

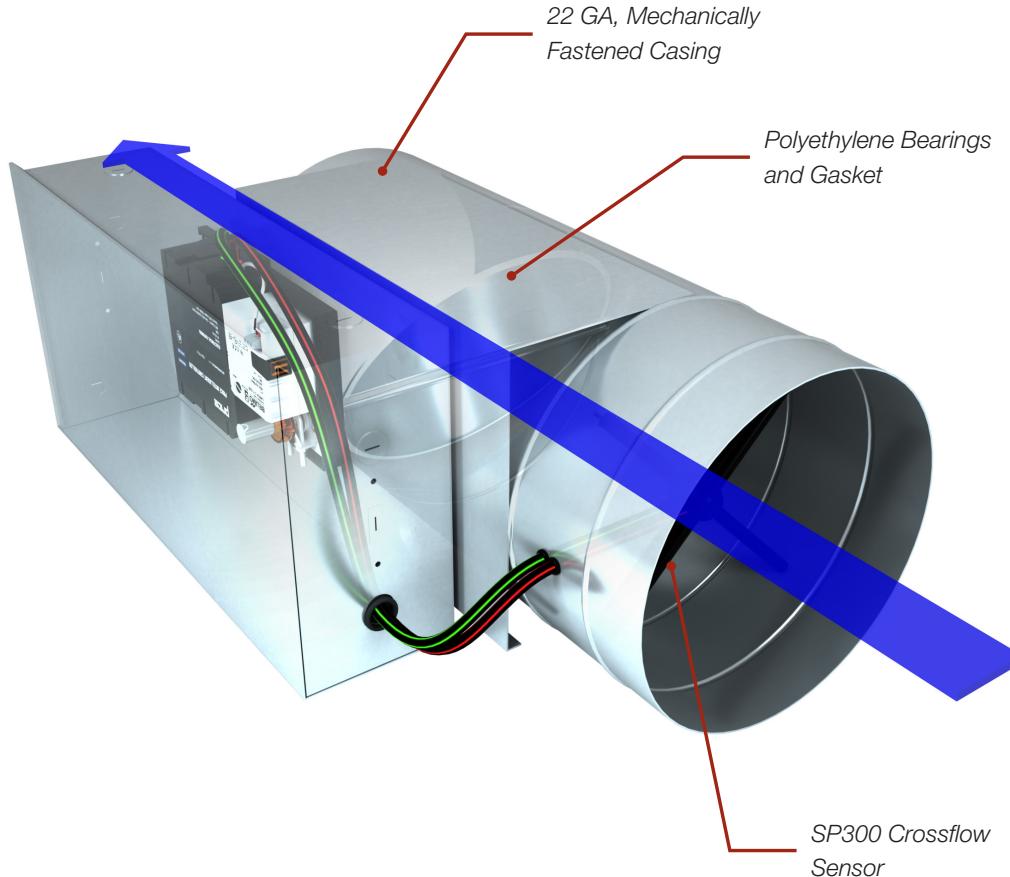
# RDV

## AIR VOLUME CONTROL VALVE



**PRICE** | TERMINAL UNITS

The RDV air volume control valve is used to control supply or exhaust air in VAV applications. The leak-resistant casing is fabricated with 22 gauge galvanized steel and is mechanically fastened. Stainless steel construction is available when corrosives and contaminants are present in the airstream.



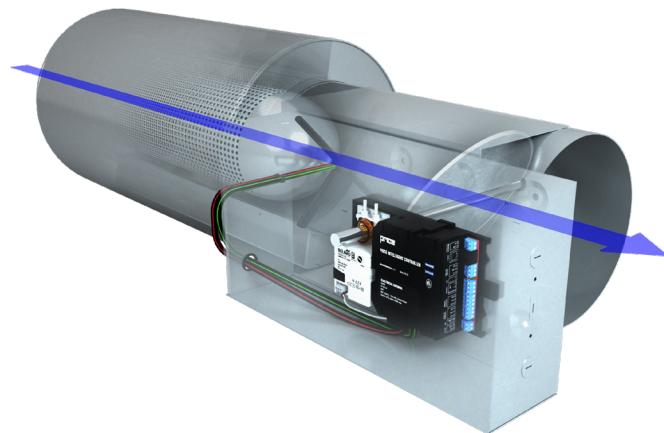
## SILENCER

Price offers an optional integrated terminal unit and tuned inlet silencer assembly to provide excellent sound attenuation for noise-sensitive applications.

