INSTALLATION INSTRUCTIONS - MODEL UR-1
UNIVERSAL RELAY MODULE

Features and Benefits

- Microprocessor based relay controller that provides multiple, field selectable operational modes for up to two door stations.
- Each output relay is field selectable as a dry contact or voltage output.
- Centralized wiring for all locks, access controls, monitoring contacts and peripheral equipment.
- 1 or 2 controllers may be installed in SDC 600 series power supplies.
- Field selectable relay modes include:
  - Conventional Relay (CR)
  - Dual Conventional Relay (2X CR)
  - Time Delay Relay (TD) – 1 to 60 Seconds
  - Dual Time Delay Relay (2X TD)
  - Latching Relay (LR) – Separate Latch and Release Inputs
  - Dual Latching Relay – (2X LR) Pulse On, Pulse Off Inputs
  - Time Delay/Latching Relay
  - Interlock A (airlock)

UR-1 Technical Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INPUT VOLTAGE</strong></td>
<td>12 or 24VDC +/- 10%</td>
</tr>
<tr>
<td><strong>INPUT CONTROLLER CURRENT</strong></td>
<td>120/175mA</td>
</tr>
<tr>
<td><strong>INPUTS</strong></td>
<td>2 ea Dry Signal Inputs</td>
</tr>
<tr>
<td><strong>OUTPUTS</strong></td>
<td>2 ea 10 amp @ 30VDC (resistive) SPDT Lock Outputs (Configurable Wet or Dry). Wet output voltage is the same as the module power IN voltage.</td>
</tr>
<tr>
<td><strong>DIMENSIONS</strong></td>
<td>3.20”W x 2.00”L x 1.0”H</td>
</tr>
<tr>
<td></td>
<td>[81.28mm W x 50.8mm L x 25.4mm H]</td>
</tr>
</tbody>
</table>
WARNING! The UR board Output Relays must be protected against inductive kickback generated when power is removed from an inductive load (e.g., electric strikes). Refer to the lock manufacturer's installation manual or contact the manufacturer for kickback protection recommendations.
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LR Mode

Switch No: ON ON Position
SW1 SW2 off
SW3 off
SW4 off

Dual LR Mode
(2 Independent Relays)

Switch No: ON ON ON ON Position
SW1 SW2 SW3 SW4 off

Sequencer Mode
(2 Locking Devices)

Switch No: ON ON off off Position
SW1 SW2 SW3 SW4

Sequencer Mode
(ELR Device and Door Operator)

Switch No: ON off off Position
SW1 SW2 SW3 SW4

Latch
Release
Push Latch to Unlock
Push Release to Relock

Lock/Unlock A
Lock/Unlock B
Push to Unlock
Push again to Relock

Access Control
Push to activate Door A will unlock.
After the delay time has expired, door B will unlock

Access Control
Push to activate the ELR device.
After the delay time has expired, the door operator will be signaled to activate.

Door A
Door B

SDC LR100 SERIES

TRIG A TRIG B RELAY A RELAY B PWR
TRIG A TRIG B RELAY A RELAY B PWR
TRIG A TRIG B RELAY A RELAY B PWR
TRIG A TRIG B RELAY A RELAY B PWR

NOTE: The UR board Output Relays must be protected against inductive kickback generated when power is removed from an inductive load (e.g., electric strikes). Refer to the lock manufacturer's installation manual or contact the manufacturer for kickback protection recommendations.
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**TD/LR Mode**

<table>
<thead>
<tr>
<th>Switch No:</th>
<th>SW1</th>
<th>SW2</th>
<th>SW3</th>
<th>SW4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>ON</td>
<td>ON</td>
<td>off</td>
<td>ON</td>
</tr>
</tbody>
</table>

**Interlock A**

<table>
<thead>
<tr>
<th>Switch No:</th>
<th>SW1</th>
<th>SW2</th>
<th>SW3</th>
<th>SW4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>ON</td>
<td>off</td>
<td>ON</td>
<td>off</td>
</tr>
</tbody>
</table>

DPS switches should be in the Open state with the doors Closed.

Method of Operation:
Both doors are normally closed and Unlocked. Opening either door will Lock the other door.
Communicating Bath
Using Fail Safe Electrified Locksets

Method of Operation

Both doors shall be normally unlocked.

System Activation:
Both doors must be closed to lock. Pressing the CB402A Push Button will lock all the doors.

Egress:
When the doors are locked, turning either door's inside lever activates the lock's REX switch and unlocks both doors.

Emergency Release:
When the doors are locked, activating either CB402B Emergency Push Buttons will unlock both the doors.

When used with an SDC 631RF power supply, both doors will unlock automatically via signal from the fire panel.

Set to "LR Mode"

<table>
<thead>
<tr>
<th>Switch No:</th>
<th>SW1</th>
<th>SW2</th>
<th>SW3</th>
<th>SW4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>ON</td>
<td>off</td>
<td>off</td>
<td>off</td>
</tr>
</tbody>
</table>

To 12vdc or 24vdc Power Supply

- DPS switches should be in the Open state with the doors Closed
Communicating Bath
Using Magnetic Locks

Method of Operation
Both doors shall be normally unlocked.

System Activation: All doors must be closed to lock. Pressing the CB401A Push Button will lock all the doors.

Egress: When the doors are locked, pressing the CB401A Push Button again unlocks all the doors.

Emergency Release: When the doors are locked, activating either of the CB401B Emergency Push Buttons will unlock both doors. Both doors will unlock automatically via signal from the fire panel.

When used with an SDC 631RF power supply, both doors will unlock automatically via signal from the fire panel.

Set to “CR Mode”

Switch No: SW1 SW2 SW3 SW4
Position: off off off off

To 12vdc or 24vdc Power Supply

DPS switches should be in the Closed state with the doors Closed

TO 115 VAC PRIMARY VOLTAGE
TO N/C FIRE ALARM INTERFACE

EMERGENCY RELEASE
PUSH TO UNLOCK DOOR

CB401A

CB401B