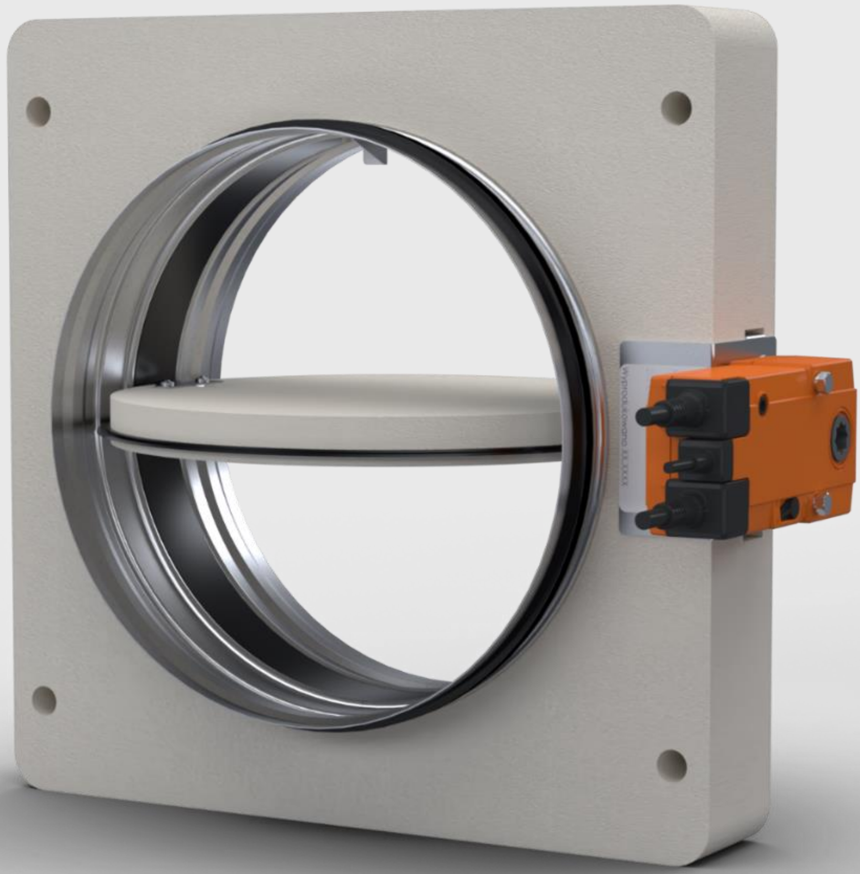
KTQ-O

Fire Damper – round

Technical Documentation



https: //
www.smay.eu

CE
2434
SMAY Sp. z o.o. 24 CSWU: 2434-CPR-0382 DWU: 037-CPR-2024
EN 15650:2010 Fire damper **typ: KTQ-O**

Nominal activation conditions/sensitivity: **Closing/opening during the test at the right time**	Pass
Response time/Closure time:	Pass
Reliability	50 cycles <120S
Fire resistance:	
Fire Integrity - E **Fire Insulation - I** **Smoke leakage - S** **Mechanical stability (under E)** **Maintenance of the cross section (under E)**	EI 120 (v_e i↔o) S
Durability:	
Opening and closing cycle test	KTQ-O-E: 10 000 cycles <120S

Version 6.4

SMAY reserves the right to make changes to this document.

TABLE OF CONTENT

1. INTRODUCTION ... 3
2. LEGAL REGULATIONS ... 3
3. INTRENDED USE ... 3
4. TECHNICAL DESCRIPTION ... 4
5. BELIMO ELECTRIC ACTUATORS USED IN KTQ-O ... 6
6. CONDITIONS OF TRANSPORT AND STORAGE ... 8
7. INSTALLATION TECHNOLOGY ... 9
7.1. INSTALLATION TECHNOLOGY – FLEXIBLE WALL ... 10
7.2. INSTALLATION TECHNOLOGY – RIGID WALL ... 13
8. COMMISSIONING ... 15
9. PERIODIC MAINTENANCE AND SERVICING RULES ... 15
10. CLASSIFICATION OF DAMPERS FOR REPAIR ... 16
11. WARRANTY CONDITIONS ... 17

1. INTRODUCTION

The purpose of technical documentation is to familiarize the user with the intended use, design, operation principle, installation, periodic maintenance and operation of product.

2. LEGAL REGULATIONS

KTQ-O fire dampers are certified by CTO Gdańsk, Certificate of Constancy of Performance **nr 2434-CRP-0382**.

The dampers are designed, manufactured and tested in accordance with the following standards: **PN-EN 15650** “Ventilation for buildings – Fire dampers” and **PN-EN 13501-3** “Fire classification of construction products and building elements – Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers.”

The effectiveness of the dampers is confirmed by tests according to **PN-EN 1366-2** “Fire resistance tests for service installations – Part 2: Fire dampers.”

The KTQ-O fire damper is classified as tightness **class C** (Case leakage class of the damper installed in accordance with the Technical Documentation) on the basis of tests carried out according to **PN-EN 1751** “Ventilation for buildings. Air terminal devices. Aerodynamic testing of dampers and valves.”

3. INTENDED USE

The KTQ-O fire dampers **designed for quick installation** are classified in the following fire resistance classes and may be installed in the following building partitions:

a. EI 120 (ve i↔o) S

- rigid walls, 100 mm in thickness or more, and EI120 or a higher fire resistance class (e.g. concrete walls, non-hollow brick walls, cellular concrete block walls, hollow masonry unit walls or concrete slab walls).
- flexible standard walls, 100 mm in thickness or more and EI120 or a higher fire resistance (thicker, greater density, more board layers)

Table 1. Table of fire resistance

Construction type	Minimum thickness of building partition mm	Fire resistance class	Sealing type
Rigid wall	≥100 mm	EI 120 (v_e i↔o) S	NONE (QUICK INSTLLATION)
Flexible wall	≥100 mm	EI 120 (v_e i↔o) S	NONE (QUICK INSTLLATION)

Where:
E – fire integrity,
I – fire insulation,
S – smoke leakage,
120/90/60/30 – duration of fulfilment of E, I and S criteria, expressed in minutes,
ve – damper installed directly in the wall,
ho – damper installed directly in the floor,
i↔o – operating effectiveness criteria are met from the inside to the outside (fire inside), and from the outside to the inside (fire outside).

The KTQ-O fire dampers may also be installed in buildings partitions with a lower fire resistance rating. In this case, the damper fire resistance rating is equal to the partition fire resistance rating, subject to the smoke leakage criterion

The KTQ-O fire dampers may be installed in vertical building partitions with either horizontal or vertical rotation axis, with any actuator position.

