023/12 EN
VALID FROM: 1/2/2016

MANDÍK®

INSTALLATION INSTRUCTIONS

FIRE DAMPER
FDMC

FIRE damper type FDMC, is in all variants classified:
as EI 60 ve, ho (i↔o) S acc. EN 13501-3 and tested acc. EN 1366-2 and acc. EN 15650

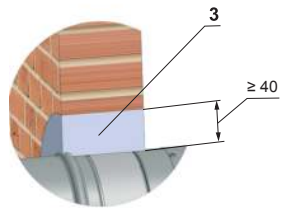
Examples of installation (damper blade inside fire separating construction)

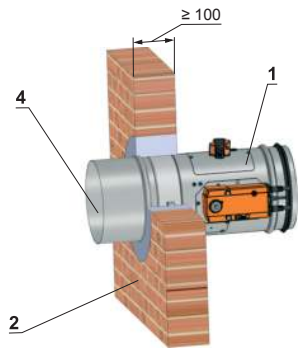
Installation in a solid wall construction

EIS 60

Legend:

1 Fire damper FDMC
2 Solid wall construction
3 Mortar or gypsum
4 Duct



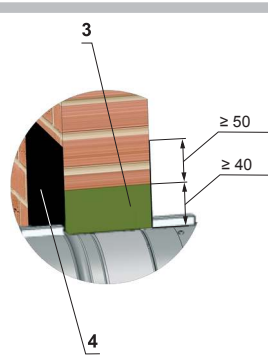


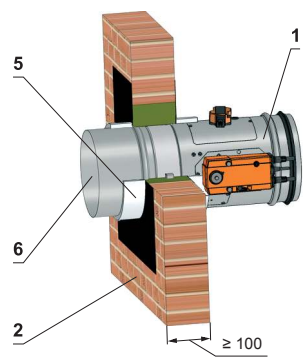
Installation in a solid wall construction

EIS 60

Legenda:

1 Fire damper FDMC
2 Solid wall construction
3 Stuffing box (mineral stone wool min. density 140 kg/m^3)
4 Fire protection mastic min. thickness 1 mm
5 Glass fiber felt with aluminium foil width 50 mm, thickness 5 mm
6 Duct



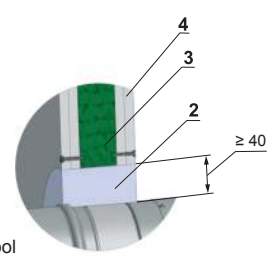


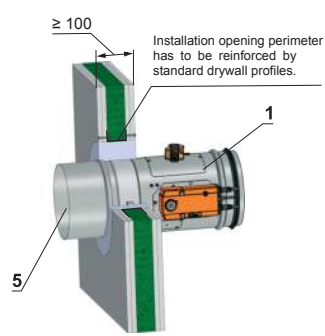
Installation in a solid wall construction (Weichschott system)

EIS 60

Legend:

1 Fire damper FDMC
2 Mortar or gypsum
3 Fire protection plate of mineral wool
4 Gypsum wall construction
5 Duct



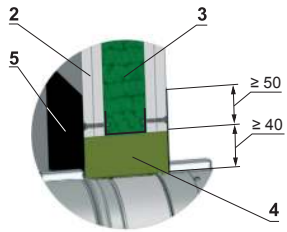


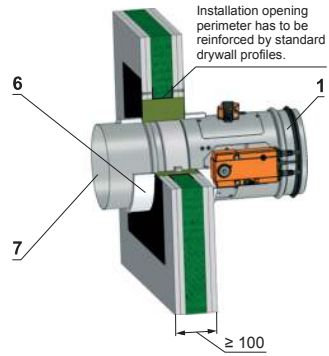
Installation in a gypsum wall construction

EIS 60

Legenda:

1 Fire damper FDMC
2 Gypsum plate
3 Fire resistant insulation
4 Mineral stone wool min. density 140 kg/m^3
5 Fire protection mastic min. thickness 1 mm
6 Glass fiber felt with aluminium foil width 50 mm, thickness 5 mm
7 Duct



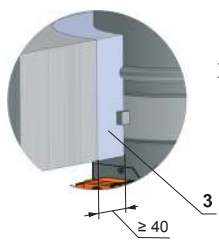


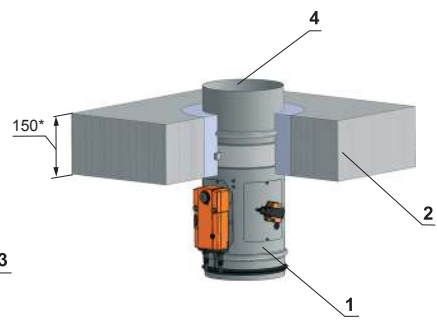
Installation in a gypsum wall construction

