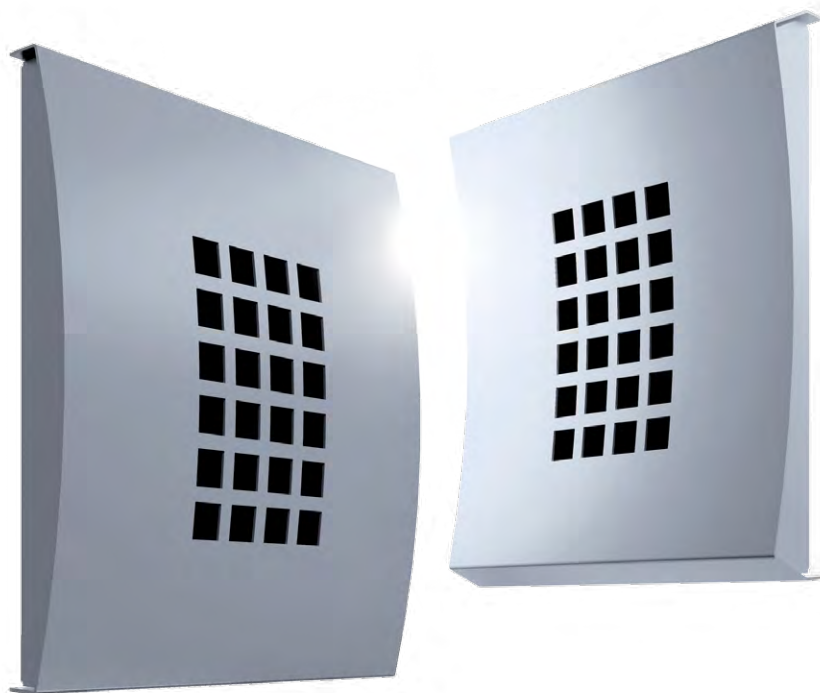


# PINO



The PINO series represents a design trend not usually seen in exhaust air vents. An exhaust air device can now become part of interior decoration without compromising on performance.

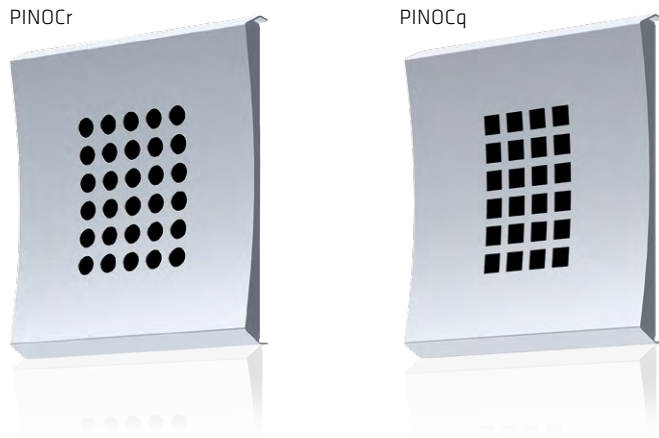
# PINO

The PINO series for exhaust air was developed to complement the TINO supply air series. You can use them separately or in combination. PINO is the smallest technically feasible exhaust air vent that can be installed even in a visible location. Let your visual preferences decide for the convex version D or the concave version C.

The PINO series represents a design trend not usually seen in exhaust air vents. Besides the convex or concave forms, you can choose different perforation styles.

# PINOC

**PINOC** is an attractively designed exhaust air vent for anybody wanting to highlight details in new buildings as well as renovation projects. The silent, easily cleaned PINOC is available with both round and square perforation. Reliable measurement combined with quick and precise adjustment are prominent features of the PINOC series.



