

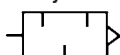
# Silencer Standard Type Series AN□00

RoHS

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

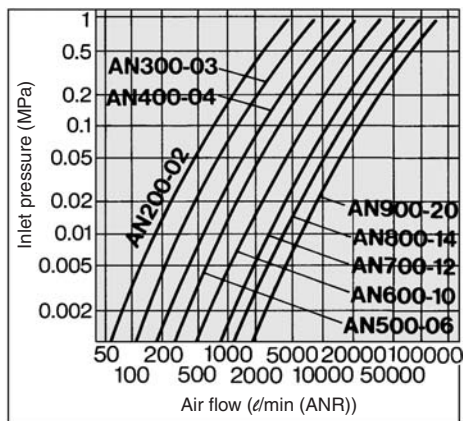


JIS Symbol



## Flow Characteristics (Initial conditions)

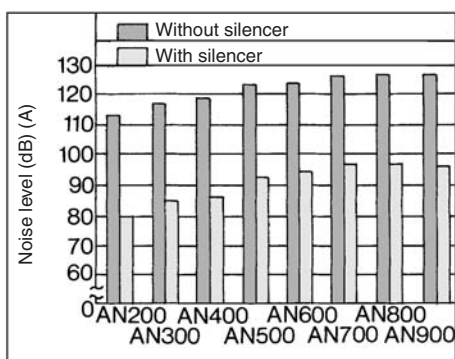
### AN200 to 900



## 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



## How to Order

AN 400 - 04

Body size

200
300
400
500
600
700
800
900

Thread type

Symbol	Type
Nil	R
N	NPT

Port size

Symbol	Port size	Applicable model
02	1/4	AN200
03	3/8	AN300
04	1/2	AN400
06	3/4	AN500
10	1	AN600
12	1 1/4	AN700
14	1 1/2	AN800
20	2	AN900

## Specifications

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



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.



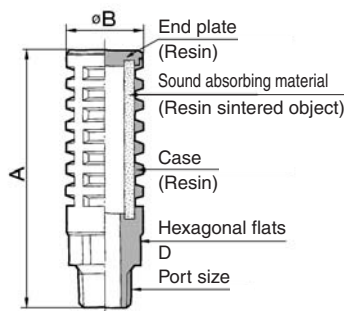
Refer to page 607 for Precautions on these products.

## Model

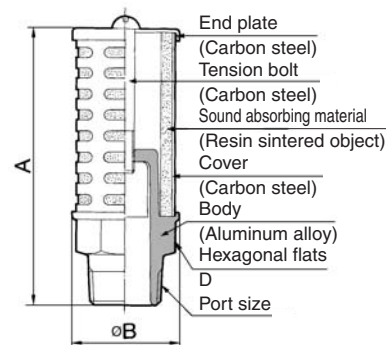
Model	Port size R	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	D
AN200-02	1/4	35	7	17	63	22	19
AN300-03	3/8	60	12	25	84	25	22
AN400-04	1/2	90	18	35	92	30	27
AN500-06	3/4	160	32	165	107	46	36
AN600-10	1	270	54	220	127	50	41
AN700-12	1 1/4	440	88	435	186	74	50
AN800-14	1 1/2	590	118	510	217	74	55
AN900-20	2	960	192	740	256	86	65

## Construction/Parts/Dimensions

### AN200 to 400



### AN500 to 900

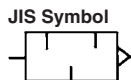


Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

# Silencer Compact Type Series AN□03

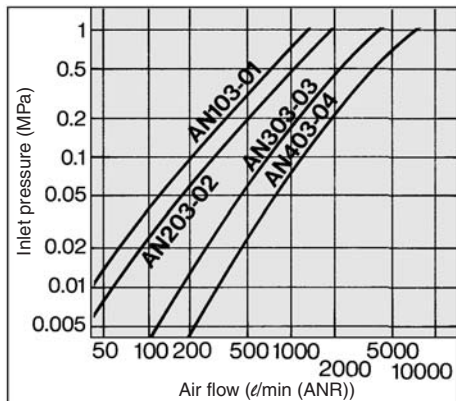
RoHS

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



## Flow Characteristics (Initial conditions)

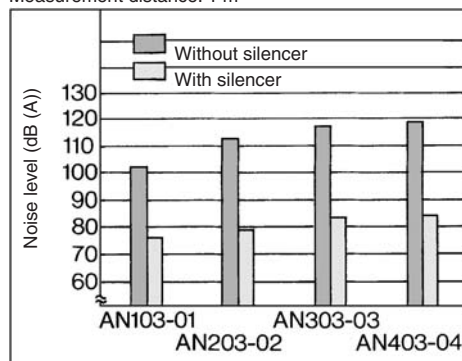
### AN103 to 403



## Noise Level (Initial conditions)

### AN103 to 403

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



## How to Order

AN 403 - 04

Body size

103
203
303
403

Thread type

Symbol	Type
Nil	R
N	NPT

Port size

Symbol	Port size	Applicable model
01	1/8	AN103
02	1/4	AN203
03	3/8	AN303
04	1/2	AN403

## Specifications

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



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.



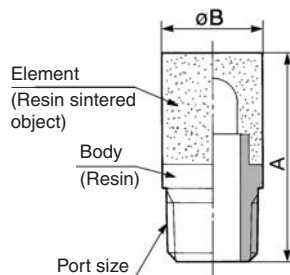
Refer to page 607 for Precautions on these products.

## Model

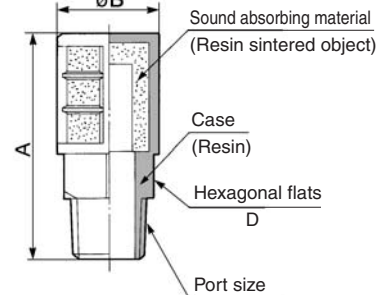
Model	Port size R	Effective area (mm²)	Sonic conductance C [dm³/(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	D
AN103-01	1/8	10	2	1	23.5	11	-
AN203-02	1/4	15	3	3	36	16	14
AN303-03	3/8	35	7	17	66	22	19
AN403-04	1/2	60	12	25	84	25	22

## Construction/Parts/Dimensions

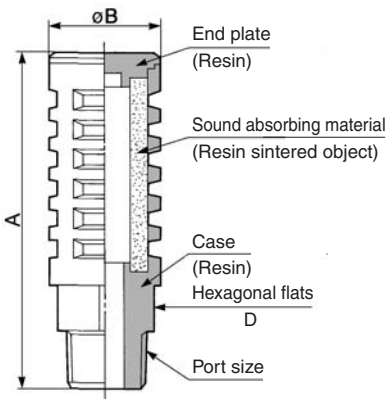
### AN103



### AN203



### AN303/403



Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

AN

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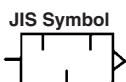
AMV

AMP

# Silencer Metal Case Type Series 25

RoHS

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



## How to Order

25 10 - 002

Body size

04
05
06
07
08
10
11

Thread type

Symbol	Type
Nil	R
N	NPT

Port size

Symbol	Port size	Applicable model
002	1/4	2504, 2510
003	3/8	2505, 2511
004	1/2	2506
006	3/4	2507
010	1	2508

## Specifications

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



Note 1) It indicates the inlet pressure for solenoid valve.

