



# ALSHARQA



## SMOKE FIRE DAMPER

AIR OUTLETS  
TECHNICAL CATALOGUE



Air Conditioning and Industries

المصرية الخليجية لأعمال التكييف - الشارقة  
*egyptian gulf for the work  
of air conditioning*



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## DESCRIPTION

## FIRE SMOKE DAMPERS

SFSD SERIES SFSD for Use in Dynamic Systems Fire Resistance: 1 1/2 HR and 3 HRS  
Leakage Resistance: Class I - 350 °F and Class II - 250 °F Dynamic Closure Ratings: 2000 FPM and 4000 FPM Air Velocity Closed Damper Pressure Rating: 4 inch W.G. UL File No.: R22165

## Product Description

fire smoke dampers provide an automatic means of localizing areas of smoke and or fire in ventilation systems that is greatly contribute to the safety of life and property in the early stage of fire. It prevents the spread of fire and or smoke through ventilation ductworks or wall openings. These type of dampers offer an effective fire or smoke barrier maintaining the integrity in a fire situation and it is combined with low leakage characteristic for smoke management. It is suitable for installation in sheet metal ductworks, openings in walls or floor slabs made from concrete, bricks and in lightweight partition walls.

**BAE165\_US** Thermoelectric Tripping Device (heat sensor) to replace the existing high torque spring/ fusible link fire closure mechanism in all Fire & Smoke dampers and blade type Fire dampers. The “**BAE165\_US**” is thermally responsive bimetal disc/sensor that open and close the electrical contacts at a specific factory calibrated temperature setting. The “**BAE165\_US**” is available in fixed temperature setting at 165°F (74 °C) only. The “**BAE165\_US**” requires factory installation and wiring together with the qualified actuator to meet “UL” requirements. Dampers which allow remote resetting of the damper from a remote location are dangerous.

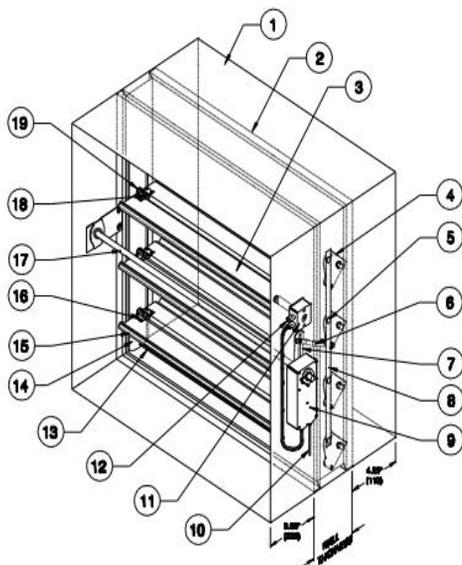


SFSD-MODEL

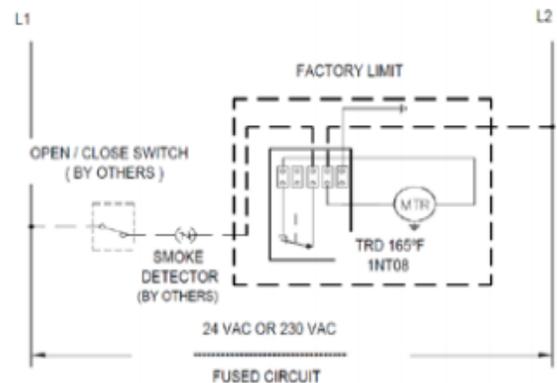
## DESCRIPTION

**SFSD** with Factory Installed Sleeve, **AE165\_US** and Actuator  
**Model: SFSD**

1. Sleeve
2. Damper Frame
3. Blade
4. Linkage Bracket
5. Lock Washer and Galvanized Round Washer
6. Kneelock
7. Crank
8. Linkage Bar
9. Actuator
10. Auxillary Switch Cable for Indicating Damper Blades Position
11. Thermoelectric Tripping Device (**BAE165\_US**)
12. Power Supply
13. Blade Stop
14. Stainless Steel Side Seal
15. Blade Tip Seal
16. Stub Shaft (Latch)
17. Jackshaft
18. Axle
- E19. Bearing



