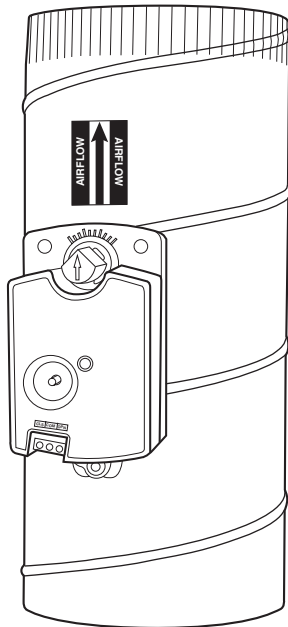
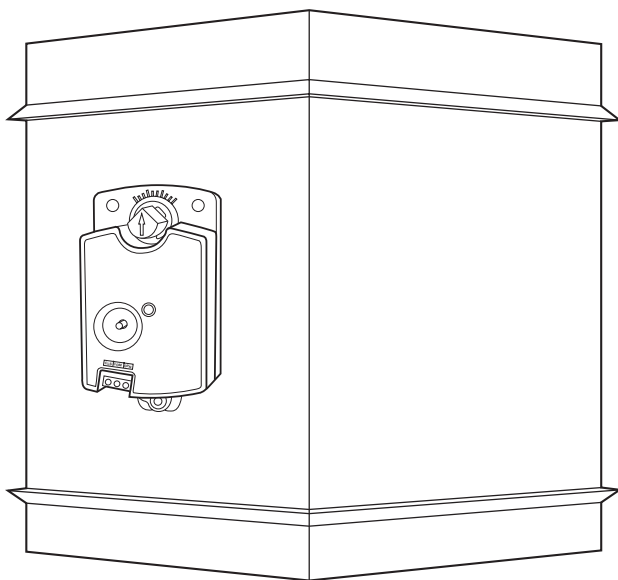


