

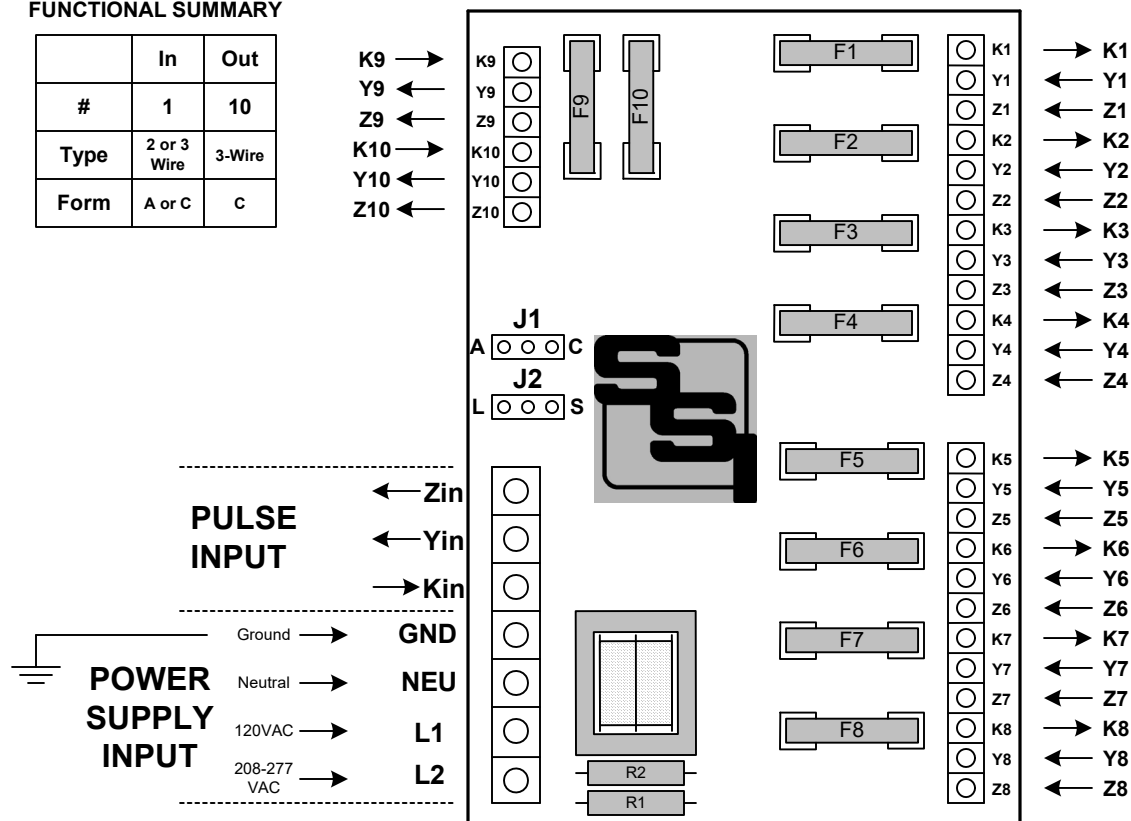
INSTRUCTION SHEET

SPR-110 Isolation Relay Unit

SPR-110 Isolation Relay

FUNCTIONAL SUMMARY

	In	Out
#	1	10
Type	2 or 3 Wire	3-Wire
Form	A or C	C

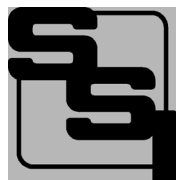


MOUNTING POSITION - The SPR-110 may be mounted in any position.

POWER INPUT - The SPR-110 can be powered by 120VAC or 208 to 277VAC. Connect the Neutral lead to the **NEU** terminal. Connect the **L1** terminal to the 120VAC "Hot" lead for 120VAC operation. Connect the **L2** terminal to the 208, 240, or 277 "Hot" lead. **Do not use both L1 and L2.** If a true Neutral does not exist at the location where this board is located and powered, then connect both NEU and GND to Ground.

GROUND - Connect the **GND** terminal on the left side of the board (Terminal #4) to the electrical system (earth) ground. This terminal must be connected to properly protect against large transient voltages.

KYZ INPUT TO SPR-110 - The SPR-110 is equipped with a 2-Wire (Form A) OR 3-Wire (Form C) pulse input. For a 2 Wire input, using Kin and Yin, put the J1 jumper in the left position. For a 3-Wire input, using Kin, Yin and Zin, put the J1 jumper shunt in the right position. The SPR-110 supplies a +13VDC wetting voltage from the Y and Z terminals to "wet" the meter's output contacts. As the pulse output of the meter toggles alternately back and forth, the Y and Z inputs are alternately switched to the K terminal, thus activating the SPR-110's respective isolated outputs. When the Y input receives a pulse from the meter, the Red LED will light. When the Z input receives a pulse from the meter, the Green LED will light. Input pulses from the meter are "echoed" or repeated on all outputs of the SPR-110 in unison. J2 controls whether the output is "Long" or "Short". The Long mode makes output pulses the same closure time as the input, thereby giving a mirror image of the input pulse on each of the output channels. The Short mode is a Fixed 100mS output time on the Y output, with the Z output being the complement.



