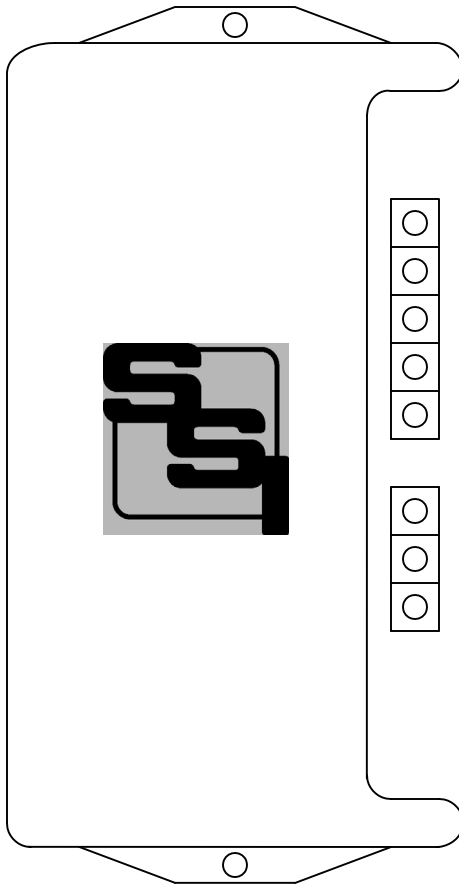


PTR-1PS*Elite Solid State*

PULSE TRANSMITTING RELAY INSTRUCTION SHEET



RNG → **OUTPUT TO RECEIVING RELAY**
 TIP → (GND)

Z ← **INPUT FROM METER**
 Y ←

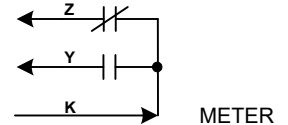
K → +7 - 36VDC sourced to meter

NEU ← **POWER SUPPLY INPUT**
 L1 ← 120V
 L2 ← 277V

To CLR-xPS
 Receiving Relay

→ To Ring

→ To Tip



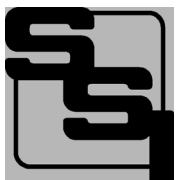
MOUNTING POSITION - The PTR-1PS may be mounted in any position.

POWER INPUT - The PTR-1PS 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 or 277 "Hot" lead.

METER CONNECTIONS - The PTR-1PS' "Kin", "Yin" and "Zin" input terminals should be connected to the meter's "K", "Y" and "Z" terminals: "Kin" to "K", "Yin" to "Y", and "Zin" to "Z". The PTR-1PS' "K" terminal provides the +7 to +36VDC wetting voltage to the meter's "K" terminal. The PTR-1PS may be operated in the two wire mode by using Kin and Yin only.

OUTPUTS - Connect two dedicated wires to the TIP and RING output terminals provided on the PTR-1PS. Transient suppression for the output provided internally. The output uses a switched polarity current loop of +/-25VDC (max) to switch a pulse receiving relay, up to four miles away using standard phone company wires or a dedicated pair of wires. Larger wire will increase the distance pulses can be transmitted.

WARNING - The TIP and RING output wires are floating above ground at the PTR-1PS. Be advised that a shock hazard may exist since they are referenced to ground at the CLR-xPS.



SOLID STATE INSTRUMENTS

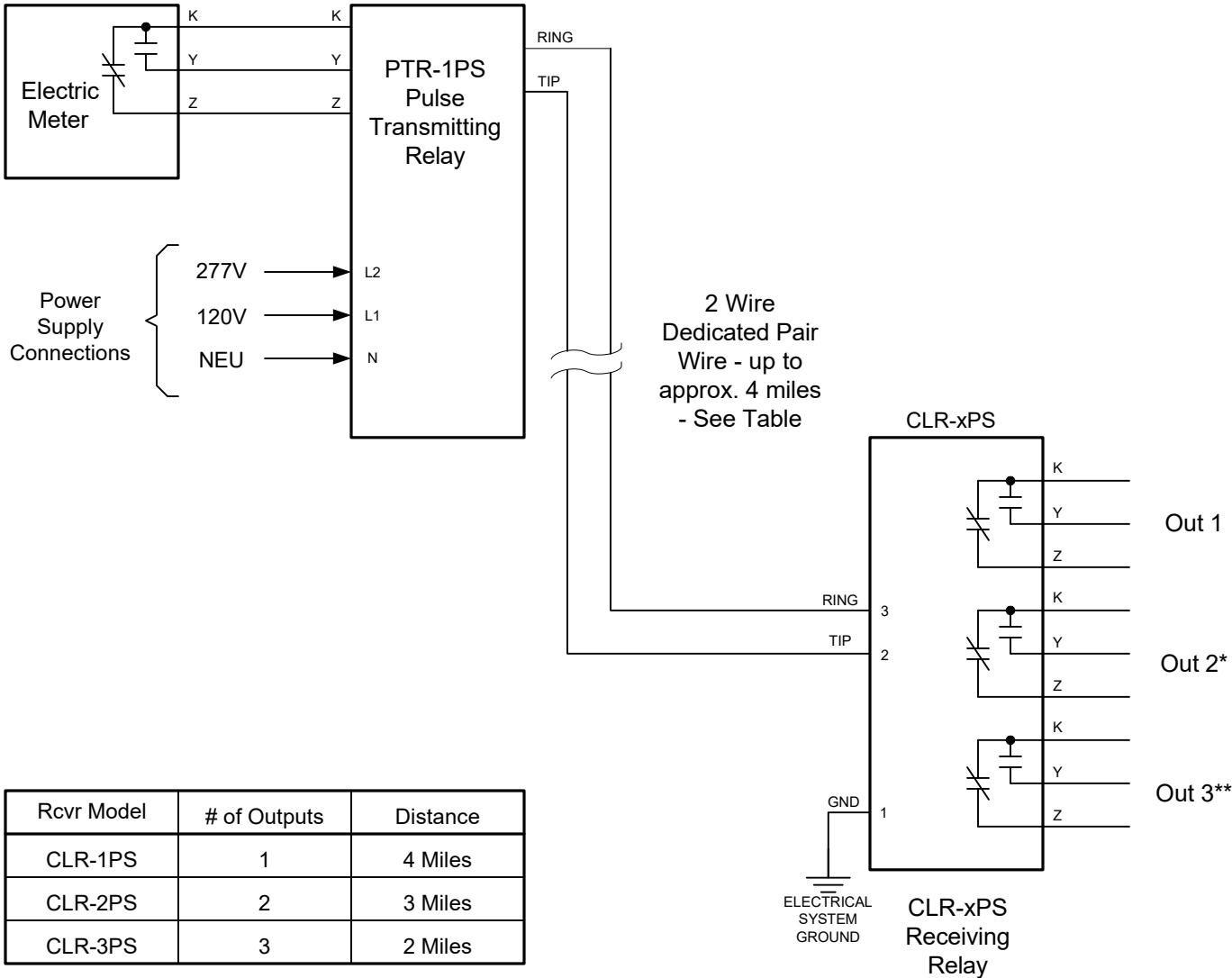
by Radian Research, Inc

3852 Fortune Dr, Lafayette, IN 47905

Phone: (765) 449-5576

Mail: technicalsupport@radianresearch.com

PTR-1PS/CLR-xPS System Wiring Diagram



Operation: The PTR-1PS contains a +/-15 to 36VDC current loop for long distance pulse transmission and uses a dedicated pair of wires. As the PTR-1PS' KYZ input alternates from one closure to another, the current loop polarity reverses causing all output relays to switch in the CLR-x Receiving Relay. Maximum distance of transmission decreases with the increased number of outputs on the receiving relay. Maximum distance will also increase as wire size increases.

* CLR-2 Only

** CLR-3 Only

PTR-1PS to CLR-xPS WiringDiagram.vsd

PTR-1PS Pulse Transmitting Relay Wiring Diagram		REVISIONS	
		NO.	DATE
DATE ORIGINAL 01/01/2025		SCALE N/A	
		LATEST REVISION	
JOB NO.		CHECKED	DRAWN WHB

**Solid State Instruments
by Radian Research Inc**

3852 Fortune Dr
Lafayette, IN 47905
(765) 449-5576
technicalsupport@radianresearch.com
www.solidstateinstruments.com