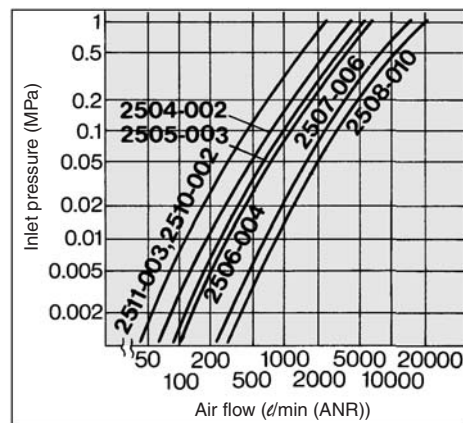
Note 2) It can operate in temperature between -10 to 60°C if there is no risk of the moisture in the air freezing.



Refer to page 607 for Precautions on these products.

## Flow Characteristics (Initial conditions)

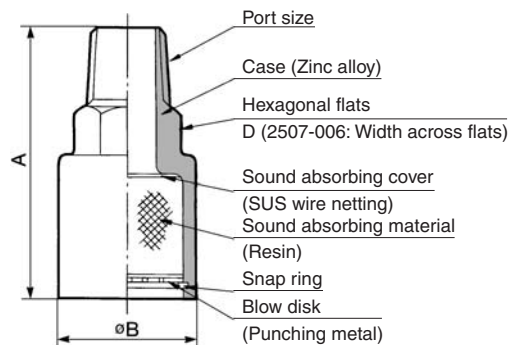
2504 to 2511



## Model

Model	Port size R	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	D
2504-002	1/4	33.9	6.8	111	62	30	24
2505-003	3/8	45.9	9.2	106	64	30	24
2506-004	1/2	50.0	10.0	113	68	30	24
2507-006	3/4	105.6	21.1	310	88.5	48	35
2508-010	1	129.6	25.9	514	97.5	60	41
2510-002	1/4	17.2	3.4	57	54	22	19
2511-003	3/8	17.2	3.4	55	56	22	19

## Construction/Parts/Dimensions

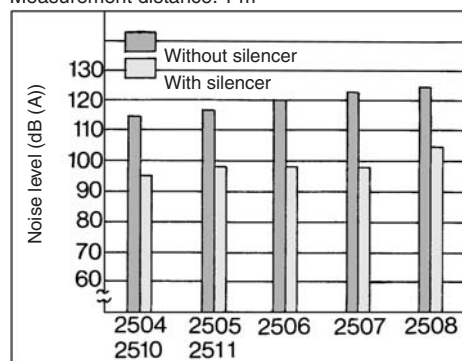


Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

## Noise Level (Initial conditions)

2504 to 2511

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



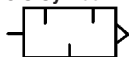
# Silencer BC Sintered Body Type Series AN

RoHS

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 <sup>(1)</sup>		R 1/8	R 1/8	M3	M5
Noise reduction (dB (A))		16	21	13	18
Fluid		Compressed air			
Max. operating pressure <sup>(2)</sup>		1.0 MPa			
Ambient and fluid temperature		5 to 150°C <sup>(3)</sup>			
Effective area (mm <sup>2</sup> )		20	35	1	5
Sonic conductance C [dm <sup>3</sup> /(s·bar)]		4	7	0.2	1
Mass (g)		8.3	17	1	3.4
Dimensions (mm)	A	21	34	9	15.5
	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.

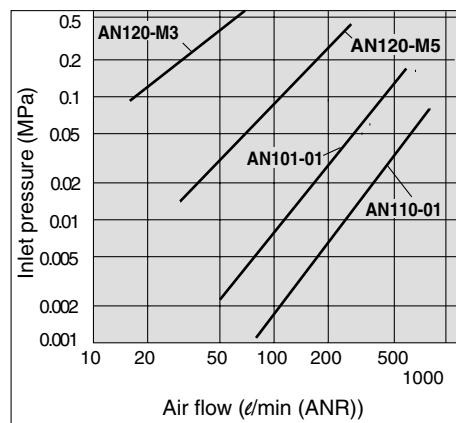
Note 2) It indicates the inlet pressure for solenoid valve.

Note 3) It can operate in temperatures between -10 to 150°C if there is no risk of the moisture in the air freezing.

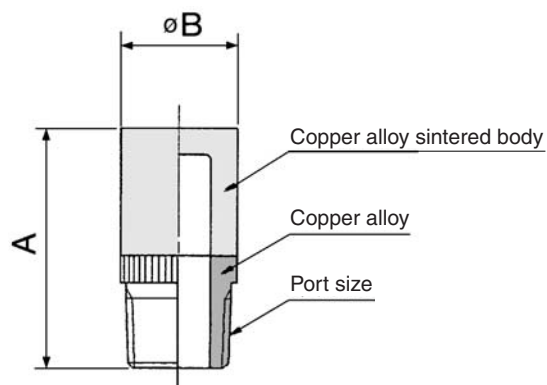


Refer to page 607 for Precautions on these products.

## Flow Characteristics (Initial conditions)



## Construction/Parts/Dimensions



Note) Surface treatment: Nickel plated

AN

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AMV

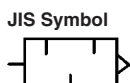
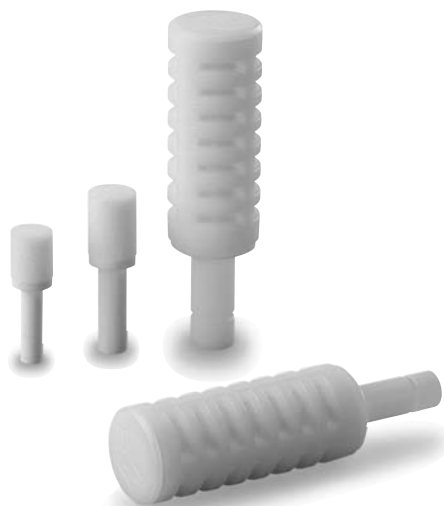
AMP

# Silencer One-touch Fitting Connection Type

RoHS

## Series AN□□□-KM□□

Can connect with One-touch fitting directly.



### Specifications

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

Note) It indicates the inlet pressure for solenoid valve.

