# DBA - DAMPER ACTUATOR

Version A01

DBA with 0.35 m cable - A damper actuator unit designed for Lindinvent controllers and dampers.

# INTRODUCTION

DBA is a microprocessor controlled BLDC motor with gearbox adapted to control all of Lindinvent's dampers for air flow and pressure control.

## CHOICE OF DAMPER ACTUATOR

DBA is used for all of Lindinvent's circular and rectangular dampers. DBA can replace all the latest models of damper motors from Lindinvent.

## FUNCTIONS

The actuator adjusts the damper blade angle according to the control signal. To enable a simple and flexible mounting of the control unit to the actuator, the actuator cover has been equipped with flanges that fit into holders on the back of the regulator.

- Adjusts damper blade angle according to calibration and controller signal.
- Equipped with an indicator pin to show the throttle opening angle.
- Supports field calibration.
- Adjustable rotation direction.
- Normal or high speed mode.
- Normal or high torque mode.



Smart damper showing DBA mounted on circular damper with the controller mounted directly on the damper motor cover.

# **TEKNICAL SPECIFICATIONS**

#### General

Dimension: 140 x 97 x 90 mm (LxWxH)

#### Material

Gearbox: Metal Motor bracket: Powder coated steel, RAL 9003 Motor cover: PS (Polystyren), RAL 9003 Net weight: 0,9 kg (0,35 m cable with connector)

**IP-class:** IP42 [When mounted on a Lindinvent damper motor shelf]

**Angle indicator:** With the help of a 7mm open ended key, any damper angle can be selected by turning the shaft. The actuator must be switched off. The motor calibration is not affected by changing the throttle position as above.

## **Electrical system**

#### Supply: 24 VAC

**Power**: 2.3 VA at rest; 4 VA at normal operation; 14 VA when running at high speed, not standard. **CE markning:** Complies with EMC and the low voltage directive

#### Performance

Running time normal mode: 0-90° within 6.5 s Running time high-speed mode: 0-90° within 2.5 s

#### Input and output signals

**Input:** 1 pc 0-10 VDC control signal **Output:** 1 pc 0-10 VDC feedback signal

## **ORDER INFORMATION**

Can be ordered with cabling in two designs: Length 0.35 meters with a pre-mounted connector or length 3 meters without a mounted connector.



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#### **PERFORMANCE SETTINGS**

DBA is delivered, unless otherwise specified at the time of delivery, in the operating mode NORMAL. All switches are set to off.

DIP switches 1 to 4 affect the actuator function as shown below.

1: Normal (Default) alternatively High (Speed)

- 2: Counterclockwise (Default) or Clockwise (Rotation direction)
- 3: Normal (Default) alternatively High (Torque)
- 4: Off (Default) alternatively On (Field Calibration



The DBA external connection diagram and NORMAL settings for DIP switches 1 to 4.

## COMPLEMENTARY DOCUMENTATION

Document can be viewed on the product page at www.lindinvent.com

| Document                          | Comments  |
|-----------------------------------|---|
| Installation instructions         | See the external connection diagram and the installation instruction for DCV-RCb and RCXb   |
| Operation instructions            | See the commissioning/operation instructions for the controller.  |
| Maintenance instructions          | The motor unit is considered maintenance free. For cleaning and control measurement of a flange, see the maintenance instructions for SPMF. |
| External connection diagram       | Shows how conductors from equipment are connected.  |
| Environmental product declaration | Assessed by Byggvarubedömningen.  |
| Modbus list                       | Not relevant.   |
| AMA-text                          | AMA code UEB.13: Actuators for dampers, electric, continuous without spring return. See the current controller.                             |

