

FIRE DAMPER, H0(H120)

Halton FEX for offshore applications

The Halton FEX fire dampers will be type-approved Class H0(H120) fire dampers for use in offshore, nuclear and navy ventilation systems. FEX dampers are used to protect the integrity of bulkheads where they are penetrated by ventilation ducts. The Halton FEX dampers can be installed in rectangular or circular ducts. Dampers have a fusible link and they prevent the spread of fire and gases within the ventilation ductwork. When the blades are in an open position, the device does not cause significant pressure loss, noise or flow disturbance. FEX dampers are set from outside and are suitable to be installed in any position. An open-closed label is visible on the outside of the damper. Fire dampers with non-standard dimensions can also be supplied on request.

Features

- Will be type approved by most recognized classification societies, class H0(H120) fire damper when suitably insulated
- Fixed frame and blades made of stainless steel AISI 316 L. Painted frame surface as an option on request. Bearings and shafts made of stainless steel and are maintenance free.
- Weldings cleaned by acid treatment
- Lifting lugs as standard
- Blades contain thermal expansion seals
- Nominal release temperature of fuses are 50 C, 74 C or 100 C. Other temperatures available
- Suitable to be installed in any position
- Recommended maximum air velocity is 15m/s
- Automatic pneumatic, electrical or spring operation system available

FEX dimensions and material thickness

FEX fire dampers are manufactured for both rectangular and circular ducts. Sizes for rectangular ducts (BxH) are available from 100x100 mm to 1200x1200 mm in 1 mm increments of duct. Sizes for circular ducts (BxH) are available from diameter 100 mm to 1250 mm. Special non-standard dimensions available on request.

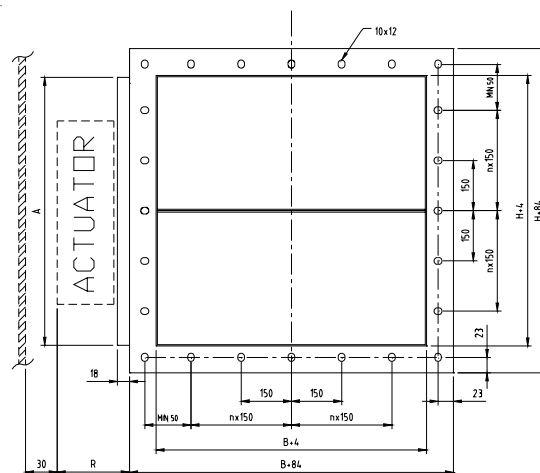
Size of flange is 40mm as standard. NORSOK standards flanges and drilling also available as well as customers own specifications.

Actuator affect on dimensions depending on the actuator and accessories chosen.

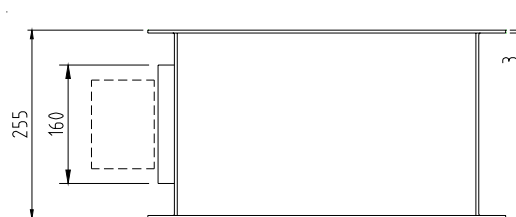
Standard material thickness of casing is 3 mm. Blades are made of two sheets each of them being 1mm thick.



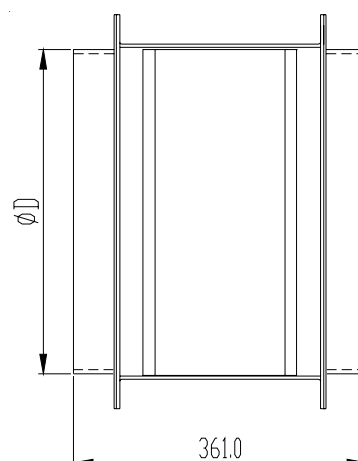
General FEX drawing



General FEX drawing, top (vaihdä kuva)



General FEX drawing, circular

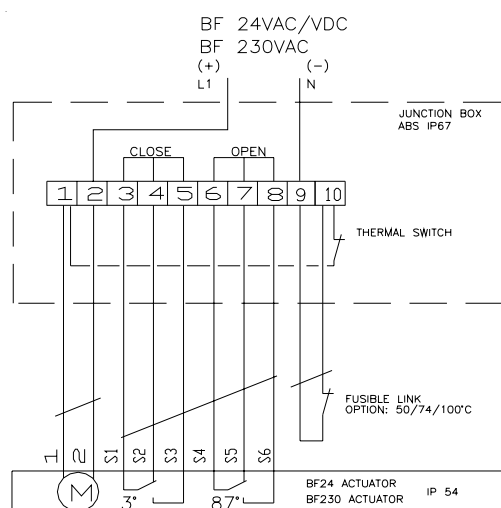


Product models

Halton FEX is available with following actuators:

- FEX-PNR: Pneumatic rotating actuator, 4-6 bar. Junction box available as an option.
- FEX-EL: Electrical spring return motor; standard actuators being BF24, (24 VAC $\pm 20\%$ 50...60 Hz; 24VDC $\pm 10\%$) or BF230, (220-240 VAC 50...60 Hz). The motor contains built in open-closed limit switches. Separate junction box included in the EL-model.
- FEX-SP: Manual spring-actuated damper with fusible link.
- DOT: Manual override function.

FEX-EL wiring diagram

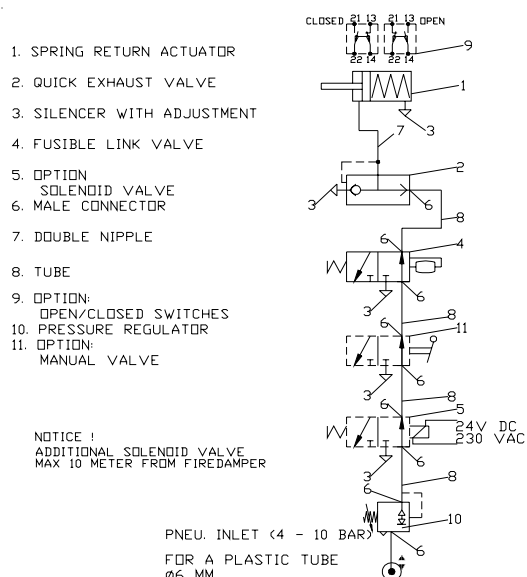


Operation principle

In the case of a temperature rise in ductwork,

- FEX-PNR: fusible link releases and cuts off operating pressure to the spring return actuator, allowing springs to close the damper blades. The fire damper opens automatically when the fuse has been changed and the supply of the pneumatic air is re-established.
- FEX-EL: fusible link releases and cuts off operating voltage to the spring return motor, allowing the spring to close the damper blades. The fire damper opens automatically when the fuse has been changed and the operating voltage to the motor is re-established.
- FEX-SP: fusible link releases allowing the spring to close the damper blades. When the fuse has been changed, the fire damper must be reset into open position manually.

FEX-PNR wiring diagram



Other options

Actuators:	Anodised or painted aluminium Stainless steel Eex-approved
Piping and fittings:	Stainless steel Polyamide
Controls:	Solenoid valve (AISI 316, brass, aluminium, Eex) Manual valve Quick exhaust valve Limit switches, also as Eex Proximity switches, also as Eex FD-CON-2 open-closed control box for EL-type dampers Pressure regulator

Junction box:	Aluminium Stainless steel Eex-approved
Construction:	Bearings (brass, bronze) Earth continuity bosses Enclosure above controls Preinsulation between casing and enclosure Flanges (counter and connection)