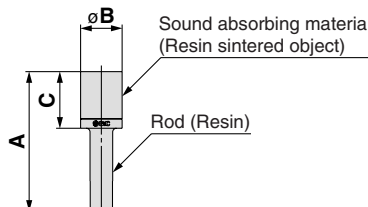
Refer to page 607 for Precautions on these products.

### Model

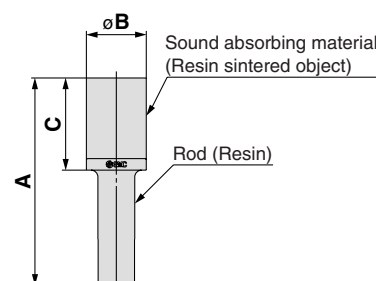
Model	Applicable One-touch fitting size	Noise reduction (dB (A))	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
						A	B	C
AN103-KM6	ø6 (Series KQ2, KJ)	25	7	1.4	1	37	11	15
AN103-X233	ø6 (Series KQ2, KJ)							
AN103-X235	ø1/4" (Series KQ2, KJ)							
AN203-KM8	ø8 (Series KQ2)	30	14	2.8	1.4	45	13	20
AN200-KM8	ø8 (Series KQ2)		20	4	14	73	22	49
AN200-KM10	ø10 (Series KQ2)		26	5.2	14	76	22	49
AN300-KM10	ø10 (Series KQ2)		30	6	21	90	25	63
AN300-KM12	ø12 (Series KQ2)		41	8.2	21	91	25	63

### Construction/Parts/Dimensions

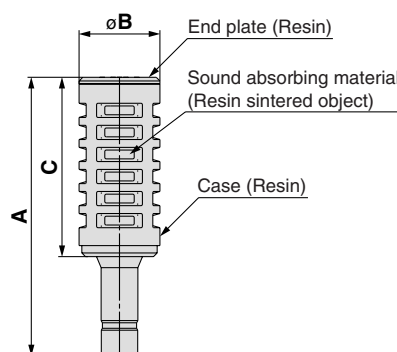
#### AN103-KM6 AN103-X233 AN103-X235



#### AN203-KM8



#### AN□00-KM□□



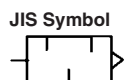
Note 1) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.  
Note 2) Use caution when connecting this product after connecting the product with metal rod to One-touch fittings. It may be pulled out.



# Silencer High Noise Reduction Type Series AN□02

RoHS

Over 35 dB (A) noise reduction  
Case adopts flame resistant material



## How to Order

AN 402 - □ 04

Body size

202
302
402

Thread type

Symbol	Type
Nil	R
N	NPT

Port size

Symbol	Port size	Applicable model
02	1/4	AN202
03	3/8	AN302
04	1/2	AN402

## Specifications

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



Note 1) It indicates the inlet pressure for solenoid valve.

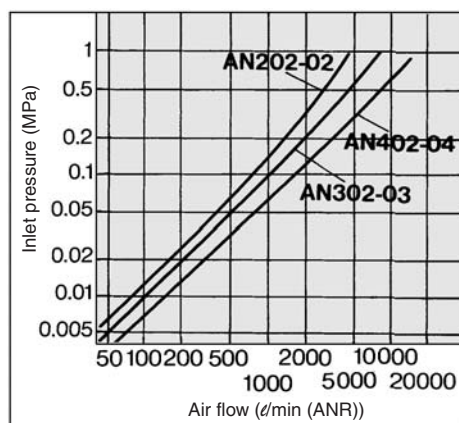
Note 2) It can operate in temperature between -10 to 60°C if there is no risk of the moisture in the air freezing.



Refer to page 607 for Precautions on these products.

## Flow Characteristics (Initial conditions)

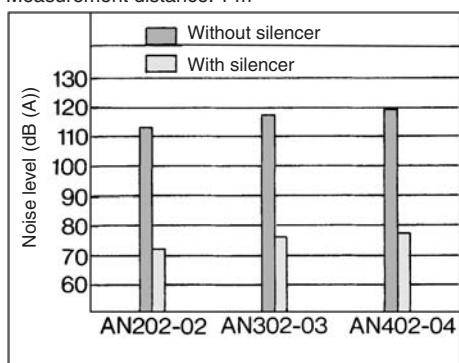
### AN202 to 402



## Noise Level (Initial conditions)

### AN202 to 402

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

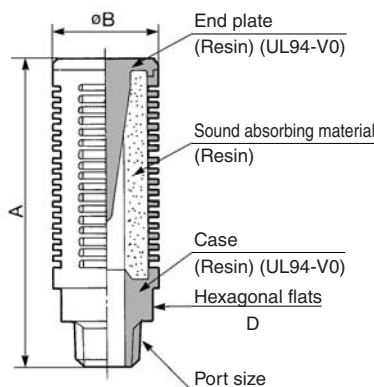


## Model

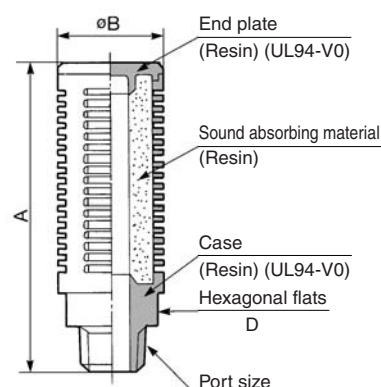
Model	Port size R	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	D
AN202-02	1/4	35	7	16	64	22	19
AN302-03	3/8	60	12	33	84	28	24
AN402-04	1/2	90	18	47	95	34	24

