Sentry Interlocks can help you design and program a door interlocking system that ensures a reliable and secure solution. Our field proven technology and ease of use gives you the piece of mind that your security protocol will be enforced at all time

The EZ Modlock Interlocking system can be used on doors that are normally locked or unlocked. Door operation can be manual hinged, swinging doors, sliding doors or automated hinged, swinging or roll-up doors. EZ Modlock can also be used on static or dynamic Pass-Throughs. Compatible accessories include Door Indicator LEDs, Door Access Pushbuttons, Emergency Override Pushbuttons, Access Control Devices with dry contact output (e.g. card swipe, badge reader, numeric keypad), and electric locks as long as the locks are failsafe. All devices used with EZ Modlock must operate on 24VDC.

This document is intended to be used by design professionals for construction documents specifying door interlock systems. Delete types below not required for your project. Please call us for assistance or further information at the number above.

SECTION 281413

INTELLIGENT DOOR INTERLOCKING SYSTEM

PART 1 - GENERAL

1.1   DESCRIPTION OF WORK

   A.   Work Included: Provide labor, materials and equipment necessary to complete the work of this Section including the following.

          1.   Intelligent door interlocking system including the following modules and accessories:
                 a.   EZML2DA1, EZ Modlock - 2 Door.
                 b.   EZML2DEA1, EZ Modlock - 2 Door Expansion.
                 c.   EZML2DTA1, EZ Modlock - 2 Door Timer.
                 d.   EZMLMDBA1, EZ Modlock - Multi Door Basic.
                 e.   EZMLMDAA1, EZ Modlock - Multi Door Access.
                 f.   EZMLMDTA1, EZ Modlock - Multi Door Timer.
          2.   Door accessories including the following:
                 a.   EZMLW1A1 with red and green LEDs indicating locks status.
                 b.   EZMLW2A1 with bi-color lock status.
                 c.   EZMLW3A1 with red and green LEDs indicating lock status.
                 d.   EZMLW4A1 with bi-color LED lock status.
                 e.   EZMLEOA1 with red mushroom EO switch.
                 f.   EZMLS1A1 with bi-color LED lock status.
                 g.   Adapters for third-party door accessories.
          3.   Integrated enclosures.

   B.   Related Work: The following items are not included in this Section and are specified under the designated Sections:

          1.   Section 081113 - HOLLOW METAL DOORS AND FRAMES.
          2.   Section 081400 - WOOD DOORS.
          3.   Section 083300 - OVERHEAD COILING DOORS.
          4.   Section 084000 - ENTRANCES AND STOREFRONTS.
          5.   Section 087100 - DOOR HARDWARE.
          6.   Division 26 - ELECTRICAL.
          7.   Division 28 - ELECTRONIC SAFETY AND SECURITY.

1.2   SUBMITTALS

   A.   Product Data: Submit manufacturer's product data and installation instructions for each product specified.

   B.   Shop Drawings: Submit shop drawings showing modules, accessories, schematics, locations for installation and attachment.

   C.   Schedule: Submit a schedule for openings to receive door interlocking system, matching door numbering on the Drawings.

1.3   QUALITY ASSURANCE

   A.   Manufacturer: Minimum 3 years experience manufacturing similar devices.

   B.   Installer: Minimum 2 years experience installing similar devices.

   C.   Preinstallation Conference: Conduct conference at Project site to coordinate proper functioning and installation of systems.

1.4   DELIVERY, STORAGE, AND HANDLING

   A.   Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

   B.   Storage and Handling: Comply with manufacturer's recommendations for storage and handling. Protect from weather damage.

1.5   WARRANTY

   A.   Warranty: Provide manufacturer's standard 2-year limited warranty against defects in materials and workmanship.

PART 2 - PRODUCTS

2.1   MANUFACTURERS

   A.   Basis-of-Design Manufacturer: Sentry Interlocks LLC, 3265 Sunset Lane, Hatboro, PA 19040. Telephone 833-MOD-LOCK (833-663-5625), www.sentryinterlocks.com.

