



ES530 Multifunction Module Overview

Electronic Solutions Inc.

The Electronic Solutions ES530 is a versatile microprocessor-controlled delay module which may be used for a variety of door applications. In its factory default configuration, the ES530 has four basic functions:

Functions 0 and 1 are typically used for interfacing electric strikes to swing doors. In Function 0, the module provides adjustable delays (dwell times) for the strike, the door, and the interval between actuation of the strike and the door. The door and strike delays may be adjusted from 1-99 seconds in 1 second intervals. The interval may be set from 0.1 to 9.0 seconds in 0.1 second intervals. Function 1 is identical to Function 0, but latches the door open instead of automatically releasing it to close after a time delay. Furthermore, when Function 1 is in use, the ES530 may be programmed to wait indefinitely for another actuating signal before closing the door, or to “time out” the latch request and close the door anyway after a time delay as listed above.

Function 2 is a programmable time delay. The delay may be adjusted from 1-99 seconds in 1 second intervals. A user parameter allows switching the chosen delay from seconds to minutes, allowing up to a 99 minute time delay if desired.

Function 3 is a latch or “ratchet” relay. Repeated triggering of the activating signal will activate/deactivate the output relay. When Function 3 is used, the ES530 may be programmed to wait indefinitely for another actuating signal before releasing the relay, or to “time out” the latch request and release the relay anyway after a specified time interval as described above.

The lock output is a dry contact rated for 5A maximum at 28VDC, and the door output is also a dry contact, rated for 2A maximum at 28VDC. The door output contacts are gold flashed, allowing operation with the low operating currents typically used by door controls. The supplied wiring harness allows access to one set of single pole double throw (SPDT) Form C contacts for each of the relays. An additional wiring harness is available at a small extra cost which allows simultaneous access to both sets of relay contacts. When Function 2 or Function 3 are used, both relays trigger and release simultaneously, allowing up to four independent circuits to be controlled if the extra harness is purchased.

An option available on the ES530 adds an isolated relay coil input, allowing a voltage from 12-24 volts AC or DC to trigger the module. This option is frequently used with security systems and offers the advantage of totally isolating the controlling signal from the door package without the need for an external relay. An indicator on the ES530 module is provided to show when the isolation relay is being engaged by the external actuating signal.

The input burden is 24VDC at 15 milliamperes maximum. An input LED offers visual confirmation that the module is being activated by the external switch.

The power requirement for the ES530 is 24 volts AC or DC at 250 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 ES530 during normal operation. Module size is 3” x 5”, allowing convenient installation inside the door header.