
403			04	1/2

Over 25 dB (A) noise reduction
Space-saving compact type



JIS Symbol



Specifications

Fluid	Compressed air
Max. operating pressure (1)	1.0 MPa
Noise reduction	25 dB (A)
Ambient and fluid temperature	5 to 60°C (2)

Note 1) It indicates the inlet pressure for solenoid valve.
Note 2) It can operate in temperature between –10 to 60°C if there is no risk of the moisture in the air freezing.

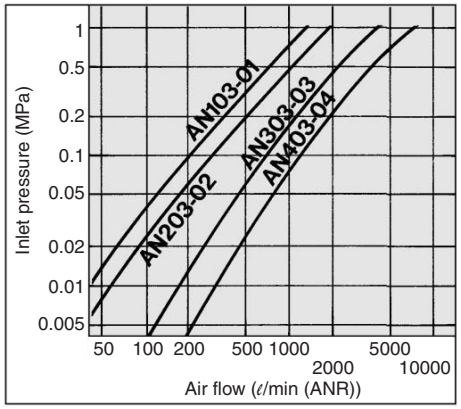
Refer to page 5-10-13 for Precautions on these products.

Model

Model	Port size R	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm) A	B	D
AN103-01	1/8	10	0.8 or less	1	23.5	11	—
AN203-02	1/4	15	1.0 or less	3	36	16	14
AN303-03	3/8	35	2.0 or less	17	66	22	19
AN403-04	1/2	60	4.0 or less	25	84	25	22

Flow Characteristics (Initial conditions)

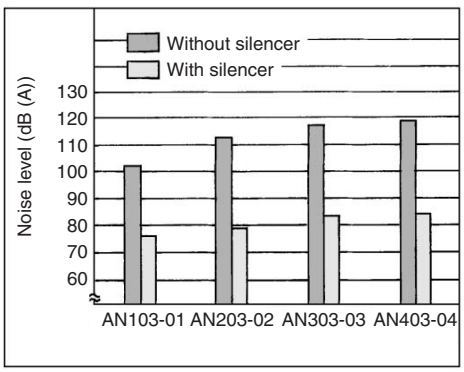
AN103 to 403



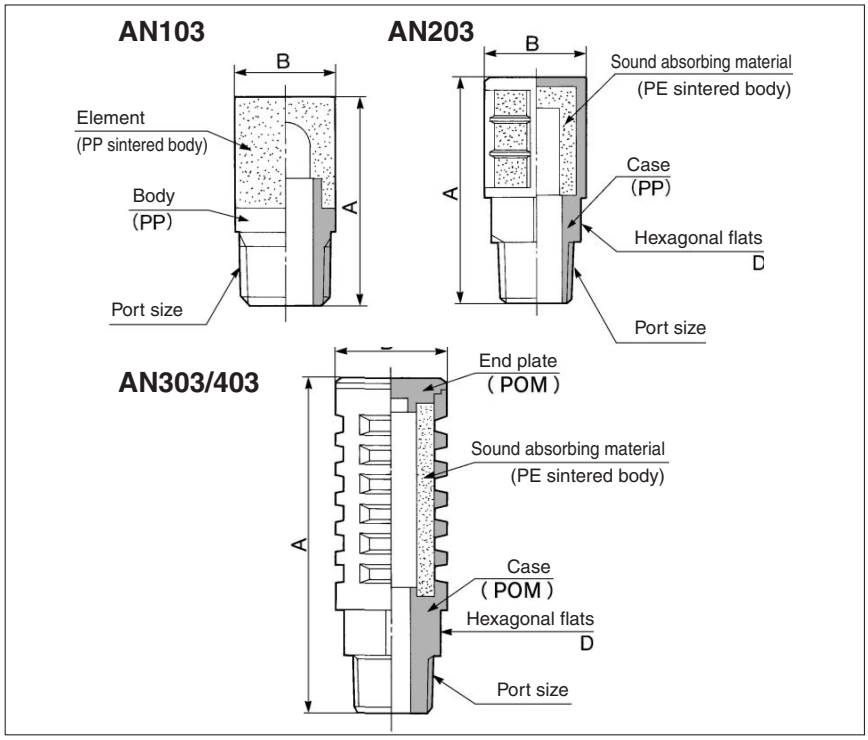
Noise Level (Initial conditions)

AN103 to 403

Condition: 0.5 MPa at inlet pressure of solenoid valve
Measurement distance: 1 m



Construction/Parts/Dimensions



Note 1) About the display of product's material
PP: Polypropylene
PE: Polyethylene
POM: Polyacetal
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Silencer
Metal Case Type
Series 25

How to Order

25 **10** [ ] **002**

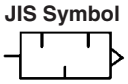
Body size
04
05
06
07
08
10
11

Thread type	
Nil	R
N	NPT

Port size	
002	1/4
003	3/8
004	1/2
006	3/4
010	1

Exhaust in only one direction
Prevents scattering of mist and noise.

JIS Symbol



Specifications

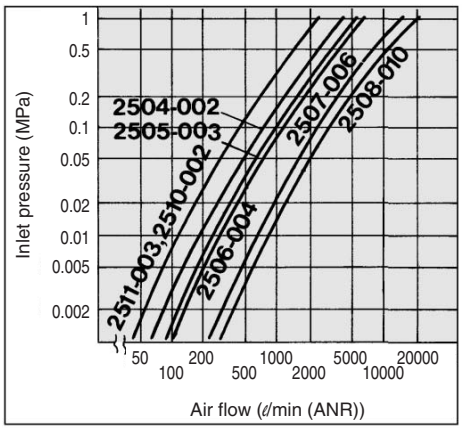
Fluid	Compressed air
Max. operating pressure (1)	1.0 MPa
Noise reduction	19 dB (A)
Ambient and fluid temperature	5 to 60°C (2)

Note 1) It indicates the inlet pressure for solenoid valve.
Note 2) It can operate in temperature between –10 to 60°C if there is no risk of the moisture in the air freezing.

Refer to page 5-10-13 for Precautions on these products.