## Colours

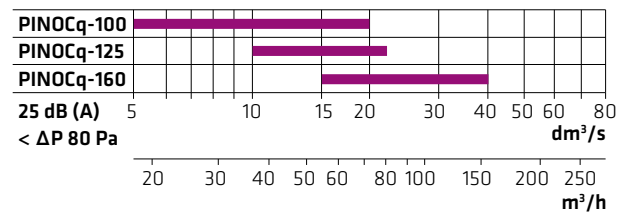
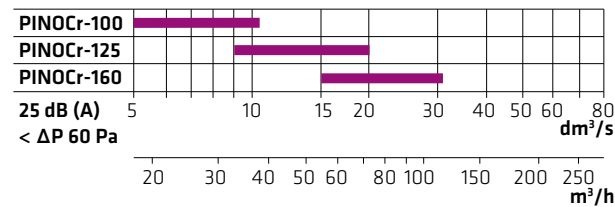
Standard colour:



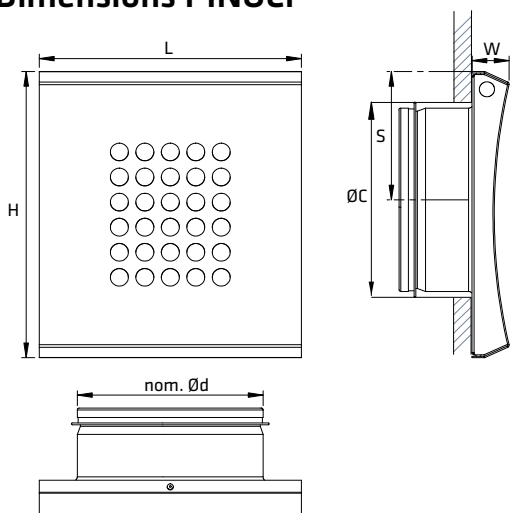
Also available in the following colours:



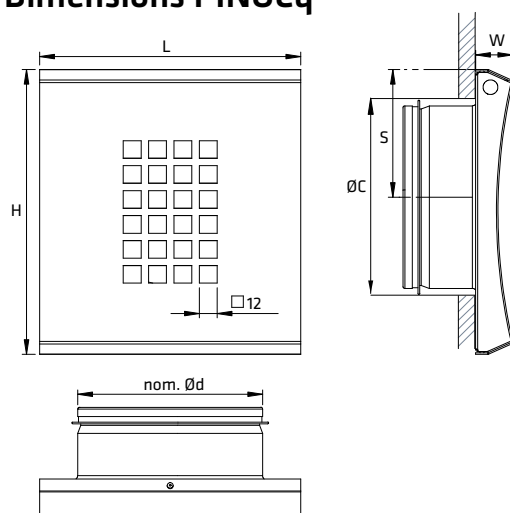
## Quick Guide



## Dimensions PINOCr



## Dimensions PINOCq



Exhaust air vents

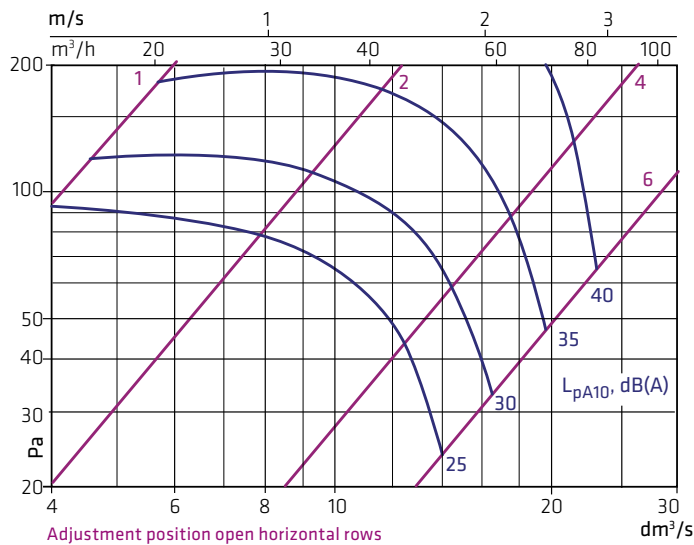
	nom. Ød	ØC	L	H	W	S	kg
<b>PINOCr-100</b>	100	115	150	164	20	72	0,4
<b>PINOCr-125</b>	125	140	175	192	25	87	0,6
<b>PINOCr-160</b>	160	175	210	231	30	106	0,8

