TROX® TECHNIK
The art of handling air

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

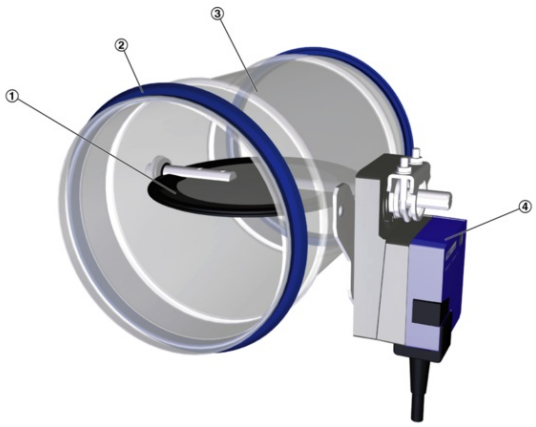
TECHNICAL INFORMATION

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 areavailable in different versions, can also be used to operate the damper blade. The versions differ with regard to the powersupply and safety position (de-energised or de-pressurised state). Actuators with auxiliary switches for electrical monitoringof 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 theOPEN or CLOSED position.

AK: schematic representation



① Damper blade
② Lip seal
③ Casing
④ Actuator

Nominal sizes	100 – 400 mm
Acceptable static differential pressure	1500 Pa
Operating temperature	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 [m³/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