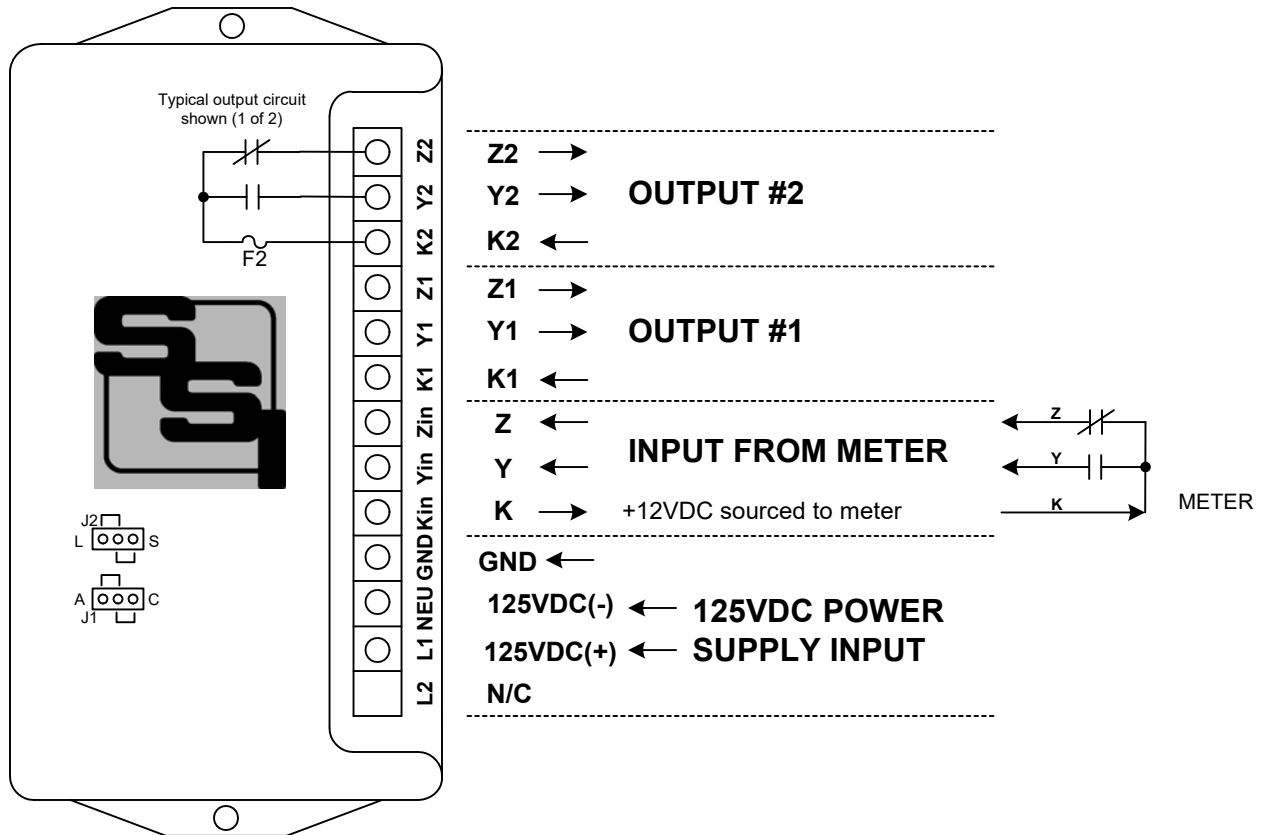


# INSTRUCTION SHEET

## SPR-2-SP2 PULSE ISOLATION RELAY



**MOUNTING POSITION** - The SPR-2-SP2 may be mounted in any position.

**POWER INPUT** - The SPR-2-SP2 is configured for a 125VDC input. Connect the +125V positive voltage source to the **L1** terminal. Connect the ground or negative lead to the **NEU** terminal. Connect the **GND** terminal to the electrical system ground.

**METER CONNECTIONS** - The SPR-2-SP2 can be used with either a 2-Wire(Form A) or 3- Wire(Form C) input. In the 3W (Form C) input mode, the SPR-2-SP2's "K", "Y" and "Z" input terminals should be connected to the meter's "K", "Y" and "Z" terminals. In the 2W (Form A) mode, connect the "K" and "Y" terminals to the meter's "K" and "Y" terminals. The SPR-2-SP2's "Y" and "Z" terminals provide the +12VDC "pulled up" wetting voltage to the meter's Y and Z terminals. The "K" terminal is the common return. Put Jumper J1 in the correct position for the desired input as shown above: Left=2-Wire(A), Right=3-Wire(C).

