



Constant Airflow Regulator

Model CAR

PRODUCT
SPECIFICATIONS
AND ENGINEERING
INFORMATION

SUBMITTAL DATA
1063-12-03

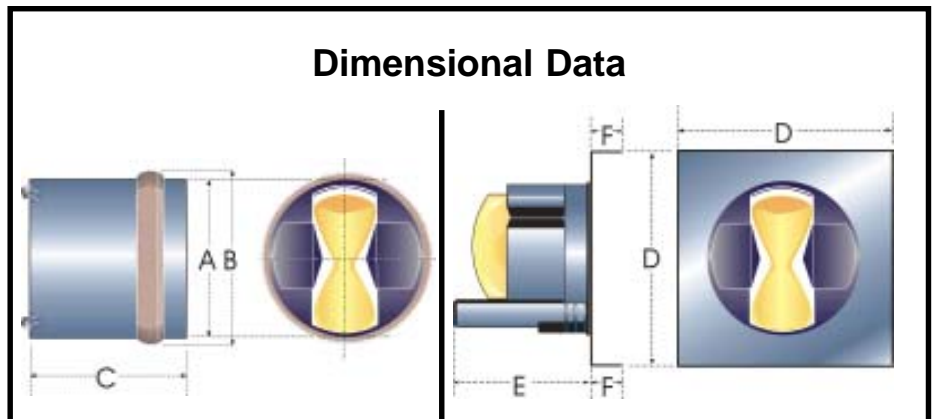
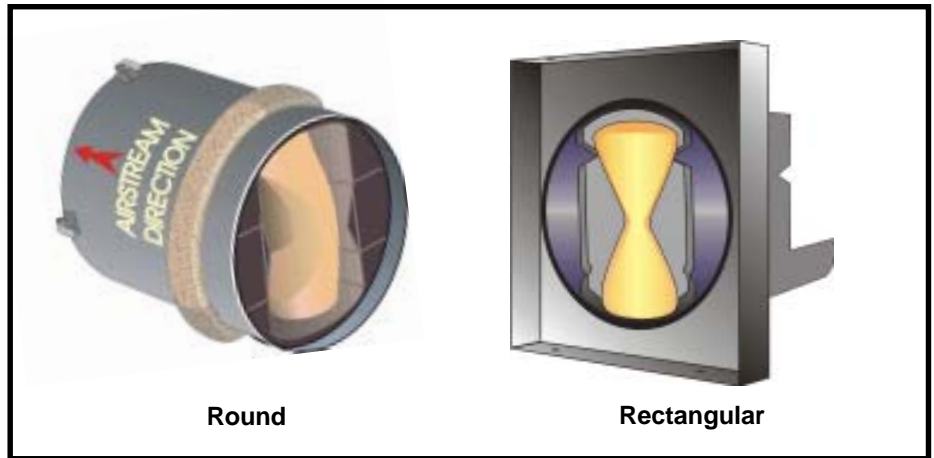
General: The model CAR Constant Airflow Regulator is a modulating orifice that automatically regulates airflows in duct systems to constant levels. The passive control element responds to duct pressure, and requires no electric or pneumatic sensors or controls.

The CAR compensates for changes in duct pressure caused by thermal stack effect, building pressure, dust clogging of 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, which 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.)

Construction (Round): The round 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, tees, etc. 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.

Construction (Rectangular): The CAR regulating element is available in a rectangular duct mounting plate. The assembly is sized to fit inside standard square or rectangular ducting, as well as register boots, return grille collars, etc. Each mounting plate is designed to specifically accommodate the control element, and prevent unwanted air leakage.



Duct	CAR	A	B	C	D*	E	F
ROUND							
4"	4	3.9	4.1	3.1	-	-	-
5"	5	4.8	5.0	5.4	-	-	-
6"	6	5.7	6.3	5.4	-	-	-
8"	8	7.7	8.1	6.1	-	-	-
10"	10	9.7	10.0	7.5	-	-	-
RECTANGULAR*							
6" x 6"	4	-	-	-	5.9	2.3	1.0
6" x 6"	5	-	-	-	5.9	3.7	1.0
8" x 8"	5	-	-	-	7.9	3.7	1.0
8" x 8"	6	-	-	-	7.9	4.0	1.0
10" x 10"	5	-	-	-	9.9	3.7	1.0
10" x 10"	6	-	-	-	9.9	4.0	1.0
10" x 10"	8	-	-	-	9.9	4.8	1.0
12" x 12"	8	-	-	-	11.9	4.8	1.0
12" x 12"	10	-	-	-	11.9	6.1	1.0
14" x 14"	10	-	-	-	13.9	6.1	1.0

* Standard sizes shown. Mounting plates are also available to accommodate any rectangular duct size.

All sizes shown are in inches.