# **laldes**



ZRT®

DEMAND CONTROL VENTILATION SOLUTIONS

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

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#### Flexibility & Dynamic Control

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, Aldes has the right product for your project.

#### Choosing a Model

	MODEL NAME	U	SE	MOUNTING			GRILLE	CEILING RADIATION OR	
	DESCRIPTION	EXHAUST	SUPPLY	CEILING	WALL	IN-LINE	INCLUDED	Fire Damper Included	
	ZRT <sup>®</sup> Zone Register Terminal	x		x			х		
	ZRT-S Zone Register Terminal		х	х			х		
	ZRT-F Zone Register Terminal with Ceiling Radiation Damper	х		х			х	х	
	ZRT-S-F Zone Register Terminal with Ceiling Radiation Damper		х	х			х	х	
	ZRT-W Wall-Mount Zone Register Terminal	x			х		Х		
	ZRT-WS Wall-Mount Zone Register Terminal		х		х		Х		
	ZRT-W-F Wall-Mount Zone Register Terminal with Fire Damper	х			х		Х	х	
	ZRT-WS-F Wall-Mount Zone Register Terminal with Fire Damper		Х		х		Х	х	
	ZRT-IL In-Line Zone Terminal	x	х			х			
	. NAME DESCRIPTION	SETPOINTS		MOUNTING			STATIC PRESSURE RANGE		
Compat	able with CAR-II & CAR3	2	3	CEILING	WALL	IN-LINE	STANDARD	HIGH	
	ZRT-PDIL	x				х	х		
	ZRT-PDIL-HP	х				х		х	
	ZRT-3PDIL		Х			х	Х		
	ZRT-3PDIL-HP		х			х		x	

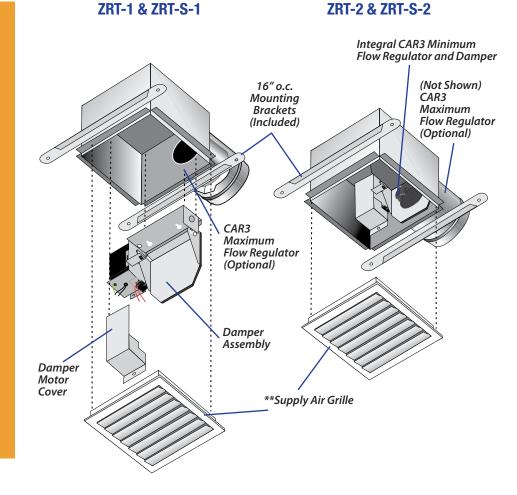
Notes: Wireless Communication Relays are an optional accessory; see **Page 11** for more information. Exhaust or Supply use is determined by the orientation of the CAR-II(s) and CAR3(s).

#### **CEILING MOUNT ZRT®**

ZRT & ZRT-S MODELS CEILING MOUNT ZRT FOR ON-DEMAND OPTIONAL CONTINUOUS VENTILATION

#### **PRODUCT DETAILS**

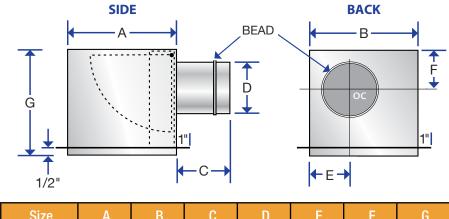
- Used in both large and small systems.
- Patented\* ZRT<sup>®</sup> model.
- Automatically operated with up to four different control schemes.
- Ceiling-mount to accomodate new or existing construction.
- 24 VAC, 120 VAC, or 230 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, allowing central fan downsizing and promotes energy savings.
- -2 models can be used for combination lowflow indoor air quality ventilation and ondemand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR3) 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

DIMENSIONS

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



Size	А	В	С	D	E	F	G
4″	8″	8″	4-1/2″	3-7/8″	2-1/2″	3-1/2″	7″
(100 mm)	(203 mm)	(203 mm)	(114 mm)	(98 mm)	(64 mm)	(89 mm)	(177 mm)
6″	10″	10″	5-1/2″	5-7/8″	3-1/2″	4-1/2″	8-1/2″
(150 mm)	(254 mm)	(254 mm)	(140 mm)	(149 mm)	(89 mm)	(114 mm)	(216 mm)

