



## AUDIX® Telephony silencer box

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## FUNCTION AND USE

Modern office buildings are often built without suspended ceilings. This opens up a saving potential regarding the floor heights. This means that the same building height can accommodate more floors.

To provide the possibly cheapest office space creates conflicts with the demand for comfort. Therefore, to reduce the room temperatures, in some cases component cooling systems are used for the ground load cooling.

According to the thermal isolation regulations, an air-conditioning installation is demanded for dense facades, to prevent building damage and mould fungus. The necessary supply and return air ducts are preferably installed between the false ceiling in the corridors. In doing so, the main ducts and the connection ducts for each room are installed within a very small space.

The **slot diffuser plenum box with integrated telephony silencer** has been developed for this application. The integrated telephony silencer **performs the same function as the telephony silencers previously inserted separately into the ducting system**, for which there is seldom sufficient space available. **The transmission of cross-talk sound** through the ducting system **is thus effectively prevented**.

The slot diffuser plenum box AUDIX® **reduces the installation costs**, as the additional telephony silencers are not required and the built-in telephony silencer **saves space in the hall area**. The **dimensions of the AUDIX® telephony silencer plenum box have been adjusted to the requirements in dry building** and can be integrated completely into lightweight partition walls, thus facilitating the cooperation between the dry builders and the air conditioning installers and saving assembly time. The diffuser can be installed subsequently with magnetic fastening, thus avoiding damage to the diffuser during the building phase. As an accessory, covers for the opening made of galvanised sheet steel are available, which can be fitted during the building phase to avoid contamination of the box. The plenum box with the structure-borne sound insulation and integrated telephony silencer is made of galvanised sheet steel and the inner lining of special soundproof plates which are laid out in a reverse labyrinth. The building sound absorption coefficient of the partition wall is not reduced by fitting the plenum box, compared with conventional solutions.

The plenum box can be combined with the proven slot diffusers from SCHAKO, thus allowing greater design freedom. This is reinforced as on each axis a partition wall can be integrated.

The slot diffusers ADSA, ADSC, ADSX and ADSXW allow the ceiling flow to be adjusted, thus contributing to increasing the efficiency of the convective performance in cooling ceilings and activated concrete ceilings.

The slot diffusers from SCHAKO integrated into the AUDIX® units achieve a draught-free air pattern with long throws. The free cross-section remains the same for all adjustable jet directions, as a result of which the pressure loss and the sound volume also stay the same. A subsequent change of the air throw direction on site is possible at any time, even when the diffuser has already been fitted. The slot diffuser ADSA, ADSC, ADSX and ADSXW are attached by means of magnetic fastening. This fastening type also allows easy dismounting, making the diffusers easy to clean, thus meeting the requirements of VDI 6022. The AUDIX® unit can also be used as combination diffuser for supply and return air as a continuous band with one slot diffuser plenum box each for supply and return air. A damper with connection spigot serves to control the air volume regulation from the hall.

### Advantages:

- Prevents air from entering or escaping from the dry wall construction filled with mineral wool, thus creating a hygienically optimum situation.
- The fastening system included in the delivery facilitates mounting, allowing it to be mounted by the RLT or dry builders.
- Excellent sound-absorbing properties
- Acoustic insulating panels of building material class B1 (standard) or building material class A2 (non-flammable to DIN 4102 at an extra charge)

### Transmission loss value $D_{af}$ (dB)

L (mm)	H (mm)	$D_{af}$ (dB)							
		$f_m$ (Hz)							
		63	125	250	500	1000	2000	4000	8000
508	250	38	35	27	35	38	42	42	39
	300	34	34	26	29	33	42	51	44
1008	250	37	36	30	26	37	42	40	38
	300	36	36	32	27	38	41	46	42

### Characteristics of the individual diffusers:

- **AUDIX®-...-ADSA:**  
The fixed (-D0) or adjustable (-VD) nozzles produce a stable core jet. Their low noise level allows a high blow velocity, resulting in correspondingly long throw distances. This ensures that fresh air is circulated through the whole room and not just near the supply air diffuser. The temperature and the velocity are broken down quickly.
- **AUDIX®-...-ADSC:**  
The support profile blades produce a stable jet set to a horizontal throw, directed slightly upwards. Due to the central housing of the support profile blades, the free cross-section is always the same size. Pressure loss and sound power level remain therefore constant even when the blades are adjusted. A subsequent change of the air throw direction is possible at any time, even when the diffuser has already been fitted.
- **AUDIX®-...-ADSX:**  
The air outflow direction can also be adjusted even after installation of the diffuser. In doing so, the free cross-section always remains constant. Likewise, the pressure loss and noise level do not change. A subsequent adjustment of the air jet pattern to changed room conditions is possible. For adjustment, single blades must be taken out and put back turned into the required air flow direction. The stable air jet means that the diffuser is suitable for VAV systems.
- **AUDIX®-...-ADSXW:**  
The air outflow direction has been set in factory to a horizontal throw, directed slightly upwards. The high induction ensures fast reduction of the air outflow velocity and of the temperature difference in the cooling mode. The stable air jet means that the diffuser is suitable for VAV systems.

## PROCESSING

### Plenum box housing

- galvanised sheet steel (standard) (-SV)

### Insulation

- Housing inside lined with fibre-free insulating material (10 mm) formed as reverse labyrinth.
- Acoustic insulating panels of building material class B1 (standard) or building material class A2 (non-flammable to DIN 4102)

## MODELS

AUDIX®-...	cross-talk sound attenuator box with round connection spigot
AUDIX®-A2-...	building material class A2, non-flammable to DIN 4102
AUDIX®-B1-...	building material class B1, flame-retardant to DIN 4102 (standard)
AUDIX®-...-Z0	supply air (standard)
AUDIX®-...-A0	return air
AUDIX®-...-ZA	supply air/return air combination

Diffusers for cross-talk sound attenuator box:

AUDIX®-...-55	for nozzle jet diffuser ADSA-D0, 1-row
AUDIX®-...-61	for nozzle jet diffuser ADSA-VD, 1-row
AUDIX®-...-62	for slot diffuser ADSC, 1-slot
AUDIX®-...-63	for slot diffuser ADSC, 2-slot
AUDIX®-...-64	for slot diffuser ADSX, 1-slot
AUDIX®-...-65	for slot diffuser ADSX, 2-slot
AUDIX®-...-66	for slot diffuser ADSX, 3-slot
AUDIX®-...-67	for slot diffuser ADSX, 4-slot
AUDIX®-...-68	for slot diffuser ADSXW, 1-slot
AUDIX®-...-69	for slot diffuser ADSXW, 2-slot

For description of diffusers, see pages 7+8.

## MOUNTING

Magnetic fastening (-MB)

- Concealed fastening for subsequent mounting and dismantling of the diffusers.

## ACCESSORIES

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### **Damper (-DK0/-DK2)**

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- without damper (-DK0)
- with damper (-DK2)
  - manually adjustable from room side via cable
  - throttle damper made of galvanised sheet steel
  - damper fastening made of plastic material

### **Rubber lip seal (-GD0/-GD1)**

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- without rubber lip seal (-GD0)
- with rubber lip seal (-GD1)
  - made of special rubber

### **Box neck extension (-KVS/-xxx)**

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- standard box neck (-KVS).
- box neck extension in mm, freely selectable (-xxx, always with 3 digits), for wall thickness >100 mm up to max. 350 mm.

### **Fixing lug (-B0/-BL)**

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- without fixing lug (-B0)
- with fixing lug (-BL)
  - made of galvanised sheet steel

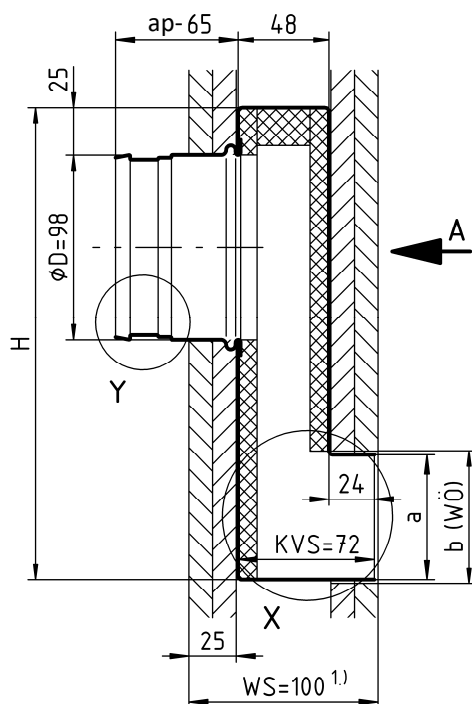
### **Cover (-OA0/-OA1)**

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- without cover (-OA0)
- with cover (-OA1)
  - made of galvanised sheet steel

## DIMENSIONS AUDIX

**AUDIX®**



- 1.) For wall thickness (WS) >100 mm up to max. 350 mm, a box neck extension (KVS) is required.