**OUTPUTS** - Two 3-wire (Form C) isolated outputs are provided. Transient voltage protection for the contacts of each relay is provided by MOV's on board. The output loads should be limited to 100 mA at 250 VAC/VDC, 800mW max, and are protected by fuses F1& F2. One-tenth (1/10) Amp fuses are supplied standard. Jumper J2 sets the long(L) or short(S) output modes. The long mode sets the outputs to the same pulse width as the input. The short mode sets the outputs for a fixed 100mS wide pulse width. Put Jumper J2 in the correct position for the desired output mode as shown above: Left=Long, Right=Short. More information on long and short pulses on page 2.



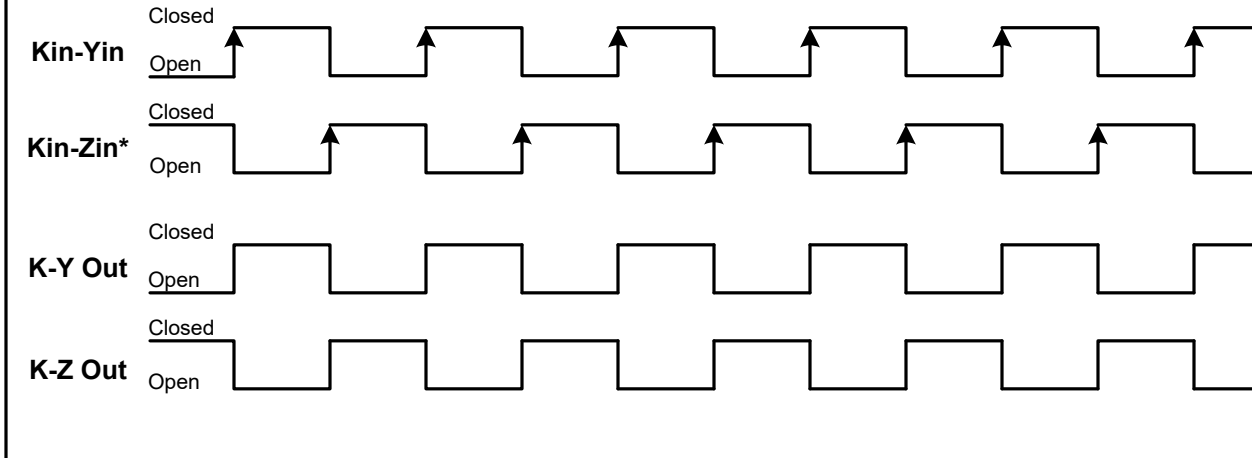
## SOLID STATE INSTRUMENTS

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# WORKING WITH THE SPR-2 RELAY

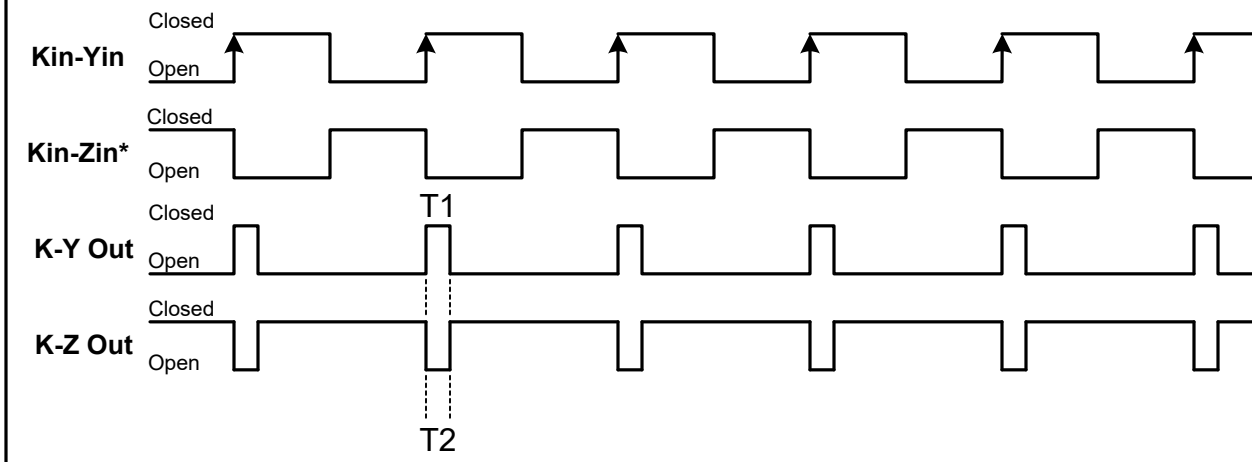
**OPERATING MODES:** The SPR-2 Repeating Pulse Relay allows the outputs to be configured for either the "Long" or "Short" pulse output mode. In the Long mode, the outputs simply follow the input. Output pulse widths are equal to input pulse widths. With the "long" output configuration selected, pulse speeds of up to 72,000 pulses per hour (20/sec) are possible. Figure 1 below shows the timing diagram for the "long" output mode.

