



**DMK**

Pressure transducer for volume flow determination

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## FUNCTION AND USE

The DMK pressure transducer for volume flow determination has been specially designed for diffusers 4DE, DBB, DQJ, DSC, DSCXL, DSX, DSXL, DSXW and FDSXW (for FBS).

It is often no longer possible to perform a volume flow measurement at the connection spigot in the ceiling or floor cavity. The pressure transducer is available to address this requirement. The pressure transducer is connected to a suitable measurement instrument such as an inclined tube pressure gauge. The pressure transducer is pressed against the measurement points of the diffuser. The pressure can then be read off from the pressure gauge. An average value is calculated from the sum of the individual measurements. The respective volume flow can be seen in the corresponding diagrams.

## MODELS

DMK-... Pressure transducer for volume flow determination

Diffusers for pressure transducer:

- ...-01 for DQJ/FDQJ ceiling swirl diffusers
- ...-06 for 4DE ceiling diffusers
- ...-21 for DSX/ADSX slot diffusers
- ...-22 for DSXL slot diffusers
- ...-23 for DSXW/ADSXW wall slot diffusers
- ...-24 for DSC/ADSC slot diffusers
- ...-27 for DSCXL slot diffusers for plasterboard ceilings
- ...-50 for DBB/FDBB ceiling air diffusers
- ...-70 for FDSXW slot diffusers for FBS

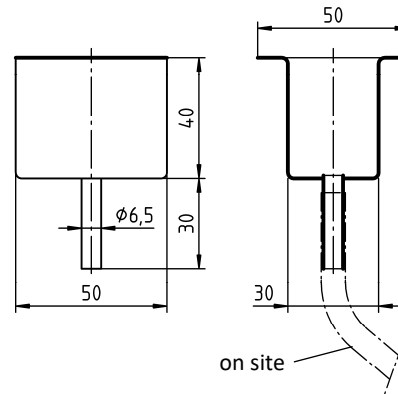
## PROCESSING

### Housing

- Sheet steel painted in RAL 9010 (white) (-SB-9010).

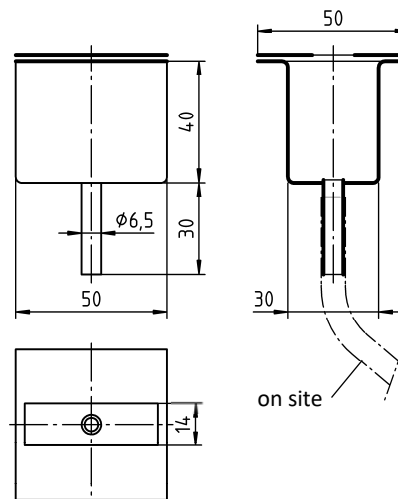
## DIMENSIONS

**DMK-01** (for DQJ/FDQJ) / **DMK-06** (for 4DE) / **DMK-22** (for DSXL) / **DMK-24** (for DSC/ADSC) / **DMK-27** (for DSCXL) / **DMK-50** (for DBB/FDBB) (pressure transducer, narrow)



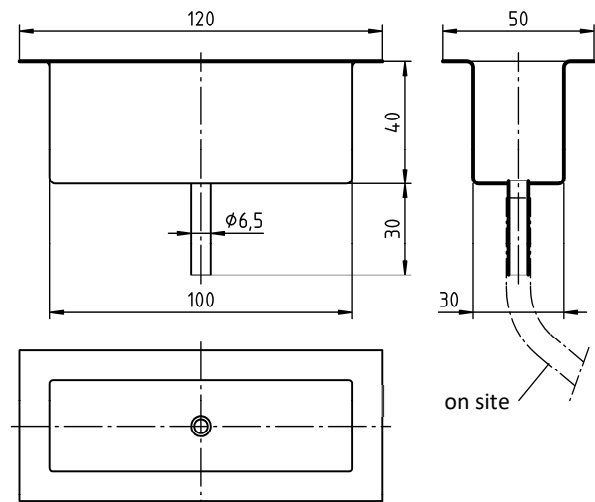
**DMK-21** (for DSX/ADSX)

(pressure transducer, narrow, with additional plate)