Product Data



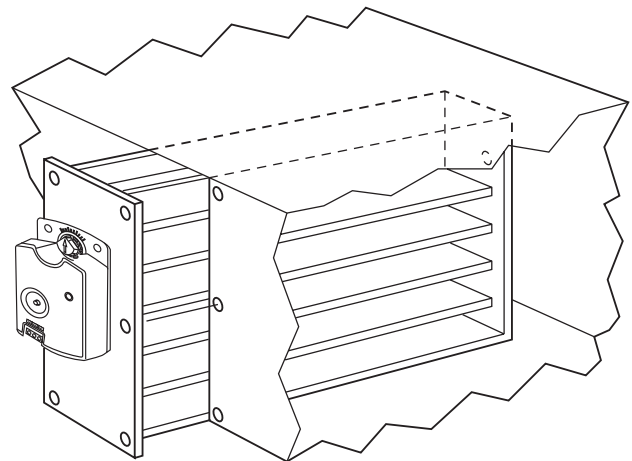
A05251

Fig. 1 – Round Damper



A05252

Fig. 2 – Rectangular Damper



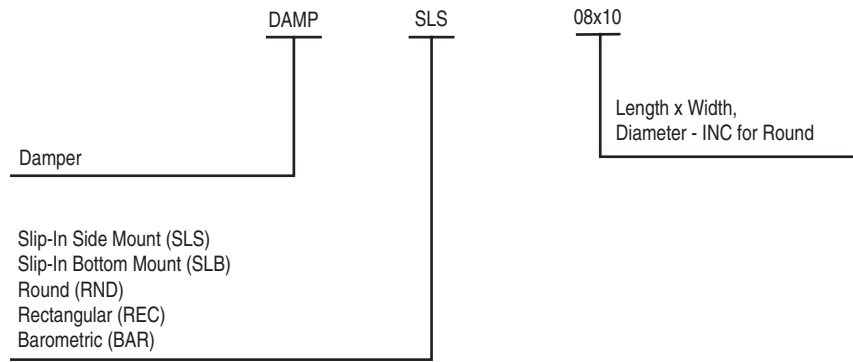
A05253

Fig. 3 – Slip-In Damper

FEATURES/BENEFITS

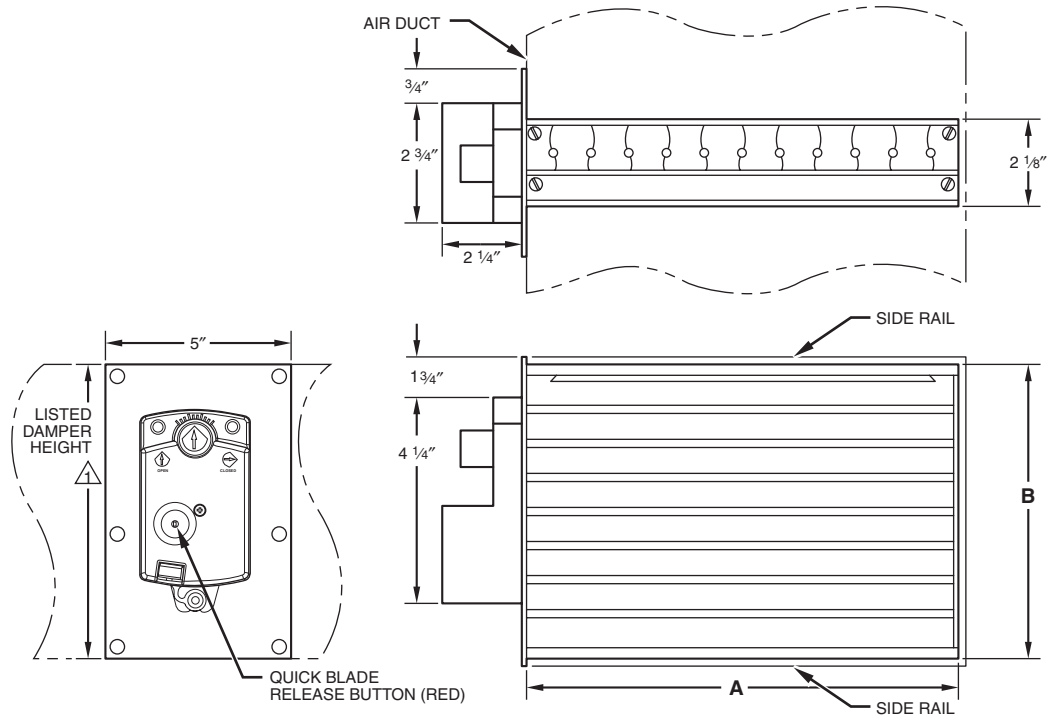
Carrier zone dampers are the latest in design and were developed to fit field requirements for a variety of ductwork shapes and sizes. These dampers use 24vac, direct-drive actuators for smooth, quiet performance. A novel shaft design provides both automatic alignment of the damper with the shaft and a position indicator. A spring-loaded disengagement button to momentarily release main gear and damper blade allows for manual positioning of installed dampers. Recessed electrical connections provide protection, as well as visibility and easy access for wiring without removing a cover. Permanently-lubricated bushings, with a split-shaft design for round and rectangular style dampers, align the damper blade to the shaft for efficient reliable service. The actuator is smaller and round dampers are shorter to better fit in tight locations.

