



VCIR

Constant-volume units

Mechanical control

Adjustable volume flow

Use

The mechanical constant-volume unit type VCIR serves to keep a constant set volume flow, independent of inlet pressure and without an external energy supply. The unit compensates a change to the inlet pressure in the preferred range with an accuracy of approximately 10%. For selections outside the preferred range, the deviations may be greater. The units are suitable for supply air and discharge air.

Characteristics

- Volume range up 15-700 m^3/h
- Pressure range of 50-250 Pa.
- Flame-retardant plastic: fire class M1.
- Can be fitted in a round duct, fixed with rubber seal.
- Maximum operating temperature: 60 °C

Finish

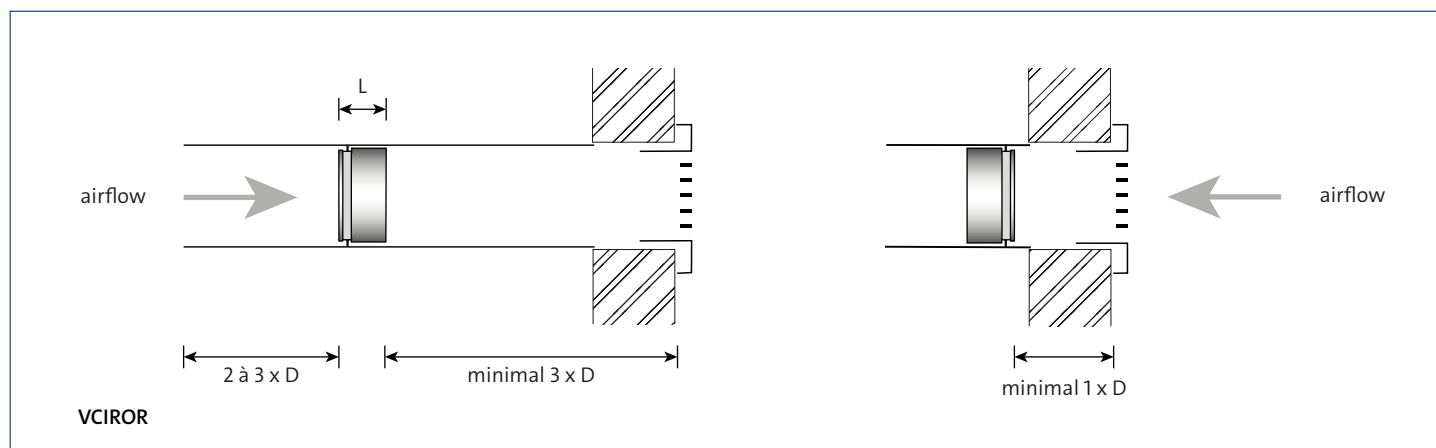
housing and
damper blade: flame-retardant plastic
spring mechanism: stainless steel
connection: rubber seal

Available types

VCIROR

- V** volume unit
- C** constant volume
- I** adjustable
- R** round version
- O** none
- R** rubber seal

Dimensions



Available dimensions

model	L	d
80	55	79
100	70	99
125	86	124
160	91	159
200	91	199
250	120	249

Comment

- The listed dimensions are in mm.

Fitting

Constant-volume units type VCIR can be fitted horizontally or vertically. In case of horizontal fitting, the text "BAS" should be horizontal, or at the bottom in other words.

The flow direction is marked on the unit. We advise to have a straight supply to the unit over a length of twice to three times the diameter. For supply diffusers, we recommend at least three times the diameter in a straight flow between the unit and the diffuser. For return diffusers, we recommend once the diameter as the minimum distance between the diffuser and the unit. The internal housing can be removed. Mark the outside of the air duct to determine the position of the unit.

Authority

To guarantee the accuracy of the unit, the pressure drop over the damper blade should at least equal the pressure drop of the section with fittings behind it.

General

The VCIR cannot be put in a closed position.

Selection details

Available versions

model	setting range	step
	m ³ /h	m ³ /h
80	15-50	2.5
100	15-50	2.5
100	50-100	5
125	15-50	2.5
125	50-100	5
125	100-180	5
160	50-100	5
160	100-180	5
160	180-300	5
200	100-180	5
200	180-300	5
200	300-500	10
250	180-300	5
250	300-500	10
250	500-700	25

Sound power in dB(A)

m ³ /h	L _w dB (A)			
	50 Pa	100 Pa	150 Pa	200 Pa
15	25	29	32	35
30	26	31	35	38
45	27	33	36	39
50	32	37	39	42
60	32	37	39	42
75	32	37	40	42
90	32	38	41	44
100	33	39	42	45
120	30	37	39	42
150	33	37	41	45
180	34	40	44	47
210	34	40	42	44
240	35	41	44	47
270	37	43	45	49
300	33	37	42	45
350	35	40	44	47
400	37	42	45	50
450	38	44	46	51
500	39	46	48	53

is preferred range

General

The standard setting for the air volume is the maximum value of the setting range.

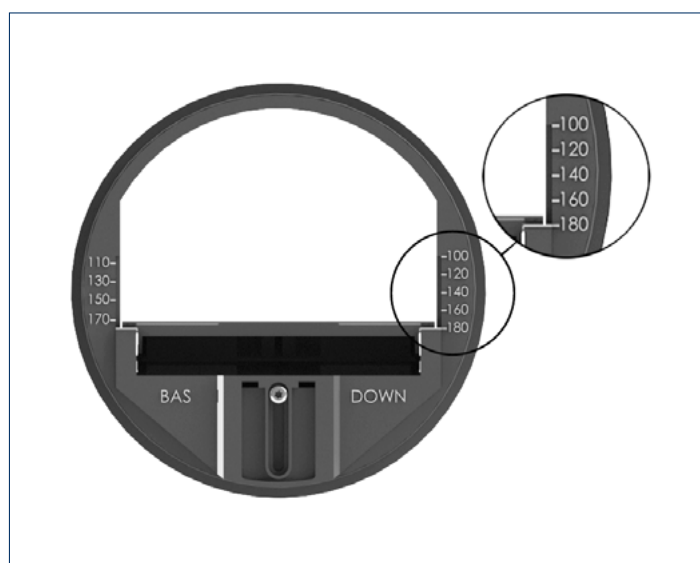
Under L_w, the selection tables give the sound-power level in dB(A) with the given pressure loss (in Pa) over the unit.

NB: the L_w values are measured with a duct ending in the clearance including end reflection. For high noise requirements (< 25 dB(A)), hard rooms, light walls, please consult an acoustic adviser.

NB: the available pressure drop over the unit should be at least 50 Pa.

Setting

Setting with a torx 10 wrench.



Order and options codes

VCIROR model 200 suitable for air volumes of 100 to 180 m³/h.

model	setting range V _{min} -V _{max}
200	100-180