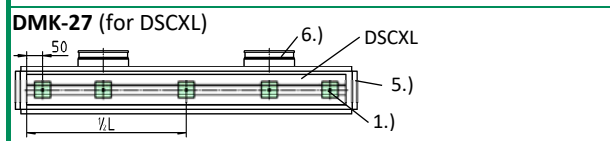
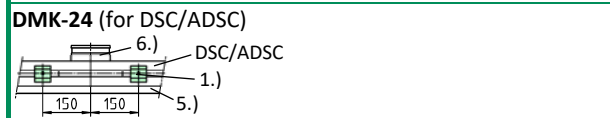
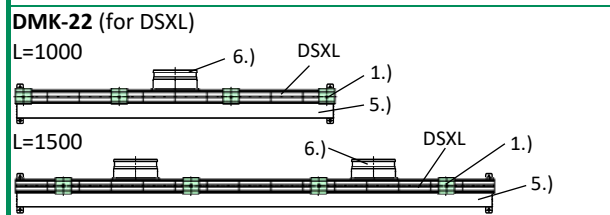
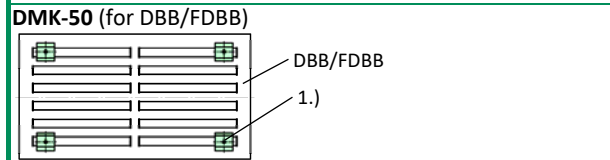
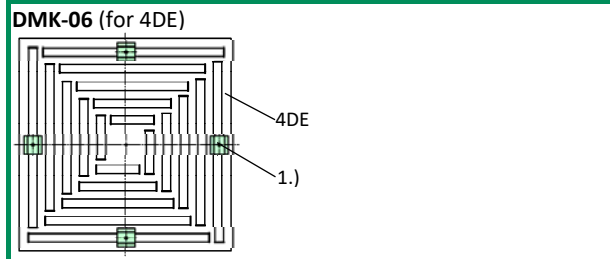
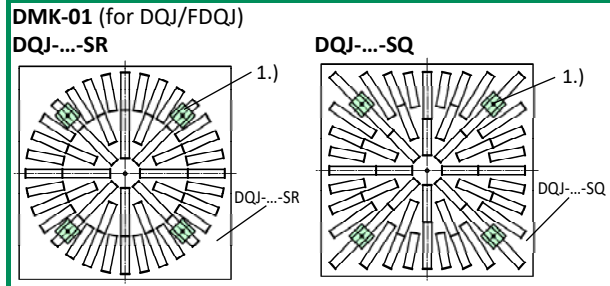
**DMK-23** (for DSXW/ADSXW) / **DMK-70** (for FDSXW)

(pressure transducer, wide)

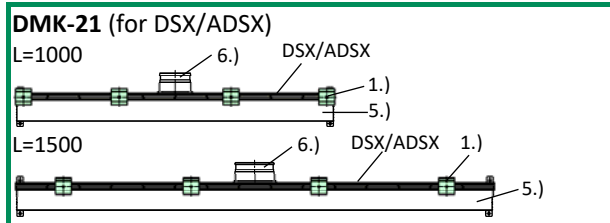


## MEASUREMENT POINTS

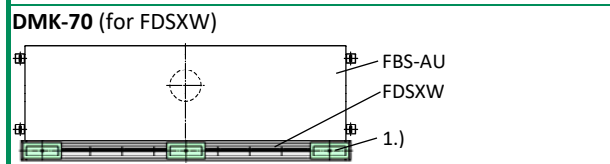
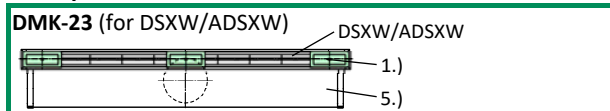
### Narrow pressure transducer:



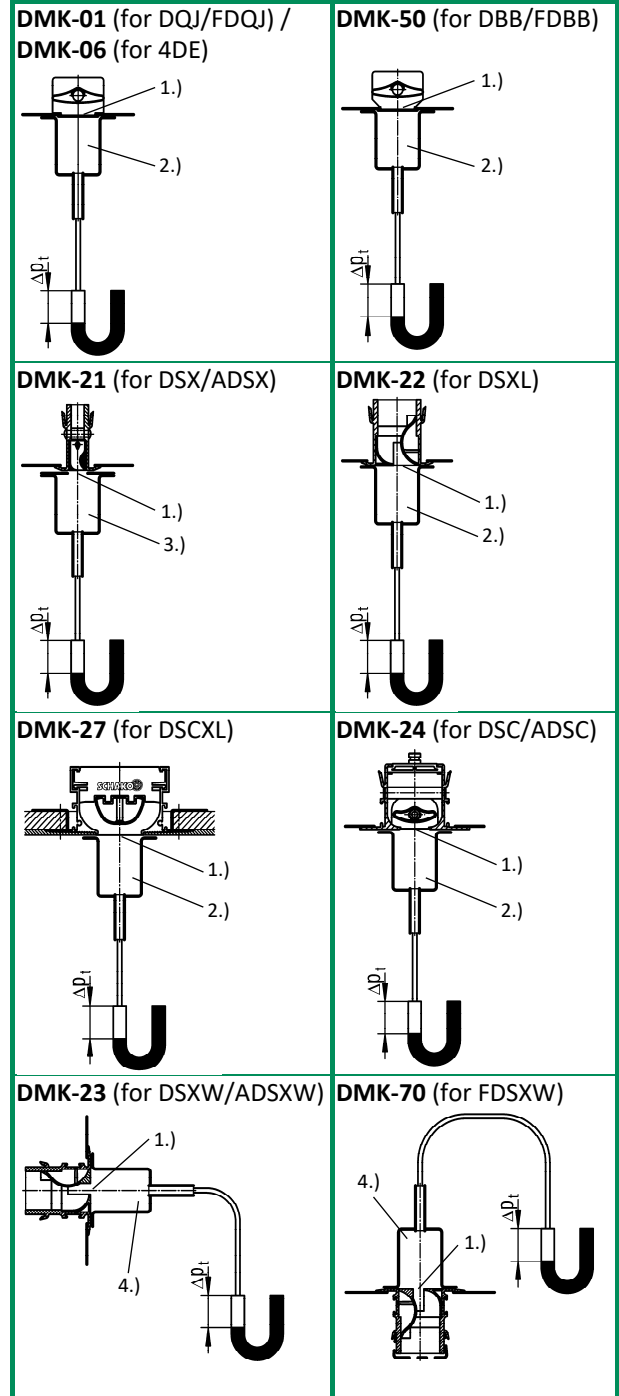
### Narrow pressure transducer with additional plate:



### Wide pressure transducer:



### Detailed representation of the pressure transducer placement at the measurement point:



- 1.) Measurement point
- 2.) Narrow pressure transducer
- 3.) Narrow pressure transducer with additional plate
- 4.) Wide pressure transducer
- 5.) Plenum box
- 6.) Connection spigot

### Attention:

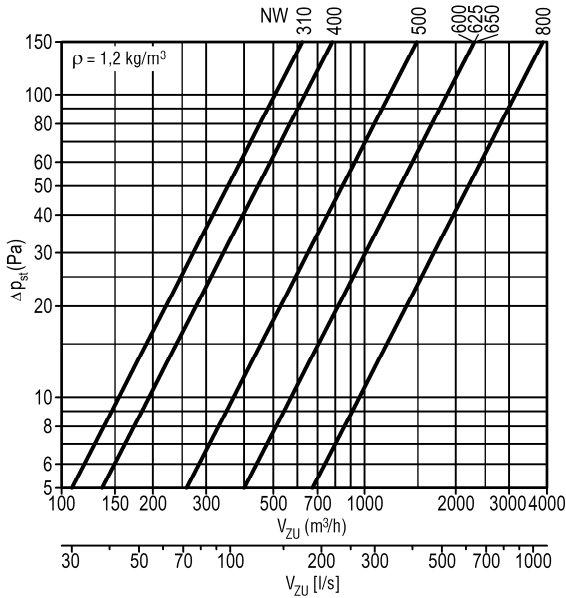
In the return air model (4DE), the pressure measurement hose must be connected to the negative pole of the pressure gauge in order to measure a positive pressure!