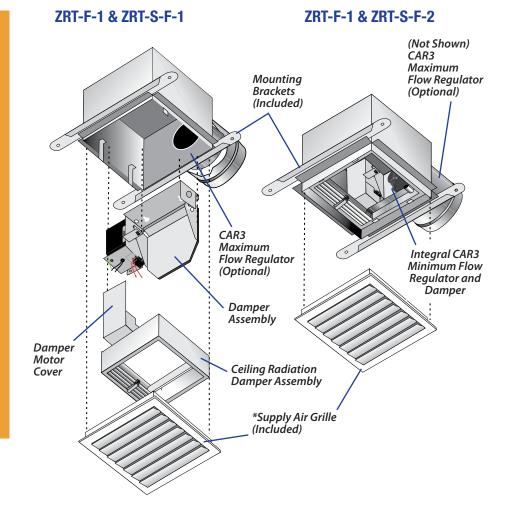
## 5

#### **ZRT® WITH CEILING RADIATION DAMPER**

ZRT-F & ZRT-S-F MODELS CEILING MOUNT ZRT FOR ON-DEMAND AND OPTIONAL CONTINUOUS VENTILATION; WITH UL CLASSIFIED 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 accomodate new or existing construction.
- 24 VAC, 120 VAC, or 230 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 lowflow indoor air quality ventilation and ondemand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR3) 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-S-F model supplied with Supply Grille (shown). ZRT-F model supplied with Exhaust/Return Grille (not shown).

6″

(150 mm)

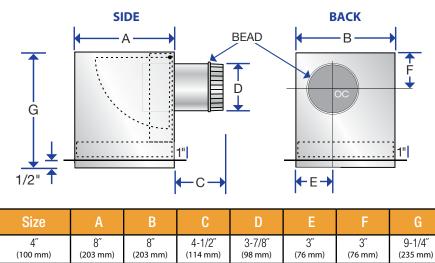
10″

(254 mm)

10″

(254 mm)

DIMENSIONS



5-1/2"

(140 mm)

5-7/8

(149 mm)

4″

(101 mm)

4″

(101 mm)

11-1/8"

(283 mm)

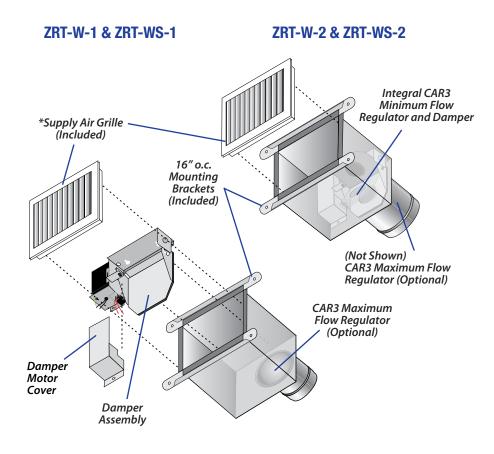
#### WALL MOUNT ZRT®

ZRT-W & ZRT-WS MODELS WALL MOUNT ZRT FOR ON-DEMAND OPTIONAL CONTINUOUS VENTILATION

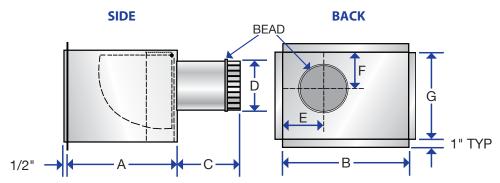
#### **PRODUCT DETAILS**

- Used in both large and small systems.
- Automatically operated with up to four different control schemes.
- Wall-mount configure.
- 24 VAC, 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 lowflow indoor air quality ventilation and ondemand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR3) 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).

DIMENSIONS



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



5	Size	А	В	С	D	E	F	G
(10	4″	7-1/2″	8″	4-1/2″	3-7/8″	2-1/2″	3-1/2″	6-1/4″
	00 mm)	(191 mm)	(203 mm)	(114 mm)	(98 mm)	(64 mm)	(89 mm)	(159 mm)
(15	6″	9″	10″	5-1/2″	5-7/8″	3-1/2″	4-1/2″	8″
	50 mm)	(229 mm)	(254 mm)	(140 mm)	(149 mm)	(89 mm)	(114 mm)	(203 mm)

#### - WALL MOUNT ZRT<sup>®</sup> WITH FIRE DAMPER

ZRT-W-F & ZRT-WS-F MODELS WALL MOUNT ZRT FOR ON-DEMAND AND OPTIONAL CONTINUOUS VENTILATION; WITH UL CLASSIFIED FIRE DAMPER

#### **PRODUCT DETAILS**

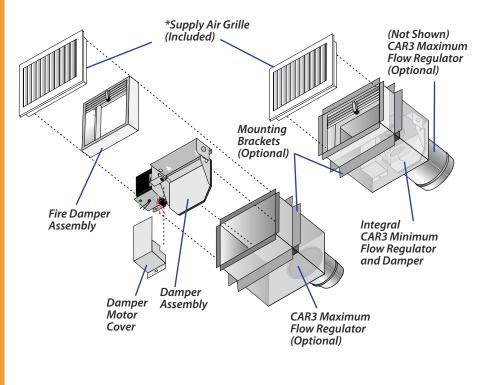
- Used in both large and small systems.
- Includes a 3-hour ceiling radiant damper.
- Automatically operated with up to four different control schemes.
- Wall-mount configure.
- 24 VAC, 120 VAC, or 230 VAC wiring.
- -1 models provide on-off control for on-demand ventilation, while minimizing necessary horsepower and ventilation-induced heating and cooling loads on the building.
- -2 models can be used for combination lowflow indoor air quality ventilation and ondemand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR3) 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).

