

# Installation, Operation and Maintenance Instructions

## Pressure-relief dampers, round DRKr Back-draught dampers, round RSKr



Highend  
air handling  
components



### Product designation

DRKr..., RSKr...

### Technical specifications

Max. size Ø:	710 mm
Min. size Ø:	100 mm
Tripping pressure:	<b>DRKr:</b> acc. to customer order <b>RSKr:</b> no specified tripping pressure
Air flow direction:	horizontal or vertical acc. To customer order
Free cross section:	100%

### ATEX

The DRKr and RSKr are only approved in specific designs and with appropriate identification for Zones I, 2I or 2, 22 according to ATEX Directive 2014/34/EU. If the fitter or operator changes the dampers in any way, the ATEX approval becomes null and void. It is important to ensure that the damper and additional equipment are installed in compliance with zoning requirements.

### Shipment

In principle, avoid all damage caused by external influences. Never lift dampers by the slats or by the external brass weight. Report any damage, e.g. deformation of slats, dents, impacts or warping of the housing, immediately to the supplier or manufacturer. This may impair the proper functioning of the damper and at best cause dangerous circumstances to occur.

**ATEX:** Under no circumstances may ATEX dampers be fitted after a fall or impact with visible or concealed damage.

### Installation

These dampers can be fitted or removed to or from a wall or an air conditioning system, or integrated in a duct section. First make sure the air flow is in the proper direction as indicated by the red arrow on the damper housing. Mount the dampers warp-free, on a flat surface and stress-free. Depending on the design, use the threaded holes in the flange or the insert ends. When mounting, make sure that the side marked top is fitted at the top and horizontally. The damper must be adjusted exactly vertically (for horizontal air flow) or exactly horizontally (for vertical air flow). Also avoid drilling swarf, concrete chippings or other installation materials from entering the damper housing. Suction off any soiling inside the housing, otherwise malfunctions may occur. When installation is complete, make sure that the slats and the external tripping mechanism can move freely. Avoid as far as possible any reduction in freedom of movement on customer premises

when installing insulation materials, installation ducts, auxiliary structures etc. If this is not observed, it can lead to severe disruptions in operation, e.g. slats touch the damper frame, different tripping pressure, damper fails to open or close, reduced leak tightness, etc.

### Note:

- During installation and maintenance, it is recommended to wear cut-resistant gloves to reduce the risk of cuts on the sharp edges, which are unavoidable due to the manufacturing process.
- Always keep doors closed. Switching on the ventilation system with the doors open can cause injuries.

**ATEX:** All relevant national and international standards and regulations for Ex zones must be observed. On dampers with ATEX functionality in particular, the damper housing must be earthed using the earthing braids attached by the manufacturer. No mechanical changes may be made to the product. In addition, do not attach any components (motors, limit switches, etc.) to the damper if they have not been analyzed for ignition risk by the appropriate manufacturers or approved for ATEX zones. It is prohibited to drill holes or fit bolts or screws in the interior of the dampers. This could lead to damage or disturb damper operation. If there is a risk at the factory that foreign bodies may enter the movement area of the slats, prevent them by suitable means (filters or catchment grills). This prevents the slats from sticking and the possibility of frictional heat developing.

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### Adjusting tripping pressure

**RSKr:** Back-draught dampers have no specified opening pressure.

**DRKr:** Use brass weights to adjust the tripping pressure to customer specifications on a test stand at the factory. After installation, the tripping pressure is no longer adjustable. If the brass weights fitted externally are positioned above a passageway for people, mount a suitable safety device under them to catch them if they fall.

### Maintenance

Depending on the degree of soiling of the medium, carry out a dry clean from time to time; it is recommended to clean the seal in particular at regular intervals. In addition, operate the dampers at regular intervals to test their operability depending on the specific plant conditions. Otherwise the DRKr and RSKr models operate maintenance free. Only use LUCOMA genuine spare parts for all repair and maintenance work.

**Note:** When working on and around the dampers, be sure not to reach into the area of the dampers. The dampers must be de-energised or, in the case of pneumatic actuators, depressurised.

**ATEX:** All relevant national and international standards for Ex zones must be complied with.

### Special Instructions

Before using LUCOMA dampers in areas with increased requirements, report the prevailing conditions to the manufacturer so that the correct damper materials can be selected. The correct damper materials are especially important in factories with chemically laden atmospheres, electroplating shops, battery rooms, etc.

### Warranty

When installed and operated properly, the warranty according to the Swiss Code of Obligations is 2 years.

**ATEX:** Dampers operated in ATEX zones should be replaced every 10 years for safety reasons.