**TECHNICAL DATA**

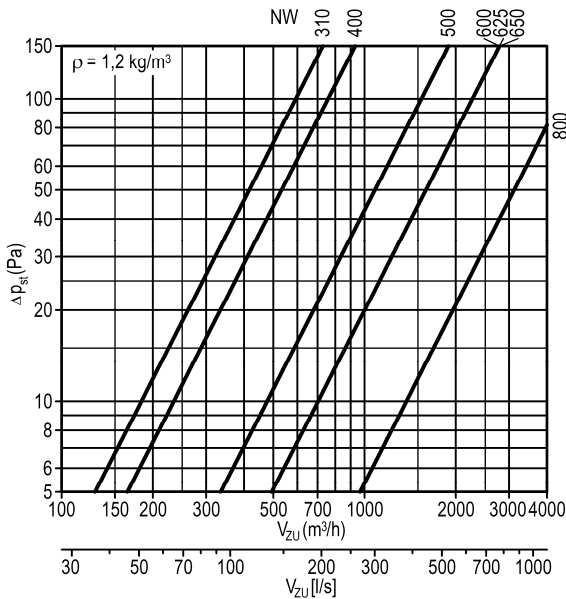
**Pressure loss**

**DMK-01 (for DQJ/FDQJ)**

Narrow pressure transducer  
 DQJ-...-SR-Z-... (supply air)

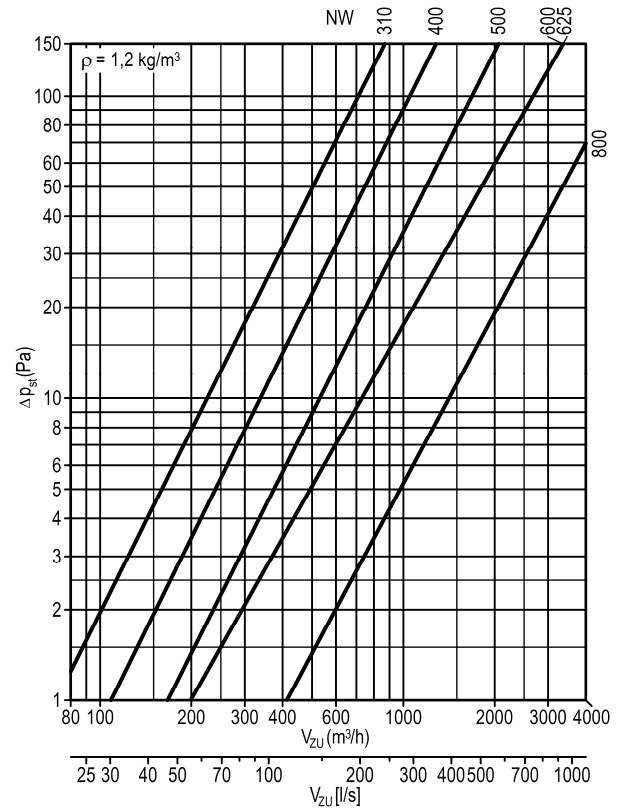


**DQJ-...-SQ-Z-... (supply air)**

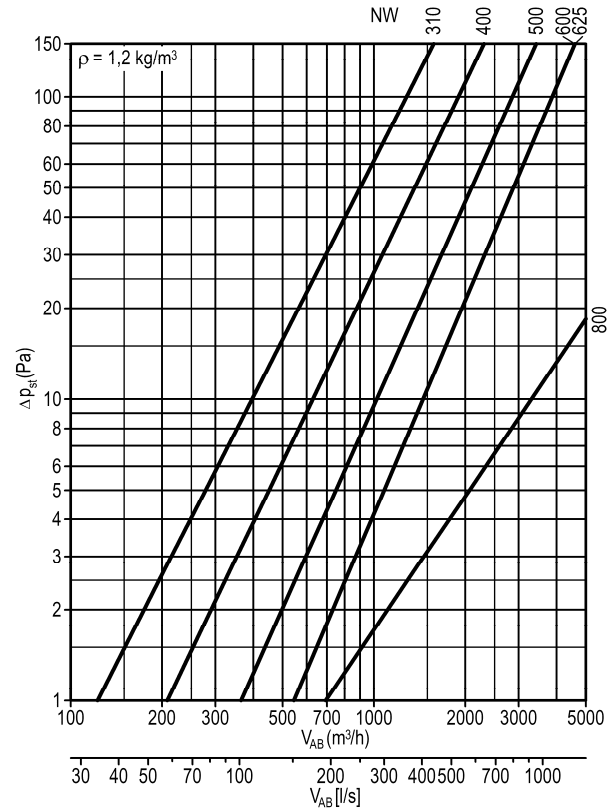


**DMK-06 (for 4DE)**

Narrow pressure transducer  
 4DE-Z-... (supply air)



