

## Application

Model ABD-Z1 is designed to provide on demand control to a ventilation system. The ABD-Z1 has a shut off damper with an electric actuator, automatic balancing damper (ABD), and a plenum box as one assembly.

The ABD is designed to maintain a constant airflow volume in HVAC applications. The damper blade is calibrated to automatically adjust to changing pressures.

Optional grilles are available.

## Ratings

### Pressure

0.2 in. wg to 2.0 in. wg (0.05 to 0.50 kPa)

### Volume

25 cfm to 275 cfm (0.012 to 0.130 m<sup>3</sup>/s)

### Temperature

25° F to 150° F (-4°C to 65°C)

### UL Classified

Classified by UL to UL 2043 for heat and visible smoke release (UL File R39668)

## Construction

| Construction                             | Standard                              |
|------------------------------------------|---------------------------------------|
| Plenum Box                               | Steel                                 |
| <b>Round Control Damper Construction</b> |                                       |
| Frame Material                           | Galvanized steel                      |
| Frame Thickness                          | 24 ga. (0.7 mm)                       |
| Blade Material                           | Galvanized steel                      |
| Blade Seal                               | Silicone                              |
| Axle Bearings                            | Synthetic                             |
| Axle Material                            | Plated steel                          |
| Actuator                                 | 120V or 24V with auxiliary switches   |
| <b>ABD Construction</b>                  |                                       |
| Frame Material                           | Reinforced UL 94 thermoplastic resins |
| Blade Material                           | Reinforced UL 94 thermoplastic resins |
| Bearings                                 | Hydraulic blade dampener              |
| Outer Seal                               | Removable rubber gasket               |
| Spring                                   | Stainless steel leaf type             |
| Anti-Microbial Agent                     | Steri-Balance™ infused into plastic   |
| Adapter                                  | Quick-connect adapter ring included   |



See complete marking on product.

UL 2043 Classification  
R39668

## Building Types

- Apartments and Condos
- Education Building and Dormitories
- Hospital and Clinics
- Hotels and Motels
- Nursing Homes and Assisted Living

## Plenum Box by Diameter

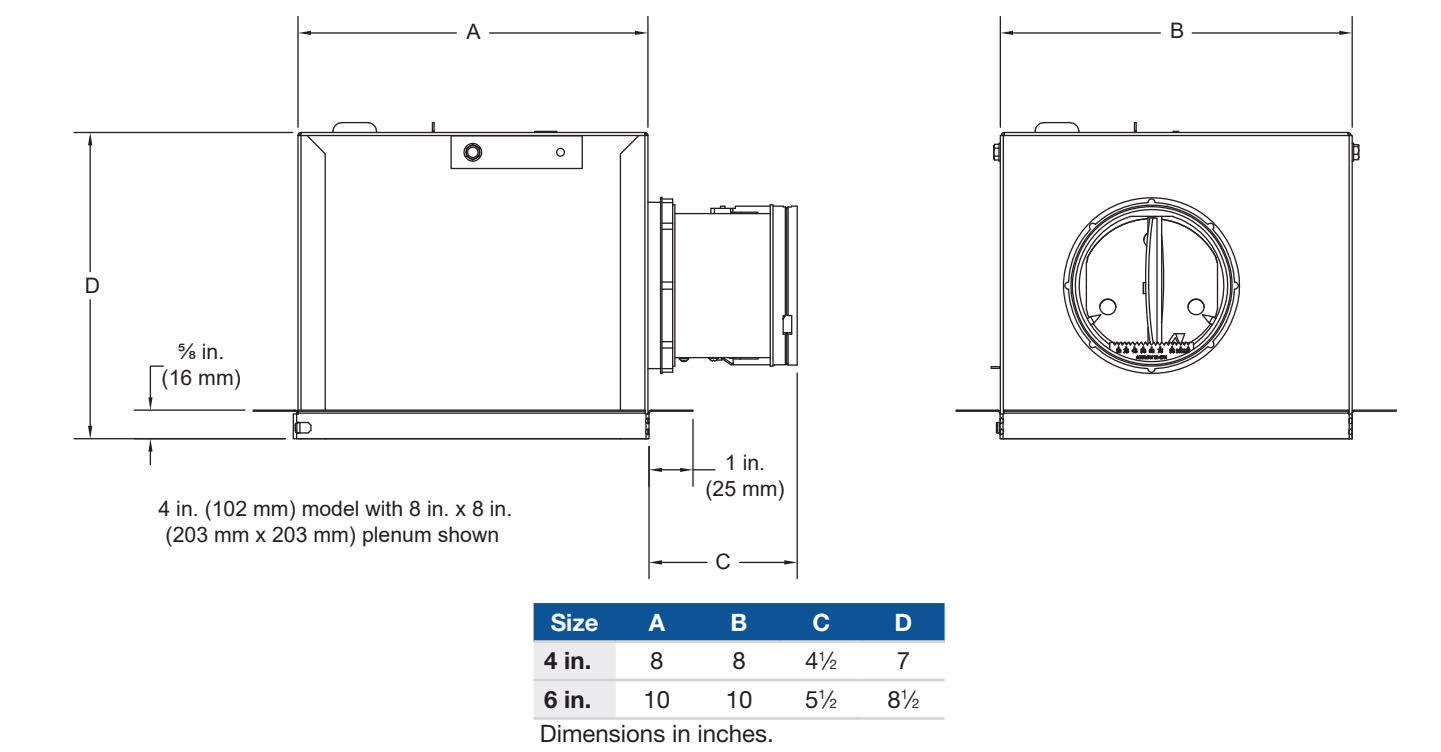
| Diameter     | Grille Box Sleeve Size in Inches (mm) |
|--------------|---------------------------------------|
| 4 in (102mm) | 8 x 8 x 7 (203 x 203 x 178)           |
| 6 in (152mm) | 10 x 10 x 8½ (254 x 254 x 216)        |

