

## Proven Protection for Critical Utility Equipment and Systems

Lock-Out Relays (LORs) are designed to protect equipment and personnel in critical utility applications. In an emergency, LOR performance can mean the difference between a routine outage and the destruction of vital equipment. Proven in thousands of applications, Electroswitch Lock-Out Relays are the industry standard for safety and reliability. With Electroswitch Lock-Out Relays, there's NEVER A DOUBT!

### 15-Deck Lock-Out Relay

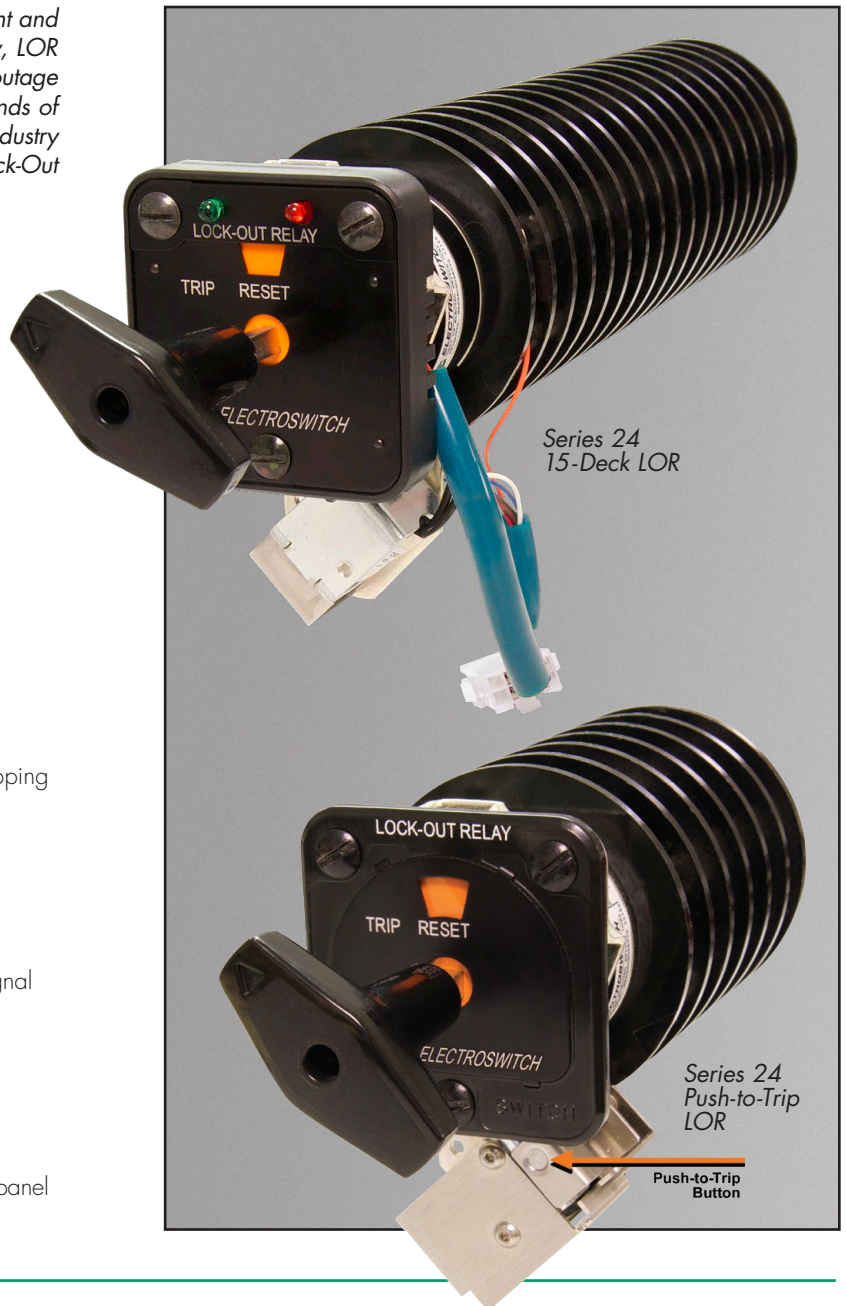
Designed for today's most demanding applications, the Electroswitch 15-Deck Lock-Out Relay:

- Provides 30 Normally Open (N/O) and 30 Normally Closed (N/C) contacts
- Trips in under 8 milliseconds
- Requires no special mounting

### Push-to-Trip Lock-Out Relay

Push-to-trip Lock-Out Relays provide a safe means of tripping circuits without opening the panel or exposing maintenance personnel to risk.

- Simplifies testing of connected circuits
- Eliminates the need to trip from rear of panel
- Allows tripping of LOR without using jumpers or trip signal
- Design prevents accidental tripping and ensures tripping of intended LOR
- Initial test is done electrically, subsequent testing can be done manually
- Trip button is easily accessed via a hole drilled in the panel



**Additional Series 24 Lock-Out Relays from Electroswitch**

**SLOR**  
Serial

**LOR/SR**  
Self-Reset

**LOR/ER**  
Electric Reset

## Series 24 Lock-Out Relays

## Specifications

### High Quality

- Designed and manufactured to the highest standards in the industry
- Qualified to UL, CSA
- ANSI/IEEE C37.90-2005
- ANSI/IEEE C37.90.1-2012

### Versatility

- 9 Different trip coils to choose from
- Up to 30 N/O and 30 N/C contacts in one standard LOR
- Available with electric reset capability
- Available with built-in coil monitoring and fault signal detection/indication

### High-Speed

- Transition times of less than 8 milliseconds (½ cycle) are standard

### Optional Lighted Nameplate

- Continuously lit left LED indicates LOR is in a ready state
- Continuously lit Right LED indicates presence of trip signal to warn against resetting into a fault
- Eliminates the need for pilot lights and expensive interwiring, and reduces panel space

### Availability

- Virtually all Series 24 Manual Reset LORs are available from stock for immediate delivery
- Most popular Electric Reset LORs (LOR/ERs) are also available from stock

### Service

- Electroswitch Customer Service and Application Specialists can help you with product selection and application. Let us put over 50 years of know-how to work for you!

### 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 1-10, 12, 15 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-Wiping Silver Overlay Phosphor-bronze  
 Stationary Contacts Silver Inlay in Brass, Silver Plated with Integral Screw Type Terminals  
 Construction Contacts Enclosed in Molded Phenolic Insulators

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
F	250VDC	104.0	2.4	80.6	3.1

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

### Trip Coil Voltage Data

Voltage Range	Nominal Voltage	Threshold Voltage	Operating Range
A	24VDC	6VDC	10-40VDC
B	24VDC	9VDC	18-50VDC
C	48VDC	12VDC	24-70VDC
D	125VDC 120VAC	16VDC 20VAC	30-140VDC 30-140VAC
E	125VDC	23VDC	45-140VDC
F	250VDC 240VAC	33VDC 40VAC	70-280VDC 60-280VAC
G	125VDC	70VDC	90-140VDC
H	250VDC	140VDC	180-280VDC
K	125VDC	16VDC	100-150VDC

### Depth Behind Panel (inches)

Number of Decks	Manual Reset LOR	High-Speed Trip LOR/ER	LOR/ER and Instant LOR/SR Time Delay	Reset LOR/SR
1	3.63			
2	4.38			
3	4.75	8.00	8.00	8.63
4	5.50			
5	6.25	9.75	9.75	10.38
6	7.50			
7	8.13			11.63
8	8.50	11.63	11.63	
10	9.63	12.90		
12	10.40			
15	12.75			