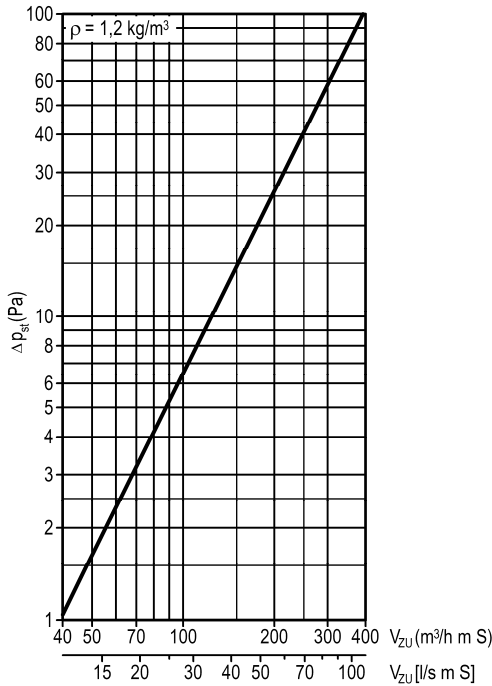
**4DE-A-... (return)**



**DMK-50 (for DBB/FDBB)**

Narrow pressure transducer

DBB-...-Z-... (supply air)



**DBB slot length**

Model A		325	425	525	625	825	1025	1225	L
		0	0	0	0	0	0	0	n QS
115	2	548	748	948	1148	148	1948	2348	
215	4	1096	1496	1896	2296	3096	3896	4696	
215	6	1644	2244	3300	3444	4644	5844	7044	
H	n LS	Total length of slot (mm)							

Model B		425	525	625	825	1025	1225	L	
		1	2	2	3	3	4	n QS	
215	4	1472	2048	2448	3424	4224	5200		
215	6	2220	3852	3696	5172	6372	7848		
H	n LS	Total length of slot (mm)							

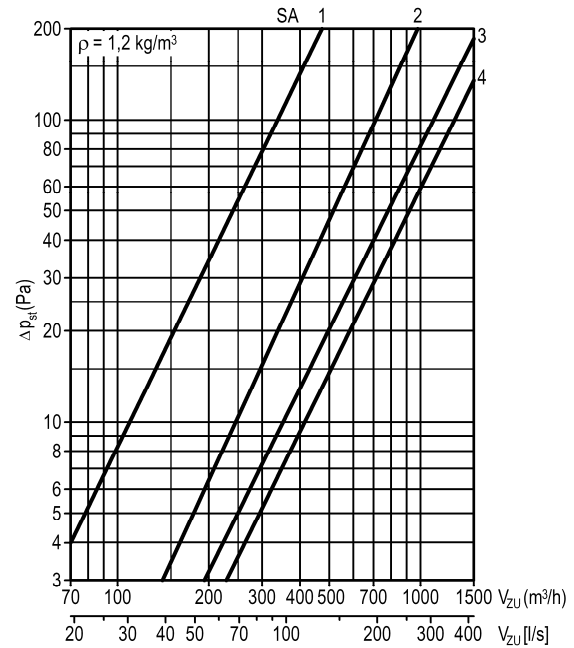
Model C		425	525	625	825	1025	1225	L	
		2	4	4	6	6	8	n QS	
215	4	1448	2200	2600	3752	4552	5704		
215	6	2196	4404	3948	5700	6900	8652		
H	n LS	Total length of slot (mm)							