### Available sizes

	Diffuser	a inside	b (wö)
AUDIX®-...-55	ADSA-D0-...-1 (1-row)	66	70
AUDIX®-...-61	ADSA-VD-...-1 (1-row)	52	56
AUDIX®-...-62	ADSC-1 (1-slot)	54	58
AUDIX®-...-63	ADSC-2 (2-slot)	94	98
AUDIX®-...-64	ADSX-1 (1-slot)	24	28
AUDIX®-...-65	ADSX-2 (2-slot)	38	42
AUDIX®-...-66	ADSX-3 (3-slot)	52	56
AUDIX®-...-67	ADSX-4 (4-slot)	66	70
AUDIX®-...-68	ADSXW-1 (1-slot)	42	46
AUDIX®-...-69	ADSXW-2 (2-slot)	74	78

KVS = standard box neck

WS = wall thickness

WÖ = wall opening

wall opening in the length:  $L + 5$

H	L	Number of connection spigots		
		AUDIX®-...-Z0	AUDIX®-...-A0	AUDIX®-...-ZA
250 300	0408	1	1	2
	0508	1	1	2
	0608	1	1	2
	0808	1	1	2
	1008	2	2	2
	1208	2	2	2

All combined lengths and heights available.

Special height from  $\geq 250$  mm to 350 mm possible.

Special length from  $\geq 408$  mm up to max. 1208 mm possible.

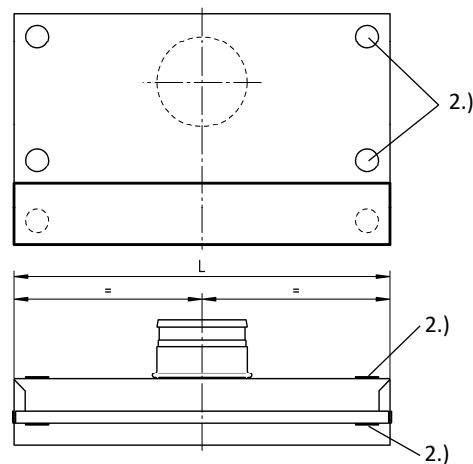
**Spigot position / spigot number with air throw -Z0 / -A0 / -ZA**

**with 1 spigot**

for supply or return air (-Z0 or -A0)

Length  $\geq 408$  to  $< 1008$ 

## View A

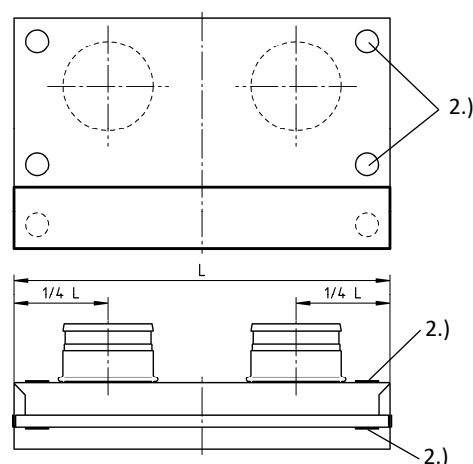


**with 2 spigots**

for supply or return air (-Z0 or -A0)

Length  $\geq 1008$  to  $\leq 1208$

## View A

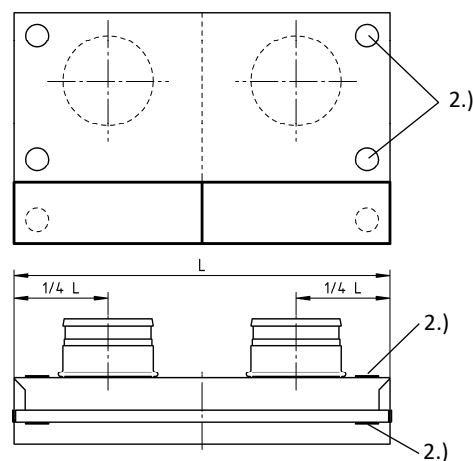


**with 1 connection spigot each for supply and return air**

for supply and return air (-ZA)

Length  $\geq 408$  to  $\leq 1208$

**View A**



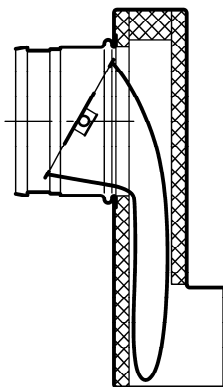
## 2.) Structure-borne noise insulation

For detail X, see page 11. / For detail Y, see page 6.

### DIMENSIONS OF ACCESSORIES AUDIX

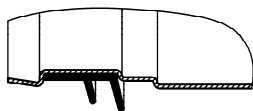
#### Damper (-DK2)

manually adjustable from room side via cable



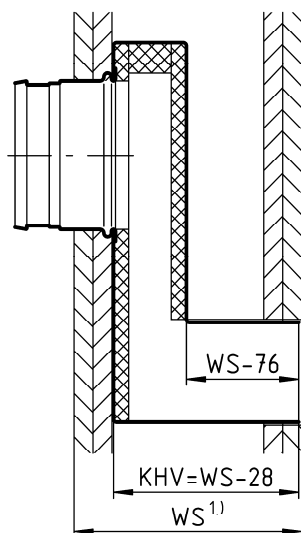
#### Rubber lip seal (-GD1)

Detail Y



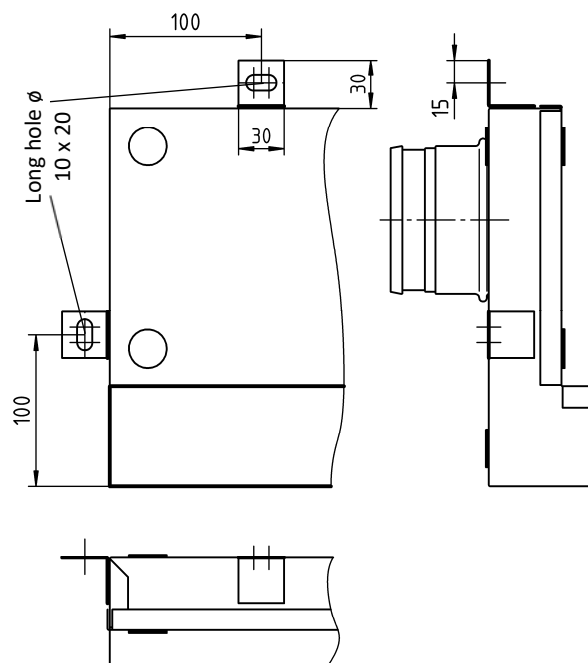
#### Box neck extension (-KVS /-xxx)

- standard box neck (-KVS).
- box neck extension in mm, freely selectable (-xxx)
- 1.) For wall thicknesses (WS) >100 mm up to max. 350 mm, a box neck extension (KHV) is required.



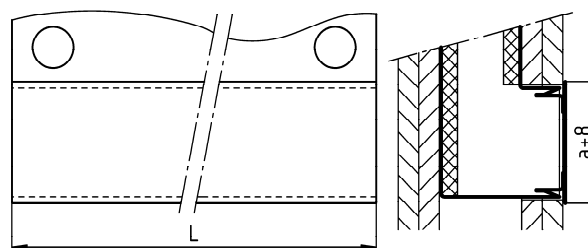
KHV = box neck extension  
WS = wall thickness

#### Fixing lug (-BL)



#### Cover (-OA1)

To prevent contamination or damage during assembly.



For dimension a, see available sizes on page 5.

## DIFFUSERS

The diffusers ADSA, ADSC, ADSX and ADSXW are models especially designed for the cross-talk sound attenuator box. These diffusers can only be used with the corresponding cross-talk sound attenuator boxes. Their ventilation characteristics are identical to those of the standard diffusers DSA, DSC, DSX and DSXW.

### Nozzle jet diffuser ADSA

#### PROCESSING

##### Nozzles

- made of plastic material:
  - similar to RAL 9005 (black) (-DS)
  - similar to RAL 9006 (white aluminium) (-DA)
  - similar to RAL 9010 (white) (standard) (-DW)

##### Faceplate

- made of sheet steel painted to:
  - RAL colour 9010 (white, standard) (-SB-9010)
  - RAL colour 9006 (white aluminium) (-SB-9006)
  - RAL colour 9005 (black) (-SB-9005)
  - RAL colour of your choice (-SB-xxxx, always with 4 digits)

#### MODEL

ADSA-D0-...	with fixed nozzles (standard)
ADSA-VD-...	with individually manually adjustable nozzles
ADSA-...-Z0-...	supply air
ADSA-...-1-...	nozzles 1-row
ADSA-...-N-...	single design (length max. 1200 mm)

#### MOUNTING

Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

### Slot diffuser ADSC

#### PROCESSING

##### Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

##### Blade colour

- Plastic (hard PVC):
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).
  - RAL colour can be freely selected (-Lxxxx)
- For return air, without blade (-00000), with perforated plate made of sheet steel painted to RAL 9005 (black), as cover screen.