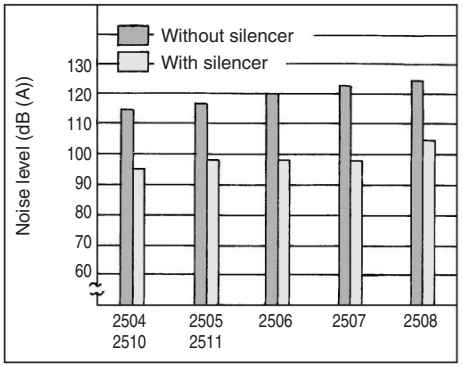
Flow Characteristics (Initial conditions)

2504 to 2511



Noise Level (Initial conditions)

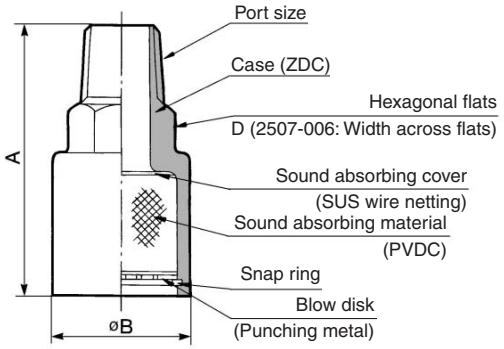
2504 to 2511
Condition: 0.5 MPa at inlet pressure of solenoid valve
Measurement distance: 1 m



Model

Model	Port size R	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm)		
					A	B	D
2504-002	1/4	33.9	2.2 or less	111	62	30	24
2505-003	3/8	45.9	3.0 or less	106	64	30	24
2506-004	1/2	50.0	4.0 or less	113	68	30	24
2507-006	3/4	105.6	8.0 or less	310	88.5	48	35
2508-010	1	129.6	10.0 or less	514	97.5	60	41
2510-002	1/4	17.2	1.5 or less	57	54	22	19
2511-003	3/8	17.2	1.5 or less	55	56	22	19

Construction/Parts/Dimensions

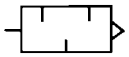


Note 1) About the display of product's material
ZDC: Zinc alloy
SUS: Stainless steel
PVDC: Vinylidene chloride
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Silencer
BC Sintered Body Type
Series AN

Ideal for the exhaust of a compact valve or pilot air.

JIS Symbol



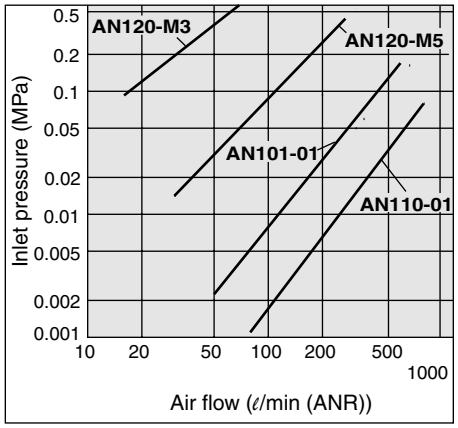
Specifications/Model

Specifications \ Model		AN101-01	AN110-01	AN120-M3	AN120-M5
Port size (1)		R 1/8	R 1/8	M3	M5
Noise reduction (dB (A))		16	21	13	18
Fluid		Compressed air			
Max. operating pressure (2)		1.0 MPa			
Ambient and fluid temperature		5 to 150°C (3)			
Effective area (mm^2)		20	35	1	5
Weight (g)		9.5	20	1	3.3
Dimensions (mm)	**A**	22.5	38	9	17
	B	11	13	6	8

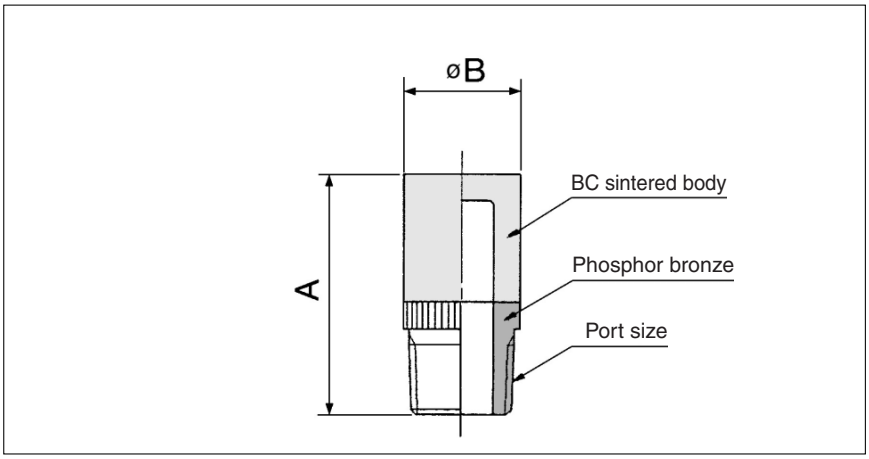
Note 1) NPT thread for AN101 and AN110 is also available. Model no. of NPT thread is AN101-N01 and AN110-N01.
Note 2) It indicates the inlet pressure for solenoid valve.
Note 3) It can operate in temperatures between –10 to 150°C if there is no risk of the moisture in the air freezing.

Refer to page 5-10-13 for Precautions on these products.

Flow Characteristics (Initial conditions)



Construction/Parts/Dimensions

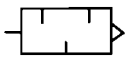


Note) About the display of product's material
BC: Copper alloy
Phosphor bronze: Copper alloy

Silencer
One-touch Fitting Connection Type
Series AN□□□-KM□□

Can connect with One-touch fitting directly.

JIS Symbol



Specifications

Fluid	Compressed air
Max. operating pressure Note)	1.0 MPa
Ambient and fluid temperature	5 to 60°C

Note) It indicates the inlet pressure for solenoid valve.

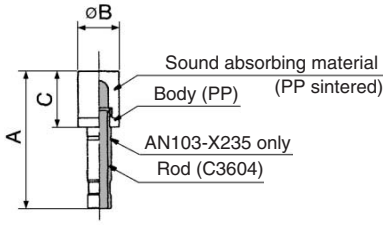
Refer to page 5-10-13 for Precautions on these products.

Model

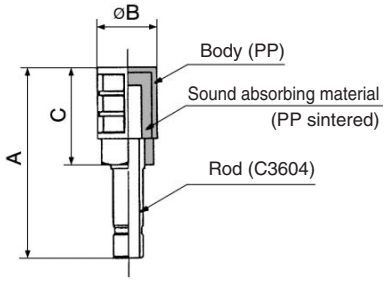
Model	Applicable One-touch fitting size	Noise reduction (dB (A))	Effective area (mm²)	Recommended flow (m³/min (ANR))	Dimensions (mm) A	B	C
AN103-KM6	ø6 (Series KQ)	25	7	0.8 or less	37	11	15
AN103-X233	ø6 (Series KQ, KJ)						
AN103-X235	ø1/4" (Series KQ, KJ)						
AN203-KM8	ø8 (Series KQ)		14	1.0 or less	51	16	26
AN200-KM8	ø8 (Series KQ)	30	20	3.0 or less	78	22	54
AN200-KM10	ø10 (Series KQ)		26		81	22	54
AN300-KM10	ø10 (Series KQ)		30	5.0 or less	97	25	70
AN300-KM12	ø12 (Series KQ)		41		98	25	70

