RDR

CAV Controller

systemair

Table of Contents

Description

RDR is a constant air volume flow controller with mechanical type of operation (no need for auxiliary energy or actuation). It is intended to control the constant air flow independently of the duct air pressure in the range of 50 Pa to 250 Pa. The constant air flow value can be set by a shifting dial within a range dependent on the size and configuration of the product. The cartridge type casing fits into the circular ducts of 80 mm up to 250 mm in diameter. Foreseen usage in residential premises, offices etc.

Highlights

- Easy adjustment
- Simple and quick installation
- Available from 80 mm to 250 mm
- Self-adjusting with high precision

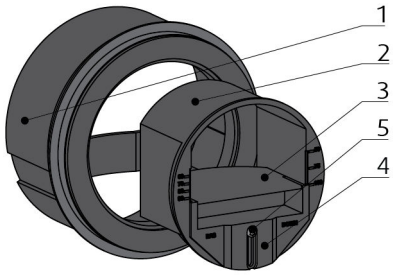
Design

RDR is a cartridge type controller for insertion into the circular duct. The flow control part is made from polymer material. The casing material on nominal sizes of ø 80 mm to ø 125 mm is polymer, on nominal sizes of ø 150 mm to ø 250 mm is galvanized steel. A rubber gasket on the casing secures air-tight and stable installation in the duct.

The air flow volume is controlled by the system composed from a dynamic pressure reactive damper, a calibrated spring and an adjustment mechanism with a position arresting screw.

The controller can operate in horizontal and in vertical installation position.

Product Parts

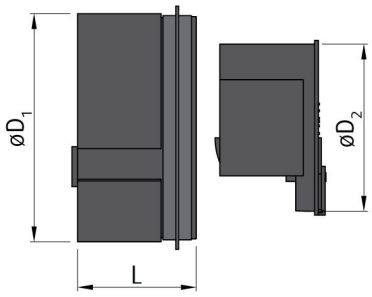


Components of RDR

Legend

1 Sleeve with lip seal
2 Shim (according to the airflow)
3 Regulator casing
4 Piece of regulation
5 Air flow setting and fixing screw

Dimensions



øD	D_1	D_2	L
	mm		
80	76	76	55
100	96	93	70
125	120	117	86
150	145	148	91
160	145	148	91
200	190	195	91
250	235	245	120

Ordering Codes

RDR - Size øD - Air flow range Vmin - Vmax

øD	80	100		125			150				160				200			250		
V_{min} - V_{max} (m³/h)	15-50	15-50	50-100	15-50	50-100	100-180	15-50	50-100	100-180	180-300	15-50	50-100	100-180	180-300	100-180	180-300	300-500	180-300	300-500	450-800

Example of the Ordering Code

RDR-125/50-100

Constant air volume controller with øD size 125 and air flow range adjustable from 50 m³/h to 100 m³/h

Technical Parameters

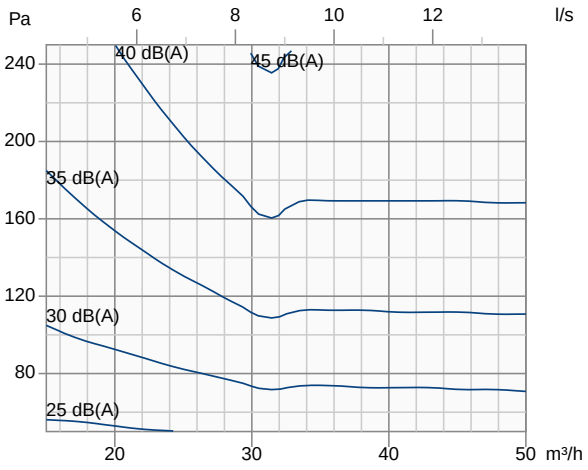
Legends

P_s	Pa	Pressure drop
q_v	m^3/h, l/s	Air flow volume
L_{WA}	dB(A)	A-weighted total radiated sound power level
L_{pA}	dB(A)	A-weighted total sound pressure level expressed for 10 m2 room absorption area
L_W	dB	Non weighted total sound power level

A-weighted total sound power level L_{WA} and non-weighted octave band sound power level L_W dependent on air flow q_v and pressure drop P_s

