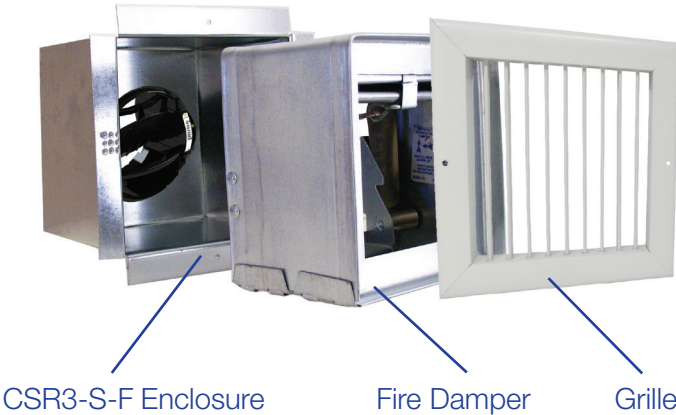




# CSR3-S-F

## CONSTANT SUPPLY REGULATOR

### AIRFLOW & ZONE CONTROL



## Product Description

The Aldes CSR3-S-F Constant Supply Register with integral fire damper incorporates an automatic, pressure independent balancing damper that regulates airflow in duct systems to constant levels. The passive control element in the CSR3-S-F requires no electric or pneumatic power or sensors and works solely off system pressure.

The CSR3-S-F compensates for changes in duct pressure caused by stack effect, operable windows and doors, wind, loading filters, etc. CSR3-S-F provides a low-cost solution to maintaining the correct airflow balance of ventilation systems, improving system performance and indoor air quality, which can provide significant savings on annual operating costs.

For installation in fire-rated wall assemblies requiring a fire damper, the Aldes CSR3-S-F provides a UL 555 1.5 hour dynamic fire damper as part of a cartridge to be installed with the integral CAR3 and grille as a complete assembly.

## Key Features

- Airflow adjustment dial and CFM indicator allows you to set or change the airflow quickly, without removing the airflow regulator from the duct.
- CAR3 is enhanced with antimicrobial, anti-static, and flame retardant additives for increased safety and durability.
- CSR3-S-F is ETL listed as an assembly and designed for installation in fire-rated wall assemblies.
- CAR3 attaches to fire damper sleeve assembly without use of gasket or adhesive.

## Construction

- CAR3 constructed of amorphous thermoplastic resin enhanced with antimicrobial, anti-static, and flame retardant additives to improve material performance, reduce need for maintenance, and increase safety.
- CAR3 is UL 2043 safety classified and labeled for flame and smoke generation (File No. R39897).
- Galvanized steel sleeve assembly designed to accommodate installation of curtain-type fire dampers.
- 1.5 Hour dynamic fire damper tested and listed per UL 555.

## Maintenance

The CSR3-S-F needs no maintenance when used in normal conditions. The addition of antimicrobial and anti-static additives in the material increases the longevity and reliability of the CAR3. There is no risk of dust deposit or obstruction because the CAR3 has no airways subject to clogging. If the intended application includes air heavily loaded with dust or grease, access to the CAR3 will be possible through the removable grille.

## Warranty

Guaranteed for 7 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

- Installation in fire rated assemblies.
- Balance supply duct in high-rise building.
- Balance fresh air to common areas & living spaces.

# How to Specify Aldes: CSR3-S-F

**Step 1:** Reference the model code below and performance details within this specifications sheet to select the appropriate CSR3-S-F.

**Step 2:** Determine the required **PRESSURE RANGE** for the CAR3 based on the anticipated external static pressure of the system at the installed CAR3 location.

**Step 3:** Select the desired **AIRFLOW RANGE**.

**NOTE:** Ranges available: 4, 5, 6, 8 or 10.

See *Airflow Settings and Performance Data* for additional details. Factory calibration of the CAR3 is available on request.

**Step 4:** Select the **NOMINAL DUCT WIDTH** and **NOMINAL DUCT HEIGHT**.

**NOTE:** Nominal width and height must be greater than or equal to the CAR3 size; 4, 5, 6, 8 or 10 selected in **AIRFLOW RANGE**.

## Model Code Example

### CSR3-L4-S-F-0606

**PARENT MODEL**

Constant Supply Register

**PRESSURE RANGE**

L: Low-Pressure (0.12-1.2 in. w.g.)