EIS 60

Legend:

1 Fire damper FDMC
2 Solid ceiling construction
3 Mortar or gypsum
4 Duct





* min. 110 - Concrete/ min. 125 - Aerated Concrete

Installation in a gypsum wall construction (Weichschott system)

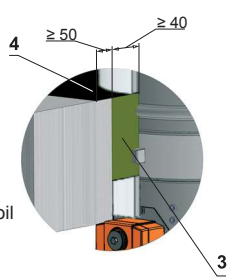
EIS 60

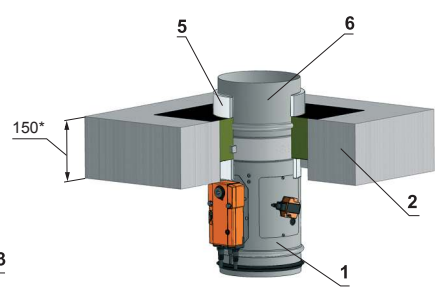
Legend:

1 Fire damper FDMC
2 Solid ceiling construction
3 Mineral stone wool min. density 140 kg/m^3
4 Fire protection mastic min. thickness 1 mm
5 Glass fiber felt with aluminium foil width 50 mm, thickness 5 mm
6 Duct

Example materials used:

3 Hilti CP673 PF
4 Hilti CP673



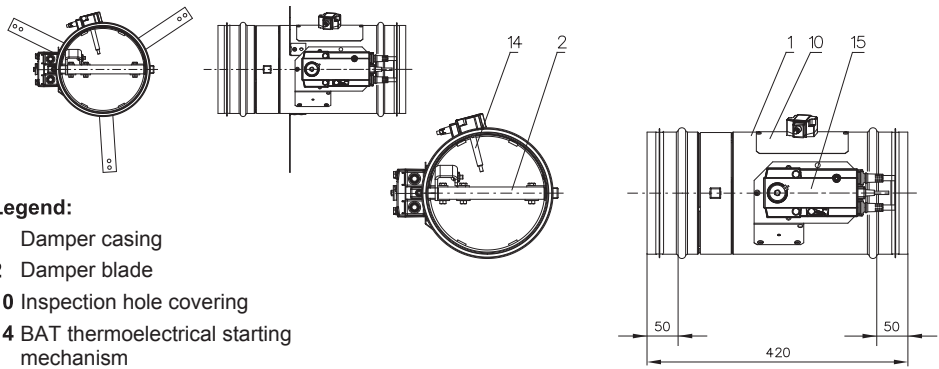


Another methods installation of fire dampers are available in TPM 083/12.

Damper dimensions

Fire Damper FDMC

Optional is possible use installation holders



Legend:

1 Damper casing

2 Damper blade

10 Inspection hole covering

14 BAT thermoelectrical starting mechanism

15 Actuating mechanism

Installation instructions

1.) All fire dampers have to be closed during installation process.

2.) The control mechanism has to be protected (covered) against damage and pollution during installation process.

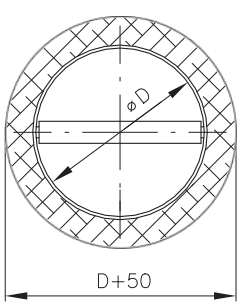
3.) Min. gap for installation (installation opening) is 25 mm (circular dimension ⌀ D + 50 mm).

4.) Installation gap must be filled by approved material perfectly in all the installation space volume (installation gap).

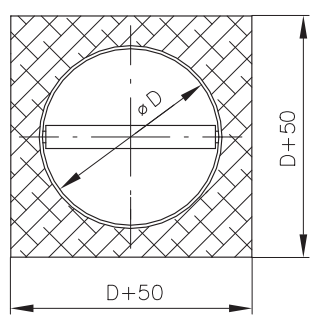
5.) The distance between the fire damper and the construction (wall, ceiling) must be minimum 75 mm according to EN 1366-2. In case that two or more dampers are supposed to be installed in one fire separating construction, the distance between the adjacent dampers must be at least 200 mm according to EN 1366-2 paragraph 13.5.

6.) Installation in the opening.

