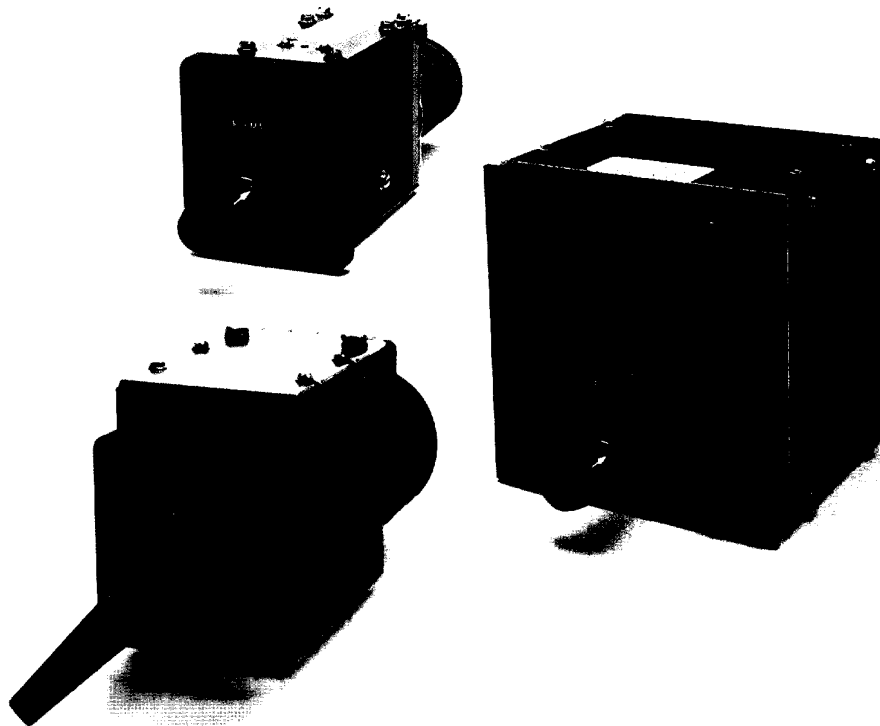


# Electroswitch Tagging Relays

*Perform testing and  
service safely*



 **ELECTROSWITCH** • SWITCHES & RELAYS  
UNIT OF ELECTRO SWITCH CORP.

180 King Ave. Weymouth, MA 02188 • 781-335-5200/781-335-4253 fax

# A Complete line of Tagging Relays in TWO or THREE POSITION\* versions with Safety Tag

\*Three position available only in Series 31 Version

Tagging Relays allow remote or manual circuit breaker operation for automated power distribution. They feature an eye-catching hot line tag ensuring personnel safety in compliance with ANSI C2 (National Electrical Safety Code) and ANSI Z535.5 (Accident Prevention Tags).

Multiple contacts housed in a compact unit provide an ideal solution to tagging requirements in both new and existing systems. The three position version may be operated to "Closed", "Open" or "Tagged" position manually, electrically or remotely from SCADA. The two position relay offers the same operations with "Normal" and "Tagged" positions. Typical applications include SCADA system expansion beyond substations to distribution feeders; automated recloser cut-off; and breaker control schemes with improved service reliability.

The innovative design and quality construction of these relays reflects five decades of supplying switches, relays and related control devices to the utility industry.

## SELECT BREAKER OPERATIONS:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Manually or Electrically</li> </ul> | <ul style="list-style-type: none"> <li>• Remotely from SCADA</li> </ul> |
|--|---|

### Applications:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Expand SCADA beyond sub-stations to distribution feeders</li> <li>• Automate Power distribution</li> <li>• Remote recloser cut-off</li> </ul> | <ul style="list-style-type: none"> <li>• Enhance breaker control schemes</li> <li>• Improve service reliability</li> <li>• Personnel Protection through SCADA control of NESC "TAG-OUT" Function</li> </ul> |
|--|---|

### Specifications:

The following specifications are common for all Tagging Relays:

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• Operating voltages:<br/>48VDC, 125VDC,<br/>120VAC, 250VDC</li> </ul> | <ul style="list-style-type: none"> <li>• Response time:<br/>60mSec maximum</li> </ul> | <ul style="list-style-type: none"> <li>• Available for both low level and direct control applications</li> </ul> |
|---|---|--|

The following specifications are unique for each series of Tagging Relay:

#### **SERIES 24 TR-2**

- Contact ratings (interrupt):  
20A-120VAC, 3A-125VDC
- Contacts:  
Up to 20 N.O./20 N.C.  
(up to ten sections)
- Coil burden:  
9.9A @ 48V  
6.6A @ 125V  
3.1A @ 250V

#### **SERIES 31 TR-2**

- Contact ratings (interrupt):  
10A-120VAC, 1A-125VDC
- Contacts:  
Up to 16 N.O./16 N.C.  
(up to eight sections)
- Coil burden:  
9.7A @ 48V  
4.1A @ 125V  
2.3A @ 250V

#### **SERIES 31 TR-3**

- Contact ratings (interrupt):  
10A-120VAC, 1A-125VDC
- Contacts:  
Up to 12 N.O./12 N.C.  
(up to six sections)
- Coil burden:  
13.4A @ 48V  
5.3A @ 125V  
2.7A @ 250V

# TAGGING RELAYS

## CATALOG NUMBERS

### SERIES 24 TR-2 TAGGING RELAYS

LOW LEVEL CONTROL  
(with Interposing relay)

DECKS	COIL VOLTAGE		
	48VDC	125VDC	120VAC
3	9223CE	9223DE	9223DK
5	9225CE	9225DE	9225DK
8	9228CE	9228DE	9228DK
10	9230CE	9230DE	9230DK

### SERIES 31 TR-2 TAGGING RELAYS

LOW LEVEL CONTROL  
(with interposing relay)

DECKS	COIL VOLTAGE		
	48VDC	125VDC	120VAC
3	9323CE	9323DE	9323DK
6	9326CE	9326DE	9326DK
8	9328CE	9328DE	9328DK

### SERIES 31 TR-3 TAGGING RELAYS

LOW LEVEL CONTROL  
(with interposing relay)

DECKS	COIL VOLTAGE		
	48VDC	125VDC	120VAC
3	9323CH	9323DH	9323DJ
6	9326CH	9326DH	9326DJ

Low level control Tagging Relays, with a control circuit burden of less than 1 Amp., are ideal for use with RTU's, PLC's and other solid state devices.

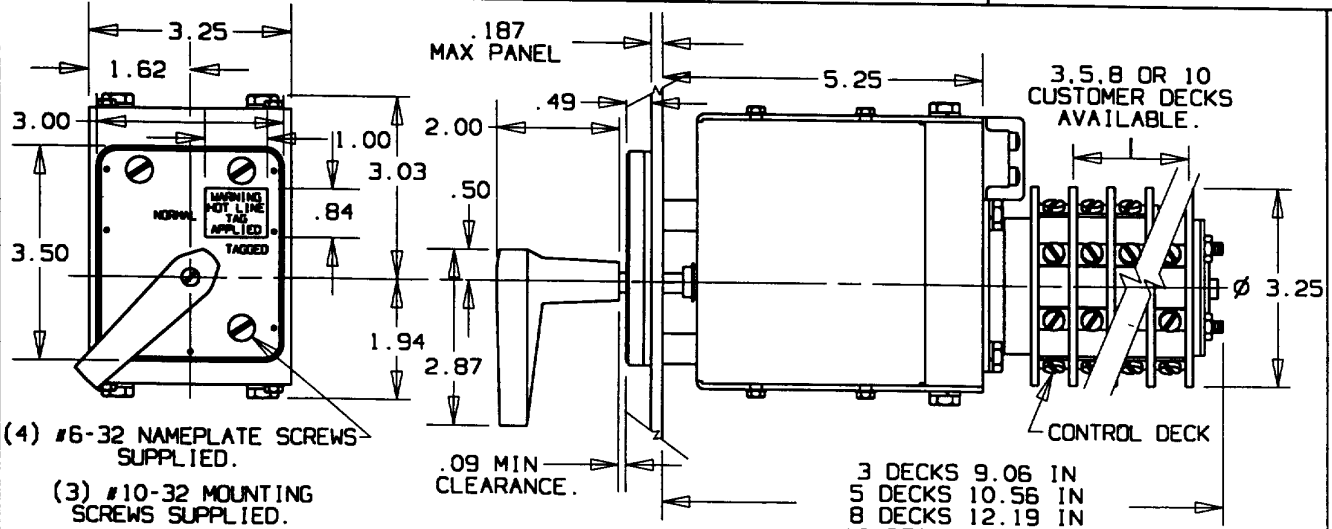
***Please contact factory for Direct Control Versions.***



