



Application and Operation

The ERL Electric Resettable Link (heat sensor) replaces the traditional hi-torque spring / fusible link fire closure mechanism on all Nailor combination fire / smoke dampers. The ERL is a thermally responsive bimetal disc / thermostat that opens and closes electrical contacts at a specific calibrated temperature. The ERL is a UL Classified Heat Responsive Device.

The standard ERL on all Nailor, combination fire / smoke dampers has a fixed temperature setting of 250°F (121°C) which is the UL listed elevated / degradation temperature of the damper / actuator assembly. A 350°F (177°C) elevated temperature classification and ERL is available as an option.

[A 165 and 212°F (74 and 100°C) ERL are also available. Local codes have specified 165°F (74°C) widely in the past.]

The ERL performs the same function as the fusible link it supercedes, that is to sense an abnormally high temperature, as caused by a fire and allow the damper to close in order to prevent the spread of fire and smoke. The sensor interrupts power to the actuator and the actuator's spring return mechanism causes the damper to close and lock.

In smoke control mode, when a signal is detected via a normally closed smoke detector connection, the damper will close and remain closed until the smoke signal ceases. The system will then reset when power is re-applied and the damper will open. The damper may be closed at anytime by placing a control switch (optional and by others) in the closed position.

Description:

1. ERL 165, 212, 250, 350 Electric Resettable Link (heat sensor)
2. Electrical Junction Box (and EP switch with pneumatic actuator)
3. Over-Center Knee Lock
4. Jackshaft
5. Actuator
6. Flexible Conduit

The ERL in combination with all Nailor qualified electric or pneumatic actuators provides controlled closure and eliminates the instantaneous damper closure associated with traditional fusible links that can cause damage to the ductwork.

The ERL sensor is of the manual reset type and can be reset after the temperature has cooled down below the sensor set point. This feature is a tremendous advantage where periodic system testing involves application of heat to the sensor to verify correct damper operation. Exposure to actual fire conditions may render these devices unusable. In this case, it is recommended that a careful inspection of the damper, actuator and ERL be performed.

The ERL requires factory installation and wiring together with the associated actuator to meet UL requirements. If the damper is provided with a pneumatic actuator, an EP switch is required.



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