



# **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











## Series 24 Lock-Out Relays

### **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/ER's) 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!

### **Specifications**

#### **Electrical**

Continuous Ratings: 30A-600V Making Ability for CB Coils: 95A-125VDC

20A-120VAC, 15A-240VAC, 6A-600VAC, UL Interrupt Ratings:

3A-125VDC, 1A-250VDC

Overload Current (50 Ops): 95A-120VAC, 65A-240VAC, 35A-600VAC

.01 Ohms Maximum Contact Resistance:

#### 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 Double-Wiping Silver Overlay Phosphor-bronze Rotary Contacts Silver Inlay in Brass, Silver Plated with Integral Stationary Contacts

Screw Type Terminals

Contacts Enclosed in Molded Phenolic Insulators Construction

		Tri	p Coil	Reset Coil and Electronics	
Voltage Range	Nominal Voltage	Coil Circuit DC Ohms @ 25C	Burden (Amps) at Rated Voltage	Coil Circuit DC Ohms @ 25C	Burden (Amps) at Rated Voltage
С	48 VDC	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					
А	24 VDC	6VDC	10-40VDC					
В	24 VDC	9VDC	18-50VDC					
С	48 VDC	12VDC	24-70 VDC					
D	125 VDC	16VDC	30-140 VDC					
D	120 VAC	20 VAC	30-140 VAC					
Е	125 VDC	23 VDC	45-140 VDC					
F	250 VDC	33 VDC	70-280 VDC					
F	240 VAC	40 VAC	60-280 VAC					
G	125 VDC	70 VDC	90-140 VDC					
Н	250 VDC	140VDC	180-280 VDC					
K	125 VDC	16VDC	100-150VDC					

Depth B				
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			





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