

# Demand Control Ventilation Solutions

## Zone Register Terminals

\*U.S. Pats. No. 7,766,734; 9, 201,428; 9,759,442



#HealthyLiving

**aldes**



# Flexibility & Dynamic Control

American Aldes' quiet, high-efficiency ventilation solutions are perfect for improving indoor air quality while saving energy and reducing operating costs. From bathroom exhaust to make-up air, new construction to renovation, American Aldes has the right product for your project.

## Choosing a Model

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### ZRT® & ZRT-S

Ceiling-mount ZRT for on-demand and optional continuous ventilation.

### ZRT-FR & ZRT-FRS

Ceiling-mount ZRT for on-demand and optional continuous ventilation; with UL Classified Ceiling Radiation Damper.

### ZRT-W & ZRT-WS

Wall-mount ZRT for on-demand and optional continuous ventilation.

### ZRT-W-FR & ZRT-W-FRS

Wall-mount ZRT for on-demand and optional continuous ventilation; with UL Classified Fire Damper.

### ZRT-IL

In-line zone terminal for duct installation; for on-demand and optional continuous ventilation.

### ZRT-PDIL & ZRT-PDIL-HP

Parallel damper in-line zone terminal for duct installation; two-position pressure-independent terminals for on-demand and automatic min/max airflow balancing in standard and high-pressure applications.

### ZRT-3PDIL & ZRT-3PDIL-HP

Three parallel damper in-line zone terminal for duct installation; three-position pressure-independent terminals for on-demand and automatic min/max airflow balancing in standard and high-pressure applications.

MODEL NAME Description		USE		MOUNTING			GRILLE INCLUDED	CEILING RADIATION OR FIRE DAMPER INCLUDED
		Exhaust	Supply	Ceiling	Wall	In-line		
	ZRT® Zone Register Terminal	X		X			X	
	ZRT-S Zone Register Terminal		X	X			X	
	ZRT-FR Zone Register Terminal with Ceiling Radiation Damper	X		X			X	X
	ZRT-FRS Zone Register Terminal with Ceiling Radiation Damper		X	X			X	X
	ZRT-W Wall-Mount Zone Register Terminal	X			X		X	
	ZRT-WS Wall-Mount Zone Register Terminal		X		X		X	
	ZRT-W-FR Wall-Mount Zone Register Terminal with Fire Damper	X			X		X	X
	ZRT-W-FRS Wall-Mount Zone Register Terminal with Fire Damper		X		X		X	X
	ZRT-IL In-Line Zone Terminal	X	X			X		
MODEL NAME Description		SETPOINTS		MOUNTING			STATIC PRESSURE RANGE	
		2	3	Ceiling	Wall	In-line	Standard	High
	ZRT-PDIL	X				X	X	
	ZRT-PDIL-HP	X				X		X
	ZRT-3PDIL		X			X	X	
	ZRT-3PDIL-HP		X			X		X

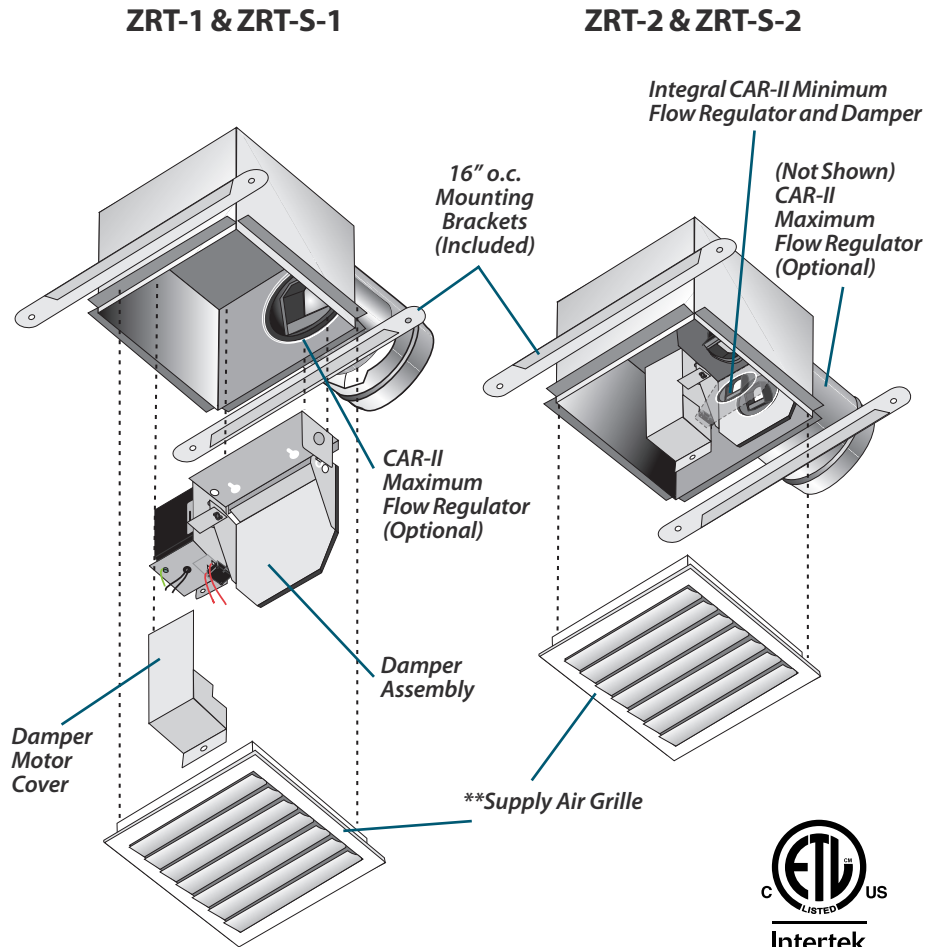
Notes: Wireless Communication Relays are an optional accessory; see **Page 11** for more information. Exhaust or Supply use is determined by the orientation of the CAR-II(s).