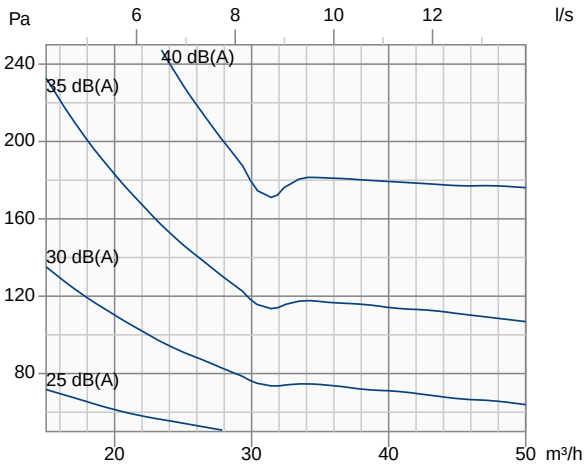
RDR-80/15-50

Pressure drop & sound power level (A-weighted)



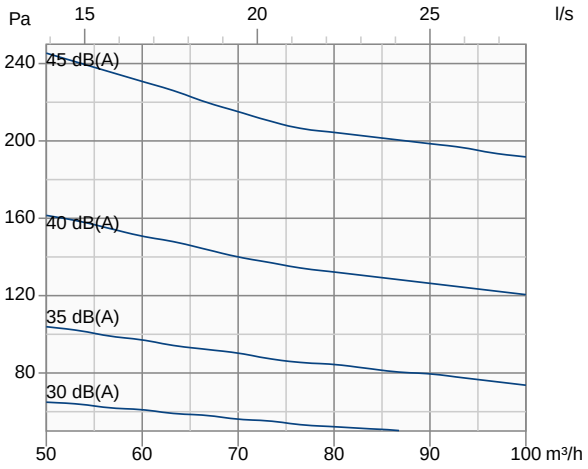
RDR-100/15-50

Pressure drop & sound power level (A-weighted)



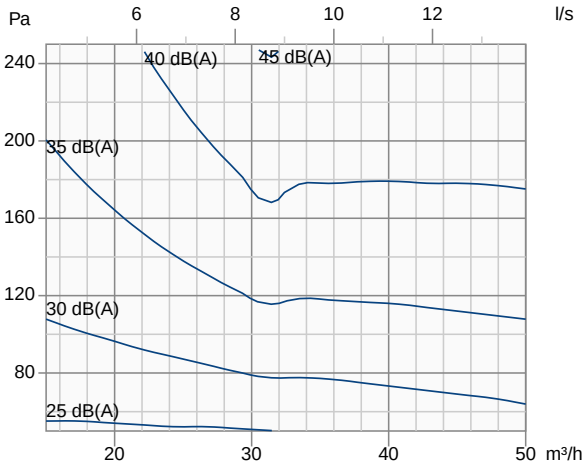
RDR-100/50-100

Pressure drop & sound power level (A-weighted)



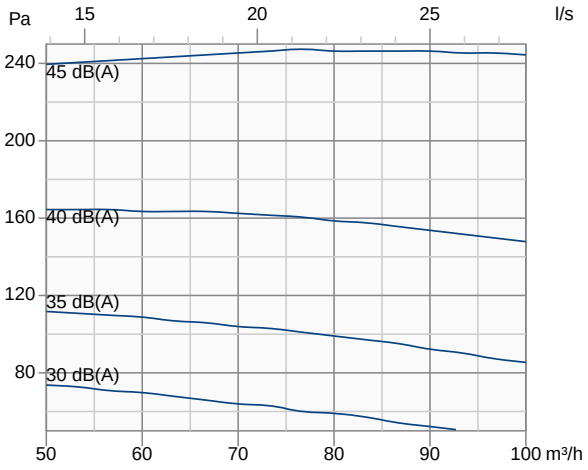
RDR-125/15-50

Pressure drop & sound power level (A-weighted)