##### Perforated plate

- for return air (-...0), sheet steel painted to the colour of the blade.

##### Blade holding device

- only for supply air models -Z0 and -ZA
- Aluminium ducts

##### Internal blade divider (standard)

- only for supply air models -Z0 and -ZA
- plastic (ABS), painted to colour similar to frame surface

##### External blade plates (end plates)

- only for supply air models -Z0 and -ZA
- plastic (ABS), painted to colour similar to frame surface

##### End pieces (pair)

- mounted ex works on both sides (-EB).
- made of aluminium (same material and colour as frame).

#### MODEL

ADSC-1-...	1-slot
ADSC-2-...	2-slot
ADSC-...-Z0	supply air (with blades)
ADSC-...-A0	return air (without blades)
ADSC-...-ZA	supply air/return air combination
ADSC-...-R0	with frame profile STANDARD (frame with R0 standard profile)
ADSC-...-P0	with special frame profile (frame with P0 profile)
ADSC-...-V	blades with vertical throw
ADSC-...-0	without blades, with perforated plate (for return air)
ADSC-...-N	single design (length ≥400 mm up to max. 1200 mm)

#### MOUNTING

Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

## Slot diffuser ADSX

### PROCESSING

#### Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

#### Blade colour

- Plastic (hard PVC):
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).

#### End pieces (pair)

- mounted ex works on both sides.
  - for ADSX-...-P0 (-ES2)
  - for ADSX-...-PB (-ES3)
- made of aluminium (same material and colour as frame).

### MODEL

ADSX-1-...	1-slot
ADSX-2-...	2-slot
ADSX-3-...	3-slot
ADSX-4-...	4-slot
ADSX-...-Z0	supply air
ADSX-...-A0	return air
ADSX-...-ZA	supply air/return air combination
ADSX-...-P0	with frame profile STANDARD (10 mm)
ADSX-...-PB	wide frame profile (16 mm)
ADSX-...-V	blades with vertical throw (also for return air)
ADSX-...-N	single design (length max. 1200 mm)

### MOUNTING

#### Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

## Slot diffuser ADSXW

### PROCESSING

#### Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

#### Blade colour

- Plastic (hard PVC):
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).

#### End pieces (pair)

- mounted ex works on both sides.
  - for ADSXW-...-P0 (-ES2)
  - for ADSXW-...-PB (-ES3)
- made of aluminium (same material and colour as frame).

### MODEL

ADSXW-1-...	1-slot
ADSXW-2-...	2-slot
ADSX-...-Z0	supply air
ADSX-...-A0	return air
ADSX-...-ZA	supply air/return air combination
ADSX-...-P0	with frame profile STANDARD (10 mm)
ADSX-...-PB	wide frame profile (16 mm)
ADSX-...-S	air throw diagonally upwards
ADSX-...-N	single design (length $\geq 400$ mm up to max. 1200 mm)

### MOUNTING

#### Magnetic fastening (-MB)

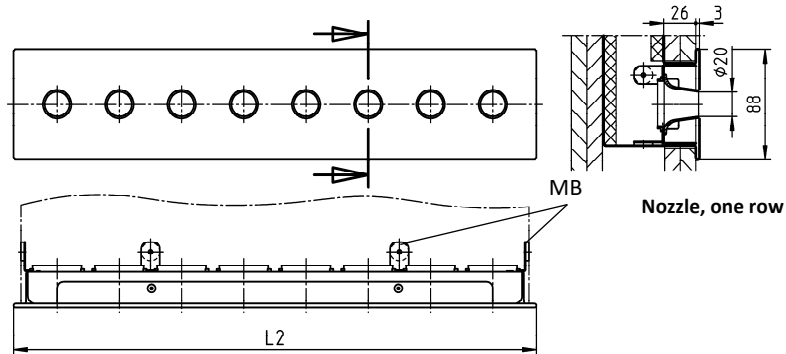
- made of sheet steel
- only possible for installation in the wall