# Ceiling Mount ZRT's®

ZRT & ZRT-S Models Ceiling-mount ZRT for on-demand and optional continuous ventilation

## Product Details

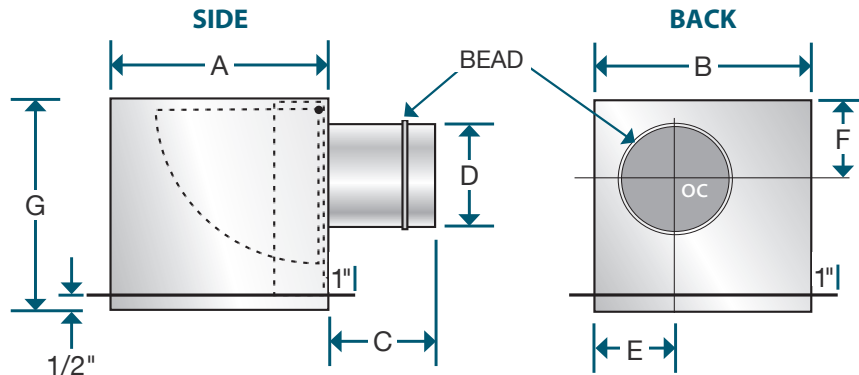
- Used in both large and small systems.
- Patented\* ZRT® model.
- Automatically operated with up to four different control schemes.
- Ceiling-mount to accommodate new or existing construction.
- 24 VAC, 120 VAC, or 230 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, allowing central fan downsizing and promotes energy savings.
- -2 models can be used for combination low-flow indoor air quality ventilation and on-demand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR-II) used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- White aluminum grille and mounting brackets included.
- ETL Safety Listed (3101377).



\*U.S. Pat. No. 7,766,734

\*\*ZRT-S model supplied with Supply Grille (shown). ZRT® model supplied with Exhaust/Return Grille (not shown).

## Dimensions



SIZE	A	B	C	D	E	F	G
4"	8"	8"	4-1/2"	3-7/8"	2-1/2"	3-1/2"	7"
6"	10"	10"	5-1/2"	5-7/8"	3-1/2"	4-1/2"	8-1/2"

# ZRT's® with Ceiling Radiation Damper Models

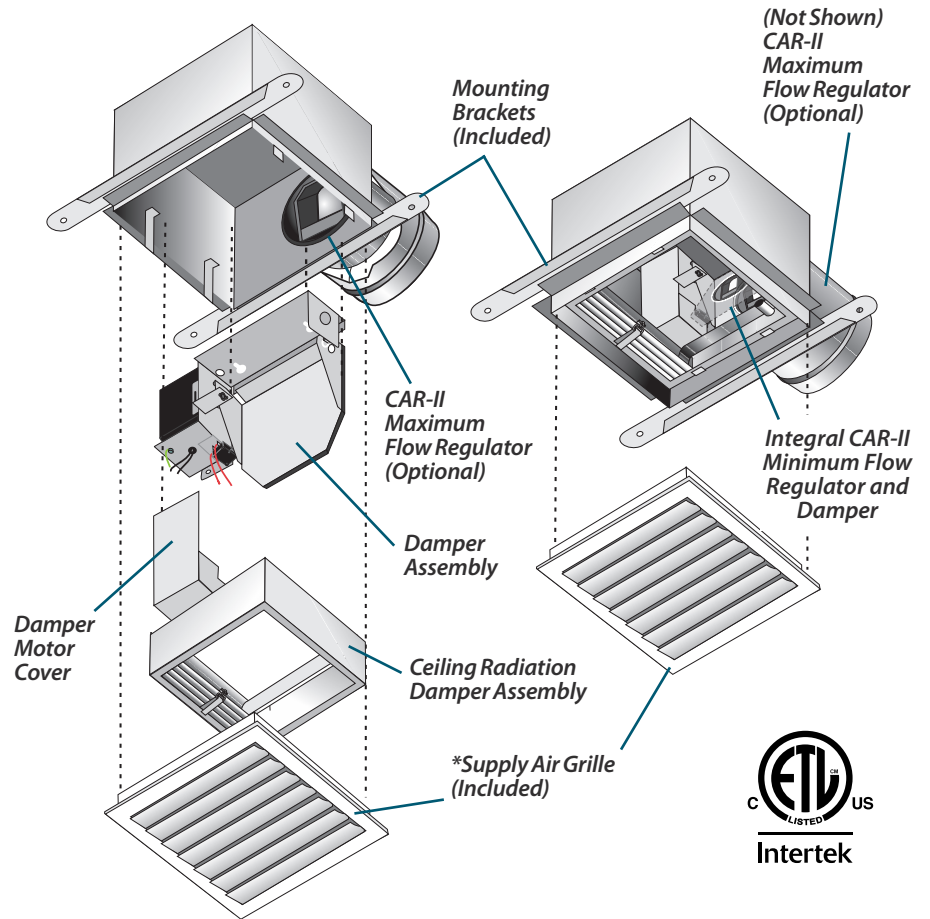
ZRT -FR & ZRT-FRS Models Ceiling-mount ZRT for on-demand and optional continuous ventilation; with UL Classified Ceiling Radiation Damper

