## R182J, R482J, R845A, R847A, RA89A, RA832A Switching Relays

These relays can be used for a variety of switching applications. Typically they provide control of line- or low-voltage devices by a low voltage controller. See Table 1.

TABLE 1—SWITCHING RELAY SPECIFICATIONS.

| Models | Application | $\begin{aligned} & \text { Voltage } \\ & (50 / 60 \mathrm{~Hz}) \end{aligned}$ | Switch <br> Action | Control Circuit | Coil <br> Voltage (Vac at $50 / 60 \mathrm{~Hz}$ ) | Relay Coil Current (A) | Contact <br> Ratings (A) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | AFL | ALR |
| R182J | For 24 V thermostat control of line voltage devices. | 120 | Dpdt | 3-wire | 24 | $0.40^{\text {a }}$ | 7.4 | 44.4 |
|  |  | 240 |  |  |  |  | 3.7 | 22.2 |
| R482J | Controlled by a line voltage controller | 120 |  | 2-wire | 120 | 0.08 | 7.4 | 44.4 |
|  |  | 208/240 |  |  | 208/240 | 0.04 | 3.7 | 22.2 |
| R845A | For hot water zone control systems or spst control of two separate loads. | 120 | Dpst |  | 24 | 0.40 | 7.4 | 44.4 |
| R847A | Provides switching for high-current loads such as cooling compressors. | 120 |  |  |  |  | 22 | 100 |
|  |  | 240 |  |  |  |  | 10 | 50 |
| RA89A | For switching one line voltage load. | 120 | Spst |  |  |  | 10.2 | 61.2 |
| RA832A | For switching two line voltage loads with a common power source. | 120 | Dpst |  |  |  | 7.4 | 44.4 |
|  |  | 240 |  |  |  |  | 3.7 | 22.2 |

${ }^{\mathrm{a}}$ IMPORTANT: The transformer on the R182 can overheat when used with a series 20 thermostat if the total resistance of the thermostat circuit exceeds 2.5 ohms . If the measured resistance of the thermostat (including thermostat wire and thermostat contact resistance) exceeds 2.5 ohms , add a 100 ohm , 10 watt resistor between the $W$ and $R$ terminals. Table 2 gives maximum thermostat wire runs; if longer runs are necessary, measure the resistance or add a 100 ohm, 10 watt resistor across terminals $W$ and $R$.

TABLE 2—LENGTH OF WIRE.

| AWG <br> Wire <br> Size <br> (Number) | Total Wire <br> Length |  | Length of Run <br> to Thermostat <br> (Wires) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Feet | Meters | Feet | Meters |
| 22 | 120 | 38.0 | 60 | 18.0 |
| 20 | 200 | 61.0 | 100 | 30.5 |
| 18 | 300 | 91.5 | 150 | 45.5 |
| 16 | 500 | 152.5 | 250 | 76.0 |
| 14 | 800 | 244.0 | 400 | 122.0 |