2.2   MODULES

   A.   EZ Modlock - 2 Door Function: Manages two normally unlocked, manual doors or pass-throughs. Adding quantity one EZ Modlock - 2 Door Expansion module a 3rd or 4th door interlock system is possible. Product Specification:

      1.   Part Number: EZML2DA1.
      2.   Power Requirements: 24VDC, 1.5 amps.
      3.   Power Supply: UL Listed, 90-264VAC to 24VDC, 47-63Hz, 1.5A.
      4.   Module Dimensions (H x W x D): 3.75" x 4.25" x 1.5" (95 x 108 x 38mm).
      5.   Module Material: Plastic with integrated mounting ears.
      6.   Connections: Door 1 and Door 2: Cat 5 cable with RJ45 connector. Daisy chain connection to EZ ModLock – 2 Door Expansion: Cat 5 cable with RJ45 connector. BMS: Cat 5 cable with RJ45 connector.

7. LED Indicators: Door status, electric lock status, door indicator status, power status.
8. Number of Doors Connected/Managed: 2/2 (an additional EZ ModLock – 2 Door Expansion module allows a 3rd and 4th door to be managed).
9. Door Opening Logic: L1 (L2, L3, when used with EZ ModLock – 2 Door Expansion).
10. Door Opening Logic Programming: Quantity 4 DIP switches.
11. Door Initial State: Normally unlocked.
12. Warranty: 2-year limited warranty.

B. EZ Modlock - 2 Door Expansion Function: Manages two normally unlocked, manual doors or pass-throughs. Can only be used with the EZ Modlock – 2 Door for the 3rd or 4th door. Product Specification:

1. Part Number: EZML2DEA1.
2. Power Requirements: 24VDC, 1.5 amps.
3. Power Supply: Power provided by EZ ModLock – 2 Door via Cat 5 cable.
4. Module Dimensions (H x W x D): 3.75" x 4.25" x 1.5" (95 x 108 x 38mm).
5. Module Material: Plastic with integrated mounting ears.
6. Connections: Door 3 and Door 4: Cat 5 cable with RJ45 connector. Daisy chain connection to EZ ModLock – 2 Door: Cat 5 cable with RJ45 connector. BMS: Cat 5 cable with RJ45 connector.
7. LED Indicators: Door status, electric lock status, door indicator status.
8. Number of Doors Connected/Managed: 2/0 (management of 3rd and 4th door is by the additional EZ ModLock – 2 Door).
9. Door Opening Logic: L1, L2, L3 when used with EZ ModLock – 2 Door.
10. Door Opening Logic Programming: Quantity 4 DIP switches on EZ ModLock – 2 Door.
11. Door Initial State: Normally unlocked.
12. Warranty: 2-year limited warranty.

C. EZ Modlock - 2 Door Timer Function: Manages two normally unlocked, manual doors or pass-throughs with time delay. Product Specification:

1. Part Number: EZML2DTA1.
2. Power Requirements: 24VDC, 1.5 amps.
3. Power Supply: UL Listed, 90-264VAC to 24VDC, 47-63Hz, 1.5A.
4. Module Dimensions (H x W x D): 3.75" x 4.25" x 1.5" (95 x 108 x 38mm).
5. Module Material: Plastic with integrated mounting ears.
6. Connections: Door 1 and Door 2: Cat 5 cable with RJ45 connector. BMS: Cat 5 cable with RJ45 connector.
7. LED Indicators: Door status, electric lock status, door indicator status, power status.
8. Number of Doors Connected/Managed: 2/2.
9. Door Opening Logic: L1.
10. Door Opening Logic Programming: Quantity 2 DIP switches.
11. Recovery Time Programming: Quantity 1 settable rotary switch, 0-60 seconds in 5 second increments.
12. Door Initial State: Normally unlocked.
13. Warranty: 2-year limited warranty.

D. EZ Modlock - Multi Door Basic Function: Manages 2 normally unlocked, manual doors. A combination up to 4 additional Multi Door modules can be daisy chained together to manage a total of 10 doors in a modular multi door system. Product Specification:

1. Part Number: EZMLMDBA1.
2. Power Requirements: 24VDC, 1.5 amps.
3. Power Supply: UL Listed, 90-264VAC to 24VDC, 47-63Hz, 1.5A.
4. Module Dimensions (H x W x D): 3.75" x 6.3" x 1.5" (95 x 160 x 38mm).