## Construction/Parts/Dimensions

### AN202



### AN302/402



Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

AN

VCHN

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AMV

AMP

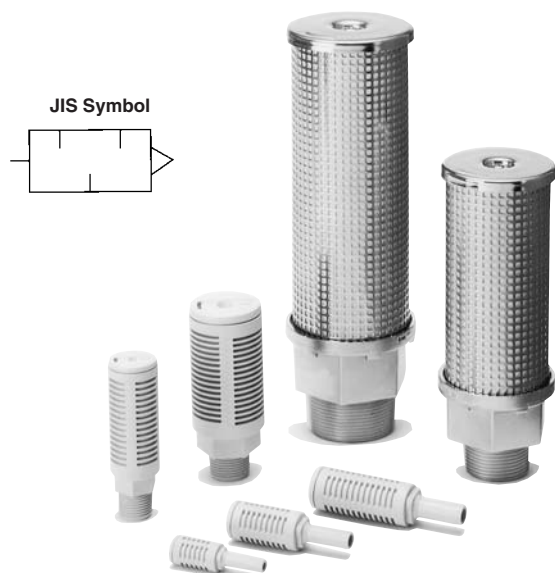
# Silencer

## 40 dB (A): High Noise Reduction Type

# Series ANA1

RoHS

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

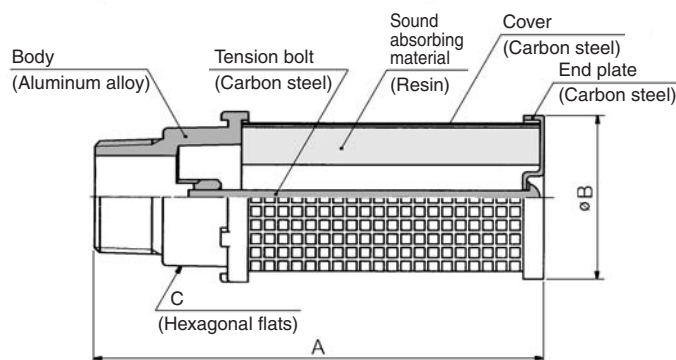
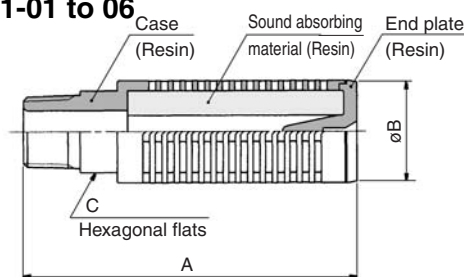


### Model (Screw-in connection)

Model	Port size R	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	C
ANA1-01	1/8	10	2	4	37	16	-
ANA1-02	1/4	15	3	14	64	22	18
ANA1-03	3/8	35	7	22	84	25	21
ANA1-04	1/2	60	12	36	98	30	24
ANA1-06	3/4	90	18	110	111	46	36
ANA1-10	1	160	32	180	132	50	41
ANA1-12	1 1/4	280	56	544	200	74	60
ANA1-14	1 1/2	450	90	612	230	74	60
ANA1-20	2	610	122	873	271	86	70

### Construction/Parts/Dimensions

#### ANA1-01 to 06



Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

### How to Order

## ANA1-03

#### 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	One-touch fitting
14	1 1/2	
20	2	
C08	ø8 (Applicable One-touch fitting size)	
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 <small>Note)</small>	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.

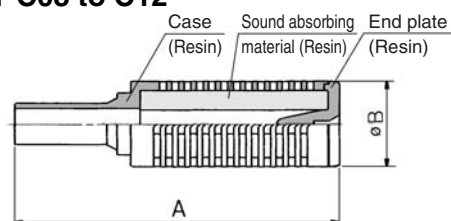
Refer to page 607 for Precautions on these products.

### Model (One-touch fitting connection)

Model	Applicable One-touch fitting size	Effective area (mm <sup>2</sup> )	Recommended flow rate (m <sup>3</sup> /min (ANR))	Mass (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) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

# Silencer

## 38 dB (A): High Noise Reduction Type

# Series ANB1

RoHS

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.



### How to Order

## ANB1-03

#### 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	One-touch fitting
14	1 1/2	
C06	ø6 (Applicable One-touch fitting size)	
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 <sup>Note)</sup>	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.

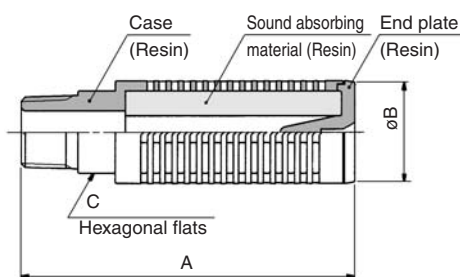
Refer to page 607 for Precautions on these products.

### Model (Screw-in connection)

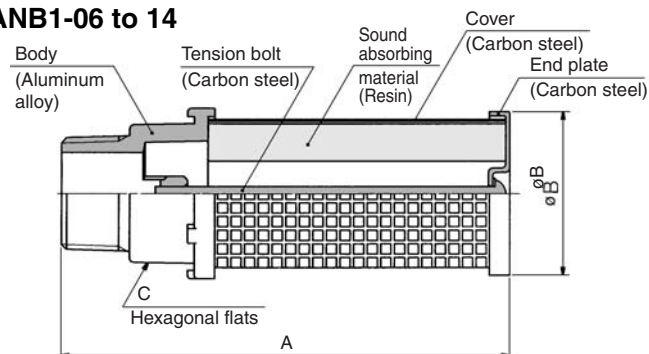
Model	Port size R	Effective area (mm <sup>2</sup> )	Sonic conductance C [dm <sup>3</sup> /(s·bar)]	Mass (g)	Dimensions (mm)		
					A	B	C
ANB1-01	1/8	15	3	10	51	22	—
ANB1-02	1/4	35	7	22	81	25	18
ANB1-03	3/8	60	12	35	93	30	21
ANB1-04	1/2	90	18	94	107	46	24
ANB1-06	3/4	160	32	175	133	50	41
ANB1-10	1	280	56	462	190	74	41
ANB1-12	1 1/4	450	90	612	230	74	60
ANB1-14	1 1/2	610	122	871	271	86	70

### Construction/Parts/Dimensions

#### ANB1-01 to 04



#### ANB1-06 to 14

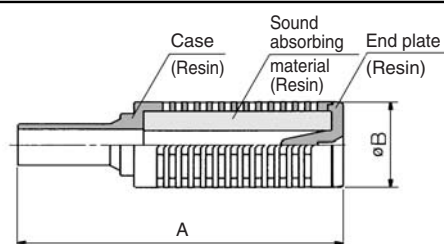


Note) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

### Model (One-touch fitting connection)

Model	Applicable One-touch fitting size	Effective area (mm <sup>2</sup> )	Recommended flow (m <sup>3</sup> /min (ANR))	Mass (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) Recommended flow rate is the flow at 0.5 MPa in the inlet pressure.

