

# Multi-Voltage Conventional Relays


**Miscellaneous**

## General

Fire-Lite Alarms' multi-voltage conventional relays are used for high-current switching applications such as fan and damper assembly control, door control, air handling unit controls, and other types of system interfacing.

The R-10T(A)/20T(A) and R-14T(A)/R-24T(A) models are multi-voltage relays with terminal strip field wiring connections, mounting track and hardware. The R-10T(A) is a single FORM-C (SPDT) relay with a red activation LED, and the R-14T(A) is a 4-gang 1 FORM-C (SPDT) relay with 4 red activation LEDs. The R-20T(A) is a single 2 FORM-C (DPDT) relay with red activation LED, and the R-24T(A) is a 4-gang 2 FORM-C (DPDT) relay with 4 red activation LEDs.

The R-10E(A)/R-20E(A) and R-14E(A)/R-24E(A) are similar to the T series track mount relays, but they are mounted into a steel enclosure. The enclosure has a removable front cover that provides easy access and a LED viewing hole on the top of the cover.

PR-1(A)/PR-2(A)/PR-3(A) are epoxy encapsulated multi-voltage relays. They are single pole double throw relays that use a red LED as a visible indication of relay coil energization. PR-3 is identical to PR-2 except it has an extra pair of wires for redundant power input.

Model EOLR-1(A) is an epoxy encapsulated single pole single throw, normally open relay that can be used as an end of line device in fire alarm systems, e.g. to supervise power supplies.

## Specifications

### R-10T(A)/R-14T(A)/R-20T(A)/ R-24(A)T

**Operating Voltage Range:** 18-35 VDC, 18-35 VAC, 115 VAC, 230 VAC.

**Operating Current:** 23 mA @ 24 VDC, 59 mA @ 24 VAC, 150 mA @ 120 VAC, 180 mA @ 240 VAC [R-10T(A)/R-14T(A)].

40 mA DC max. @ 24 VDC, 24 VAC, 92 mA @ 24 VAC, 220 mA @ 120 VAC, 260 mA @ 240 VAC [R-20T(A)/R-24T(A)]

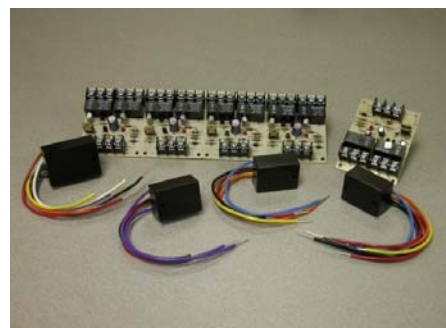
**Humidity Range:** 10% to 93% (non-condensing).

**Dimensions:** R-10T(A)/ R-20T(A): 2.5"L x 3.35"W x 1.2"H.

R-14T(A)/R-24T(A): 10"L x 3.35"W x 1.2"H.

**Operating Temperature:** -40° F to 158° F (-40°C to 70°C)

**Contact Ratings:** 24 VDC: 7A with L/R = 5 mS.  
120 VAC: 10 A.  
120 VAC: 1/6 HP.  
230 VAC: 7 A.



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### R-10E(A)/ R-14E(A)/R-20E(A)/ R-24E(A)

**Operating Voltage Range:** 18-35 VDC, 18-35 VAC, 115 VAC, 230 VAC.

**Operating Current:** 23 mA DC max. @ 24 V, 59 mA @ 24 VAC, 150mA @ 120 VAC, 180 mA @ 240 VAC [R-10E(A)/R-14E(A)].

-40 mA DC max. @ 24 VDC, 24 VAC, 115 VAC, 230 VAC (R-20E/R-24E).

**Humidity Range:** 10% to 93% (non-condensing).

**Dimensions:** R-10E(A)/R-20E(A): 5.1"L x 3.75"W x 2.5"H.

R-14E(A)/R-24E(A): 11"L x 5.3"W x 2.5"H.

**Operating Temperature:** -40° F to 158° F (-40° C to 70° C).

**Contact Ratings:** 24 VDC: 7 A with L/R = 5mS.  
120 VAC: 10 A.  
120 VAC: 1/6 HP.  
230 VAC: 7 A.

### PR-1(A)

**Operating Voltage Range:** 18-35 VDC, 18-35 VAC, 120 VAC.

**Operating Current:** 15 mA DC max. @ 24 VDC, 24 VAC, 120VAC.

**Humidity Range:** 10% to 93% RH.

**Dimensions:** 0.87" H x 2.01" W x 1.42" D.

**Operating Temperature:** -40° F to 158° F (-40° C to 70° C).

**Contact Ratings:** 24 VDC: 7 A with LR = 5 mS.  
120 VAC: 7 A max. (0.35 PF).  
250 VAC: 10 A resistive.  
30 VDC: 10 A resistive.