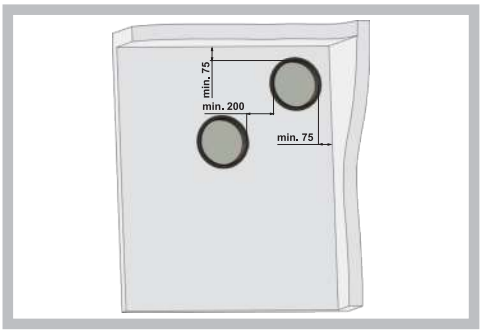
Installation opening - round



Installation opening - square

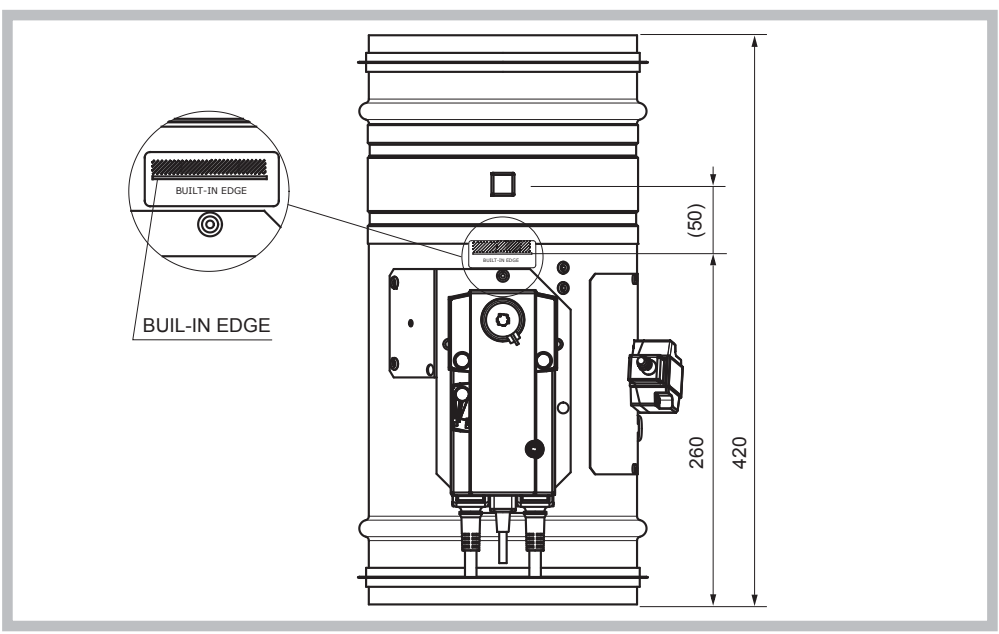


7.) Placement of the openings in the wall.



NOTICE
Damper assembly procedures must be done so as all load transfer from the fire separating constructions to the damper body is absolutely excluded. Back-to-back air - conditioning piping must be hung or supported so as all load transfer from the back-to-back piping to the damper is absolutely excluded.

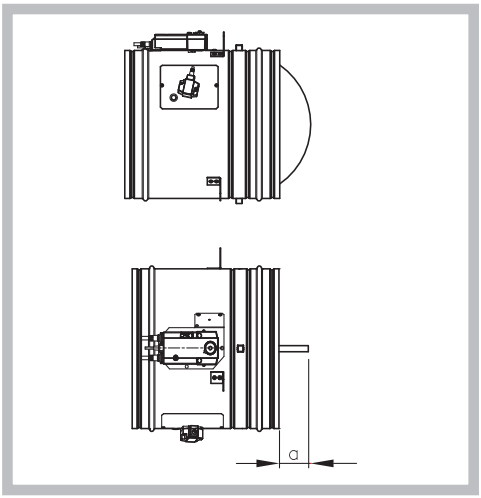
8. The fire damper can be integrated into a solid or gypsum wall construction or into solid ceiling construction. Damper blade has to be inside of construction (labelled with BUILD IN EDGE on the damper body).



9. All fire dampers has to be closed during installation process. The damper body should not be deformed in the course of bricking in. Once the damper is built in, its blade should not grind on the damper body during opening or closing.

10. To provide needed access space to the control device, all other objects must be situated at least 350 mm from the control parts of the damper. Inspection hole must be accessible.