## Product Details

- Used in both large and small systems.
- Includes a 3-hour ceiling radiation damper.
- Automatically operated with up to four different control schemes.
- Ceiling-mount to accommodate new or existing construction.
- 24 VAC or 120 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, while minimizing necessary horsepower and ventilation-induced heating and cooling loads on the building.
- -2 models can be used for combination low-flow indoor air quality ventilation and on-demand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR-II) used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- White aluminum grille and mounting brackets included.
- ETL Safety Listed (3101377) and UL Classified Ceiling Radiation Damper (R15858).

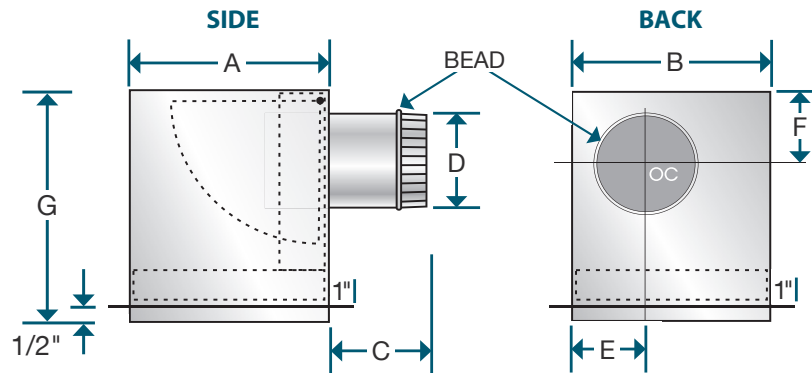
### ZRT-FR-1 & ZRT-FRS-1

### ZRT-FR-1 & ZRT-FRS-2



\*ZRT-FRS model supplied with Supply Grille (shown). ZRT-FR model supplied with Exhaust/Return Grille (not shown).

## Dimensions



SIZE	A	B	C	D	E	F	G
4"	8"	8"	4-1/2"	3-7/8"	3"	3"	9-1/4"
6"	10"	10"	5-1/2"	5-7/8"	4"	4"	11-1/8"

# Wall-Mount ZRT's®

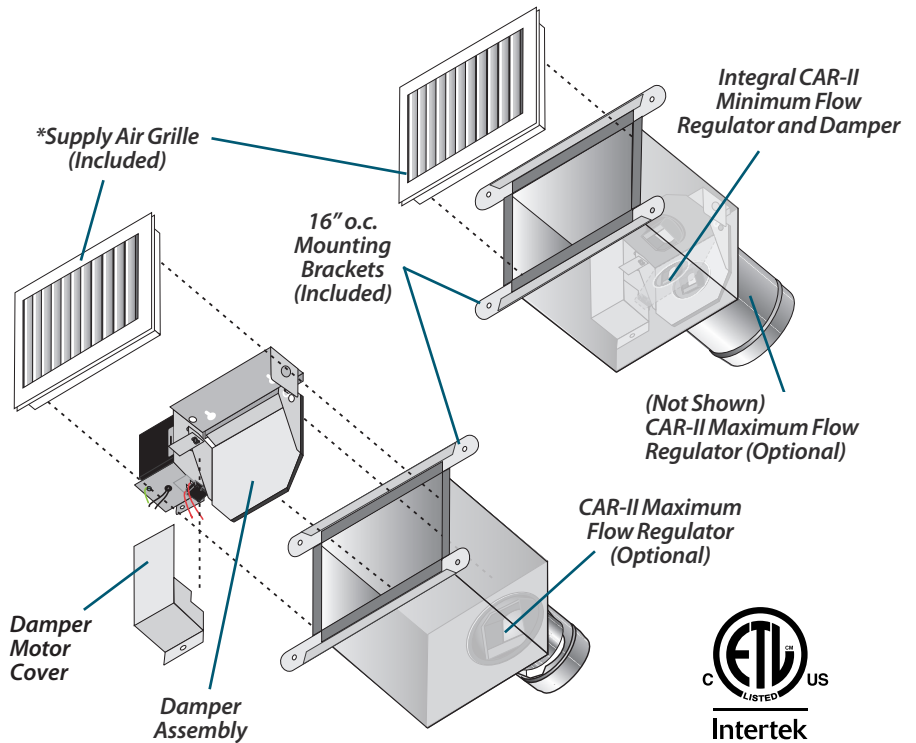
ZRT -W & ZRT-WS Models Wall-mount ZRT for on-demand and optional continuous ventilation

## Product Details

- Used in both large and small systems.
- Automatically operated with up to four different control schemes.
- Wall-mount configure.
- 24 VAC or 120 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, allowing central fan downsizing and promotes energy savings.
- -2 models can be used for combination low-flow indoor air quality ventilation and on-demand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR-II) used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- White aluminum grille and mounting brackets included.
- ETL Safety Listed (3101377).