The KTQ-O fire dampers may be installed in either inner or external buildings partitions, as also at a distance from them. In case of external wall installation, use of finishing element is required (intake or exhaust), which will protect from influence of atmospheric factors. Drive system should be installed inside facility. It is recommended to use dampers in special execution (impregnated fireproof boards, anti-corrosive steel elements).

4. TECHNICAL DESCRIPTION

KTQ-O fire dampers with an electric actuator with spring return consist of a housing of a round cross-section, a moving, singleaxis isolating blade, an actuating mechanism with a release device and a mounting collar.

The damper housing and its interacting elements are made of galvanised steel sheet. Both ends of the housing are adapted for male connection, allowing easy connection between the ducts and the damper.

There are intumescent seals on the inner surface of the housing, in the place of perforation, around the closed isolating blade. Their characteristic feature is that their volume increases at high temperatures, tightly filling all leaks between the baffle and the body.

Around the housing, there is a rectangular collar made of calcium-silicate board, which allows for quick mounting of the damper on the wall surface.

The isolating blade of the damper is made of calcium-silicate board, and a rubber seal is installed on its perimeter, ensuring the damper integrity at ambient temperature.

The KTQ-O damper is provided with an electric actuator with spring return of the BFL series manufactured by BELIMO, and the BAT thermal triggers (72), constituting the damper’s drive system supplied by the 230 V AC or 24 V AC/DC voltage. After the voltage has been supplied, the actuator rotates the blade to the open position. The blade closes due to voltage loss or when the thermal trigger is activated (the return spring in the actuator closes the blade by returning to the non-stressed position).

During normal operation of the system, the KTQ-O dampers are in the open position. If a fire breaks out, the damper blade rotates to the closed position.

The permissible flow rate in a connection duct for the KTQ-O dampers with an actuator is 12 m/s.

The range of dampers covers diameters from DN100 to DN315.

The primary type series includes the following sizes: **DN100, DN125, DN150, DN160, DN200, DN250, DN300, DN315**.

KTQ-O fire dampers are designed for male connection optionally equipped with a gasket. The length of the KTQ-O dampers is **165 mm**.

In a special version, resistant to aggressive environments, for the painted version (SL), the damper body is powder-coated in a selected RAL color, and the damper blade is impregnated with a fire-resistant board impregnation, and smaller steel components including connecting elements are made of stainless steel.

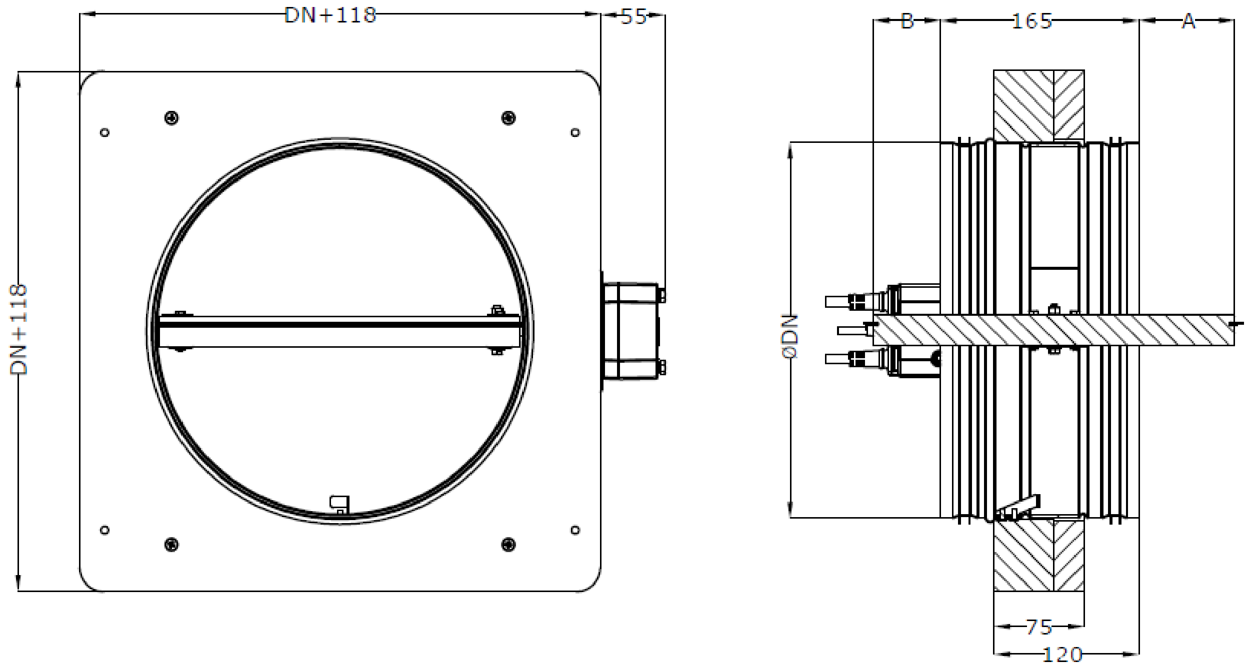


Figure 1. KTQ-O fire damper

Table 2. Net area and range of actuators used for KTQ-O fire damper, [mm]

DN [mm]	A [mm]	B [mm]
100	-	-
125	-	-
150	-	-
160	-	2
200	-	22
250	23	47
300	48	72
315	56	80

Table 3. Weight of KTQ-O fire damper, [kg]

DN [mm]	Waga [kg]
100	3,3
125	3,8
150	4,3
160	4,6
200	5,5
250	6,8
300	8,3
315	8,7

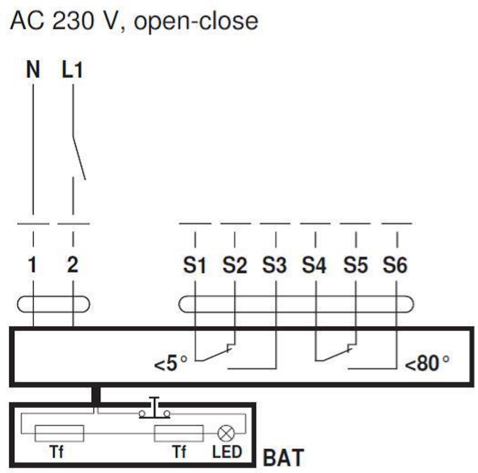
5. BELIMO ELECTRIC ACTUATORS USED IN KTQ-O

Spring-return 90° actuator BFL series, combined with thermoelectric tripping device BAT:

- BFL230-T,
- BFL24-T,
- BFL24-T-ST,

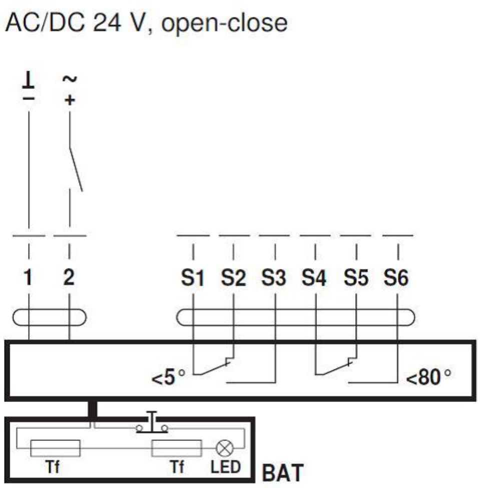
where:
ST – connection plug.