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 NEYMOUTH MASSACHUSETTS 02188  
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**SERIES 24  
 TWO POSITION  
 TAGGING RELAY**

**SERIES 24 TR-2**



- (4) #6-32 NAMEPLATE SCREWS SUPPLIED.
- (3) #10-32 MOUNTING SCREWS SUPPLIED.

SHOWN IN TAGGED POSITION WITH TYPICAL ENGRAVING ON BLACK SURFACE.

#8-32 x .25 BD. HD. TERMINAL SCREWS SUPPLIED UN-ASSEMBLED.

ORANGE WARNING TAG APPEARS IN WINDOW IN TAGGED POSITION ONLY

**WARNING  
 HOT LINE  
 TAG  
 APPLIED**

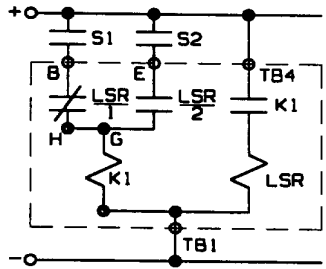
**UL RECOGNIZED CONTACT RATINGS**

20A-120VAC	3A-125VDC
15A-240VAC	1A-250VDC
6A-600VAC	

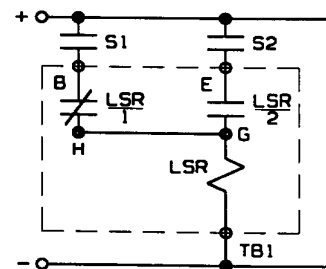
**AVAILABLE CONTROL VOLTAGES**

CONTROL VOLTAGE	48 VDC	125 VDC	250 VDC	120 VAC
COIL BURDEN	9.9 AMP	6.6 AMP	3.1 AMP	6.3 AMP
RESPONSE TIME	25-60 msec			

**CONTROL CIRCUIT SCHEMATIC**

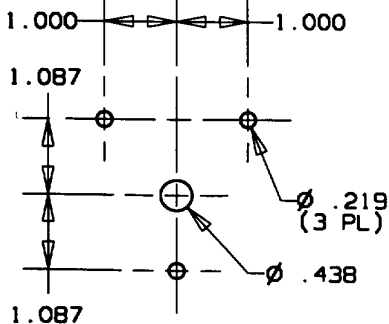


LOW LEVEL CONTROL



DIRECT CONTROL

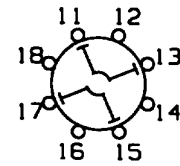
FOR FURTHER INFORMATION REFER TO TECHNICAL PUBLICATION LSR-1.



PANEL DRILLING DIMENSIONS

**CUSTOMER DECKS.**

CONTACTS	POSITION	
	NORMAL	TAGGED
DECK 1 110H-11013	X	
120H-11014		X
150H-11017	X	
160H-11018		X



ADDITIONAL CUSTOMER DECKS SAME AS DECK 1 EXCEPT TERMINAL NUMBERS.  
 (DECK 2: 21 TO 28, DECK 3: 31 TO 38 ETC.)

