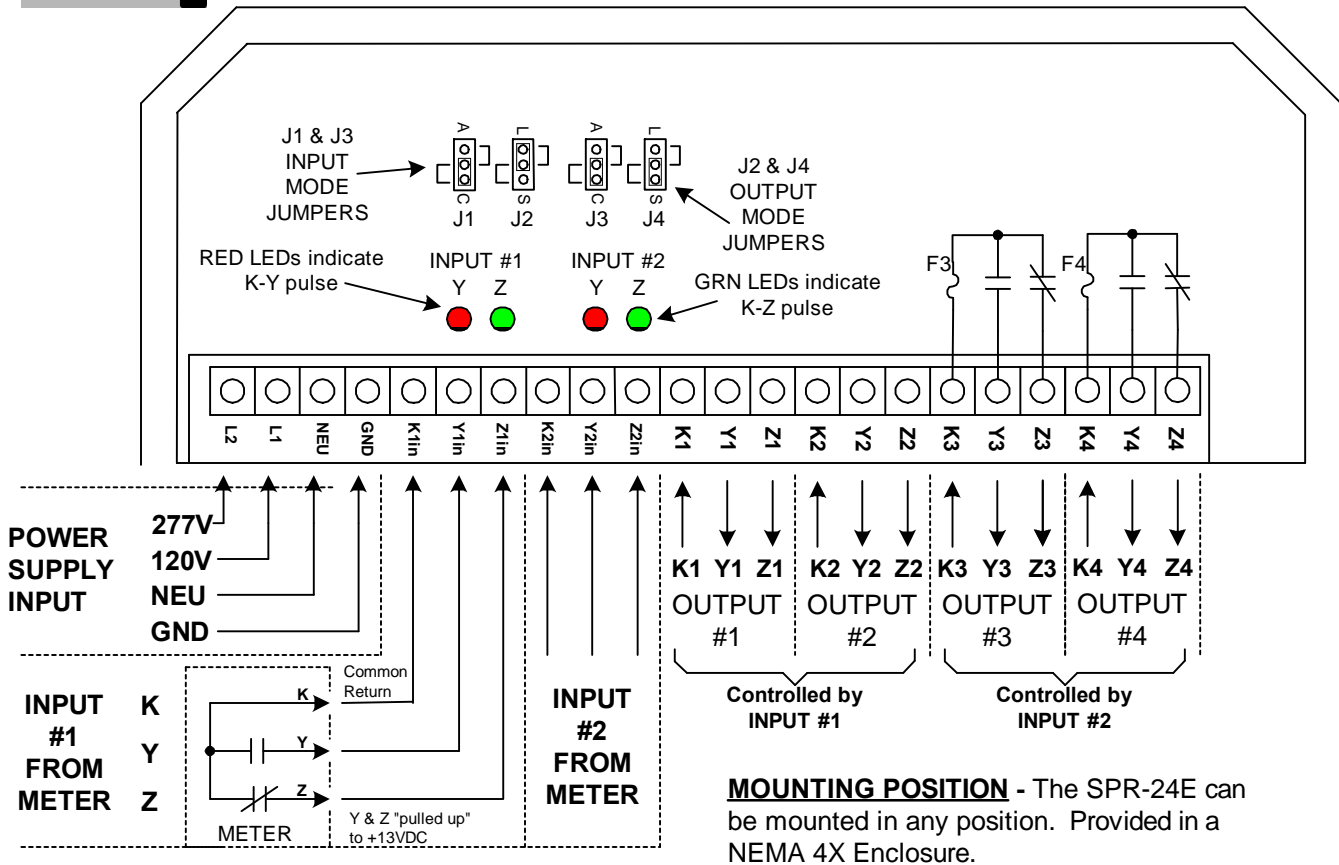


# INSTRUCTION SHEET

## SPR-24E PULSE ISOLATION RELAY



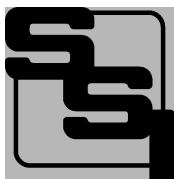
**POWER INPUT** - The SPR-24E is powered by an AC voltage of between 90 and 300 volts. For 208 to 277VAC, connect the AC line's "hot" wire to the **L2** terminal. For 120VAC, connect the AC line's "hot" wire to the **L1** terminal. The AC line's "neutral" wire should be connected to the **NEU** terminal.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

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

**INPUT FORM SELECTION** - The SPR-24E'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 shunts in the position for the desired input form. The Jumper must be in place for input operation.

**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 3-wire isolated outputs are provided, with output terminals K1, Y1 & Z1; K2, Y2, & Z2; K3, Y3 & Z3; and K4, Y4 & Z4. Transient suppression for the contacts of the solid state relays is provided internally. Outputs #1 and #2 are controlled by Input #1. Outputs #3 and #4 are controlled by Input #2. The SPR-24E'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.

