# ENAG

## Fire dampers - Range FDL/FDB

Fire dampers prevent the spread of fire and/or gases within the ventilation or air conditioning ductwork. On board ships, they isolate the compartments and therefore increase the safety of the installations.





### FDL-EL or FDB-EL

A temperature rise in the ventilation ductwork releases the thermal fuse, whereupon the operating voltage of the spring return motor is cut off and the springs close the blades. The fire damper opens

automatically when the fuse has been changed and the operating voltage of the spring return motor is reconnected.

### **FDL-PNL or FDB-PNL**

A temperature rise in the ventilation ductwork releases the thermal fuse, whereupon the spring-actuated pneumatic cylinder pressure supply is stopped and the springs shut down the blades.

### Description

The FDB or FDL is a type-approved Class A0 - A60 fire damper for use in ships' ventilation systems. It can be installed in rectangular or circular ducts. The FDL prevents the spread of fire within the air conditioning ductwork. The FDB prevents the spread of fire and fuel gases within the air conditioning ductwork.

The fire damper opens automatically when the fuse has been changed and the pressure supply of the pneumatic cylinder is reconnected. When the blades are in the Open position, the device does not cause significant pressure loss or flow disturbance.

### **FDL-SP or FDB-SP**

A temperature rise in the ventilation ductwork releases the thermal fuse, whereupon the springs shut down the blades. When the fuse has been changed, the fire damper must be set into the Open position manually.

### **FDL-MAN or FDB-MAN**

The fire damper does not contain a fuse. The opening and closing of the damper is performed manually from outside.

The damper is set from outside and can be installed in any position.

The damper has a fixed frame and blades made of painted or hot galvanized steel. It can also be fitted with circular flanges. The bearings are made of stainless steel. The damper can also be supplied to special measurements on request. The nominal release temperature of the fuse is 50, 74 or 100°C. The damper has an open/closed indicator.

### Fire dampers - Range FDL/FDB

### The various actuators

- Electric spring return motor (product code FDB-EL or FDL-EL)
  - Belimo BF24 or BF24-T (24VAC +-20% 50..60Hz; 24VDC +-10%). The motor contains the junction box.
  - Belimo BF230 or BF230-T (220-240VAC 50..60Hz) The motor contains the junction box
- Pneumatic compressed air cylinder (product code FDL-PNL or FDB-PNL) Equipment SS/AISI 316,4 - 8 bar
- Manual spring actuator (product code FDL-SP or FDB-SP)
- Actuator without motor (product code FDL-MAN or FDB-MAN)

Microswitch:

The fire damper can be equipped with a 2-pole microswitch, which indicates the closing of the shut-off blades. The maximum operating voltage and current is 400 V, 10 A. Enclosure class IP 65

### Dimensions

The maximum dimensions in terms of passage are 1000x1000 square form. Possibility passage of in long rectangular or high rectangular form.

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R=90 for electric actuator O=50 mini

- R=110 for manual control and pneumatic actuator
- A= E for manual control and electric actuator
- A= 500 for E<=500 for pneumatic actuator
- A = E for E > 500 for pneumatic actuator

Ø FANS	В	С	D	E	L	Y
100	104	158	158	104	210	3
150	154	208	208	154	210	3
200	204	258	258	204	210	3
250	254	308	308	254	210	3
300	304	358	358	304	210	3
350	354	408	408	354	212	4
400	404	458	458	404	212	4
450	454	508	508	454	212	4
500	504	558	558	504	212	4
550	554	608	608	554	215	5
600	604	658	658	604	215	5
650	654	708	708	654	215	5
700	704	758	758	704	215	5
750	754	808	808	754	215	5
800	804	858	858	804	215	5
850	854	908	908	854	215	5
900	904	958	958	904	215	5
950	954	1008	1008	954	215	5
1000	1004	1058	1058	1004	215	5

#### FC-VOLET CF 1-EN-C

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### Square fire damper