AN

VCHN

AMC

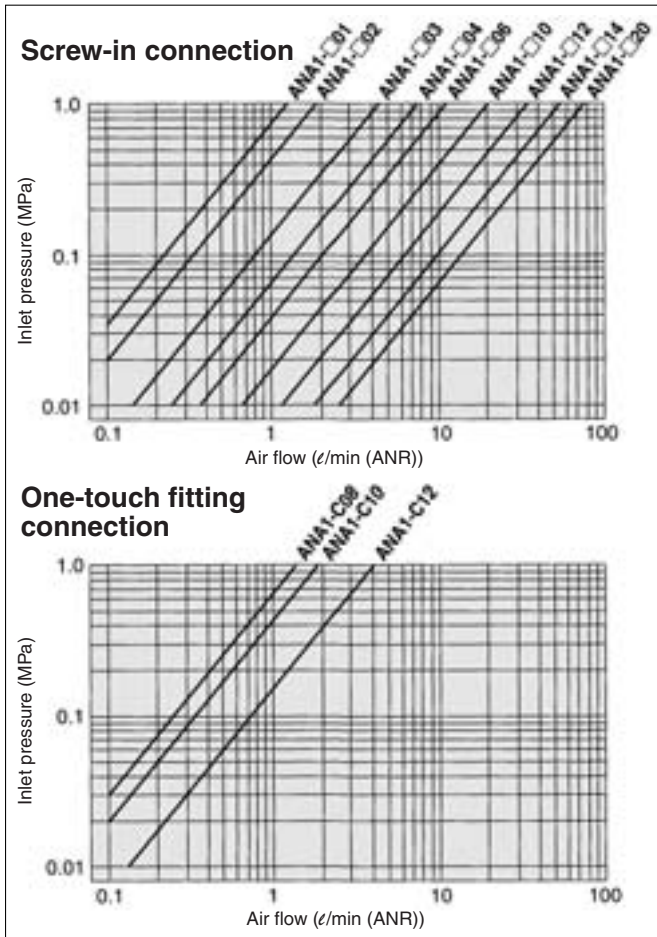
AMV

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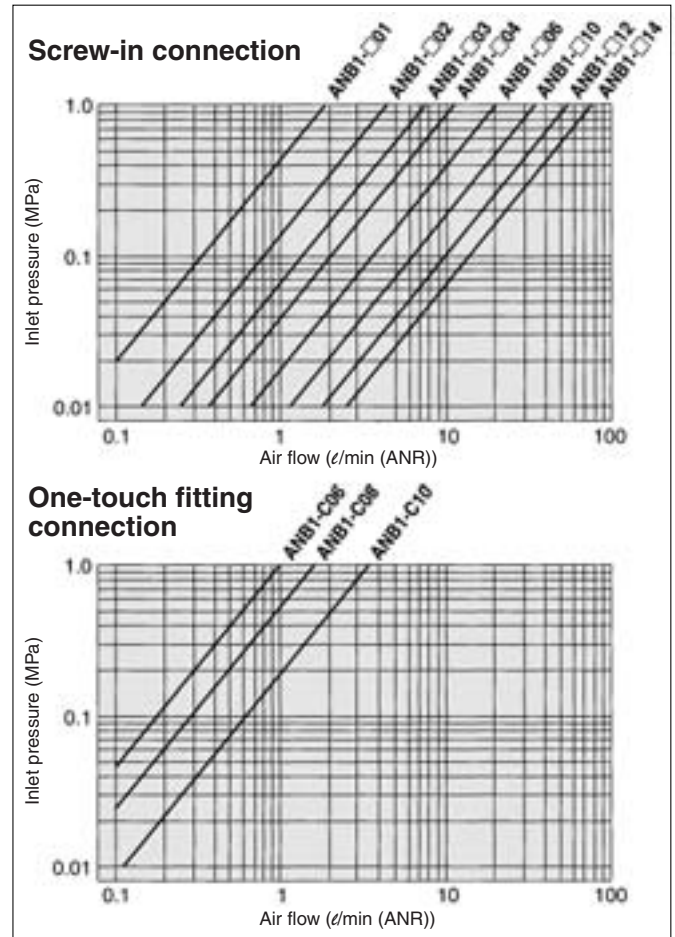


# Series ANA1/ANB1

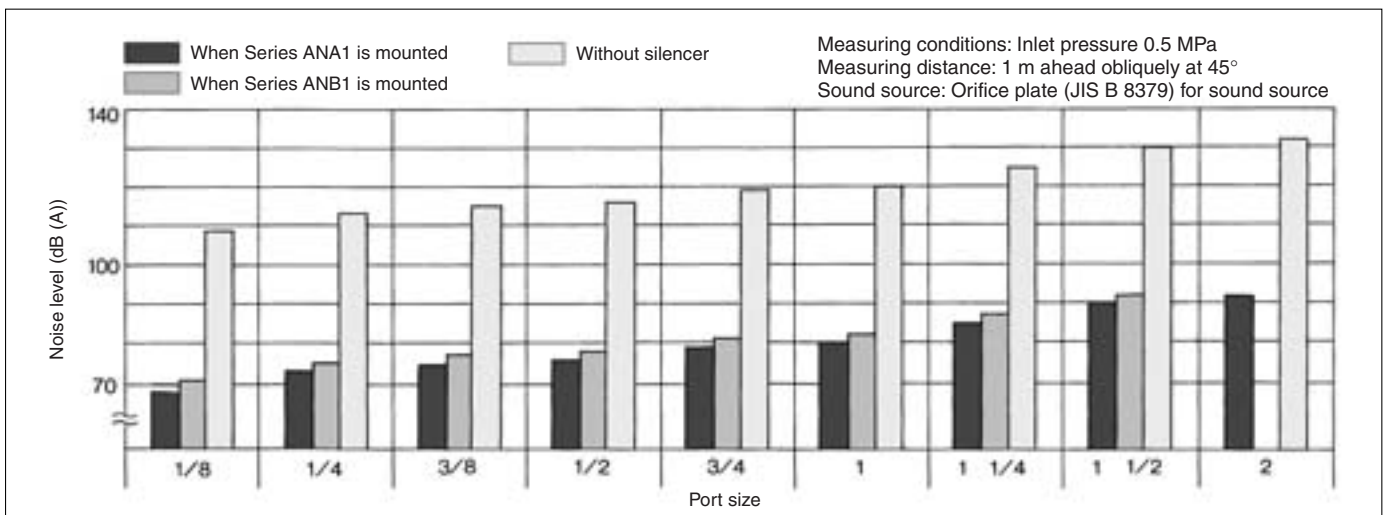
## Flow Characteristics/ANA1 (Initial conditions)



## Flow Characteristics/ANB1 (Initial conditions)



## Noise Level (Initial conditions)





# Series AN Specific Product Precautions (Silencers)

Be sure to read before handling.

## 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.

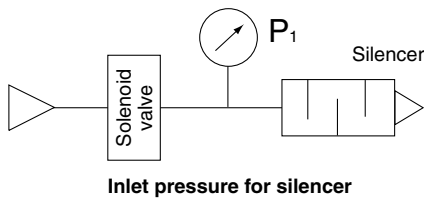
### Caution

1. The 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 noises other than those generated by exhaust air.

2. The inlet pressure obtained in the flow characteristic graph of silencer indicates the pressure (P<sub>1</sub>) prior to silencer. (Refer to the diagram below.)



3. 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.

4. 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 (the side without thread) and screw it 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 elements

Hold the tip of the main body (the side without thread) with your fingers and screw it in tightly.

Do not hold the sintered metal part with a wrench, etc. to tighten.