Wiring diagram BFL230-T



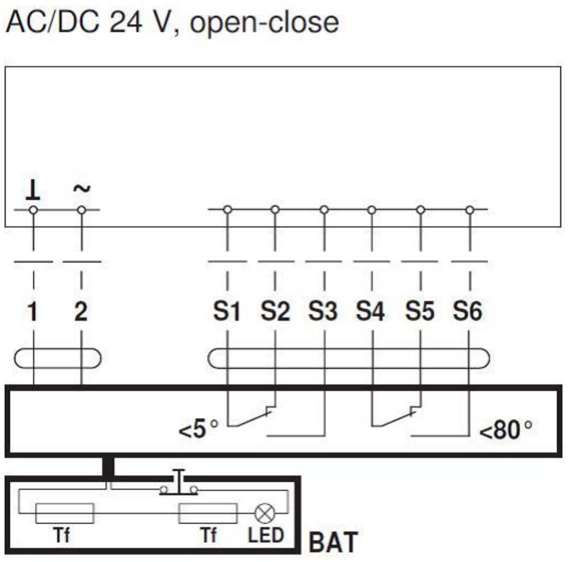
Cable colours:
1 = blue
2 = brown
S1 = violet
S2 = red
S3 = white
S4 = orange
S5 = pink
S6 = grey
Tf: Thermal fuse (see "Technical data")

Wiring diagram BFL24-T



Cable colours:
1 = black
2 = red
S1 = violet
S2 = red
S3 = white
S4 = orange
S5 = pink
S6 = grey
Tf: Thermal fuse (see "Technical data")

Wiring diagram BFL24-T-ST



Technical data:	**BFL230-T**	**BFL24-T (-ST)**
Nominal voltage	AC 230 V	AC/DC 24 V
Nominal voltage frequency	50/60 Hz	50/60 Hz
Nominal voltage range	AC 198...264 V	AC 19.2...28.8 V / DC 21.6...28.8 V
Power consumption in operation	3.5 W	2.5 W
Power consumption in rest position	1.1 W	0.8 W
Power consumption for wire sizing	6.5 VA	4 VA
Power consumption for wire sizing note	Imax 4 A @ 5 ms	Imax 8.3 A @ 5 ms
Auxiliary switch	2 x SPDT	2 x SPDT
Switching capacity auxiliary switch	1 mA...3 (0.5 inductive) A, AC 250 V	1 mA...3 (0.5 inductive) A, AC 250 V
Switching points auxiliary switch	5° / 80°	5° / 80°
Connection supply / control	Cable 1 m, 2 x 0.75 mm² (halogen-free)	Cable 1 m, 2 x 0.75 mm² (halogen-free)
Connection auxiliary switch	Cable 1 m, 6 x 0.75 mm² (halogen-free)	Cable 1 m, 6 x 0.75 mm² (halogen-free)
Cable length thermoelectric tripping device	0.5 m	0.5 m
Torque motor	Min. 4 Nm	Min. 4 Nm
Torque spring return	Min. 3 Nm	Min. 3 Nm
Direction of rotation motor	Can be selected by mounting L/R	Can be selected by mounting L/R
Manual override	With position stop	With position stop
Angle of rotation	Max. 95°	Max. 95°
Running time motor	<60 s / 90°	<60 s / 90°
Running time spring-return	20 s @ -10...55°C / <60 s @ -30...-10°C	20 s @ -10...55°C / <60 s @ -30...-10°C
Sound power level motor	<43 dB(A)	<43 dB(A)
Sound power level spring-return	<62 dB(A)	<62 dB(A)
Spindle driver	Form fit 12x12 mm, Continuous hollow shaft	Form fit 12x12 mm, Continuous hollow shaft
Position indication	Mechanically, with pointer	Mechanically, with pointer
Service life	Min. 60,000 safety positions	Min. 60,000 safety positions
Response temperature thermal fuse	Duct outside temperature 72°C Duct inside temperature 72°C	Duct outside temperature 72°C Duct inside temperature 72°C
Protection class IEC/EN	II Protective insulated	III Safety extra-low voltage
Protection class auxiliary switch IEC/EN	II Protective insulated	II Protective insulated
Degree of protection IEC/EN	IP54 in all mounting positions	IP54 in all mounting positions
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU
Low voltage directive	CE according to 2014/35/EU	CE according to 2014/35/EU
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14	IEC/EN 60730-1 and IEC/EN 60730-2-14
Mode of operation	Type 1.AA.B	Type 1.AA.B
Rated impulse voltage supply / control	4 kV	0.8 kV
Control pollution degree	3	3
Ambient temperature normal operation	-30...55°C	-30...55°C
Ambient temperature safety operation	The safety position will be attained up to max. 75°C	The safety position will be attained up to max. 75°C
Non-operating temperature	-40...55°C	-40...55°C
Ambient humidity	95% r.h., non-condensing	95% r.h., non-condensing
Maintenance	Maintenance-free	Maintenance-free
Weight	1.2 kg	1.2 kg

6. CONDITIONS OF TRANSPORT AND STORAGE

Fire dampers KTQ-O must be stored in cardboard boxes and/or on pallets. The dampers should be stored indoors, in conditions that provide protection against atmospheric factors, at a minimum temperature of +5°C. It is recommended to store the dampers in their original factory packaging.

Mechanical damage to the dampers, which can occur from impacts or sudden drops, must be avoided. During transport, the dampers should be packaged in boxes and/or placed on pallets, secured to prevent movement, and protected from atmospheric factors.

After each transport, a visual inspection of each damper should be carried out.

7. INSTALLATION TECHNOLOGY

Before proceeding with the installation of fire dampers, it is essential to check for any damage that may have occurred during transport or storage. Special attention should be paid to the BAT72 thermal release connected to the actuator, ensuring that its tip is not bent or broken.

Check that the baffle can be opened and closed (full opening and closing position). To open fire dampers use the actuator key. The opening and closing must proceed smoothly (not stepwise). Do not pull by baffle to open or close fire damper, it may cause permanent damage, not covered by the warranty.

The damper is designed for quick, one-sided installation in building partitions. The actuator can be positioned on any side of the damper. Due to the absence of additional filling around the damper after installation, it is essential to maintain smooth surfaces and dimensional tolerance of the installation opening.

