



## OPERATING AND MAINTENANCE INSTRUCTIONS

### FIRE SMOKE DAMPERS (FSD'S)

#### GENERAL DESCRIPTION

Puma Fire Smoke Dampers, (FSD'S), are used to provide an effective seal to apertures in fire rated walls etc. These are fitted as standard to any Puma fresh air input or extract units used in the event of fire suppression gas release.

The purpose of this damper is to maintain the integrity of apertures in fire walls. The damper should be located as close as possible to the wall aperture. This will maintain the fire integrity of the wall. The fire rating of the fire smoke damper is 2 hours, tested to BS EN 1634 - 1 : 2008.

The casing and blades are constructed from galvanised steel. 25mm external flanges are fitted as standard, 50mm flanges are available on request. Optional circular / rectangular spigot connections are available on request.

The blades are fitted with high temperature silicon blade seals. They have a leakage performance of 53 ltr/s/m<sup>2</sup> @ 250 Pa to 103 ltr/s/m<sup>2</sup> @ 1000Pa.

All Dampers are available with a fusible link rated at 75°C, Electro Thermal Link, or Pneumatic actuators. HEVAC installations frames for masonry walls are available.

#### DAMPER MOTOR

This motor type is 'powered open' and will 'spring return' on power failure. The mains supply must be interlocked with the air-conditioning system power shutdown facility via the firemans keyswitch, break glass point, or fire detection panel.

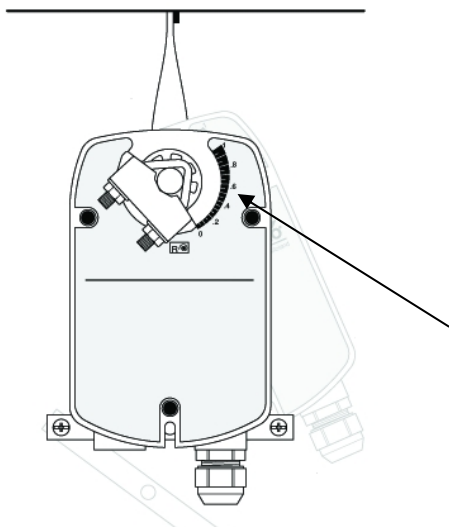
The damper motor is a fully sealed unit and is provided with 1.5m mains supply cable. The motor is factory fitted to the damper casing to prevent any movement of the motor during operation.

**Any tampering of the motor seal or cable will invalidate warranty.**

In the event of motor power failure, (i.e. fire condition), the damper motor will 'spring return' shut, effectively sealing the damper within 16 - 20 seconds. Once the mains power is applied to the motor, the spring mechanism inside the damper motor is 'powered open' and opens the damper fully in approximately 75 seconds.

## **Damper Blade Adjustment via Actuator**

On commissioning, the damper blades can be adjusted in ‘fully open mode’ to restrict the amount of airflow, if required, by adjustment of the damper actuator:



- Make sure damper blades are fully closed and power has been isolated before attempting to adjust actuator.
- On the actuator there is a gauge, (as highlighted), with an end stop. The factory setting on this will be 100%. This end stop can be adjusted between 40-100%.
- To adjust, loosen the screw on the end stop and move the stop to the required position. Once in position, firmly re-tighten screw.
- Power up unit and test damper operation. If more adjustment is needed, repeat above steps.

## **SERVICE & MAINTENANCE**

The Fire Smoke Damper and selected motor require no service as such, but a periodic mechanical and electrical test of the working mechanisms should be carried out at least twice yearly, or to coincide with existing service and maintenance contracts.

See appropriate certified drawing of units for further information re: sizes etc.



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