**Typical Wiring Diagram**



## DESCRIPTION

### Pressure Drop

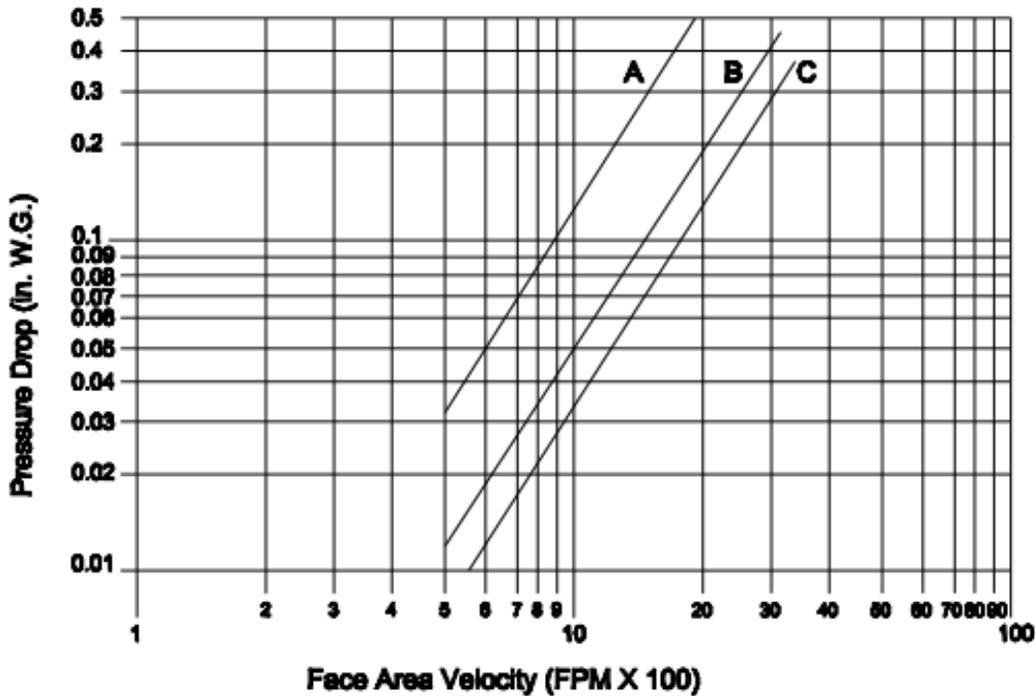
The test method for pressure drop of Fire/Smoke as .Damper was conducted. per ANSI/AMCA Standard which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



### **Pressure Drop**

Face Area Velocity

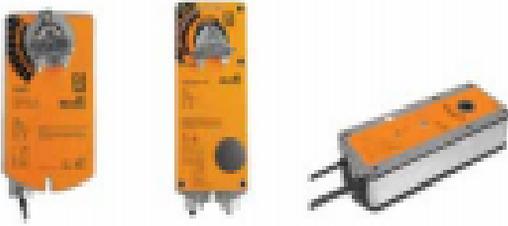
- A- Damper Size: 12in. x 12in. - Fully open blades
- B- Damper Size: 24in. x 24in. - Fully open blades
- C- Damper Size: 36in. x 36in. - Fully open blades