**Figure 1: 2-Wire or 3-Wire LONG Output Operation**



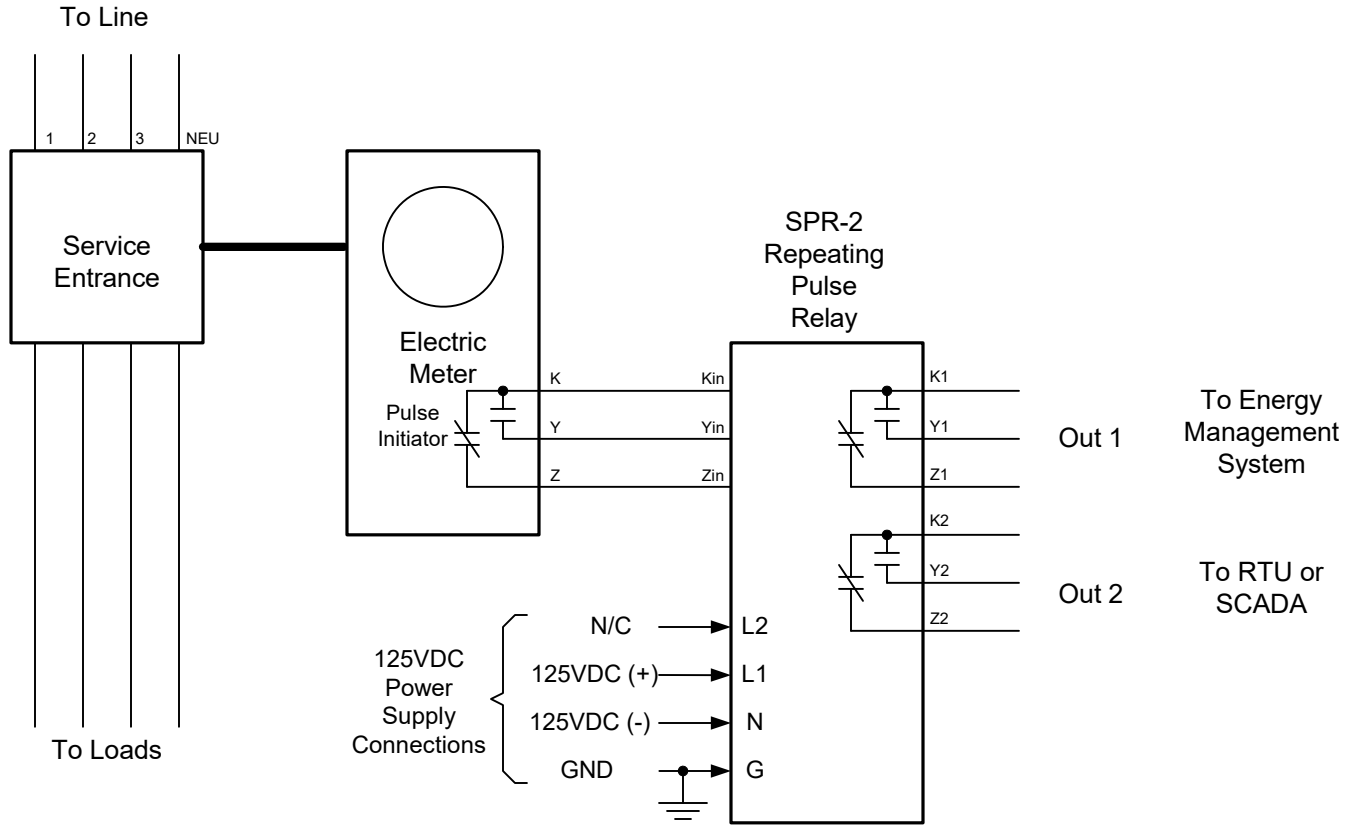
In the Short output mode, shown in Figure 2 below, an output pulse (K-Y closure) with a fixed width (T1) of 100mS occurs each time the input is triggered. Correspondingly, the K-Z output opens for 100mS (T2) each time the input is triggered. In the "short" mode, the output pulse rate is limited to 9 pulses per second, or about 32,400 pulses per hour.

**Figure 2: 2-Wire or 3-Wire SHORT Output Operation**



If the input pulse rate is greater than 9 pulses per second, it is recommended that the LONG pulse output mode be used. Contact the factory for technical support at (888)272-9336.

# SPR-2-SP2 Wiring Diagram



SPR-2-SP2WiringDiagram.vsd

<b>SPR-2-SP2 Repeating Pulse Relay Wiring Diagram</b>		REVISIONS	
		NO.	DATE
DATE ORIGINAL <b>08/06/2008</b>		SCALE <b>N/A</b>	
LATEST REVISION		DRAWN <b>WHB</b>	

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