Construction/Parts/Dimensions

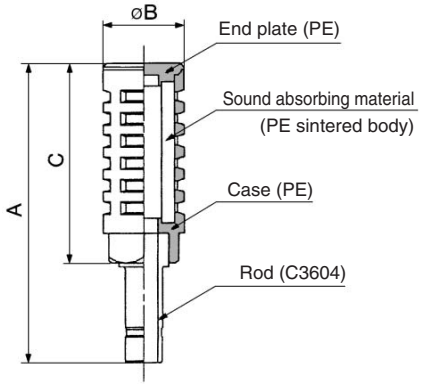
AN103-KM6
AN103-X233
AN103-X235



AN203-KM8



AN□00-KM□□



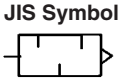
Note 1) About the display of product's material
PP: Polypropylene
PE: Polyethylene
C3604: Copper alloy
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Silencer
High Noise Reduction Type
Series AN□02

How to Order

Over 35 dB (A) noise reduction
Case adopts UL94-V0 grade Flame resistant material

JIS Symbol



AN 402 – □ 04

Body size
202
302
402

Thread type	
Nil	R
N	NPT

Port size	
02	1/4
03	3/8
04	1/2

Specifications

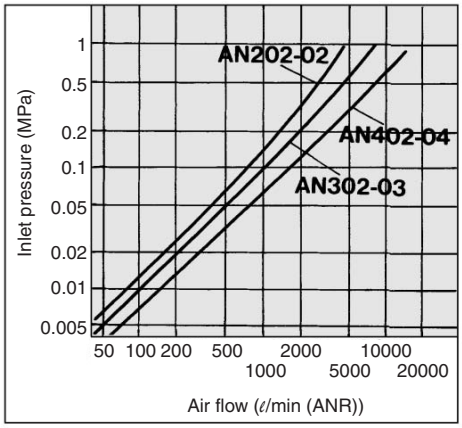
Fluid	Compressed air
Max. operating pressure (1)	1.0 MPa
Noise reduction	35 dB (A)
Ambient and fluid temperature	5 to 60°C (2)

Note 1) It indicates the inlet pressure for solenoid valve.
Note 2) It can operate in temperature between –10 to 60°C if there is no risk of the moisture in the air freezing.

Refer to page 5-10-13 for Precautions on these products.

Flow Characteristics (Initial conditions)

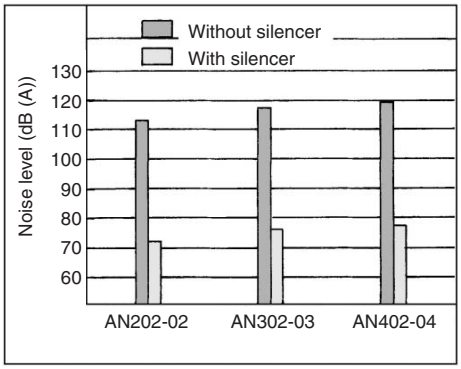
AN202 to 402



Noise Level (Initial conditions)

AN202 to 402

Condition: 0.5 MPa at inlet pressure of solenoid valve
Measurement distance: 1 m

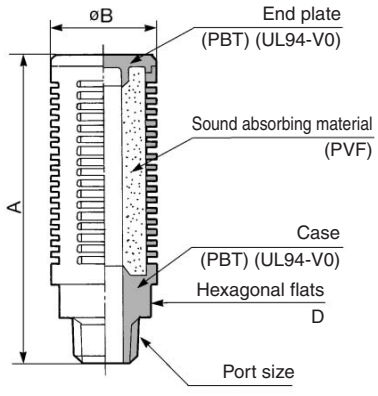


Model

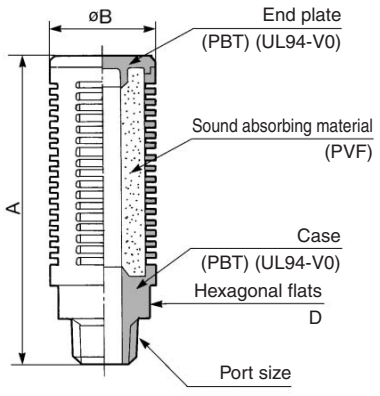
Model	Port size R	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm) A	B	D
AN202-02	1/4	35	3 or less	16	64	22	19
AN302-03	3/8	60	5 or less	33	84	28	24
AN402-04	1/2	90	8 or less	47	95	34	24

Construction/Parts/Dimensions

AN202



AN302/402

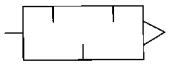


Note 1) About the display of product's material
PBT : Polybutylene terephthalate
PVF : Polyvinyl formal
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Silencer
40 dB (A): High Noise Reduction Type
Series ANA1

A high noise reduction type silencer keeps the noise level inside a plant below 85 dB (A).

JIS Symbol



How to Order

AN A1 – 03

Port size

Symbol	Port size	Connection
01	1/8	Screw-in *
02	1/4	
03	3/8	
04	1/2	
06	3/4	
10	1	
12	1 1/4	
14	1 1/2	
20	2	
C08	ø8 (Applicable One-touch fitting size)	One-touch fitting
C10	ø10 (Applicable One-touch fitting size)	
C12	ø12 (Applicable One-touch fitting size)	

* Only R is available.

Series

Symbol	Noise reduction
A1	40 dB (A)

Specifications

Fluid	Compressed air
Max. operating pressure Note)	1.0 MPa
Noise reduction	40 dB (A)
Ambient and fluid temperature	5 to 60°C

Note) It indicates the inlet pressure for solenoid valve.

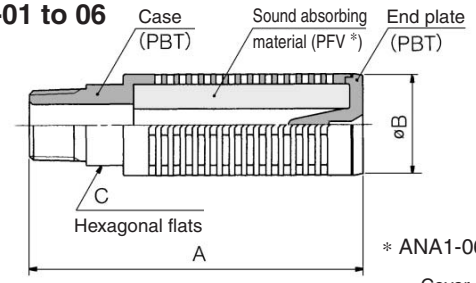
Refer to page 5-10-13 for Precautions on these products.

