



# VENTERGY® IAQ-MPVS

## MULTI-PORT CONTINUOUS EXHAUST EXPANSION KIT

### RESIDENTIAL SYSTEM SOLUTIONS

## Product Description

ALDES North America Ventergy® Series IAQ-MPVS Expansion Kit is used for one additional bathroom. Each IAQ-MPVS Expansion Kit contains 1 set of collar components, 1 CAR Classic, 1 Deco Grille, and 1 Universal Sleeve with "L" bracket. Up to 2 expansion kits can be added to each IAQ-MPVS Kit.



3" CAR Classic



3" Deco Grille



3" Universal Sleeve with L Bracket



3" Collar Components

For more information, contact your Aldes sales advisor, visit [aldes-na.com](http://aldes-na.com), call 1.800.255.7749, or find us on





# 3" CAR CLASSIC

## CONSTANT AIRFLOW REGULATOR

### AIRFLOW & ZONE CONTROL

WARRANTY  
5 YEARS

## Product Description

The model CAR 3" Constant Airflow Regulator is a modulating orifice that automatically regulates airflows in duct systems to constant levels. The passive control element responds to duct pressure and requires no electric or pneumatic sensors or controls.

The CAR compensates for changes in duct pressure caused by thermal stack effect, building pressure, dust-clogged filters, etc. The CAR also provides a low-cost solution to balancing forced-air systems for heating, air conditioning and ventilation, eliminating the need for on-site balancing. The CAR will regulate airflow in supply, return, or exhaust duct systems.

The active control element of the CAR is a flexible bulb that inflates and deflates in response to the static pressure difference across the control. This operation regulates the free-area opening through the control, resulting in maintenance of velocity and specific airflow set points. Each CAR is designed and produced for control of air in temperatures ranging from -25° to 140°F (-32° to 60°C).

## Performance

The CAR controls airflow accurately to within 15% of rated flow throughout the target operating pressure range of 0.2 to 0.8 in. w.g. (50 to 200 Pa). Each CAR is factory tested and calibrated to the rated set point before shipping. On-site field adjustment of airflow set points can be made for supply air applications (contact factory). The CAR is available in four factory-calibrated set points (see performance curves).

## Maintenance

The CAR needs no maintenance when used in normal conditions. There is no risk of dust deposits or obstruction because the CAR has no airways subject to clogging. If the intended application includes air heavily loaded with grease or dust, a fitting with an access panel or door, such as that used for flame dampers, should be provided.

## Construction

The CAR regulating element is housed in a heavy-gauge rolled galvanized steel sleeve. Each sleeve is seam welded to prevent leakage. The assembly is sized to fit inside standard rigid round ducting, as well as fittings such as take-offs and tees. A brush or flex-type ring seal gasket around the circumference ensures a tight, no-leak fit. Spring-action metal clips on the housing grip the interior of the duct or fitting to secure the control firmly in place with minimal installation effort.

## Warranty

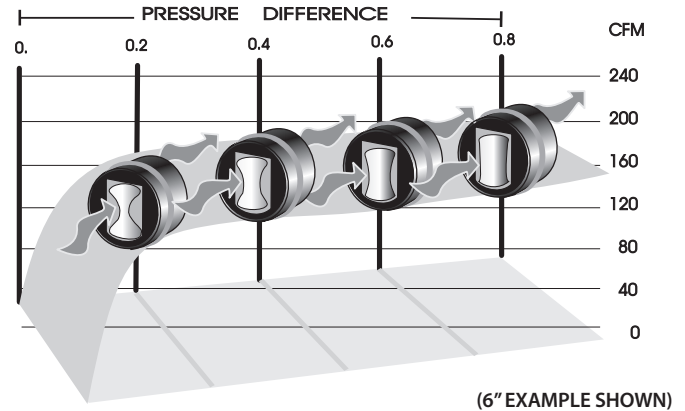
Guaranteed for five (5) years, from date of shipment, against all defects in material or workmanship, provided that the material has been installed and used under normal conditions. This warranty is limited to the repair or replacement of the material.

