

Braeburn®

The Best Value in Zoning Today®

The rectangular damper series are extruded aluminum parallel blade dampers compete with 24VAC Power Open/Power Close Motor. These dampers are shipped complete and ready for installation. The lightweight damper can be installed in any position in any properly sized duct. These dampers and motor combination are rated for duct pressure up to 2.0" W.C.

Dampers are available in all even sizes from 8" x 8" to 30" x 16". All dampers are 1/4" undersized from their listed size. Dampers are ordered with the motor mounted to the second dimension (height dimension), therefore for bottom mount applications, choose a damper like 101014 that will fit in a 10-inch-tall duct mounted between 16-inch center floor joists. Dampers are ordered as **10wwhh**, using 2 digits for each width (ww) and height (hh) dimension. All dampers are shipped in the Open position ready for installation. Contact the factory for sizes above 30" x 16".

The damper can be used for zone control, fresh air intake, ventilation or as the motorized, modulating damper for by-pass air when controlled by the Static Pressure Switch model 149020. It is also designed to also handle high velocity air conditioning systems up to 2.0"W.C.

Motor Actuator

The motor actuator is a reversible motor that powers the damper both open and closed. It also has an adjustable stop for a minimum/maximum damper position setting. The motor actuator delivers up to 283 in/oz. (17.70 in/lbs.) of torque that powers the damper open and closed.

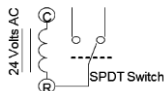
The simple 3 wire motor has two light emitting diodes (LED's) to indicate the damper position. The **RED** LED is illuminated when the damper is **closed** and the **Green** is illuminated when the damper is **open**. This motor's energy saving design uses end switches to break power to the motor once the motor reaches the end travel position. This lengthens the motor life and conserves energy. The motor has been factory tested to over 250,000 cycles.

CHECKOUT

To checkout the operation of the damper, place 24V across terminals COM and OPN (Red/Blue). The damper will open and the Green LED will illuminate at the end of the cycle. Place 24V to terminals COM and CLS (Red/White). The damper will close and the Red LED will illuminate at the end of the cycle. All dampers are 100% factory tested.



COMMON
OPEN
CLOSE



Zone Damper

with Power Open/Power Close Motor

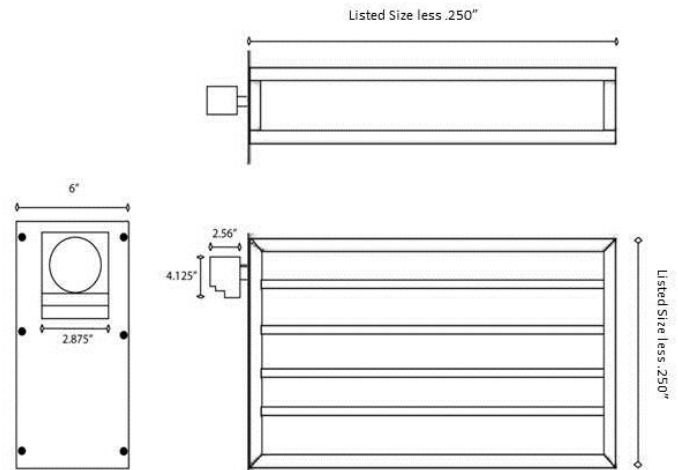


Side Mount



Bottom Mount

Dimensional Drawing (nominal)



Damper Specifications

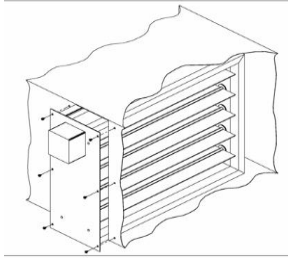
- Construction – Aluminum Mill Finish, Miter Angles
- Linkage – Zinc plated linkage arm, Delrin bushings
- Dimensions – 8" x 8" to 30" x 16" in 2" increments, 1/4" undersized.*
- Motor Voltage – 24Volts AC, 50/60Hz, 6W, 100mA Nominal
- Torque – 283in/oz. (17.70in/lbs.), 2Nm
- Temperature Rating - 0°F to 150°F Operating, -20°F to 175°F Storage
- Humidity – 5% to 95% Non-Condensing
- Damper Timing – Nominal 13.5 Sec. Powered
- Connection: Color Coded Screwless Terminals
- Static Pressure – Maximum 2.0" W.C.

*Contact factory for sizes above 30" x 16".

