

In the Line of **FIRE**

By: Richard Cravy

Today's building designs include many life safety features that protect occupants from injury and death while minimizing property loss. Combination fire/smoke and smoke dampers are an important part of these systems. One type of fire/smoke and smoke damper that is becoming more popular is one that serves as a modulating volume control damper. When the building design requires two dampers (a two position fire/smoke and a volume control damper) one modulating fire/smoke damper is all it takes.

Although modulating fire/smoke dampers may cost more to purchase, the installed costs and the cost over the life of the building for both life safety and modulating control can be greatly reduced.

When the building design does not require modulation control a *balancing fire/smoke or smoke damper* can act as a "simple" balancing damper set in a fixed position somewhere between closed and full open to balance the system. Balancing fire/smoke dampers that can be set during installation and commissioning to limit the "balanced" open position are lower cost than modulating fire/smoke dampers.

Ruskin balancing fire/smoke dampers are available in 120 VAC or 24 VAC/VDC. They are equipped with an actuator with integral rotation limiter which eliminates the need for an additional balancing damper. Ruskin bal-

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TOPIC: Modulating or Balancing Fire/Smoke Dampers Which Do You Need?

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ancing fire/smoke and smoke dampers save space and cost significantly less than modulating fire/smoke and smoke dampers.

Figure 1 below details a relative cost comparison between the FSD60M (modulating), FSD60 and the FSD36 (equipped with an actuator with integral rotation limiter). As you can see the FSD60 shows a weighted cost difference of 42% less than the FSD60M and the FSD36 shows a weighted cost difference of 51% less than the FSD60M.

In summary, use modulating fire/smoke or smoke dampers when necessary. If the application can be satisfied by a simple "balancing" fire/smoke or smoke damper save money and use the FSD/SD60 or FSD/SD36 with actuator and rotation limiter.

RELATIVE COST COMPARISON

FSD60M
17" Sleeve, Modulating Actuator.
Price Index =1.00

FSD60
17" Sleeve, Rotation Limiter.
Matching Price = .58

FSD36
17" Sleeve, Rotation Limiter
Matching Price = .49



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