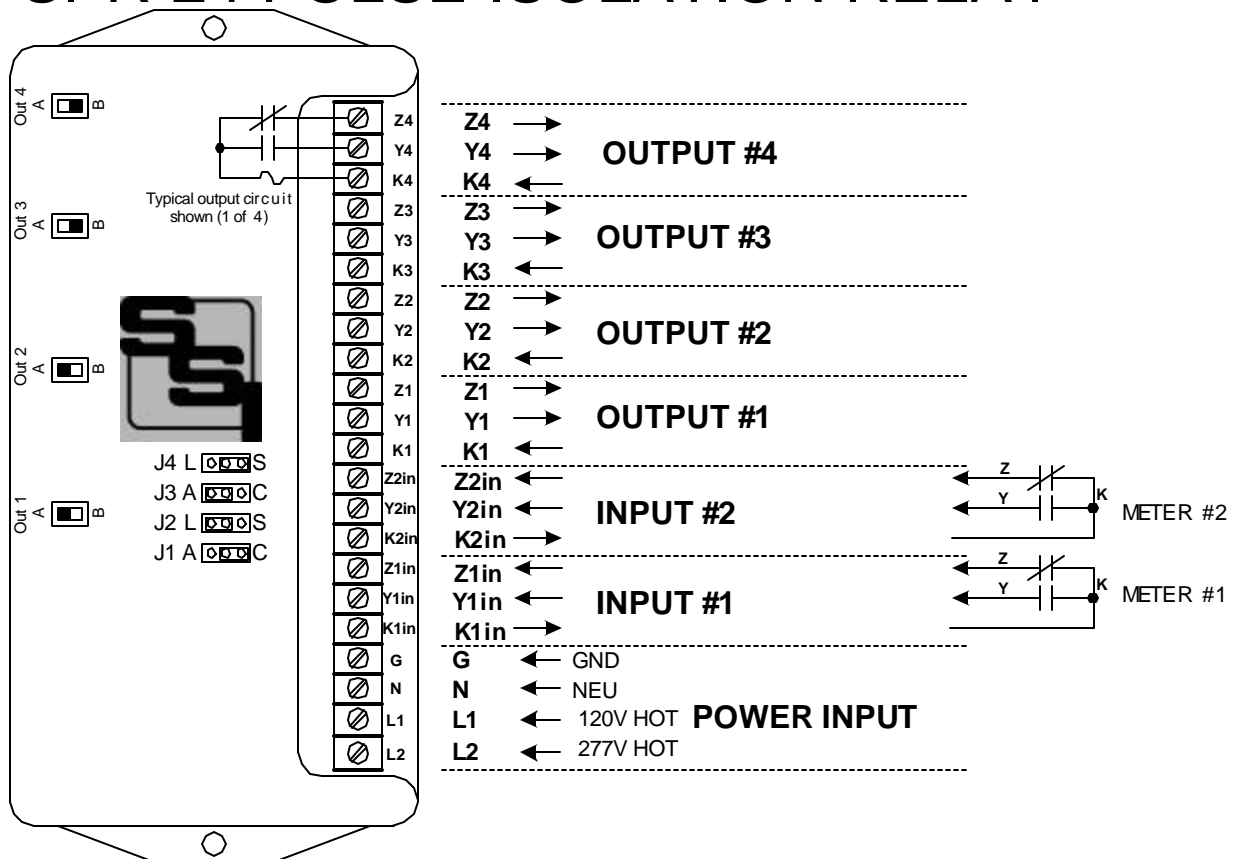


INSTRUCTION SHEET

SPR-24 PULSE ISOLATION RELAY



MOUNTING POSITION - The SPR-24 may be mounted in any position since it uses solid state relays.

POWER INPUT - The SPR-24 is powered by an AC voltage of between 90 and 300 volts. For 208 to 277VAC, connect the AC line's "hot" wire to the **L2** terminal. For 120VAC, connect the AC line's "hot" wire to the **L1** terminal. The AC line's "neutral" wire should be connected to the **N** terminal. Connect **G** to Ground.

INPUT CONNECTIONS - Connect the K terminal of each meter which is supplying pulses to the SPR-24 to the SPR-24's **K1in** and **K2in** terminals. Connect the each meter's Y and Z terminals to the respective meter's **Yin** and **Zin** input terminals of the SPR-24.

INPUT TYPE SELECTION - The SPR-24's inputs may be configured as either 2-Wire (Form A) or 3-Wire (Form C). Selector Jumper J1 selects the configuration for INPUT #1. Selector Jumper J3 sets the configuration for INPUT #2. Put the Jumper Plug in the correct position for the input type desired.

FUSES - The fuses are type 3AG and may be up to 1/10th Amp in size. Four 1/10 Amp fuses (F1-F4) are supplied standard with the unit unless otherwise specified.

OUTPUTS - Four three-wire isolated outputs are provided on the SPR-24, with output terminals K1, Y1 & Z1; K2, Y2, & Z2; K3, Y3 & Z3; and K4, Y4 & Z4. Arc suppression for the contacts of the solid state relays are provided internally. Each relay must be assigned to one of the two input channels. Using the switch adjacent to each relay, select "A" for input number 1 or "B" for input number 2. Each relay's output will follow the input selected. The SPR-24's outputs may be configured for either **Long** or **Short** output pulses. Selector Jumper J2 selects the long or short output configuration for all outputs set to INPUT #1. Selector Jumper J4 sets the long or short output configuration for all outputs set to INPUT #2. Put the Jumper Plug in the correct position for the output type desired.