Model (Screw-in connection)

Model	Port size R	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm) A	B	C
ANA1-01	1/8	10	0.8 or less	4	37	16	—
ANA1-02	1/4	15	1.2 or less	14	64	22	18
ANA1-03	3/8	35	2.7 or less	22	84	25	21
ANA1-04	1/2	60	4.5 or less	36	98	30	24
ANA1-06	3/4	90	7.0 or less	110	111	46	36
ANA1-10	1	160	12.0 or less	180	132	50	41
ANA1-12	1 1/4	280	20.0 or less	544	200	74	60
ANA1-14	1 1/2	450	32.0 or less	612	230	74	60
ANA1-20	2	610	45.0 or less	873	271	86	70

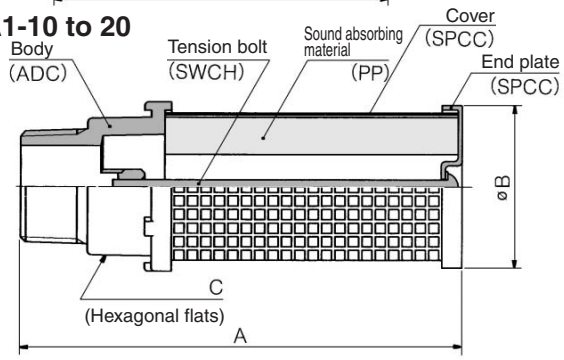
Construction/Parts/Dimensions

ANA1-01 to 06



* ANA1-06: PP

ANA1-10 to 20



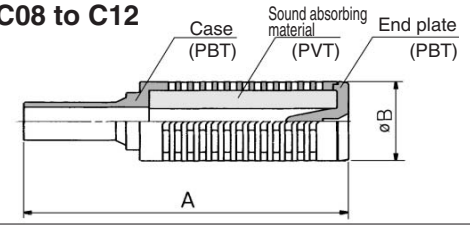
Note 1) About the display of product's material
PBT: Polybutylene terephthalate SWCH: Carbon steel
PVF: Polyvinyl formal PP: Polypropylene
ADC: Aluminum alloy SPCC: Carbon steel
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet

Model (One-touch fitting connection)

Model	Applicable One-touch fitting size	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm) A	B
ANA1-C08	ø8	11	0.8 or less	5	58	16
ANA1-C10	ø10	15	1.2 or less	13	76	22
ANA1-C12	ø12	33	2.5 or less	19	95	25

Construction/Parts/Dimensions

ANA1-C08 to C12

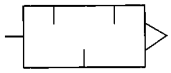


Note 1) About the display of product's material
PBT: Polybutylene terephthalate
PVF: Polyvinyl formal
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Silencer
38 dB (A): High Noise Reduction Type
Series ANB1

Series ANB1 <noise reduction effect: 38 dB (A)> that has a larger effective area with the same port size as Series ANA1. It is also available for common exhaust from manifolds, etc.

JIS Symbol



How to Order

AN B1 – 03

Port size

Symbol	Port size	Connection
01	1/8	Screw-in*
02	1/4	
03	3/8	
04	1/2	
06	3/4	
10	1	
12	1 1/4	
14	1 1/2	
C06	ø6 (Applicable One-touch fitting size)	One-touch fitting
C08	ø8 (Applicable One-touch fitting size)	
C10	ø10 (Applicable One-touch fitting size)	

* Only R is available.

Series

Symbol	Noise reduction
B1	38 dB (A)

Specifications

Fluid	Compressed air
Max. operating pressure Note)	1.0 MPa
Noise reduction	38 dB (A)
Ambient and fluid temperature	5 to 60°C

Note) It indicates the inlet pressure for solenoid valve.

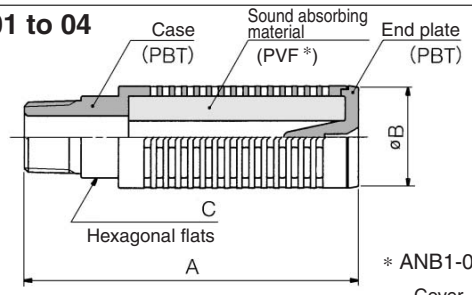
Refer to page 5-10-13 for Precautions on these products.

Model (Screw-in connection)

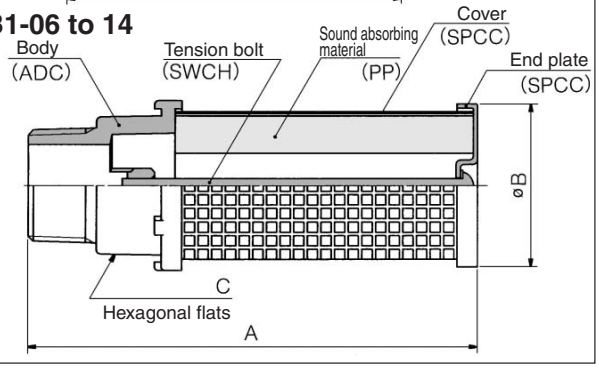
Model	Port size R	Effective area (mm²)	Recommended flow m³/min (ANR)	Weight (g)	Dimensions (mm) A	B	C
ANB1-01	1/8	15	1.2 or less	10	51	22	—
ANB1-02	1/4	35	2.7 or less	22	81	25	18
ANB1-03	3/8	60	3.8 or less	35	93	30	21
ANB1-04	1/2	90	7.0 or less	94	107	46	24
ANB1-06	3/4	160	12.0 or less	175	133	50	41
ANB1-10	1	280	20.0 or less	462	190	74	41
ANB1-12	1 1/4	450	32.0 or less	612	230	74	60
ANB1-14	1 1/2	610	45.0 or less	871	271	86	70

Construction/Parts/Dimensions

ANB1-01 to 04



ANB1-06 to 14

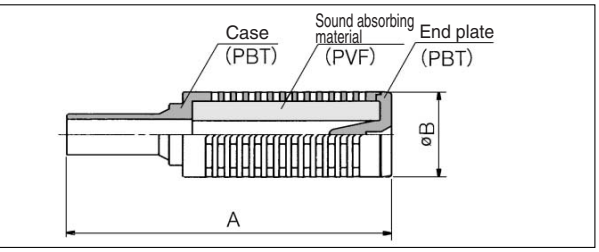


Note 1) About the display of product's material
PBT: Polybutylene terephthalate SWCH: Carbon steel
PVF: Polyvinyl formal PP: Polypropylene
ADC: Aluminum alloy SPCC: Carbon steel
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Model (One-touch fitting connection)

Model	Applicable One-touch fitting size	Effective area (mm²)	Recommended flow (m³/min (ANR))	Weight (g)	Dimensions (mm) A	B
ANB1-C06	ø6	8	0.6 or less	5	52	16
ANB1-C08	ø8	13	1.0 or less	12	73	22
ANB1-C10	ø10	28	2.0 or less	28	94	25

