

DESCRIPTION

The fail-safe marine automatic fire dampers FDA type are designed for installation in ventilation and air conditioning ducts at A0-A60 fire class divisions (decks and bulkheads). They prevent the spread of fire and smoke within the ventilation ductwork. FDA fire dampers consist of flanged steel casing with opposed blades filled with fire-resistant mineral wool sealed with thermal expanding gasket. Fail-safe is made by thermal release device which operates if temperature inside the duct increases above 72°C (optionally 90°C, e.g. for galley applications). Then, or if power supply is interrupted, spring-return actuator closes the blades. The damper is open automatically when the thermal element has been replaced or operating voltage is reconnected. The blades actual position is clearly marked on its casing. Both electrically and pneumatically operated fire dampers are fitted for device for manual closing in case of actuator failure.

FDA fire dampers can be supplied with or without remote control/indicating device. For dampers with electric actuator it comprises one or two controllers for closing/opening and red/green lamps for indication of damper actual position. Controllers have to be installed on one or both sides of protected partition according to the Regulations. Dampers with pneumatic actuator, in addition to above, can be fitted with delivered loose electro-pneumatic valve for actuator control.

FDA fire dampers have been fire tested in accordance with approval procedure of IMO Resolution A.754(18) 1994. Dampers FDA can be installed on A0, A15, A30 and A60 fire class decks and bulkheads where required by SOLAS 2011 Part II-2 Reg.9.4.1.1.9, 9.7.2, 9.7.3, 9.7.4.6, 9.7.5.1.1 and 9.7.6. provided that:

- dampers are fitted to deck or bulkhead by means of penetration as required by Rules;
- penetration and damper's casing are fire insulated as required by Rules;
- gasket between damper and penetration flanges, if fitted, must be of non-combustible material as defined by IMO FTPC Part1. Alternatively, gasket of PROMASEAL PL, thickness 2,5 mm (PROMAT GmbH, Germany), may be used.

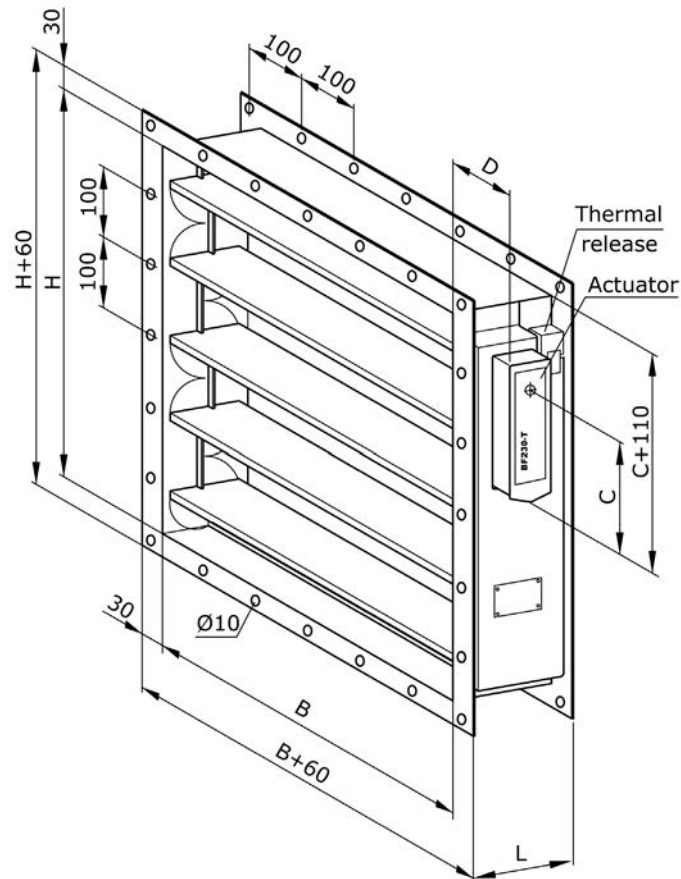
Certificates:

- Germanischer Lloyd Approval Certificate No 50 700 – 03 HH
- Marine Equipment Directive 96/98/EC, EC Type Examination Certificate No 50 701 03 Lux
- Mark of Conformity 0801-03 (MED)

FDA automatic fire dampers are manufactured with electric or pneumatic actuators, both of single-action return spring. Electric actuator voltage is 24V or 230V, frequency – 50/60Hz, enclosure IP54. Power consumption is 8W at spring tightening and 3W if blades are kept in open position. Damper release time is 20 seconds, reset time – 150 seconds. Pneumatic actuator for 5-8 bars gas working pressure, release/reset time less than 5 seconds. Electric supply for electro-pneumatic control valve and limit switches – 24V or 230V, 50/60Hz. Both electrically and pneumatically driven fire dampers are produced in standard and explosion-proof executions, with non-sparking movable co-operating elements and EExdIICT6 class electrical equipment.

TECHNICAL SPECIFICATION & DIMENSIONS

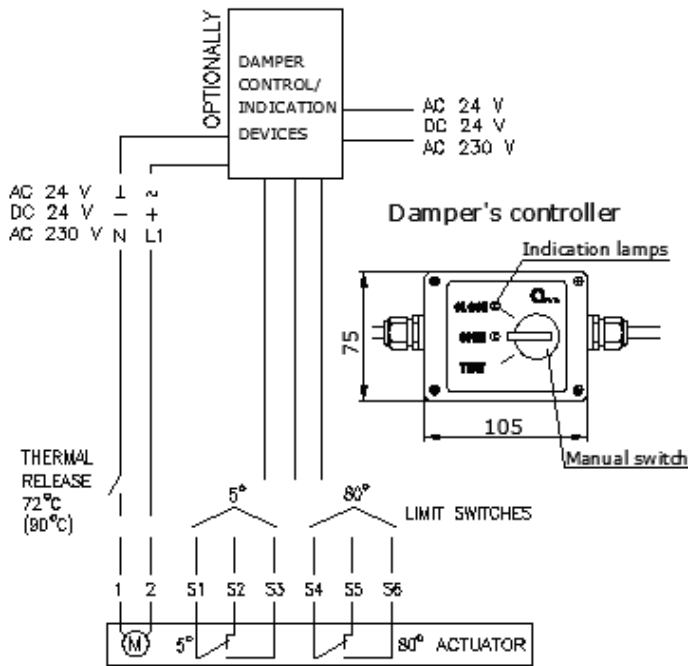
Dimensions [mm]						
BxH	For B or H	S	L	C	D	Execution
100x100 to 1000x1000	100 - 315	3	220	200	100	Standard
	400, 500	4				
	630 - 1000	5	300	230	210	Dampers with EExd electric actuator


MARKING

Example of FDA fire damper marking:
FDA-500x300-EL230-ST-CS-72-2C

500x300 - damper width/height
 EL24 - electric actuator, voltage 24V
 EL230 - electric actuator, voltage 230V
 PN230 - pneumatic actuator, voltage 230V
 PN24 - pneumatic actuator, voltage 24V
 ST - standard execution
 EX - explosion-proof execution

CS - damper material - carbon steel
 SS - damper material - stainless steel
 72 - release temperature, 72°C
 2C - damper with two controllers
 1C - damper with one controller
 NC - damper without controllers

**DIAGRAM OF CONTROLS FOR
ELECTRICALLY OPERATED DAMPERS**

**DIAGRAM OF CONTROLS FOR
PNEUMATICALLY OPERATED DAMPERS**