	nom. Ød	ØC	L	H	W	S	kg
<b>PINOCq-100</b>	100	115	150	164	20	72	0,4
<b>PINOCq-125</b>	125	140	175	192	25	87	0,6
<b>PINOCq-160</b>	160	175	210	231	30	106	0,8

## Dimensioning

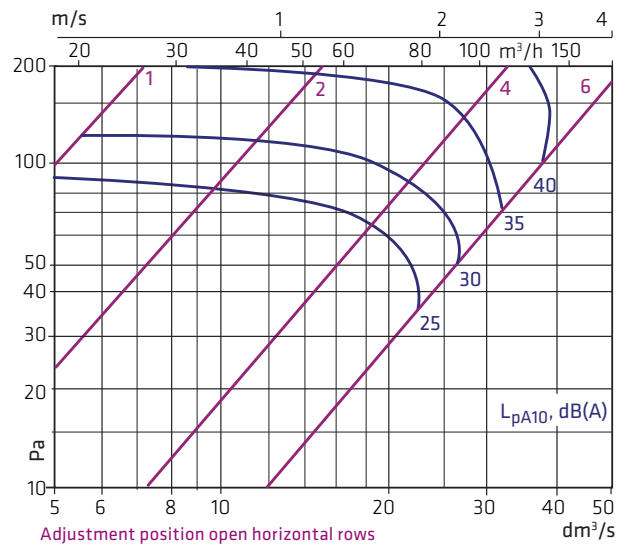
The graphs are not intended for adjustment.

### PINOCr-100



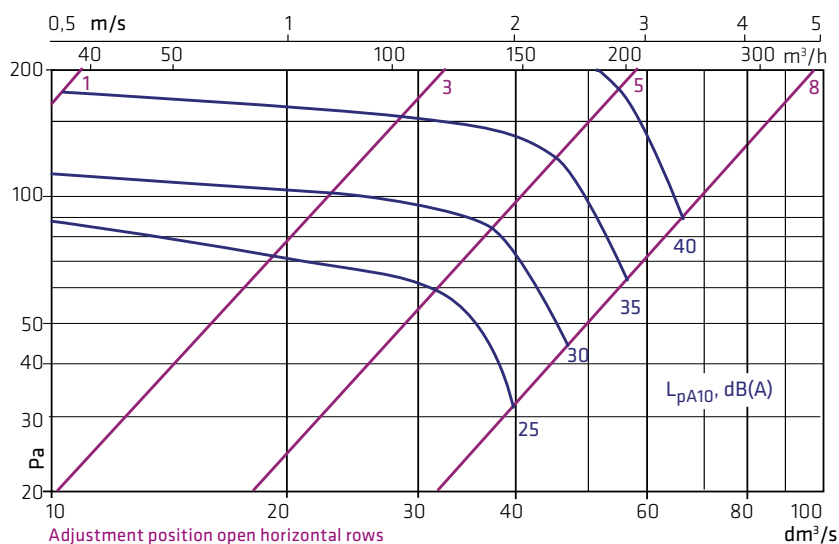
$L_{w\text{okt}} = L_{pA10} + K$									
f, Hz	63	125	250	500	1k	2k	4k	8k	
K, dB	-8	-5	-3	-2	1	-3	-10	-16	
$\Delta L$ (dB)									
f, Hz	63	125	250	500	1k	2k	4k	8k	
$\Delta L$ , dB	22	16	11	7	-1	4	3	4	