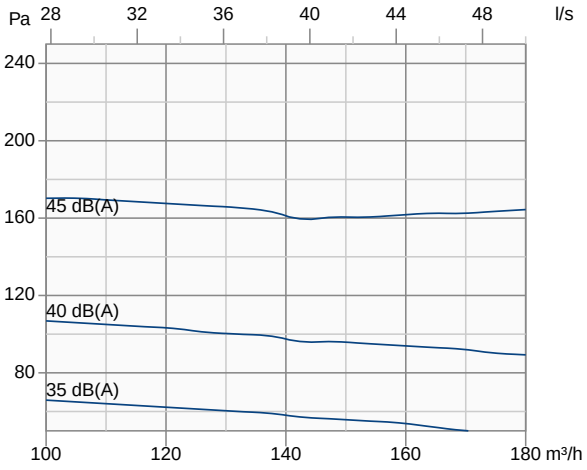
RDR-125/50-100

Pressure drop & sound power level (A-weighted)



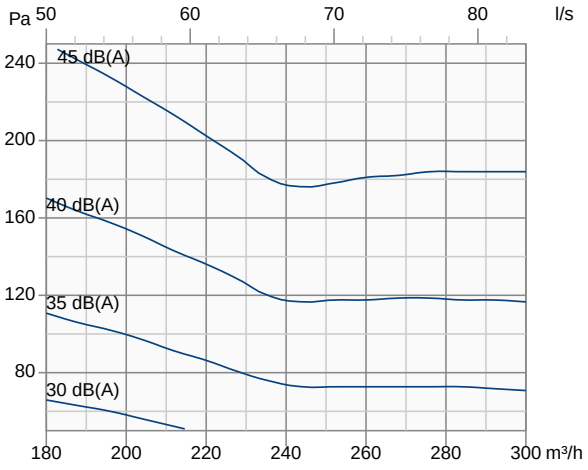
RDR-125/100-180

Pressure drop & sound power level (A-weighted)



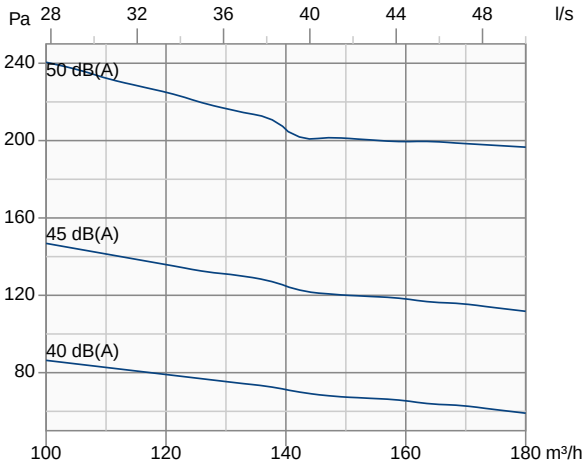
RDR-150/50-100

Pressure drop & sound power level (A-weighted)



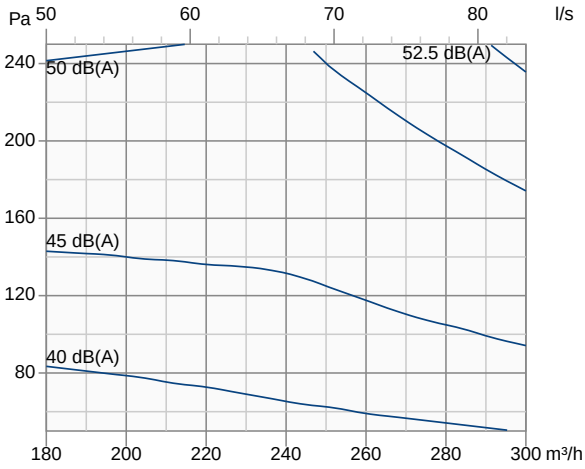
RDR-150/100-180

Pressure drop & sound power level (A-weighted)



