## Silencer

# $AN \square 00/AN \square 02/AN \square 03/25/AN$

## **Standard**

## Series AN 00

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





#### **Specifications**

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



\* It can operate in temperatures between -10 to 60°C if there is no risk of the moisture in the air freezing.

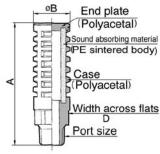
#### Model

Model	Port size	Effective area	Weight	Dime	nsions	(mm)
Wodel	R(PT)	(mm²)	(g)	Α	В	D
AN200-02	1/4	35	17	63	22	19
AN300-03	3/8	60	25	84	25	22
AN400-04	1/2	90	35	92	30	27
AN500-06	3/4	160	165	107	46	36
AN600-10	1	270	225	127	50	41
AN700-12	1 <sup>1</sup> /4	440	490	186	74	50
AN800-14	11/2	590	580	217	74	55
AN900-20	2	960	820	256	86	65

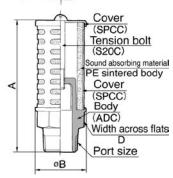
Note) NPT thread is also available. Specify "N" after "AN□00-". (Ex.: AN200-N02)

#### Construction/Parts/Dimensions

AN200 to 400



#### AN500 to 900



## High noise reduction style

Series AN 02

Over 35dB(A) noise reduction Case is UL94-V0 Grade Flame resistance material



#### **Specifications**

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



\* It can operate in temperatures between -10 to 60°C if there is no risk of the moisture in the air freezing.

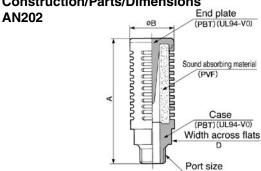
#### Model

Model	Port size	Effective area	Weight	Dime	nsions (	mm)
Model	R(PT)	(mm²)	(g)	Α	В	D
AN202-02	1/4	35	16	64	22	19
AN302-03	3/8	60	33	84	28	24
AN402-04	1/2	90	47	95	34	24

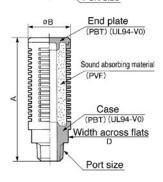


Note) NPT thread is also available. Specify "N" after "AN□02-". (Ex.: AN200-N02)

### Construction/Parts/Dimensions



#### AN302/402





## $AN \square 00/AN \square 02/AN \square 03/25/AN$

## **Compact style**

Series AN 03

Over 25dB(A) noise reduction Space saving Compact style





Compressed air Max. operating pressure 1.0MPa Noise reduction 25dB(A) or more Ambient and fluid temperature 5 to 60°C\*

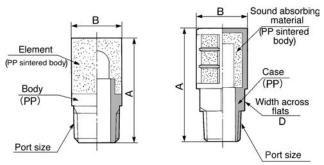
\* It can operate in temperatures between -10 to 60°C if there is no risk of the moisture in the air freezing.

#### Model

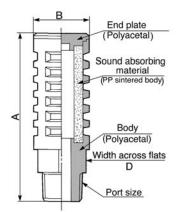
Model	Port size	Effective area	Weight	Dime	nsions	(mm)
Wodel	R(PT)	(mm²)	(g)	Α	В	D
AN103-01	1/8	10	1	23.5	11	_
AN203-02	1/4	15	3	36	16	14
AN303-03	3/8	35	17	66	22	19
AN403-04	1/2	60	25	84	25	22

Note) NPT thread is also available. Specify "N" after "AN□03-". (Ex.: AN103-N01)

#### Construction/Parts/Dimensions **AN103 AN203**







# Metal case style Series 25

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





**Specifications** 

Operating fluid	Compressed air		
Max. operating pressure	1.0MPa		
Noise reduction	19dB(A) or more		
Ambient and fluid temperature 5 to 60°C*			
* It can operate in temperatures between –10 to 60°C if there is no			

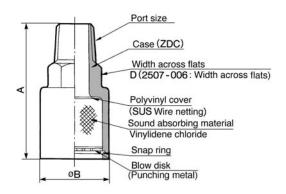
risk of the moisture in the air freezing.

