CLR Series
Elite Solid State

CURRENT LOOP RELAY INSTRUCTION SHEET

Z3 →
Y3 → **OUTPUT #3****
K3 ←

Z2 →
Y2 → **OUTPUT #2***
K2 ←

Z1 →
Y1 → **OUTPUT #1**
K1 ←

Typical Form C Dry Contact Output circuit

F1

RING ← **CURRENT LOOP INPUT**
TIP ←

From PTR-1PS Output

**GND** ← **ELECTRICAL SYSTEM GROUND**
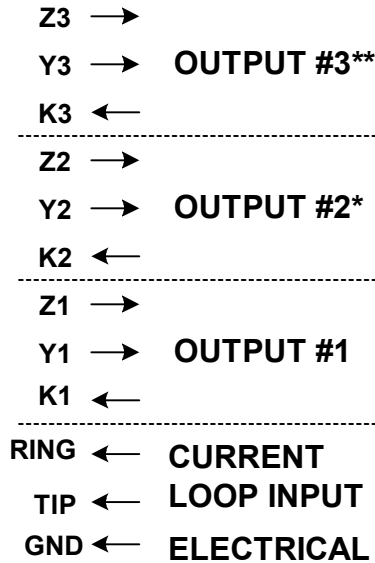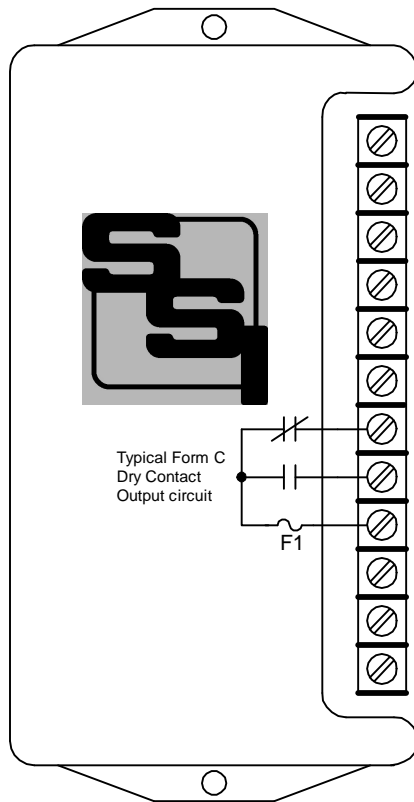
* CLR-2PS Only
** CLR-3PS Only

MOUNTING POSITION - The CLR relay may be mounted in any position.

INPUT - CLR-3PS Series relays are powered by a +/-24VDC (nominal) current loop from a PTR-1PS Pulse Transmitting Relay. No other power supply to the CLR-xPS is necessary. Connect the CLR-xPS' "RING" terminal to the "RING" output terminal wire of the PTR-1PS. Connect the "TIP" terminal to the "TIP" output terminal wire of the PTR-1PS. The current loop will alternately switch the inputs of the CLR-xPS each time the Yin or Zin terminals are connected to the Kin terminal of the meter. A connection (closure) on the K-Y input of the PTR-1PS results in a closure of the K-Y contacts on the CLR-xPS' outputs. A K-Z closure results in a closure of the K-Z contacts on the CLR-xPS. MOV transient protection on the input is provided internally. Connect the GND terminal to electrical system ground. GROUND **must** be connected on the CLR to prevent potentially hazardous voltages from existing if the system is left floating.

FUSES - The fuses are type 3AG and may be up to 1/2 Amp in size. Three 1/2 Amp fuses (F1, F2 and F3) are supplied standard with the unit unless otherwise specified.