MODEL NUMBER NOMENCLATURE



DAMP

DIMENSIONS



DAMP

Fig. 4 – Side-Mount Configuration

A05254

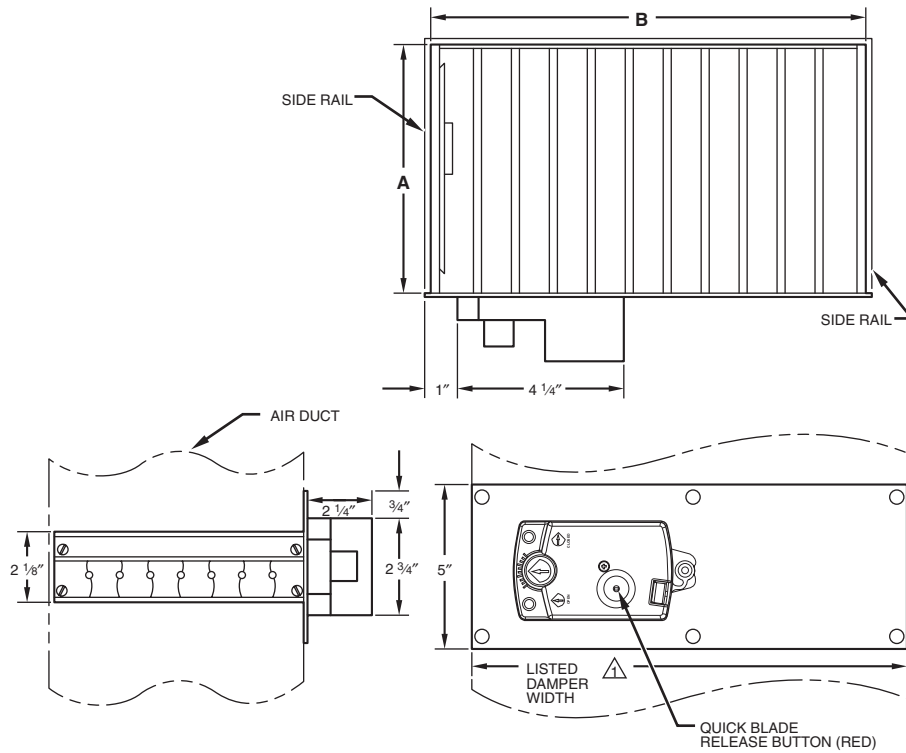


Fig. 5 – Bottom-Mount Configuration

A05255

See dimensions on next page.

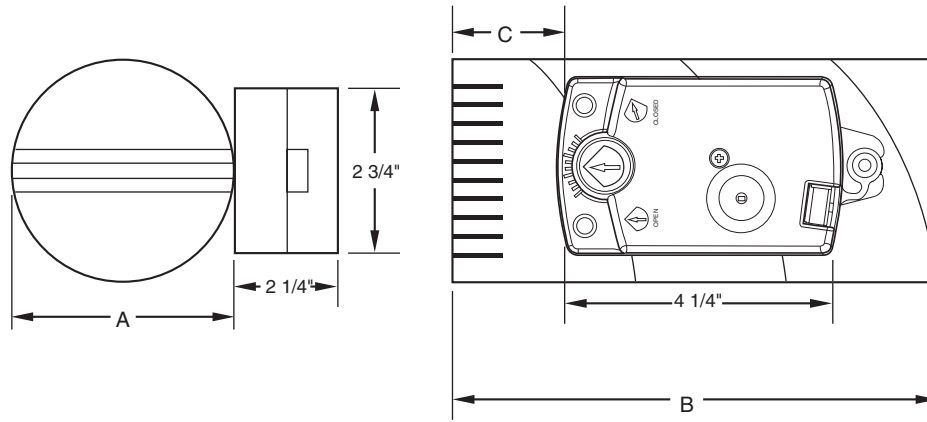
DIMENSIONS CONTINUED

SLIP-IN DAMPER DIMENSIONS (IN.)