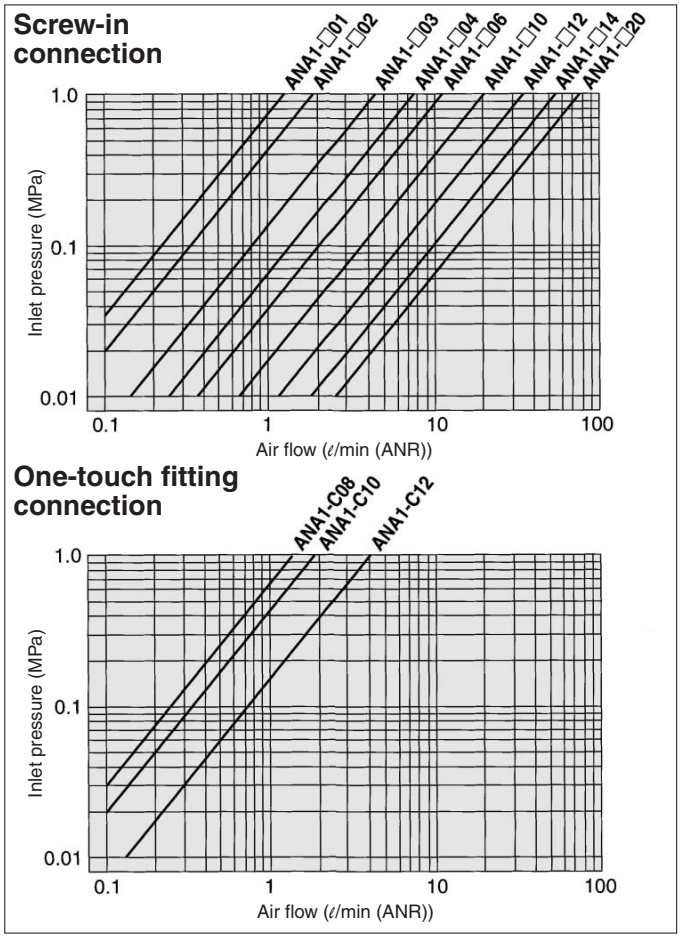
Construction/Parts/Dimensions



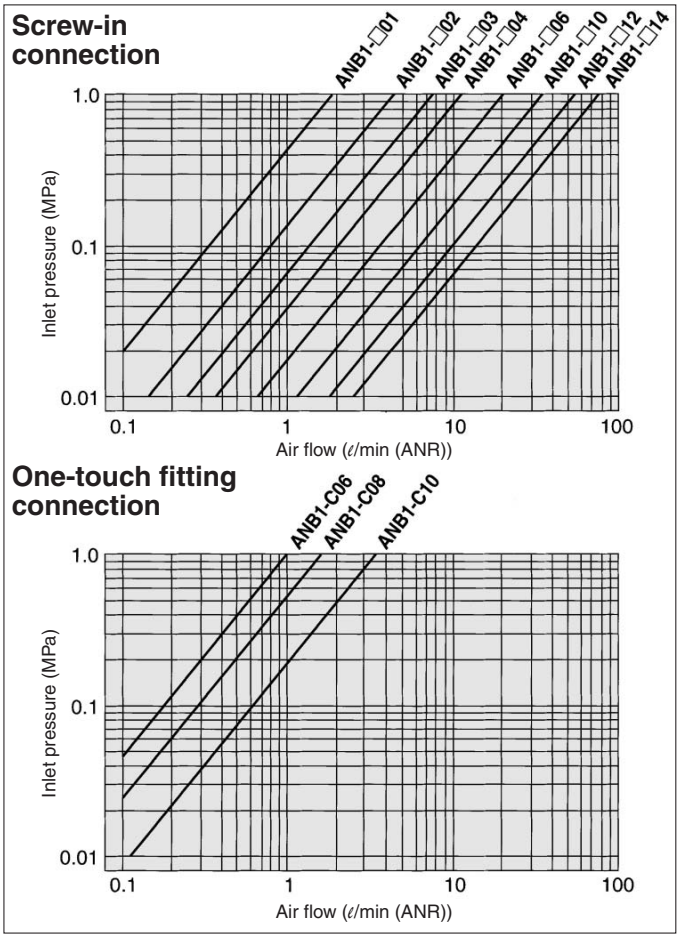
Note 1) About the display of product's material
PBT: Polybutylene terephthalate
PVF: Polyvinyl formal
Note 2) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

Series ANA1/ANB1

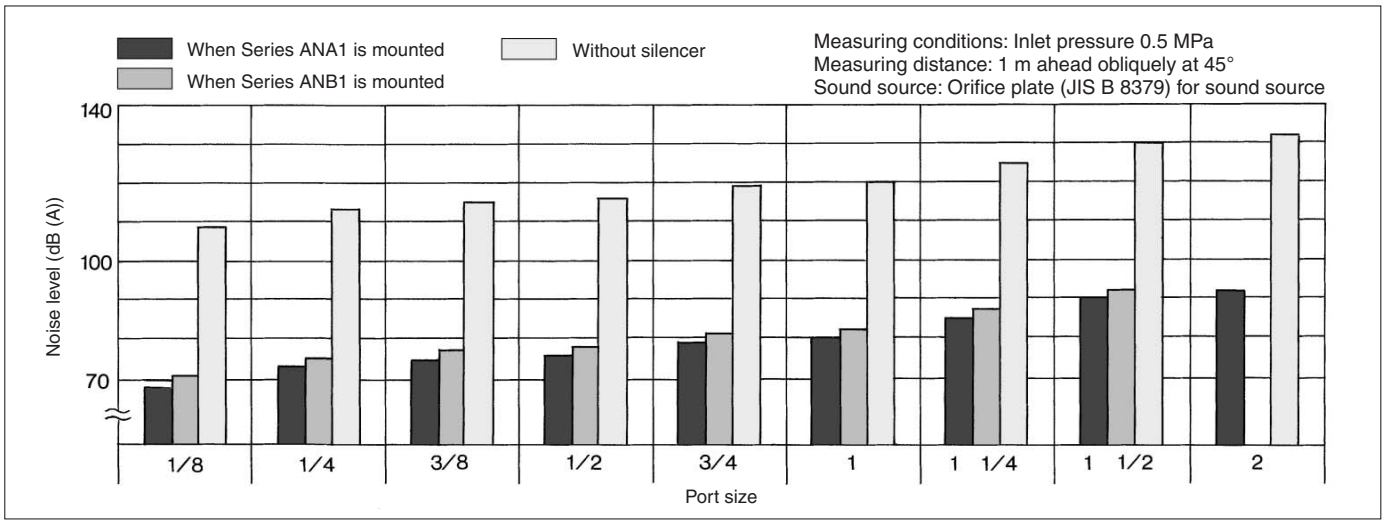
Flow Characteristics/ANA1 (Initial conditions)



Flow Characteristics/ANB1 (Initial conditions)



Noise Level (Initial conditions)



Exhaust Cleaner
Series AMC

Ensures clean plant air and reduces noise pollution;
Over 35 dB (A) noise reduction
Over 99.9% oil mist removal

How to Order

AMC 5 1 0 – □ 06 □

Body size

2	1/4 std.
3	3/8 std.
5	3/4 std.
6	1 std.
8	1 1/2 std.
9	2 std.