MADE BY: W.D.S. DATE: 5/7/97  
 APPR BY: C.J.L. DATE: 5/7/97

DWG. NO: ES-24TR-2  
 SHEET 1 OF 1

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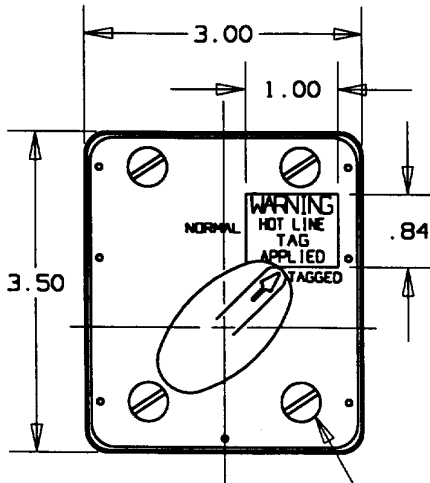
REVISIONS:



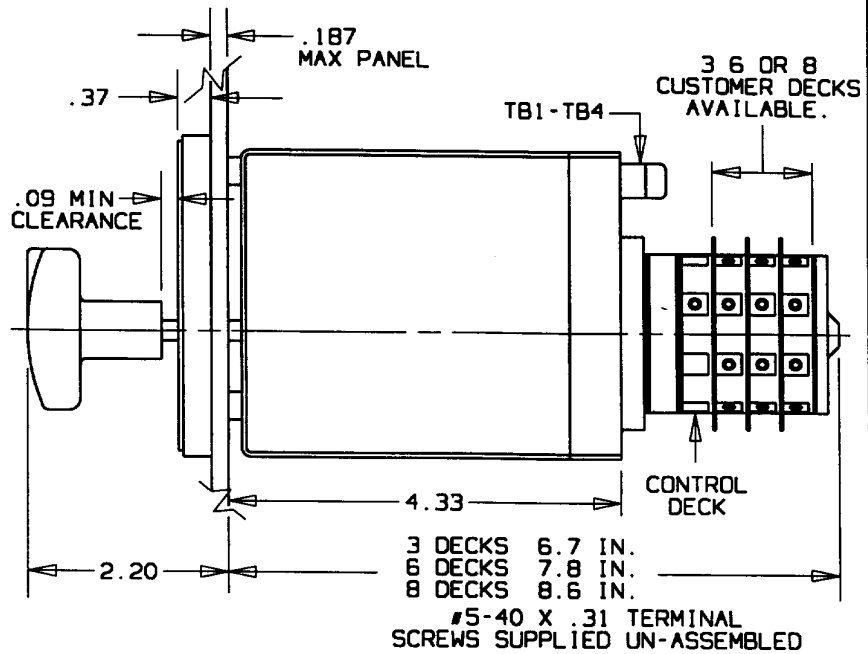
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**SERIES 31 LSR  
 TWO POSITION  
 TAGGING RELAY**

**SERIES 31 TR-2**



(4) 6-32 MOUNTING SCREWS SUPPLIED  
 SHOWN IN TAGGED POSITION WITH TYPICAL ENGRAVING ON BLACK SURFACE.



#5-40 X .31 TERMINAL SCREWS SUPPLIED UN-ASSEMBLED

ORANGE WARNING TAG APPEARS IN WINDOW IN TAGGED POSITION ONLY

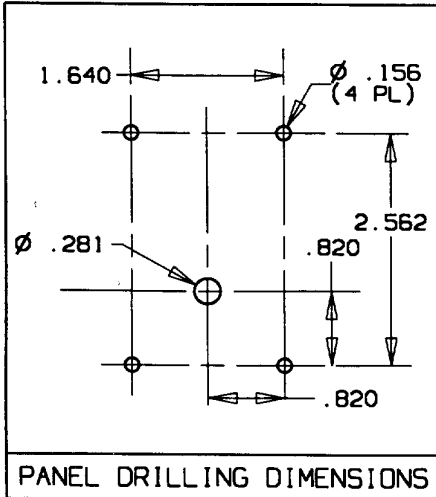
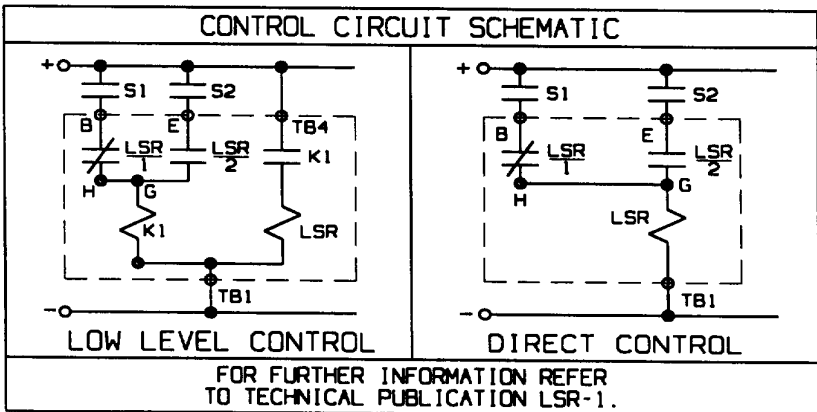
**WARNING  
 HOT LINE  
 TAG  
 APPLIED**