## APPLICATIONS

- Supply and exhaust air for offices
- Balancing exhaust and supply airflows in high-rise building duct risers
- Bathroom exhaust in nursing homes, hotels, motels, dormitories, apartments, offices, etc
- Clean room air supply balancing for ceiling filter modules. Maintains constant airflow, even as filter resistance increases
- Regulation of make-up air
- Balancing supply airflow from packaged roof-top A/C units
- Balancing supply and exhaust of heat recovery ventilation systems
- Regulating outdoor air injection from central supply fan into individual room fan coil units or heat pumps
- Balancing airflows on series-fan-powered terminal unit systems
- Supply air to sleeping quarters in military facilities, submarines, etc

## How the CAR Classic Works

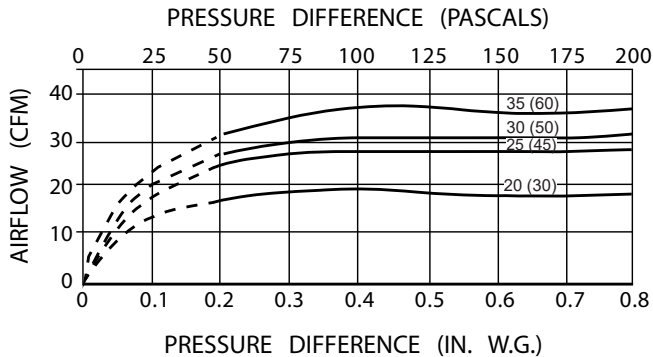
Constant airflow is achieved by the inflating action of the CAR's bulb. At minimum static air pressure, the bulb is deflated and has a shape similar to an hourglass. As the static pressure increases across the bulb, it inflates, thereby reducing the free area around the bulb. At the same time, the higher static pressure increases the air velocity, resulting in CONSTANT AIRFLOW. This occurs regardless of pressure differences in the range of 0.2 to 0.8 in. w.g. (50 to 200 Pa). The air velocity in the duct is in the range of 60 to 700 ft/min. (0.3 to 3.5 m/s).



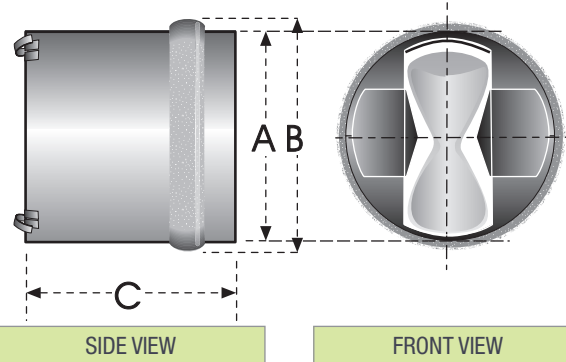
## Performance Data

Performance charts reflect airflow measurements taken at 68°F (20°C) at 1 atmosphere pressure. Airflows are rounded to the nearest 5 CFM or 5 m<sup>3</sup>/h. Sizes are nominal. Product is designed to be inserted into duct of indicated diameter. Airflows are factory pre-set and cannot be modified by installer. When ordering, specify the part number (p/n), diameter, and airflow.

### 3" DIAMETER (80 MM) REGULATING ELEMENT



## 3" CAR Classic Dimensions



DUCT	CAR Classic	A	B	C
3"	3"	2-7/8"	3-1/4"	3-1/4"

PART NUMBER	AIRFLOW	PART NUMBER	AIRFLOW
16 421	20 CFM (30 m <sup>3</sup> /h)	16 424	30 CFM (50 m <sup>3</sup> /h)
16 422	25 CFM (45 m <sup>3</sup> /h)	16 423	35 CFM (60 m <sup>3</sup> /h)

## Recommended Specification

Model CAR Constant Airflow Regulators by ALDES North America, shall solely operate on duct pressure and require no external power supply. Each regulator shall be pre-set and factory calibrated, requiring no field adjustment to the airflows as indicated on the schedule. Rated for use in air temperatures ranging from -25° to 140°F (-32° to 60°C).

Constant Airflow Regulators shall be capable of maintaining constant airflow within +/- 15% of scheduled flow rates within the operating range of 0.2 to 0.8 in. w.g. differential pressure. Sound power levels shall not exceed those for each size and CFM rating as scheduled. Regulators shall be provided as an assembly consisting of a flame-resistant plastic body. All Constant Airflow Regulators will require no maintenance and must be warranted for a period of five (5) years. Constant Airflow Regulators shall be installed in tight ducting systems in accordance with all applicable codes and manufacturer's instructions.