## DESCRIPTION

### Actuators

#### Belimo Actuator



Model: FSLF    Model: FSNF    Model: BF

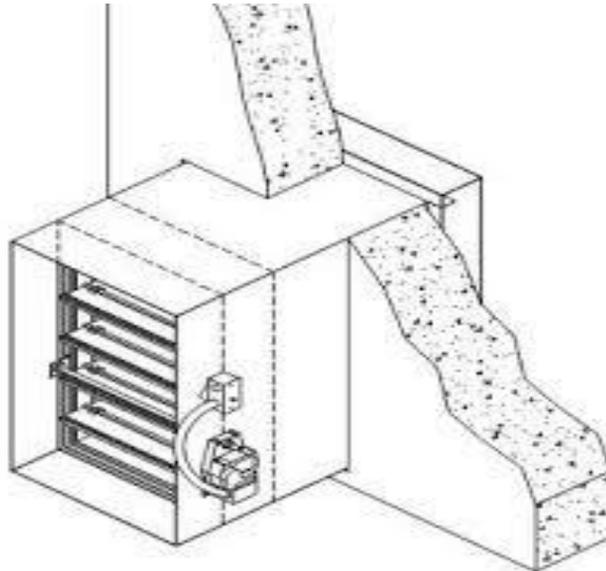
#### Honeywell Actuator



Model: MS4620F1203



Thermolectric Tripping Device  
Model: BAE165 US or (74 )(165 °F).



It is suitable for installation in sheet metal ductworks, openings in walls or floor slabs made from concrete, bricks and in lightweight partition walls.

## DESCRIPTION

## FLANGE FIRE SMOKE DAMPER



**SFSD 30** provide an automatic means of localizing areas of smoke fire in ventilation systems. It prevent the distribution of fire and/or smoke through ventilation ductworks. **SFSD** offer an effective barrier maintaining integrity in a fire situation and this is combined with low leakage characteristic for smoke management. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition wall.

**Standard Construction****Frame:**

180mm x 30 mm x 1.25mm galvanized steel, formed for flange connections.

**Blades:**

250mm max. width, 1.25mm galvanized steel.

**Finish:**

Mill galvanized.

**Linkage:**

Face linkage parallel blade operation is standard. Linkage consist of 6mm dia. S/S steel pivot pins.

**Case Bearings:**

Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

**Fusible Link:**

Standard release 74 °C. (165 °F) is std. (UL listed) Other temperatures available on request.

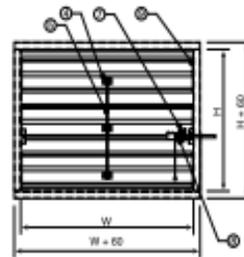
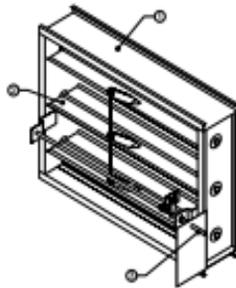
**Axles & Control Shaft:**

12mm diameter zinc plated mild steel.

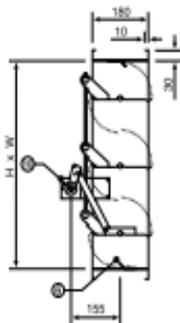
## DESCRIPTION

### Smoke Mode:

When a signal detected through normally closed smoke detector (by others) connection, the power supply to the fire and smoke damper actuator will be interrupted. The energy stored in the damper actuator moves the damper back to its safe position and remain closed until the smoke signal close down. The system will reset after power is reapplied to the actuator and damper will open. By placing an optional control switch (by others), the damper blades at open position can be closed at any time if required.



Flange Type



Standard Sizes

Width (mm)	Height (mm)	No. of Blades
200	200	1
250	250	1
300	300	2
350	350	2
400	400	2
450	450	3
500	500	3
550	600	4
600	700	4
650	800	5
700	900	6
750	1000	6
800		
850		
900		
950		
1000		

## DESCRIPTION

**CIRCULAR FIRE SMOKE DAMPER****Description :-**

fire and smoke dampers, SFSD 50 provide an automatic means of localizing areas of smoke and/or fire in ventilation systems. It prevent the distribution of fire and/or smoke through ventilation ductworks. SFSD offer an effective barrier maintaining integrity in a fire situation and this is combined with low leakage characteristic for smoke management. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls.