Thread

1	Male thread
2 (1)	Female thread

Note 1) Female thread: Available only AMC220, 320, 520.

Thread type

Nil	R, Rc
N	NPT
F	G

Port size

02	Female	1/4	10	Male	1
03	Female	3/8	14	Male	1 1/2
	Male		20	Male	1
04	Female	1/2			
06	Female	3/4			
	Male				

Suffix

B	With bracket
D (2)	Drain piping (Except AMC220)

∗ Indicate "BD" if both are required.
Note 2) On the AMC220, an R 1/4 fittinng can be attached by removing the drain cock. (It be comes the drain piping type.

JIS Symbol

How to Order Oil Bowl Assembly

If the oil case becomes damaged, it can be replaced easily.

AMC – CA 3 A □

Body size

2	AMC220
3	AMC310, 320
5	AMC510, 520
6	AMC610
8	AMC810
9	AMC910

Exhaust of oil mist

A	Drain cock (Standard)
D	Drain piping

Thread type

Applicable to drain piping

Nil	Rc
N	NPT
F	G

Note 1) On the type for the AMC220, an R 1/4 fitting can be attached by removing the drain cock. (It becomes the drain piping type.)
Note 2) Select the threads to match the threads on the product itself.

Specifications

Fluid	Compressed air
Ambient and fluid temperature	5 to 60°C ∗
Element inlet pressure	0.1 MPa or less
Noise reduction	35 dB or more
Oil mist removal	99.9% or more
Exhaust of oil mist	Drain cock (Standard) Drain piping
Option	Bracket ∗∗

∗ It can operate in temperatures between –10 to 60°C if there is no risk of freezing the moisture in the air.
∗∗ Bracket not available on AMC810 and 910.

Refer to page 5-10-14 for Specific Product Precautions.

Model/Male Thread Type

Specifications \ Model	AMC310	AMC510	AMC610	AMC810	AMC910
Effective area (mm²)	16	55	165	330	550
Max. air flow (ℓ/min(ANR))	300	1,000	3,000	6,000	10,000
Port size	3/8	3/4	1	1 1/2	2
Weight (kg)	0.2	0.5	0.7	1.2	1.7
Element model no.	AMC-EL3	AMC-EL5	AMC-EL6	AMC-EL8	AMC-EL9
Bracket model no.	BE30	BE50	BE60	—	—

∗ ANR: 20°C atmospheric pressure, relative humidity 65%

Model/Female Thread Type

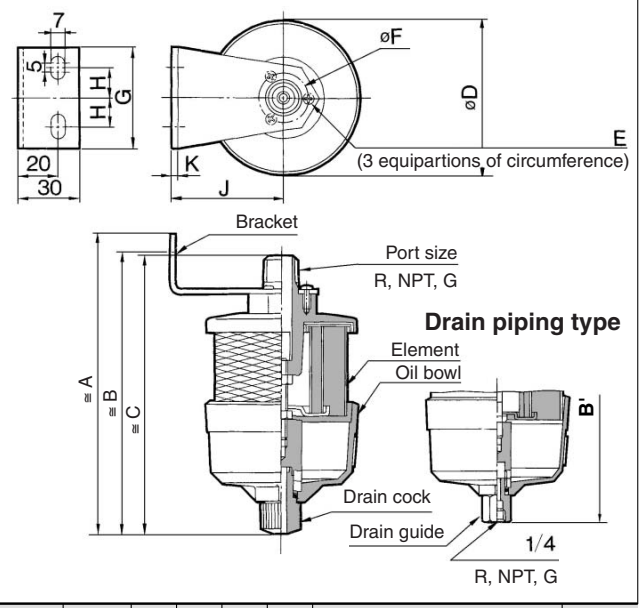
Specifications \ Model	AMC220	AMC320	AMC520
Effective area (mm²)	12	16	55
Max. air flow (ℓ/min(ANR))	200	300	1,000
Port size	1/4	1/4, 3/8	1/2, 3/4
Weight (kg)	0.12	0.2	0.5
Element model no.	AMC-EL2	AMC-EL3	AMC-EL5
Bracket model no.	BE20	BE30	BE50

∗ ANR: 20°C atmospheric pressure, relative humidity 65%

Series AMC

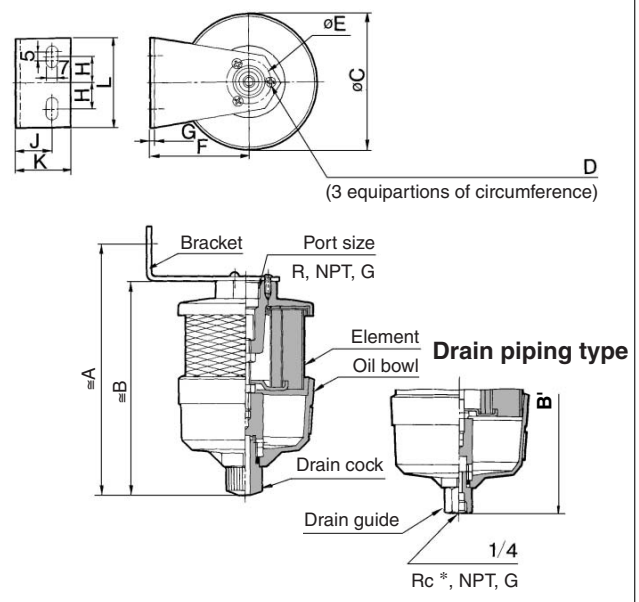
Construction/Dimensions

Male thread



Model	Port size	A	B	C	D	Mounting bracket						Drain piping
						E	F	G	H	J	K	B'
AMC310	3/8	150.5	138.5	140.5	75	M3 x 0.5 Depth 8	24	50	15	55	2.3	141.5
AMC510	3/4	203.5	196.5	193.5	102	M4 x 0.7 Depth 8	40	70	20	70	3.2	199.5
AMC610	1	229.5	224.5	219.5	118	M4 x 0.5 Depth 10	48	70	20	80	3.2	227.5
AMC810	1 1/2	—	270	—	135	—	—	—	—	—	—	273
AMC910	2	—	327	—	153	—	—	—	—	—	—	330