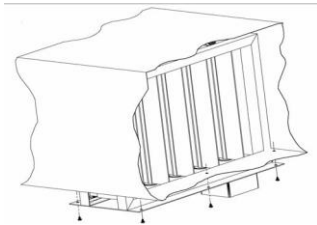
INSTALLATION

1. Cut a 4-inch (102-millimeter) opening in one side of the air duct at the location selected. Ensure the opening is cut fully to the top and bottom air duct seams.
2. Slide the damper into the cut opening of the air duct. Ensure the electric actuator is mounted toward the top of the air duct.
3. Secure the damper mounting plate to the air duct with the sheet metal zip screws provided.

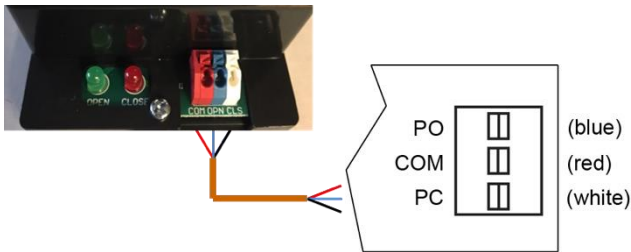
Side Mount:



Bottom Mount:



WIRING DIAGRAM

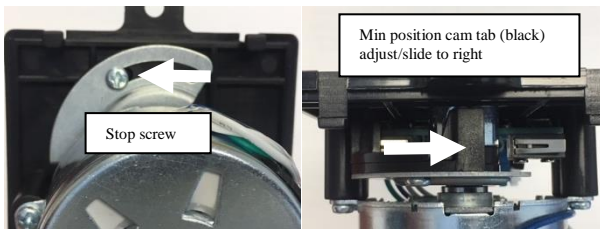


Adjustable Minimum Close/Maximum Open Settings

Full cam extension equates to apx 40% blade open/close

Minimum Close Setting Adjustment

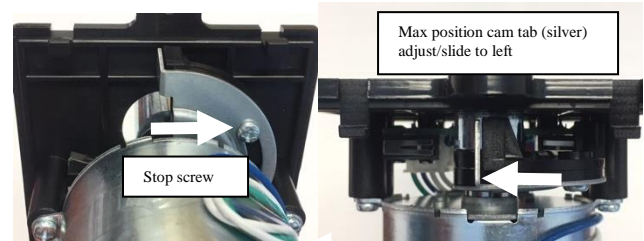
To set the adjustable Minimum Close Damper Position Stop, power the damper to the OPEN (Green LED illuminates) position. Remove the cover from the actuator by loosening the screw between the LEDs and the terminal connector block. Remove the cover by lifting the cover away from the baseplate and upward to release from 2 tabs at the top of the actuator baseplate. To adjust the cam, loosen the stop screw on the adjustable cam located as shown on left.



Move the adjustable cam (black section of cam) to the right to adjust the minimum position. Make sure to re-tighten the cam locking screw and power actuator/damper open and close in order to check position setting. Reattach the cover.

Maximum Open Setting Adjustment

To set the adjustable Maximum Open Damper Position Stop, power the damper to the CLOSED (Red LED illuminates) position. Remove the cover from the actuator by loosening the screw between the LEDs and the terminal connector block. Remove the cover by lifting the cover away from the baseplate and upward to release from 2 tabs at the top of the actuator baseplate. To adjust the cam, loosen the stop screw on the adjustable cam located as shown on left.



Move the adjustable cam (silver section of cam) to the left to adjust the maximum position. Make sure to re-tighten the cam locking screw and power actuator/damper open and close in order to check position setting. Reattach the cover.

TROUBLESHOOTING

After performing the checkout of the damper, check the motor terminals for 24V across terminals COM and OPN (Red/Blue) if the damper should be open, and COM and CLS (Red/White) if the damper should be closed. If power is not at the proper terminals, check the wiring and control panel for power.

Actuator Replacement

Use model 149126. If possible have the actuator in the closed position/indicator LED will be red (damper blades closed). To replace the actuator loosen/remove the 2 anti-rotation mounting screws (see picture #1) from the actuator mounting tabs. Note: under each mounting tab is a .125" thick washer/spacer. Pull the actuator off the drive blade shaft coupling. Replace with new actuator, ensure proper alignment (see/ref pictures # 2 & 3) of actuator drive coupling to drive blade shaft. After properly aligning the actuator to drive blade coupling reposition the washer/spacers then reinsert the 2 mounting screws and tighten them down.

