

Specification Sheet

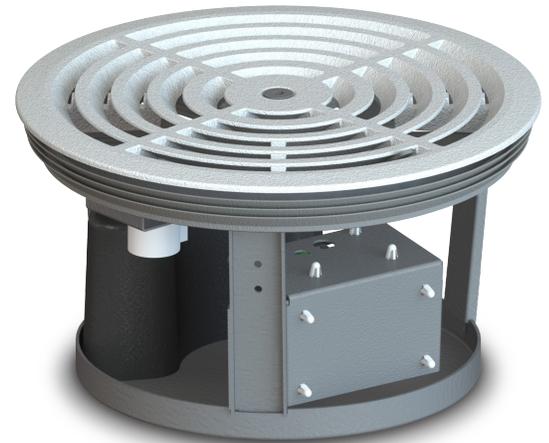
PDD-08R-Wi-FF Wireless Underfloor Air Terminal (Variable Volume)

Description

PDD-08R-Wi (Thermostatically Controlled Fully Wireless VAV Personal Displacement Diffuser) is a variable volume air terminal for use in raised floor air systems. It features an 18 gauge (1.3mm) galvanized steel catch pan assembly, with all interior features pre-painted flat black. A toolless friction fit retention design securely holds the diffuser assembly in place in the floor.

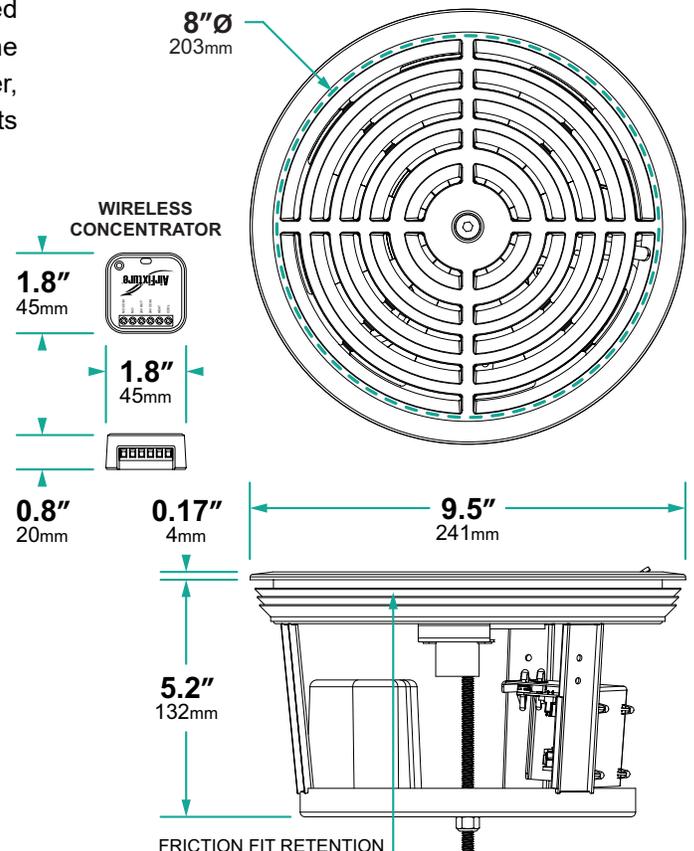
The nominal 8" (203mm) diameter cast aluminum grille supplies 360 degree omni-directional displacement air flow. A manually adjustable sliding damper allows occupants to limit maximum air flow. Ten (10) standard grille colors are available; custom colors and finishes can be provided to match architectural design (specify on order).

The PDD-08R-Wi-FF requires no wired connectivity of any kind to function. Power is provided by an integrated high capacity battery, designed to facilitate normal operation in an office application for up to ten (10) years (projected). Thermostatic control is handled via Zigbee 2.4GHz wireless signal to a separate Concentrator. The Concentrator is connected to a standard 24VAC zone controller, and accepts a 0–10V cooling signal. Each Concentrator supports up to thirty-two (32) paired units.



Features

- FCC approved 2.4GHz wireless communications supports unobstructed zones up to 100 meters
- Connect up to 32 diffusers to a single Wireless Concentrator (one Concentrator recommended per thermostatic zone)
- Sync units using the intuitive push-button pairing mode
- VAV damper designed for ultra low power consumption, providing a projected 10-year battery life
- Fully motorized diffuser plate moves in response to changes in temperature
- User-controlled manual damper for true personal comfort, independent of thermostatic control
- Parts and labor warranty covers 5 years of operation in a standard office application
- Ships fully assembled; quick, easy & efficient installation
- Friction fit design for simple and secure retention in floor



ALL DIMENSIONS NOMINAL +/- 0.1" (2.5mm)

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Alternate Diffuser Configurations



Uni-Directional
Desktop Mixing
(Élan-04R-180)



Uni-Directional
Displacement
(Élan-06R-180)



Uni-Directional
Mixing
(Élan-08R-180)



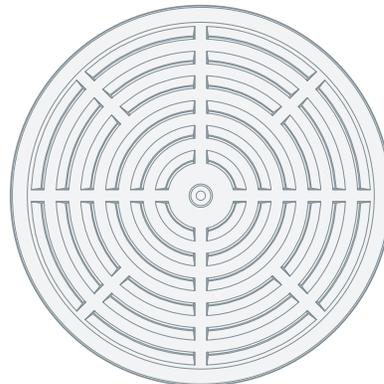
Omni-Directional
Mixing
(Élan-08R-360)