DAMP

Catalog number	Description	A	B
DAMP SLS08X08-B	SIDE MOUNT 8X8	7 13/16	7 13/16
DAMP SLB08X08-B	BOTTOM MOUNT 8X8	7 13/16	7 13/16
DAMP SLS08X10-B	SIDE MOUNT 8X10	9 7/8	7 13/16
DAMP SLB08X10-B	BOTTOM MOUNT 8X10	7 13/16	9 7/8
DAMP SLS08X12-B	SIDE MOUNT 8X12	11 7/8	7 13/16
DAMP SLB08X12-B	BOTTOM MOUNT 8X12	7 13/16	11 7/8
DAMP SLS08X14-B	SIDE MOUNT 8X14	13 7/8	7 13/16
DAMP SLB08X14-B	BOTTOM MOUNT 8X14	7 13/16	13 7/8
DAMP SLS08X16-B	SIDE MOUNT 8X16	15 7/8	7 13/16
DAMP SLB08X16-B	BOTTOM MOUNT 8X16	7 13/16	15 7/8
DAMP SLS08X18-B	SIDE MOUNT 8X18	17 7/8	7 13/16
DAMP SLB08X18-B	BOTTOM MOUNT 8X18	7 13/16	17 7/8
DAMP SLS08X20-B	SIDE MOUNT 8X20	7 13/16	19 7/8
DAMP SLB08X20-B	BOTTOM MOUNT 8X20	19 7/8	7 13/16
DAMP SLS08X22-B	SIDE MOUNT 8X22	7 13/16	21 7/8
DAMP SLB08X22-B	BOTTOM MOUNT 8X22	21 7/8	7 13/16
DAMP SLS08X24-B	SIDE MOUNT 8X24	7 13/16	23 7/8
DAMP SLB08X24-B	BOTTOM MOUNT 8X24	23 7/8	7 13/16
DAMP SLS10X10-B	SIDE MOUNT 10X10	9 7/8	9 13/16
DAMP SLB10X10-B	BOTTOM MOUNT 10X10	9 13/16	9 7/8
DAMP SLS10X12-B	SIDE MOUNT 10X12	11 7/8	9 13/16
DAMP SLB10X12-B	BOTTOM MOUNT 10X12	9 13/16	11 7/8
DAMP SLS10X14-B	SIDE MOUNT 10X14	13 7/8	9 13/16
DAMP SLB10X14-B	BOTTOM MOUNT 10X14	9 13/16	13 7/8
DAMP SLS10X16-B	SIDE MOUNT 10X16	15 7/8	9 13/16
DAMP SLB10X16-B	BOTTOM MOUNT 10X16	9 13/16	15 7/8
DAMP SLS10X18-B	SIDE MOUNT 10X18	17 7/8	9 13/16
DAMP SLB10X18-B	BOTTOM MOUNT 10X18	9 13/16	17 7/8
DAMP SLS10X20-B	SIDE MOUNT 10X20	19 7/8	9 13/16
DAMP SLB10X20-B	BOTTOM MOUNT 10X20	9 13/16	19 7/8
DAMP SLS10X22-B	SIDE MOUNT 10X22	21 7/8	9 13/16
DAMP SLB10X22-B	BOTTOM MOUNT 10X22	9 13/16	21 7/8
DAMP SLS10X24-B	SIDE MOUNT 10X24	23 7/8	9 13/16
DAMP SLB10X24-B	BOTTOM MOUNT 10X24	9 13/16	23 7/8
DAMP SLS12X12-B	SIDE MOUNT 12X12	11 7/8	11 13/16
DAMP SLB12X12-B	BOTTOM MOUNT 12X12	11 13/16	11 7/8
DAMP SLS12X14-B	SIDE MOUNT 12X14	13 7/8	11 13/16
DAMP SLB12X14-B	BOTTOM MOUNT 12X14	11 13/16	13 7/8
DAMP SLS12X16-B	SIDE MOUNT 12X16	15 7/8	11 13/16
DAMP SLB12X16-B	BOTTOM MOUNT 12X16	11 13/16	15 7/8
DAMP SLS12X18-B	SIDE MOUNT 12X18	17 7/8	11 13/16
DAMP SLB12X18-B	BOTTOM MOUNT 12X18	11 13/16	7 7/8
DAMP SLS12X20-B	SIDE MOUNT 12X20	19 7/8	11 13/16
DAMP SLB12X20-B	BOTTOM MOUNT 12X20	11 13/16	19 7/8
DAMP SLS14X14-B	SIDE MOUNT 14X14	13 7/8	13 13/16
DAMP SLB14X14-B	BOTTOM MOUNT 14X14	13 13/16	13 7/8
DAMP SLS14X16-B	SIDE MOUNT 14X16	15 7/8	13 13/16
DAMP SLB14X16-B	BOTTOM MOUNT 14X16	13 13/16	15 7/8
DAMP SLS14X20-B	SIDE MOUNT 14X20	19 7/8	13 13/16
DAMP SLB14X20-B	BOTTOM MOUNT 14X20	13 13/16	19 7/8
DAMP SLS16X16-B	SIDE MOUNT 16X16	15 7/8	15 13/16
DAMP SLB16X16-B	BOTTOM MOUNT 16X16	15 13/16	15 7/8
DAMP SLB16X20-B	BOTTOM MOUNT 16X20	19 7/8	15 13/16

