DCV-RCb Room Climate Regulator

Version B02



DCV-RCb - Circular

Delivered pre-assembled with room climate regulator RCXb and damper motor on circular damper SPMF (Ø100 to Ø500).

- Damper motor connected
- Tubes for flow measurement connected
- Duct temperature sensor mounted
- K-factor and flow direction indicated on Measuring flange SMRD the damper label.

Circular Ø630 can only be delivered as a kit with a rectangular damper 700x700 with a circular 630 connection and a circular measuring flange.

Damper Motor DBA with Room Climate Regulator RCXb





Damper JSPM

DCV-RCb – Rectangular

Delivered as a kit: Damper motor, regulator, measuring flange, and damper are assembled and connected on site. For guidance on assembly, see illustrations and instructions for RCXb under steps 2-5 on the next page.

- RCXb mounted on DBA, depending on damper size.
- SMRD and JSPM custom-made.
- Tubes for connecting the measuring flange to the regulator.

JSPM with motor shelf adapted for damper motor DBA.

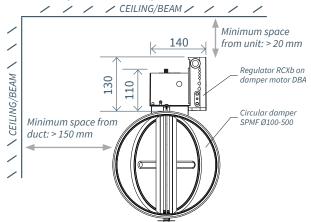
1. PLACEMENT AND ORIENTATION IN DUCT Straight Section BEFORE

Measuring Flange

DCV-RCb must be correctly oriented and preceded by a disturbance-free straight duct section equivalent to >3.5 times the duct diameter (d). After a silencer with a different cross-sectional area. a straight section of >2.0 x duct diameter (d) is required.

For rectangular ducts: Straight sections as calculated above based on the equivalent diameter (de); de \approx 1.15 x \sqrt{A} (where A = B x H).

NOTE: Directly after the measuring flange, no minimum distance is required to a subsequent bend or other disturbance.



DCV-RCb is oriented with the flow arrow in the direction of the air.

- The regulator is positioned for easy access.
- Ensure a minimum space of 20 mm from wall/ceiling/equipment from the damper motor cover/regulator. Ensure a minimum space from duct wall to CEILING/BEAM of 150 mm.

2. CONNECT 24 VAC. NETWORK, AND OTHER UNITS

See installation step 5 - Connection - RCXb, on the next page.

LINDINSIDE

Procedure for connecting to an individual control unit for Node-ID assignment:

1. Download the app and scan:

- LINDINSIDE is available for download to your smartphone from Google Play/App Store.
- Create a user account and log in to the LINDINSIDE app.
- Pull down to scan for available devices. LINDINSIDE will then list all Lindinvent devices equipped with Bluetooth® within signal range.

2. Select the correct device from the list:

By calling the desired device via the bell icon, a beep sound and blue blinking light will confirm the connection to your smartphone.

3. Set the assigned Node-ID on the selected unit*:

Enter a unique Node-ID between 1–239 in accordance with the recommended Node-ID assignment from Lindinvent. Note that the Node-ID cannot be 0.

4. Perform a new scan/refresh for verification:

Perform a new scan to verify the updated Node-ID.

*For assigning Node-IDs to a larger number of units, the "Set nodeIDs" function can be used.



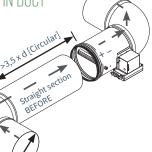
Smartphone with LINDINSIDE app.



Scan the QR-code for more information about LINDINSIDE.

DCV-RCb is pre-calibrated: No on-site flow calibration is required, but control measurement is recommended. For accurate air flow representation, the current duct size (circular DCV) or K-factor (rectangular DCV) must be specified during commissioning.





Used for Lindinvent's circular

and rectangular dampers.

Damper Motor DBA:

Version B02

REGULATOR RCXB AND DAMPER MOTOR DBA



Regulator RCXb

MOUNTING: CIRCULAR DUCT



with measuring

flange SPMF

RCXb with damper motor is mounted on the circular damper with measuring flange SPMF (Ø125-500)

Regulator on DBA

The mounting corresponds Measuring flange to DCV-RCb Circular.

Regulators with damper control function are usually mounted directly on the damper motor cover. NOTE: For separate mounting, the RCXb is mounted elsewhere than on the damper motor. The enclosure is equipped with 4 external ears with screw holes for fastening.

MOUNTING: RECTANGULAR DUCT



RCXb with damper motor is mounted on the rectangular



JSPM should be mounted with horizontal damper blades. Guide connections should be provided with sealing strips.

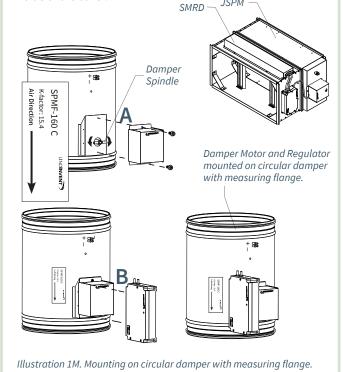
The mounting corresponds to DCV-RCb Rectangular.

1. PLACEMENT AND ORIENTATION IN DUCT

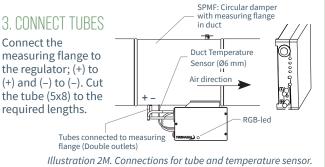
See illustrations with instructions for DCV-RCb under installation step 1 on the previous page.

2. MOUNTING THE REGULATOR AND DAMPER MOTOR

- The damper motor (preferably with the regulator already mounted, see below) is mounted on the motor shelf (A) so that the damper spindle fits into the damper motor. Check that the damper spindle on the damper can rotate freely before mounting.
- The regulator is mounted on the damper motor (B) by placing it over the lugs on the motor cover. Choose the appropriate side of the cover. JSPM







4. MOUNTING THE DUCT TEMPERATURE SENSOR

RCXb is delivered with a temperature sensor that is mounted via its holder in the duct. The installation requires a 6 mm hole. The hole is pre-drilled in the SPMF damper.

5. CONNECTIONS

Connections are made with the guidance of the external connection diagram for RCXb: See the inside of the regulator cover.

- The regulator is connected to 24 VAC and the network (CAN) via Lindinvent's standard cable with 2 wires for power supply and 2 wires for communication. As a rule, Lindinvent's standard cable should also be used for connecting presence sensors and most other equipment.
- Make openings/outlets for each cable: Use pliers to open the appropriate outlet for the cable as per the illustration below.
- In connection with connections: Use bi-conductor hose to shield.
- After connections: Reattach the cover, ensuring it clamps the cables securely for a safe fastening.

A: Cut x 2 B: Bend back and forth/break off (Cut/clean outlet with pliers)

Illustration 11. Instructions for outlet in the enclosure.

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SMRD

damper JSPM. Measuring flange SMRD is used in combination with damper JSPM. JSPM and SMRD must

be custom-made.

Damper JSPM

Damper Motor DBA