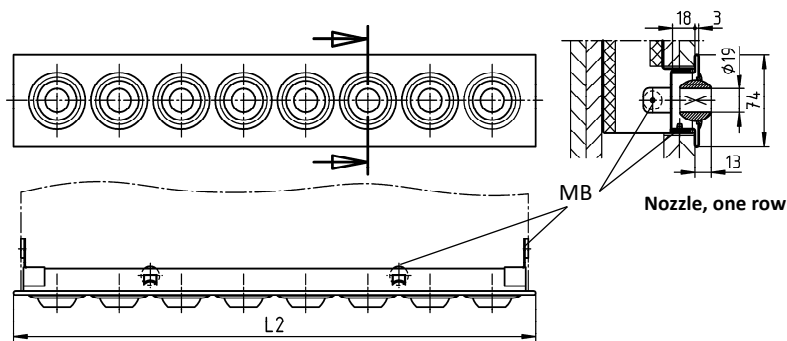
### DIFFUSER DIMENSIONS

#### Dimensions ADSA

##### ADSA-D0-... (standard)



##### ADSA-VD-...



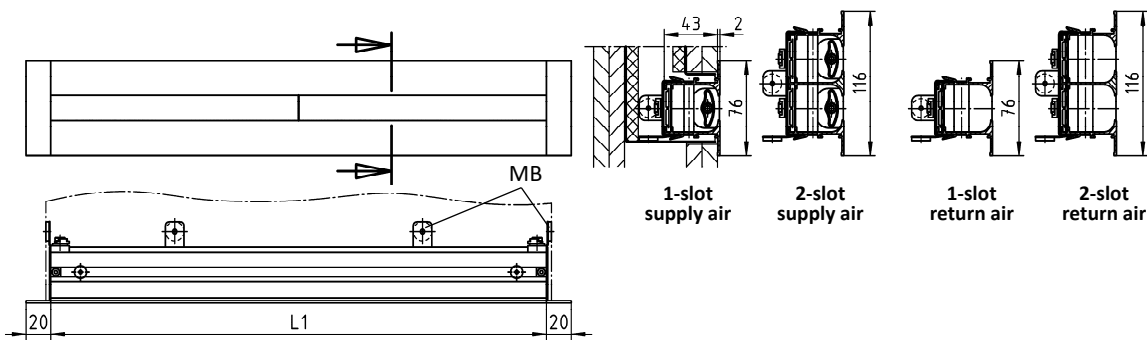
Available sizes ADSA / ADSC

L	L1	L2
0408	400	420
0508	500	520
0608	600	620
0808	800	820
1008	1000	1020
1208	1200	1220

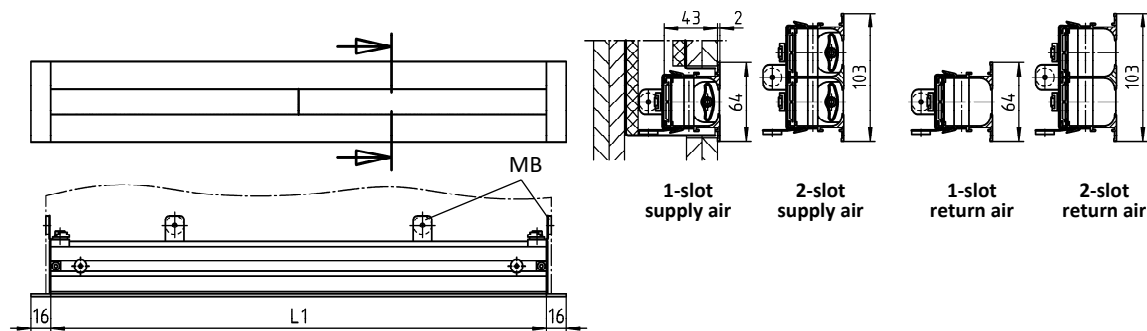
MB = magnetic fastening

#### Dimensions ADSC

##### ADSC-...-R0 (standard)

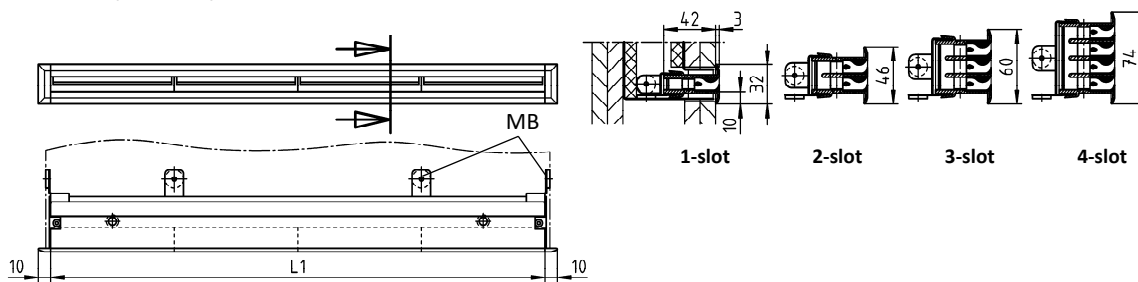


##### ADSC-...-P0

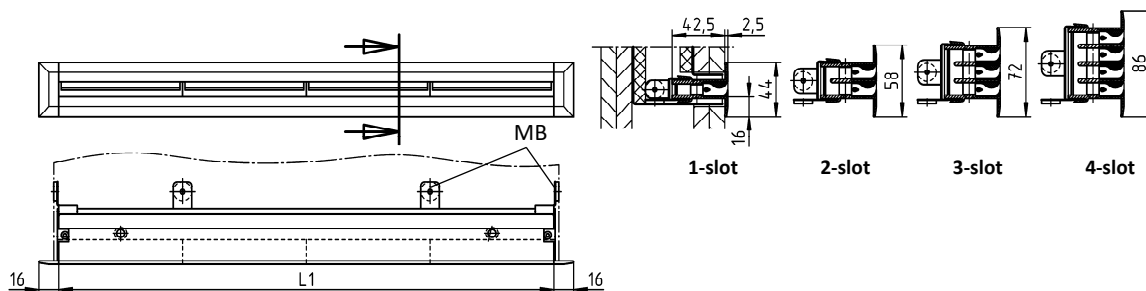


### Dimensions ADSX

#### ADSX-...-P0 (standard)

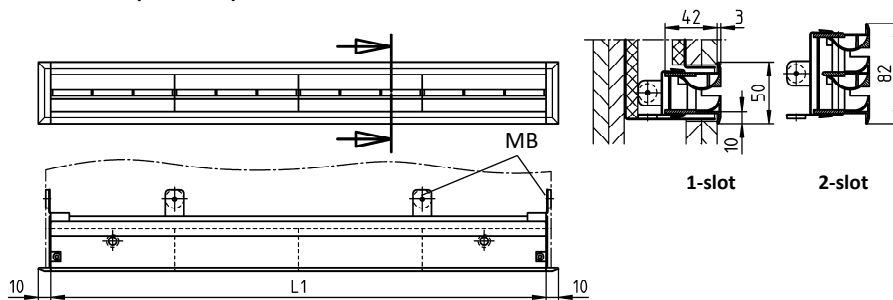


#### ADSX-...-PB

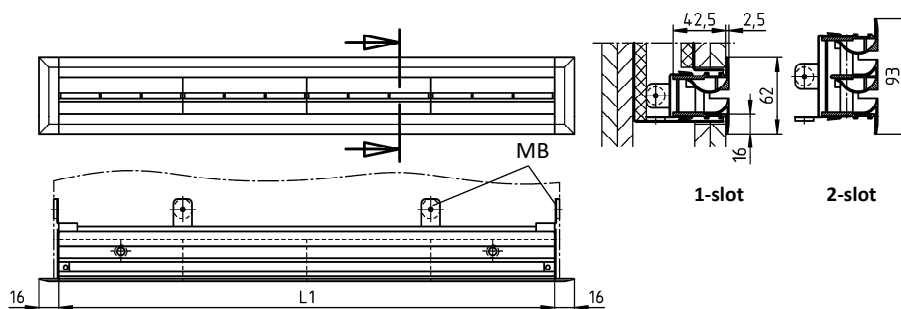


### Dimensions ADSXW

#### ADSXW-...-P0 (standard)



#### ADSXW-...-PB



#### Available sizes ADSX / ADSXW

L	L1
0408	400
0508	500
0608	600
0808	800
1008	1000
1208	1200

MB = magnetic fastening

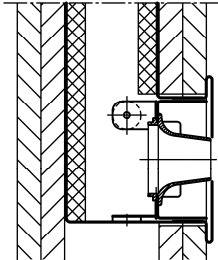
## MOUNTING

### Magnetic fastening (MB)

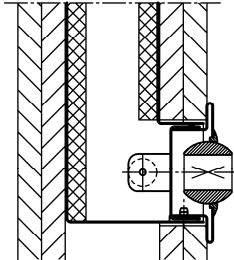
Only possible for installation in the wall.

#### Detail X

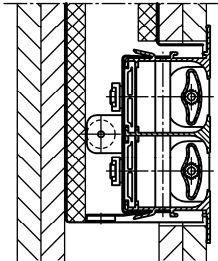
AUDIX®-...-DSA-D0-...



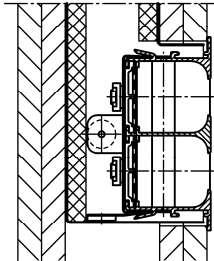
AUDIX®-...-DSA-VD-...



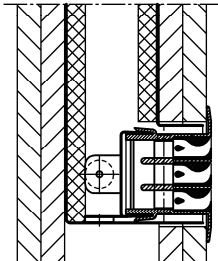
AUDIX®-...-DSC-R0/P0-...  
(supply air)



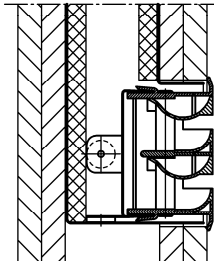
AUDIX®-...-DSA-VD-...  
(return air)



AUDIX®-...-DSX-P0/PB-...

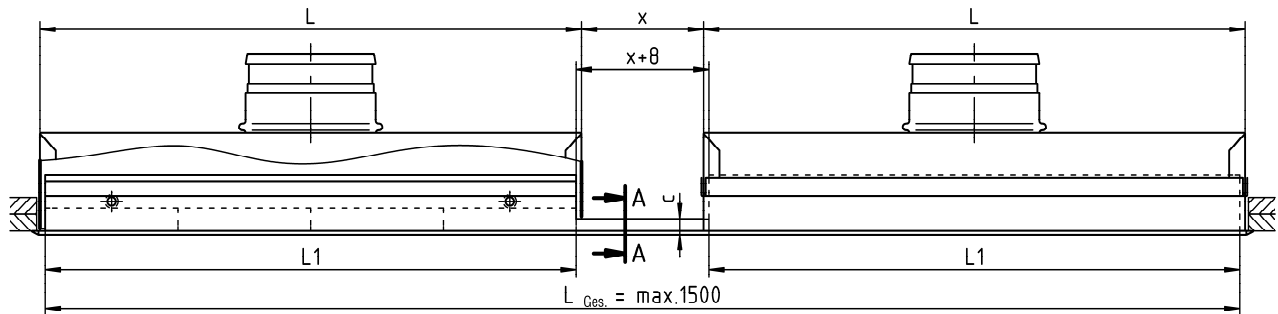


AUDIX®-...-DSXW-P0/PB-...



## INSTALLATION

### In lightweight partition wall at the C profile



For installation in a lightweight single-plank wall with one supply air and one return air box with continuous slot diffuser, the cut-out of the slot diffuser must be specified when ordering.

**Attention: Not possible for AUDIX®-...-ADSA model!**

### Available sizes

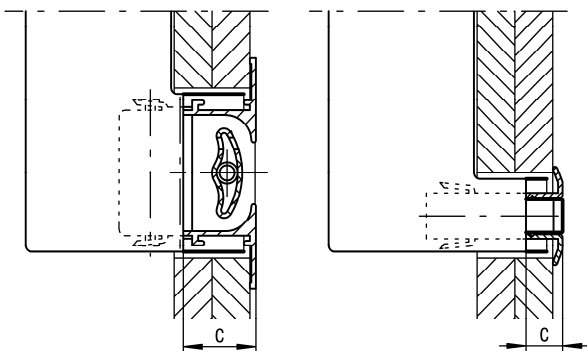
	Diffuser	c
AUDIX®-...-62	ADSC-1 (1-slot)	24
AUDIX®-...-63	ADSC-2 (2-slot)	
AUDIX®-...-64	ADSX-1 (1-slot)	12
AUDIX®-...-65	ADSX-2 (2-slot)	
AUDIX®-...-66	ADSX-3 (3-slot)	
AUDIX®-...-67	ADSX-4 (4-slot)	
AUDIX®-...-68	ADSXW-1 (1-slot)	12
AUDIX®-...-69	ADSXW-2 (2-slot)	

Wall opening in the length:  $L + L + x + 5$

### Section A-A (90° rotated):

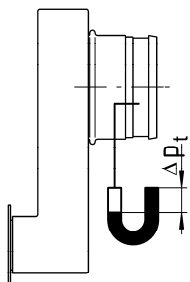
AUDIX®-...-62-...-ADSC-1  
 AUDIX®-...-63-...-ADSC-2

AUDIX®-...-64-...-ADSX-1  
 AUDIX®-...-65-...-ADSX-2  
 AUDIX®-...-66-...-ADSX-3  
 AUDIX®-...-67-...-ADSX-4  
 AUDIX®-...-68-...-ADSXW-1  
 AUDIX®-...-69-...-ADSXW-2



## TECHNICAL DATA

### Pressure loss and noise level



#### Damper position (DS):

OPEN = 100%

CLOSED = 0%

For further technical data, see diffusers:

ADSA ⇒ DSA

ADSC ⇒ DSC

### AUDIX sound power & pressure loss interpolation

#### Correction factor KF (-)

	L					
	408	508	608	808	1008	1208
Number of	1	1	1	1	2	2
V <sub>ZU</sub> (m³/h)	1.25	1.00	0.84	0.63	0.50	0.42
L <sub>WA</sub> [dB(A)]	-1	0	+1	+2	+3	+4
Δp <sub>ges</sub> (Pa)	0					
	KF (-)					

At a spigot velocity of >5 m/s (≈135m³/h), the specified diagram values are no longer valid and the use of a second spigot is recommended.