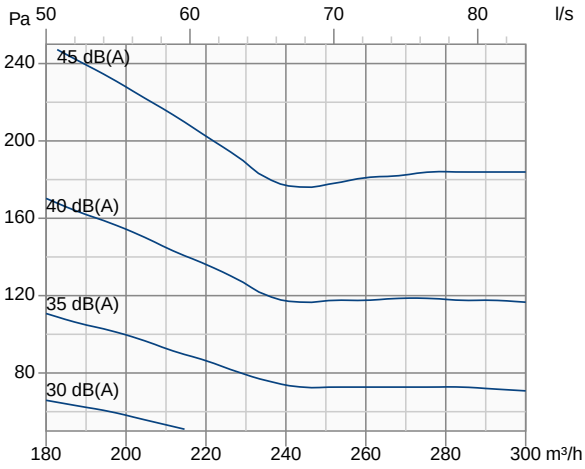
RDR-150/180-300

Pressure drop & sound power level (A-weighted)



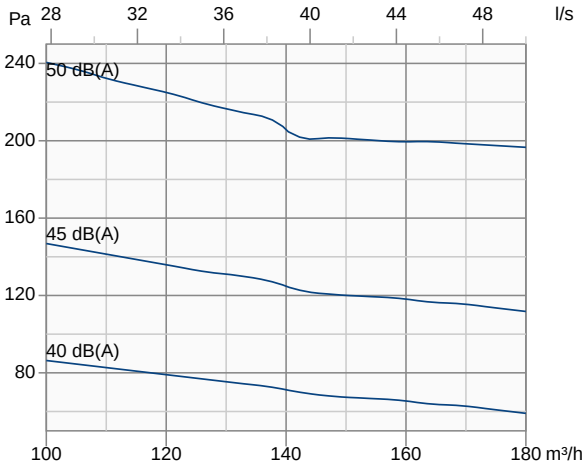
RDR-160/50-100

Pressure drop & sound power level (A-weighted)



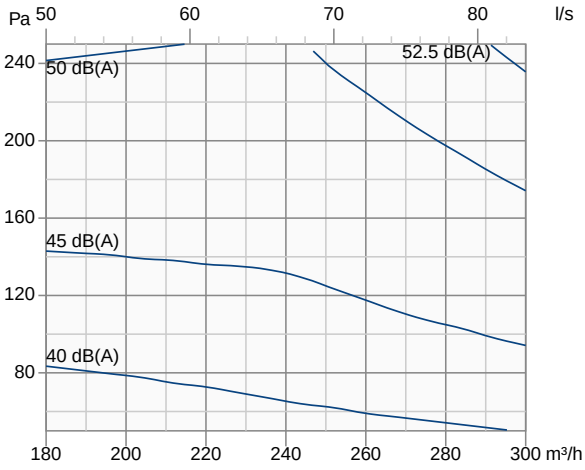
RDR-160/100-180

Pressure drop & sound power level (A-weighted)



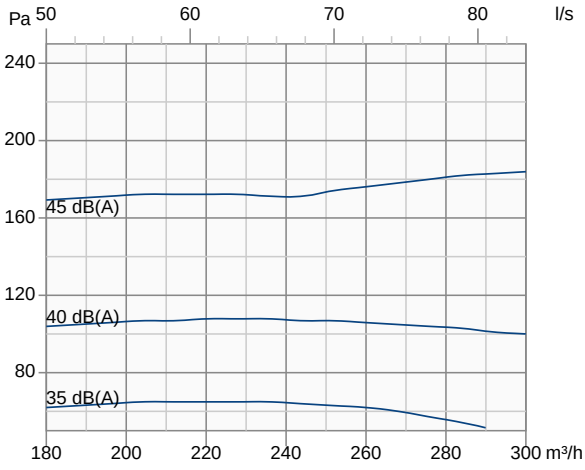
RDR-160/180-300

Pressure drop & sound power level (A-weighted)



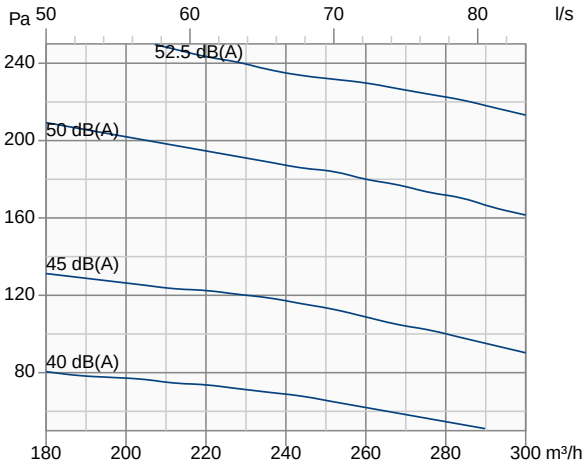
RDR-200/100-180

Pressure drop & sound power level (A-weighted)