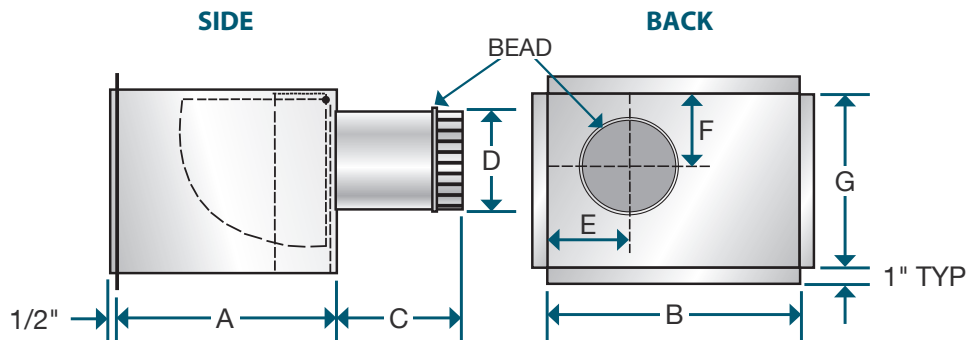
### ZRT-W-1 & ZRT-WS-1

### ZRT-W-2 & ZRT-WS-2



\*ZRT-WS model supplied with Supply Grille (shown). ZRT-W model supplied with Exhaust/Return Grille (not shown).

## Dimensions



SIZE	A	B	C	D	E	F	G
4"	7-1/2"	8"	4-1/2"	3-7/8"	2-1/2"	3-1/2"	6-1/4"
6"	9"	10"	5-1/2"	5-7/8"	3-1/2"	4-1/2"	8"

# Wall Mount ZRT's® with Fire Dampers

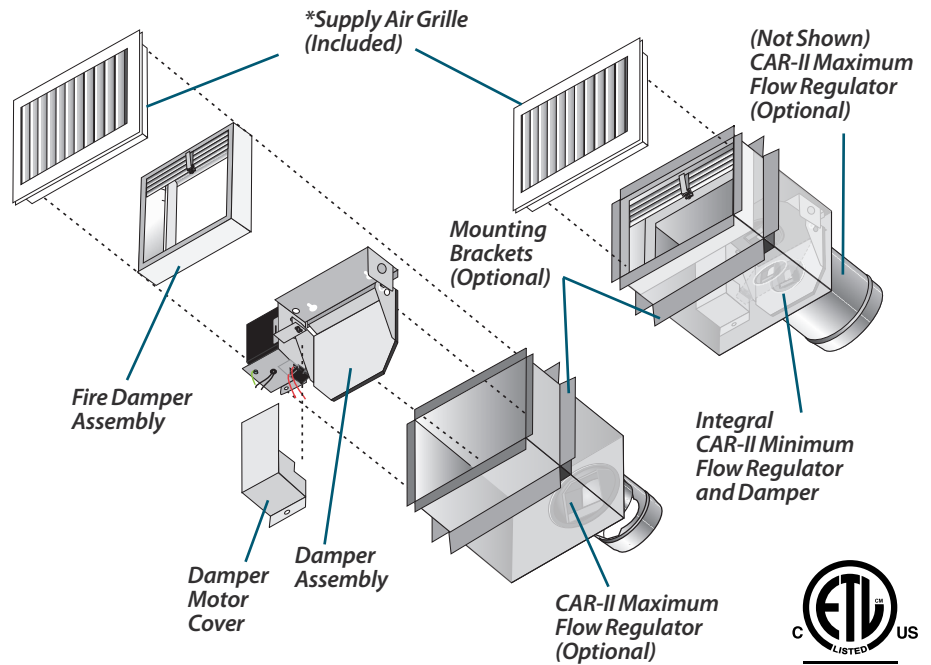
ZRT-W-FR & ZRT-W-FRS Models Wall-mount ZRT for on-demand and optional continuous ventilation; with UL Classified Fire Damper

## Product Details

- Used in both large and small systems.
- Includes a 3-hour ceiling radiant damper.
- Automatically operated with up to four different control schemes.
- Wall-mount configure.
- 24 VAC or 120 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, while minimizing necessary horsepower and ventilation-induced heating and cooling loads on the building.
- -2 models can be used for combination low-flow indoor air quality ventilation and on-demand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR-II) used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- White aluminum grille included and mounting brackets optional.
- ETL Safety Listed (3101377) and UL Classified Fire Damper (R14128).

