



Learning Objective: The student shall be able to identify where fusible links for opening protective releases should be located.

This overhead rolling fire door is what the building codes call an “opening protective.” Where firewalls, partitions, or barriers have openings for moving people or products, these openings must be protected with an automatic or self-closing door, curtain, shutter, or similar device.

“Automatic” closing opening protectives are those that normally remain in the “open” position, and close automatically upon operation of a fire detection system, smoke detector, fusible link, sprinkler water flow, or some other fire protection system that releases the device.

“Self-closing” opening protectives are those that close by themselves after someone or something has passed through them.

In this example, the automatic closing opening protective is installed to provide a fire-rated separation between two portions of a large retail furniture store. It employs electromechanical controls: it can be released to the closed position by either the smoke detector mounted near the ceiling, or one of the three fusible links that are visible (two along the wall, one beneath the shroud in the lower left of the picture.)



Fusible links to release this opening protective should be located near the ceiling.

The requirement for when an opening protective must be either automatic or self-closing is established in the model building codes based on the particular conditions where the opening protective is installed.

In this example, the position of the fusible links deserves additional scrutiny. According to NFPA[®] 80, *Standard for Fire Doors and Other Opening Protectives*, where fusible links are used to release opening protectives, one fusible link should be located near the top of the opening, and additional links should be located at or near the ceiling on each side of the wall. These fusible links should be installed where they are more likely to be exposed to heat that accumulates along the ceiling.

Heat detectors or fusible links should be installed on both sides of the wall and interconnected so that the operation of any single detector or fusible link causes the door to close. For additional information, refer to NFPA[®] 80, *Standard for Fire Doors and Other Opening Protectives* Chapter 4.