**AIRFLOW RANGE**

Low-Pressure

4: 15-85 CFM (25-144 m<sup>3</sup>/h)

5: 35-180 CFM (59-306 m<sup>3</sup>/h)

6: 45-260 CFM (76-442 m<sup>3</sup>/h)

8: 70-385 CFM (119-655 m<sup>3</sup>/h)

10: 110-620 CFM (187-1053 m<sup>3</sup>/h)

**SQUARE DUCT**

S: Square or Rectangular Duct

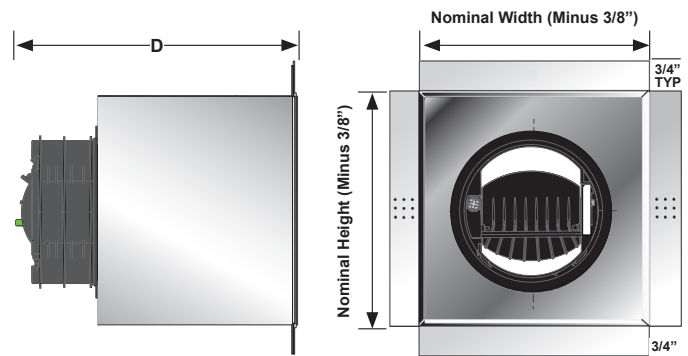
**FIRE DAMPER**

F: 1.5 Hour Fire Damper Included

**NOMINAL DUCT WIDTH**

**NOMINAL DUCT HEIGHT**

## CSR3-S-F Dimensions

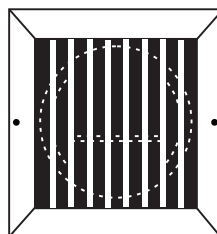


SIDE VIEW

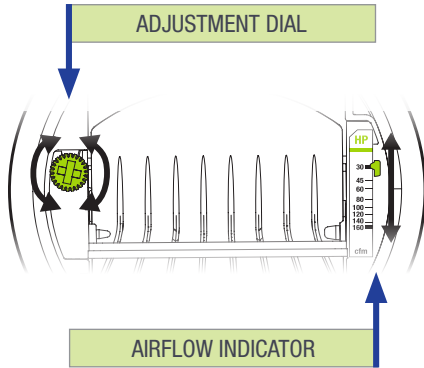
FRONT VIEW

CAR3 SIZE	DEPTH (D)
4	7.0"
5	8.0"
6	9.25"
8	10.3"
10	12"

**SUPPLY GRILLE**



*Optional Finishes: anodized or black. Contact Aldes representatives for additional colors.*

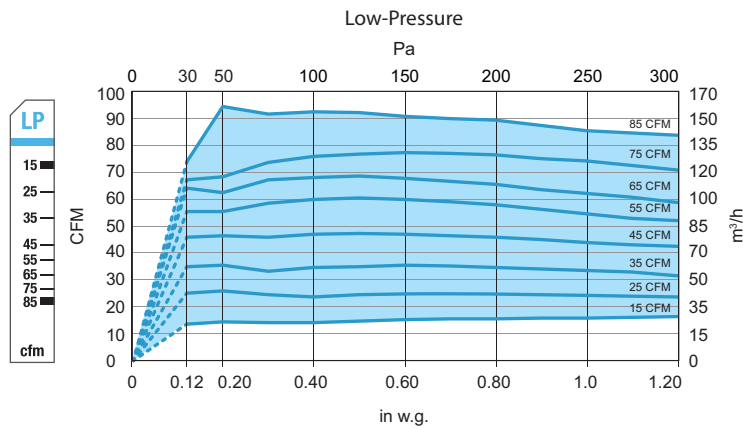


## Airflow Settings & Performance Data

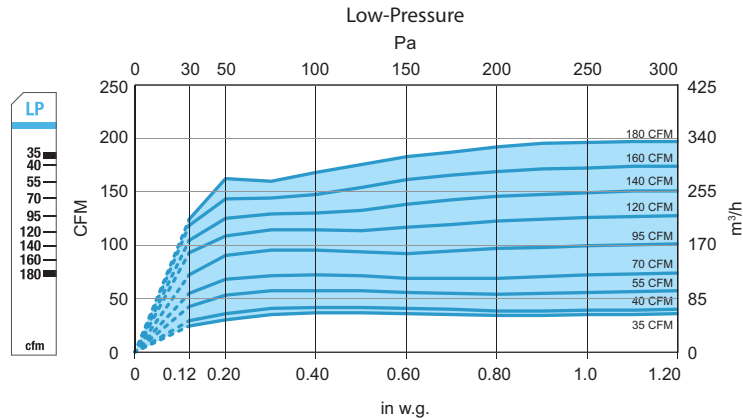
Airflow rate can be set or adjusted by rotating the dial from either side. The airflow indicator will move to show the selected CFM. The airflow label has multiple defined setpoints, but the unique adjustment mechanism of the CAR3 allows for infinite adjustability between the minimum and maximum limits.

Performance charts found in the specifications sheet reflect this data, with the available range (shaded) and marked setpoints (lines). The CAR3 will maintain the airflow accurately to within +/- 10% of the indicated lines below for each marked setpoint. At the higher airflow rates, the minimum pressure required to achieve the selected airflow may exceed 0.12 in. w.g.