5.   Module Material: Plastic with integrated mounting ears.
6.   Connections: Door 1 and Door 2: Cat 5 cable with RJ45 connector. Communication 1: Cat 5 cable with RJ45 connector. Communication 2: Cat 5 cable with RJ45 connector. Removable Terminal Strip: Quantity 2-3 screw terminal strip on bottom. BMS: Cat 5 cable with RJ45 connector.
7.   LED Indicators: Door status, electric lock status, door indicator status, power status.
8.   Number of Doors Connected/Managed: 2/2 (an additional four EZ ModLock – Multi Door Basic, Multi Door Access and Multi Door Timer modules allow up to 10 doors to be managed).
9.   Door Opening Logic: L1, L2, L3 (L4 is available as a custom adder).
10.   Door Opening Logic Programming: Quantity 6 DIP switches.
11.   Door Initial State: Normally unlocked.
12.   Warranty: 2-year limited warranty.

E.   EZ Modlock Multi Door Access Function: Manages 2 normally unlocked or normally locked doors, manual, automated or roll-up doors and doors using access control devices.   A combination up to 4 additional Multi Door modules can be daisy chained together to manage a total of 10 doors in a modular multi door system. Product Specification:

1.   Part Number: EZMLMDAA1.
2.   Power Requirements: 24VDC, 1.5 amps.
3.   Power Supply: UL Listed, 90-264VAC to 24VDC, 47-63Hz, 1.5A.
4.   Module Dimensions (H x W x D): 3.75" x 6.3" x 1.5" (95 x 160 x 38mm).
5.   Module Material: Plastic with integrated mounting ears.
6.   Connections: Door 1 and Door 2: Cat 5 cable with RJ45 connector. Communication 1: Cat 5 cable with RJ45 connector. Communication 2: Cat 5 cable with RJ45 connector. Removable Terminal Strip: 14 screw terminal strip on top and quantity 2-3 screw terminal strip on bottom. BMS: Cat 5 cable with RJ45 connector.
7.   LED Indicators: Door status, electric lock status, door indicator status, power status.
8.   Number of Doors Connected/Managed: 2/2 (an additional four EZ ModLock – Multi Door Basic, Multi Door Access or Multi Door Timer modules allow up to 10 doors to be managed).
9.   Door Opening Logic: L1, L2, L3 (L4 is available as a custom adder).
10.   Door Opening Logic Programming: Quantity 12 DIP switches.
11.   Door Initial State: Normally unlocked / Normally locked.
12.   Automatic Door Management: Yes.
13.   Power Supply for Door Opening Accessories: 24VDC supplied via terminal strip.
14.   Warranty: 2-year limited warranty.

F.   EZ Modlock Multi Door Timer Function: Manages 2 normally unlocked or normally locked manual doors and doors using access control devices. Provides time delays with different time assignment for the two doors and with the corresponding piloting output activations for UV lamp and/or blower activation. A combination up to 4 additional Multi Door modules can be daisy chained together to manage a total of 10 doors in a modular multi door system. Product Specification:

1.   Part Number: EZMLMDTA1.
2.   Power Requirements: 24VDC, 1.5 amps.
3.   Power Supply: UL Listed, 90-264VAC to 24VDC, 47-63Hz, 1.5A.
4.   Module Dimensions (H x W x D): 3.75" x 6.3" x 1.5" (95 x 160 x 38mm).
5.   Module Material: Plastic with integrated mounting ears.
6.   Connections: Door 1 and Door 2: Cat 5 cable with RJ45 connector. Communication 1: Cat 5 cable with RJ45 connector. Communication 2: Cat 5 cable with RJ45 connector. Removable Terminal Strip: 14 screw terminal strip on top and quantity 2-3 screw terminal. strip on bottom. BMS: Cat 5 cable with RJ45 connector.

7. LED Indicators: Door status, electric lock status, door indicator status, power status.
8. Number of Doors Connected/Managed: 2/2 (an additional four EZ ModLock – Multi Door Basic, Multi Door Access and Multi Door Timer modules allow up to 10 doors to be managed).
9. Door Opening Logic: L1, L2, L3 (L4 is available as a custom adder).
10. Door Opening Logic Programming: Quantity 8 DIP switches.
11. Door Initial State: Normally unlocked / Normally locked.
12. Automatic Door Management: Available in some circumstances with custom programming.
13. Power Supply for Door Opening Accessories: 24VDC supplied via terminal strip.
14. Opening With Recovery Time: Yes.
15. Different Recovery Times of 2 or More Doors: Yes.
16. Recovery Time Programming: 2 settable rotary switches, 0-60 seconds in 5 second increments.
17. Warranty: 2-year limited warranty.