**Standard Construction****Frame(Spigot Type):**

105mmx1.25mm galvanized steel L=530mm

**Blades:**

250mm max. width,1.25mm galvanized steel.

**Finish:**

Mill galvanized.

**Linkage:**

Face linkage, parallel blade operation is standard. Linkage consist of 6mm dia. S/S steel pivot pins.

**Case Bearings:**

Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

**Fusible Link:**

Standard release 74 °C. (165 °F) is std. (UL listed) Other temperatures available on request.

**Axles & Control Shaft:**

12mm diameter zinc plated mild steel.

**Seals:**

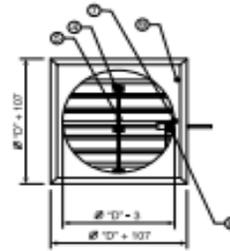
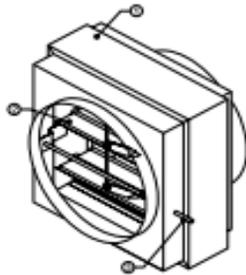
Side seal are compression type stainless steel 250mm max. width,1.25mm galvanized steel.

## DESCRIPTION

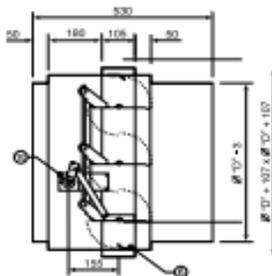
### CIRCULAR FIRE SMOKE DAMPER

#### Dimensions

- 1-Casing
- 2 - Blade
- 3 - Drive Shaft
- 4 - Face Linkage
- 5 - Linkage Bar
- 6 - Landing Angles
- 7 - Fusible Link 74 °C (UL listed)
- 8 - Closing Spring
- 9 - Side Seal
- 10 - Jack Shaft Device Dimensions



Circular Spigot Type



Standard Sizes

Diameter (mm)	No. of Blades
200	1
250	1
300	2
350	2
400	2
450	2
500	3
550	3
600	4
650	4
700	5
750	6
800	
850	
900	
950	
1000	

## DESCRIPTION

## OVAL SPIGOT FIRE SMOKE DAMPER

**Description**

fire and smoke dampers type, FSD 60 provide an automatic means of localizing areas of smoke and/or fire in ventilation systems. It prevent the distribution of fire and/or smoke through ventilation ductworks. FSD offer an effective barrier maintaining integrity in a fire situation and this is combined with low leakage characteristic for smoke management. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls.

**Standard Construction****Frame (Spigot Case):**

105mmx1.25mm galvanized steel L=530mm

**Blades:**

250mm max. width, 1.25mm (galvanized steel).

**Finish:**

Mill galvanized.

**Linkage:**

Face linkage, parallel blade operation is **standard**.

Linkage consist of 6mm dia. S/S steel pivot pins.

**Case Bearings:**

Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

**Fusible Link:**

Standard release 74 °C. (165 °F) is std. (UL listed) Other temperatures available on request.

**Axles & Control Shaft:**

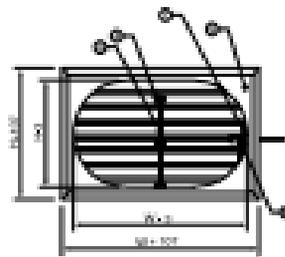
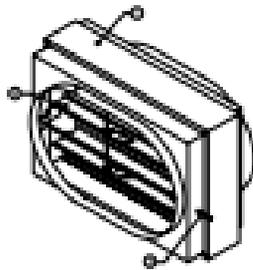
12mm diameter zinc plated mild steel. Seals: Side seal are compression type stainless steel grade 304 to close gap between case and blades.