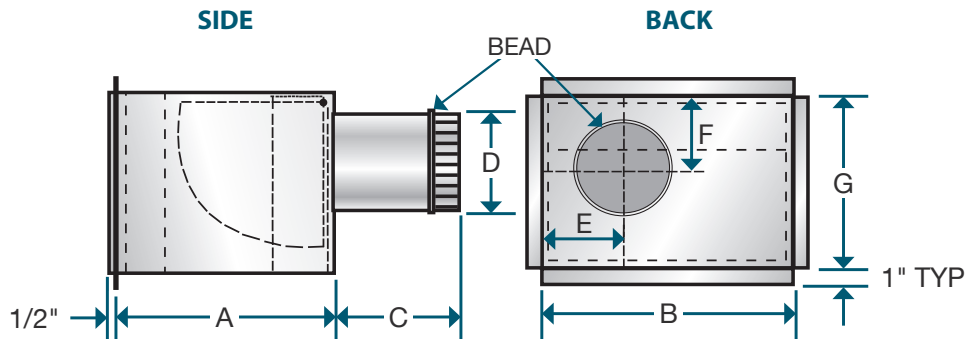
### ZRT-W-FR-1 & ZRT-W-FRS-1

### ZRT-W-FR-2 & ZRT-W-FRS-2



\*ZRT-W-FRS model supplied with Supply Grille (shown). ZRT-W-FR model supplied with Exhaust/Return Grille (not shown).

## Dimensions



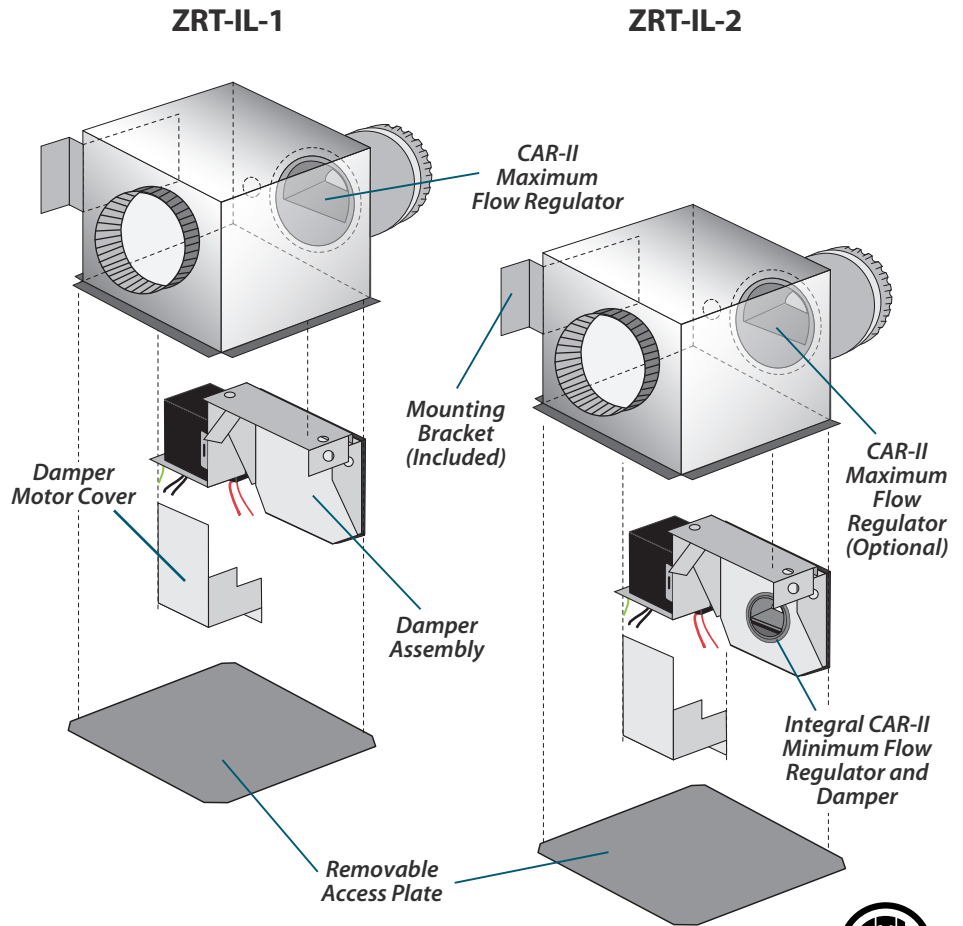
SIZE	A	B	C	D	E	F	G
4"	9-3/4"	8"	4-1/2"	3-7/8"	3"	3"	6-1/4"
6"	11-1/4"	10"	5-1/2"	5-7/8"	4"	4"	8"

# In-Line Zone Terminal

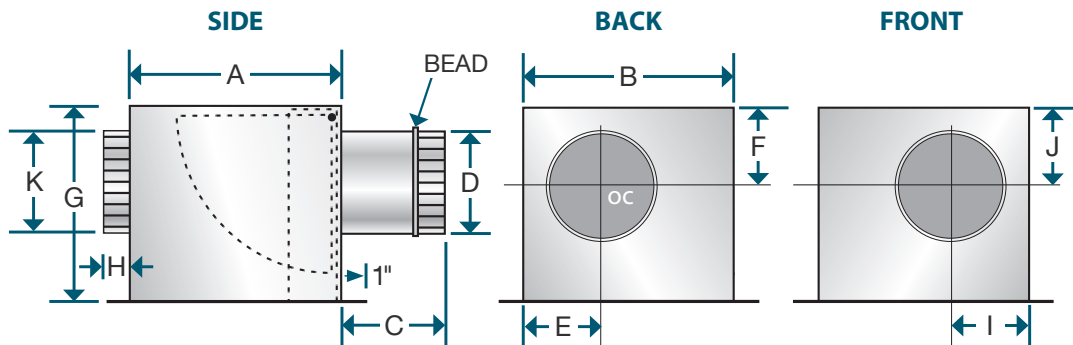
ZRT-IL Models In-line zone terminal for duct installation; for on-demand and optional continuous ventilation

## Product Details

- Used in both large and small systems.
- Automatically operated with up to three different control schemes.
- In-line mounting configuration to provide versatile installation options such as above drop ceilings, between ceiling joints, or within a small soffit location.
- The ZRT-IL can be ordered in a supply or exhaust ventilation configuration.
- 24 VAC or 120 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, allowing central fan downsizing and promotes energy savings.
- -2 models can be used for combination low-flow indoor air quality ventilation and on-demand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR-II) used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- Removable access plate and mounting brackets included.
- ETL Safety Listed (3101377).