#### Model

Model	Port size	Effective area	Weight	Dime	nsions	(mm)
Wiodei	R(PT)	(mm²)	(g)	Α	В	D
2504-002	1/4	33.9	111	62	30	24
2505-003	3/8	45.9	106	64	30	24
2506-004	1/2	50.0	113	68	30	24
2507-006	3/4	105.6	310	88.5	48	35
2508-010	1	129.6	514	97.5	60	41
2510-002	1/4	17.2	57	54	22	19
2511-003	3/8	17.2	55	56	22	19

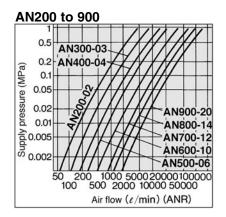
Note) NPT thread is also available. Specify "N" after "25 $\square$ -". (Ex.: 2504-N002)

#### Construction/Parts/Dimensions

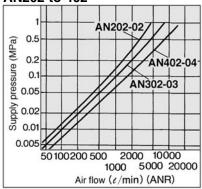


# $AN \square 00/AN \square 02/AN \square 03/25/AN$

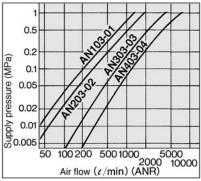
#### Flow Characteristics (Initial conditions)



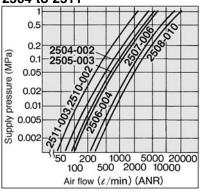
#### AN202 to 402



#### AN103 to 403



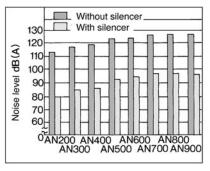
#### 2504 to 2511



#### **Noise Level (Initial conditions)**

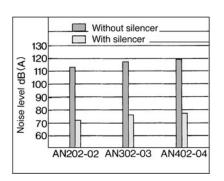
#### AN200 to 900

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



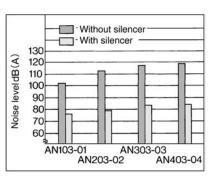
#### AN202 to 402

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



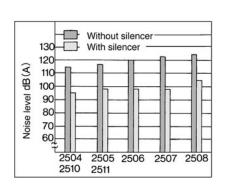
#### AN103 to 403

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



#### 2504 to 2511

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



# (BC Sintered Body) Series **AN**

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



#### Specifications/Model

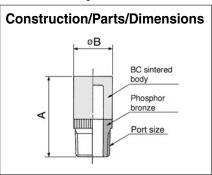
	Model	AN101 -01	AN110 -01	AN120 -M3	AN120 -M5	
Specification	5 \	-01	-01	-IVIO	-IVIJ	
Port size		R(PT) 1/8	R(PT) 1/8	МЗ	M5	
Noise reduction	on dB(A)	16	21	13	18	
Fluid		Compressed air				
Max. operatir	ng press	1.0 MPa				
Ambient an temperature		fluid 5 to 50°C*				
Effective area (mm²)		20	35	1	5	
Weight (g)		9.5	20	1	3.3	
Dimensions	Α	21	34	9	15,5	
(mm)	В	11	13	6	8	



Note) NPT thread for AN101 and AN110 is also available. Model no. of NPT thread is AN101-N01 and AN110-N01.



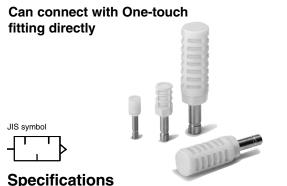
It can operate in temperatures between –10° to 150°C if there is no risk of the moisture in the air freezing.



## $AN \square 00/AN \square 02/AN \square 03/25/AN$

# **One-touch Fitting Connection Style**

# Series AN TITIE - KM



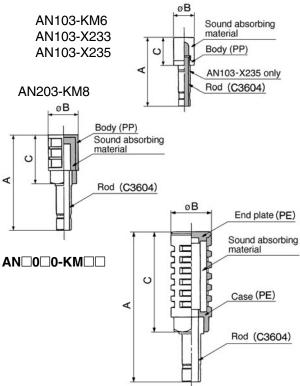
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Fluid	Compressed air
Max. operating pressure	1.0MPa
Ambient and fluid temperature	5 to 60°C