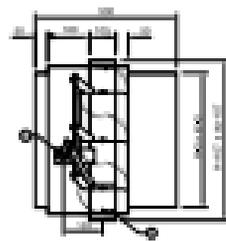
## DESCRIPTION

### Dimensions

- 1 - Casing
- 2 – Blade
- 3 - Drive Shaft
- 4 - Face Linkage
- 5 - Linkage Bar
- 6 - Landing Angles
- 7 - Fusible Link 74 °C (UL listed)
- 8 - Closing Spring
- 9 - Side Seal
- 10 - Jack Shaft Device



Oval Spigot Type



### Standard Sizes

Width (mm)	Height (mm)	No. of Blades
250	200	1
300	250	1
350	300	2
400	350	2
450	400	2
500	450	2
550	500	3
600	550	3
650	600	4
700	650	4
750	700	4
800	750	5
850	800	5
900	850	5
950	900	6
1000	950	6
1100	1000	6

## DESCRIPTION

**RECTANGULAR SPIGOT FIRE SMOKE DAMPER****Description**

Combination fire and smoke dampers type, FSD 70 provide an automatic means of localizing areas of smoke and/or fire in ventilation systems. It prevent the distribution of fire and/or smoke through ventilation ductworks. FSD offer an effective barrier maintaining integrity in a fire situation and this is combined with low leakage characteristic for smoke management. It is suitable for installation in sheet metal ductworks or in walls or ceiling slabs made from concrete, brick and lightweight partition walls.

**Standard Construction****Frame (Spigot Case):**

105mmx1.25mm galvanized steel L=530mm

**Blades:**

250mm max. width, 1.25mm galvanized steel.

**Finish:**

Mill galvanized.

**Linkage:**

Parallel blade have standard face linkage, parallel blade operation is standard.

Linkage consist of 6mm dia. S/S steel pivot pins.

**Case Bearings:**

Made sintered bronze (oilite), operational temp. resistance up to 200 °C.

**Fusible Link:**

Standard release 74 °C. (165 °F) is std. (UL listed) Other temperatures available on request.

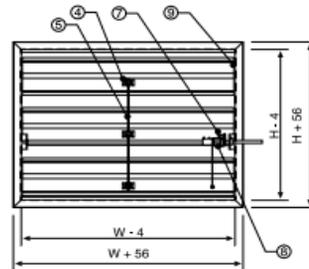
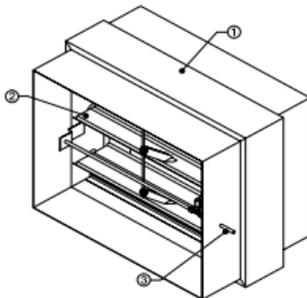
**Axles & Control Shaft:**

12mm diameter zinc plated mild steel.

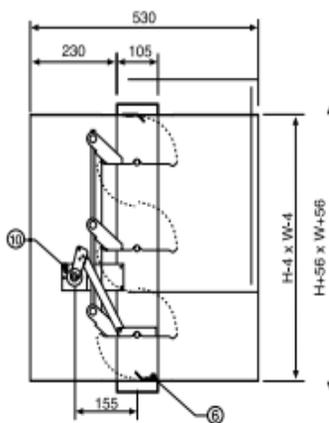
## DESCRIPTION

### Dimensions

- 1 - Casing
- 2 - Blade
- 3 - Drive Shaft
- 4 - Face Linkage
- 5 - Linkage Bar
- 6 - Landing Angles
- 7 - Fusible Link 74 °C (UL listed)
- 8 - Closing Spring
- 9 - Side Seal
- 10 - Jack Shaft Device



### Rectangular Spigot Type



### Standard Sizes

Width (mm)	Height (mm)	No. of Blades
200	200	1
250	250	1
300	300	2
350	350	2
400	400	2
450	450	3
500	500	3
550	600	4
600	700	4
650	800	5
700	900	6
750	1000	6
800		
850		
900		
950		
1000		



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