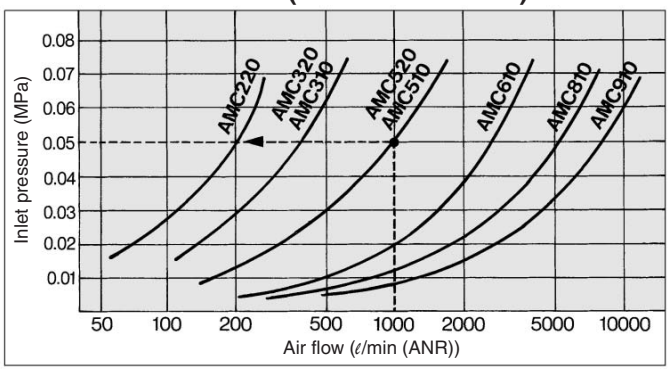
Female thread



Model	Port size	A	B	C	Mounting bracket								Drain piping
					D	E	F	G	H	J	K	L	B'
AMC220	1/4	100	88	56	M3 x 0.5 Depth 8	22	40	2.3	15	12	20	50	73*
AMC320	1/4, 3/8	140.5	120.5	75	M3 x 0.5 Depth 8	24	55	2.3	15	20	30	50	123.5
AMC520	1/2, 3/4	193.5	173.5	102	M4 x 0.7 Depth 8	40	70	3.2	20	20	30	70	176.5

* On the type for the AMC220, an R 1/4 fitting can be attached by removing the drain cock. (It becomes the drain piping type.)

Flow Characteristics (Initial conditions)

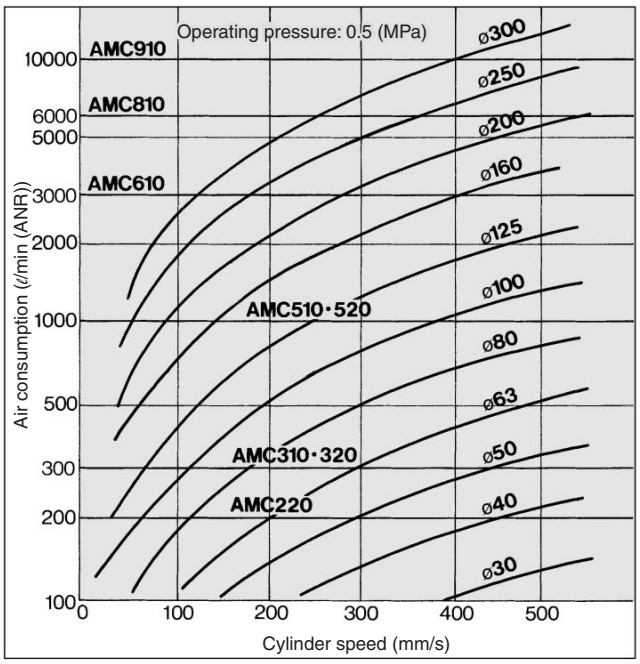


How to read the graph: If the AMC510 is operated at a flow volume of 1000 ℓ/min (ANR), the inlet pressure will be 0.05 MPa.

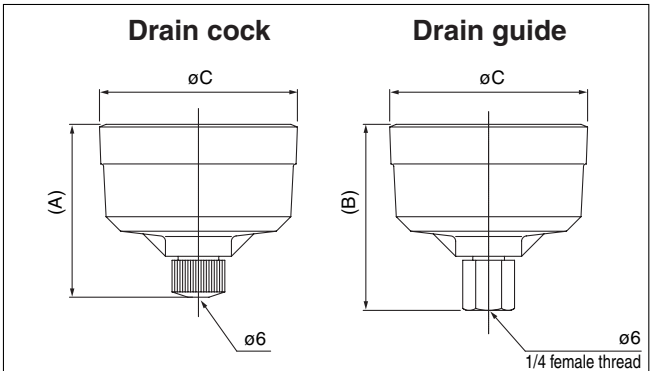
How to Select Condition: At operating pressure 0.5 MPa

Select a model according to the air consumption of the circuit to be used.

1. Obtain the air consumption of the actuator to be used. However, if an exhaust cleaner of the centralized piping type will be used, sum the air consumption of the actuators that operate simultaneously. Also add the capacity of the piping from the cylinder to the EXH.
2. Select a model that provides a maximum processing flow volume that exceeds the consumption volume obtained in step 1.



Dimensions



Body size	A	B	C
2	55	—	56
3	63	71	75
5	83	88	102
6	96	101	118
8	96	101	135
9	116	121	153

Silencers
Precautions
Be sure to read before handling.

Caution on Design

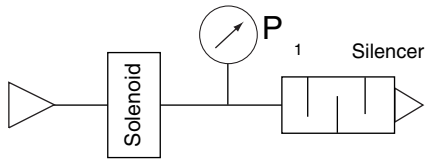
⚠ Warning

1. The exhaust port could become blocked by the clogging of the exhaust cleaner.
Therefore, make sure to provide a safe design so as not to cause the whole system to malfunction.

⚠ Caution

2. Silencer is intended to reduce the noise of exhaust air of the compressed air emitted from pneumatic equipment.
Noises other than exhaust air (noise generated inside piping, noise generated by vibration of equipment, noise of switching valves, etc.) cannot be reduced.
Take appropriate measures to find the cause of those noises other than those generated by exhaust air.

3. The inlet pressure obtained in the flow characteristic graph of silencer indicates the pressure (P1) prior to silencer. (Refer to the diagram below.)



Inlet pressure for silencer

4. If the compressed air supply is contaminated with fluids such as oil and oil mist, such fluids will be dispersed to the environment.
In such a case, an exhaust cleaner is recommended to recover fluids and reduce noise.

5. The silencing effect could vary depending on the pneumatic circuit or the pressure that is used.

Selection

⚠ Caution

1. Select a model which has a bigger effective area than that of the solenoid valve (including compound effective area).

2. Be certain to use at or below the level of recommended flow.

Mounting

⚠ Caution

1. If the silencer body (case) is made of plastic and is tightened too much, the silencer may be damaged.
Please follow the procedures below for mounting.

When the body (case) is made of resin
Hold the tip of the main body (side without thread) and screw in. At the point where the thread begins to feel tight, use a wrench on the hexagonal flats to tighten an additional 1/4 turn.
Tighten securely by hand for AN103-01.