#### Model

Model	Applicable One-touch   Noise reduction		Effective area	Dimensions (mm)		
Model	fitting size	dB(A)	(mm²)	Α	В	С
AN103-KM6	ø6(Series KQ)					
AN103-X233	ø6(Series KQ)	٥٦	7	37	11	15
AN103-X235	ø <sup>1</sup> / <sub>4</sub> " (Series KQ)	" (Series KQ) 25				
AN203-KM8	ø8(Series KQ)	Series KQ)		45	13	20
AN200-KM8	ø8(Series KQ)		20	73	22	49
AN200-KM10	ø10(Series KQ)	30	26	76	22	49
AN300-KM10	ø10(Series KQ)	30	30	90	25	63
AN300-KM12	ø12(Series KQ)		41	91	25	63

#### Construction/Parts/Dimensions



### **△Precautions**

#### Design

### Warning

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

#### Caution

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

#### Mounting

## 

- (1) If the silencer body (case) is made of plastic and is BC sintered: To mount on a valve, hold the end of the body (the side that is not threaded) with your fingers and screw it in. After some resistance is felt, use a wrench that matches the wrench flats of the hexagon portion to tighten it an additional 1/4 turn. (If the silencer is not provided with a hexagon portion, manually tighten it firmly.)
- (2) If the silencer body is made of metal (except the BC sintered style), tighten it at the torque given below.

Connection thread	Applicable tightening torque (Nm)
Rc(PT) 1/4	12 to 14
Rc(PT) 3/8	22 to 24
Rc(PT) 1/2	28 to 30
Rc(PT) 3/4	28 to 30
Rc(PT)1	36 to 38
Rc(PT)1 1/4	40 to 42
Rc(PT)1 ½	48 to 50
Rc(PT)2	48 to 50

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

#### Maintenance/Inspection

## **Caution**

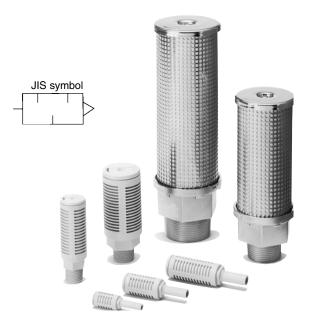
- 1) Never disassemble the silencer. The silencing material is not replaceable.
- (2) If the exhaust speed drops and the system performance decreases due to clogging, replace with a new silencer. Make sure to verify the operating conditions of the actuator at least once a day.



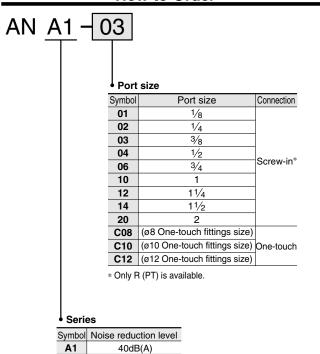
# 42dB(A): High Noise Reduction Silencer

# Series ANA1

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



#### **How to Order**



#### **Specifications**

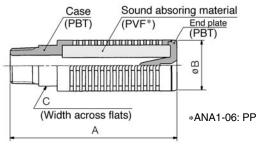
Fluid	Compressed air		
Max. operating pressure	1.0MPa		
Noise reduction effect	42dB(A)		
Ambient and fluid temparature	5 to 60°c		

Model (Screw-in connection)

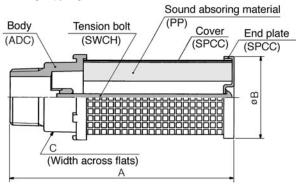
Model	Port size	Effective area	Weight	Dimensions (mm)		
Model	Model Port Size (mm²)	(mm²)	(g)	Α	В	С
ANA1-01	1/8	10	4	37	16	1
ANA1-02	1/4	15	14	64	22	18
ANA1-03	3/8	35	22	84	25	21
ANA1-04	1/2	60	36	98	30	24
ANA1-06	3/4	90	110	111	46	36
ANA1-10	1	160	180	132	50	41
ANA1-12	11/4	280	544	200	74	60
ANA1-14	11/2	450	612	230	74	60
ANA1-20	2	610	873	271	86	70

