



## Optima-R-I

Double skin circular variable air volume unit

### Highlights:

- Damper tightness class 4 according to EN 1751
- Casing tightness class C according to EN 1751
- ILH Hygienic certification VDI 6022 & VDI 3803 for Standard Ventilation & Clean room application
- High measuring accuracy of 5%
- Air volume range of 36 to 14589 m<sup>3</sup>/h
- Operating range of up to 1500Pa
- External 50mm insulation with sheet steel cover

### Function

Double skin circular VAV terminal units are commonly used for supply or return air applications at medium to high system pressures. Terminal units are ideal for single zone control with supply and return in master and slave setup such as offices, hotel rooms or meeting rooms where the required cooling and heating load will vary on demand.

### Design

VAV unit housing is constructed from galvanized steel sheet with external thermal insulation of fiber glass material. The insulation is once again covered by a secondary galvanized sheet steel to protect the insulation and to add to the low frequency sound radiated in high pressure systems. Special design of multi-point pressure sensor assures an accurate air flow readings even in difficult installations.

### Available Sizes

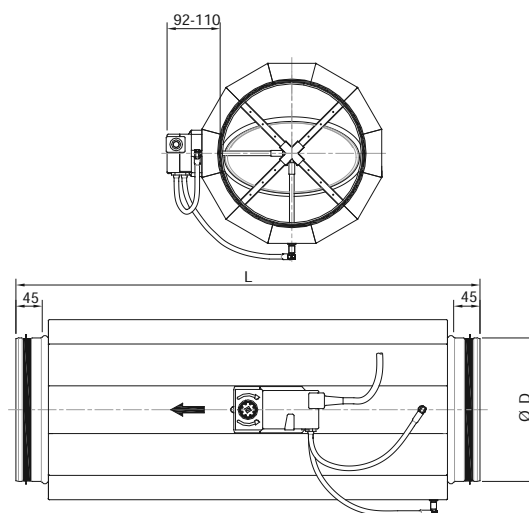
Inlet/outlet : from Ø 80 to Ø 630 mm

### Controls:

The VAV terminal units are as standard equipped with BLC (Belimo compact) controllers (LMV-D3 or NMV-D3) without any MP or LON communication capability to be used as stand alone or in master and slave setting.

The compact controllers are equally available with MP-Bus, ModBus and LON communication capability. On demand as alternative, Gateway communication units can be provided and can be connected later in time to building management systems to create a zone control by creating bus-rings solutions (only possible if MP-Bus communication is installed).

### Dimensions

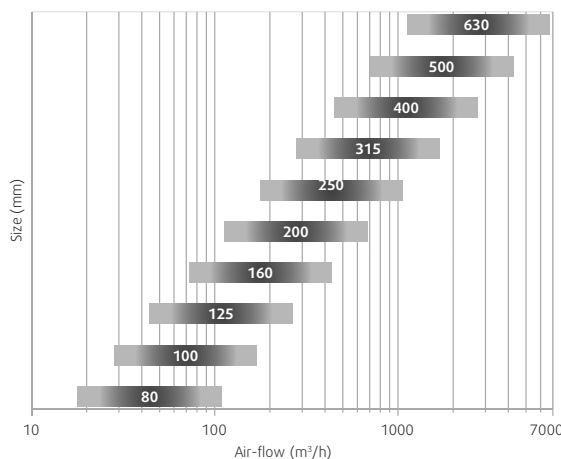


VAV and Compact controllers are factory calibrated as standard to the air volume indicated in the table or upon request can be adjusted to site required settings prior to dispatch on Vmin and Vmax range. The air volumes can also be readjusted on site with ZTH-Gen hand held service tool. If specific air volumes for Vmin and Vmax would be required, this must be indicated prior to order of the units for adequate calibration in the factory.

BLC1= Belimo LMV-D3 compact controller WITH MP-Bus communication

BLC4= Belimo LMV-D3 compact controller WITHOUT MP-Bus communication

BLC1-MOD= Belimo LMV-D3 compact controller WITH MODBUS communication



## Dimensions and Air Volume range

Code	Size	Ø D (mm)	L (mm)	Air volume *(m³/h)		Air volume *(l/s)	
				V <sub>min</sub>	V <sub>max</sub>	V <sub>min</sub>	V <sub>max</sub>
Optim-R-I-08-BLC_	80	78	400	36	235	10	65
Optim-R-I-10-BLC_	100	98	400	57	368	16	102
Optim-R-I-12-BLC_	125	123	400	88	574	25	160
Optim-R-I-16-BLC_	160	158	400	145	941	40	261
Optim-R-I-20-BLC_	200	198	600	226	1470	63	408
Optim-R-I-25-BLC_	250	248	800	353	2297	98	638
Optim-R-I-31-BLC_	315	313	800	561	3647	156	1013
Optim-R-I-40-BLC_	400	398	800	905	5881	251	1634
Optim-R-I-50-BLC_	500	498	1000	1414	9189	393	2553
Optim-R-I-63-BLC_	630	623	1000	2244	14589	623	4052

\* Note = Standard factory air volume setting if not indicated upon order

## Ordering codes

Optima - Type - Size- Controller Type - V<sub>min</sub> - V<sub>max</sub>

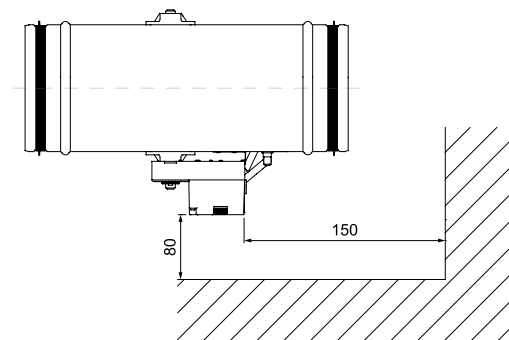
Type R-I

Code 08 to 63  
(ØD-80 to ØD-630mm)

BLC4  
BLC1  
BLC1-MOD

m³/h or l/s\*

m³/h or l/s\*



Optima-R-I-BLC\_ installation

### \* Note:

1. If the air volumes are not given during the ordering process, then standard Factory setting will be applied according to table
2. Vmin can also be set to 0m³/h if required by demand upon ordering
3. The standard input signal on the controller is set to 2-10V, upon request 0-10V can also be selected

### Ordering example:

OPTIMA-R-I-25-353(m³/h)-2297(m³/h)-BLC4

The above order example is set for V<sub>min</sub> and V<sub>max</sub> air volume setting for Ø250 with Belimo compact controller having NO communication capability.

Air flow direction

