



The Best Value in Zoning Today®

Round Retrofit Damper

with Power Open/ Power Close Motor

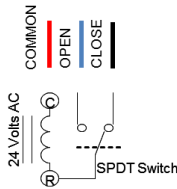
The Round Retrofit Insertable Damper simplifies those hard to zone retrofit installations. The damper is a low cost single blade damper that inserts into any branch take-off duct. It is available in 4", 5", 6", 7", 8" and 10" diameters. All RRM dampers are rated for duct systems less than 2.0" W.C. Dampers are ordered as 1280XX, using the last 2 digits for the dimension.

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Motor Actuator

Damper



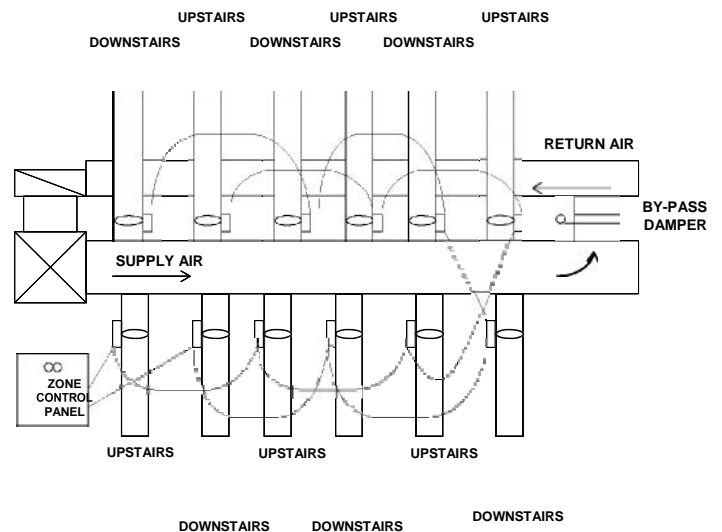
Damper/Actuator Specifications

Construction:
 Aluminum End Plate and shaft with Galvanized Blade
 Linkage – Direct Drive
 Sizes: 4", 5", 6", 7", 8"
 Dimensions: 8"x 2"x 3.375" Outside the Duct for blade
 Size: 4"- 8"
 Dimensions: 10"x 2"x 3.375" Outside the Duct for blade
 Size: 10"
 Motor Voltage: 24 Volts AC, 50/60Hz, 6W, 4VA, .100A
 Torque: 283in/oz., (17.70in/lbs.), 2Nm
 Travel Timing: Nominal 13.5 Sec.
 Connection: Screwless Terminals
 Temperature Rating: 0°F to 150°F Operating, -20°F to 175°F Storage
 Humidity: 5% to 95% Non-Condensing
 Static Pressure: Maximum 2.0"W.C.

The motor is reversible and powers the damper both open and closed. It also has an adjustable stop for a minimum/maximum damper position setting. The Motor Actuator (149126) delivers up to 283 in/oz. (17.70 in/lbs.) of torque that powers the RDM 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.

Typical Application installed in the branch ducts to control the upstairs and downstairs zones.



INSTALLATION

To install, use the template provided with damper.

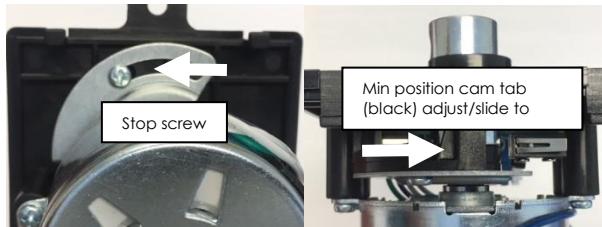
1. Peel off the back of the installation template provided and align along the centerline of the duct. Insure the template is straight before adhering to the duct.
2. Drill a 3/4 diameter hole at each end of the cut area.
3. Using a pair of snips or shears, cut along the top and bottom of the cut out area to make the opening for the damper.
4. Insert the damper into the duct. It is recommended to power each damper motor before securing the damper to the duct and cycle the damper. This will avoid possibly pulling the damper out of the duct later to check for proper alignment that may cause the damper to jam.
5. While keeping the damper in-line with the duct, secure using the screws provided. Tighten until the damper end plate meets the duct. **DO NOT OVER TIGHTEN AS THIS MAY CAUSE THE DAMPER TO JAM.**

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.

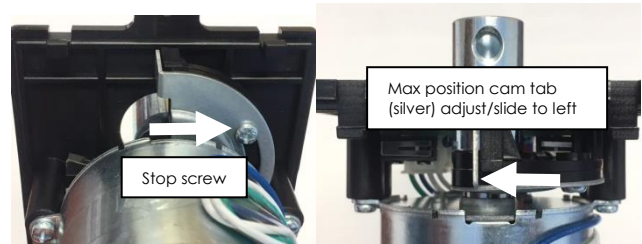


Move the adjustable cam (black section of cam) to the right to adjust the minimum position. Make sure to re-tighten the cam locking/stop screw and power damper open and close in order to check position setting. Reattach the actuator cover.

Maximum Open Setting Adjustment

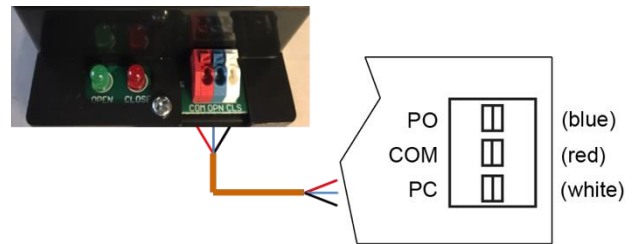
To set the adjustable Maximum Open Damper Position Stop, power the damper to the CLOSED (Red LED illuminates) position. Remove the cover from the actuator by loosening the screw between the LEDs and the terminal connector block. Remove the cover by lifting the cover away from the baseplate and upward 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.



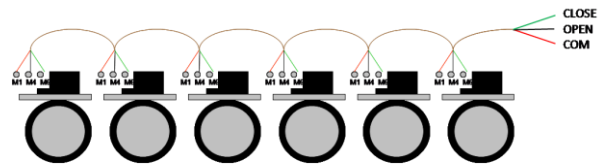
Move the adjustable cam (silver section of cam) to the left to adjust the maximum position. Make sure to re-tighten the cam locking/stop screw and power damper open and close in order to check position setting. Reattach the actuator cover.

WIRING DIAGRAM 1



WIRING DIAGRAM 2

Multiple Dampers



Use standard three (3) conductor low voltage wiring from control panel motor terminals to each motor. Multiple dampers are wired in parallel. Note: A maximum of 8 dampers can be powered from a 24 VAC, 40VA transformer.

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 across 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.

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.