

# 'Automation That Keeps A Handle On System Protection And Control'

The Series 24 Serial (Communication) Lock-Out Relay (SLOR) with Certified DNP 3.00 expands the functionality of our field proven Series 24 Electric Reset and Self Reset Lock-Out Relay in a single unit.

As an addressable network device, the SLOR provides Remote Trip Capability, Trip Coil Monitoring, Sequence of Events Reporting, System Battery Monitoring and Self-Diagnostic Reporting.

**Most importantly, the SLOR design maintains the reliable hard-wired protective device trip and manual reset functions.**

Note: Manually resetting into a fault can possibly damage the LOR trip coil.

## Additional Features

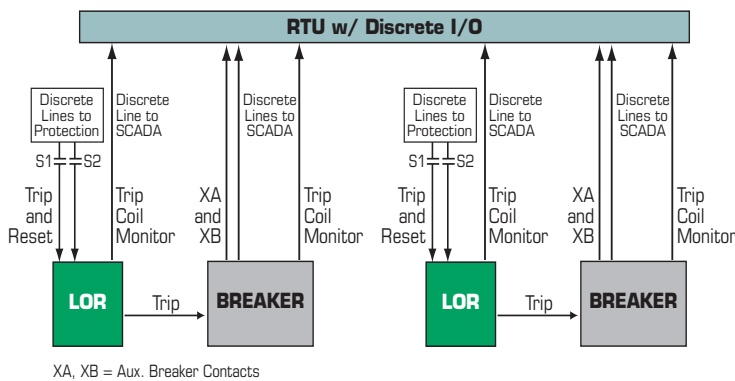
- Manual Reset
- Construction and Contacting Based on the Field Proven LOR Device
- Mechanical Target Flag
- SLOR Trip Coil Integrity LED Monitors in Either Trip or Reset Position
- Serial Bus Xmit/Rec Bicolor LED
- Local/Remote Mode Control with LED Status Indication
- LED Trip Signal Indication
- SLOR Position Status via SCADA
- 2 Additional Auxiliary Monitoring Inputs are Included
- Optional Programmable Self-Reset Timing and Logic

## Cost-Saving Benefits

- Free up RTU Points
- Reduce Point to Point Wiring
- Simplify Testing for Easier Commissioning
- Minimal Training Required
- Simplify Load Shedding Applications
- May Eliminate Separate Devices
  - RTU
  - Discrete Battery Monitors
  - Local/Remote Control Switch
  - Coil Monitoring Lamp
  - Reclosing Relay
- Precise Sequence of Events Log with IRIG-B Input

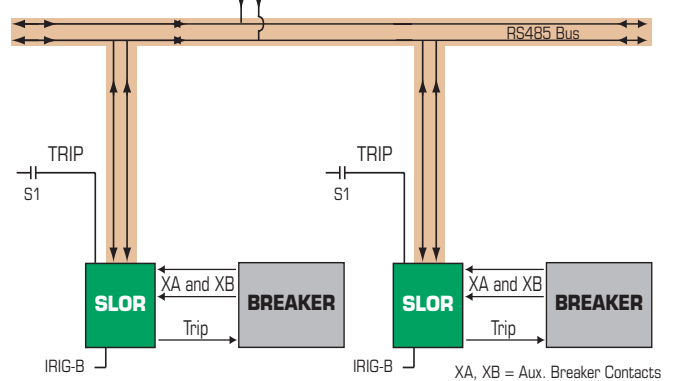


### Traditional LOR Installation



XA, XB = Aux. Breaker Contacts

### New Simplified SLOR Installation



XA, XB = Aux. Breaker Contacts

The simplified SLOR installation provides cost savings associated with wiring (wiring errors), testing, and commissioning.

## Additional Serial Control Devices from Electroswitch



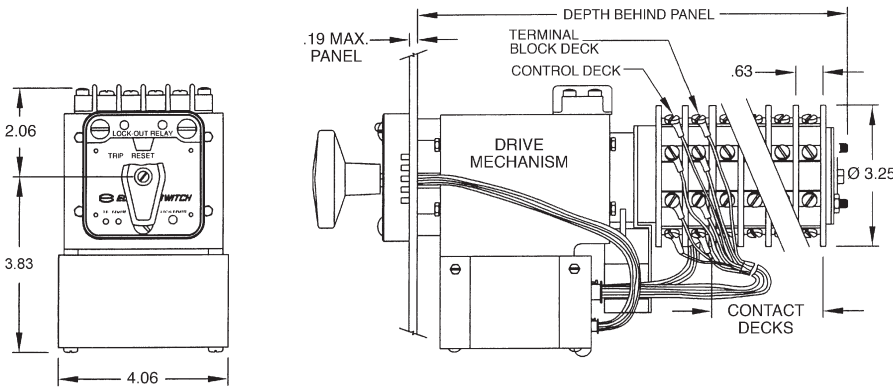
**Series 24 SCSR Serial Lock-Out Relay**