**Wire Length:** 8" minimum.

**PR-2(A)/PR-3(A)**

<b>Operating Voltage Range:</b>	10 to 40 VDC.
<b>Operating Current:</b>	30 mA DC max.
<b>Humidity Range:</b>	10% to 93% RH.
<b>Dimensions:</b>	0.91" H x 1.65" W x 1.22" D.
<b>Operating Temperature:</b>	-40° F to 158° F (-40° C to 70° C).
<b>Contact Ratings:</b>	120 VAC: 10 A (resistive load). 120 VAC: 7 A max. (0.35 PF). 250 VAC: 10 A max. (resistive load). 30 VDC: 10 A max. (resistive load).
<b>Wire Length:</b>	8" minimum.

**EOLR-1(A)**

<b>Operating Voltage Range:</b>	9 to 40 VDC.
<b>Operating Current:</b>	20 mA DC max.
<b>Humidity Range:</b>	10% to 93% RH.
<b>Operating Temperature:</b>	-22° F to 140° F (-30° C to 60° C).
<b>Contact Ratings:</b>	120 VAC: 0.5 A max. (resistive load). 30 VDC: 3 A max. (resistive load).
<b>Wire Length:</b>	8" minimum.

**Agency Listings and Approvals**

In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL/ULC Listed: S3705
- ULC Listed: CS669
- MEA: 419-04-E
- CSFM: 7300-1653:173

**PRODUCT LINE INFORMATION**

**NOTE:** "A" suffix indicates ULC listed model.

**PR-1(A):** Epoxy encapsulated single pull double throw (SPDT) relay. It also uses a red LED as a visible indication of relay coil energization with pigtailed.

**PR-2(A):** Epoxy encapsulated single pull double throw (SPDT) activated by 10 to 40 VDC. It uses a red LED as a visible indication of relay coil energization with pigtailed.

**PR-3(A):** Epoxy encapsulated single pull double throw (SPDT) activated by 10 to 40 VDC. It contains an additional black and red wire for redundant power input with pigtailed.

**EOLR-1(A):** Epoxy encapsulated single pull single throw (SPST) normally open relay that is activated by 9 to 40 VDC. This relay can be used as an end of line device in fire alarm systems, e.g., to supervise power supplies.

**R-10T(A):** Single (SPDT) relay with a red activation LED.

**R-14T(A):** 4-gang (SPDT) relay with 4 red activation LEDs.

**R-20T(A):** Single (DPDT) relay with a red activation LED.

**R-24T(A):** 4-gang (DPDT) relay with 4 red activation LEDs.

The R-10E(A)/R-20E(A) and R-14E(A)/R-24E(A) are similar to the T series track mount relays, but they are mounted into a steel enclosure. The enclosure has a removable front cover that provides easy access and a LED viewing hole on the top of the cover.

**R-10E(A):** Single (SPDT) relay mounted into a steel enclosure, 1 red activation LED.

**R-14E(A):** 4-gang (SPDT) relay mounted into a steel enclosure, 4 red activation LEDs.

**R-20E(A):** Single (DPDT) relay mounted into a steel enclosure, 1 red activation LED.

**R-24E(A):** 4-gang (DPDT) relay mounted into a steel enclosure, 4 red activation LEDs.



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**PR-1(A)**



7015pr2.jpg

**PR-2(A)**



7015pr3.jpg

**PR-3(A)**



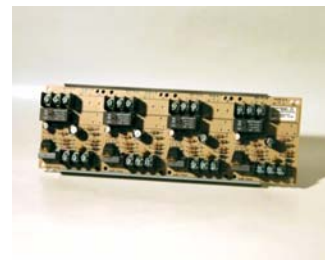
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**EOLR-1(A)**



7015r10t.jpg

**R-10T(A)**



7015r14t.jpg

**R-14T(A)**



7015r20-24e.jpg

**R-20E(A) & R-24E(A)  
Enclosures**



7015r10-14e.jpg

**R-10E(A) & R-14E(A)  
Enclosures**

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