### PINOCr-125



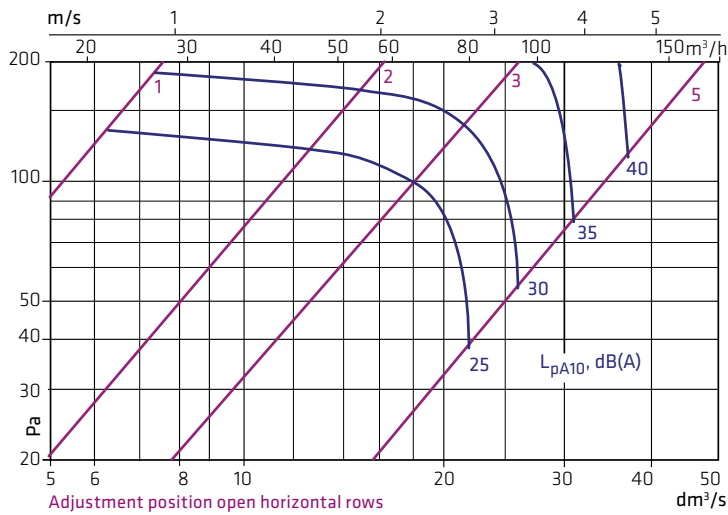
$L_{w\text{okt}} = L_{pA10} + K$									
f, Hz	63	125	250	500	1k	2k	4k	8k	
K, dB	-12	-4	-4	-2	1	-4	-9	-12	
$\Delta L$ (dB)									
f, Hz	63	125	250	500	1k	2k	4k	8k	
$\Delta L$ , dB	19	14	9	3	1	4	3	4	

### PINOCr-160



$L_{w\text{okt}} = L_{pA10} + K$									
f, Hz	63	125	250	500	1k	2k	4k	8k	
K, dB	-9	-3	-2	-1	1	-4	-9	-11	
$\Delta L$ (dB)									
f, Hz	63	125	250	500	1k	2k	4k	8k	
$\Delta L$ , dB	18	12	6	3	2	3	2	4	

### PINOCq-100



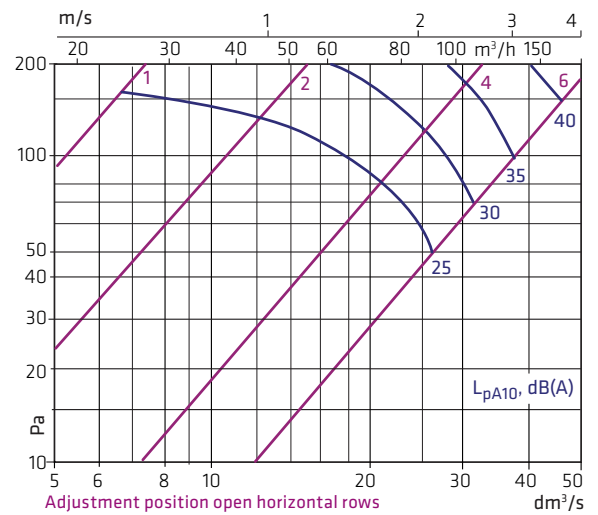
$L_{w_{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-10	-3	-1	-2	0	-3	-8	-9

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	22	16	11	7	-1	4	2	3

### PINOCq-125



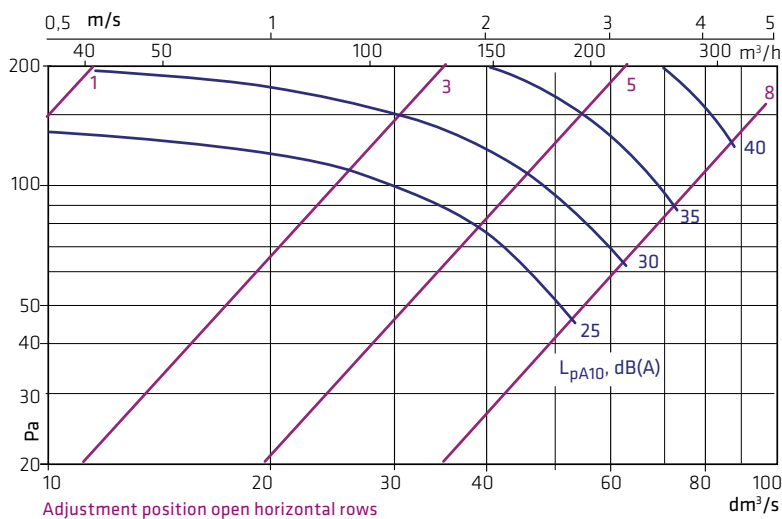
$L_{w_{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-8	-1	-2	-2	1	-4	-9	-10