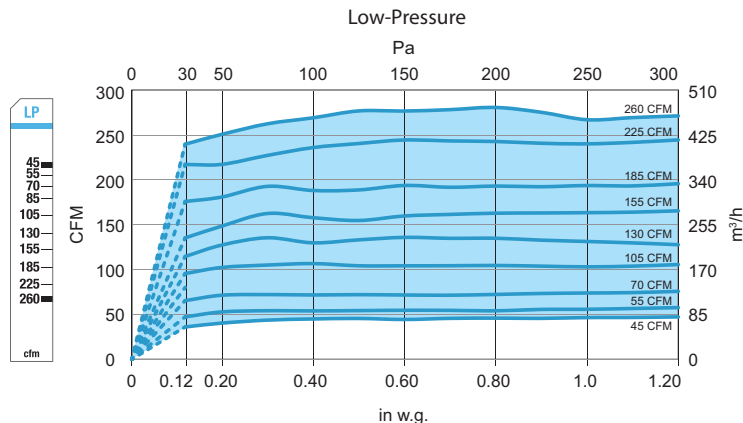
### CAR3 4" DIAMETER (100 mm)



### CAR3 5" DIAMETER (125 mm)

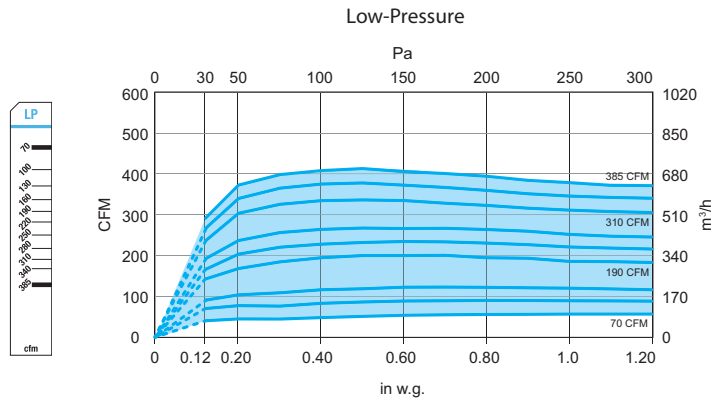


### CAR3 6" DIAMETER (150 mm)

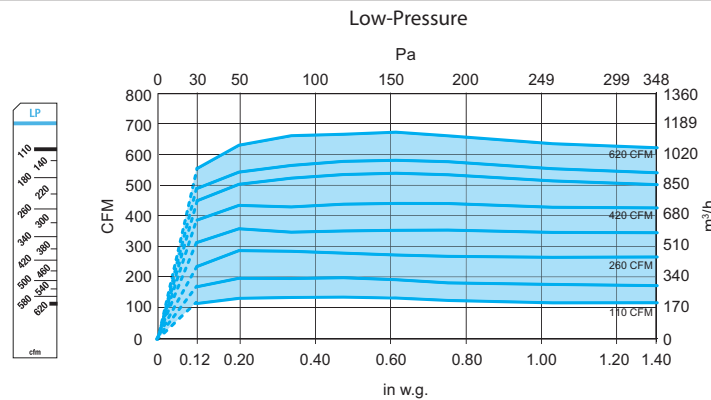


Airflow measurements taken at 68°F (20°C) at 1 atmosphere pressure.

**CAR3 8" DIAMETER (200 mm)**



**CAR3 10" DIAMETER (250 mm)**



Airflow measurements taken at 68°F (20°C) at 1 atmosphere pressure.

## Recommended Specification

Model CSR3-S-F Constant Supply Register by ALDES North America shall capable of maintaining constant airflow within +/-10% of the scheduled flow rate, within the operating range of 0.12 to 1.2 in. w.g. differential pressure for low-pressure model (CAR3-L). CSR3-S-F solely operate on duct pressure and require no external power supply or sensor, and shall be rated for use in air temperatures ranging from -25°F to 140°F (-32°C to 60°C). CSR3-S-F shall be provided as an assembly consisting of a CAR3, painted aluminum grille fire damper and galvanized steel sleeve assembly to install in square or rectangular duct. Fire damper must be classified per UL 555 and carry the UL mark indicating compliance. Fire damper shall be dynamic type and have a minimum rating of 1.5 hours. Each CSR3-S-F must be calibrated to match the airflow indicated on the schedule or drawing. Each airflow regulator shall be adjustable without removing from assembly. Regulator must be classified per UL 2043 and carry the UL mark indicating compliance. Constant Airflow Regulator is enhanced with antimicrobial, anti-static, and flame retardant additives for increased durability and safety, and covered under warranty for a period of no less than seven years. CSR3-S-F shall be installed in accordance with local code and manufacturer's instructions.

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

