



Actionair Energy/Shield 35

Air Control and System Balancing Dampers

Application

The damper is suitable for systems requiring air control and system balancing.

Features and Design Guide

Energy/Shield 35/R.
Opposed blade movement.

Energy/Shield 35/P
Parallel blade movement.

Choice of Control Options.
Standard: Extended Spindle,
Optional: Manual Quadrant
Electric Control.

Specification

Air control and system balancing dampers with triple-vee 1.6mm thick x 157mm wide, galvanised steel blades. Housed in a 1.2mm thick x 160mm deep galvanised steel frame with 40mm flanges, and with pre-punched corner holes to suit proprietary duct flanges.

Blade axles are 11.1mm hexagonal zinc plated steel,

Synthetic blade bearings give a corrosion resistant, hard wearing and free running operation.

The blade drive mechanism is mounted out of the airstream to minimise pressure drop and noise generation.

Casing leakage conforms to DW144 class C up to 1000 Pa.

Energy/Shield 35/R Damper with extended shaft control illustrated.

Application Parameters

Energy/Shield 35 dampers of maximum width and height are suitable for system pressures up to 1000 Pa, and duct velocity up to 10 m/s.

Operating temperature range is -40°C to + 116°C. Note: actuators may only be suitable for lower temperatures.

Energy/Shield 35 dampers are designed for applications in normal dry filtered air systems. When exposed to fresh air intakes and/or inclement conditions, the dampers should be subject to a planned inspection and maintenance programme.

Energy/Shield 35 is not recommended for installation with blades running vertically.

Size Parameters

Available in 1mm increments

Single Modules

Widths from 200 - 1200mm
Heights from 200 - 1800mm

Multiple Width Configuration

Available as 2 single units, up to a maximum of 2480mm wide. Multiple dampers are driven from each side.

Multiple Height Configuration

Unlimited height.

All multiples are joined together (by others) with galvanised 1.2mm thick 75mm wide joining strips provided. For very large assemblies, additional support may be required - please refer to our Actionair Sales Office.

Control Options



Option X

12.7mm diameter x 150mm Zinc plated steel Extended Spindle for motorised control. Supplied as standard. Loose for site fitting by others.



Option Q

Manual Quadrant Control. Supplied loose for site fixing by others.



Option E

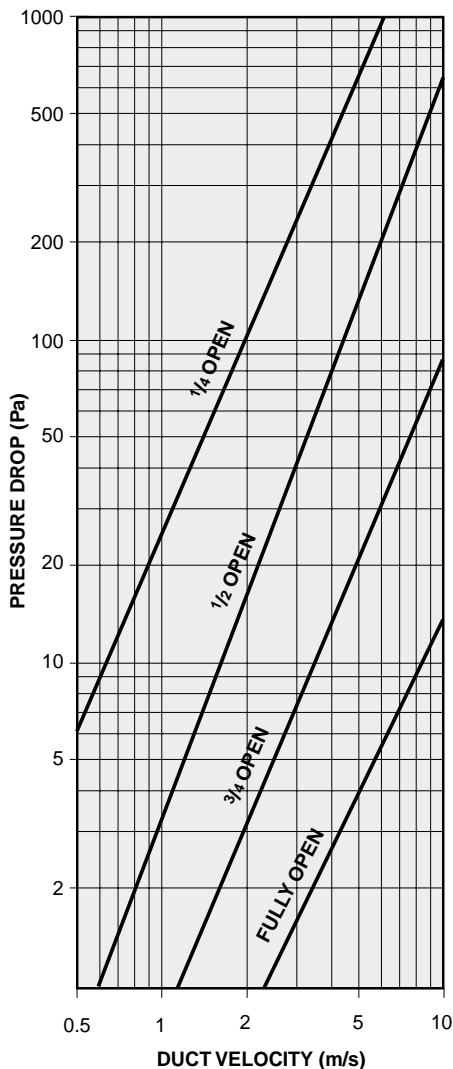
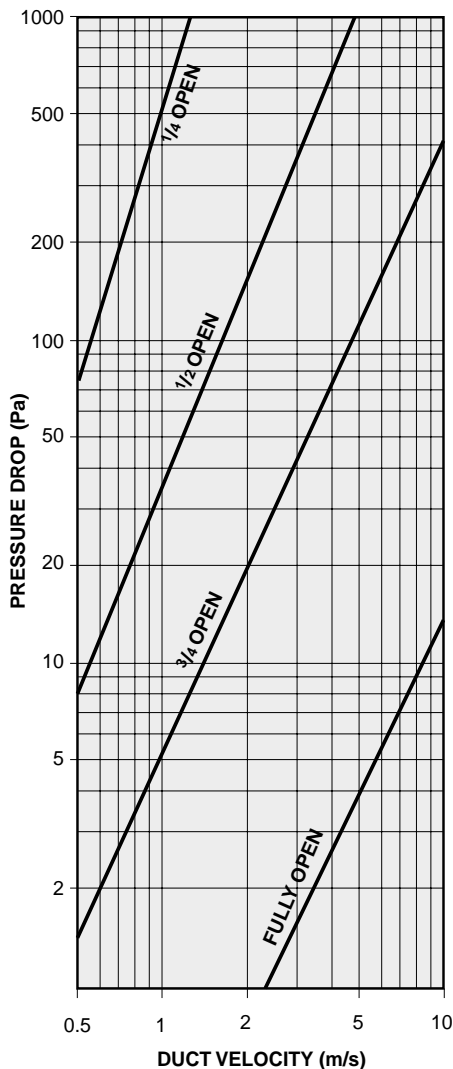
Belimo Actuators for 24V or 230V open/closed or spring return operation and 24V modulating are available.

