

Chemical Gas 'Dual Flow' Pressure Relief Dampers

Hydrofluorocarbons - HFC-125 - HFC-23 (FE-13) - HFC - 227ea (FM 200) HFC - 236fa
Perfluoroketone - FK-5-1-12 (NOVEC 1230, NITIN 1230, Sapphire)

POSITIVE FUNCTION

The Dual Flow damper Inner Fire Section is fitted with balanced weighted blades, hinged on stainless steel rods and bronze bearings. The precision engineering and blade overlap provides a positive shutter to the wall opening and minimum leakage

INTRINSIC SOUND ABSORPTION

All Dual Flow Dampers are fitted with integral 'Cat Flap' or positive shutoff closing door held in place with a magnetic catch - this provides an intrinsic sound barrier and a positive air, dust and noise seal

THERMAL BARRIER

The integral 'Cat Flap' will provide a natural thermal barrier between the two areas, ideal when fitted in external walls, this will help to prevent condensation forming on the Inner Fire Section blades. Additional insulation can be fitted to increase the thermal and sound absorption characteristics

QUALITY FINISH

All products are manufactured from Zintec Steel and polyester powder coated to RAL9010 - Special colours are available on request



External View— the Top section is the Under Pressure Blades - Bottom section is the Over Pressure Cat Flap. The Weather Louvre is not shown for clarity.

The UNDER pressure FREE VENT AREA (FVA) is generally higher than the OVER pressure by approximately 30 %

PUMA DUAL FLOW Pressure Relief Dampers incorporate this formula across the range, providing Free Vent Areas between 0.021 m² and 0.381 m²

A full table of the entire range is shown on the reverse page

SYNTHETIC Gaseous Extinguishing systems such as NOVEC 1230 and FM 200

- require UNDER pressure relief and OVER pressure relief - The PUMA range of DUAL FLOW Pressure Relief Dampers or Vents are designed specifically for that purpose

- The range of NINE individual models has been designed with the closest ratio of Free Vent Area available with a proven and tested product. The blade design, construction and assembly have been formulated from an Exova Warrington Test Report and tested to BS EN 1634 - 1 2008—Rated at 2 Hours. All PRD's have Classification to BSEN 13501 E W -120



Internal Room View of Under Pressure Cat Flap & Over Pressure Fire Blades. Telescopic Duct & Full Size Weather Louvre



External Model Showing Half Size Weather Louvre (HSWL)



External Model Showing Full Size Weather Louvre (HSWL)

Each Model is available in an 'Internal Wall Design' or 'External Wall Design' - The Internal Wall Design Model is suitable for walls up to 130 mm deep and is supplied with a 'Decorative Surround (DS)' to line the wall opening. - The External Model is suitable for walls up to 340 mm with a standard Telescopic Duct (TD) and is supplied with a Half Size Weather Louvre (HSWL), this allows the Over Pressure Relief Flap to open fully. Walls deeper than 340mm require a TD - 590 & a Full Size Weather Louvre



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TECHNICAL SUPPORT

PUMA can offer a wealth of experience in sales, application and technical support. Using the latest design CAD software we can provide detailed drawings in dxf or pdf formats.

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Fitting Instructions
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CONTACT DETAILS

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Puma Products Limited™ have supported the specific requirements of the Data Hall - Server Room - Electronic data Processing Environment for over 28 years. Located in the South of England Puma are widely recognized as experts in the field of Air Movement.

Our knowledge and expertise have developed many products - such as Fresh Air Supply and Fire Extinguishant Gas Extract systems, incorporating Fire/Smoke Dampers. The innovative Hot Water Condensate Pumps © continue to lead the market in ' Humidifier Flush-down ' disposal.

In 1999 we developed the first Fire rated Pressure Relief Dampers to relieve the ' Pulse ' pressure spike on the release of high pressure Inert gas Systems - The advent of Synthetic Gas, sealed rooms and integrity testing created the need for the **DUAL FLOW DAMPER**

Nine Vent Sizes Available in Internal and External Wall Versions

| Model Number | Free Vent Area in m ² | | Hole Cut-out in mm | | Approx Weight kg |
|--------------------|----------------------------------|----------------|--------------------|--------|------------------|
| | Over Pressure | Under Pressure | Width | Height | |
| DF PRD 150/375 INT | 0.021 | 0.031 | 220 | 490 | 15 |
| DF PRD 300/375 INT | 0.041 | 0.062 | 370 | 490 | 25 |
| DF PRD 450/375 INT | 0.062 | 0.093 | 520 | 490 | 35 |
| DF PRD 450/600 INT | 0.093 | 0.154 | 520 | 715 | 40 |
| DF PRD 600/600 INT | 0.124 | 0.206 | 670 | 715 | 50 |
| DF PRD 750/600 INT | 0.154 | 0.257 | 820 | 715 | 60 |
| DF PRD 675/750 INT | 0.185 | 0.278 | 745 | 865 | 65 |
| DF PRD 825/750 INT | 0.227 | 0.340 | 895 | 865 | 75 |
| DF PRD 975/750 INT | 0.254 | 0.381 | 1045 | 865 | 85 |

* Refer to Operating and Maintenance Instructions



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