

Sensing Edges for Cornell Coiling Doors

Sensing edges are designed to cause motor operators to respond to an obstruction in the door opening. Activation of the sensing edge will signal the motor operator to stop the closing door, or stop and open the door, depending on how the motor control circuit is wired. This data sheet will help you understand the capabilities and limitations of the types of sensing edges available on motor operated doors.

New UL325 regulations enacted in 2010 requires that operators have a connected and functioning Primary Entrapment Protection Device to enable momentary contact close operation. See below for sensing edge option that can be used with Cornell operators as a stand-alone Primary Entrapment Protection Device.

The term sensing edge refers to devices that are attached to the bottom edge of the rolling door curtain for the purpose of detecting an obstruction in the path of the closing door.

Sensing Edge Used as a Primary Entrapment Protection Device

Electric Sensing Edge with End of Line Resistor (ELR)

An electric sensing edge consisting of two adjacent full width conductive strips inside an astragal / weather-strip with an embedded end of line resistor that is attached to the bottom of the rolling door curtain and interconnected to the motor control circuit. When the edge contacts an obstruction, the conductive strips make contact and signal the motor control circuit. Conductivity through the ELR is regularly monitored providing sensing edge functional feedback to the operator. Also known as fail-safe edge.

Sensing Edge Used as a Non-Monitored, Secondary Entrapment Protection Device

(Operator will function with constant pressure close operation unless Primary Entrapment Protection photo eyes are used in conjunction with a non-monitored sensing edge)

Pneumatic Sensing Edge

A pneumatic sensing edge is a flexible weather seal attached to the bottom of the rolling door curtain. The profile has a full width sealed air chamber attached to a pneumatically activated electric switch. When the door hits an obstruction, air pressure in the profile activates the electric switch, which signals the motor control circuit.

Damage to the air chambers of pneumatic edges can make the entire edge fail to sense the obstruction.

Electric Sensing Edge without End of Line Resistor (ELR)

An electric sensing edge consists of two adjacent full width conductive strips inside an astragal / weather-strip that is attached to the bottom of the rolling door curtain. These strips are normally separated by a small gap (open circuit) and connected to the motor control circuit. When the edge contacts an obstruction, the strips make contact (closed circuit) and signal the motor control circuit.

Damage to the edge can cause one or both of the conductive strips to break. The section of the edge beyond the break will cease to function.