



## PULSE ISOLATION RELAY - SOLID STATE

# SPR-3LD REPEATING PULSE RELAY

## DESCRIPTION

The SPR-3LD Repeating Pulse Relay is designed as a direct cross to the Sentry 30E relay and provides three isolated, solid-state, Form C (K, Y, & Z) dry contacts from one Form C input. The SPR-3LD uses the line voltage at the meter as the wetting voltage for the 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 SPR-3LD 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 SPR-3LD's input and output circuit's terminal strip connector is a "EURO" type providing excellent insulation. The "K" lead of the SPR-3LD'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 SPR-3LD's robust solid-state switching devices are rated at 400V and 150mA giving maximum protection from lightning or transient voltage damage. Its 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.

# SPR-3LD

### FUNCTIONAL SUMMARY

	IN	OUT
#	1	3
TYPE	3 Wire	3 Wire
FORM	C	C



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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 Y & Z input terminals
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 @ 1/10 Amp. The maximum rating of the contacts is 800 VA. Factory fused at 1/10 amp. (3AG)
Contact On-State Resistance:	25 ohms maximum, 18 ohms typical
Insulation Resistance:	50 megohms typical
Operate & Release Time:	Turn-on time - 2-3 mS typical, 5 mS max Turn-off time - 2-3 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

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