#### Example 1:

Required: Sound level at at length of 1208 mm and 150 m³/h

Correction factor to determine the air volume with the help of the diagram for L = 508 (see table)

**0.42**

Calculation of the air volume for diagram L = 508 mm:

**150 m³/h \* 0,42 = 63 m³/h**

Calculation of the sound level at L = 1208 mm and 150 m³/h (see table KF L<sub>WA</sub>):

**35 dB(A) + 4 = 39 dB(A)**

L<sub>WA</sub> = approx. **35**

Result: At 150 m³/h and a length of 1208 mm a sound level of **39 dB(A)** is emitted.

#### Example 2:

Required: Sound level at at length of 408 mm and 70 m³/h

Correction factor to determine the air volume with the help of the diagram for L = 508 (see table)

**1.25**

Calculation of the air volume for diagram L = 508 mm:

**70 m³/h \* 1,25 = 87,5 m³/h**

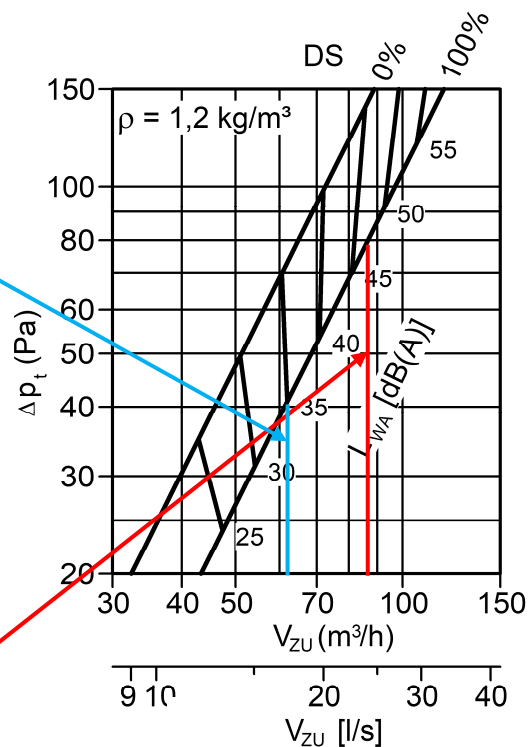
Calculation of the sound level at L = 408 mm and 70 m³/h (see table KF L<sub>WA</sub>):

**46 dB(A) - 1 = 45 dB(A)**

L<sub>WA</sub> = approx. **46**

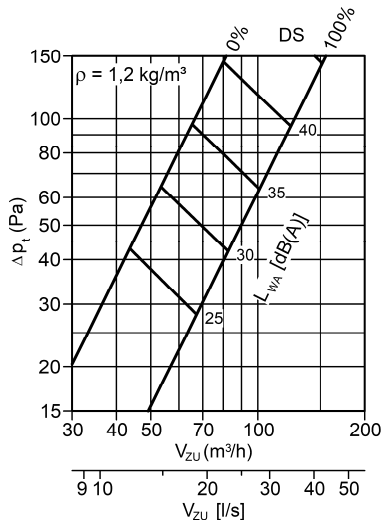
Result: At 70 m³/h and a length of 408 mm a sound level of **45 dB(A)** is emitted.

AUDIX®-...-64-ZO-300-508-...-ADSX-1-ZO-...-500-... (supply air)

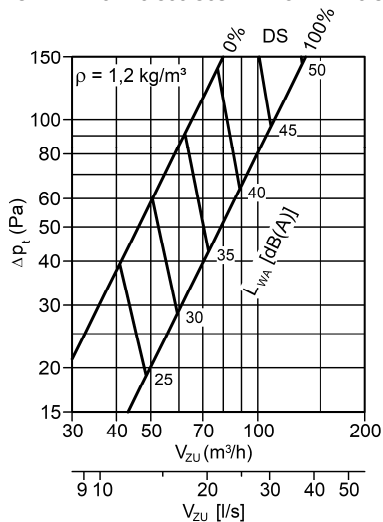


## Pressure loss and noise level (supply air)

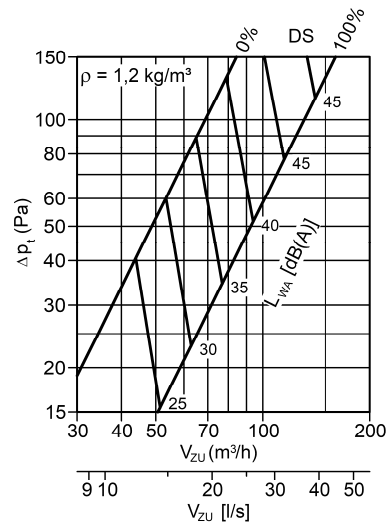
AUDIX®-...-55-Z0-300-508-...-ADSA-D0-Z0-500-1-... (supply air)



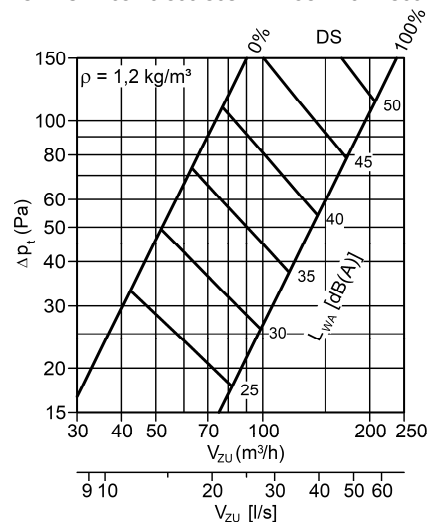
AUDIX®-...-61-Z0-300-508-...-ADSA-VD-Z0-500-1-... (supply air)



AUDIX®-...-62-Z0-300-508-...-ADSC-1-Z0-...-500-... (supply air)

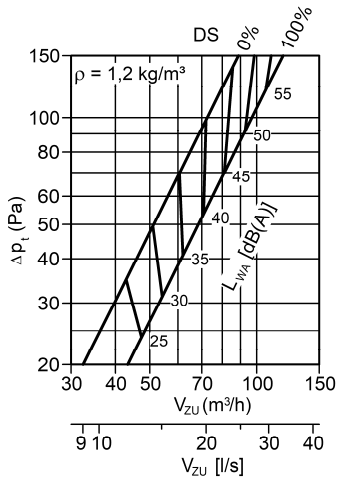


AUDIX®-...-63-Z0-300-508-...-ADSC-2-Z0-...-500-... (supply air)

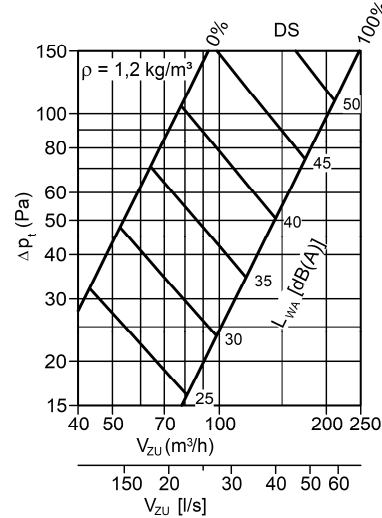


DS = damper position

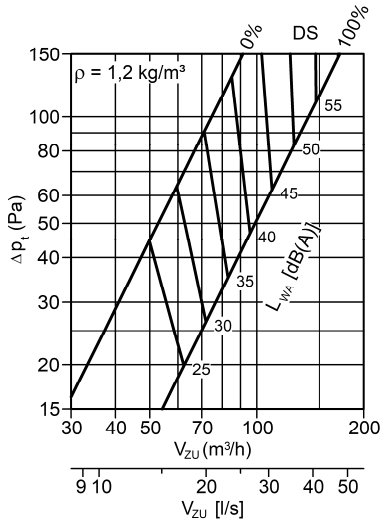
AUDIX®-...-64-Z0-300-508-...-ADSX-1-Z0-...-500-... (supply air)