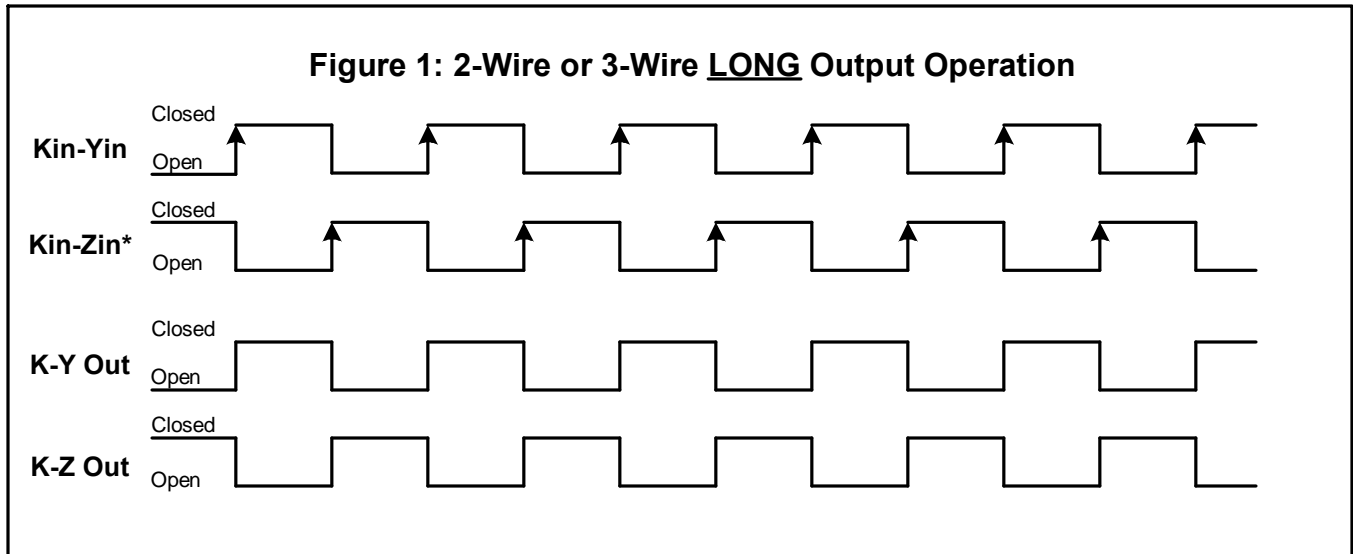


# SOLID STATE INSTRUMENTS

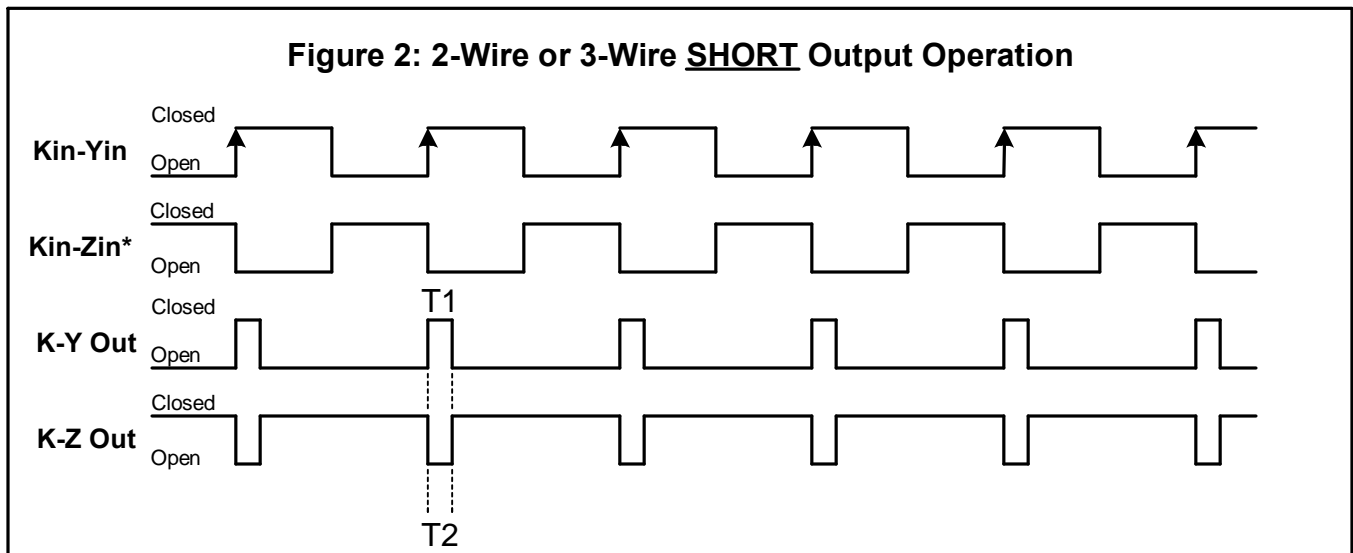
a division of Brayden Automation Corp.  
6230 Aviation Circle, Loveland, Colorado 80538  
Phone: (970)461-9600  
E-mail: support@brayden.com