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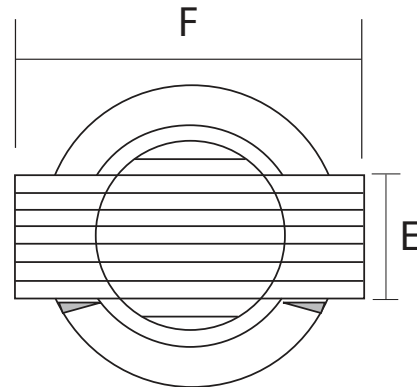
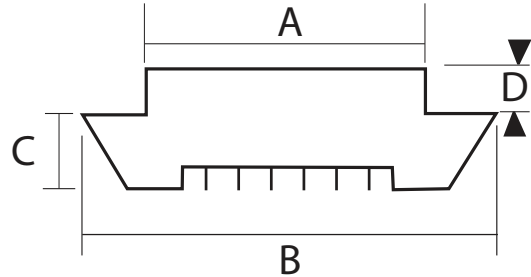




# DECO GRILLES

## WHITE PLASTIC GRILLES

ROOF CAPS, WALL HOODS, GRILLES  
& DUCT FITTINGS



### Dimensional Data

PART NUMBER	SIZE	DESCRIPTION	A	B	C	D	E	F
22 073	3"	White Plastic ABS Grille	3"	4-3/4"	1/2"	5/8"	1-7/8"	4-3/4"
22 079	4"	White Plastic ABS Grille	3-7/8"	5-3/4"	11/16"	1"	2-1/2"	6-1/4"
22 078	5"	White Plastic ABS Grille	4-7/8"	6-1/2"	5/8"	1-1/4"	3-1/8"	7-3/4"

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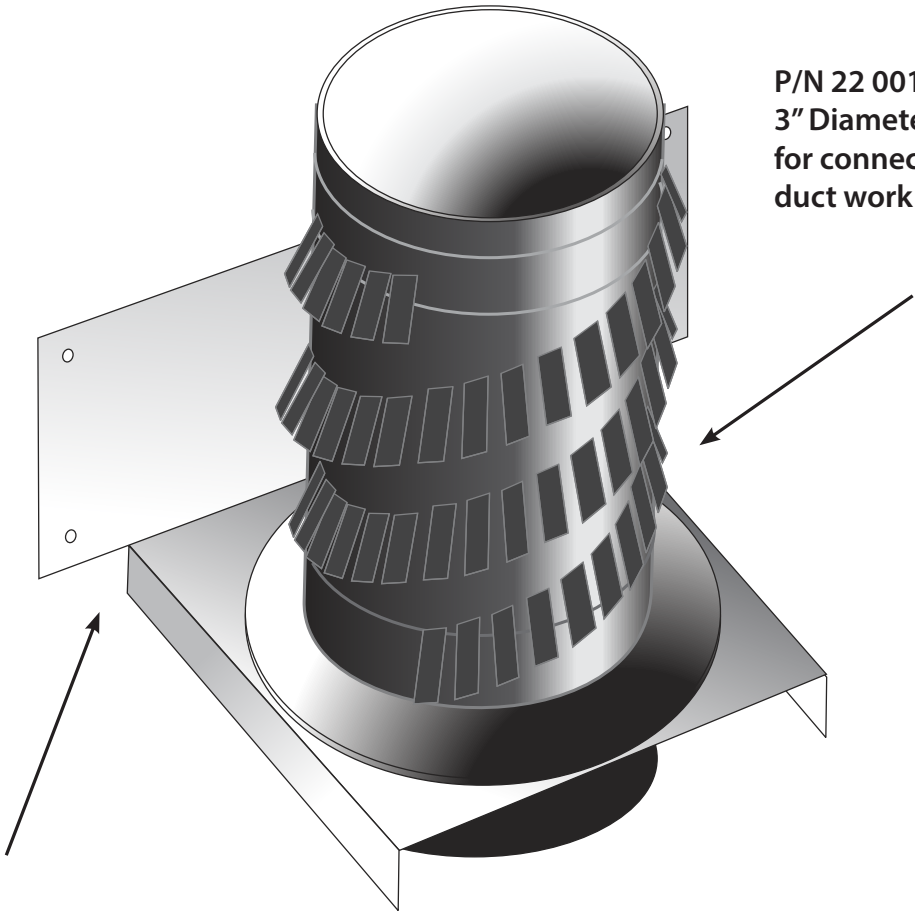




# MOUNTING SLEEVE

## WITH CEILING-MOUNT BRACKET

ROOF CAPS, WALL HOODS, GRILLES  
& DUCT FITTINGS



**P/N 22 001:**  
3" Diameter Mounting Sleeve  
for connecting grille to flexible  
duct work

**P/N 54 020:**  
3" Ceiling-Mount Bracket  
enables ceiling rough-in when  
used with mounting sleeve

For more information, contact your Aldes sales advisor, visit [aldes-na.com](http://aldes-na.com), call 1.800.255.7749, or find us on