## Dimensions



SIZE	A	B	C	D	E	F	G	H	I	J	K
4"	8"	8"	4-1/2"	3-7/8"	2-1/2"	3-1/2"	6-1/2"	1-3/4"	2-1/2"	3-1/2"	3-7/8"
6"	10"	10"	5-1/2"	5-7/8"	3-1/2"	4-1/2"	8"	1-3/4"	3-1/2"	4-1/2"	5-7/8"

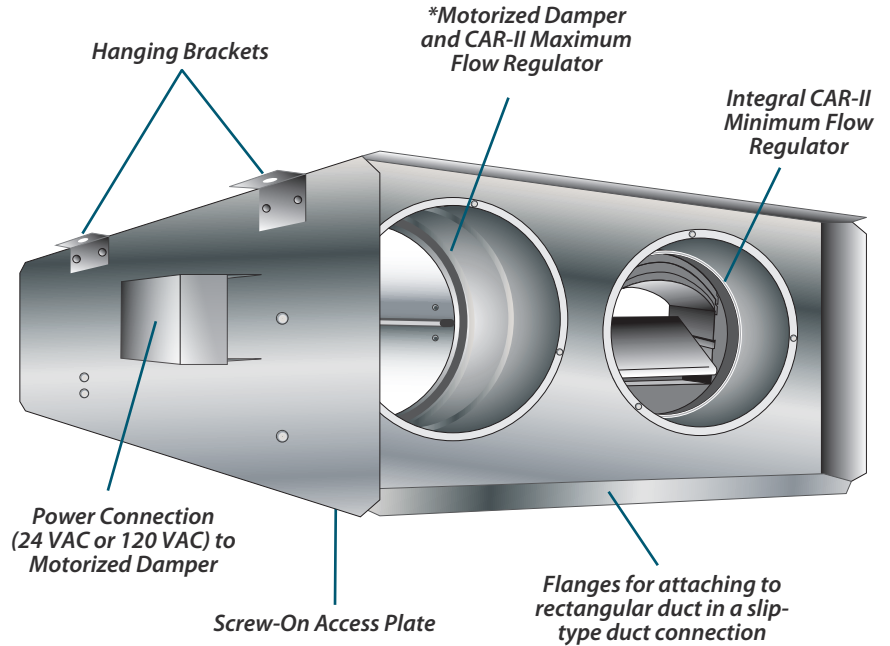


# Parallel Damper In-Line Zone Terminals

ZRT-PDIL & ZRT-PDIL-HP Models Parallel damper in-line zone terminal for duct installation; two-position pressure-independent terminals for on-demand and automatic min/max airflow balancing in standard and high-pressure applications

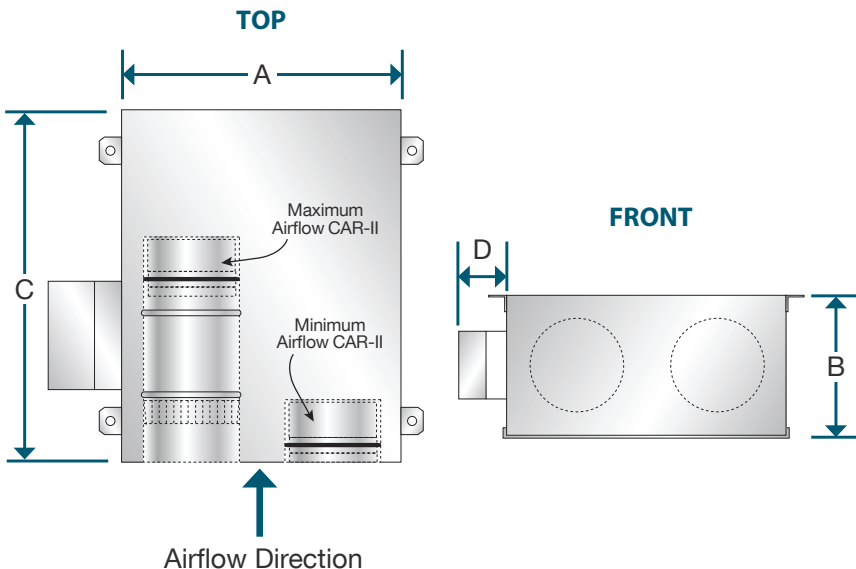
## Product Details

- Used in both large and small systems.
- Allows for selection between a continuous, regulated low airflow rate, and an on-demand, regulated high airflow rate.
- Replaces individual fans or variable air volume (VAV) terminals.
- Two-position pressure-independent terminal with a control damper and integral passive regulators (CAR-II).
- Constant Airflow Regulators (CAR-II) are used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- Controls ventilation in multi-family dwellings, classrooms, large spaces, and provides make-up air for laboratories.
- In-line mounting configuration allows installation in a duct system.
- Can be used in a supply or exhaust configuration.
- 24 VAC or 120 VAC wiring.
- Removable access plate and hanging brackets included.
- ETL Safety Listed (3101377).