If finishing or construction work is carried out after the damper has been installed but before the ductwork is connected to the damper, the interior of the damper should be protected with foil or another covering material to prevent contamination and potential damage to the damper's components. The actuator should remain covered with the factory protective foil until all finishing work is completed.

To maintain the declared fire resistance, insulation, and smoke leakage of EIS120, the dampers should be installed in walls classified as EIS120. The wall's parameters (technology, thickness, fire resistance) should be consistent with the perpendicular building partition or at least maintained within a 200mm distance around the damper

It is allowed to use KTQ-O dampers in walls with different fire resistance ratings; however, it should be noted that the fire resistance (EI) of the entire KTQ-O damper assembly will be limited by the lowest fire resistance rating of any element within the system.

Ducts made of flammable and non-flammable materials can be connected to the damper. Ducts should be installed that they cannot load the damper during fire. Ducts lengthening during fire can be compensated by support and knee.

ATTENTION: Distance between fire dampers or fire damper and construction elements must be:
a) min. 200 mm between fire dampers installed in separate ventilation ducts,
b) min. 75 mm between fire damper and construction element (wall/ceiling).

!

ATTENTION!

Due to the construction of the KTQ-O damper, the BAT72 thermal release connected to the actuator must be installed in the pipeline after the damper is mounted on the wall surface. This is an absolutely necessary component of the damper installation, without which the damper will not maintain the performance parameters declared by the manufacturer.

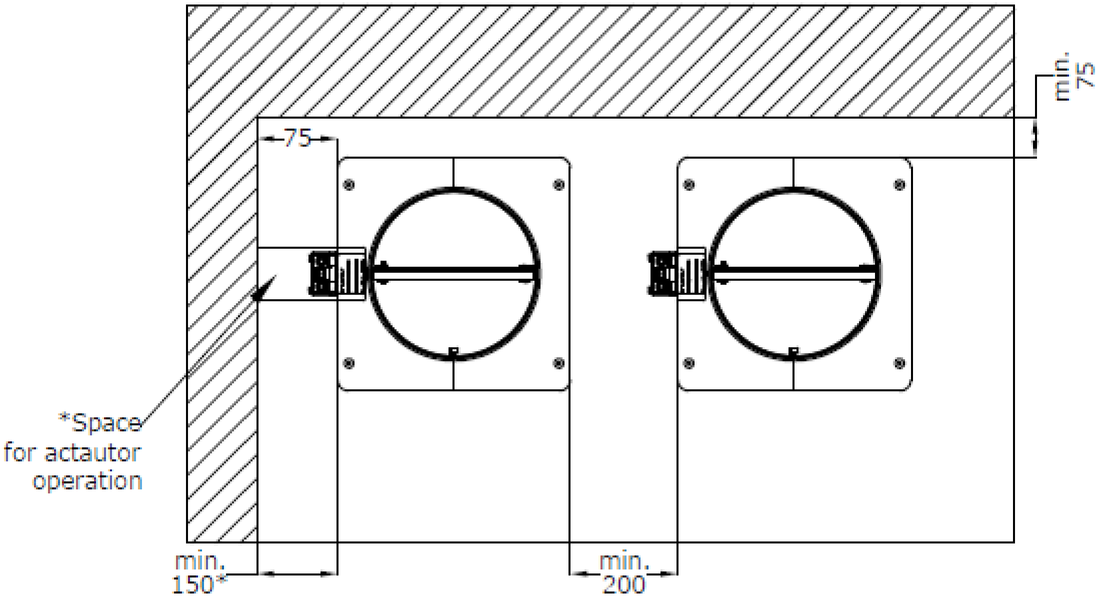


Figure 2. Required distances between KTQ-O dampers

7.1. INSTALLATION TECHNOLOGY – FLEXIBLE WALL

a. During the wall construction phase, create a rectangular opening with a frame made of profiles around the perimeter at the intended location of the damper. If the wall is already built, cut out the opening and then add the missing profiles to form a frame around the perimeter of the opening. The distance between the vertical and horizontal profiles of the frame should be DN+35mm (where DN is the nominal diameter of the damper).

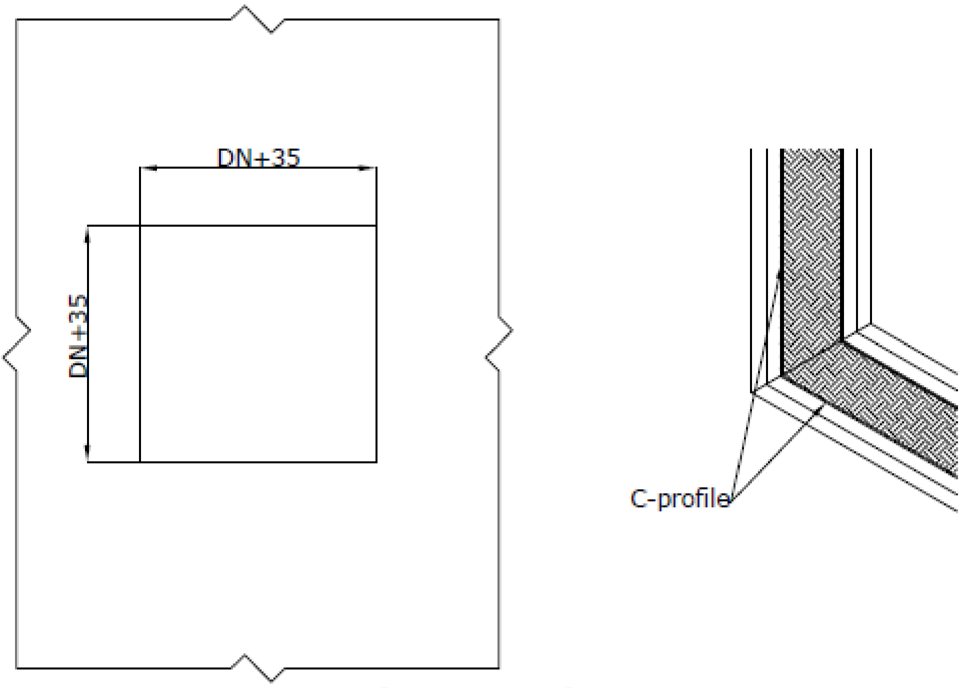


Figure 3. Preliminary opening dimensions in a flexible wall

b. Construct a frame using strips of 15mm thick GKF board with a width equal to the thickness of the wall around the opening, ensuring that the wall profiles are covered. Secure the strips to the profiles. On both sides of the wall, smooth the connection between the frame and the wall, as well as other joints between the boards, over a width of 100mm around the installation opening, using plaster or leveling compound. The maximum dimensions of the final opening should be DN+5mm by DN+5mm.