Technical Data

Graphs showing Pressure Drop Vs Velocity at intermediate Blade positions.

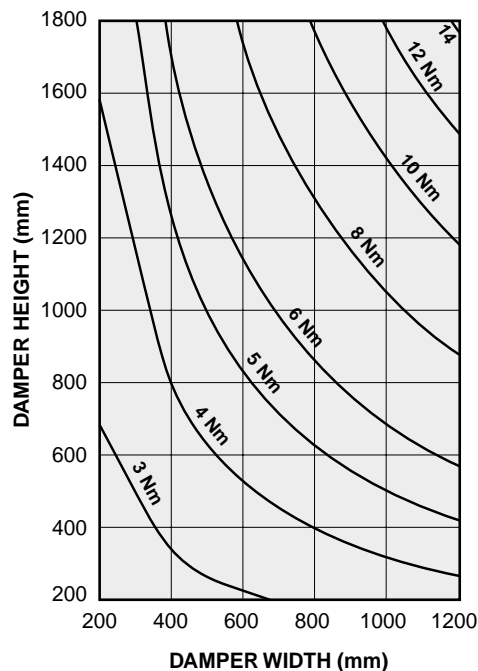
E/S. 35/R (Opposed Blade)

E/S. 35/P (Parallel Blade)



Dampers tested were 600mm x 600mm square

Damper Torques



Ordering Procedure

Example

2	E/S.35	R	Q	400 x 400
QTY	SERIES	TYPE	CONTROL OPTION	DUCT SIZE

Model Type

E/S.35 Air Balancing Damper

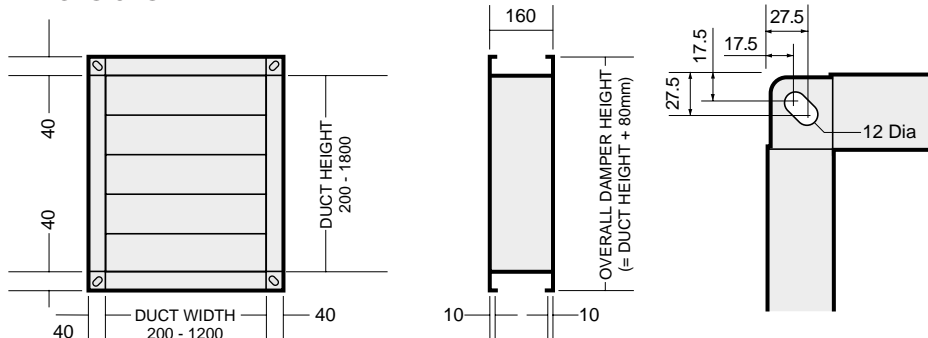
Operation

- R Opposed Blade Movement
- P Parallel Blade Movement

Control

- X Extended Shaft for motorisation by others
- Q Manual Hand Quadrant
- E Motor
(Please state type and voltage of motor separately)

Dimensions



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For further information, please refer to Actionair Sales Office.

The information contained herein is subject to change without notice due to continuing research and development