For BC element
Hold the tip of the main body (side without thread) with fingers and screw in tightly.
Do not hold the part of sintered metal with a wrench, etc. to tighten.

When the main body is made of metal (Except BC element) [Series 25]
Within the recommended tightening torque shown in the chart below, use a wrench on the hexagonal flats and tighten.
Tightening by using a pipe wrench or pliers may cause damage to the silencer. This method is not recommended.

Tightening Torques for Silencers

Connection thread	Applicable tightening torque (N·m)
R 1/4	12 to 14
R 3/8	22 to 24
R 1/2	28 to 30
R 3/4	28 to 30
R 1	36 to 38
R 1 1/4	40 to 42
R 1 1/2	48 to 50
R 2	48 to 50

2. Make sure not to apply a lateral load to the body during or after the installation.

3. When the main body of the silencer is loosened by vibration, etc. of equipment on which a silencer is assembled, apply glue to threads to prevent from loosing and reattach.

Maintenance

⚠ Caution

1. Never disassemble the silencer.
The silencing material is not replaceable.

2. If the exhaust speed drops and the system performance decreases due to clogging, replace with a new silencer.
Make sure to verify the operating conditions of the actuator at least once a day.

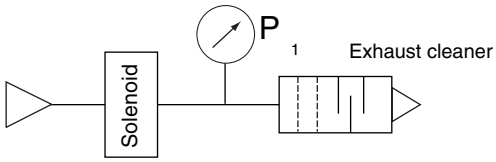
Exhaust Cleaner *(Series AMC)*
Specific Product Precautions

Be sure to read before handling.

Caution on Design

⚠ Warning

1. **The exhaust port could become blocked by the clogging of the exhaust cleaner.**
   Therefore, make sure to provide a safe design so as not to cause the whole system to malfunction.
2. **The inlet pressure obtained in the flow characteristic graph of silencer indicates the pressure (P1) prior to exhaust cleaner. (Refer to the diagram below.)**



Inlet pressure for exhaust cleaner

3. **If compressed air exhausted from the solenoid valve is not clean clogging may occur,**
4. **Operate at a back pressure (inlet pressure) of 0.1 MPa or less.**

Selection

⚠ Caution

1. **Select an exhaust cleaner which is able to dispose of the maximum allowable flow capacity of compressed air exhausted from solenoid valve.**
   If the flow exceeds the maximum allowable flow for the exhaust cleaner, drainage and oil may be sprayed into the environment causing damage to equipment.
2. **Select a model which has a bigger effective area than that of the solenoid valve (including compound effective area).**
3. **If this will be used with a centralized piping system, calculate the peak maximum air consumption by including the actuators that operate simultaneously and the capacity of the piping that is connected.**
   Then, select a model so that the calculated value will be less than the maximum flow volume of the exhaust cleaner. (Select a style with ample capacity because the exhaust speed will decrease when the element becomes clogged.)

Mounting

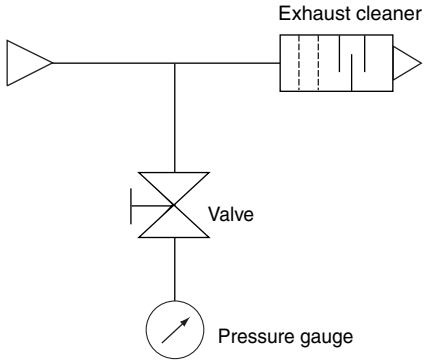
⚠ Caution

1. **Make sure not to apply a lateral load to the body during or after the installation.**
2. **Take precautions so that the piping load is not be applied to the main body.**
   The attached bracket is for supporting the exhaust cleaner body only. Thus, it cannot support the piping or other items. If these items need to be supported, provide an additional support.
3. **Exhaust cleaner must be mounted vertically.**
   If it is mounted diagonally, laterally, or inverted, the oil that is separated by the element will splash on the surroundings.

Maintenance

⚠ Caution

1. **If the exhaust speed drops and the system performance decreases due to clogging, replace with a new element.**
   Make sure to verify the operating condition of the actuator at least once a day.
2. **The replacement interval for the element is before the internal pressure during exhaust reaches 0.1 MPa or after 1 year operation, whichever comes first.**



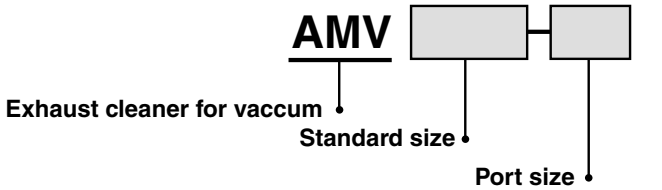
- Provide a branch on the supply side of the exhaust cleaner to mount a valve and a pressure gauge.
- During inspection, open the valve and check the pressure at the time of exhaust discharge.
  (The valve must remain closed except for inspection. The pressure gauge could break if the valve remains open.)

Related Products:

Exhaust Cleaner for Vaccum

Over 99.5% of oil mist can be removed.
Piping to exhaust ducts from vacuum pump is unnecessary.

How to Order



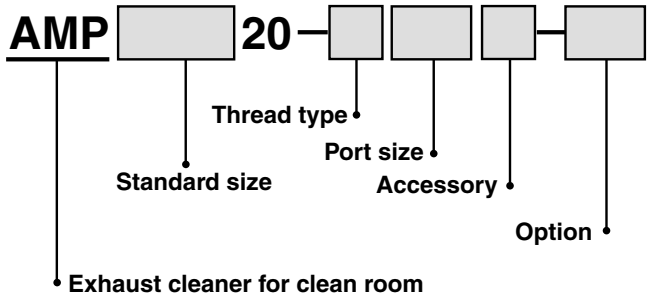
Model

Standard size	Port size	Max. air flow (ℓ/min (ANR))
3	1	360
6	1 1/2	650
15	2	1,500
37	2	3,700
75	3B flange	7,500
160	4B flange	16,000

Exhaust Cleaner for Clean Room

Since it is possible to release exhaust air from pneumatic equipment directly into a clean room, piping to exhaust ducts is unnecessary.

How to Order



Model

Standard size	Thread type	Port size ¼	Port size ⅜	Port size ½	Port size ¾	Max. air flow (ℓ/min (ANR))	Accessory Option
2	Rc	●	●			200	• Bracket
3	NPT		●	●	●	500	• Flow direction (Right → Down)
4	G			●		1,000	• With element service indicator

For details, refer to individual catalog (CAT: ES13-7) separately.