n QS = Number of transverse slots  
 n LS = Number of longitudinal slots

**DMK-22 (for DSXL)**

Narrow pressure transducer

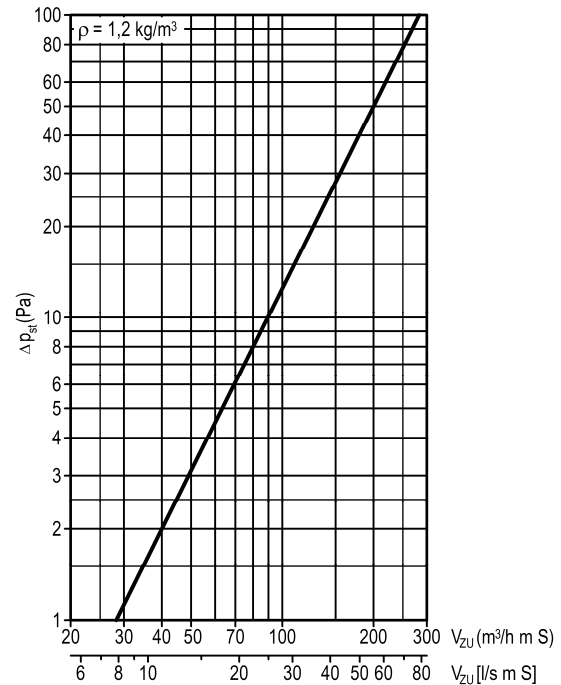
DSXL-...-Z-...-1000 (supply air, L = 1000 mm)



**DMK-24 (for DSC/ADSC)**

Narrow pressure transducer

DSC-...-Z-...-1000 (supply air, L = 1000 mm)

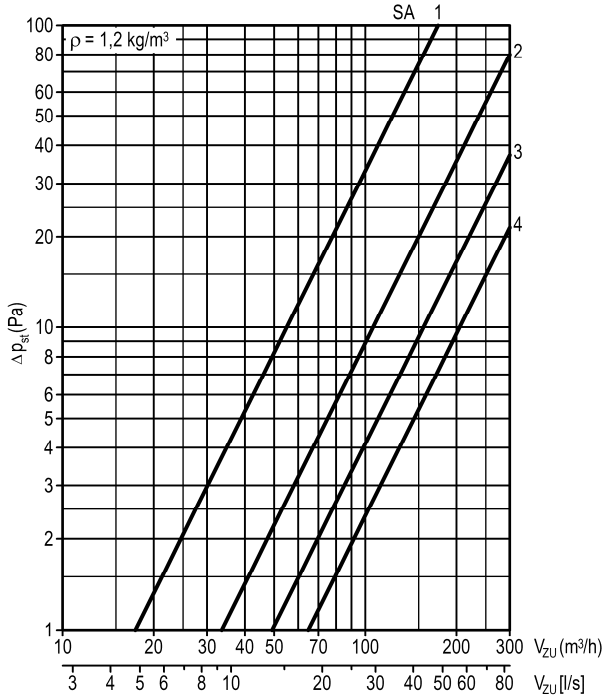


**DMK-21 (for DSX/ADSX)**

Narrow pressure transducer with additional plate

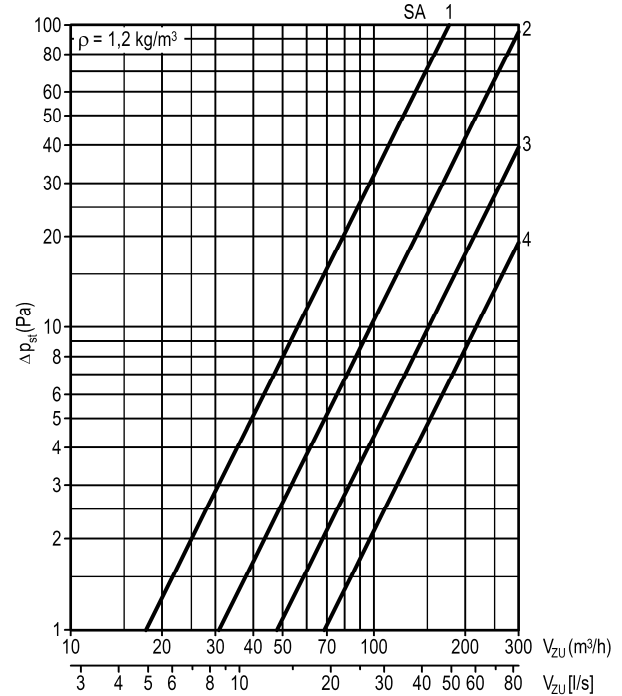
**DSX-...-L+R-N-1000**

Air guide element with horizontal one-sided discharge to the left or right, 1 to 4 slots, length 1000 mm.



