Demand Control Ventilation Solutions

Zone Register Terminals

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

#HealthyLiving
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

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.
<table>
<thead>
<tr>
<th>MODEL NAME Description</th>
<th>USE</th>
<th>MOUNTING</th>
<th>GRILLE INCLUDED</th>
<th>CEILING RADIATION OR FIRE DAMPER INCLUDED</th>
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<tr>
<td></td>
<td>Exhaust</td>
<td>Supply</td>
<td>Ceiling</td>
<td>Wall</td>
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<tr>
<td>ZRT® Zone Register Terminal</td>
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<td></td>
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<td>ZRT-S Zone Register Terminal</td>
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<tr>
<td>ZRT-FR Zone Register Terminal with Ceiling Radiation Damper</td>
<td>X</td>
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<td></td>
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<tr>
<td>ZRT-FRS Zone Register Terminal with Ceiling Radiation Damper</td>
<td>X</td>
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</tr>
<tr>
<td>ZRT-W Wall-Mount Zone Register Terminal</td>
<td>X</td>
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<tr>
<td>ZRT-WS Wall-Mount Zone Register Terminal</td>
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<tr>
<td>ZRT-W-FR Wall-Mount Zone Register Terminal with Fire Damper</td>
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<tr>
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<tr>
<td>ZRT-IL In-Line Zone Terminal</td>
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<table>
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<tr>
<th>MODEL NAME Description</th>
<th>SETPOINTS</th>
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<th>STATIC PRESSURE RANGE</th>
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<tr>
<td></td>
<td>2</td>
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<td>ZRT-PDIL-HP</td>
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<td></td>
</tr>
<tr>
<td>ZRT-3PDIL</td>
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</tr>
<tr>
<td>ZRT-3PDIL-HP</td>
<td>X</td>
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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

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
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<tbody>
<tr>
<td>4”</td>
<td>8”</td>
<td>8”</td>
<td>4-1/2”</td>
<td>3-7/8”</td>
<td>2-1/2”</td>
<td>3-1/2”</td>
<td>7”</td>
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<td>10”</td>
<td>10”</td>
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<td>3-1/2”</td>
<td>4-1/2”</td>
<td>8-1/2”</td>
</tr>
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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-FRS model supplied with Supply Grille (shown). ZRT-FR model supplied with Exhaust/Return Grille (not shown).*

### Dimensions

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<tr>
<td>4”</td>
<td>8”</td>
<td>8”</td>
<td>4-1/2”</td>
<td>3-7/8”</td>
<td>3”</td>
<td>3”</td>
<td>9-1/4”</td>
</tr>
<tr>
<td>6”</td>
<td>10”</td>
<td>10”</td>
<td>5-1/2”</td>
<td>5-7/8”</td>
<td>4”</td>
<td>4”</td>
<td>11-1/8”</td>
</tr>
</tbody>
</table>
**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-WS model supplied with Supply Grille (shown). ZRT-W model supplied with Exhaust/Return Grille (not shown).*

**Dimensions**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tr>
<td>4&quot;</td>
<td>7-1/2&quot;</td>
<td>8&quot;</td>
<td>4-1/2&quot;</td>
<td>3-7/8&quot;</td>
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<td>4-1/2&quot;</td>
<td>8&quot;</td>
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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).


Dimensions

<table>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<td>8&quot;</td>
<td>4-1/2&quot;</td>
<td>3-7/8&quot;</td>
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<td>5-7/8&quot;</td>
<td>4&quot;</td>
<td>4&quot;</td>
<td>8&quot;</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
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<tbody>
<tr>
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<td>8”</td>
<td>4-1/2”</td>
<td>3-7/8”</td>
<td>3-1/2”</td>
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<td>10”</td>
<td>10”</td>
<td>5-1/2”</td>
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<td>4-1/2”</td>
<td>5-7/8”</td>
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</table>
Parallel Damper In-Line Zone Terminals

**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**

<table>
<thead>
<tr>
<th>SIZE (Duct)</th>
<th>CAR-II Diameter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>12” x 6”</td>
<td>4”</td>
<td>4”</td>
<td>12”</td>
<td>6”</td>
<td>19-5/8”</td>
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<tr>
<td>16” x 8”</td>
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<td>16”</td>
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<td>21-5/8”</td>
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<tr>
<td>20” x 10”</td>
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<td>8”</td>
<td>20”</td>
<td>10”</td>
<td>23-5/8”</td>
</tr>
<tr>
<td>24” x 12”</td>
<td>10”</td>
<td>10”</td>
<td>24”</td>
<td>12”</td>
<td>25-5/8”</td>
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</tbody>
</table>
# 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

<table>
<thead>
<tr>
<th>SIZE (Duct)</th>
<th>CAR-II Diameter</th>
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<td>34”</td>
<td>12”</td>
<td>26-5/8”</td>
<td>3-1/8”</td>
</tr>
<tr>
<td>36” x 12”</td>
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<td>36”</td>
<td>12”</td>
<td>26-5/8”</td>
<td>3-1/8”</td>
</tr>
</tbody>
</table>
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

To find out more about Fan Controls and other related products visit www.aldes.us/airflow-zone-control

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