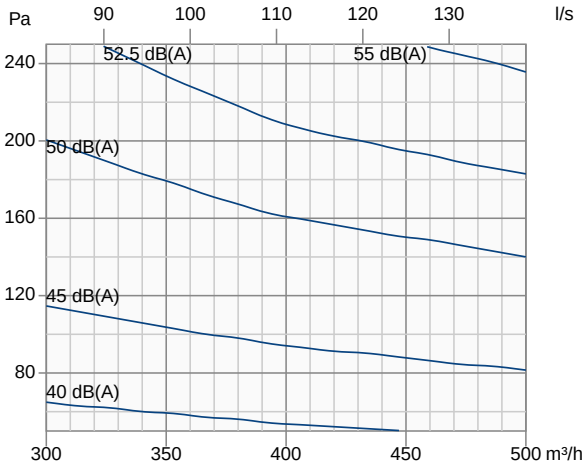
RDR-200/180-300

Pressure drop & sound power level (A-weighted)



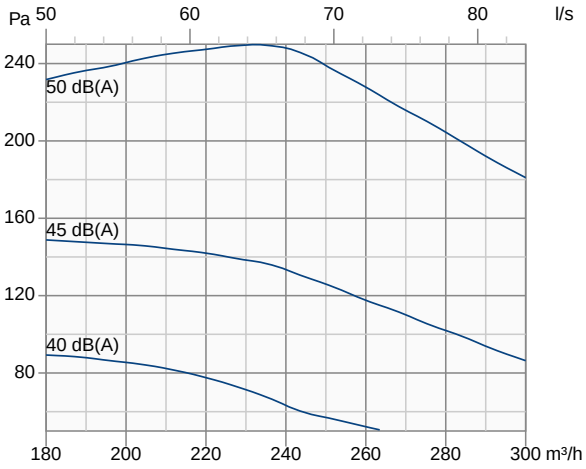
RDR-200/300-500

Pressure drop & sound power level (A-weighted)



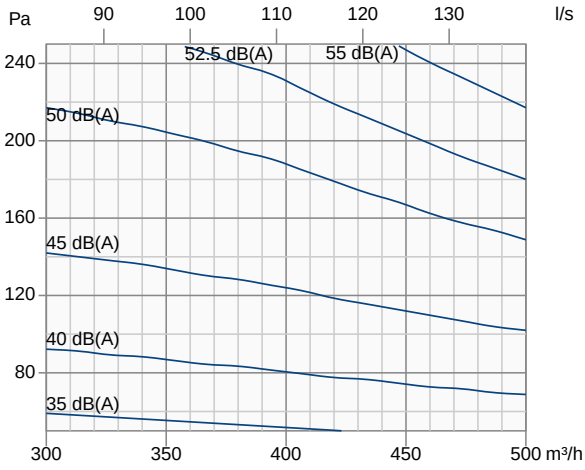
RDR-250/180-300

Pressure drop & sound power level (A-weighted)



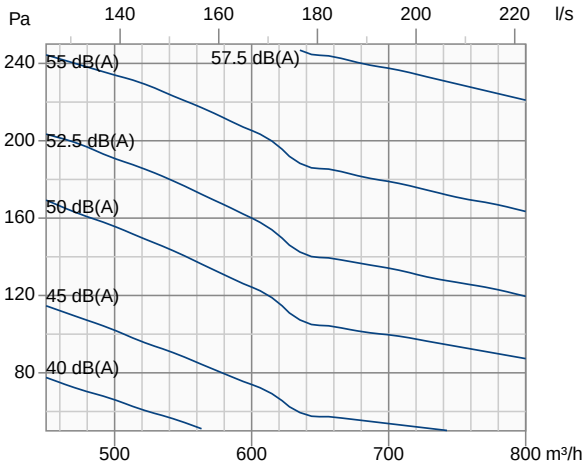
RDR-250/300-500

Pressure drop & sound power level (A-weighted)

