



PULSE ISOLATION RELAY - SOLID STATE

RPR-3LS B-SERIES REPEATING PULSE RELAY

FORMERLY THE RPR-3
AND RPR-3LS- A-Series

DESCRIPTION

The RPR-3LS B-Series repeating pulse relay provides three isolated dry solid state Form C (K, Y, & Z) contacts from a Form C input. The RPR-3LS uses the line voltage at the meter as the wetting voltage for the sending unit, usually an electric meter's KYZ pulse initiator. No additional power supply other than the local line voltage is needed.

Typical applications include interfaces between utility metering devices and customer-owned energy control systems, demand recorders, or supervisory control systems (SCADA) interfaces.

The RPR-3LS relay is designed to filter noise and transients from its input to prevent false pulses at its output. Bright red and green LED lamps indicate the system's status at all times thus allowing a rapid visual check of the system's performance without requiring any additional test equipment.

The RPR-3LS B-Series includes a 1/2 Amp fuse in the Kin input for protection of the wetting voltage circuit. The RPR-3LS' Kin terminal is connected to the power supply's "Hot" lead. The Yin and Zin terminals of the relay connect to the meter's Y and Z terminals respectively. The meter's K terminal is connected to Neutral. This configuration affords maximum electrical isolation and circuit protection in the event of a blown fuse.

The RPR-3LS' input and output circuit's terminal strip connector is a "EURO" type providing excellent insulation. The "K" lead of the RPR-3LS' 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-3LS' robust solid-state switching devices are rated at 800V and 750mA giving maximum protection from lightning or transient voltage damage. It's built-in transient protection for the solid-state switch contact eliminates the need for external or off-board transient suppression devices. All component parts that 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.



FUNCTIONAL SUMMARY

IN	OUT
1	3
3 Wire	3 Wire
C	C

#

TYPE

FORM

B-Series

RPR-3LS



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SPECIFICATIONS

ELECTRICAL

Power Input:	90 to 300 VAC Burden: 10 mA at 120 VAC
Pulse Input:	One Form C (3-Wire) input on the Kin, Yin & Zin input terminals. Kin is connected to the hot lead.
Pulse Output:	Three sets of Form C dry contacts (K, Y & Z) for energy pulses. The solid state "no bounce" relay contacts are rated at 250 VAC/VDC @ 1/2 Amp. The maximum rating of the contacts is 100 VA. Factory fused at 1/2 amp. (3AG)
Contact On-State Resistance:	2.3 ohms maximum, 1.7 ohms typical
Insulation Resistance:	50 megohms typical
Operate & Release Time:	Turn-on time - 8 mS typical, 20 mS max Turn-off time - 1 mS typical, 5 mS max
Input/Output Isolation Voltage:	2500Vrms

MECHANICAL

Mounting:	Any position
Size:	3.27" wide, 5.65" high, 1.50" deep
Weight:	12 ounces

TEMPERATURE

Temperature Range:	-38° C to +85° C, -36.4° F to +158° F
Humidity:	0 to 98% non-condensing

B-Series

RPR-3LS