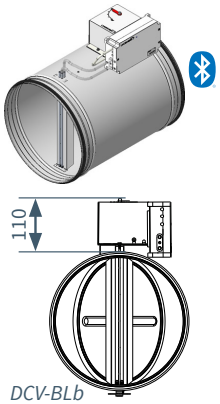
DELIVERY UNIT

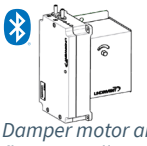


DCV-BLb

DCV-BLb – Circular

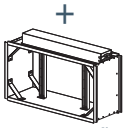
- Delivered factory-assembled with controller FBLb and the damper motor fitted onto the circular damper SPMF (Ø100 to Ø500).
- Damper motor connected.
- Hoses for airflow measurement connected.
- K-factor and flow direction indicated on damper label.

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



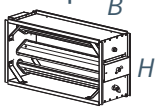
Damper motor and flow controller FBLb

+



Measurement flange SMRD

+ B



Damper JSPM

DCV-BLb – Rectangular

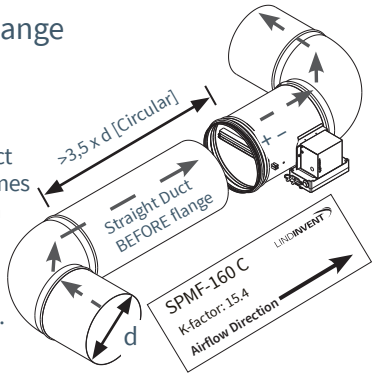
Delivered as a kit:
Damper motor, controller, measurement flange, and damper are assembled and installed on-site. Refer to illustrations and the FBLb manual for assembly steps 2 to 4.

- K-factor and flow direction are indicated on the label of the measurement flange.
- Custom-sized SMRD and JSPM.
- Guide connections must always be equipped with sealing strips.
- JSPM is installed with horizontal damper blades.
- The damper motor shelf on JSPM is designed for the DBA damper motor.

1. PLACEMENT AND ORIENTATION IN DUCT

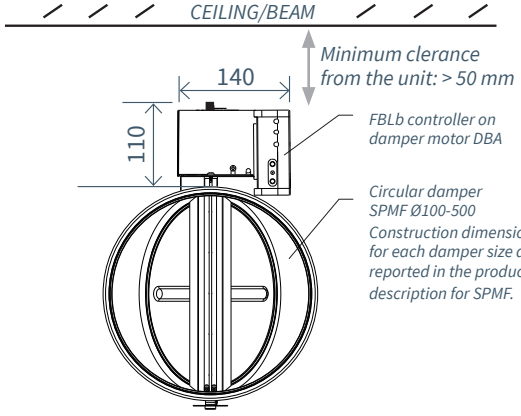
PRE-measurement flange straight section

DCV-BLb should 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 duct:
Straight sections as above calculated after the equivalent diameter (de); de ≈ 1.15 x √ A (where A = B x H).

NOTE: No minimum distance needed after the measurement flange.



- DCV-BLb is oriented with the flow arrow in the direction of airflow.
- The controller is positioned for easy access.
- Ensure a clear space of at least 50 mm from wall/ceiling/equipment to the damper motor housing/regulator. Maintain a minimum clearance from duct wall to CEILING/BEAM of 160 mm.

2. CONNECT 24 VAC, NETWORK AND OTHER DEVICES

See assembly step 4 for connection on the following page.

LINDINSIDE

Procedure for Connecting to FBLb for Node-ID Assignment

1. **Scan Nearby Devices:**
Select the intended controller (FBLb) from the list of devices.
By calling on a device via the bell icon, you will hear a beep sound accompanied by a blue blinking light to help identify the device.

2. **Set (Change) Node-ID:**
Select the Node-ID field for the intended device in the list of scanned devices. Enter the unique Node-ID between 1–239 assigned to the regulator according to the recommended assignment from Lindinvent. After assignment, perform a new scan to verify that the device's Node-ID has been updated correctly. When assigning Node-IDs to a larger number of devices, the "Set node-IDs" function can be used.

3. **Connect to the Device**
Connect by tapping on the field for the device's product name in the list of scanned devices.

4. **Select the Intended Function:**
   - Flow Balancing (Default)
   - Constant Flow Regulation
   - Flow Measurement (Setting for DCV-MFb)
   - Slave Regulation (For Flow Balancing)

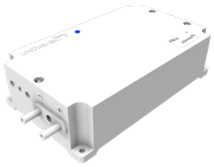
Information about LINDINSIDE

5. **Complete Commissioning via Quick Setup Screen:**
   - **Perform Damper Motor Test (Manual Motor Control)**
   - Check that the damper has fully opened. Confirm the position.
   - Check that the damper has fully closed. Confirm the position.
   - **Assign Flow Zone**
   Often the same as the Nod-ID.
   - **Enter Duct Size or K-Factor (G1 Duct Dimension or G1 K-Factor)**
   For circular ducts, select the duct size from a list.
   For rectangular ducts, enter the current K-factor.
   - **Specify Placement on Supply or Exhaust Air (G1 Placement)**
   Select sensor placement depending on whether the sensor is connected to measure exhaust air or supply air.
   - **Enter Setpoint (Balance Offset SP or Flow SP)**
   Balance Offset (l/s) or Flow Setpoint (l/s) depending on the function selected in step 4.

