Multi-Voltage Conventional Relays

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)/R-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-24T(A)**

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

**Operating Current:**
- 23 mA @ 24 VDC
- 59 mA @ 24 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: 7 A with L/R = 5 mS.
- 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, 120 VAC.

**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 L/R = 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)

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

EOLR-1(A)

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

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 pigtails.

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 pigtails.

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.