

# VAV diffuser

# PCSV/LCSV



## Description

PCSV/LCSV is a circular PCS/LCS type diffuser with integrated motor for supply air of varying volume flow (VAV). The integrated motorized damper ensures a constant throw so the Coanda effect always is maintained. The damper setting can be controlled by a room regulator, BMS or other 2-10 V control signal.

- Can vary the volume flow between 0-100 %
- Pre-set min. and max. volume flow \*)
- Settings can be changed with ZTH-GEN and Belimo PC-tool
- VAV zone pressure must be controlled
- For exhaust PCS / LCS can be used

\*) Settings are made from a pre-defined, available constant pressure in the air duct immediately before the diffuser. The diffuser is typically used at a constant pressure of 30-50 Pa.

## Order code

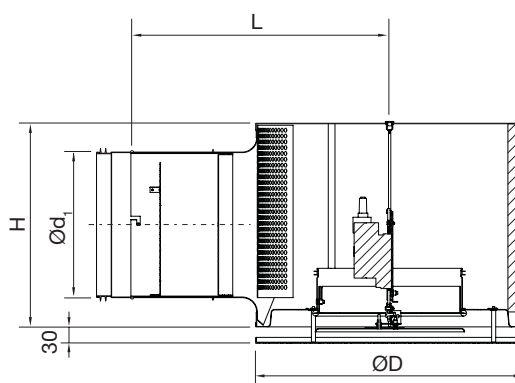
<b>Product</b>	<b>PCSV/LCSV</b>	<b>aaa</b>	<b>bb</b>	<b>cc</b>	<b>dd</b>
<b>Type</b>	PCSV/LCSV				
<b>Dimension</b>	Ø160-315				
<b>Flow settings</b>					
Min. airflow					
Max. airflow					
Pressure					

Example: PCSV-200- 15 l/s - 60 l/s - 40 Pa

PCSV/LCSV is supplied as standard with a 2-10 V modulating motor. Can be supplied with another form of control on request.

## Dimensions

### LCSV / PCSV



PCSV/LCSV					
Ød	ØD	Ød <sub>1</sub>	L	H	Weight ( kg )
mm	mm	mm	mm	mm	(with Motor)
160	300	160	360	260	6.1
200	360	200	390	300	8.4
250	460	250	420	350	11.1
315	540	315	460	420	12.9

## Maintenance

The face plate and damper insert can be removed to enable cleaning of internal parts or to gain access to the duct or box. The visible parts of the diffuser can be wiped with a damp cloth.

## Materials and finish

Material:	Galvanised steel
Standard finish:	Powder-coated
Standard colour:	RAL 9010, gloss 30
Motor:	Manufact. Belimo type LH24A-MF

Other colours are available. Please contact Lindab's sales department for further information.

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## Technical data

Diagrams on this page apply to PCSV / LCSV supply air. For exhaust air and supplementary technical exhaust data, see the section on ceiling diffusers -visible, PCS and LCS.

## Capacity

Max. volume flow  $q_v$  [l/s], [m<sup>3</sup>/h], total pressure drop  $\Delta p_t$  [Pa], throw  $l_{0.2}$  [m] and sound effect level  $L_{WA}$  [dB(A)] can be seen in the diagrams.

## Quick selection

PCSV/ LCSV Ød <sub>1</sub> Size mm	30 Pa			35 Pa			40 Pa		
	q <sub>v</sub> l/s	q <sub>v</sub> m <sup>3</sup> /h	L <sub>WA</sub> dB(A)	q <sub>v</sub> l/s	q <sub>v</sub> m <sup>3</sup> /h	L <sub>WA</sub> dB(A)	q <sub>v</sub> l/s	q <sub>v</sub> m <sup>3</sup> /h	L <sub>WA</sub> dB(A)
160	35	128	28	38	138	31	41	148	33
200	55	199	29	59	215	31	63	230	33
250	91	327	29	98	354	31	105	378	33
315	127	457	32	137	494	34	146	528	36

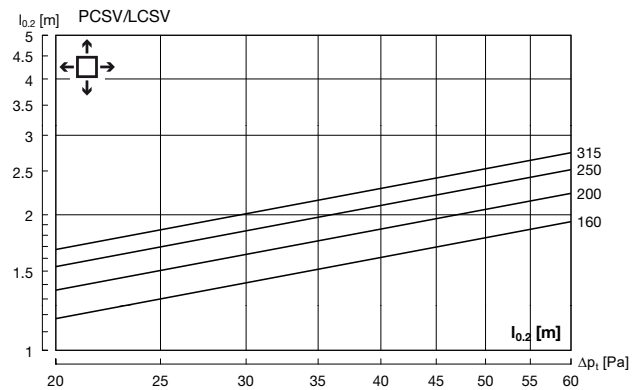
## Sound attenuation

Sound attenuation of the diffuser  $\Delta L$  from duct to room, including end reflection, see table below.