DIMENSIONS CONTINUED



A05256

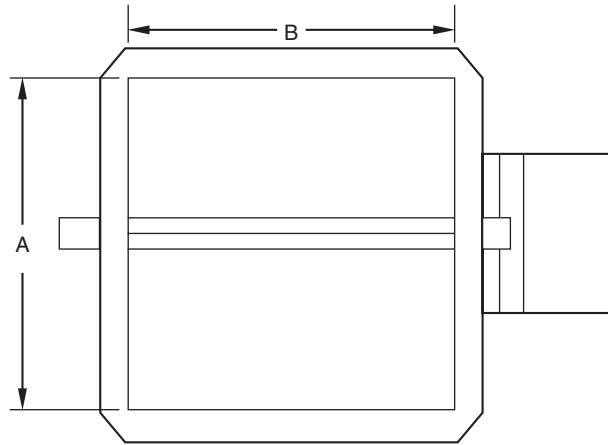
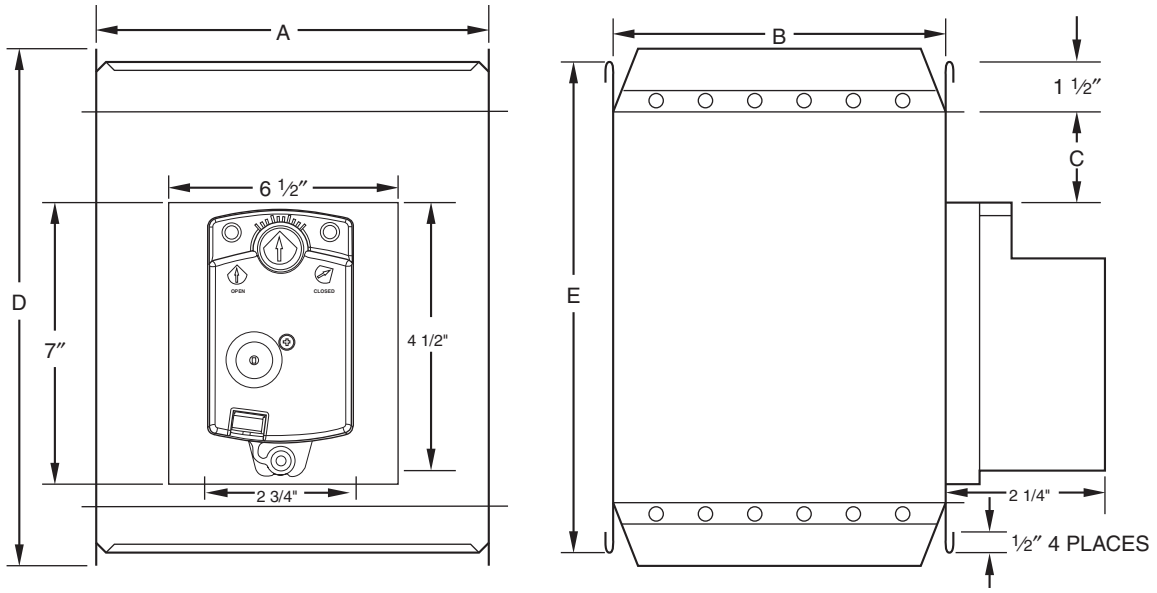
DAMP

ROUND DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C
DAMPRND06INC	6	12	4-1/4
DAMPRND08INC	8	14	6-1/4
DAMPRND10INC	10	16	7-1/4
DAMPRND12INC	12	18	8-1/4
DAMPRND14INC	14	20	9-1/4
DAMPRND16INC	16	24	11-1/4