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	19	14	9	3	2	5	3	3

### PINOCq-160



$L_{w_{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-7	-1	-2	-2	0	-3	-7	-9

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	18	13	7	2	1	4	2	3

### Airborne sound insulation

Sound attenuation for air ducts between rooms  $D_{n,e,w}$  dB

Supply air

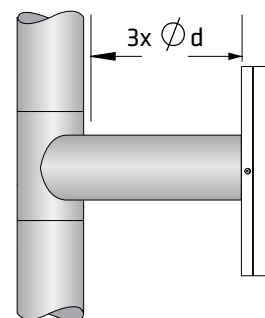
Size	PINOC	PINOC+VAL	PINOC+VAM
100	42	60	62
125	41	60	60
160	41	59	58

VAL is a dampening box with angular air flow.  
VAM is a dampening box with straight-through air flow.

### Sound attenuation

Sound level will increase if cover distance is below  $3 \times \varnothing d$ :

- after bend +4 dB (A)
- after T joint +8 dB (A)

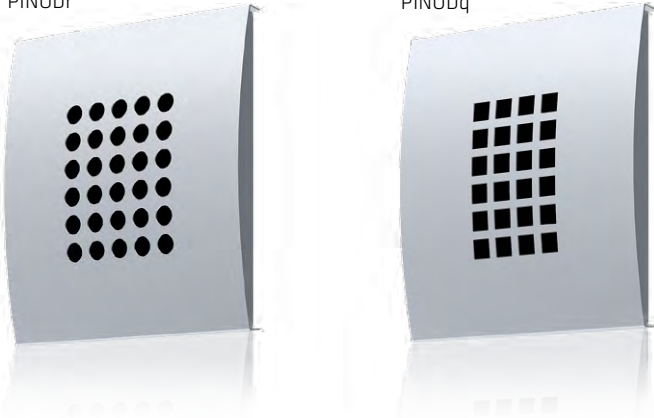


# PINOD

The convexly shaped **PINOD** is a representative of classic Nordic design with clean lines. The silent and easily cleaned PINOD is available with round and square perforation. Reliable measurement combined with quick and precise adjustment.

PINODr

PINODq

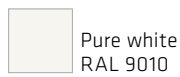


## Colours

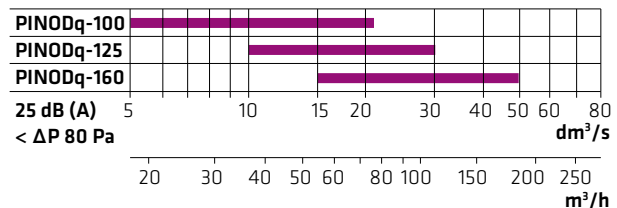
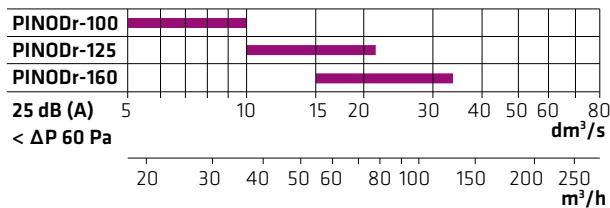
Standard colour:



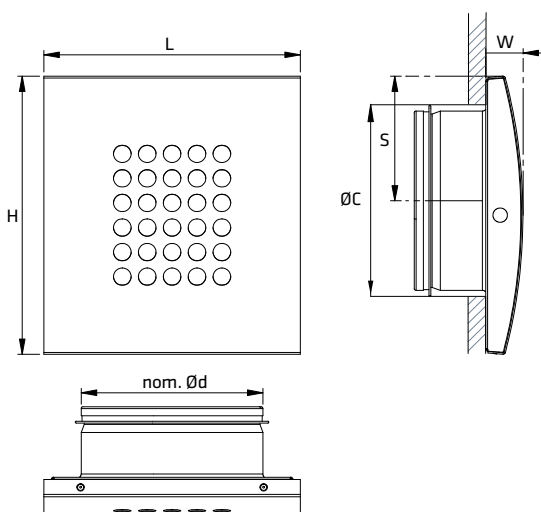
Also available in the following colours:



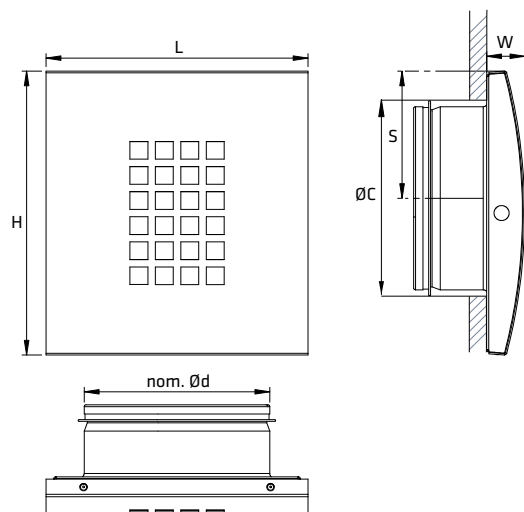
## Quick guide



## Dimensions PINODr



## Dimensions PINODq



Exhaust air vents

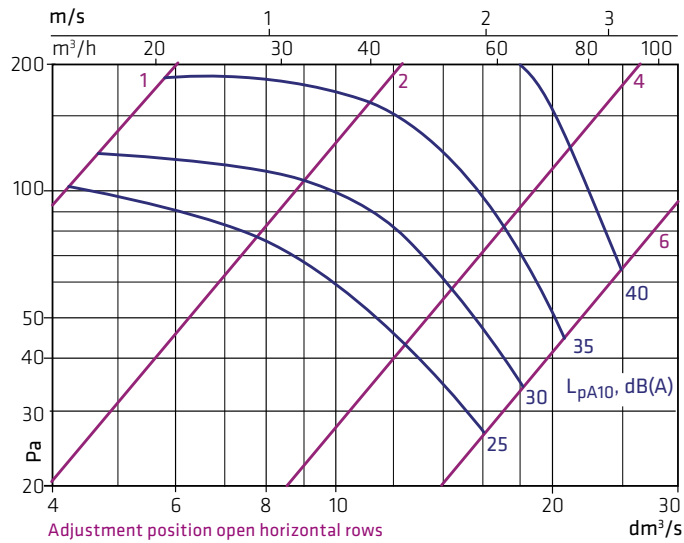
	nom. Ød	ØC	L	H	W	S	kg
<b>PINODr-100</b>	100	115	150	164	20	70	0,5
<b>PINODr-125</b>	125	140	175	192	25	82	0,6
<b>PINODr-160</b>	160	175	210	231	30	99	0,8

	nom. Ød	ØC	L	H	W	S	kg
<b>PINODq-100</b>	100	115	150	164	20	70	0,5
<b>PINODq-125</b>	125	140	175	192	25	82	0,6
<b>PINODq-160</b>	160	175	210	231	30	99	0,8