## Construction/Parts/Dimensions





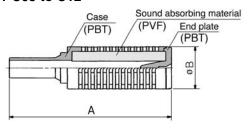
#### ANA1-01 to 20



#### **Model (One-touch fitting connection)**

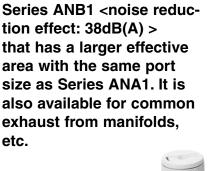
Model	One -touch	Effective area	Weight	Dimensions (mm)	
Model	fitting size	(mm <sup>2</sup> )	(g)	Α	В
ANA1-C08	ø8	11	5	58	16
ANA1-C10	ø10	15	13	76	22
ANA1-C12	ø12	33	19	95	25

# Construction/Dimensions ANA1-C08 to C12



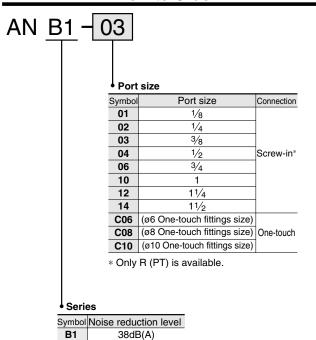
# 40dB(A): High Noise Reductione Silencer

# Series ANB1





#### **How to Order**



#### **Specifications**

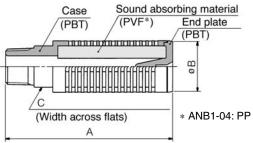
Fluid	Compressed air		
Max. operating pressure	1.0MPa		
Noise reduction effect	40dB(A)		
Ambient and fluid temparature	5 to 60°C		

#### Model (Screw-in connection)

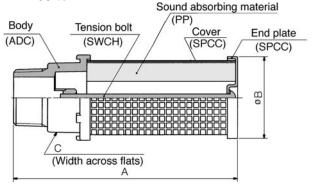
Model Port size		Effective area Weight		Dimensions (mm)		
Model	Model Port size	(mm²)	(g)	Α	В	С
ANB1-01	1/8	15	10	51	22	_
ANB1-02	1/4	35	22	81	25	18
ANB1-03	3/8	60	35	93	30	21
ANB1-04	1/2	90	94	107	46	24
ANB1-06	3/4	160	175	133	50	41
ANB1-10	1	280	462	190	74	41
ANB1-12	11/4	450	612	230	74	60
ANB1-14	11/2	610	871	271	86	70

#### Construction/Parts/Dimensions

#### ANB1-01 to 04



#### ANB1-06 to 14

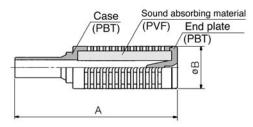


#### Model (One-touch fitting connection)

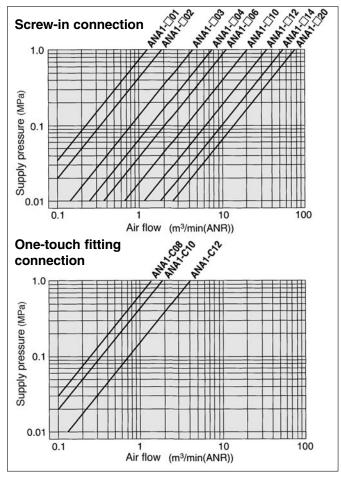
Model	One -touch	Effective area	Weight	Dimension	ons (mm)
Model	fitting size	(mm²)	(g)	Α	В
ANB1-C06	ø6	8	5	52	16
ANB1-C08	ø8	13	12	73	22
ANB1-C10	ø10	28	28	94	25

## Construction/Dimensions

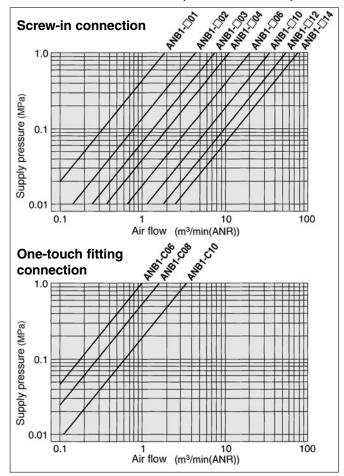
#### ANB1-C06 to C10



#### Flow Characteristics/ANA1 (Initial conditions)



#### Flow Characteristics/ANB1 (Initial conditions)



#### **Noise Level (Initial conditions)**

