

# SETTING UP A SAFETY CONFIGURATION: SOLENOID-LOCKING DOOR SWITCH, E-STOP & INDICATORS

For information on the initial electrical connections that are required for this configuration, see the **Basic Setup** instructions at [www.sensing.net/asi-solutions](http://www.sensing.net/asi-solutions)

## Example 6 – Solenoid-locking door switch, e-stop, and indicators

In this example, a solenoid-locking door safety switch (“power to lock” or “power to unlock” design) and an e-stop are used. The safe output OSSD1 turns ON when the door is closed and latched and the e-stop is released. Non-safe inputs are used to detect when to lock/unlock the door. Messaging outputs are used to indicate when the safe output OSSD1 is OFF, the door is closed and locked, and the e-stop is ready to be reset.

OSSD 2 is used to control the solenoid; a messaging output cannot be used as it does not provide enough current to supply the solenoid.

### One solenoid-locked safety door switch

- Door switch connected to S11/S12 and S21/S22

### One safety e-stop

- E-stop connected to S31/S32 and S41/S42

### Feedback output signaling that OSSD1 has been deactivated

- Output S82 is ON when the safe output OSSD1 is OFF

### Feedback output signaling when e-stop is ready to be reset

- Output S71 is ON when e-stop is released and ready to be reset

### Feedback output signaling when door is closed and locked

- Output S51 is ON when door is closed and locked

### Door locking solenoid

- The solenoid is activated using OSSD2 output contacts 2.14 and 0 V

### Solenoid control

- Applying +24 VDC to input S52 applies power to solenoid
- Applying +24 VDC to input S61 removes power from solenoid

### Reset e-stop

- Applying +24 VDC to input S72 resets the released e-stop