## Airflow Range by Size

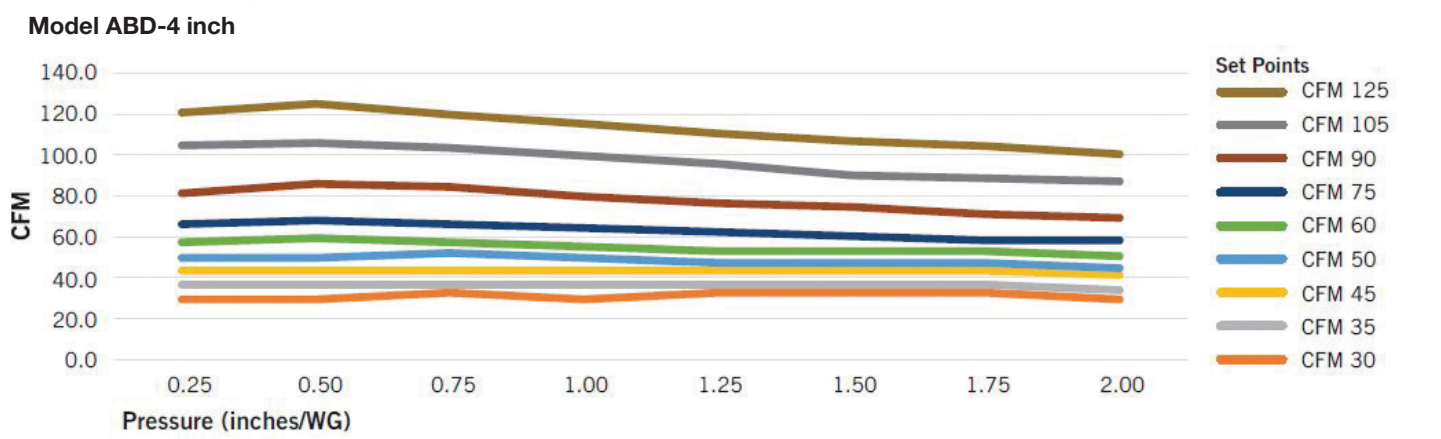
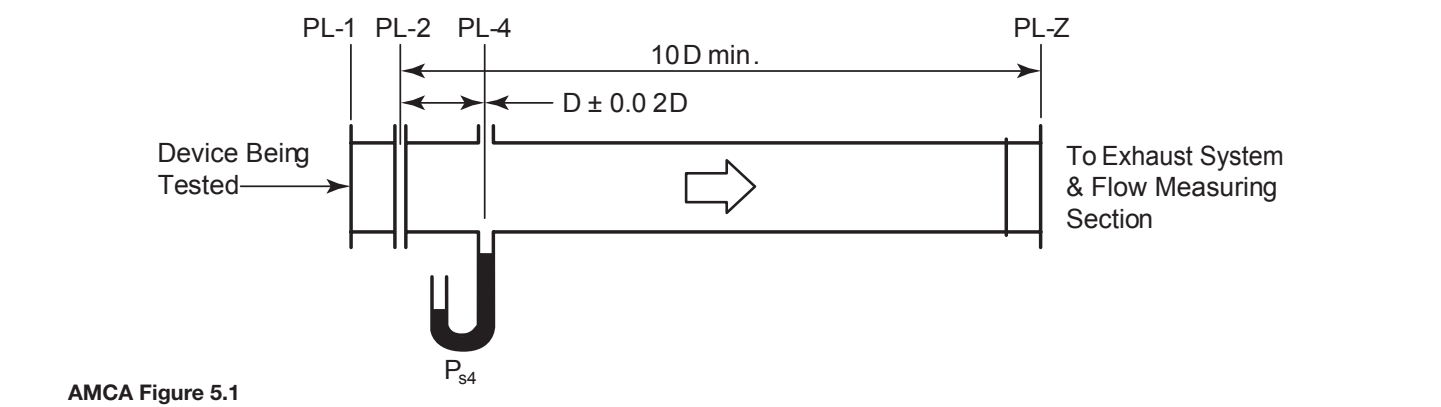
| ABD Diameter | Individual Set Points | Airflow Range (CFM)*                       |
|--------------|-----------------------|--------------------------------------------|
| 4 in (102mm) | 20                    | 25 to 130 (.012 to .061m <sup>3</sup> /s)  |
| 6 in (152mm) | 24                    | 50 to 275 (.024 to .130 m <sup>3</sup> /s) |