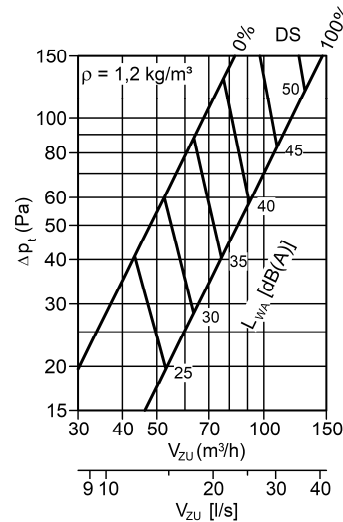
AUDIX®-...-67-Z0-300-508-...-ADSX-4-Z0-...-500-... (supply air)



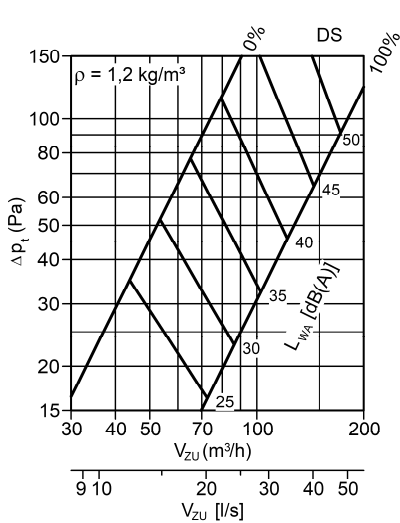
AUDIX®-...-65-Z0-300-508-...-ADSX-2-Z0-...-500-... (supply air)



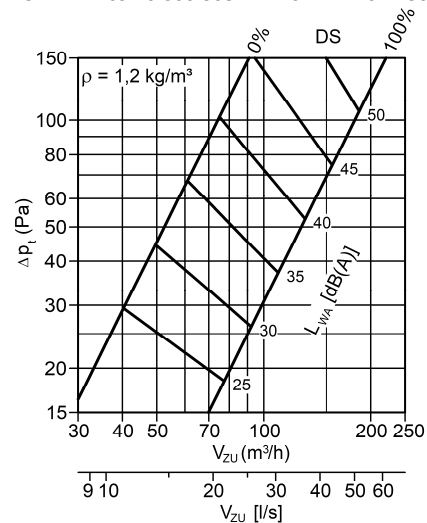
AUDIX®-...-68-Z0-300-508-...-ADSXW-1-Z0-...-500-... (supply air)



AUDIX®-...-66-Z0-300-508-...-ADSX-3-Z0-...-500-... (supply air)



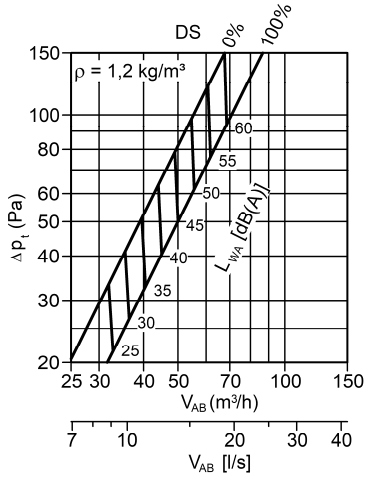
AUDIX®-...-69-Z0-300-508-...-ADSXW-2-Z0-...-500-... (supply air)



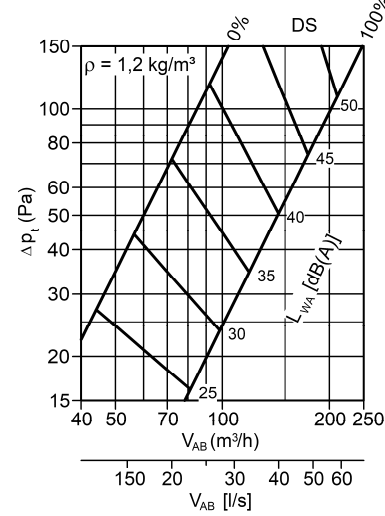
DS = damper position

### Pressure loss and noise level (return air)

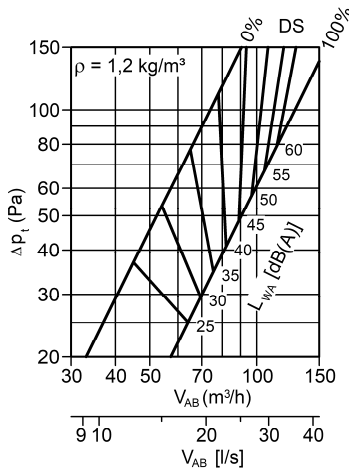
AUDIX®-...-64-A0-300-508-...-ADSX-1-A0-...-500-... (return air)



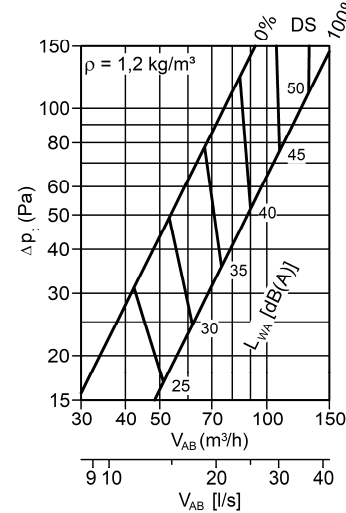
AUDIX®-...-67-A0-300-508-...-ADSX-4-A0-...-500-... (return air)



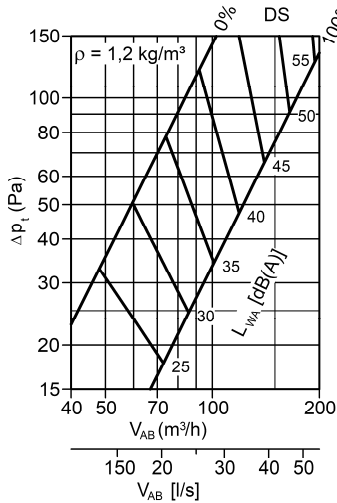
AUDIX®-...-65-A0-300-508-...-ADSX-2-A0-...-500-... (return air)



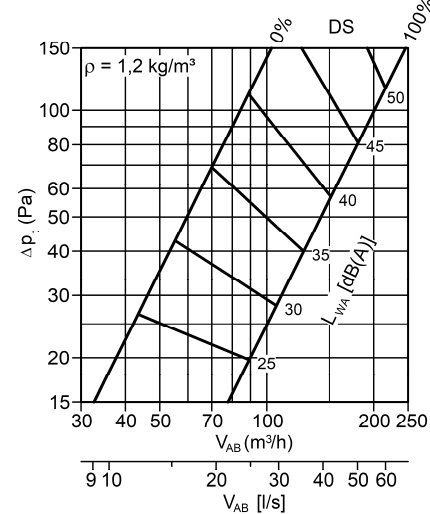
AUDIX®-...-68-A0-300-508-...-ADSXW-1-A0-...-500-... (return air)



AUDIX®-...-66-A0-300-508-...-ADSX-3-A0-...-500-... (return air)



AUDIX®-...-69-A0-300-508-...-ADSXW-2-A0-...-500-... (return air)



DS = damper position



### Sound reduction index (weighted, $R_w$ )

According to DIN 4109 (Soundproofing in building engineering, requirements and certificates)

	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
$R_w$ (dB)	36	38	36	38
A (m <sup>2</sup> )	0.125	0.150	0.250	0.300

### Normalised sound level difference, $D_{n,e}$ for type

#### AUDIX®

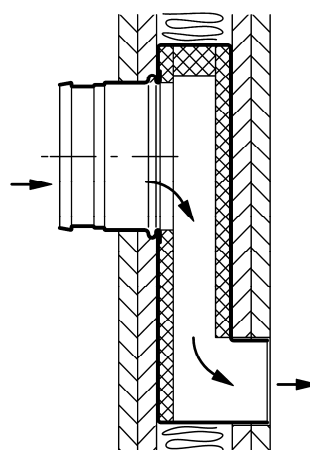
According to DIN EN ISO 10140-2 (Measurement of sound insulation of components on a test bench, air sound insulation)