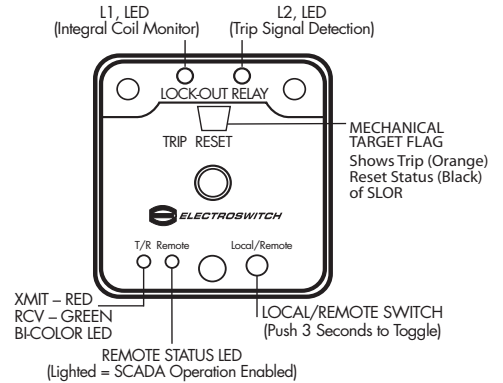
**Series 31 STR Serial Tagging Relay**



**Series 24 SLSR Serial Latching Switch Relay**



## Nameplate Configuration



## Specifications

### Electrical

Continuous Ratings: 30A-600V  
 Making Ability for CB Coils: 95A-125VDC  
 UL Interrupt Ratings: 20A-120VAC, 15A-240VAC, 6A-600VAC, 3A-125VDC, 1A-250VDC  
 Overload Current (50 Ops): 95A-120VAC, 65A-240VAC, 35A-600VAC  
 Contact Resistance: .01 Ohms Maximum

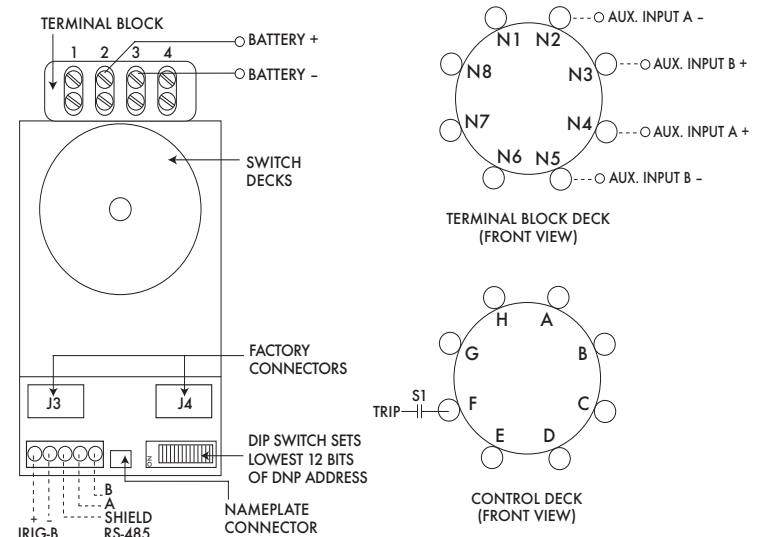
### Electronic

Baud Rate: 9600 Std; 1200, 4800, 19200 Selectable  
 Transient Protection: Meets IEEE C37.90.1 and IEC 61000-4-4  
 Self-Reset Time: Optional, Programmable, 0.1 to 60 Sec.

### Mechanical

Decks: 3, 5, 8 Std. - Consult Factory for Options  
 Contacts: 2 N/O and 2 N/C Per Deck  
 Action: 45°  
 Mounting: Panel Mount, 3 Hole Mounting,  
 Panel Thickness: 3/16" Max. Standard - Consult Factory for Options  
 Rotary Contacts: Double-Vipping Silver Overlay Phosphor-bronze  
 Stationary Contacts: Silver Inlay in Brass, Silver Plated with Integral Screw Type Terminals  
 Construction: Contacts Enclosed in Molded Phenolic Insulators

## Installation Connections (Rear View)

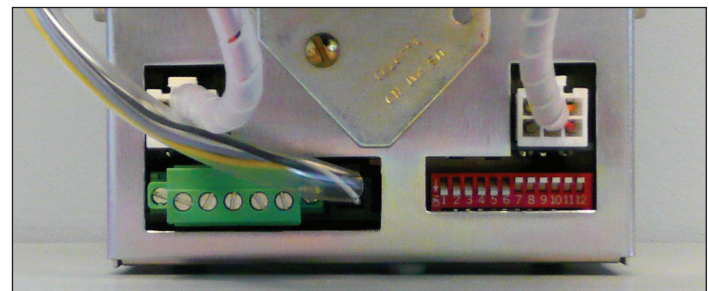


## Coil Burden Data

Voltage Range	Nominal Voltage	Trip Coil		Reset Coil and Electronics	
		Coil Circuit DC Ohms @ 25C	Burden (Amps) at Rated Voltage	Coil Circuit DC Ohms @ 25C	Burden (Amps) at Rated Voltage
C	48VDC	13.0	3.7	3.0	15.9
D	125VDC	27.0	4.6	12.4	10.1

For additional trip coil options, consult factory or see LOR-1 Tech Pub on website.

**DNP 3.00 Protocol Note:** Refer to ES-S-LOR-1 Tech Pub on website or consult factory regarding DNP 3.00 implementation for your application.



## Required Ordering Information

- Protocol: DNP 3.00 Std. Consult Factory for Other Protocols
- Baud Rate: 9600 Std., Others Available
- Reset: Electrical Reset Std., Self-Reset Available
- Handle: Oval Std.
- Voltage: 125VDC Std. or 48 VDC Std.
- Engraving, Std. Shown Above (Other Engravings Available)
- Decks: Select 3, 5, or 8
- L1, L2 Replaceable LEDs  
Green L1 & Red L2 are Std.  
Color Options - (Amber, Red, Green, Blue, White)