\*ZRT-PDIL-HP models use CAR-II-HP flow regulators.

## Dimensions



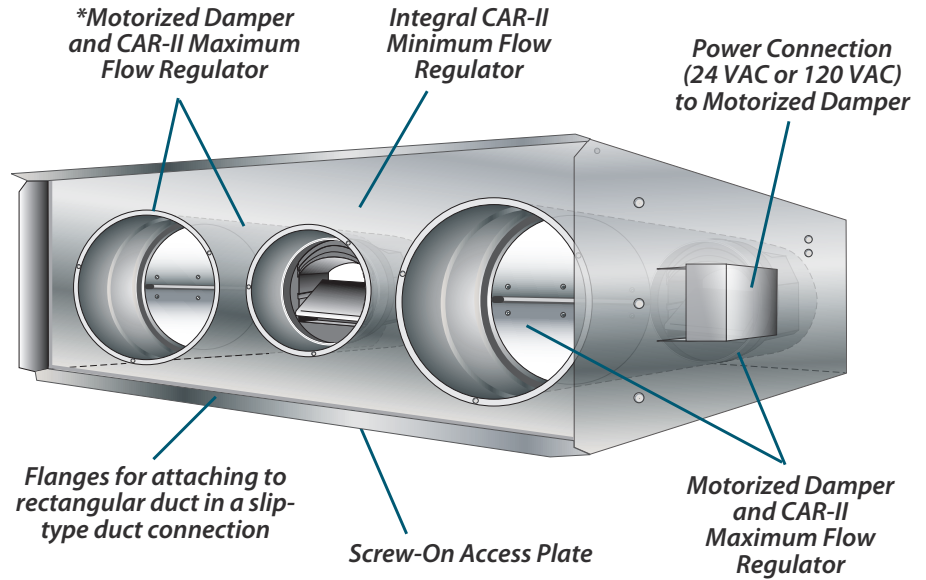
SIZE (Duct)	CAR-II Diameter		A	B	C	D
	Min	Max				
12" x 6"	4"	4"	12"	6"	19-5/8"	3-1/8"
16" x 8"	6"	6"	16"	8"	21-5/8"	3-1/8"
20" x 10"	8"	8"	20"	10"	23-5/8"	3-1/8"
24" x 12"	10"	10"	24"	12"	25-5/8"	3-1/8"

# 3 Parallel Damper In-Line Zone Terminals

**ZRT-3PDIL & ZRT-3PDIL-HP Models** Three parallel damper in-line zone terminal for duct installation; three-position pressure-independent terminals for on-demand and automatic min/max airflow balancing in standard and high-pressure applications

## Product Details

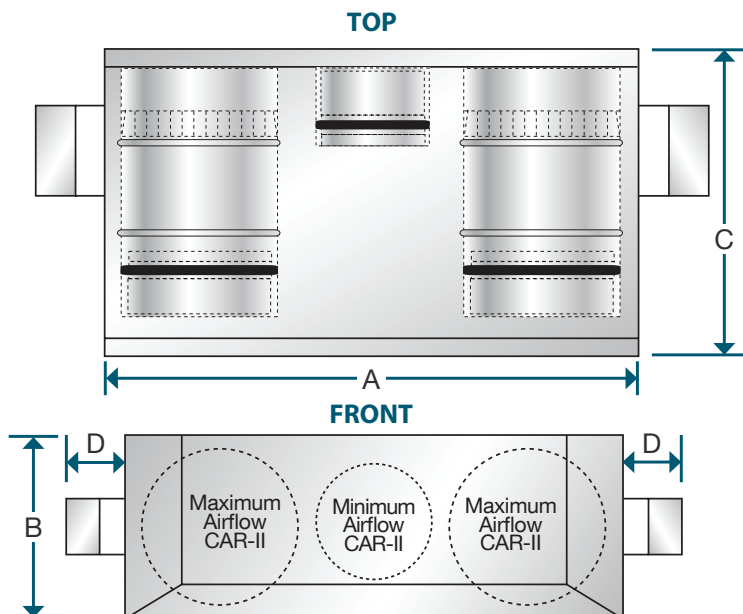
- Used in both large and small systems.
- Allows for selection between low-flow, medium-flow, and high-flow ventilation rates.
- Replaces individual fans or variable air volume (VAV) terminals.
- Three-position pressure-independent terminal with two control dampers and integral passive regulators (CAR-II).
- Constant Airflow Regulators (CAR-II) are used to prevent noise and excessive energy consumption caused by over-ventilation, as well as fluctuations in airflow rates as total system pressure varies.
- Two motorized dampers can be powered separately to allow for three distinct airflows or powered in parallel for two distinct airflows.
- In-line mounting configuration allows installation in a duct system.
- Can be used in a supply or exhaust configuration.
- 24 VAC or 120 VAC wiring.
- Removable access plate and hanging brackets included.
- ETL Safety Listed (3101377).



\*ZRT-3PDIL-HP models use CAR-II-HP flow regulators.



