



## LVS



### FOR EXTRACT AIR

Circular disc valves with manually adjustable annular gap

- Nominal sizes 100, 125, 160, 200 mm
- Volume flow rate range 10 - 50 l/s or 36 - 180 m<sup>3</sup>/h
- Diffuser face made of formed sheet steel, powder-coated
- For variable and constant volume flows
- For ceiling and wall installation
- Easy to install
- Volume flow rate balancing by simply turning the valve disc
- Inexpensive solution for small rooms

## General information



### Application

- Disc valves are used as extract air devices in small rooms
- For variable and constant volume flows
- For walls and suspended ceilings

### Special features

- Continuous volume flow rate balancing by turning the valve disc
- Easy to install

### Nominal sizes

- 100, 125, 160, 200

### Parts and characteristics

- Valve disc with threaded spindle and lock nut

- Valve casing including cross bar with orifice for the threaded spindle
- Installation subframe that accommodates the disc valve

#### Materials and surfaces

- Valve casing and valve disc made of sheet steel
- Installation subframe, threaded spindle and lock nut made of galvanised steel
- Foam seal
- Valve casing and valve disc powder-coated, similar to RAL 9010

#### Standards and guidelines

- Sound power level of the air-regenerated noise measured according to EN ISO 5135

#### Maintenance

- Low maintenance as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022

## TECHNICAL INFORMATION

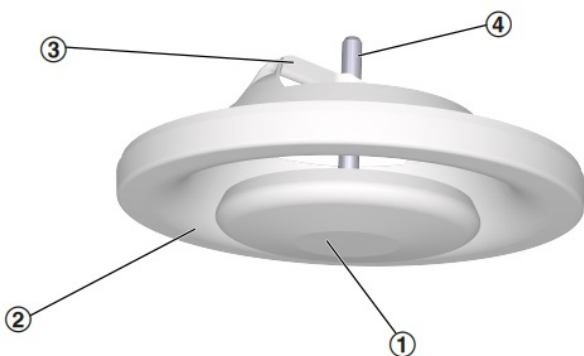
Function, Technical Data, Quick sizing, Specification text, Order code



Extract air valves extract air from rooms and lead it into the extract air part of the air conditioning system.

Type LVS disc valves have a valve disc that can be turned. This simplifies the volume flow rate balancing adjustment during commissioning.

#### Schematic illustration



- ① Valve disc
- ② Valve casing

③ Cross bar

④ Threaded spindle with lock nut

|                                 |   |
|---------------------------------|---|
| <b>Nominal sizes</b>            | 100, 125, 160, 200 mm                     |
| <b>Minimum volume flow rate</b> | 10 – 25 l/s or 36 – 90 m <sup>3</sup> /h  |
| <b>Maximum volume flow rate</b> | 25 – 50 l/s or 90 – 180 m <sup>3</sup> /h |

Quick sizing tables provide a good overview of the volume flow rates and corresponding sound power levels and differential pressures.

LVS/100, LVS/125, sound power level and total differential pressure

| NS  |                      |                                    | Airway width = 5 mm |             | Airway width = 0 mm |             | Airway width = -5 mm |             |
|-----|----------------------|------------------------------------|---------------------|-------------|---------------------|-------------|----------------------|-------------|
|     | q <sub>v</sub> [l/s] | q <sub>v</sub> [m <sup>3</sup> /h] | Δpt [Pa]            | LWA [dB(A)] | Δpt [Pa]            | LWA [dB(A)] | Δpt [Pa]             | LWA [dB(A)] |
| 100 | 10                   | 36                                 | 8                   | <15         | 14                  | <15         | 30                   | 16          |
| 100 | 15                   | 54                                 | 19                  | <15         | 32                  | 19          | 67                   | 26          |
| 100 | 20                   | 72                                 | 33                  | 22          | 56                  | 27          | 119                  | 33          |
| 100 | 25                   | 90                                 | 52                  | 28          | 88                  | 32          | 186                  | 39          |
| 125 | 15                   | 54                                 | 9                   | <15         | 13                  | <15         | 22                   | <15         |
| 125 | 20                   | 72                                 | 15                  | <15         | 23                  | <15         | 40                   | 19          |
| 125 | 25                   | 90                                 | 24                  | <15         | 36                  | 18          | 62                   | 24          |
| 125 | 30                   | 108                                | 35                  | 18          | 52                  | 23          | 90                   | 29          |

LVS/160, sound power level and total differential pressure

| NS  |                      |                                    | Airway width = 5 mm |             | Airway width = -5 mm |             | Airway width = -10 mm |             |
|-----|----------------------|------------------------------------|---------------------|-------------|----------------------|-------------|-----------------------|-------------|
|     | q <sub>v</sub> [l/s] | q <sub>v</sub> [m <sup>3</sup> /h] | Δpt [Pa]            | LWA [dB(A)] | Δpt [Pa]             | LWA [dB(A)] | Δpt [Pa]              | LWA [dB(A)] |
| 160 | 20                   | 72                                 | 9                   | <15         | 24                   | <15         | 43                    | 17          |
| 160 | 25                   | 90                                 | 14                  | <15         | 38                   | 18          | 67                    | 24          |
| 160 | 30                   | 108                                | 20                  | <15         | 55                   | 23          | 96                    | 29          |
| 160 | 35                   | 126                                | 27                  | 16          | 75                   | 27          | 131                   | 34          |

