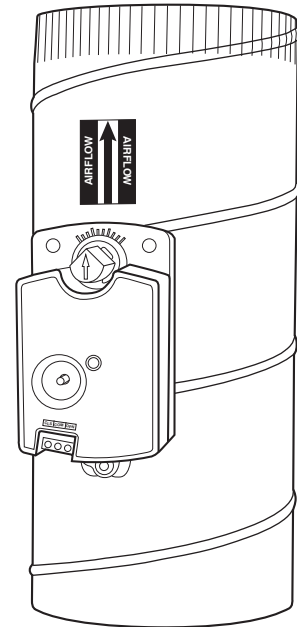
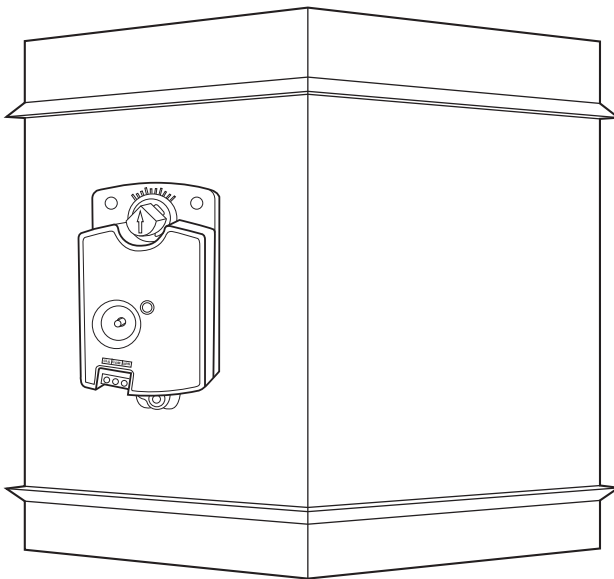


FEATURES / BENEFITS

- Latest in design and will fit field requirements for a variety of duct work shapes and sizes
- 24 VAC direct drive actuators for smooth quiet performance
- Secure 1/2 in. drive hub for securing the damper blade and shaft to the actuator housing
- Position indicator and angular rotation stop for viewing or manually setting minimum/maximum damper positions
- Spring loaded disengagement button to momentarily release main gear and damper blade allows for manual positioning of installed dampers
- Damper motor and terminal block wiring are protected by a plastic cover with a removeable door
- Permanently lubricated bushings with a split shaft design for round and rectangular style dampers, secure the damper blade to the shaft for efficient, reliable service



Round Damper

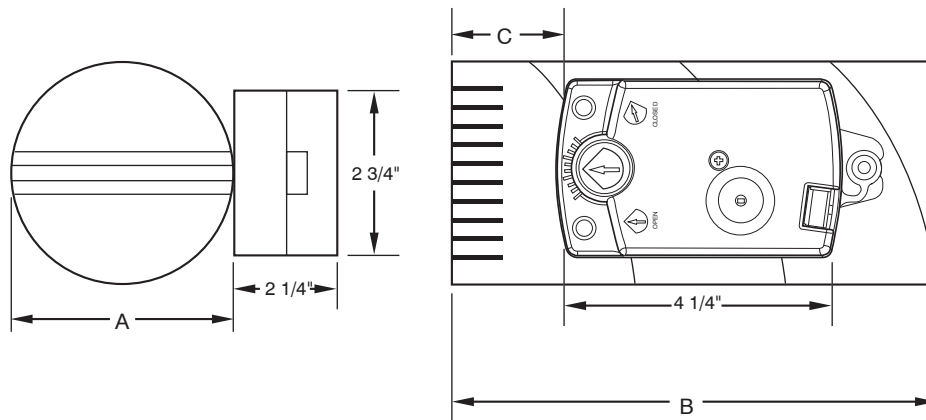


Rectangular Damper

DAMPER MODEL NUMBER IDENTIFICATION GUIDE

Example Part Number:	ZDAMP	REC	8 X 10
Damper	Description		
RND (Round)			
REC (Rectangular)			
BAR (Barometric)			
ACT (Actuator)		TYPE	
8 X 10 (Length x Width –Rectangular)			
10INC (Round Diameter)			
45DEGR (Actuator Angle)			SIZE