#### When the main body is made of metal (Except BC elements) [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 loosening and reattach.

4. Mounting metal rod accessories

After mounting the products with metal rods to the one-touch fitting, please do not replace the tube, resin plug, reducer, etc. It may cause loosening or detachment.

Applicable products:

AN103-KM6, AN103-X233, AN103-X235, AN203-KM8, AN200-K8, AN200-KM10, AN300-KM10, AN300-KM12

## 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.

AN

VCHN

AMC

AMV

AMP

# 5.0 MPa Silencer Series *VCHN*

**35 dB(A) noise reduction**

(At supply pressure of 4.0 MPa, back pressure 2.0 MPa)

\* 45 dB(A) noise reduction model can be "Made to Order".

**1/10 Clogging reduction**  
(SMC comparison)

**Double-layer sound absorbing material**  
with different filtration reduces clogging.  
PAT.

**Standard integrated relief valve**

The relief valve will activate when  
the silencer's internal pressure  
exceeds 1.8 MPa.

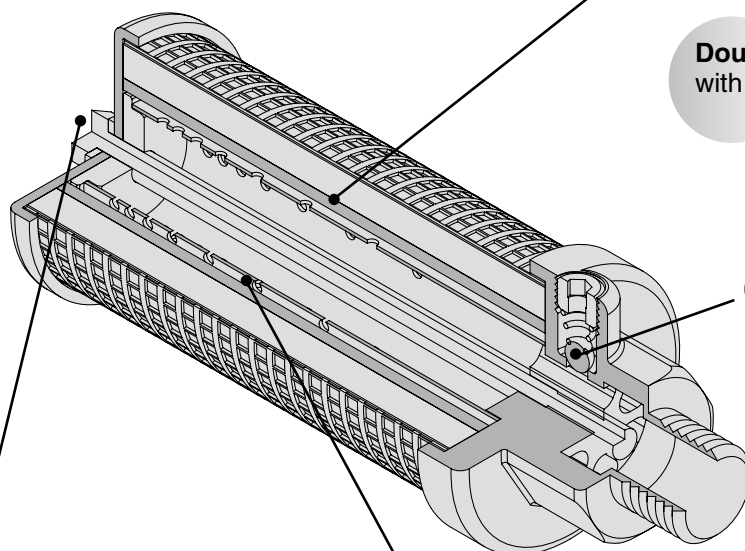
\* The error indicator and the pressure switch, etc.  
can be mounted as "Made to Order".

**Improved maintenance**

By **removing a bolt**, the sound  
absorbing material can be replaced  
without removing the silencer.

**30-40% reduction in freezing**  
(SMC comparison) (Optional)

Freezing is reduced by a high pressure  
**sleeve** and quick exhaust.



## How to Order

**VCHN**   **3** - **06**

Option

Nil	None
F	With freeze reduction

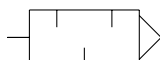
Port size

Symbol	Port size	VCHN□3	VCHN□4
06	R3/4	●	
10	R1	●	●
12	R1•1/4		●
14	R1•1/2		●

Body size

3
4

Symbol

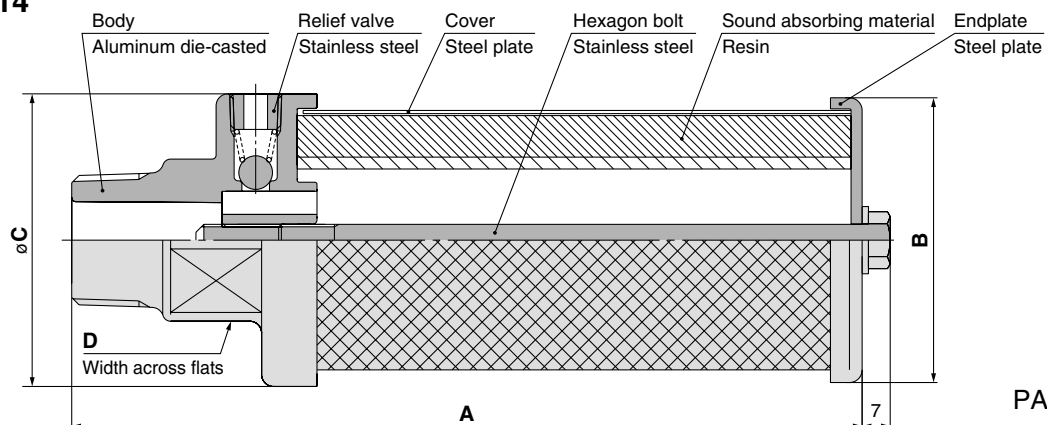


## Specifications

Model	VCHN3		VCHNF3		VCHN4			VCHNF4		
Fluid	Air, Inert gas									
Max. operating pressure (MPa)	5.0 (Solenoid valve inlet pressure)									
Relief valve unlocking pressure (MPa)	1.8									
Port size	R3/4	R1	R3/4	R1	R1	R1•1/4	R1•1/2	R1	R1•1/4	R1•1/2
Effective area (mm <sup>2</sup> )	200	280	160	180	280	370	370	180	320	320
Sound absorbing material effective area (Single) (mm <sup>2</sup> )	420					500				
Fluid temperature (°C)	5 to 80									
Ambient temperature (°C)	5 to 80									
Noise reduction dB(A)	35 (Supply pressure 4.0 MPa, Back pressure 2.0 MPa)									

## Construction/Dimensions

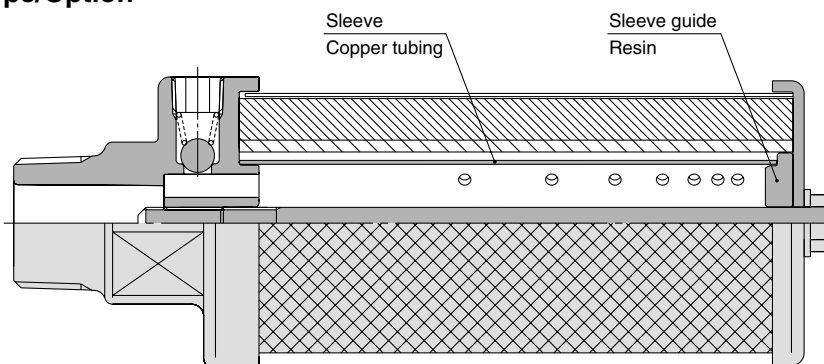
### VCHN<sub>4</sub><sup>3</sup>-06 to 14



PAT.

