



# RPR-1P

## REPEATING PULSE RELAY

The RPR-1P repeating pulse relay is designed to provide a single isolated “dry”, mercury-wetted form “C” (K, Y, & Z) contact from a single form “C” input where a sense voltage from other equipment is present. To prevent loading of the other equipment’s sense voltage source, the other equipment’s sense voltage should be higher than 14 VDC. The RPR-1P will also supply its own sense voltage when no other sense voltages are present. Typical applications include interfaces between utility metering devices and customer owned energy control systems, demand recorder applications, and supervisory control systems (SCADA) interfaces.

The RPR-1P relay is designed to retain the last valid input status upon loss of the system’s power source thereby preventing false outputs from occurring. An incorrect sequence of input pulses is detected and only the first valid pulse will result in an output. Bright red and green LED lamps indicate the systems status at all times thus allowing a rapid visual check of the system’s performance without requiring any additional test equipment. The RPR-1P’s input and output circuit’s terminal strip is a “EURO” type connector. The “K” lead of the RPR-1P’s output is fused to prevent damage to the relay under almost any conditions a user might cause such as excessive current, incorrect wiring, etc.

The RPR-1P has built-in transient protection for the mercury wetted relays contacts which eliminates the need for external or off-the-board transient suppressors. All component parts which have power applied to them, with the exception of the input/output terminal strip are enclosed in a polycarbonate cover for maximum protection. The mounting base plate is also made of polycarbonate and offers excellent electrical insulation between the circuit and the mounting surface. The input “K, Y, & Z” leads may be paralleled with other RPR-2P, RPR-3P and RPR-23 relays to increase the number of available isolated outputs. Remember, however, that the RPR-2P, RPR-3P, and RPR-23 relays CAN NOT be input interfaced with manufacturer’s relays or equipment’s “hot” (voltage present) sense circuits without the possibility of problems and possible equipment damage.



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# RPR-1P SPECIFICATIONS

## ELECTRICAL

Power Input: 90 to 325 VAC. Burden: 10 MA. at 120 VAC

Output: One set of “dry” form “C” contacts (K, Y & Z) for energy pulses. The mercury wetted “no bounce” relay contacts are rated at 500 VDC or 350 VAC 2 Amps. break, 5 amps carry. The maximum rating of the contacts is 100 VA. Factory fused at 1/2 amp. (3AG)

Contact Resistance: 50 milliohms maximum, 12 to 14 typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 1 to 2 milliseconds typical

## MECHANICAL

Mounting: Within 30 degrees of vertical

Size: 3.27 inches wide, 5.65 inches high, 1.50 inches deep

Weight: 12 ounces

## TEMPERATURE

Temperature Range: -38° C to +70° C, -36.4° F to +158° F

Humidity: 0 to 98% non-condensing

## OPTIONS

Input Voltages: 24 VAC

Outputs: Non-latching “make-before-break” relays



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