DIMENSIONS CONTINUED

DAMP

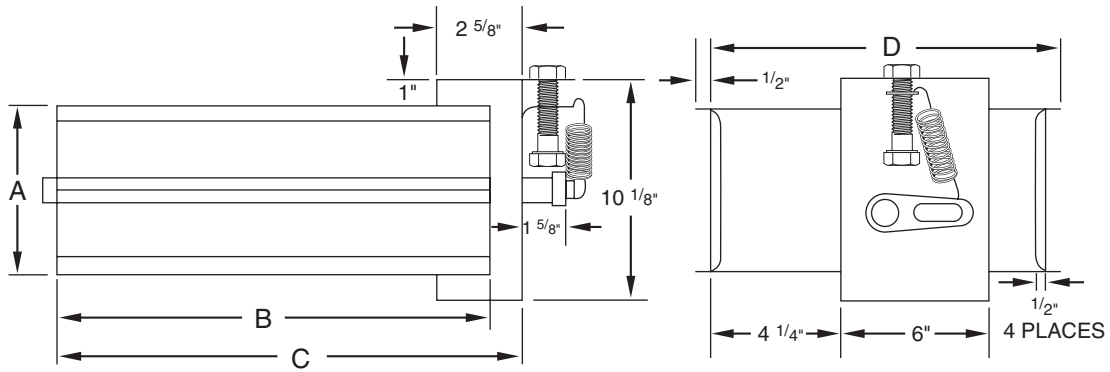


A05257

RECTANGULAR DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	E
DAMPREC08x10	8	10	2-1/4	13-1/2	12-1/4
DAMPREC08x14	8	14	2-1/4	13-1/2	12-1/4
DAMPREC08x18	8	18	2-1/4	13-1/2	12-1/4
DAMPREC08x24	8	24	2-1/4	13-1/2	12-1/4
DAMPREC10x10	10	10	3-1/4	15-1/2	14-1/4
DAMPREC10x14	10	14	3-1/4	15-1/2	14-1/4
DAMPREC10x18	10	18	3-1/4	15-1/2	14-1/4
DAMPREC10x24	10	24	3-1/4	15-1/2	14-1/4

DIMENSIONS CONTINUED

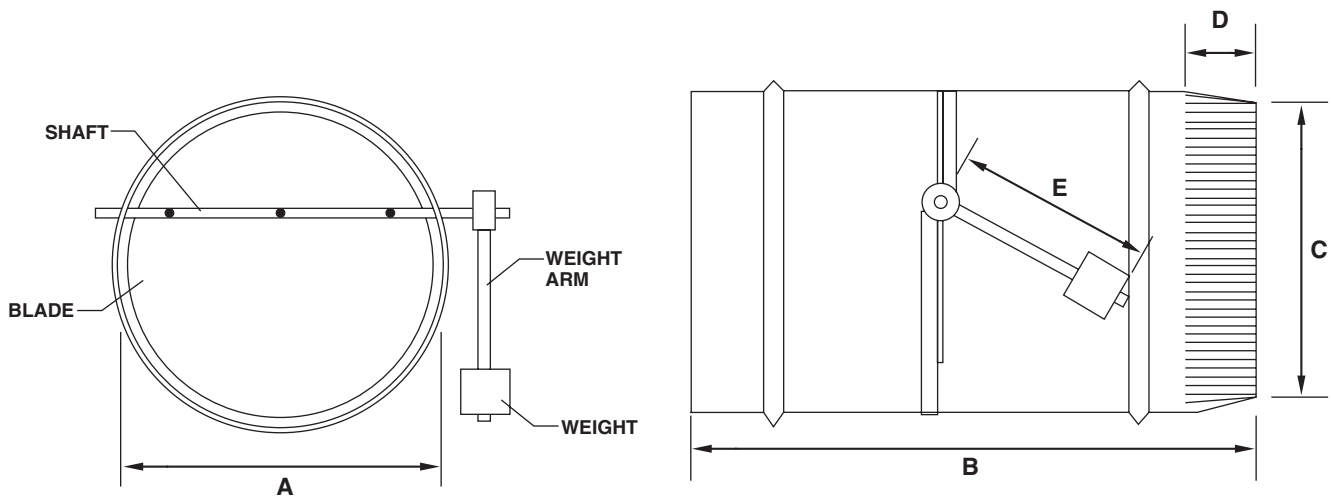


A98392

RECTANGULAR BAROMETRIC-BYPASS DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	MAX AIRFLOW
DAMPBAR08x14	8	14	15-1/4	13-1/2	1200 CFM
DAMPBAR08x24	8	24	25	13-1/2	1800 CFM

