The TR-4C tone receiver is designed to receive tone transmissions from an SSI Model TT-4C tone transmitter. In normal operations, the TR-4C receives four sets of meter energy pulses in a three-wire Form C (K, