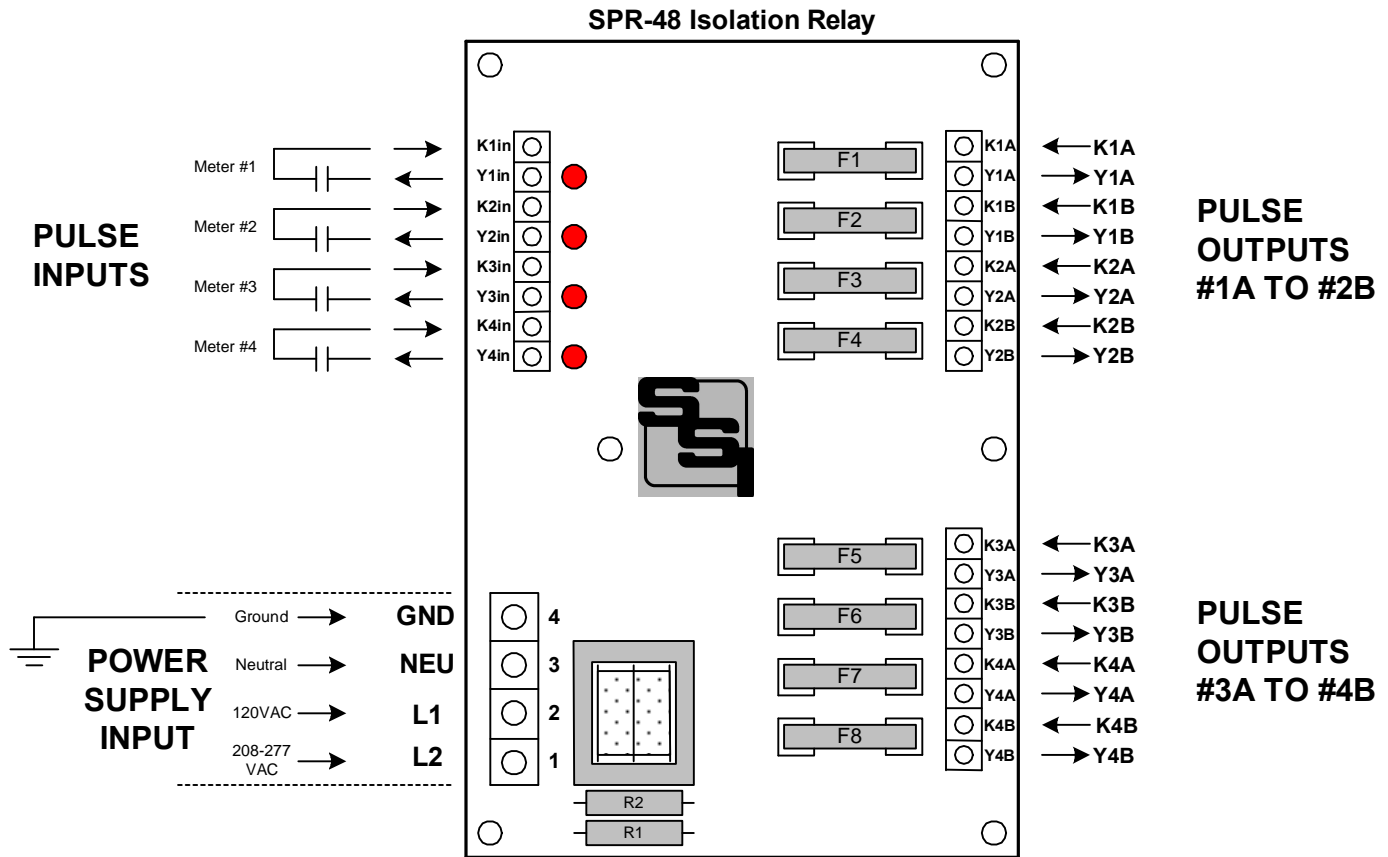


# SPR-48

*Std Solid State*

## Quad Pulse Repeating Relay INSTALLATION INSTRUCTIONS

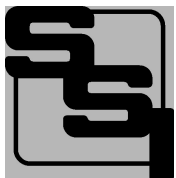


**MOUNTING POSITION** - The SPR-48 may be mounted in any position.

**POWER INPUT** - The SPR-48 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. The GND terminal **MUST** be connected to the electrical system 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 transient voltages and electrical noise.

**K-Y INPUTS TO SPR-48** - The SPR-48 is equipped with four(4) 2-Wire (Form A) pulse inputs compatible with dry contact pulse outputs. The pulse outputs can be electromechanical, open collector transistor, open drain FET or non-polarized FET solid state relay outputs. The SPR-48 supplies a "pulled up" +13VDC wetting voltage from the Yxin terminals to "wet" the meter's output contact. As the pulse output of the meter alternately closes and opens, the Yxin input is alternately switched (has continuity) to its respective Kx terminal, the common return, thus activating the SPR-48's respective isolated outputs. When the Yxin input receives a pulse from the meter, the RED input LED will light. Each input's pulses from the meter are "echoed" or repeated on two outputs that operate in tandem. Input #1 outputs pulses on Output #1A and Output 1B; Input #2 outputs pulses on Outputs #2A and #2B and so on.



## SOLID STATE INSTRUMENTS

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6230 Aviation Circle, Loveland Colorado 80538

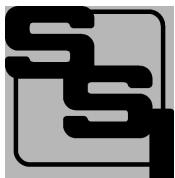
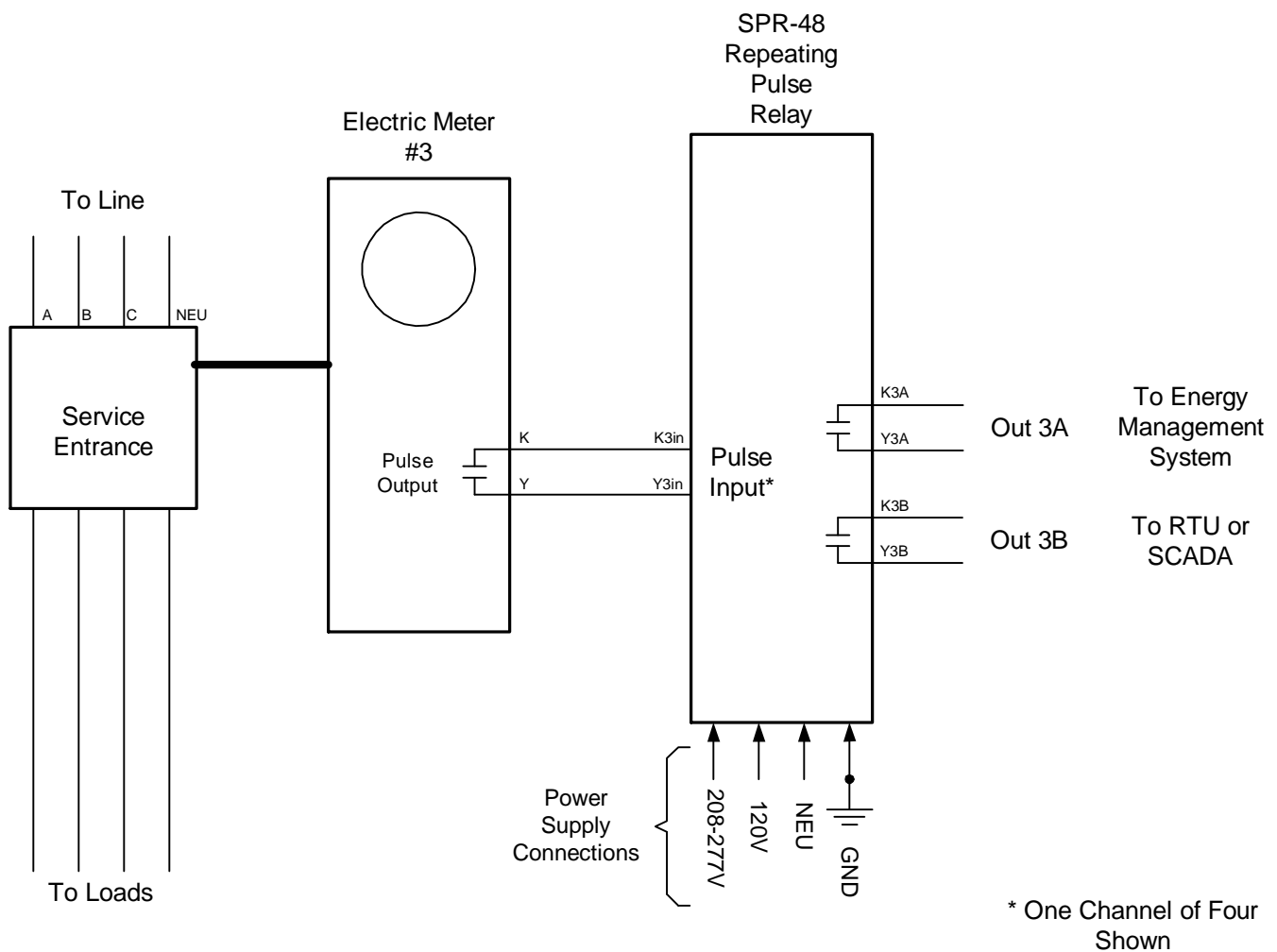
Phone: (970)461-9600

E-mail: support@brayden.com

**RELAY OUTPUTS** - The SPR-48 has eight (8) 2-wire (Form A) isolated, dry-contact solid-state outputs for repeating the pulses from the inputs. Outputs #1A and #1B are assigned to Input #1; Outputs #2A and #2B are assigned to Input #2; Outputs #3A and #3B are assigned to Input #3; Outputs #4A and #4B are assigned to Input #4. These are hardwired and cannot be reassigned. The output relay contacts are "dry" (no voltage present). A wetting voltage must be supplied from the destination (receiving) device to each output's "K" terminal. It will alternately return to the receiving device on each output's "Y" terminal. Transient suppression for each contact is provided internally by a metal oxide varistor (MOV) surge suppression device. 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. Eight 1/10 Amp fuses (F1-F8) are supplied standard with the unit. Care should be taken to insure that the input burden of the destination device will not exceed the rating of the fuse.

### SPR-48 Wiring Diagram



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