DIMENSIONS

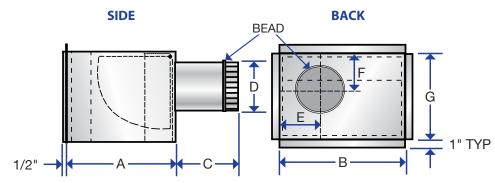
ZRT-W-F-1 & ZRT-WS-F-1

ZRT-W-F-1 & ZRT-WS-F-2

**ZRT®** 



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



Size	Α	В	С	D	E	F	G
4″	9-3/4″	8″	4-1/2″	3-7/8″	3″	3″	6-1/4″
(100 mm)	(248 mm)	(203 mm)	(114 mm)	(98 mm)	(76 mm)	(76 mm)	(159 mm)
6″	11-1/4″	10″	5-1/2″	5-7/8″	4″	4″	8″
(150 mm)	(286 mm)	(254 mm)	(140 mm)	(149 mm)	(101 mm)	(101 mm)	(203 mm)

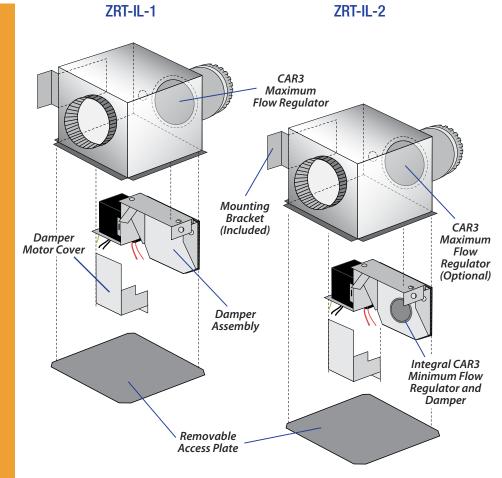
#### **IN-LINE ZONE TERMINAL**

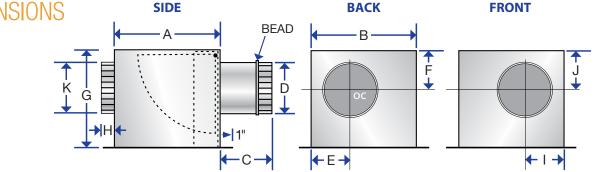
ZRT-IL MODELS IN-LINE ZONE TERMINAL FOR DUCT INSTALLATION; FOR ON-DEMAND AND OPTIONAL CONTINUOUS VENTILATION

#### **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, 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 ondemand high-flow spot ventilation using the same central fan system.
- Optional Constant Airflow Regulators (CAR3) • 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 ٠ brackets included.
- ETL Safety Listed (3101377).

#### DIMENSIONS





Size	А	В	С	D	E	F	G	Н	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″
(100 mm)	(203 mm)	(203 mm)	(114 mm)	(98 mm)	(64 mm)	(89 mm)	(165 mm)	(44 mm)	(64 mm)	(89 mm)	(98 mm)
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″
(150 mm)	(254 mm)	(254 mm)	(140 mm)	(149 mm)	(89 mm)	(114 mm)	(203 mm)	(44 mm)	(89 mm)	(114 mm)	(149 mm)

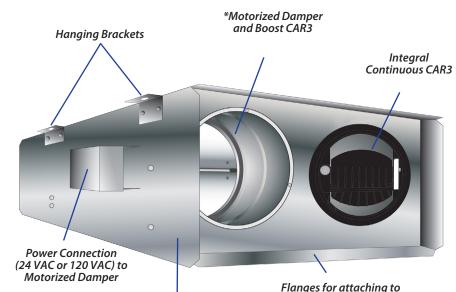
#### PARALLEL DAMPER IN-LINE ZONE TERMINAL

ZRT-PDIL & ZRT-PDIL-HP MODELS PARALLEL DAMPER IN-LINE ZONE TERMINAL FOR DUCT INSTALLATION; 2-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 (CAR3).
- Constant Airflow Regulators (CAR3) 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 makeup 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).