## Dimensions



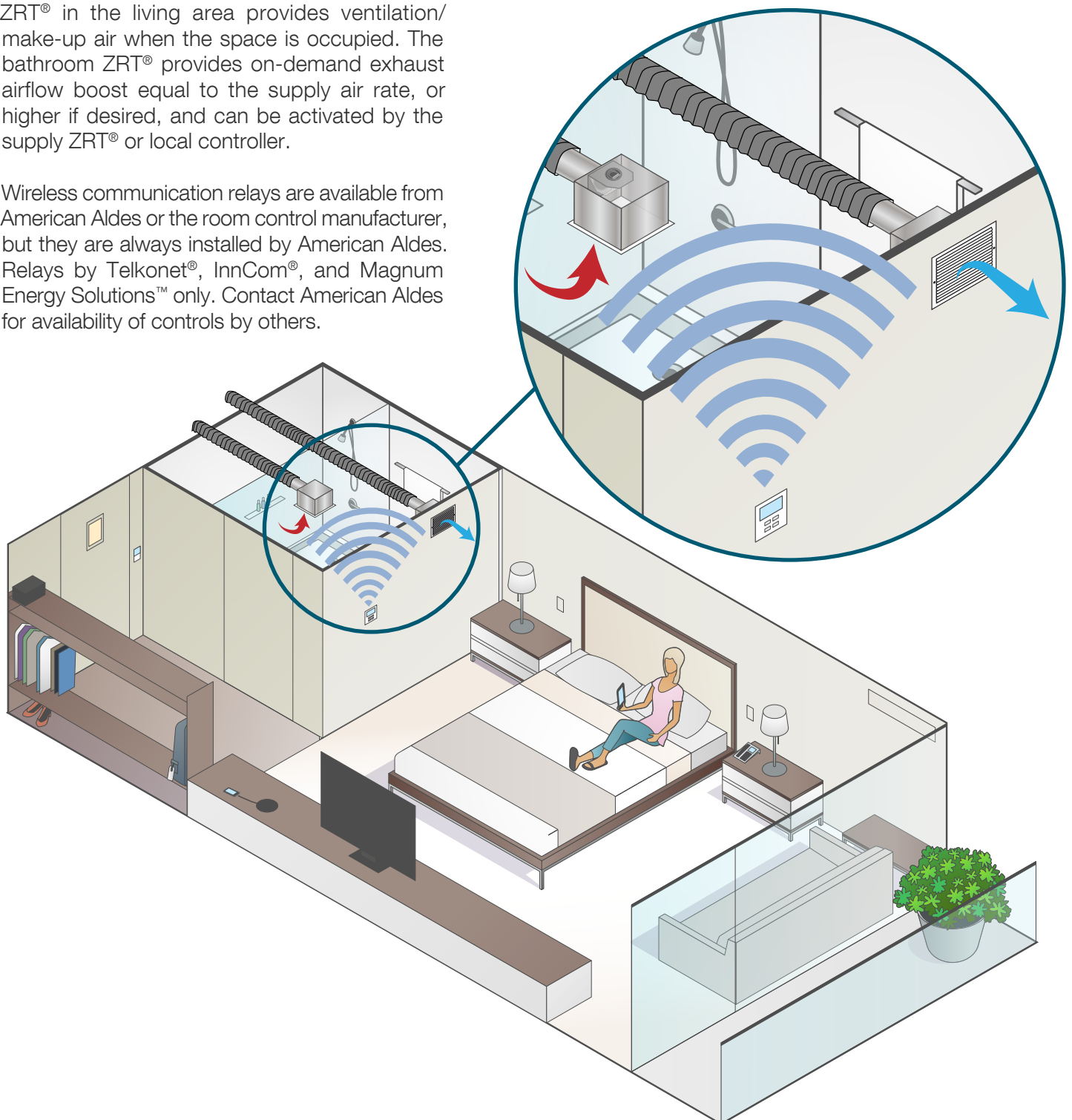
SIZE (Duct)	CAR-II Diameter		A	B	C	D
	Min	Max				
28" x 10"	6"	(2) 8"	28"	10"	24-5/8"	3-1/8"
30" x 10"	8"	(2) 8"	30"	10"	24-5/8"	3-1/8"
34" x 12"	8"	(2) 10"	34"	12"	26-5/8"	3-1/8"
36" x 12"	10"	(2) 10"	36"	12"	26-5/8"	3-1/8"

# Zone Register Terminals with Wireless Communication Relays

Zone Register Terminals (ZRT®) are available with wireless communication relays that respond to occupancy-based control systems. These solutions are aptly suited for hotels, dormitories, and apartments.

In the example below, the wall-mount supply ZRT® in the living area provides ventilation/make-up air when the space is occupied. The bathroom ZRT® provides on-demand exhaust airflow boost equal to the supply air rate, or higher if desired, and can be activated by the supply ZRT® or local controller.

Wireless communication relays are available from American Aldes or the room control manufacturer, but they are always installed by American Aldes. Relays by Telkonet®, InnCom®, and Magnum Energy Solutions™ only. Contact American Aldes for availability of controls by others.



**[www.aldes.us](http://www.aldes.us)**

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visit [www.aldes.us/airflow-zone-control](http://www.aldes.us/airflow-zone-control)

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