DAMP



A98355

ROUND BAROMETRIC-BYPASS DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	E	NUMBER OF WEIGHTS	MAX AIRFLOW
DAMPBAR08INC	8	9	7-15/16	1-1/2	6	1	400
DAMPBAR10INC	10	11-1/8	9-15/16	1-1/2	8	2	650
DAMPBAR12INC	12	13-1/8	11-15/16	1-1/2	10	2	900
DAMPBAR14INC	14	15-3/8	13-15/16	1-1/2	10	4	1200
DAMPBAR16INC	16	17-5/8	15-15/16	1-1/2	12	5	1600

PHYSICAL DATA

Input Voltage	24vac
Nominal Input Power	2va
Damper Output Torque	10 in. - Lb.
Ambient Temperatures	0°F to 158°F or -18°C to 70°C
Wire Connections	Common, Open, Close
Wire Connectors	Plated Screw Terminals For 14-22 AWG
Stroke Time	Angular Rotation per Sec
DAMPACT45DEG	3° per Sec
DAMPACT90DEG	6° per Sec
Travel Time	15 Sec
Barometric Bypass Pressure Range	0.2-0.8 in. wc

DAMP

DAMPER PRESSURE DROP AIRFLOW DATA

DAMPER	400 FPM	600 FPM	800 FPM	DESIGN UNIT (CFM)	MAXIMUM (CFM)
	In.	In.	In.		
DAMPSLS08X08-B	0.03	0.05	0.08	360	540
DAMPSLB08X08-B	0.03	0.05	0.08	360	540
DAMPSLS08X10-B	0.03	0.05	0.08	440	660
DAMPSLB08X10-B	0.03	0.05	0.08	440	660
DAMPSLS08X12-B	0.03	0.05	0.08	530	800
DAMPSLB08X12-B	0.03	0.05	0.08	530	800
DAMPSLS08X14-B	0.03	0.05	0.08	620	930
DAMPSLB08X14-B	0.03	0.05	0.08	620	930
DAMPSLS08X16-B	0.03	0.05	0.08	710	1070
DAMPSLB08X16-B	0.03	0.05	0.08	710	1070
DAMPSLS08X18-B	0.03	0.05	0.08	800	1200
DAMPSLB08X18-B	0.03	0.05	0.08	800	1200
DAMPSLS08X20-B	0.03	0.05	0.08	890	1330
DAMPSLB08X20-B	0.03	0.05	0.08	890	1330
DAMPSLS08X22-B	0.03	0.05	0.08	980	1470
DAMPSLB08X22-B	0.03	0.05	0.08	980	1470
DAMPSLS08X24-B	0.03	0.05	0.08	1070	1600
DAMPSLB08X24-B	0.03	0.05	0.08	1070	1600
DAMPSLS10X10-B	0.03	0.05	0.08	560	830
DAMPSLB10X10-B	0.03	0.05	0.08	560	830
DAMPSLS10X12-B	0.03	0.05	0.08	670	1000
DAMPSLB10X12-B	0.03	0.05	0.08	670	1000
DAMPSLS10X14-B	0.03	0.05	0.08	780	1170
DAMPSLB10X14-B	0.03	0.05	0.08	780	1170
DAMPSLS10X16-B	0.03	0.05	0.08	890	1330
DAMPSLB10X16-B	0.03	0.05	0.08	890	1330
DAMPSLS10X18-B	0.03	0.05	0.08	1000	1500
DAMPSLB10X18-B	0.03	0.05	0.08	1000	1500
DAMPSLS10X20-B	0.03	0.04	0.06	1110	1670
DAMPSLB10X20-B	0.03	0.04	0.06	1110	1670
DAMPSLS10X22-B	0.03	0.04	0.06	1220	1830
DAMPSLB10X22-B	0.03	0.04	0.06	1220	1830
DAMPSLS10X24-B	0.03	0.04	0.06	1330	2000
DAMPSLB10X24-B	0.03	0.04	0.06	1330	2000
DAMPSLS12X12-B	0.03	0.04	0.06	800	1200
DAMPSLB12X12-B	0.03	0.04	0.06	800	1200
DAMPSLS12X14-B	0.03	0.04	0.06	930	1400
DAMPSLB12X14-B	0.03	0.04	0.06	930	1400
DAMPSLS12X16-B	0.03	0.04	0.06	1070	1600
DAMPSLB12X16-B	0.03	0.04	0.06	1070	1600
DAMPSLS12X18-B	0.03	0.04	0.06	1200	1800