### Freeze reduction type/Option

### VCHNF<sub>4</sub><sup>3</sup>-06 to 14



Model	Port size (R)	A	B	C	D	Mass (g)
VCHN3-06	3/4	200	$\phi 72$	$\phi 74$	41	590
VCHNF3-06	3/4	200	$\phi 72$	$\phi 74$	41	710
VCHN3-10	1	200	$\phi 72$	$\phi 74$	41	605
VCHNF3-10	1	200	$\phi 72$	$\phi 74$	41	725
VCHN4-10	1	230	$\phi 72$	$\phi 74$	41	665
VCHNF4-10	1	230	$\phi 72$	$\phi 74$	41	810
VCHN4-12	1•1/4	240	$\phi 72$	$\phi 74$	54	765
VCHNF4-12	1•1/4	240	$\phi 72$	$\phi 74$	54	910
VCHN4-14	1•1/2	240	$\phi 72$	$\phi 74$	54	790
VCHNF4-14	1•1/2	240	$\phi 72$	$\phi 74$	54	935

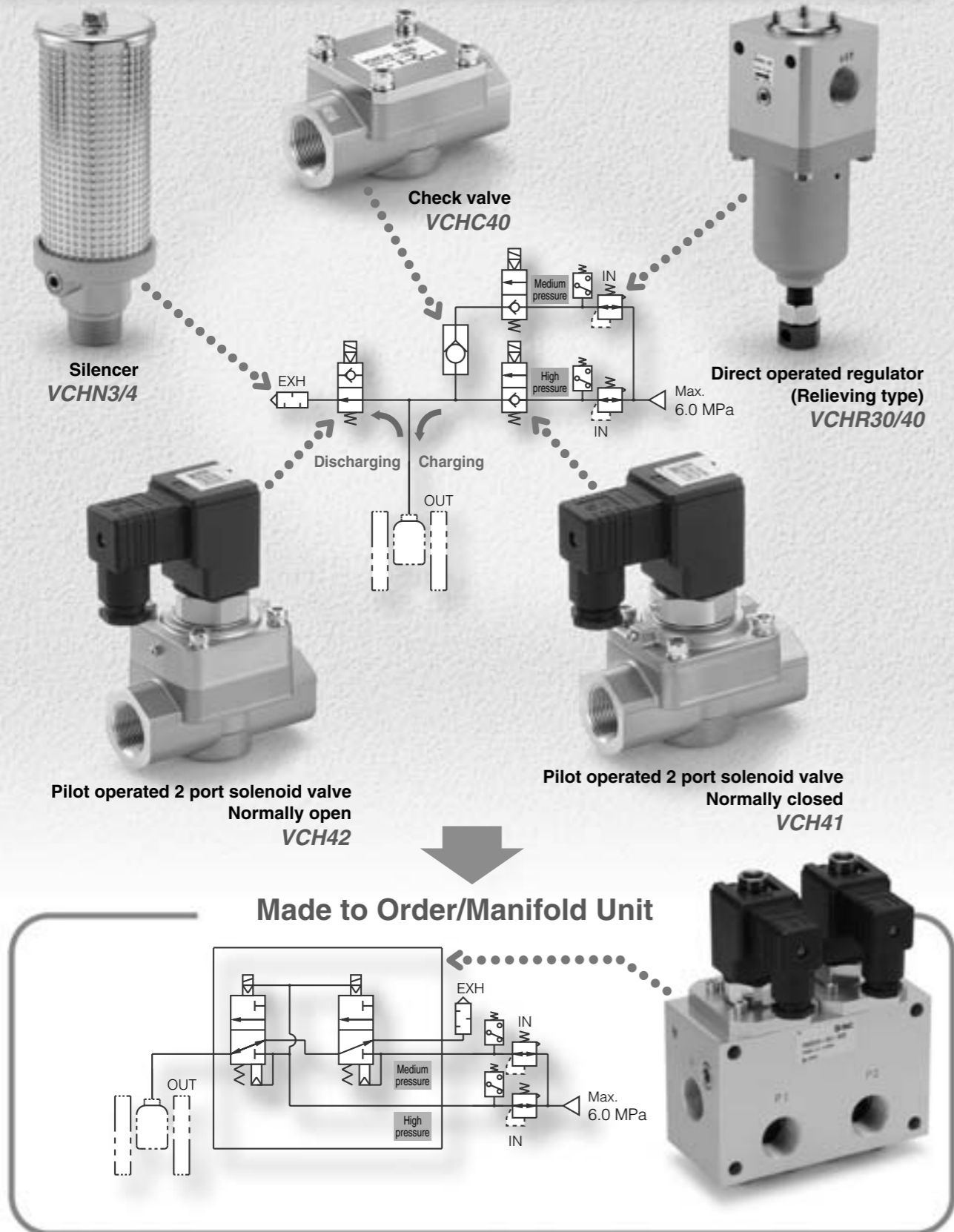


# 5.0 MPa

# Pneumatic

# Equipment Variation

Applications included air-blowing, charging fluid into a vessel, or discharging (Blow-molding equipment, etc.)