LVS/200, sound power level and total differential pressure

| NS  |                      |                                    | Airway width = 5 mm |             | Airway width = -5 mm |             | Airway width = -15 mm |             |
|-----|----------------------|------------------------------------|---------------------|-------------|----------------------|-------------|-----------------------|-------------|
|     | q <sub>v</sub> [l/s] | q <sub>v</sub> [m <sup>3</sup> /h] | Δpt [Pa]            | LWA [dB(A)] | Δpt [Pa]             | LWA [dB(A)] | Δpt [Pa]              | LWA [dB(A)] |
| 200 | 25                   | 90                                 | 4                   | <15         | 9                    | <15         | 21                    | <15         |
| 200 | 35                   | 126                                | 9                   | <15         | 17                   | <15         | 41                    | 20          |
| 200 | 45                   | 162                                | 14                  | <15         | 28                   | 16          | 68                    | 27          |
| 200 | 50                   | 180                                | 18                  | <15         | 34                   | 19          | 84                    | 30          |

### Sizing example Given data

q<sub>v</sub> = 25 l/s (90 m<sup>3</sup>/h)  
Extract air valve  
Maximum sound power level 30 dB(A)

### Quick sizing

Type LVS  
Selectable nominal sizes: 125, 160, 200  
Selected: LVS/125

### Specification text

Circular disc valves as extract air devices, preferably for small rooms. For installation into walls and suspended ceilings. Ready-to-install component which consists of a valve casing with cross bar, a valve disc with threaded spindle, and an installation subframe. The valve disc can be turned for volume flow rate balancing. The valve setting can be fixed with a lock nut. Spigots are suitable for ducting according to EN 1506 or EN 13180. Sound power level of the air-regenerated noise measured according to EN ISO 5135.

### Special features

- Continuous volume flow rate balancing by turning the valve disc
- Easy to install

### Materials and surfaces

- Valve casing and valve disc made of sheet steel
- Installation subframe, threaded spindle and lock nut made of galvanised steel
- Foam seal
- Valve casing and valve disc powder-coated, similar to RAL 9010

### Technical data

- Nominal sizes: 100, 125, 160, 200 mm
- Minimum volume flow rate: 10 – 25 l/s or 36 – 90 m<sup>3</sup>/h
- Maximum volume flow rate: 25 to 50 l/s or 90 to 180 m<sup>3</sup>/h

### Sizing data

- Volume flow rate  $q_v$  [m<sup>3</sup>/h] (information required for sizing)

|            |   |            |
|------------|---|------------|
| <b>LVS</b> | / | <b>160</b> |
|            |   |            |
| <b>1</b>   |   | <b>2</b>   |

1 TypeLVS Disc valve 2 Nominal size [mm]100, 125, 160, 200

Order example: LVS/160

Nominal size 160

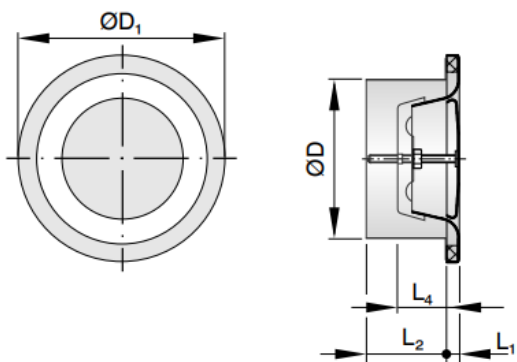
## Dimensions



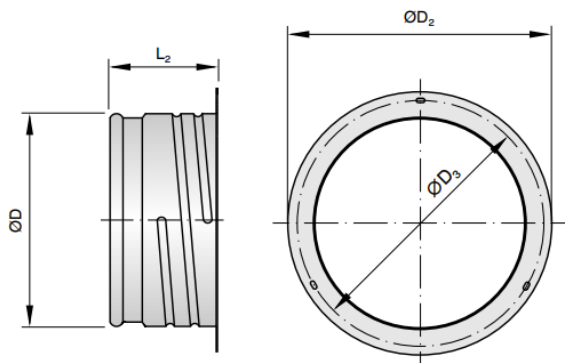
| NS  | ØD <sub>2</sub> | L <sub>1</sub> | L <sub>2</sub> | L <sub>4</sub> | ØD  | ØD <sub>2</sub> | ØD <sub>3</sub> | m    |
|-----|-----------------|----------------|----------------|----------------|-----|-----------------|-----------------|------|
|     | mm              | mm             | mm             | mm             | mm  | mm              | mm              | kg   |
| 100 | 132             | 8              | 50             | 32             | 99  | 122             | 114             | 0.2  |
| 125 | 162             | 9              | 50             | 38             | 124 | 148             | 140             | 0.29 |
| 160 | 192             | 10             | 50             | 43             | 159 | 184             | 176             | 0.44 |
| 200 | 245             | 11             | 50             | 52             | 199 | 225             | 217             | 0.59 |

LVS

LVS



Installation subframe for LVS and Z-LVS



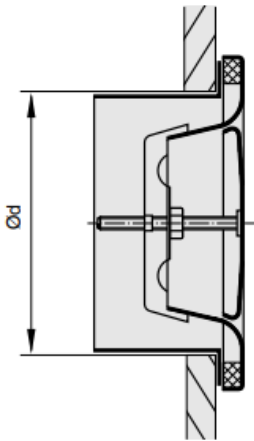
### Installation and commissioning

- Installation flush with the wall or ceiling
  - Perform volume flow rate balancing by turning the valve disc, then tighten the lock nut to fix the valve disc in the required position
- These are only schematic diagrams to illustrate installation details.

### Installation opening

| NS  | Ød<br>mm |
|-----|----------|
| 100 | 104      |
| 125 | 129      |
| 160 | 164      |
| 200 | 204      |

### Installation flush with the wall or ceiling, with installation subframe



### Setting range