Frequency f (Hz)	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
50	34	35	35	33
63	33	32	34	33
80	40	39	41	40
100	52	46	48	47
125	50	54	51	53
160	45	46	46	47
200	42	45	41	43
250	42	45	42	44
315	40	41	41	43
400	44	45	42	42
500	53	53	45	46
630	57	59	51	52
800	61	64	57	59
1000	62	63	60	60
1250	60	61	58	58
1600	61	61	57	58
2000	60	62	57	59
2500	67	68	64	66
3150	73	74	70	71
4000	70	76	69	73
5000	68	75	67	74
Third-octave band $D_{n,e}$ (dB)				

### Normalised sound level difference $D_{n,g}$ (single-digit value)

According to DIN EN ISO 717-1 (Weighting of sound insulation in buildings and of components – air sound insulation)

	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
$D_{n,e,w}$ (dB)	55	57	52	54



### LEGEND

$V_{ZU}$	(m <sup>3</sup> /h) [l/s]	=	supply air volumetric flow
$V_{AB}$	(m <sup>3</sup> /h) [l/s]	=	return air volumetric flow
$\Delta p_t$	(Pa)	=	Pressure loss
$L_{WA}$	[dB(A)]	=	A-weighted sound power level ( $L_{WA} = L_{WA1} + KF$ )
$\rho$	(kg/m <sup>3</sup> )	=	Density
$f_m$	(Hz)	=	Octave centre frequency
$D_{n,e}$	(dB)	=	Element-normalised sound level difference
$D_{n,e,w}$	(dB)	=	Weighted normalised sound level difference
$R_w$	(dB)	=	Weighted sound absorption coefficient
A	(m <sup>2</sup> )	=	Inflow area
f	(Hz)	=	Frequency
DS		=	dampener position

## ORDER CODE AUDIX

01	02	03	04	05	06	07
Type	Building material	Air diffuser	Type of air	Height	Length	Mounting
<b>Example</b>						
AUDIX®	-A2	-63	-Z0	-300	-0508	-MB

08	09	10	11	12	13
Material	Damper	Rubber lip seal	Box neck extension	Fixing lug	Cover
-SV	-DK2	-GD1	-KVS	-BL	-OA0

All fields must be filled when ordering.

### Sample

**AUDIX®-A2-63-Z0-300-0508-MB-SV-DK2-GD1-KVS-BL-OA0**

Cross-talk sound attenuator box AUDIX | building material class A2 non-flammable to DIN 4102 | slot diffuser ADSC, 2-slot | supply air | height of plenum box 300 mm | length 508 mm | with magnetic fastening | galvanised sheet steel | with damper and cable | with rubber lip seal | standard box neck | with fixing lug | without cover

## ORDER DETAILS

### 01 - Type

AUDIX® = cross-talk sound attenuator box AUDIX®

### 02 - Building material class

A2 = building material class A2, non-flammable to DIN 4102

B1 = building material class B1, flame-retardant to DIN 4102

### 03 - Air diffuser (must be ordered separately)

55 = nozzle jet diffuser ADSA-D0, 1-row

61 = nozzle jet diffuser ADSA-VD, 1-row

62 = slot diffuser ADSC, 1-slot

63 = slot diffuser ADSC, 2-slot

64 = slot diffuser ADSX, 1-slot

65 = slot diffuser ADSX, 2-slot

66 = slot diffuser ADSX, 3-slot

67 = slot diffuser ADSX, 4-slot

68 = slot diffuser ADSXW, 1-slot

69 = slot diffuser ADSXW, 2-slot

### 04 - Air throw

Z0 = supply air (standard)

A0 = return air (not possible for ADSA)

ZA = supply air/return air combination (not possible for ADSA)

### 05 - Height

250 = height 250 mm

300 = height 300 mm (standard)

xxx = height in mm, freely selectable (height ≥ 250 mm to 350 mm, always with 3 digits)

### 06 - Length

0408 = length 408 mm

0508 = length 508 mm (standard)

0608 = length 608 mm

0808 = length 808 mm

1008 = length 1008 mm

1208 = length 1208 mm

xxxx = length in mm, freely selectable (length ≥ 408 mm up to max. 1208 mm, always with 4 digits)

### 07 - Mounting

MB = magnetic fastening (standard)

### 08 - Material

SV = galvanised sheet steel (standard)

### 09 - Damper

DK0 = without damper (standard)

DK2 = with damper and cable

### 10 - Rubber lip seal

GD0 = without rubber lip seal (standard)

GD1 = with rubber lip seal

### 11 - Box neck extension

KVS = Standard box neck

xxx = box neck extension in mm (wall thickness > 100 mm up to max. 350 mm, always with 3 digits)

### 12 - Fixing lug

B0 = without fixing lug (standard)

BL = with fixing lug

### 13 - Cover

OA0 = without cover (standard)

OA1 = with cover

## ORDER CODE ADSA

01	02	03	04	05
Type	Model	Air throw	Length	Height
<b>Example</b>				
ADSA	-D0	-Z0	-1000	-1

06	07	08	09	10
Single / band design	Material	Paint	Nozzle colour	Mounting
-N	-SB	-9010	-DS	-MB

All fields must be filled when ordering.

### Sample

**ADSA-D0-Z0-1000-1-N-SB-9010-DS-MB**

Nozzle jet diffuser DSA for AUDIX® | fixed nozzles | supply air | length 1000 mm | nozzles 1-row | single design | sheet steel | painted to the RAL colour 9010 (white) | nozzles made of plastic material similar to RAL 9005 (black) | with magnetic fastening

## ORDER DETAILS

### 01 - Type

ADSA = nozzle jet diffuser DSA for AUDIX®

### 02 - Model

D0 = fixed nozzles (standard)

VD = manually individually adjustable nozzles

### 03 - Air throw

Z0 = supply air

### 04 - Length

0400 = length 400 mm

0500 = length 500 mm

0600 = length 600 mm

0800 = length 800 mm

1000 = length 1000 mm

1200 = length 1200 mm

xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

### 05 - Height

1 = nozzles 1-row (standard)

### 06 - Single / band design

N = single design (length max. 1200 mm, standard)

### 07 - Material

SB = sheet steel (standard)

### 08 - Paint

9010 = painted to the RAL colour 9010 (white, standard)

9006 = painted to the RAL colour RAL 9006 (white aluminium)

9005 = painted to the colour RAL 9005 (black)

xxxx = painted to a RAL colour of your choice (always with 4 digits)

### 09 - Nozzle colour

DS = nozzles made of plastic material similar to RAL 9005 (black)

DA = nozzles made of plastic material similar to RAL 9006 (white aluminium)

DW = nozzles made of plastic material similar to RAL 9010 (white) (standard)

### 10 - Mounting

MB = with magnetic fastening (standard)

## ORDER CODE ADSC

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
<b>Example</b>				
ADSC	-1	-Z0	-R0	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-V	-N	-1000	-MB

All fields must be filled when ordering.

### Sample

**ADSC-1-Z0-R0-ELOX-L9010-V-N-1000-MB**

Slot diffuser DSC for AUDIX® | 1-slot | supply air | standard frame profile | natural colour anodised aluminium | blades made of plastic material similar to RAL 9010 | blades with vertical throw | single design | length 1000 mm | magnetic fastening

## ORDER DETAILS

### 01 - Type

ADSC = slot diffuser DSC for AUDIX®

### 02 - Model

1 = 1-slot

2 = 2-slot

### 03 - Air throw

Z0 = supply air

A0 = return air

ZA = supply air/return air combination

### 04 - Frame profile

R0 = standard frame profile

P0 = Special frame profile

### 05 - Frame surface

ELOX = Natural colour anodised aluminium (standard)

9006 = Aluminium painted to RAL colour 9006 (white aluminium).

9010 = Aluminium painted to RAL colour 9010 (white)

xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

### 06 - Blade colour

00000 = without blades (for return air only).

L9005 = blades made of plastic material (hard PVC) similar to RAL 9005 (black, return air with perforated plate RAL 9005)

L9006 = blades made of plastic material (hard PVC) similar to RAL 9006 (white aluminium / return air with perforated blade RAL 9006)

L9010 = blades made of plastic material (hard PVC) similar to RAL 9010 (white / return air with perforated plate RAL 9010)

Lxxxx = blades made of plastic material (hard PVC), painted to a RAL colour (freely selectable, always with 4 digits) / perforated plate painted to the same colour

### 07 - Blade position for air jet

0 = without blades, for return air, with perforated plate.

V = blades with vertical throw (standard)

### 08 - Single / band design

N = single design (length max. 1200 mm, standard)

### 09 - Length

0400 = length 400 mm

0500 = length 500 mm

0600 = length 600 mm

0800 = length 800 mm

1000 = length 1000 mm

1200 = length 1200 mm

xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

### 10 - Mounting

MB = magnetic fastening (standard)

## ORDER CODE ADSX

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
<b>Example</b>				
ADSX	-1	-Z0	-PB	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-V	-N	-1000	-MB

All fields must be filled when ordering.

