RPR-22
DUAL PULSE ISOLATION RELAY - KWH/KVARH

The RPR-22 dual repeating pulse isolation relay is designed to provide two independent and isolated "dry", mercury-wetted form "C" (K, Y, & Z) contact outputs from two form "C" inputs. The primary application for the RPR-22 is where two independent isolation relays in one package are needed - one for Kilowatt-hours and the other for Kvar-hours.
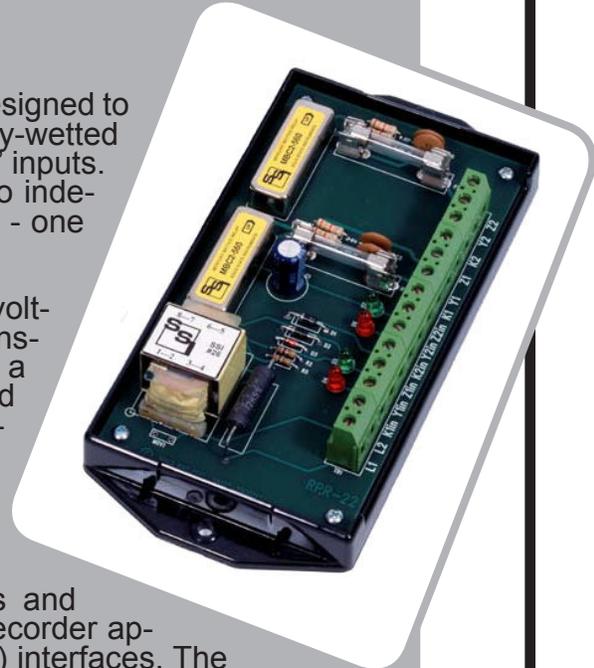
The RPR-22 operates over the standard SSI wide voltage range. The RPR-22 has a built-in low voltage transformer isolated powered power supply generating a +13VDC sense voltage. The sense voltage (Kin1 and Kin2) is connected to the pulse sending device, typically a meter.

The RPR-22 may be used with meters having mechanical output contacts (relays), or high or low voltage 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-22 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.

Bright red and green LED lamps, one on each input, indicates each independent relay's status at all times thus allowing a rapid check of the system's performance without requiring any additional test equipment. The RPR-22'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-22's two 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-22 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 circuits and the mounting surface. The input "Kin1, Yin1, & Zin1" and "Kin2, Yin2, & Zin2" leads may be paralleled with other RPR-2P, 3P, 22 relays to increase the number of available isolated outputs.

RPR-22 SPECIFICATIONS

ELECTRICAL

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

Signal Input: Two independent Form C inputs. Each Form C input has a "Kin" terminal wetted with +13VDC. Each Form C input has "Yin" and "Zin" input terminals for pulse signal from meter.

Output: Two sets of "dry" form "C" contacts (K, Y, & Z) for energy pulses. 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. (3AG)

Contact Resistance: 50 milliohms maximum, 12 to 14 typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 4 to 8 milliseconds typical

Input/Output Isolation Voltage: 3750V

MECHANICAL

Mounting: Within 30 degrees of vertical

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

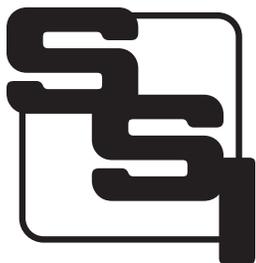Weight: 12 ounces

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

Solid State Instruments
6230 Aviation Circle
Loveland, CO 80538

(970) 461-9600 • (888) 272-9336
FAX (970) 461-9605
email: info@solidstateinstruments.
com
www.solidstateinstruments.com

a division of
Brayden Automation Corp.

Local Representative