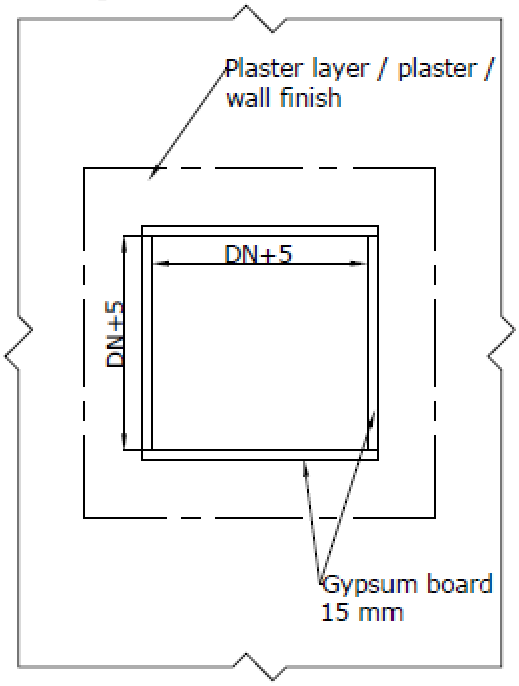


Figure 4. Dimensions of the final opening in a flexible wall

It is also permissible to make round openings in the boards with a maximum diameter of ØDN+5mm. There is no need to fill the space between the wall profiles with insulation.

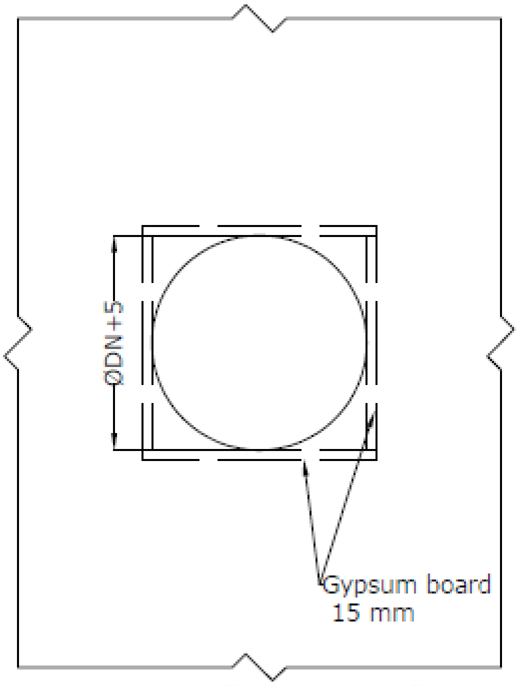


Figure 5. Dimensions of a round opening in flexible wall

c. If a ventilation duct passes through the wall, it should be cut flush with the surface of the wall on the installation side.

d. Directly before installing the damper, apply a continuous strip of fire sealant (e.g., Hilit CFS-S) around the perimeter of the installation opening on the wall. If a ventilation duct passes through the wall and the damper is not equipped with a duct connection seal, provision should also be made to seal this connection before installing the damper, for example, using silicone.

e. Insert the closed damper into the installation opening/ventilation duct. The flange should fit tightly against the wall; it should be gently pressed or twisted so that the sealant spreads between the flange and the wall. Align the flange horizontally; the actuator can be positioned on any side. Secure the damper using four self-tapping screws Ø5.0-Ø6.3, with a minimum length of 75mm, making sure the screws penetrate into the steel profile of the wall. The screw heads should be countersunk into the outer layer of the flange and press the thinner layer of the flange against the wall. Any gaps around the flange should be filled with fire sealant or finished with the wall's surface layer.

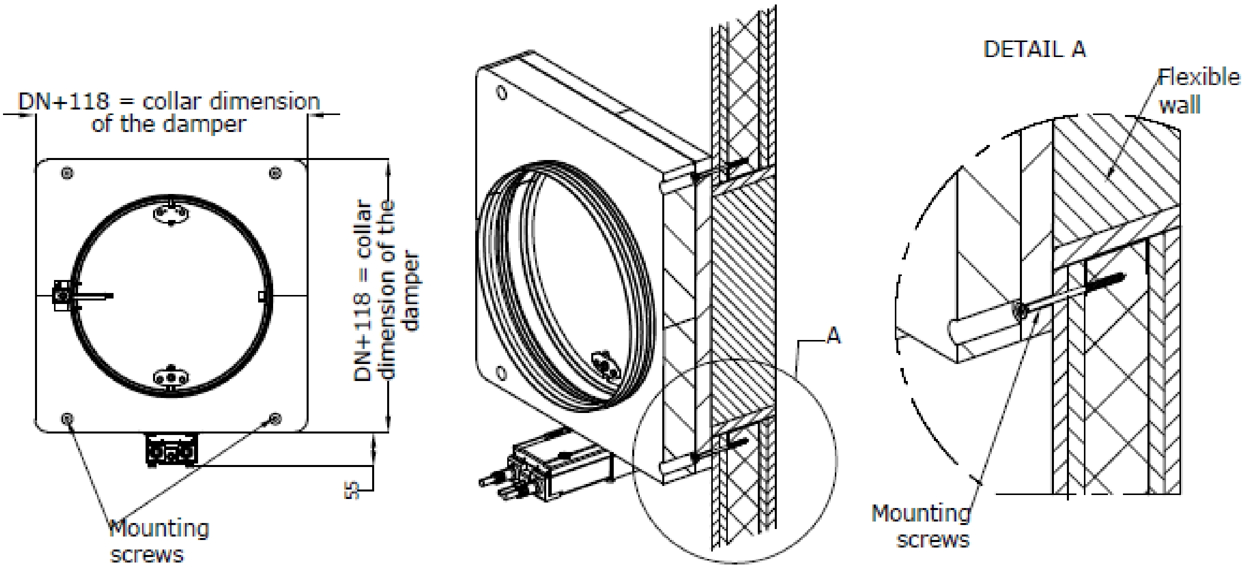


Figure 6. Wall mounting location

f. At this stage, it is recommended to check the proper functioning of the damper by opening it using either electrical voltage or the provided key.