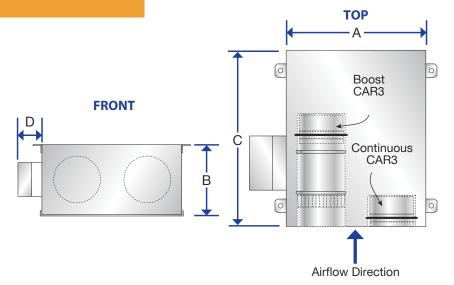
#### DIMENSIONS



Screw-On Access Plate

Flanges for attaching to rectangular duct in a sliptype duct connection

Size (Duct)	CAR3 Diameter Min.	CAR3 Diameter Max.	A	В	С	D
12″ x 6"	4″	4″	12″	6″	19-5/8″	3-1/8″
(305 x 150 mm)	(100 mm)	(100 mm)	(305 mm)	(150 mm)	(499 mm)	(79 mm)
16″ x 8"	6″	6″	16″	8″	21-5/8″	3-1/8″
(406 x 203 mm)	(150 mm)	(150 mm)	(406 mm)	(203 mm)	(549 mm)	(79 mm)
20" x 10"	8″	8″	20″	10″	23-5/8″	3-1/8″
(508 x 254 mm)	(203 mm)	(203 mm)	(508 mm)	(254 mm)	(600 mm)	(79 mm)
24″ x 12"	10″	10″	24″	12″	25-5/8″	3-1/8″
(610 x 305 mm)	(254 mm)	(254 mm)	(610 mm)	(305 mm)	(651 mm)	(79 mm)



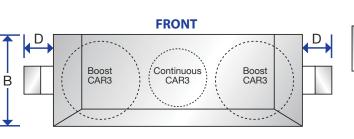
#### **3 PARALLEL DAMPER IN-LINE ZONE TERMINAL**

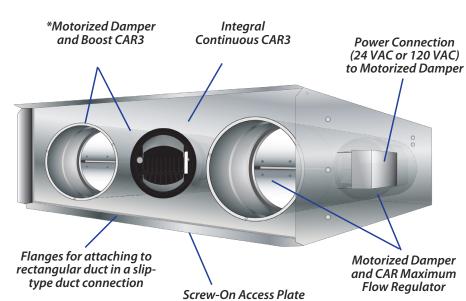
ZRT-PDIL & ZRT-PDIL-HP MODELS 3 PARALLEL DAMPER IN-LINE ZONE TERMINAL FOR DUCT INSTALLATION; 3-POSITION PRESSURE-INDEPENDENT TERMINALS FOR ON-DEMAND AND AUTOMATIC MIN/MAX AIRFLOW BALANCING IN STANDARD AND HIGH-PRESSURE APPLICATIONS

#### **PRODUCT DETAILS**

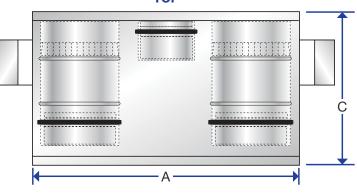
- Used in both large and small systems.
- Allows for selection between low-flow, medium-flow, and high-flow ventilation rates.
- Replaces individual fans or variable air volume (VAV) terminals.
- Three-position pressure-independent terminal with two control dampers and integral passive regulators (CAR3).
- Constant Airflow Regulators (CAR3) 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).

#### DIMENSIONS





Size (Duct)	CAR3 Diameter Min.	CAR3 Diameter Max.	A	В	С	D
28″ x 10"	6″	(2) 8″	28″	10″	24-5/8″	3-1/8″
(711 x 254 mm)	(150 mm)	(203 mm)	(711 mm)	(254 mm)	(625 mm)	(79 mm)
30″ x 10"	8″	(2) 8″	30″	10″	24-5/8″	3-1/8″
(762 x 254 mm)	(203 mm)	(203 mm)	(762 mm)	(254 mm)	(625 mm)	(79 mm)
34″ x 12"	8″	(2) 10″	34″	12″	26-5/8″	3-1/8″
(864 x 305 mm)	(203 mm)	(254 mm)	(864 mm)	(305 mm)	(676 mm)	(79 mm)
36″ x 12"	10″	(2) 10″	36″	12″	26-5/8″	3-1/8″
(914 x 305 mm)	(254 mm)	(254 mm)	(914 mm)	(305 mm)	(676 mm)	(79 mm)



TOP

#### **ZRT® WITH WIRELESS COMMUNICATION RELAYS**

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

ZRT®

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

Wireless communication relays or the room control manufacturer are available from ALDES North America. Relays by Telkonet<sup>®</sup>, InnCom<sup>®</sup>, and Magnum Energy Solutions<sup>™</sup> only. Contact ALDES North America for more information.



For more information, contact your Aldes sales advisor, visit aldes-na.com, or find us on in f 🕥 📾