Omni-Directional
Mixing
(Élan-08R-720)



Omni-Directional
10" Mixing
(Élan-10R-360)



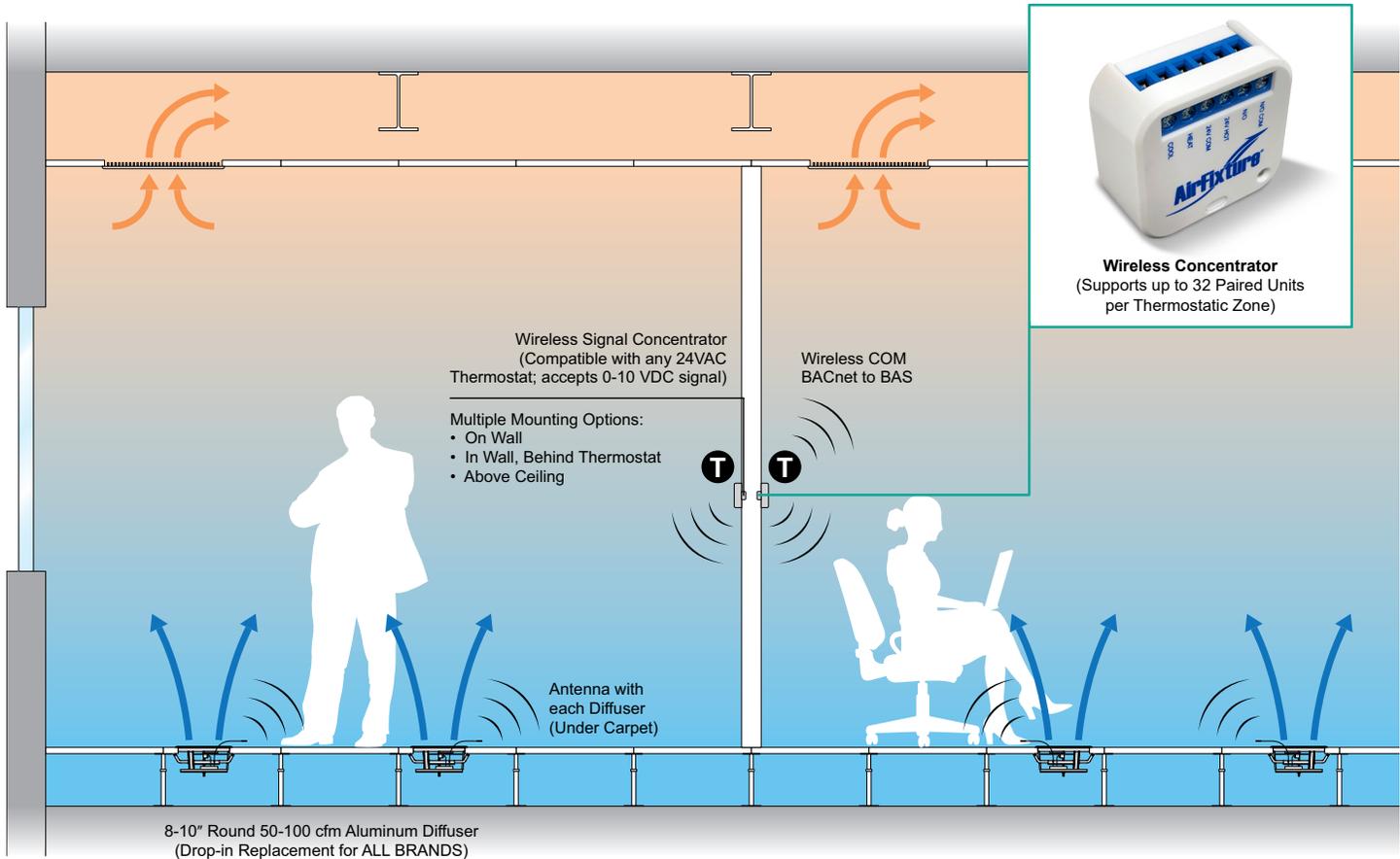
Omni-Directional
10" Displacement
(PDD-10R)

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Example System Layout

Cooling-Only with Fully Wireless Controls and Power



Specifications

Application:	Wireless Underfloor VAV Cooling Raised Access Floors 6" (152mm) or Higher
Grille Dimensions:	Diffuser Opening: 8"Ø (203mm) Full Face: 9.5"Ø (241mm)
Diameter (Nominal)	Installation Cut-Out: 8.6875"Ø [+.125/-00] (221mm [+3.175/-00])
Grille Rating:	Cast Aluminum Conforms to NFPA 90a 1250 lbs. (567 Kg) Load Strength
Supply Press. / Temp.:	0.02–0.1 in. w.c. (5–25 Pa) 40–140°F (4–60°C)
Capacity:	Maximum: 52 cfm @ 0.05 in. w.c. (88 m³/hr @ 12.5 Pa)
(Nominal)	Minimum (Damper Closed): 7 cfm @ 0.05 in. w.c. (12 m³/hr @ 12.5 Pa)
Noise Criterion:	≤ NC-17 (All Flow Conditions)
Battery Life:	Ten (10) Years (Based on Standard Office Application and Operation)
(Estimated Maximum)	
Wireless Signal:	2.4GHz Zigbee (Maximum Thirty-Two (32) Units Supported per Zone Concentrator)