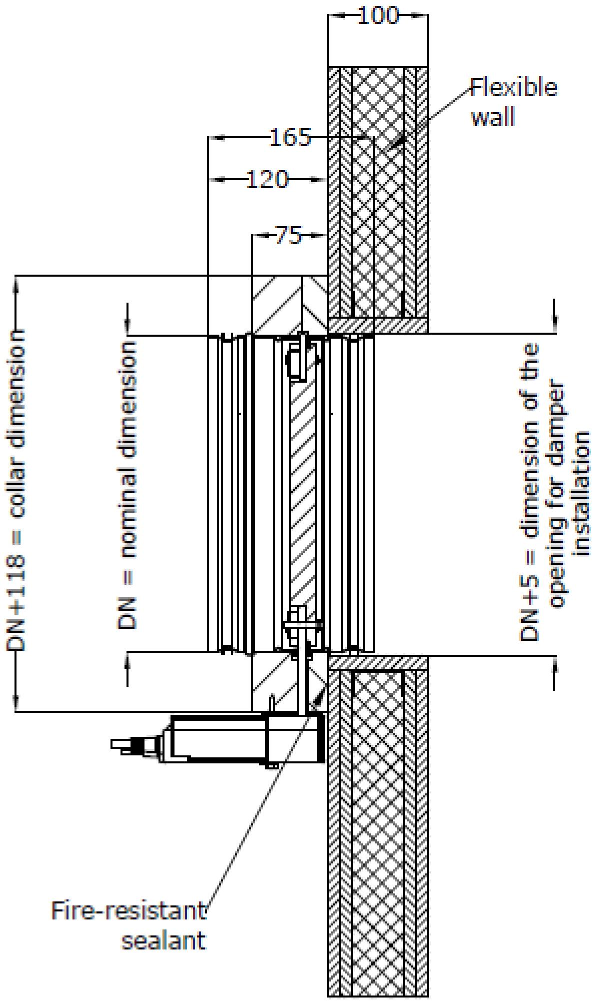


Figure 7. Installation method for KTQ-O fire dampers in flexibe wall

g. Attach the ventilation duct(s) to the damper and suspend them. Make a Ø10mm hole on the duct installed on the flap side at a maximum distance of 175mm from the wall, anywhere around the duct circumference. In this hole, install the BAT72 thermal release connected to the actuator, securing it to the duct using the supplied sheet metal screws.

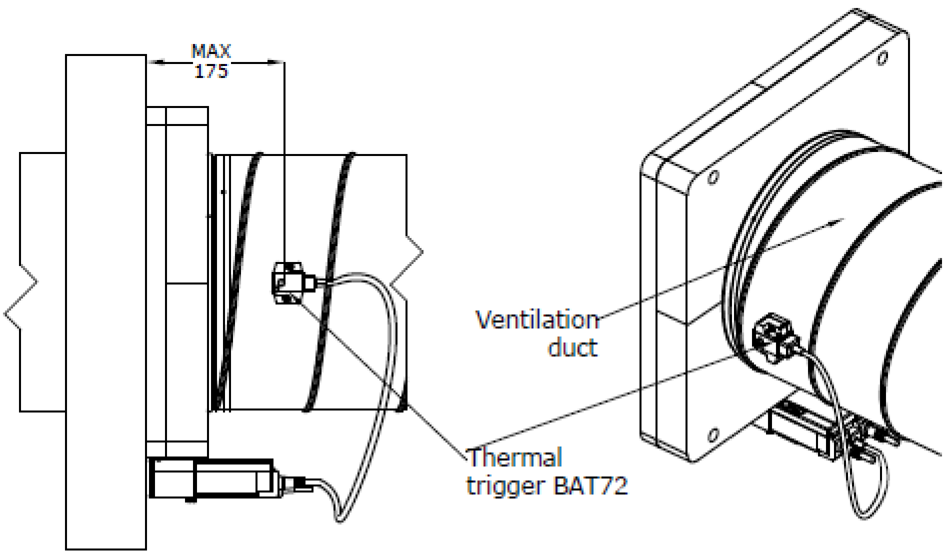


Figure 8. Installation method for the BAT72 thermal release in the duct

7.2. INSTALLATION TECHNOLOGY – RIGID WALL

a. Create an opening in the wall with dimensions up to 5 mm larger than the nominal size of the damper, i.e., DN+5mm for a rectangular opening or ØDN+5mm for a round opening. On the installation side, smooth the wall surface to a width of 100 mm around the installation opening, using materials such as leveling compound or plaster.

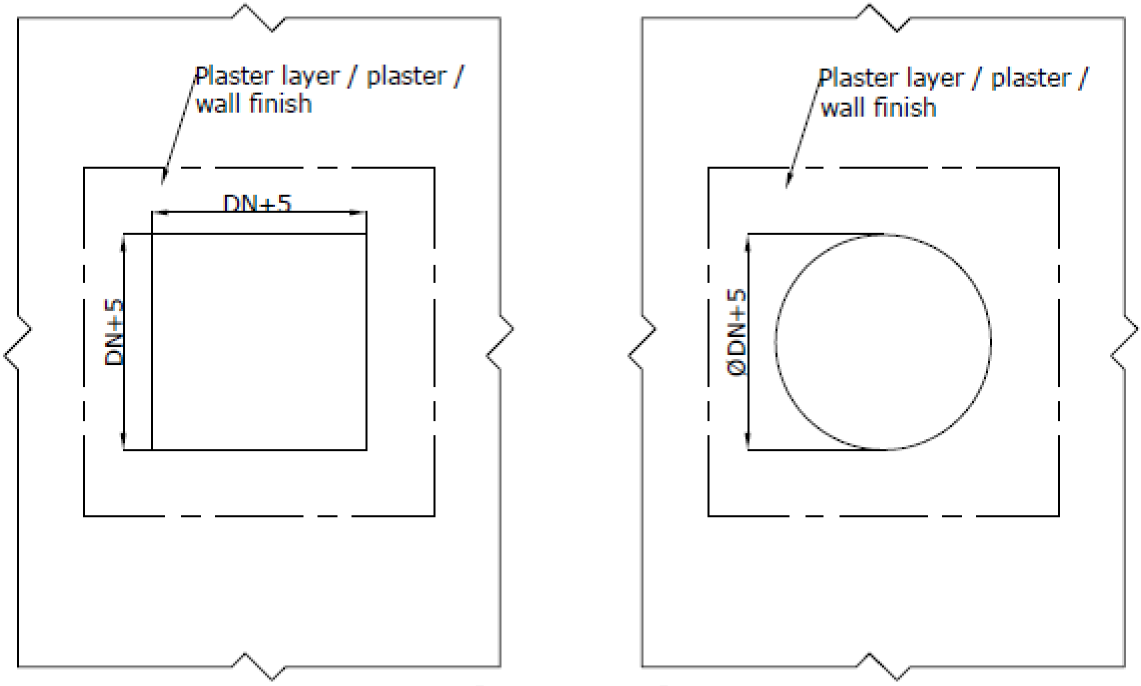


Figure 9. Dimensions of the final opening in a rigid wall

b. If a ventilation duct passes through the wall, it should be cut flush with the surface of the wall on the installation side.

c. Directly before installing the damper, apply a continuous strip of fire sealant (e.g., Hilit CFS-S) around the perimeter of the installation opening on the wall. If a ventilation duct passes through the wall and the damper is not equipped with a duct connection seal, provision should also be made to seal this connection before installing the damper, for example, using silicone.

d. Insert the closed damper into the installation opening/ventilation duct. The flange should fit tightly against the wall; it should be gently pressed or twisted so that the sealant spreads between the flange and the wall. Align the flange horizontally; the actuator can be positioned on any side. Secure the damper using four self-tapping screws Ø5.0-Ø6.3, with a minimum length of 75mm. The screw heads should be countersunk into the outer layer of the flange and press the thinner layer of the flange against the wall. Alternatively, drive-in or screw-in M6 anchors can be used. Any gaps around the flange should be filled with fire sealant or finished with the wall's surface layer.

