

Wireless Remote Control System for Air Balancing Damper Adjustments

The Damper Actuator Enclosure and Gear Train

The Zipset System Actuator ZSA-1 has been custom designed for remotely adjusting balancing dampers in HVAC duct work with a quick and foolproof installation. The compact gear enclosure measures approximately 5.4" x 3.8" x 1.4". (137 x 96.5 x 35.6)

The Output Drive Shaft

The drive shaft will accept damper shafts from 1/4" to 1/2" in round, square or hex profiles with no adaptors or special tools.

Unlike some actuators, the ZSA-1 does not require the installer to know the position of the damper blades, (open or closed) inside the duct, during installation.

Only a 1/8" hex wrench is needed to make the shaft connection. **As with any damper actuator, verify that the damper shaft rotates freely prior to connecting the actuator shaft.**

The actuator design insures that the output shaft will not move unless power is applied to the motor, so no-lock down device is needed to maintain the damper setting after the balancing procedure is completed.

The Power / Signal Cable

The UL94-5VA plenum-rated, two-conductor cable provides the actuator power and motor status signals to the Remote Control Module (RCM). The factory-provided cable length is **eight feet**, but can easily be extended in the field with factory standard 10, 20, and 50 feet sections up to 150 feet without the use of tools.

As a bonus, in those installations where plenum-rated cables are not required, the off-the-rack cables with RCA connectors sold in audio/video stores can be substituted.



The Manual Adjustment

This feature allows the actuator output shaft to be rotated without a power connection, using a standard screwdriver. Useful to insure the damper is moving freely after the installation is completed.

The Anti-rotation Bracket

The Anti-rotation bracket is fastened to the side of the duct with (2) #8 or #10 x 3/8" self drilling S/M screws. This procedure plus tightening the hex head screws at the drive shaft are the only steps in mounting the actuator. **Note** the slot in the bracket which allows the actuator to slide up and down to accommodate up to 2" thicknesses of external wrap...

CAUTION... Use only 3/8" long screws to insure that there will be no interference with the internal linkage or blades that could result if longer screws were used.

– Operating Specifications –

Temp range: +30 to +125 °F
Maximum Torque: 38 in-lbs

Voltage +10 to +24 VDC
Protection Spec: IP50

Mounts in any position
Flammability: UL 94-5VA

Even a well-designed HVAC system may perform poorly and waste energy if not properly balanced. The Zipset System's unique approach to the balancing task offers a quick, precise, and economical solution.

The Zipset System is a product of The Zip Group, LLC

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