G. Power Supply: UL listed 90-264VAC to 24VDC power supply. The AC power cord is 6.5 feet/2 meters long with a NEMA 5-15 grounded male plug to be inserted into a 120VAC outlet and a C5 female plug to be inserted into the power supply brick. The DC cord from the power supply brick is 4 feet/1.5 meters long and is inserted into the Modules with a male jack 1.5X5.5mm.

2.3   SENTRY INTERLOCKS DOOR ACCESSORIES

A. Door Indicators, Pushbuttons and Emergency Override Features:

1. Powered by the EZ Modlock Modules, no external power required.
2. Used with fail-safe electric locks powered by the EZ Modlock Modules.
3. RJ45 modular connectors allow use of Cat 5 cable which facilitates wiring.
4. An audible alarm is included to warn of emergencies, security breach or a door left ajar.
5. Stainless steel faceplate can withstand regular cleanings including Spor-Klenz.
6. Can be recessed or surface mounted using standard single gang or double gang electrical boxes (provided by others) or the slim Door Jamb models fit into cutouts in the door frame
7. Standard text included.
8. EZMLW1A1 with red and green LEDs indicating locks status; single gang mounting; audible alarm; RJ45 connectors.
9. EZMLW2A1 with bi-color lock status; SS P/B used as EO switch or single door release; single gang mounting; audible alarm; RJ45 connectors.
10. EZMLW3A1 with red and green LEDs indicating lock status; red mushroom EO switch; double gang mounting; audible alarm; RJ45 connectors, screw terminals for EO switch.
11. EZMLW4A1 with bi-color LED lock status; SS P/B used as single door release; red mushroom EO switch; double gang mounting, audible alarm, RJ45 connectors, screw terminals for EO switch.
12. EZMLEOA1 with red mushroom EO switch; single gang mounting; screw terminals for EO switch.
13. EZMLS1A1 with bi-color LED lock status; SS P/B used as EO switch or single door release; door jamb mounting; customizable membrane faceplate available; audible alarm; RJ45 connectors.

B. Adapter, 8pin to RJ45. EZMLADM45: For using 3rd party Door Indicators (24VDC only). Adapter provides a male RJ45 connector for the female RJ45 termination on each Module and provides 8 pin terminations for the Electric lock, Door Position Sensor and 3rd party Door Indicator. Allows existing electrical wiring to be connected at the Module.

C.   Adapter, 8pin to RJ45. EZMLADF45: For using 3rd party Door Indicators (24VDC only).
         Adapter provides 8 pin terminations for the Electric lock, Door Position Sensor and 3rd party
         Door Indicator and a female RJ45 termination to allow a Cat 5 cable run from the Adapter to
         each Module.

2.4   INTEGRATED ENCLOSURES

A.   Integrated Enclosures: NEMA rated enclosure with modules and power supplies mounted
         before delivery.

         1.   Threaded conduit connections furnished for routing Cat 5 cables and low voltage
                  electrical wiring into the enclosure. Coordinate supply and installation of Cat 5 cables and
                  low voltage wiring with building electrical system.
         2.   The 110VAC Power Cords shall exit the bottom of each enclosure using water-tight cord
                  grips.
         3.   Site installation requires only mounting enclosure to substrate and attaching cabling and
                  low voltage wiring for the door accessories.

PART 3 - EXECUTION

3.1   EXAMINATION

A.   Examine substrates for compliance with requirements for installation. Proceed with installation
         only after unsatisfactory conditions have been corrected.

3.2   INSTALLATION

A.   Install door interlocking system in accordance with manufacturer's instructions and approved
         submittals including the following:

         1.   Locate indoors in a ventilated and dry location, with temperatures ranging from 50
                  degrees F to 104 degrees F and relative humidity no greater than 80 percent to prevent
                  the formation of condensation.
         2.   Test for proper operation and adjust until satisfactory results are obtained.
         3.   Replace damaged products.
         4.   Train Owner's personnel in proper operation procedures.

END OF SECTION