Example of driving a cylinder

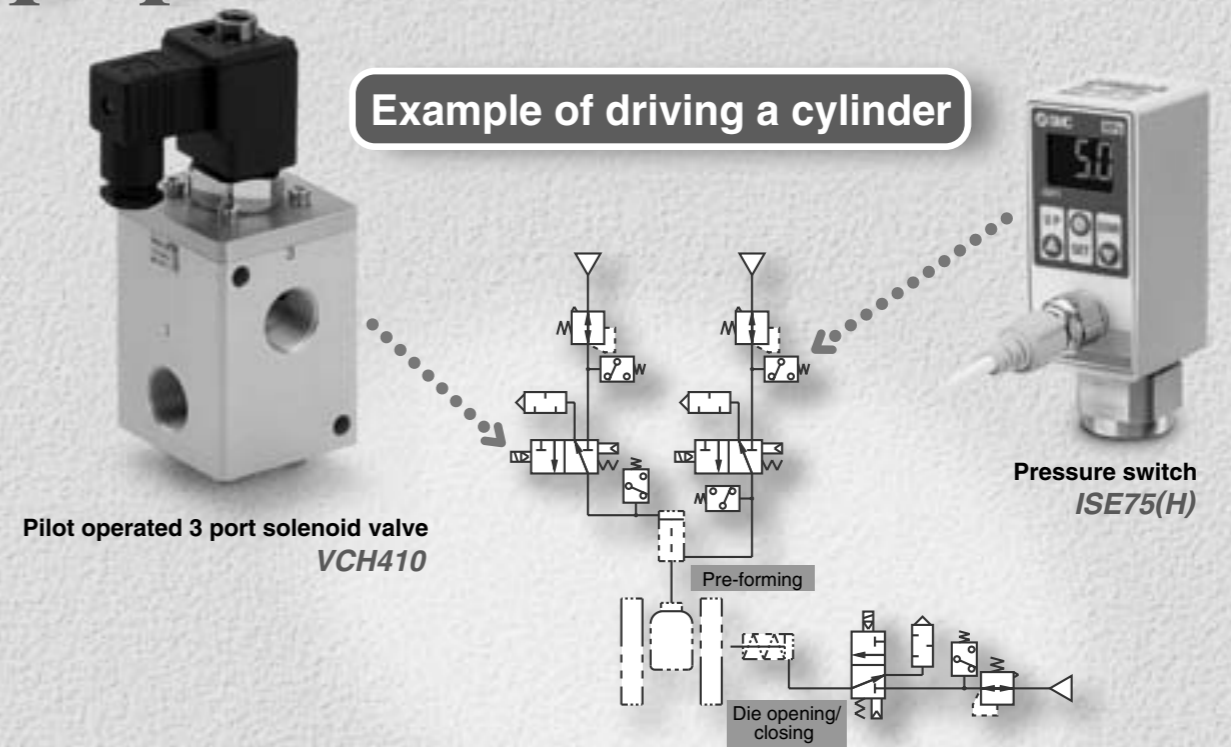


Image	Description	Features	Maximum operating pressure (MPa)	Series	Port size						Page
					1/4	1/2	3/4	1	1 1/4	1 1/2	
	Pilot operated 2 port solenoid valve		5.0	VCH41(N.C.)			●	●			Best Pneumatics No.⑦
				VCH42(N.O.)			●	●			
	Check valve	<b>Service life: 10 million cycles</b> Adopting a polyurethane elastomer poppet in a valve seat. Improved durability under a high pressure environment.	5.0	VCHC40			●	●			Best Pneumatics No.⑦
	Pilot operated 3 port solenoid valve		5.0	VCH410		●	●	●			Best Pneumatics No.⑦
	Direct operated regulator (Relieving type)		Inlet pressure 6.0 Set pressure 0.5 to 5.0	VCHR30			●	●			Best Pneumatics No.⑤
				VCHR40				●	●		
	Silencer	<b>Noise reduction 35 dB(A)</b> (At supply pressure 4.0 MPa, back pressure 2.0 MPa) <b>Clogging-reduction with double-layer construction</b>	5.0 (Relief valve release pressure: 1.8 MPa)	VCHN3			●	●			P.608
				VCHN4				●	●	●	

### Related Equipment

Image	Description	Features	Maximum operating pressure (MPa)	Series	Port size	Page
	Pressure switch	<b>2-color display Metal body</b> (Aluminum die-cast)	10.0 15.0	ISE75(H)	●	P.722

### Made to Order

1 6.0 MPa pilot operated regulator (Air operated type) ..... Best Pneumatics No.⑤

2 22.0 MPa 2 port air operated valve ..... Best Pneumatics No.⑦





# Series VCHN Specific Product Precautions

Be sure to read before handling.

## Design

### Warning

1. The exhaust port can clog due to a clogged or frozen silencer.

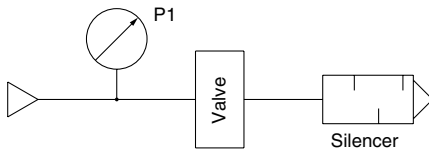
Consider design safety to avoid malfunctions of the entire system. Also, under conditions conducive to freezing, use a freeze-reduction model. (VCHNF series)

### Caution

1. A silencer reduces compressed air exhaust noise from the pneumatic equipment.

Noise other than that generated by the exhaust assembly (noise generated inside piping, due to equipment vibration, solenoid valve switching, etc.) cannot be reduced. As for noise generated by sources other than the exhaust, locate the cause and take measures.

2. Silencer inlet side pressure shows the solenoid valve supply pressure (P1). (See below.)



3. Noise reduction may vary, depending on the pneumatic circuit or pressure, etc. exhausted from solenoid valves.

## Selection

### Caution

1. Select a silencer with a larger effective area (including the synthetic effective area) than the solenoid valve.

## Mounting

### Caution

1. Tighten the silencer, using an appropriate wrench on the width across flats, within the range of the recommended tightening torque as shown below.

Do not use a pipe wrench. Otherwise, the silencer will be damaged.

#### Recommended Tightening Torque (Unit: N·m)

Connecting thread	3/4	1	1·1/4	1·1/2
Torque	28 to 30	36 to 38	40 to 42	48 to 50

2. Do not apply a lateral load on the main body during or after mounting.
3. When the silencer has loosened due to vibrations from the mounted equipment, mount the silencer after applying an anti-loosening agent to the thread.

## Maintenance

### Caution

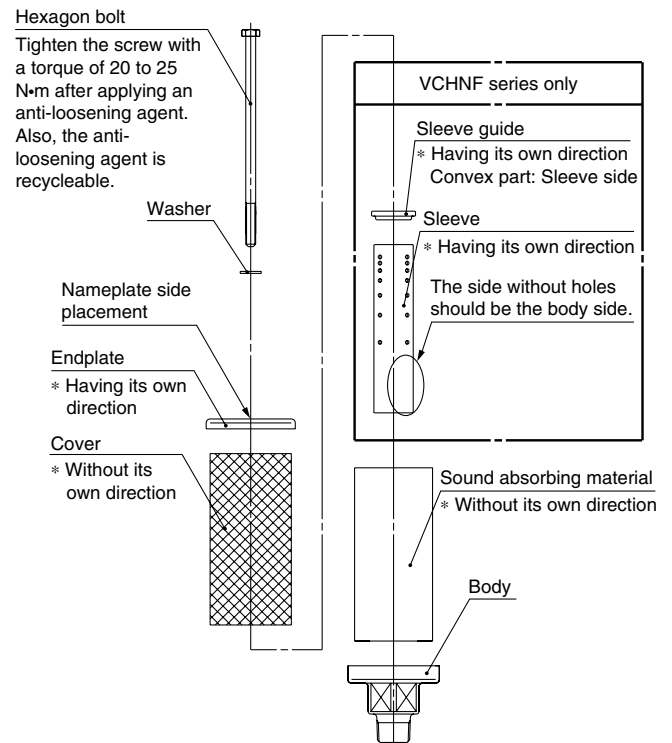
1. When exhaust speed begins to slow from clogging and system functionality begins to degrade, replace with a new silencer or sound-absorbant material.

Also, be sure to confirm the actuator's operation status once per day.

### How to Replace the Sound Absorbing Material

### Caution

1. When replacing the sound absorbing material, please follow the instructions below.



## Replacement Parts

### Sound Absorbing Material Part No.

Part no.	Description	Applicable model
VCHN3-EL	Sound absorbing material	For VCHN(F)3
VCHN4-EL	Sound absorbing material	For VCHN(F)4