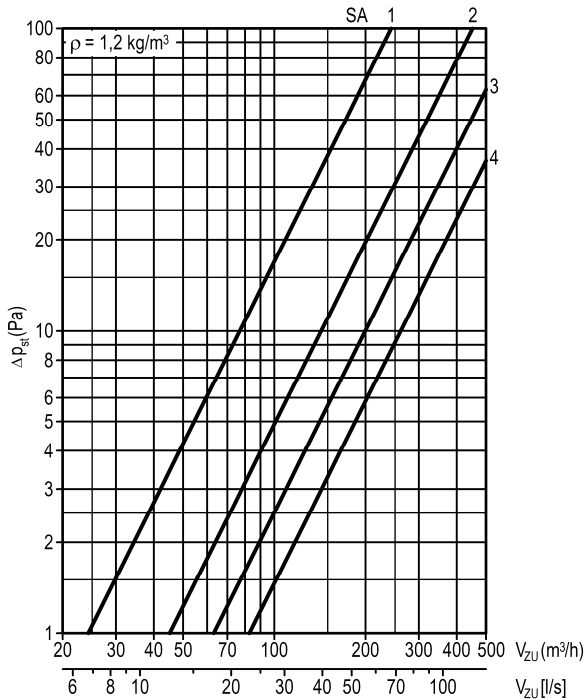
**DSX-...-V-N-1000**

Air guide element with vertical throw, 1 to 4 slots, length 1000 mm.



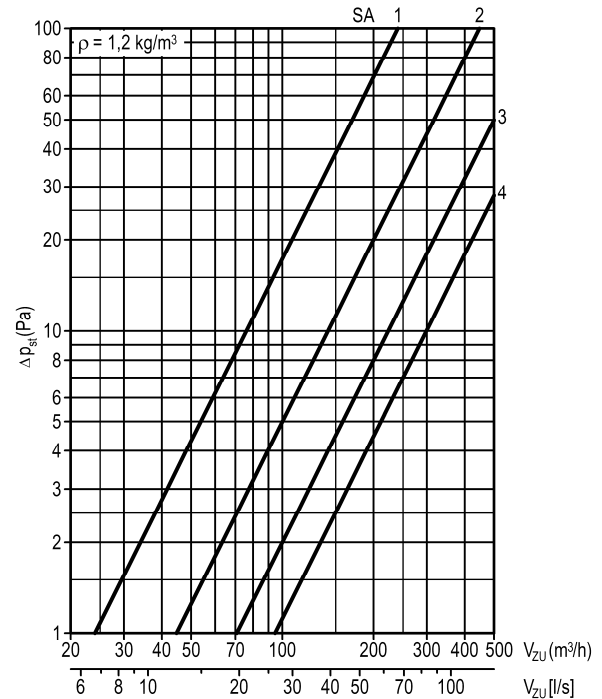
**DSX-...-L+R-N-1500**

Air guide element with horizontal one-sided discharge to the left or right, 1 to 4 slots, length 1500 mm.



**DSX-...-V-N-1500**

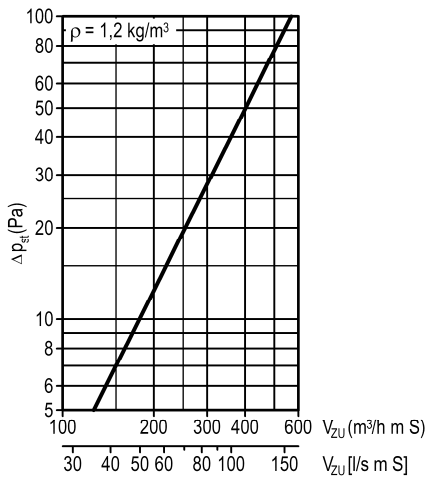
Air guide element with vertical throw, 1 to 4 slots, length 1500 mm.