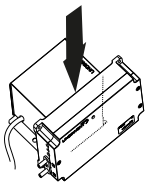
Smartphone with the LINDINSIDE App

The flow sensor in FBLb is pre-calibrated upon delivery: The duct size or K-factor is required during commissioning. A verification measurement of the test flow is recommended.

Regulator FBLb and Damper Motor DBA



Controller FBLb



Controller fitted onto DBA

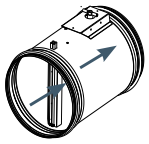
A controller with damper control functions are normally mounted directly onto the damper motor housing.

NOTE: *For separate installations, the FBLb is mounted in a location other than on the damper motor. The enclosure is equipped with four external ears with screw holes for fastening.*

Damper motor DBA

Damper Motor DBA: Used for both Lindinvent's circular and rectangular dampers.

INSTALLATION: CIRCULAR DUCT (SPMF)

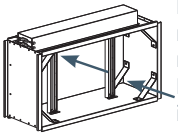


Circular Damper with Measurement Flange SPMF

FBLb with Damper Motor is mounted on the circular damper with measurement flange SPMF (Ø100-500).

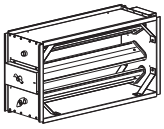
The installation corresponds to DCV-BLb Circular.

INSTALLATION: RECTANGULAR DUCT (SMRD+JSPM)



Measurement Flange SMRD

FBLb with damper motor is mounted on the rectangular JSPM damper. Measurement flange SMRD is used with JSPM. Both JSPM and SMRD must be custom-ordered.



Damper JSPM

JSPM should be installed with horizontal damper blades. Guide connections must have sealing strips.

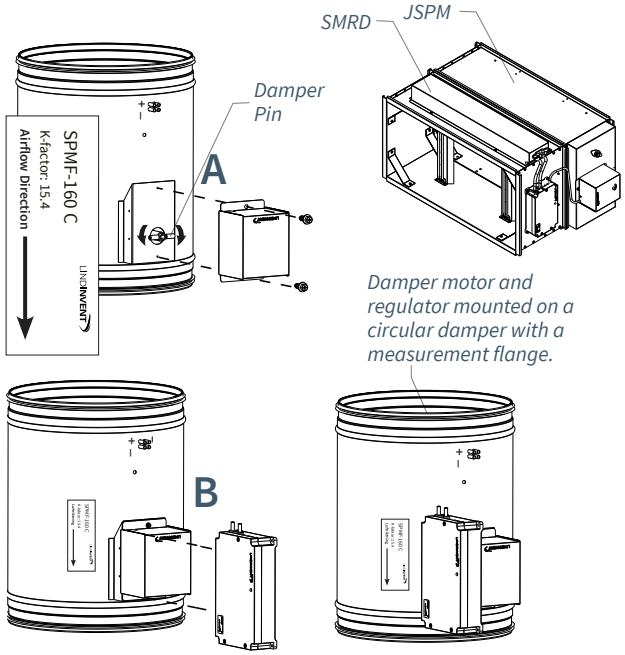
The installation corresponds to DCV-BLb Rectangular.

1. PLACEMENT AND ORIENTATION IN DUCT

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

2. INSTALLATION OF REGULATOR AND DAMPER MOTOR

- The damper motor (preferably with the controller already mounted, see below) is mounted on the motor shelf (A) so that the damper pin fits into the damper motor. Check that the damper pin on the damper can rotate freely before installation.
- The controller is mounted on the damper motor (B) by fitting it over the lugs on the motor housing. Choose the appropriate side of the housing.



Damper motor and regulator mounted on a circular damper with a measurement flange.

Illustration 1M. Installation on circular damper with measurement flange.

3. CONNECT HOSES TO MEASUREMENT FLANGE

Cut the hose (5x8) to the required lengths. Connect the measurement flange to the sensor: (+) to (+) and (–) to (–).

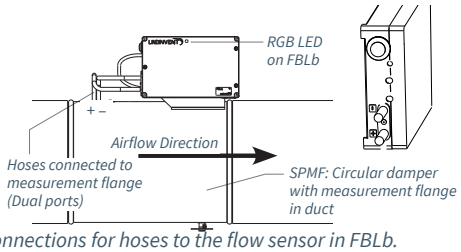
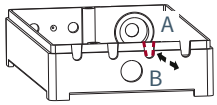


Illustration 2M. Connections for hoses to the flow sensor in FBLb.

4. CONNECTION

Connections are made following the external wiring diagram for the FBLb: See the inside of the regulator cover.

- The regulator is connected to 24 VAC and the network (CAN) via Lindinvent's standard cable, which has 2 wires for power supply and 2 wires for communication. Lindinvent's standard cable is also used for connecting occupancy sensors and various other equipment.
- Create openings/outlets for each cable: Use wire cutters to open a suitable outlet for the cable according to the illustration below.
- During connection: Use bi-lead hose for shielding.
- After connections: Reattach the cover, ensuring it clamps the cables securely for safe fastening.



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

Illustration 1I. Instructions for openings in the enclosure.