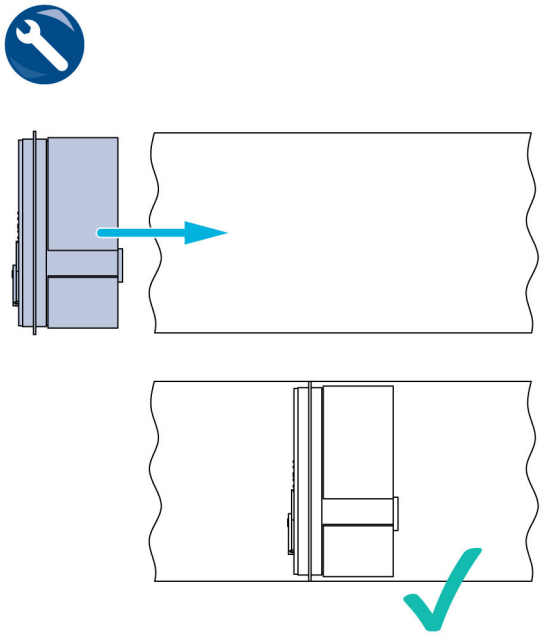


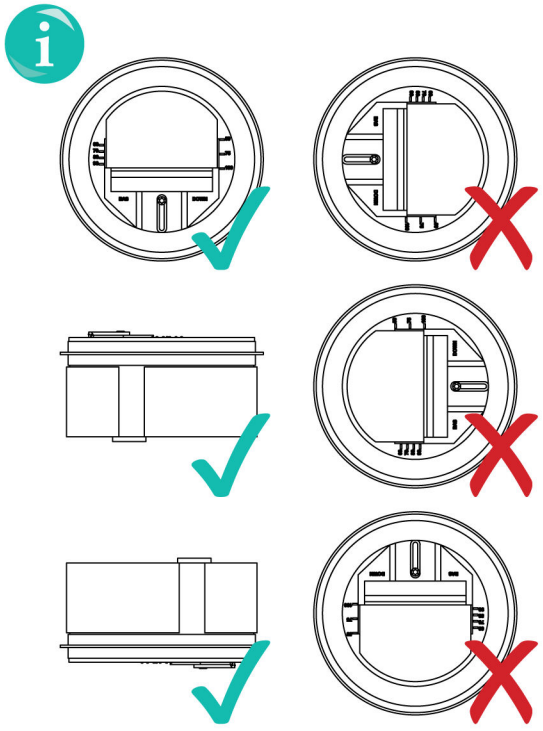
RDR-250/450-800

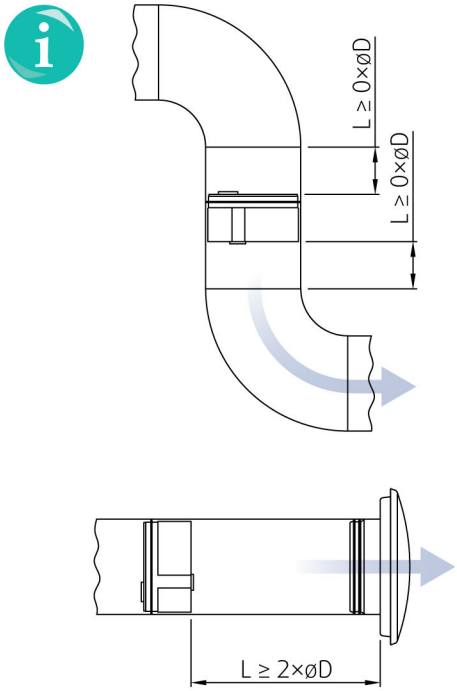
Pressure drop & sound power level (A-weighted)

