



SHUT-OFF DAMPER,  
VARIANT AK, WITH  
ACTUATOR



TESTED TO VDI 6022



VARIANT FOR MANUAL  
OPERATION

## AK

### FOR LOW-LEAKAGE SHUT-OFF

Circular shut-off dampers for shutting off volume flows in ventilation ducts of air conditioning systems

- Maintenance-free damper blade mechanism
- Closed blade air leakage to EN 1751, up to class 4
- Casing air leakage to EN 1751, class C

Optional equipment and accessories

- Electric actuator
- Spring return actuator
- Pneumatic actuator
- Auxiliary switch with adjustable switching points for capturing the end positions

General information



Application

- Circular shut-off dampers Type AK for shutting off or restricting the airflow in ventilation ducts of air conditioning systems

### Special features

- Damper blade can be actuated manually, electrically or pneumatically
- Low-leakage shut-off
- Safety function provided by optional spring return actuator

### Nominal sizes

- 100, 125, 160, 200, 250, 315, 400

### Variants

- AK: Shut-off damper
- AK-FL: Shut-off damper with flanges on both ends

### Construction

- Galvanised sheet steel
- P1: Powder-coated, silver grey (RAL 7001)
- A2: Stainless steel

### Parts and characteristics

- Ready-to-install shut-off damper
- Damper blade with blade mechanism

### Attachments

- Open/Close actuators: For the opening and closing of shut-off dampers in air conditioning systems
- Auxiliary switch for capturing the end positions

### Accessories

- Lip seals on both ends (factory fitted)
- Matching flanges for both ends

### Materials and surfaces

Galvanised sheet steel construction

- Casing and damper blade made of galvanised sheet steel
- Blade seal made of TPE plastic
- Bearings made of TPU

Powder-coated construction (P1)

- Casing made of galvanised sheet steel, powder-coated
- Damper blade made of stainless steel 1.4301
- Shaft made of stainless steel 1.4305

Stainless steel construction (A2)

- Casing and damper blade made of stainless steel 1.4301
- Shaft made of stainless steel 1.4305

### Standards and guidelines

- Meets the hygiene requirements of VDI 6022
- Closed blade air leakage to EN 1751, class 4 (nominal sizes 100, 125 and 160, class 3)
- Nominal sizes 100, 125, and 160 meet the general requirements, nominal sizes 200 – 400 meet the increased requirements of DIN 1946, part 4, with regard to the acceptable closed blade air leakage
- Casing air leakage to EN 1751, class C

### Maintenance

- Maintenance-free, as construction and materials are not subject to wear and tear

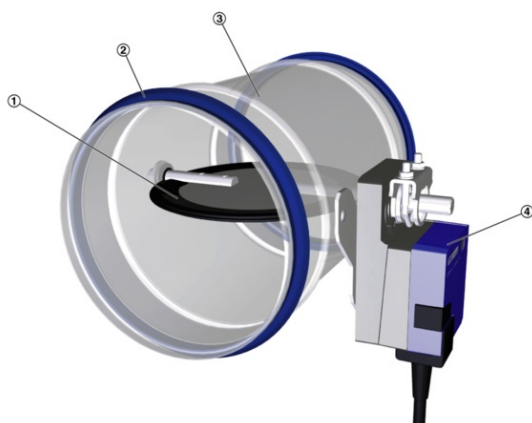
## TECHNICAL INFORMATION

### Functional description

For airtight shut-off of volume flows in round air ducts. The basic version is shut off by manually actuating the damper blade. Electrically or pneumatically operated actuators, which are available in different versions, can also be used to operate the damper blade. The versions differ with regard to the power supply and safety position (de-energised or de-pressurised state). Actuators with auxiliary switches for electrical monitoring of the damper blade position are also available.

The actuator of a damper blade must be controlled by a customer-side circuit and then moves the damper blade to the OPEN or CLOSED position.

### AK: schematic representation



- ① Damper blade
- ② Lip seal
- ③ Casing
- ④ Actuator

<b>Nominal sizes</b>	100 - 400 mm
<b>Acceptable static differential pressure</b>	1500 Pa
<b>Operating temperature</b>	10 - 50 °C

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design programme

Circular shut-off dampers for shutting off or restricting the airflow in ventilation ducts of air conditioning systems, for supply air or extract air, available in 7 nominal sizes Suitable for duct pressures up to 1500 Pa.

Ready-to-install unit consists of the casing with a damper blade.

Spigot with groove for lip seal, suitable for connecting ducts according to EN 1506 or EN 13180. Position of the damper blade indicated externally at the shaft extension.

Closed blade air leakage to EN 1751, class 4 (nominal sizes 100, 125 and 160, class 3).

Casing air leakage to EN 1751, class C.

#### **Special features**

- Damper blade can be actuated manually, electrically or pneumatically
- Low-leakage shut-off
- Safety function provided by optional spring return actuator

#### **Materials and surfaces**

Galvanised sheet steel construction

- Casing and damper blade made of galvanised sheet steel
- Blade seal made of TPE plastic
- Bearings made of TPU

Powder-coated construction (P1)

- Casing made of galvanised sheet steel, powder-coated
- Damper blade made of stainless steel 1.4301
- Shaft made of stainless steel 1.4305

Stainless steel construction (A2)

- Casing and damper blade made of stainless steel 1.4301
- Shaft made of stainless steel 1.4305

#### **Construction**

- Galvanised sheet steel
- P1: Powder-coated, silver grey (RAL 7001)
- A2: Stainless steel

#### **Technical data**

- Nominal sizes: 100 - 400 mm
- Acceptable static differential pressure: 1500 Pa

#### **Sizing data**

- $q_v$  [m<sup>3</sup>/h]

Air-regenerated noise

- LPA [dB(A)]

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design programme.

## 1 Type

**AK** Shut-off damper

## 2 Material

No entry: galvanised sheet steel

**P1** Powder-coated RAL 7001 (silver grey)

**A2** Stainless steel

## 3 Construction

No entry: standard construction

**FL** Flanges on both ends

## 4 Nominal size [mm]

**100, 125, 160, 200, 250, 315, 400**

## 5 Accessories

No entry: without accessories

**D2** Double lip seal both ends

**G2** Matching flanges both ends

## 6 Actuator

No entry: Shut-off damper, manually adjustable

Open/Close actuators

**B30** 24 V AC/DC, 3-point

**B32** 24 V AC/DC, 3-point, with auxiliary switch

**B40** 230 V AC, 3-point

**B42** 230 V AC, 3-point, with auxiliary switch

Open/Close actuators with safe position

**BP0** 24 V AC/DC, spring return

**BP2** 24 V AC/DC, spring return, with auxiliary switch

**BR0** 24 - 240 V AC, 24 - 125 V DC, spring return

**BR2** 24 - 240 V AC, 24 - 125 V DC, spring return, with auxiliary switch

Modulating actuators

**B20** 24 V AC/DC, modulating, 2 - 10 V DC

**B22** 24 V AC/DC, modulating, 2 - 10 V DC, with auxiliary switch

Pneumatic actuator with safe position

**TN0** Pneumatic actuator 0.2 - 1 bar

## 7 Damper blade position

Only with spring return actuator or pneumatic actuator

**NO** power off/pressure off to OPEN (Normally Open)

**NC** power off/pressure off to CLOSE (Normally Closed)

**AK-P1-FL/160/G2/BP0/NO**

1 2 3 4 5 6 7