



## VVOS

### Variable-volume unit Round Single-walled and double-walled LUKA D/ATC 2

#### Available types

#### VVOSM--

- V volume unit
- V variable volume
- O round version
- S Safe version
- M eXavol measuring instrument

#### - Version

- O single-walled
- D double-walled

#### - Belimo control equipment

- S compact MP (standard)
- T compact MOD (also suitable for BACnet MS/TP)
- K compact KNX
- V universal VRU (if fast running motor is desired)

For more specific information about the aforementioned Belimo control equipment please refer to the annex [VAV actuators](#).

#### SA-Select

[Check SA-Select](#) to create extended order codes and selection details online. **NB!** At this moment, SA-Select is only available in Dutch. But it is possible to create extended order codes and selection details online.

#### Use

The variable-volume unit type VVOS is suitable for room-temperature control and air-quality control in low, mid and high-pressure systems. The units are suitable for supply air and discharge air.

#### Characteristics

- Nominal volume range up to 26 t/m 4464 m<sup>3</sup>/h.
- Minimum air velocity 1 m/s.
- High control accuracy.
- Available in seven model sizes.
- Independent of inlet pressure.
- Extremely low internal resistance.
- Diagonally integrated measuring instrument.
- Airtightness class LUKA D/ ATC 2.
- Damper blade seal: airtight class 4 in accordance with EN 1751.

#### Finish

Housing and damper blade: sendzimir galvanised steel sheet

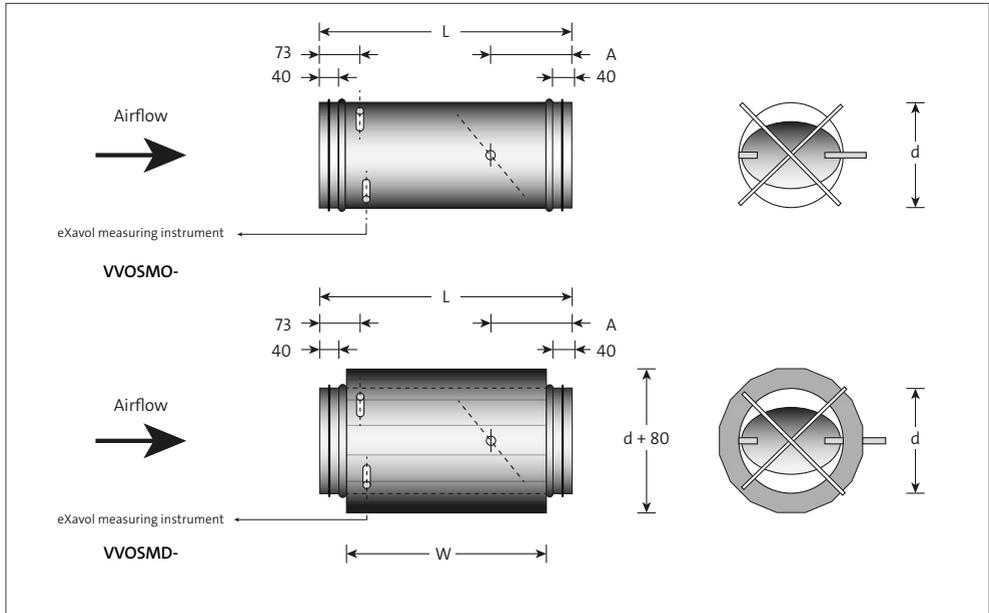
Round connection: in accordance with EN 1506 and EN 13180

#### Control equipment

Solid Air has Belimo as its own brand for combining variable volume controls with intelligent servo motors. Our variable volume control comes factory calibrated with a control accuracy of approximately 3 %. For more specific information about adjusting your VAV system, please refer to the appendix [Commissioning variable volume system](#).

If required, other makes can be used. This would be subject to other prices than those included in this catalogue. Information is available on request.

## Dimensions



### Available dimensions

model	A	B	L	d	weight single-walled	weight double-walled
100	85	245	350	99	1.8	2.0
125	95	245	350	124	1.8	2.0
160	95	245	350	159	2.3	2.5
200	112	295	400	199	2.8	3.0
250	136	295	400	249	2.8	3.0
315	170	395	500	314	4.3	4.5
400	215	495	600	399	4.8	5.0

### Note

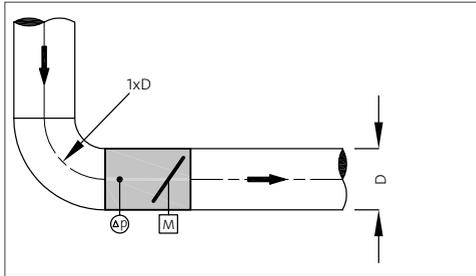
- The listed dimensions are in mm, the listed weights are (including Belimo compact controller) in kg.
- Take account of attenuation in case of a high pressure loss. We recommend placing a silencer behind the volume control. Click here for [technical documentation](#).
- Factory setting of damper blade direction:  
CCW: open  
CW: closed

## Fitting

Variable-volume unit type VVOS are insensitive to the mounting position and are particularly accurate. The disruption of the flow due to bends and/or canal branches must be taken into account. Disruption of the ideal flow can lead to reduced control accuracy to approx. 15 %.

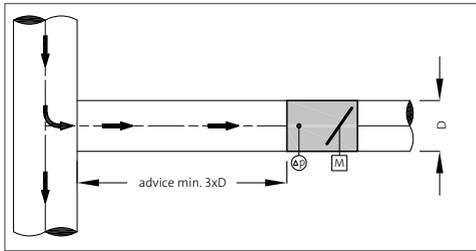
## Bend

Placing a VAV controller immediately after a 1xD bend often has no significant impact on control accuracy.



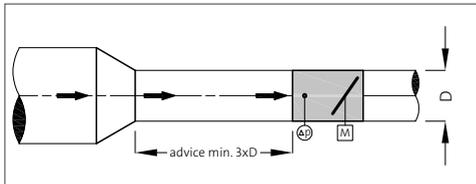
## Main channel branch

When branching off the main channel, the advice is to use at least 3 x D straight flow.



## Conduct for the unit

When using conducts in the connecting channel, the advice is to maintain at least 3xD straight flow for the volume unit in the size of the volume unit.



## Selection details

model	volume flow in m <sup>3</sup> /h at air velocity									
	1 m/s	2 m/s	3 m/s	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9 m/s	10 m/s (Qv nom)
100	26	53	79	106	132	158	185	211	238	264
125	42	84	126	168	211	253	295	337	379	421
160	69	138	207	276	346	415	484	553	622	691
200	109	218	328	437	546	655	764	874	983	1092
250	172	344	515	687	859	1031	1203	1374	1546	1718
315	275	549	824	1099	1374	1648	1923	2198	2472	2747
400	446	893	1339	1786	2232	2678	3125	3571	4018	4464

- The preferred area for maximum volum flow.
- We recommend a minimum volume flow according to a channel speed of 1 m/s (take into account reduced control accuracy at even lower air velocities).