An absorptive silencer is available with either polymer film (PL) or fiberglass cloth (FC) liner for isolation of the fiberglass media. The polymer film and fiberglass cloth liners are rated below 25/50 for flame and smoke development per ASTM E84, and meet the requirements of NFPA 90A, UL 181, UL723, ASTM C665, and ASTM C1071.

A packless silencer, constructed entirely of galvanized or stainless steel with no absorptive media, is available for applications where corrosive gases may be present. The absence of acoustic media and

all metal construction make the packless silencer an outstanding option for applications that require periodic sanitation of equipment.



## IDEAL FOR RETROFIT APPLICATIONS

For retrofit applications, the RDV can convert existing mechanical constant volume terminals to variable volume operation. Converting to a VAV, pressure-independent sequence will enhance control and reduce pressure drop when compared to a mechanical regulator. The compact round casing simplifies installation with minimal ductwork modifications.

## STAINLESS STEEL CONSTRUCTION

The optional type 304 stainless steel construction provides added chemical resistance for corrosive or contaminated airstreams.

## REMOVABLE SENSOR

A removable SP300 airflow sensor ensures ease of access to the sensor for periodic cleaning due to buildup of lint.

## CONTROLS

Price offers a complete line of controls to best suit any application. For exceptional user comfort, the Price Intelligent Controller (PIC) universal DDC control package is available factory installed and configured on all RDV units. The PIC can be used in conjunction with any Price thermostat to match the specific needs of the customer and provide excellent energy efficiency.

## ACCESSORIES

A variety of additional accessories are offered to meet specific job requirements. For information on these accessories please refer to the Terminal Units Accessories catalog.

## TYPICAL APPLICATIONS

The RDV air volume control valve is designed for general exhaust applications, as well as for converting systems to variable volume operation in external retrofit applications.

For applications where corrosion and contaminants in the air stream are a concern, such as laboratory exhausts and fume-hoods, stainless steel construction is available.

### STANDARD DESIGN

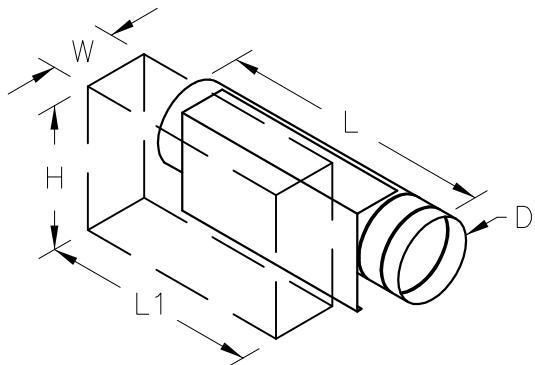
- + 22 GA galvanized steel, mechanically fastened casing
- + Multipoint crossflow sensor for accurate flow measurement
- + Nylon bearings and damper gasket for contaminant resistance

### OPTIONAL FEATURES

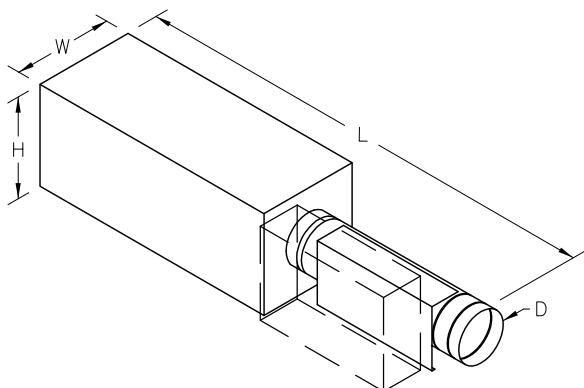
- + Stainless steel construction
- + Inlet silencer (RDVQ)
- + Removable crossflow sensor
- + Vertical flow, up or down