**DMK-27 (for DSCXL)**

Narrow pressure transducer

**DSCXL-...-Z-...-1000-...** (supply air, L = 1000 mm)



**LEGEND**

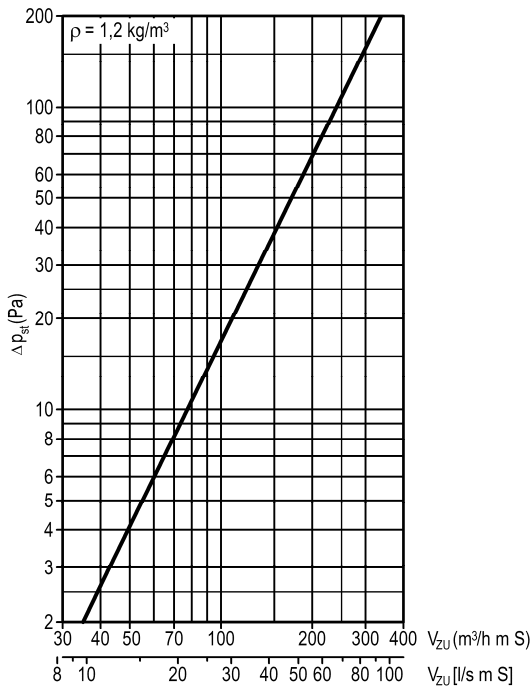
$V_{ZU}$ (m³/h) [l/s]	= Supply air volume
$V_{ZU}$ (m³/h m S) [l/s m S]	= Supply air volume per metre per slot
$V_{AB}$ (m³/h) [l/s]	= Return air volume
$\Delta p_{st}$ (K)	= Static pressure (average value from several neasurements)
$\rho$ (kg/m³)	= Density
SA (-)	= Number of slots
NW (mm)	= Nominal size
L (mm)	= length
H (mm)	= Height
n QS (-)	= Number of transverse slots
n LS (-)	= Number of longitudinal slots

**DMK-23 (for DSXW/ADSXW) / DMK-70 (for FDSXW)**

Wide pressure transducer

**DSXW-...-Z-...-1000** (supply air, L = 1000 mm)

**FDSXW-...-Z-...-1000** (supply air, L = 1000 mm)



## ORDER CODE DMK

01	02	03	05
Type	Diffuser	Material	Paint
<b>Example</b>			
DMK	-01	-SB	-9010

### Sample

**DMK-01-SB-9010**

DMK pressure transducer for volume flow determination | for ceiling swirl diffuser DQJ [FDQJ] | sheet steel | painted in RAL 9010 (white)

## ORDER DETAILS

### 01 - Type

DMK = pressure transducer for volume flow determination

### 02 - Diffuser (must be ordered separately)

- 01 = for DQJ [FDQJ] ceiling swirl diffusers
- 06 = for 4DE ceiling diffusers
- 21 = for DSX [ADSX] slot diffusers
- 22 = for DSXL slot diffusers
- 23 = for DSXW [ADSXW] wall slot diffusers
- 24 = for DSC [ADSC] slot diffusers
- 27 = for DSCXL slot diffusers for plasterboard ceilings
- 50 = for DBB [FDDB] ceiling air diffusers
- 70 = for FDSXW slot diffusers for FBS

### 03 - Material

SB = sheet steel (standard)

### 04 - Paint

9010 = painted to RAL colour 9010 (white) (standard).



## SPECIFICATION TEXT

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Pressure transducer for volume flow determination of diffusers. Housing made of sheet steel, painted in RAL 9010 (white), with the option of connecting a pressure gauge provided by the customer (e.g. inclined tube pressure gauge) to display the pressure measured at the diffuser. The respective volume flow can be seen in the corresponding diagrams.

Product: SCHAKO Type **DMK-...-SB-9010**

**Diffuser** (must be ordered separately):

- for DQJ [FDQJ] ceiling swirl diffusers (-01)
- for 4DE ceiling diffusers (-06)
- for DSX [ADSX] slot diffusers (21)
- for DSXL slot diffusers (-22)
- for DSXW [ADSXW] wall slot diffusers (-23)
- for DSC [ADSC] slot diffusers (-24)
- for DSCXL slot diffusers for plasterboard ceilings (-27)
- for DBB [FDDB] ceiling air diffusers (-50)
- for FDSXW slot diffusers for FBS (-70)