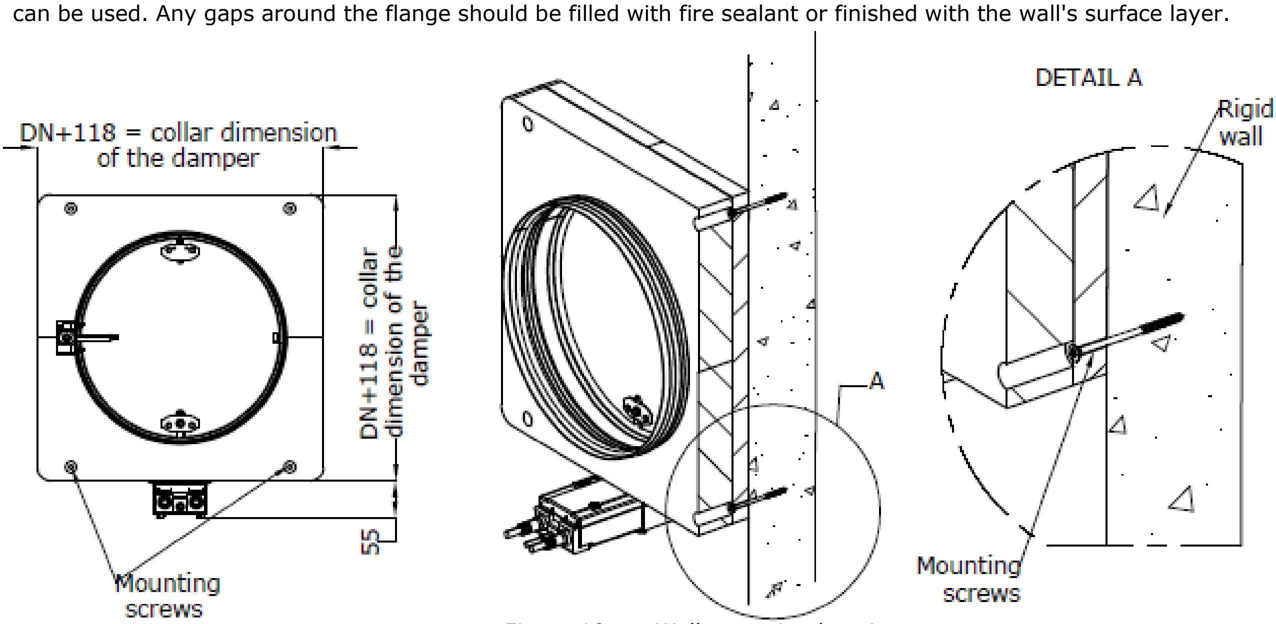


Figure 10. Wall mounting location

e. At this stage, it is recommended to check the proper functioning of the damper by opening it using either electrical voltage or the provided key.

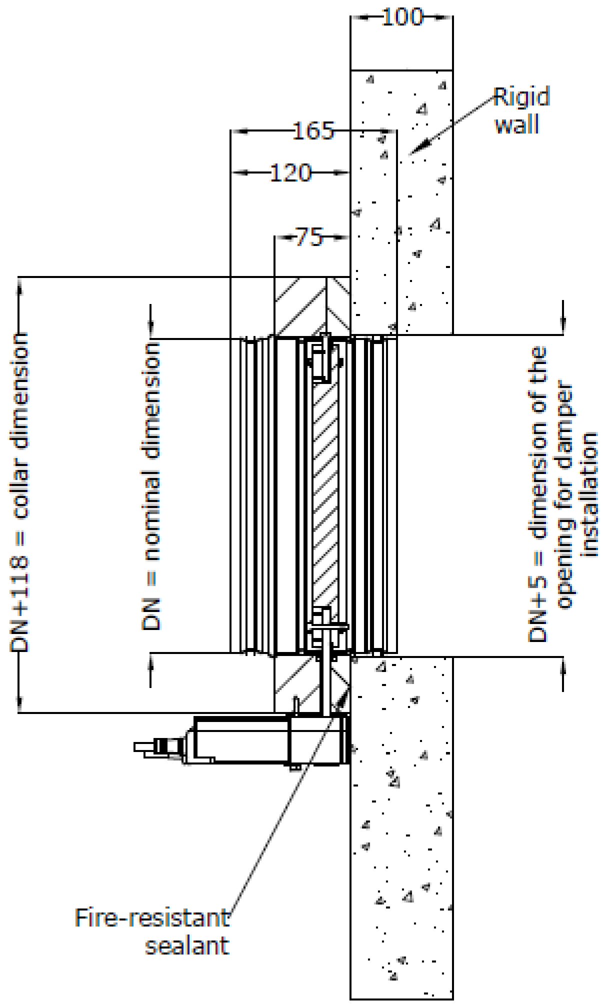


Figure 11. Installation method for KTQ-O fire dampers in rigid wall

f. Attach the ventilation duct(s) to the damper and suspend them. Make a Ø10mm hole on the duct installed on the flap side at a maximum distance of 175mm from the wall, anywhere around the duct circumference. In this hole, install the BAT72 thermal release connected to the actuator, securing it to the duct using the supplied sheet metal screws.

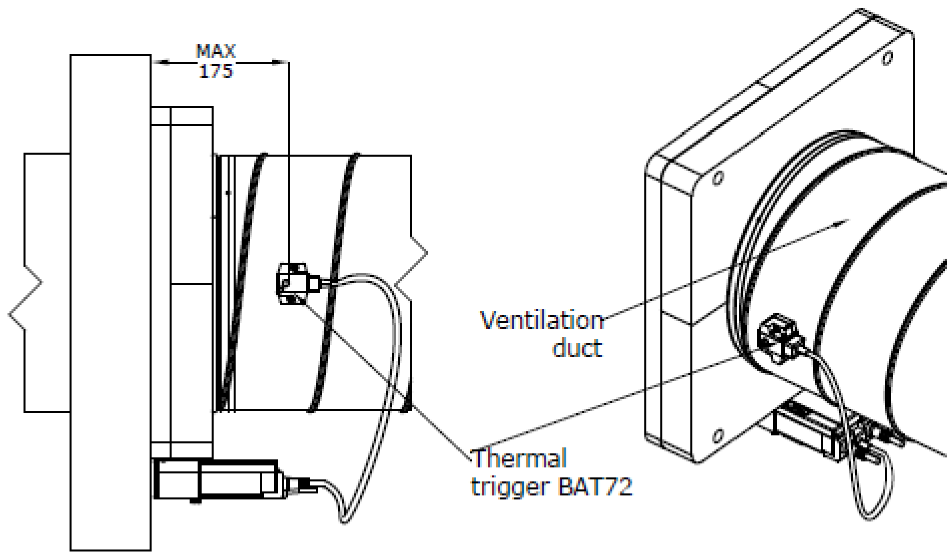


Figure 12. Installation method for the BAT72 thermal release in the duct

8. COMMISSIONING

After assembling the device and installation into the control system, before putting the fire damper into operation, the following actions should be carried out and recorded:

- verify the correct assembly of the damper according to this Technical Documentation;
- check the correctness of the electrical installation in terms of power supply parameters and quality of execution;
- ensure that the damper has not been mechanically damaged during installation;
- verify the correct opening/closing of the damper, with the opening/closing time being maintained below 60 seconds;
- check the cleanliness of the device and ensure that there are no foreign elements present that could damage the device;
- ensure proper accessibility to the drive mechanism and thermal trigger mechanism - required for service and maintenance purposes;
- check the availability and legibility of labeling stickers.

In order to enable efficient verification of the correctness of the assembly and start-up of the KTQ-O damper, before putting it into service and documenting the above control activities in the as-built construction documentation, we suggest using (for auxiliary purposes) the document: "Assembly and Start-up Protocol - Fire Flaps".

This protocol is not obligatory to prepare and is only a proposal from the manufacturer of the product in the scope of preparing documentation confirming the execution of assembly and start-up in accordance with the Technical Documentation and Assembly Instructions.

An editable version of the document (universal for all dampers in the SMAY offer) can be downloaded from the manufacturer's website: https://www.smay.pl/en/

9. PERIODIC MAINTENANCE AND SERVICING RULES

Before starting any operational and maintenance work, you must familiarize yourself with this documentation. This obligation particularly falls on individuals responsible for operating the device or equipment within the scope of operation, maintenance, and service. In the absence of technical personnel with qualifications specified by the manufacturer, the inspection/maintenance of SMAY devices should be carried out by the SMAY Manufacturer's Service or technical staff of SMAY trading partners appropriate for a given country.
Damage to the KTQ-O damper resulting from failure to comply with the guidelines contained in the documentation will not be covered by warranty repairs.

After installing the KTQ-O fire dampers and after activating the system, regular inspections must be carried out and documented in accordance with the Annual Inspection Protocol - Smoke Vents / Fire Dampers (included below) **at least every 12 months unless national fire protection regulations in the country of installation provide otherwise. If necessary, inspections should be carried out more frequently.**

Technical condition review and maintenance of the device should include:

1. Visual inspection of the damper
   a) Reading data from the damper rating label
   b) Assessment of the damper installation condition
   c) Assessment of the damper housing condition
   d) Assessment of the partition and drive transmission condition
   e) Assessment of the condition of the swelling and ventilation seal
   f) Assessment of the damper cleanliness, cleaning

2. Inspection of the damper drive
   a) Assessment of the manual mechanism*
   b) Assessment of the actuator* (compliance of the symbol with the label, warranty seal)
   c) Assessment of the electrical connection of the damper*

3. Inspection of the damper trigger
   a) Inspection of the mechanical trigger*
   b) Inspection of the electrical trigger*

4. Inspection of the damper operation
   a) Opening and closing the damper
   b) Assessment of maintaining the open position
   c) Assessment of correct closure of the damper
   d) Assessment of correct response to the control signal from the SAP or voltage loss

* if present in the inspected damper type

Technical inspection and service of the device should be documented in an inspection report, an editable version of which is available for download on the manufacturer's website: https://www.smay.pl/en/

Failure to implement the above guidelines regarding periodic inspection results in the device not being allowed for further operation. Simultaneously such a device loses the manufacturer's warranty protection in accordance with the OWG

All activities related to the replacement or modification of device components can be carried in agreement with the SMAY manufacturer's service.
Elements that have been factory sealed should have intact original seals applied.

The KTQ-O damper does not require any protective measures other than regular maintenance/technical inspections and proper care, including keeping the damper elements clean. The damper can be cleaned using a dry cloth or brush. Dirt and other contaminants can be removed using commonly available cleaning agents. Do not use aggressive, corrosive, or sharp tools.

Below is a list of recommended periodic inspection activities with possible faults. The document is intended to assist in defining identified defects during inspection.

10. CLASSIFICATION OF DAMPERS FOR REPAIR

The authorized service personnel of the manufacturer or trained companies authorized by them are responsible for removing any detected damages during the periodic inspection. In case of malfunction or damage, the user is obliged to notify the manufacturer or an authorized service company.

After each activation of the damper as a result of a fire action at the facility, it is necessary to assess its technical condition, and consequently qualify it for repair or replacement with a new one. The assessment can only be carried out by the manufacturer's service personnel. Repair work or replacement of the damper after activation due to a fire action at the facility is not covered by the warranty.

11. WARRANTY CONDITIONS

The manufacturer provides a warranty for the delivered products, on the terms set forth in the Agreement or the General Warranty Conditions of Smay, Sp. z o.o. The warranty does not cover defects resulting from improper storage, transportation, installation, and commissioning, operation, periodic maintenance, service, especially mechanical damage and damage to anti-corrosive coatings.

The manufacturer is exempt from warranty obligations if the user introduces structural changes independently, installs the product by the purchaser contrary to the Installation Instructions and Technical Conditions of Sale (Technical Documentation), exceeds the declared durability of the damper, defects due to improper periodic maintenance, and when there is permanent removal of the product nameplate or lack of legibility and verification of the device type.

The General Warranty Conditions (OWG) and General Sales Conditions (OWS) documents are available on the website www.smay.pl

ATTENTION!

Annual Inspection Protocol - Fire Dampers / Smoke Control Dampers:

- **The protocol should be signed by a person holding a valid, personalized certificate or authorization issued by Smay Sp. z o. o., authorizing inspections of fire dampers / smoke control dampers.**
- **In order to maintain the warranty, the employee conducting inspections of SMAY fire dampers / smoke control dampers is required, upon completion of such inspection, to submit the Annual Inspection Protocol to the manufacturer electronically (www.smay.pl → SERVICE AND WARRANTY tab → *ADD COMMISSIONING PROTOCOL*)**

The template of the Annual Inspection Protocol - Fire Dampers / Smoke Control Dampers is located at the end of the Technical Documentation.

ATTENTION!

The templates of the forms provided by the SMAY Manufacturer Service and available on the manufacturer's website (concerning assembly, start-up, inspections) are the intellectual property of Smay sp. z o.o. They may not be copied, duplicated or used for purposes other than those specified in this Technical Documentation.