### Sample

**ADSX-1-Z0-PB-ELOX-L9010-V-N-1000-MB**

Slot diffuser DSX for AUDIX® | 1-slot | supply air | wide frame profile | natural colour anodised aluminium | blades made of plastic material similar to RAL 9010 (white) | blades with vertical throw | single design | length 1000 mm | with magnetic fastening

## ORDER DETAILS

### 01 - Type

ADSX = slot diffuser DSX for AUDIX®

### 02 - Model

- 1 = 1-slot
- 2 = 2-slot
- 3 = 3-slot
- 4 = 4-slot

### 03 - Air throw

- Z0 = supply air
- A0 = return air
- ZA = supply air/return air combination

### 04 - Frame profile

- P0 = standard frame profile (10 mm)
- PB = wide frame profile (16 mm)

### 05 - Frame surface

- ELOX = Natural colour anodised aluminium (standard)
- 9006 = Aluminium painted to RAL colour 9006 (white aluminium).
- 9010 = Aluminium painted to RAL colour 9010 (white)
- xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

### 06 - Blade colour

- L9005 = blades made of plastic material similar to RAL 9005 (black)
- L9006 = blades made of plastic material similar to RAL 9006 (white aluminium)
- L9010 = blades made of plastic material similar to RAL 9010 (white)

### 07 - Blade position for air jet

- V = blades with vertical throw (also for return air)

### 08 - Single / band design

- N = single design (length max. 1200 mm, standard)

### 09 - Length

- 0400 = length 400 mm
- 0500 = length 500 mm
- 0600 = length 600 mm
- 0800 = length 800 mm
- 1000 = length 1000 mm
- 1200 = length 1200 mm
- xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

### 10 - Mounting

- MB = with magnetic fastening (standard)

## ORDER CODE ADSXW

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
<b>Example</b>				
ADSXW	-1	-Z0	-PB	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-S	-N	-1000	-MB

All fields must be filled when ordering.

### Sample

**ADSXW-1-Z0-PB-ELOX-L9010-S-N-1000-MB**

Slot diffuser DSXW for AUDIX® | 1-slot | supply air | wide frame profile | natural colour anodised aluminium | blade colour white similar to RAL 9010 | blades air throw diagonally upwards | single design | length 1000 mm | with magnetic fastening

## ORDER DETAILS

### 01 - Type

ADSXW = slot diffuser DSXW for AUDIX®

### 02 - Model

- 1 = 1-slot
- 2 = 2-slot

### 03 - Air throw

- Z0 = supply air
- A0 = return air
- ZA = supply air/return air combination

### 04 - Frame profile

- P0 = standard frame profile (10 mm)
- PB = wide frame profile (16 mm)

### 05 - Frame surface

- ELOX = Natural colour anodised aluminium (standard)
- 9006 = Aluminium painted to RAL colour 9006 (white aluminium).
- 9010 = Aluminium painted to RAL colour 9010 (white)
- xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

### 06 - Blade colour

- L9005 = blades made of plastic material similar to RAL 9005 (black)
- L9006 = blades made of plastic material similar to RAL 9006 (white aluminium)
- L9010 = blades made of plastic material similar to RAL 9010 (white)

### 07 - Blade position for air jet

- S = blades air throw diagonally upwards

### 08 - Single / band design

- N = single design (length max. 1200 mm, standard)

### 09 - Length

- 0400 = length 400 mm
- 0500 = length 500 mm
- 0600 = length 600 mm
- 0800 = length 800 mm
- 1000 = length 1000 mm
- 1200 = length 1200 mm
- xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

### 10 - Mounting

- MB = with magnetic fastening (standard)

## SPECIFICATION TEXT AUDIX

Cross-talk sound attenuator box for supply air, with round connection spigot, with integrated silencer for installation in lightweight walls to connect one diffuser.

Airtight plenum box made of galvanized sheet steel (-SV), with structure-borne noise insulation and integrated silencer to prevent cross-talk sound and for silencing in the duct. With abrasion-resistant absorption material attached on both sides inside. Fastening system for installation into the posts of lightweight walls.

Product: SCHAKO type AUDIX®-...-Z0

- Cross-talk sound attenuator box for return air, with round connection spigot, with integrated silencer for installation in lightweight walls to connect one diffuser.

Product: SCHAKO type AUDIX®-...-A0

- Cross-talk sound attenuator box for supply and return air, with one round connection spigot each for supply and return air, with integrated silencer for installation in lightweight walls to connect one diffuser.

Product: SCHAKO type AUDIX®-...-ZA

Building material class:

- non-flammable to DIN 4102 (-A2)
- flame-retardant to DIN 4102 (-B1) (standard)

Diffusers (for supply air and return air):

- nozzle jet diffuser ADSA-D0 (-55), 1-row
- nozzle jet diffuser ADSA-VD (-61), 1-row
- slot diffuser ADSC (-62), 1-slot
- slot diffuser ADSC (-63), 2-slot
- slot diffuser ADSX (-64), 1-slot
- slot diffuser ADSX (-65), 2-slot
- slot diffuser ADSX (-66), 3-slot
- slot diffuser ADSX (-67), 4-slot
- slot diffuser ADSXW (-68), 1-slot
- slot diffuser ADSXW (-69), 2-slot

Simple assembly and disassembly for maintenance purposes

Accessories:

- Damper
  - without damper (-DK0) (standard).
  - with damper, made of galvanised sheet steel, in the connection spigot, manually adjustable from room side via cable, for simple air volume regulation (-DK2).
- Rubber lip seal
  - without rubber lip seal (-GD0)
  - with rubber lip seal (-GD1) made of special rubber, at the connection spigot.
- Box neck extension
  - standard box neck (-KVS).
  - box neck extension in mm, freely selectable (-xxx, always with 3 digits), for wall thickness >100 mm up to max. 350 mm.
- Fixing lug
  - without fixing lug (-B0)
  - with fixing lug (-BL), made of galvanised sheet steel.
- Cover
  - without cover (-OA0)
  - with cover (-OA1), made of galvanised sheet steel.

## SPECIFICATION TEXT DIFFUSERS

### Nozzle jet diffuser ADSA (-55 / -61)

Nozzle jet diffuser ADSA-..., for installation in lightweight walls, with magnetic fastening (-MB).

- With fixed plastic nozzles made of plastic material (standard).

Product: SCHAKO **type ADSA-D0-... (-55)**

- With individually manually adjustable nozzles made of plastic material.

Product: SCHAKO **type ADSA-VD-... (-61)**

Air throw:

- supply air (-Z0)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)

Height:

- nozzles 1-row (-1) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Faceplate:

- made of sheet steel painted to:
  - RAL colour 9010 (white, standard) (-SB-9010)
  - RAL colour 9006 (white aluminium) (-SB-9006)
  - RAL colour 9005 (black) (-SB-9005)
  - RAL colour of your choice (-SB-xxxx, always with 4 digits)

Nozzle colour:

- Nozzles made of plastic material:
  - similar to RAL 9005 (black) (-DS)
  - similar to RAL 9006 (white aluminium) (-DA)
  - similar to RAL 9010 (white) (standard) (-DW)

### Slot diffuser ADSC (-62 / -63)

Slot diffuser ADSC-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.

Product: SCHAKO **type ADSC-1-... (-62)**

- 2-slot model.

Product: SCHAKO **type ADSC-2-... (-63)**

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (-R0)
- special frame profile (-P0)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- Plastic (hard PVC):
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).
  - RAL colour can be freely selected (-Lxxxx)
- without blade (-00000), only for return air, with perforated plate made of sheet steel painted to the colour of the blade, as screen.

Blade position for air jet:

- without blades(-0), for return air, with perforated plate.
- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)



**Slot diffuser ADSX (-64 / -65 / -66 / -67)**

Slot diffuser ADSX-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.  
Product: SCHAKO type ADSX-1-... (-64)
- 2-slot model.  
Product: SCHAKO type ADSX-2-... (-65)
- 3-slot model.  
Product: SCHAKO type ADSX-3-... (-66)
- 4-slot model.  
Product: SCHAKO type ADSX-4-... (-67)

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (10 mm) (-P0)
- special frame profile (16 mm) (-PB)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- plastic:
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).

Blade position for air jet:

- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)

**Slot diffuser ADSXW (-68 / -69)**

Slot diffuser ADSXW-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.  
Product: SCHAKO type ADSXW-1-... (-64)
- 2-slot model.  
Product: SCHAKO type ADSXW-2-... (-65)

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (10 mm) (-P0)
- special frame profile (16 mm) (-PB)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
  - RAL 9006 (white aluminium) (-9006).
  - RAL 9010 (white) (-9010).
  - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- plastic:
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).

Blade position for air jet:

- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)