AVAILABLE CONTROL VOLTAGES

CONTROL VOLTAGE	48 VDC	125 VDC	250 VDC	120 VAC
COIL BURDEN	9.7 AMP	4.1 AMP	2.3 AMP	3.9 AMP
RESPONSE TIME	15-35 msec			

UL RECOGNIZED CONTACT RATINGS

10A-120VAC	3A-600VAC
5A-240VAC	1A-125VDC



CUSTOMER DECKS.

DECK	CONTACTS	POSITION	
		NORMAL	TAGGED
1	110H-11013	X	
	120H-11014		X
	150H-11017	X	
	160H-11018		X

ADDITIONAL CUSTOMER DECKS SAME AS DECK 1 EXCEPT TERMINAL NUMBERS.  
 (DECK 2: 21 TO 28, DECK 3: 31 TO 38 ETC.)

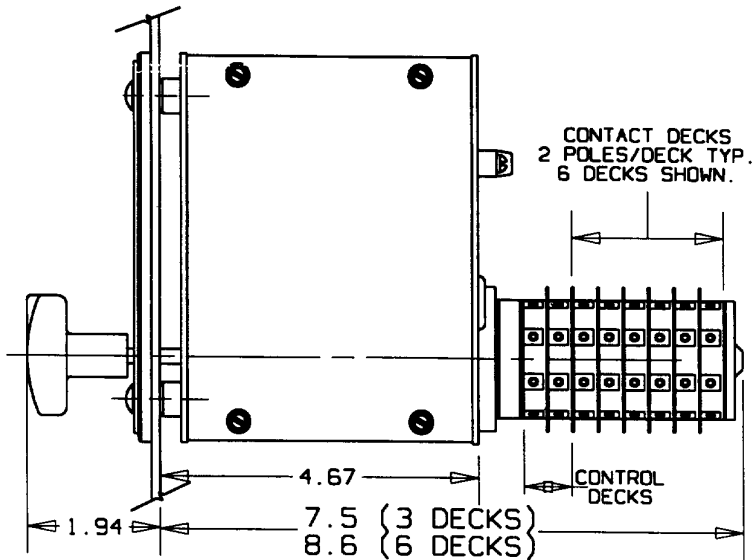
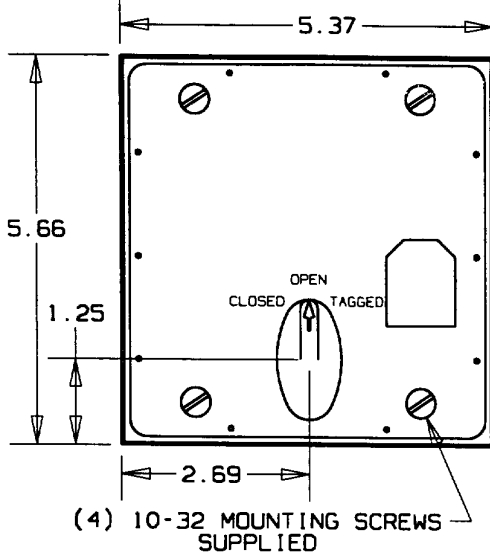
REVISIONS:



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THREE POSITION  
 TAGGING RELAY  
 WITH LOW LEVEL CONTROL

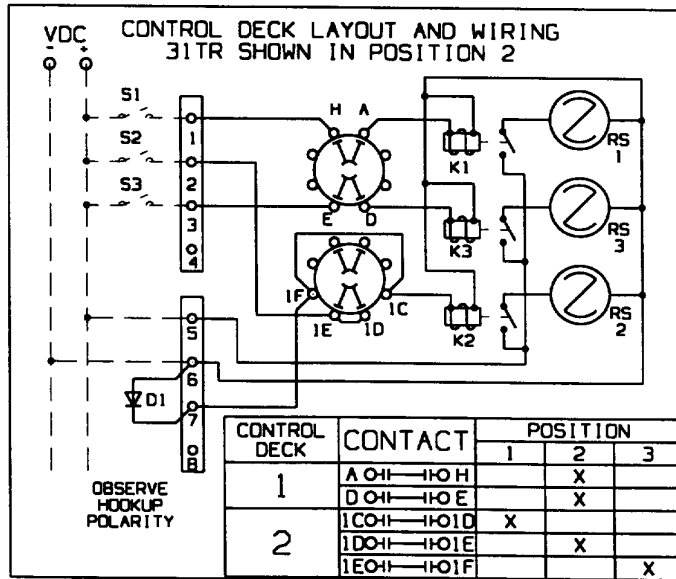
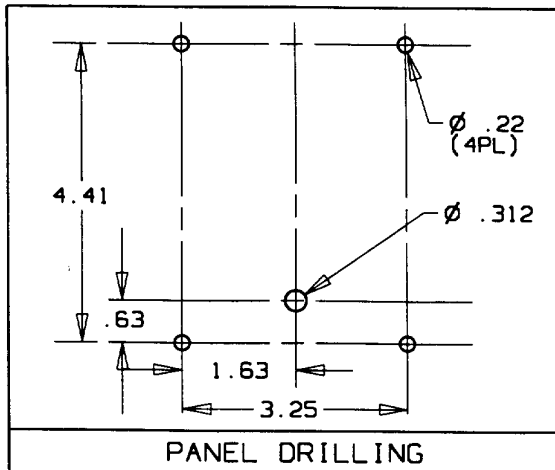
**SERIES 31 TR-3**



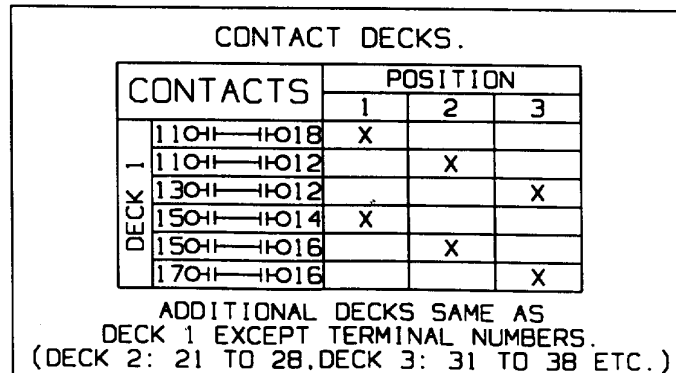
ORANGE WARNING TAG  
 APPEARS IN WINDOW  
 IN TAGGED  
 POSITION ONLY  
 (TYPICAL WORDING SHOWN)



UL RECOGNIZED CONTACT RATING	
10A-120VAC	3A-600VAC
5A-240VAC	1A-125VDC



CONTROL DECK	CONTACT	POSITION		
		1	2	3
1	A OH-IOH		X	
	D OH-IOE		X	
2	IC OH-ID	X		
	ID OH-IOE		X	
	IE OH-IOF			X



CONTACTS	POSITION		
	1	2	3
11 OH-IO18	X		
11 OH-IO12		X	
13 OH-IO12			X
15 OH-IO14	X		
15 OH-IO16		X	
17 OH-IO16			X

ADDITIONAL DECKS SAME AS DECK 1 EXCEPT TERMINAL NUMBERS.  
 (DECK 2: 21 TO 28, DECK 3: 31 TO 38 ETC.)

REVISIONS:

MADE BY: W.D.S. DATE: 5/7/97  
 APPR BY: C.J.L. DATE: 5/7/97

DWG. NO: ES-31TR-3  
 SHEET 1 OF 1

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