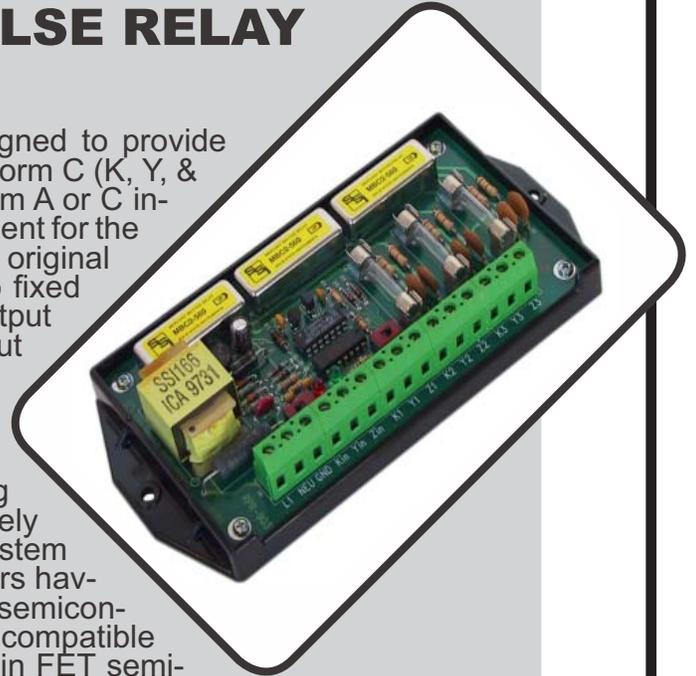


# RPR-903

## REPEATING PULSE RELAY

The RPR-903 repeating pulse relay is designed to provide three sets of isolated “dry”, mercury-wetted Form C (K, Y, & Z) contacts from a single field-selectable Form A or C input. The RPR-903 relay is a suitable replacement for the RPR-2P and PIR-3. It is also similar to SSI’s original RPR-23 except that the RPR-903 has a two fixed Form C outputs, rather than one. The third output is field-selectable as a Form C 3-Wire output or as a Form A 2-Wire output. In the Form A mode, a pulse doubling circuit provides true Form C to Form A conversion. The sense voltage which appears on the input lines (Yin and Zin) is sent to the data sending circuit (typically a meter) and is approximately +13 VDC. The Kin terminal is the common system return. The RPR-903 may be used with meters having mechanical output contacts (relays) or semiconductor outputs. The RPR-903’s inputs are compatible with an open-collector transistor or open drain FET semiconductor outputs.



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-903 relay is designed to retain the last valid input status upon loss of the system’s power 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. The RPR-903 is particularly useful in applications where pulses must be sent to two or three systems and one of the systems requires a Form A input configuration.

Bright red and green LED lamps indicate the systems status at all times thus allowing a rapid check of the system’s performance without requiring any additional test equipment. The RPR-903’s input and output circuit’s terminal strip is a “EURO” type connector strip. When the stripped wire has been correctly installed in the terminals “slot” no conductive parts are exposed on the surface of the terminal strip, thus allowing the user maximum protection from accidental electrical shock. Each “K” lead of the RPR-903’s outputs is fused to prevent damage to the relays under almost any conditions a user might cause such as excessive current, incorrect wiring, etc.

The RPR-903 has built-in transient protection for the mercury wetted relay 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.

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# RPR-903 SPECIFICATIONS

## ELECTRICAL

Power Input: 90-140 VAC. Burden: 10 MA. at 120 VAC

Output: Three sets of "dry" form "C" contacts (K, Y, & Z) for energy pulses. Two fixed Form C 3-Wire, one field selectable 2-Wire or 3-Wire. The contacts are mercury wetted "no bounce" relays 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 @250VAC. (3AG)

Contact Resistance: 50 milliohms maximum, 12 to 14 typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 2 to 3 milliseconds typical

## MECHANICAL

Mounting: Within 30 degrees of vertical

Size: 3.50 inches wide, 7.20 inches high, 1.50 inches deep

Weight: 17 ounces

## TEMPERATURE

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

Humidity: 0 to 98% non-condensing

## OPTIONS

Input Voltages: Contact Factory



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