# WORKING WITH THE SPR-24E RELAY

**OPERATING MODES:** The SPR-24E 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.

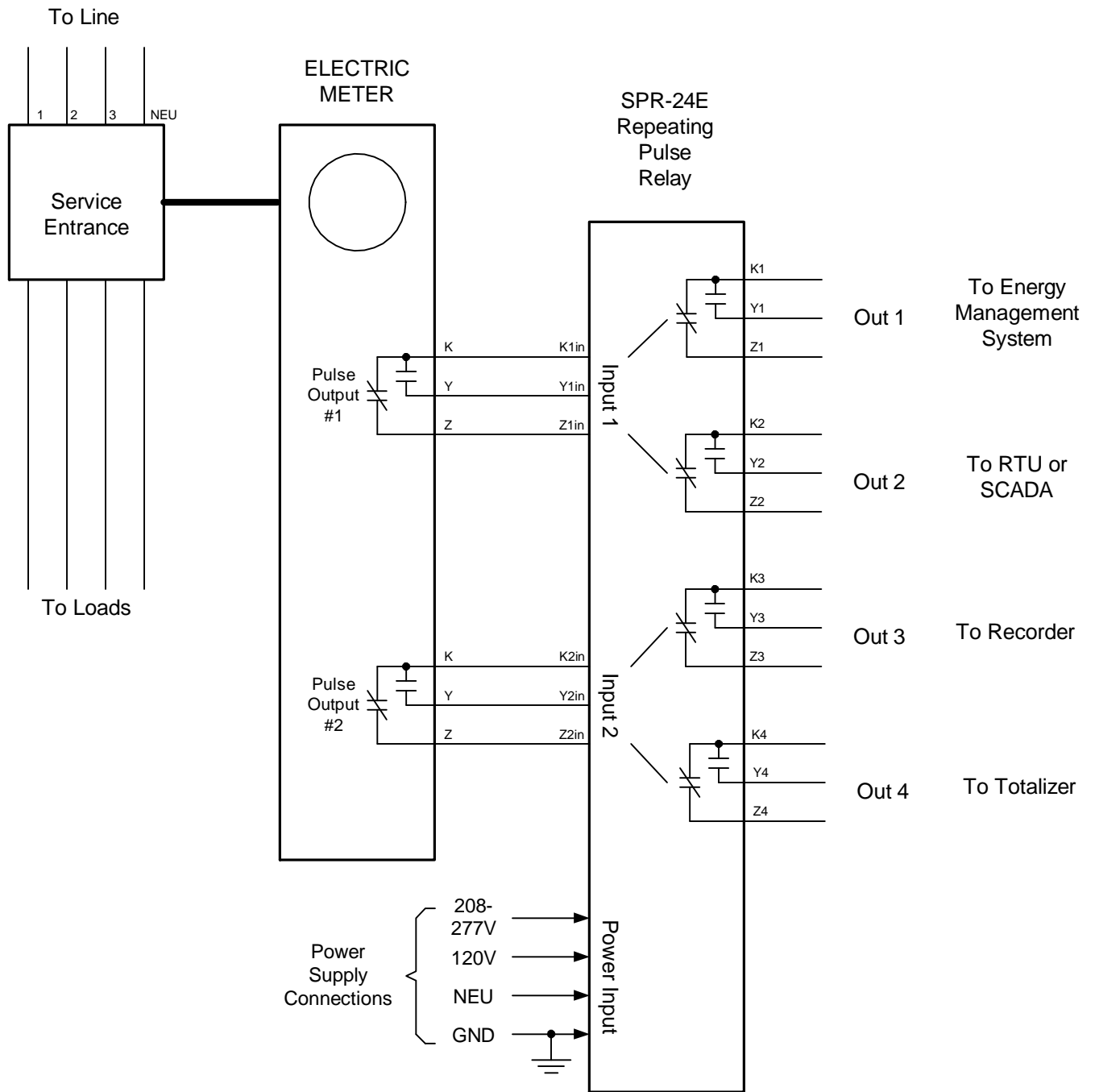


In the Short output mode, shown in Figure 2 below, an output pulse (K-Y closure) with a fixed width (T1) of 100mS occurs each time the input is triggered. Correspondingly, the K-Z output opens for 100mS (T2) each time the input is triggered. In the "short" mode, the output pulse rate is limited to 9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



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-24E Wiring Diagram



SPR-24EWiringDiagram.vsd

SPR-24E Repeating Pulse Relay Wiring Diagram		REVISIONS	
		NO.	DATE
DATE ORIGINAL	SCALE		
1/1/2021	N/A		
LATEST REVISION	JOB NO.	CHECKED	DRAWN
			WHB

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