



SSI STANDARD

SPR-112 PULSE ISOLATION RELAY

DESCRIPTION

The SPR-112 pulse isolation relay is designed to provide twelve sets of isolated solid state Form A (K & Y) dry-contact outputs from a single Form A pulse input over a wide voltage range. The SPR-112 relay contains standard-duty solid state outputs. The sense voltage provided by the SPR-112 to the sending device (typically a meter) is +13 VDC. The SPR-112 may be used with meters having high or low voltage semiconductor outputs, or electro-mechanical output contacts (relays). The SPR-112 also doubles as a pulse generator and was two internal pulse sources: a 1 Hz Pulse generator and a variable pulse generator from .1 to 10 pulses per second.



The SPR-112 relay has a switch-selectable input which can select the external Form A pulse input, the 1 Hz pulse generator or the internal variable pulse generator. Input filtering circuitry prevents noise from triggering the output. Pulses less than 18 mS are considered to be noise and will not be validated as a pulse. Once an input pulse greater in length than 18 mS is validated, the output will be changed to the state of the input.

Bright red and green pulse input LED indicators display the system's status at all times, thus allowing a rapid check of the system's performance without requiring any additional test equipment. The SPR-112's input and output terminal strips are "Euro" type. When the stripped wire has been correctly installed in the terminal's slot, no conductive parts are exposed on the surface of the terminal strip, thus allowing the user maximum protection from accidental electrical shock. The "K" lead of the SPR-112's output is fused to prevent damage to the relays under almost any condition a user might cause such as excessive current, incorrect wiring, etc.

The SPR-112 has built-in MOV transient protection for the solid state relay contacts that eliminates the need for external protection. The SPR-112 is mounted on an open chassis and is normally mounted inside another enclosure, suitable for the user's intended application and easy access for wiring.

FUNCTIONAL SUMMARY

IN	OUT
1	12
2 Wire	2 Wire
A	A

#

TYPE

FORM

SPR-112



SPR-112 PULSE ISOLATION RELAY

SPECIFICATIONS

ELECTRICAL

Pulse Input:	120 VAC, 208-277. Burden: 10 mA at 120 VAC
Signal Input:	One switch-selectable Form A input. "Kin" is common return. Pulse Input is "Yin" input terminal, "pulled up" to +13VDC for pulse signal from meter."
Power Output:	Ten (10) sets of dry Form A contacts (K & Y) for energy pulses. The contacts are solid state rated at 125VAC/VDC at 100milliamps. The maximum power rating of the contacts is 800mW. Each output is factory fused at 1/10 amp. (3AG)
Contact On-State Resistance:	25 ohms maximum, 18 typical
Insulation Resistance:	50 megohms typical
Operate and Release Time:	2 to 3 milliseconds typical
Input/Output Isolation Voltage:	2500Vrms

MECHANICAL

Mounting:	Any position
Size:	7" wide, 9" high, 1.8" deep
Weight:	2 pounds

TEMPERATURE

Temperature Range:	-38° C to +70° C, -38.4° F to +158° F
Humidity:	0 to 98% non-condensing

AVAILABLE OPTIONS

Input Voltages:	Contact factory for other input voltages
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