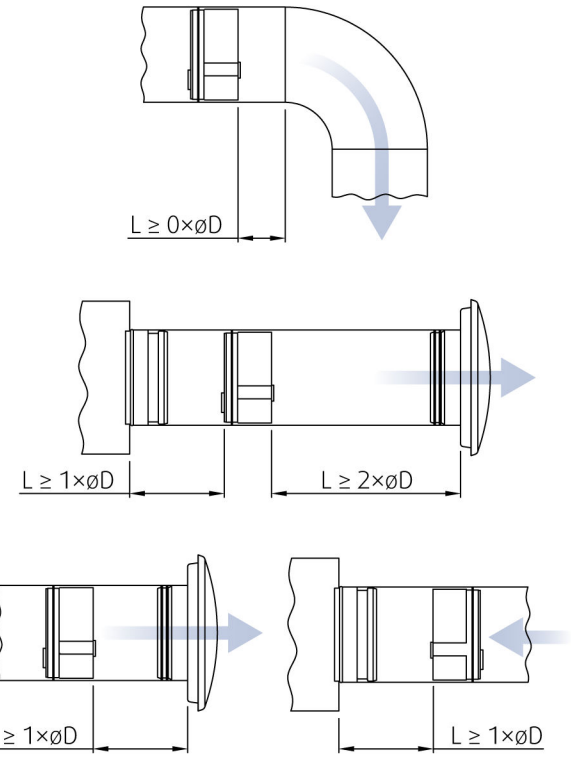


Installation









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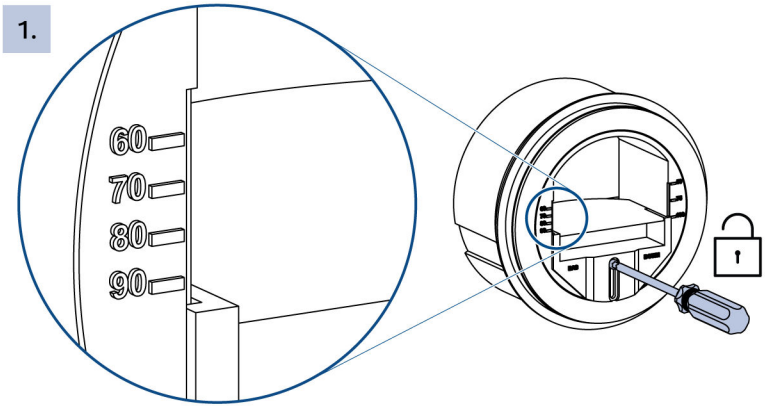

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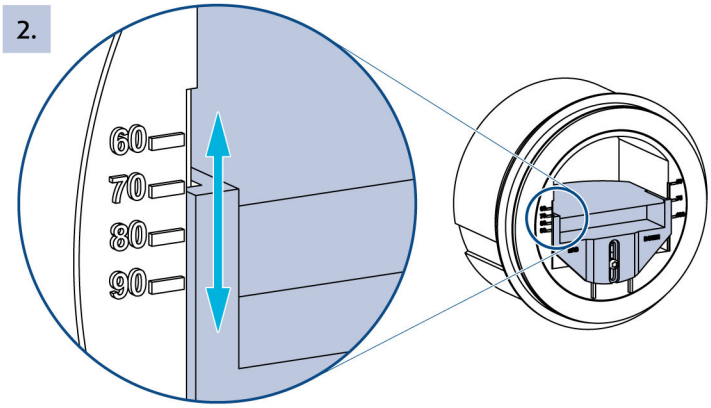
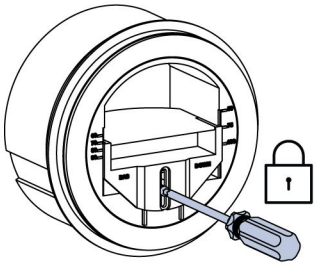


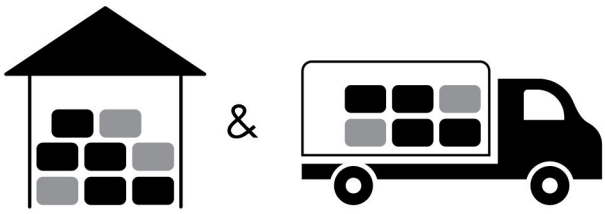
✓



Maintenance

No maintenance is required for the product.

Transport, Storage and Operation



-40°C ... +60°C

≤ 95%

-20°C ... +60°C

≤ 95%

Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters.

Current information on all products is available on design.systemair.com.

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