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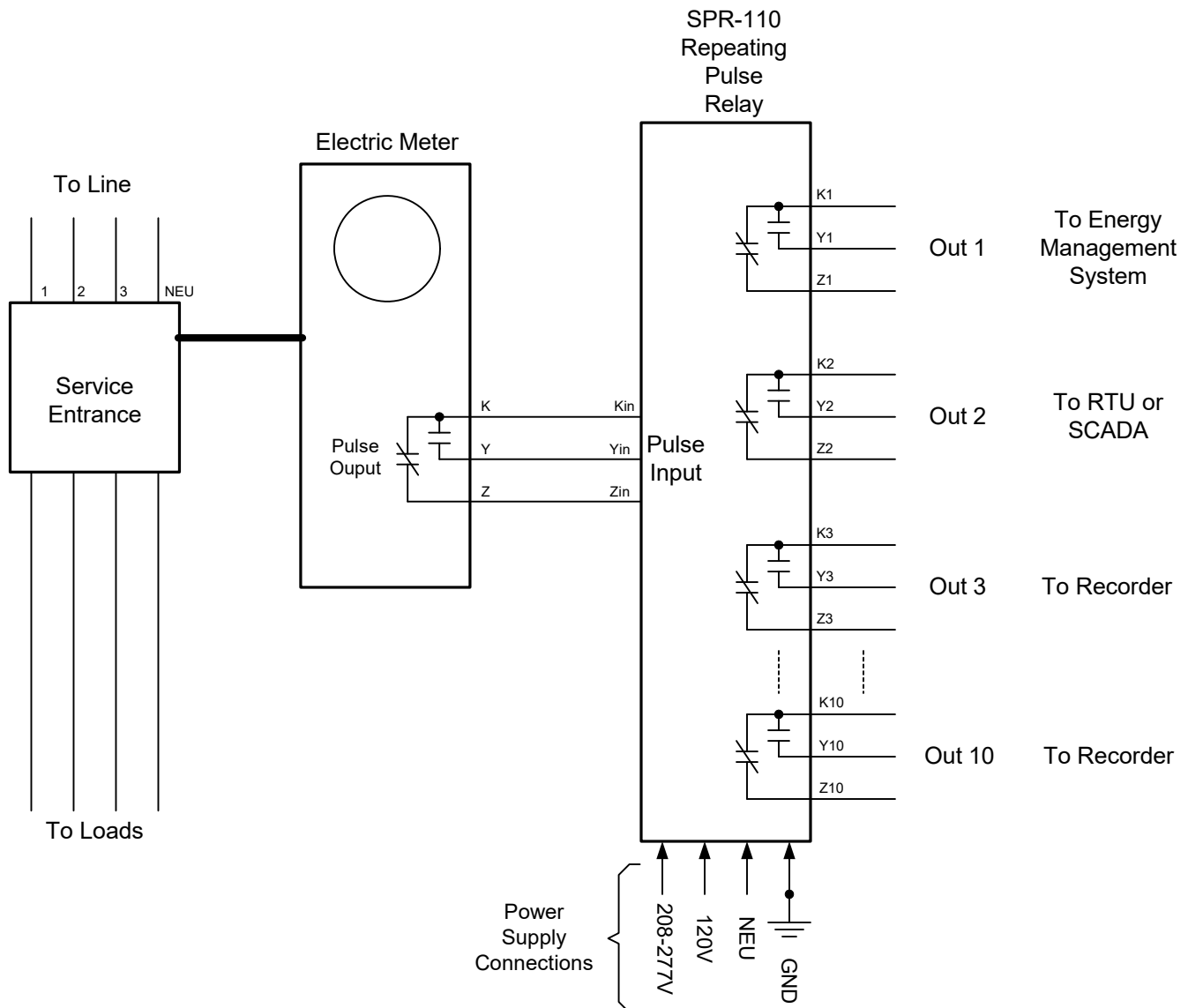
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RELAY OUTPUTS - The SPR-110 has ten 3-wire (Form C) isolated, dry-contact solid state outputs for repeating the pulses of the input. Outputs are K1, Y1 and Z1 for Channel #1; K2, Y2 & Z3 for Channel #2, etc. The output relay contacts are "dry" (no voltage present). A wetting voltage must be supplied from the destination device to each output's "K" terminal. Transient suppression for the contacts is provided internally by metal oxide varistor (MOV) surge suppression devices. Outputs are rated at 250VAC/VDC @ .1 Amp. Maximum on-state power dissipation is 800mW.

FUSES - The fuses are type 3AG or AGC and may be up to 1/10th Amp in size. Ten 1/10 Amp fuses (F1-F10) are supplied standard with the unit unless otherwise specified. Care should be taken to insure that the input burden of the destination device will not exceed the rating of the fuse.

SPR-110 Wiring Diagram



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