ES550 Interlock Module
Overview

The Electronic Solutions ES550 is a versatile microprocessor-controlled interlock module which may be used for a variety of door applications. In its factory default configuration, the ES550 has three basic functions:

Function 0 is a memory interlock for up to eight doors. Only one door may be open at any time, and requests from other unavailable doors are memorized and are serviced in the order received. Duplicate requests are ignored. An additional input is provided for an optional contact to override the interlock function and allow each door to be serviced in real time.

Function 1 is an interlock combined with latch (ratchet) relay for up to eight doors. Provided that a door is available to open, momentarily triggering its input will latch it open, and all other doors will be inhibited until the door that is busy is unlatched by again momentarily triggering its input. When Function 1 is in use, the ES550 may be programmed to wait indefinitely for another actuating signal before closing the door that is busy, or to cancel the latch request and close the door after a time delay. The delay may be adjusted from 1-99 minutes. The override feature may also be used with Function 1, allowing each door to function as a standalone unit with a latch relay attached.

Function 2 is identical to Function 1, but adds an "auto-cancel" feature. If a door has been latched open and another door is requested, the first door is automatically unlatched to close, and the requested door will be latched open at the earliest available opportunity. The optional "time out" of Function 1 that automatically resets all latches is also available in Function 2 operation, if desired.

The input burden for each actuating signal is 24VDC at 15 milliamperes maximum. An input LED offers visual confirmation that the module is being activated by the external switch. Each output contact is rated for 1A at 30VDC maximum. Both normally open and normally closed outputs are furnished to enhance the versatility of the module. Input and output connections are made via removable terminal blocks. A third fixed block is used to supply power to the module.

The power requirement for the ES550 is 24 volts AC or DC at 500 milliamperes maximum. The unit includes a two-digit display and pushbuttons for setting the various parameters and operating modes, as well as for testing. The display also shows the current status of the ES550 during normal operation. Module size is 7.875" x 3.75."

In addition to the factory standard software, the ES550 may be programmed for a wide variety of other door related functions through the use of custom software. When utilized with custom software, up to two ES555 expansion modules may be added to the basic ES550, increasing the total capacity to 26 inputs and 24 outputs.