\* Note: Airflow range determined through +/- 10% of average airflow over the pressure range.

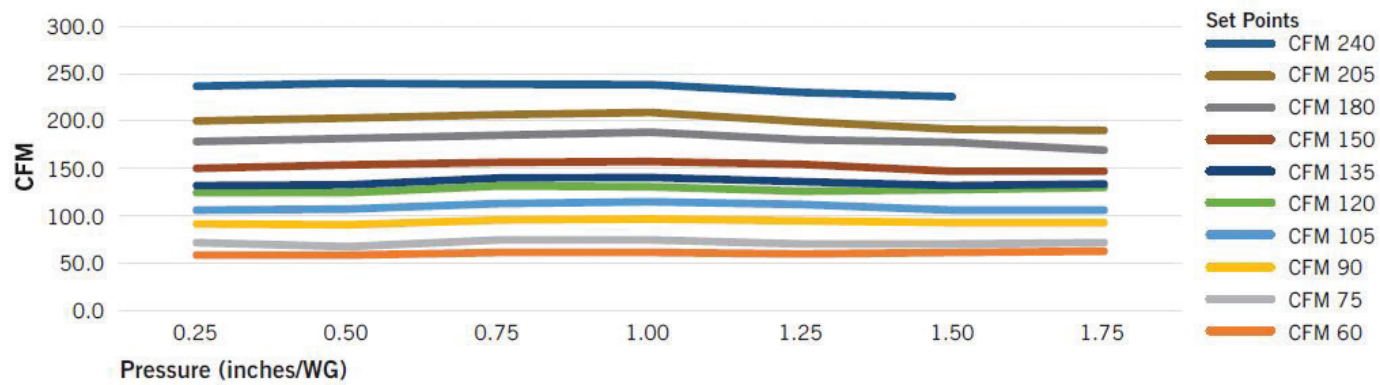
# Dimensional Drawings - Intake Mount



## Performance Data - Tested to AMCA Figure 5.1



Model ABD-6 inch



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