## Dimensioning

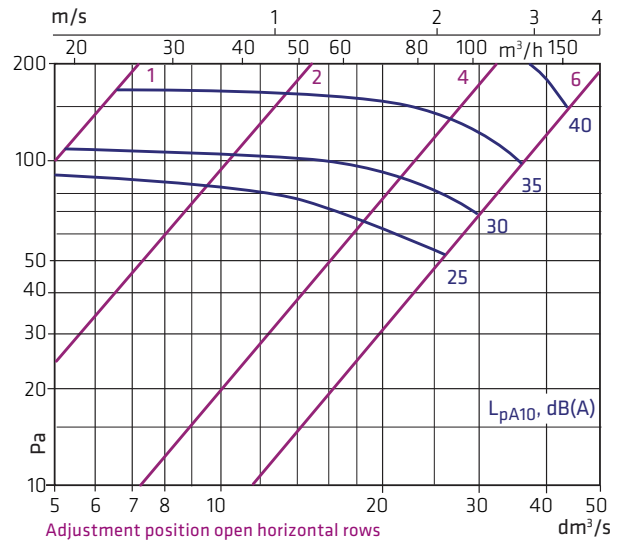
The graphs are not intended for adjustment.

### PINODr-100



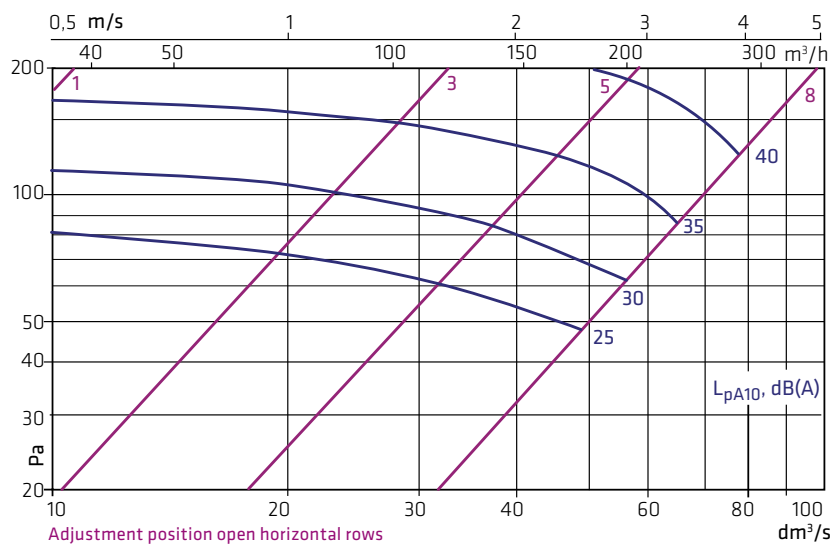
$L_{w\text{okt}} = L_{pA10} + K$								
f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-8	-6	-4	-2	0	-2	-11	-16
$\Delta L$ (dB)								
f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	22	16	11	7	-1	4	2	4

### PINODr-125



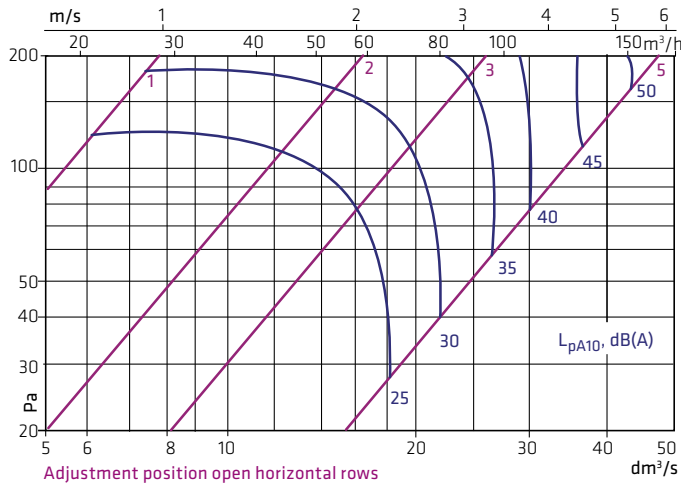
$L_{w\text{okt}} = L_{pA10} + K$								
f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-11	-3	-4	-3	1	-3	-9	-14
$\Delta L$ (dB)								
f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	19	14	9	3	1	5	3	4