PCSV/LCSV Ød <sub>1</sub>	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
160	15	11	9	21	15	12	13	16
200	12	8	6	15	15	9	11	14
250	19	15	12	17	12	9	11	14
315	16	13	11	14	12	9	12	13

## Throw

The throw is specified at a terminal velocity of 0.2 m/s as a function of the total pressure drop.

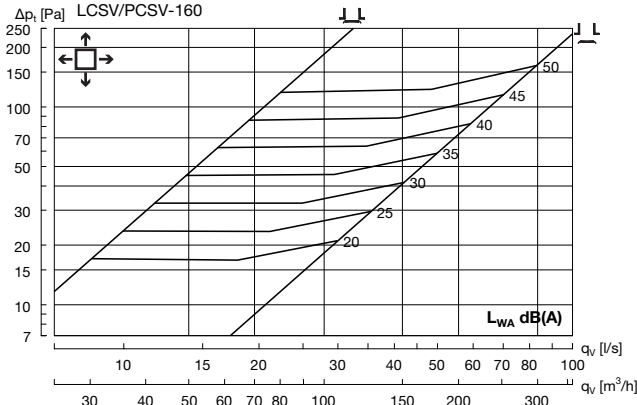


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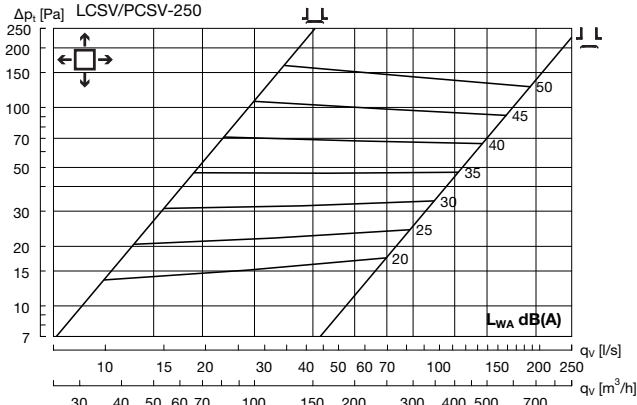
## Technical data

### LCSV / PCSV-160



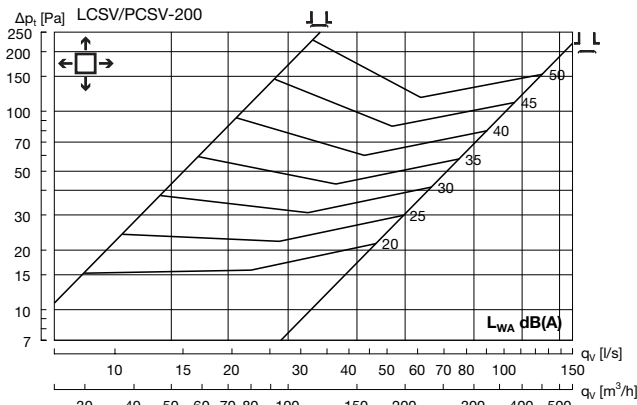
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	0	4	0	-1	-5	-14	-22	-27

### LCSV / PCSV-250



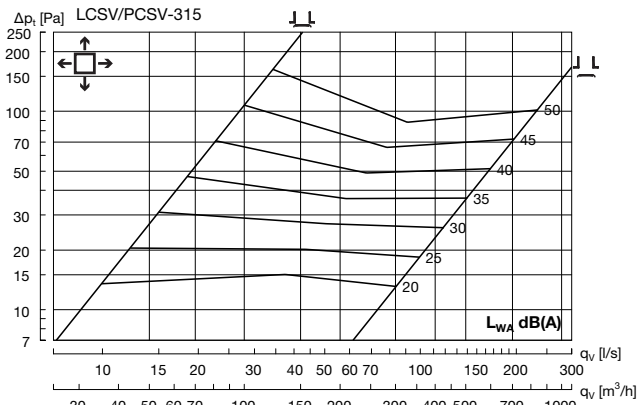
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	2	0	-4	-2	-2	-15	-22	-37

### LCSV / PCSV-200



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	7	3	-1	-1	-4	-13	-23	-28

### LCSV / PCSV-315



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	3	-1	-5	-1	-3	-15	-28	-41