# DIMENSIONAL DATA

## RDV Basic Unit

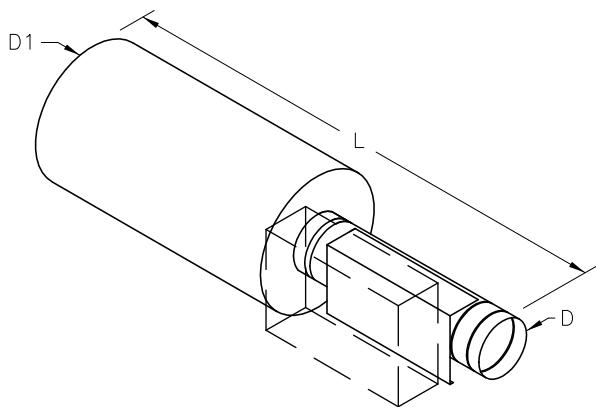


Size	Diameter (D)	Length (L)	Enclosure Length (L1)	Width (W)	Height (H)
4	3 7/8 in.	24 3/8 in.	18 1/2 in.	4 3/4 in.	9 1/2 in.
5	4 7/8 in.				
6	5 7/8 in.				
7	6 7/8 in.				
8	7 7/8 in.				
9	8 7/8 in.				
10	9 7/8 in.				
12	11 7/8 in.				
14	13 7/8 in.				
16	15 7/8 in.				



## RDVQ w/ Packless Silencer

Size	Diameter (D)	Length (L)	Width (W)	Height (H)
6	5 7/8 in.	60 3/8 in.	20 in.	20 in.
7	6 7/8 in.			
8	7 7/8 in.			
9	8 7/8 in.			
10	9 7/8 in.			
12	11 7/8 in.			
14	13 7/8 in.			
16	15 7/8 in.			



## RDVQ w/ Absorptive Silencer

Size	Diameter (D)	Silencer Diameter (D1)	Length (L)
6	5 7/8 in.	13 7/8 in.	60 3/8 in.
7	6 7/8 in.	14 7/8 in.	
8	7 7/8 in.	15 7/8 in.	
9	8 7/8 in.	16 7/8 in.	
10	9 7/8 in.	17 7/8 in.	60 7/8 in.
12	11 7/8 in.	19 7/8 in.	63 1/8 in.
14	13 7/8 in.	21 7/8 in.	64 1/8 in.
16	15 7/8 in.	23 7/8 in.	66 1/8 in.

# PERFORMANCE DATA

## RDV – Recommended Air Volume Ranges

### Digital Controls\*

Unit Size	cfm Min. – Max.
<b>4</b>	45 - 225
<b>5</b>	60 - 350
<b>6</b>	65 - 450
<b>7</b>	95 - 650
<b>8</b>	125 - 800

Unit Size	cfm Min. – Max.
<b>9</b>	160 - 1050
<b>10</b>	210 - 1350
<b>12</b>	300 - 2100
<b>14</b>	430 - 3000
<b>16</b>	575 - 4000

**Notes:**

Factory calibrated controls must be selected within the above flow range limits. A minimum value of zero is also available. When an auxiliary flow setting is specified, the value must be greater than the minimum setting and within the range limits.

On controls mounted by Price but supplied by others, the air volume ranges are guidelines only.

\*Selection of airflow limits below the listed values is not recommended. Stability and accuracy may not be acceptable at lower than recommended airflow limits. The actual performance will vary depending on the terminal unit controls supplied.

\*Minimum airflow limit is based on min .02 in. w.g. differential pressure signal from airflow sensor. Selection of airflow limits below the listed values is not recommended. Stability and accuracy may not be acceptable at lower than recommended airflow limits. The actual performance will vary depending on the terminal unit controls supplied. Maximum airflow limit is based on max 1.0 in.w.g. differential pressure signal from the airflow sensor.

## RDV – Minimum Operating Pressure

Unit Size	Airflow	Min. ΔPs
	cfm	in. w.g.
6	200	0.04
	250	0.08
	350	0.15
	450	0.22
7	250	0.02
	350	0.06
	450	0.1
	550	0.14
	650	0.18
	400	0.03
8	500	0.05
	600	0.07
	700	0.09
	800	0.11
	450	0.02
9	650	0.04
	850	0.07
	1050	0.1
	550	0.02
10	650	0.04
	850	0.07
	1150	0.1
	1350	0.13

Unit Size	Airflow	Min. ΔPs
	cfm	in. w.g.
12	900	0.01
	1300	0.03
	1500	0.04
	1700	0.05
14	1000	0.01
	1500	0.03
	2000	0.06
	2500	0.09
	3000	0.11
16	1500	0.01
	2000	0.03
	2500	0.06
	3000	0.08
	3500	0.1
	4000	0.12

**Performance Notes:**

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.

















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