### PINODr-160



$L_{w\text{okt}} = L_{pA10} + K$								
f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-10	-2	-2	-2	1	-4	-10	-13
$\Delta L$ (dB)								
f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	18	12	7	3	1	3	2	4

### PINODq-100



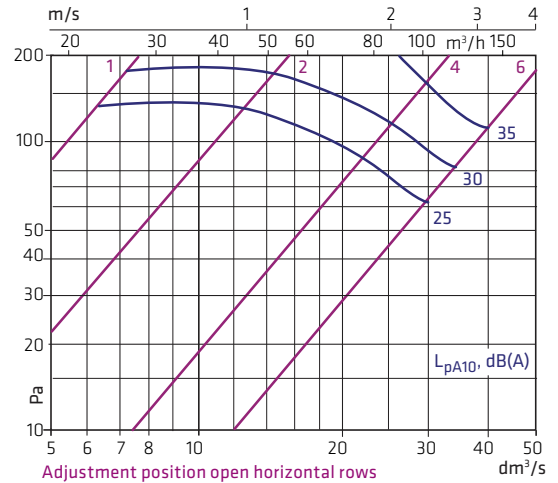
$L_{w\text{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-6	-2	-1	-2	0	-2	-9	-10

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	22	16	11	7	0	5	2	3

### PINODq-125



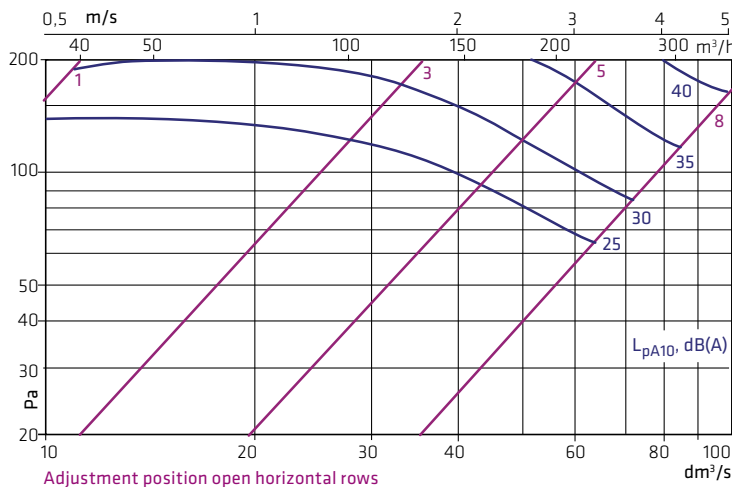
$L_{w\text{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-11	-2	-3	-4	0	-2	-7	-8

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	19	14	9	3	1	6	3	4

### PINODq-160



$L_{w\text{okt}} = L_{pA10} + K$

f, Hz	63	125	250	500	1k	2k	4k	8k
K, dB	-6	-1	-1	-2	0	-3	-7	-10

$\Delta L$  (dB)

f, Hz	63	125	250	500	1k	2k	4k	8k
$\Delta L$ , dB	18	12	6	3	2	4	2	3

### Airborne sound insulation

Sound attenuation for air ducts between rooms  $D_{n,e,w}$  dB

Supply air

Size	PINOD	PINOD+VAL	PINOD+VAM
100	42	60	62
125	41	60	60
160	41	59	58

VAL is a dampening box with angular air flow.

VAM is a dampening box with straight-through air flow.

### Sound attenuation

Sound level will increase if cover distance is below  $3 \times \varnothing$  d:

- after bend +4 dB (A)
- after T joint +8 dB (A)