DIMENSIONS

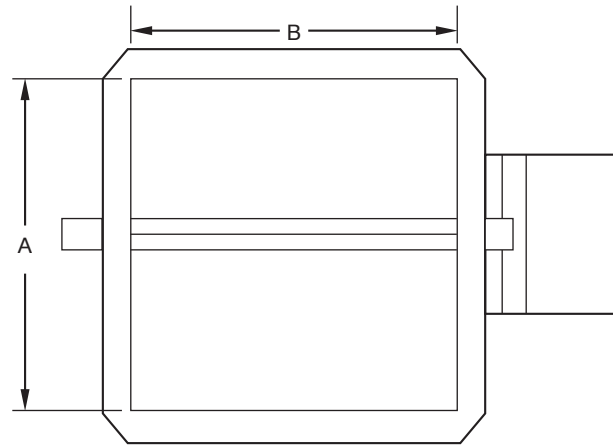
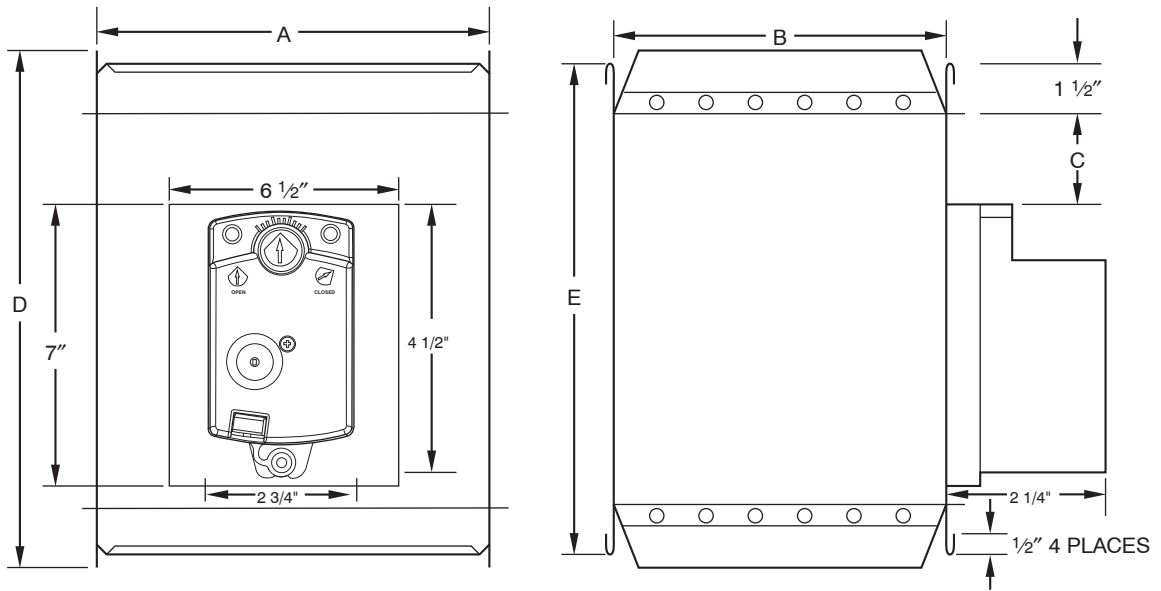


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ROUND DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C
ZDAMPRND06INCB	6	12	4-1/4
ZDAMPRND08INCB	8	14	6-1/4
ZDAMPRND10INCB	10	16	7-1/4
ZDAMPRND12INCB	12	18	8-1/4
ZDAMPRND14INCB	14	20	9-1/4
ZDAMPRND16INCB	16	24	11-1/4

DIMENSIONS CONTINUED

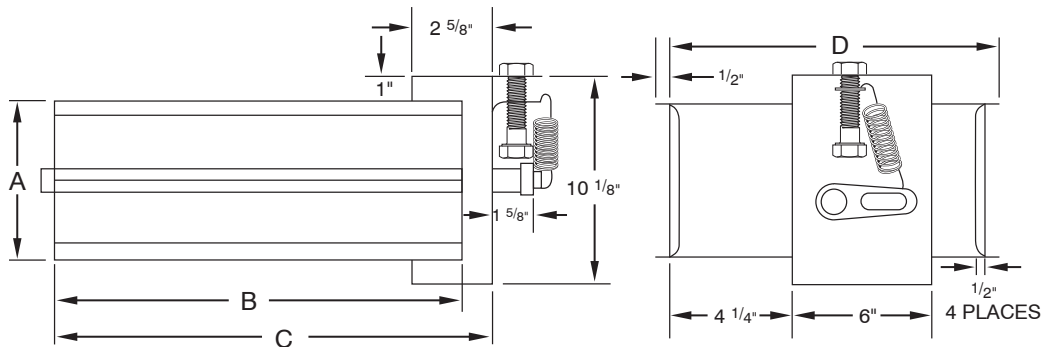


A05257

RECTANGULAR damper DIMENSIONS (IN.)

PART NO.	A	B	C	D	E
ZDAMPREC08X10B	8	10	2-1/4	13-1/2	12-1/4
ZDAMPREC08X14B	8	14	2-1/4	13-1/2	12-1/4
ZDAMPREC08X18B	8	18	2-1/4	13-1/2	12-1/4
ZDAMPREC08X24B	8	24	2-1/4	13-1/2	12-1/4
ZDAMPREC10X10B	10	10	3-1/4	15-1/2	14-1/4
ZDAMPREC10X14B	10	14	3-1/4	15-1/2	14-1/4
ZDAMPREC10X18B	10	18	3-1/4	15-1/2	14-1/4
ZDAMPREC10X24B	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
ZDAMPBAR08x14	8	14	15-1/4	13-1/2	1200 CFM
ZDAMPBAR08x24	8	24	25	13-1/2	1800 CFM

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
ZDAMPACT45DEG	3° per Sec
ZDAMPACT90DEG	6° per Sec
Travel Time	15 Sec
Barometric Bypass Pressure Range	0.2-0.8 in. wc

DAMPER PRESSURE DROP AIRFLOW DATA

MODEL	400 FPM	600 FPM	800 FPM	Design Unit (CFM)	Maximum (CFM)
	In.	In.	In.		
ZDAMPRND06INCB	0.02	0.04	0.06	120	180
ZDAMPRND08INCB	0.02	0.03	0.05	220	330
ZDAMPRND10INCB	0.02	0.03	0.04	490	650
ZDAMPRND12INCB	0.02	0.03	0.04	700	1050
ZDAMPRND14INCB	0.02	0.03	0.03	960	1440
ZDAMPRND16INCB	0.02	0.03	0.03	1250	1875
ZDAMPREC08X10B	0.02	0.03	0.04	500	750
ZDAMPREC08X14B	0.02	0.03	0.04	700	1050
ZDAMPREC08X18B	0.02	0.03	0.04	900	1350
ZDAMPREC08X24B	0.02	0.03	0.04	1200	1800
ZDAMPREC10X10B	0.02	0.02	0.02	620	930
ZDAMPREC10X14B	0.02	0.02	0.02	870	1305
ZDAMPREC10X18B	0.02	0.02	0.02	1120	1680
ZDAMPREC10X24B	0.02	0.02	0.02	1500	2250

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. ZDAMPREC08X18: 0.03-in.

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