OUTPUTS - Up to three 3-wire isolated outputs are provided on the CLR-xPS relay, with output terminals K1, Y1 & Z1; K2, Y2, & Z2; and K3, Y3, & Z3. MOV transient voltage suppression for the contacts of the solid-state relays is provided internally.
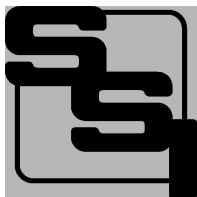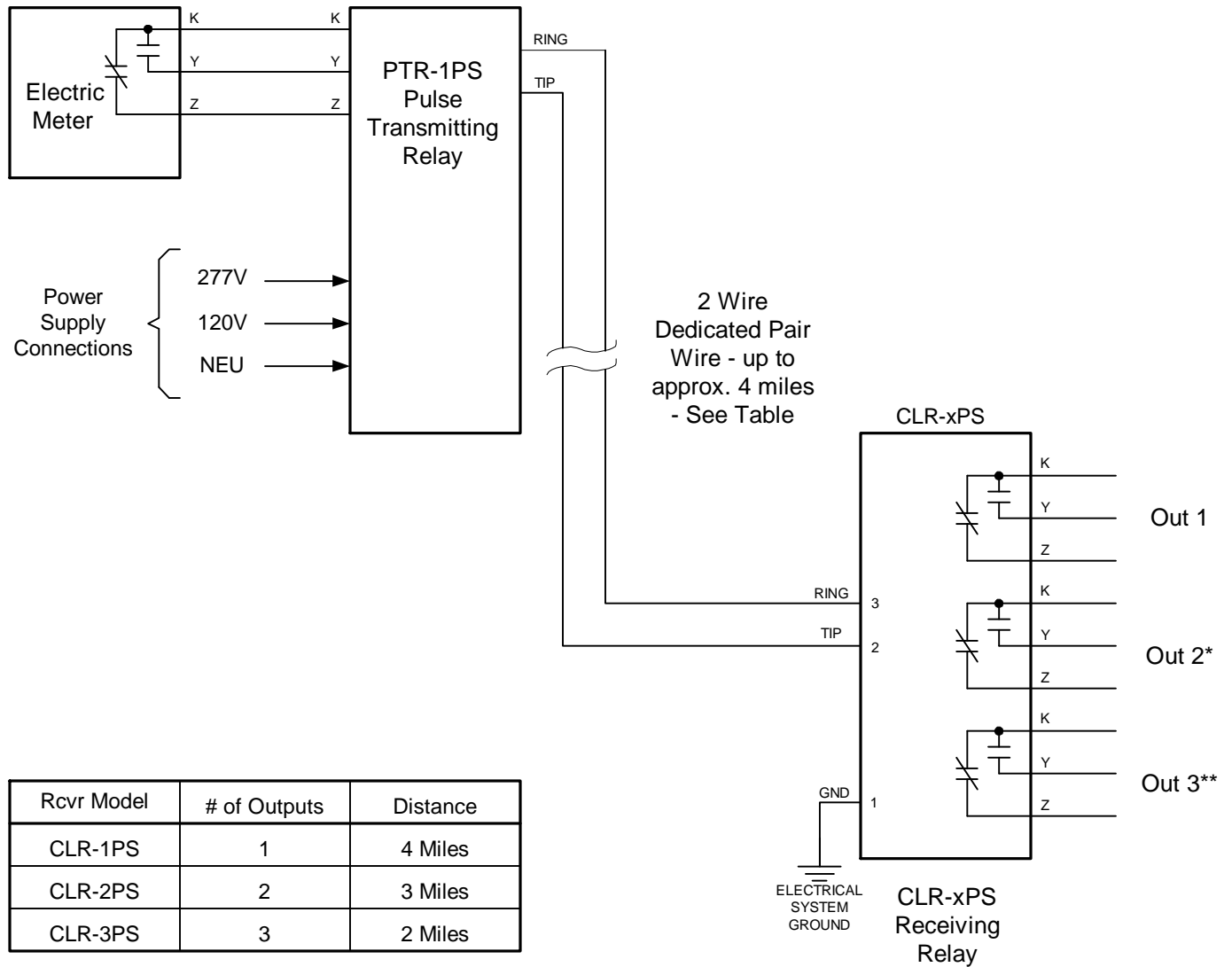
SOLID STATE INSTRUMENTS
a division of Brayden Automation Corp.
6230 Aviation Circle, Loveland, Colorado 80538
Phone: (970)461-9600
E-mail:support@brayden.com

PTR-1PS/CLR-xPS System Wiring Diagram

Rcvr Model	# of Outputs	Distance
CLR-1PS	1	4 Miles
CLR-2PS	2	3 Miles
CLR-3PS	3	2 Miles

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 the other, the current loop polarity reverses causing all output relays to switch in the CLR-xPS 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-2PS Only
** CLR-3PS Only

PTR-1PS to CLR-xPS WiringDiagram.vsd