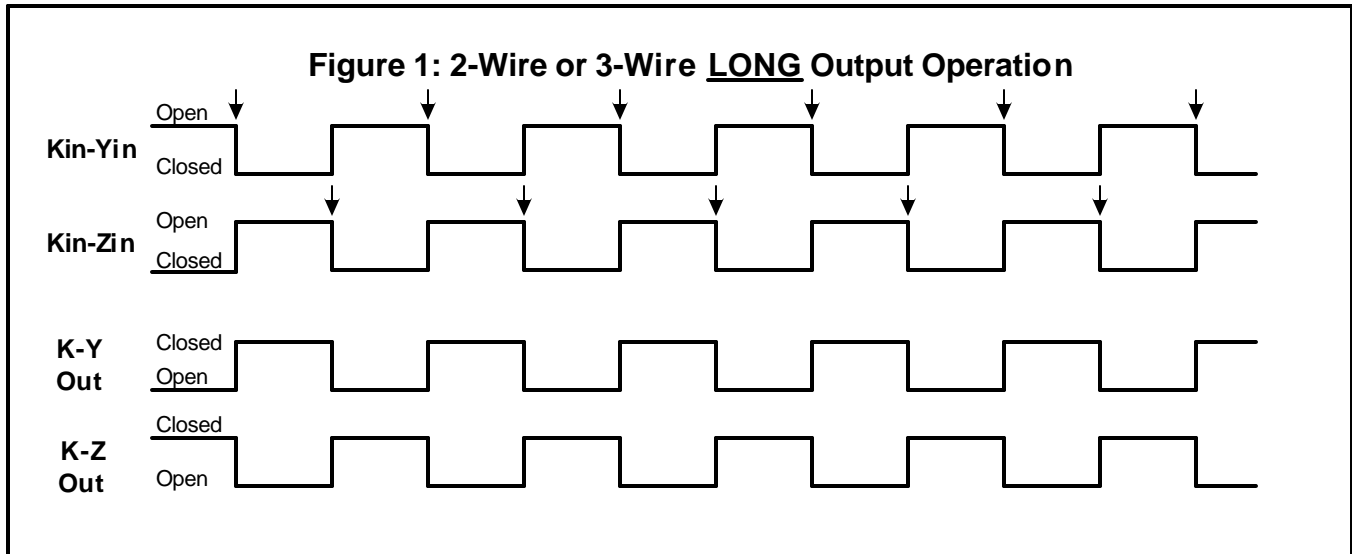


SOLID STATE INSTRUMENTS

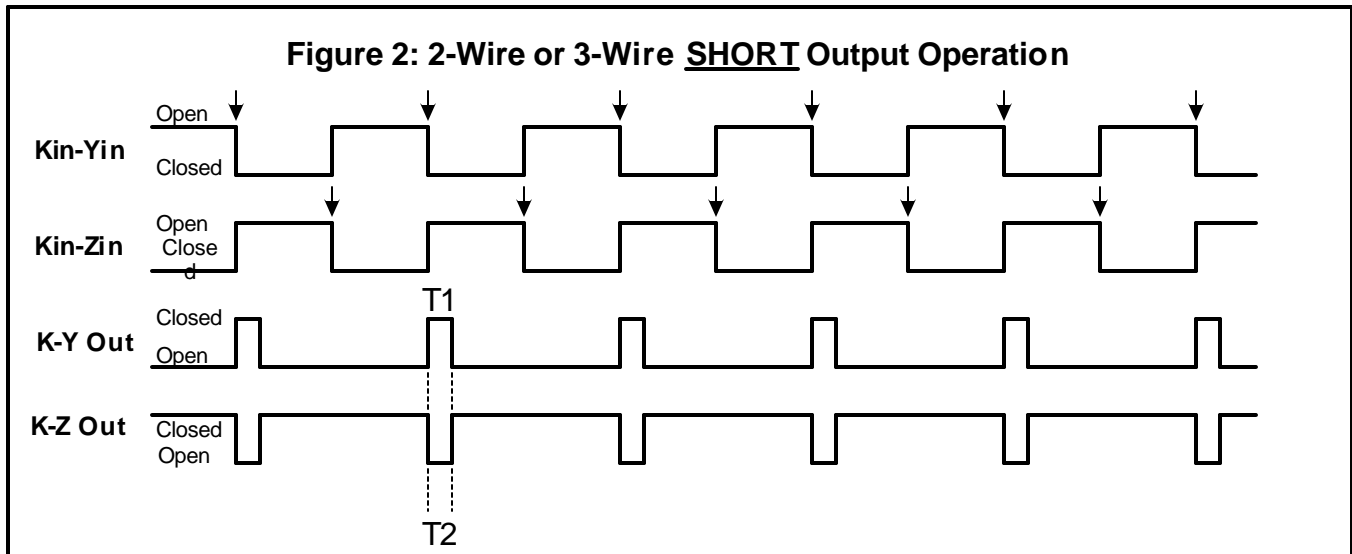
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 Phone: (970)461-9600 Fax: (970)461-9605
 E-mail: support@solidstateinstruments.com

WORKING WITH THE SPR-24 RELAY

OPERATING MODES: The SPR-24 Repeating Pulse Relay allows the output to be configured for either the "Long" or "Short" pulse output mode. In the Long mode, the output(s) assigned to a particular input will simply follow that 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.



In the Short output mode, shown in Figure 2 below, an output pulse (K-Y closure) with a fixed width (T_1) of 100mS occurs each time the input is triggered. Correspondingly, the K-Z output opens for 100mS (T_2) 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.



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.