DAMPSLB12X18-B	0.03	0.04	0.06	1200	1800
DAMPSLS12X20-B	0.03	0.04	0.06	1330	2000
DAMPSLB12X20-B	0.03	0.04	0.06	1330	2000
DAMPSLS14X14-B	0.03	0.04	0.06	1090	1630
DAMPSLB14X14-B	0.03	0.04	0.06	1090	1630
DAMPSLS14X16-B	0.03	0.04	0.06	1240	1870
DAMPSLB14X16-B	0.03	0.04	0.06	1240	1870
DAMPSLS14X20-B	0.02	0.03	0.05	1560	2330
DAMPSLB14X20-B	0.02	0.03	0.05	1560	2330
DAMPSLS16X16-B	0.02	0.03	0.05	1420	2130
DAMPSLB16X16-B	0.02	0.03	0.05	1420	2130
DAMPSLB16X20-B	0.02	0.03	0.05	1780	2670
DAMPRND06INC	0.02	0.04	0.06	120	180
DAMPRND08INC	0.02	0.03	0.05	220	330
DAMPRND10INC	0.02	0.03	0.04	490	650
DAMPRND12INC	0.02	0.03	0.04	700	1050
DAMPRND14INC	0.02	0.03	0.03	960	1440
DAMPRND16INC	0.02	0.03	0.03	1250	1875
DAMPREC08X10	0.02	0.03	0.04	500	750
DAMPREC08X14	0.02	0.03	0.04	700	1050
DAMPREC08X18	0.02	0.03	0.04	900	1350
DAMPREC08X24	0.02	0.03	0.04	1200	1800
DAMPREC10X10	0.02	0.02	0.02	620	930
DAMPREC10X14	0.02	0.02	0.02	870	1305
DAMPREC10X18	0.02	0.02	0.02	1120	1680
DAMPREC10X24	0.02	0.02	0.02	1500	2250

DAMP

NOTE: As the design airflow for dampers is exceeded, the potential for airflow noise problems increases.

HOW TO USE PRESSURE DROP DATA

1. Calculate airflow for each zone based on load and number of zones.
2. As duct system is designed, calculate pressure losses in each duct run and in the air handler (filter and cooling coil).
3. Based on the duct size and amount of airflow required in each zone, calculate a duct velocity for the air through the damper.
4. Use the chart to find the pressure drop for the damper and the calculated velocity in each duct run.
5. Put the damper pressure drop data into the duct losses for each run and calculate a total system pressure loss.
6. Make sure that the unit specified for the application will supply the required amount of air for the calculated system pressure loss.
7. Make sure that the maximum airflow for each damper is not exceeded.

Example: Assume an installation requires a maximum airflow of 600 CFM per zone. If 8-in. X 18-in. ducts are used in the house the duct area is 8-in. X 18-in. / (144 sq in. per sq ft) gives 1.0 sq ft of duct area. Dividing the airflow for each zone (600 CFM) by the duct area (1.0 sq ft) gives 600 fpm.

DAMPREC08X18: 0.03-in.

DAMPSLS08X18: 0.05-in.

DAMPSLB08x18: 0.05-in.

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization • Maintenance
- Installation Overview • Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

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