11. Damper blade overlaps.

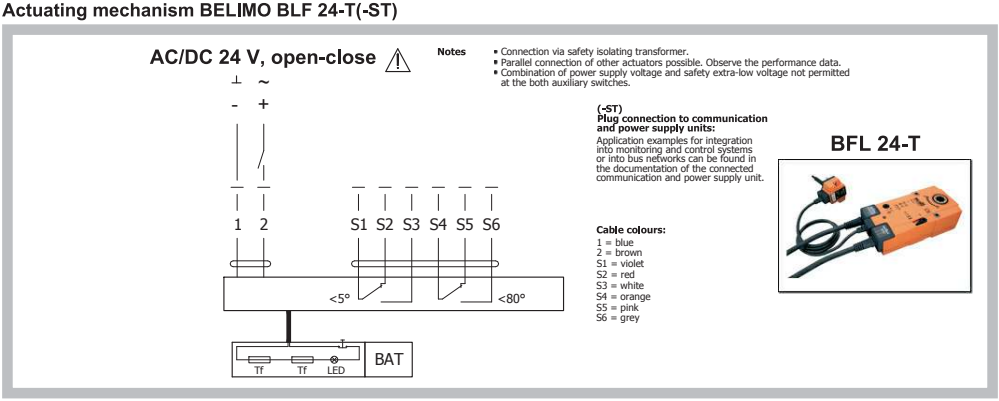


DN	a
100 - 225	–
250	9
280	24
315	42
350	59
355	62
400	84

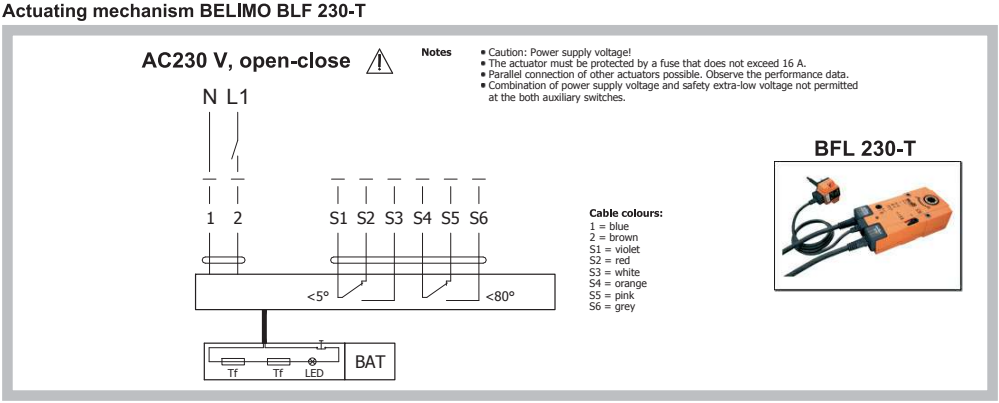
Notice :
The blade of fire damper exceeds body of fire damper by the value “a”. There has to be enough space in duct for blade rotation.

12. Electrical components, wiring diagrams.

Actuating mechanism BELIMO BLF 24-T(-ST)



Actuating mechanism BELIMO BLF 230-T



13. Before entering the dampers into operation after assembly and after sequential revisions, checks and functionality tests of all designs including operation of the electrical components must be done. After entering into operation, these revisions must be done according to requirement set by national regulations.

14. Before entering the dampers into operation after their assembly and by sequential checks, the following checks must be carried out.

    Visual inspection of proper damper integration, inside damper area, damper blade, contact surfaces and silicon sealing.

    Inspection hole disassembly: release the covering lid by removing the two screws in the corners of inspection hole. Then remove lid from its original position.

    Check of blade displacement into the breakdown position "CLOSED" can be done after cutting off the actuating mechanism supply (e.g. by pressing the RESET button at the thermoelectrical starting mechanism BAE 72B-S or cutting off the supply from ELECTRICAL FIRE SIGNALISATION). Check of blade displacement back into the "OPEN" position can be done after restoration of power supply (e.g. By releasing the RESET button or restoration of supply from ELECTRICAL FIRE SIGNALISATION).

15. Manual operation

    Without power supply, the damper can be operated manually and fixed in any required position. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.

16. It is recommended to provide periodical checks, maintenance and service actions on Fire Equipment by Authorized persons schooled by Producer.

17. All effective safety standards and directives must be observed during fire damper assembly.

Material

1. Damper bodies are supplied in the standard design made of galvanized plate without any other surface finish.
2. Damper blades are made of fire resistant asbestos free boards made of mineral fibres.
3. Fasteners is galvanized.

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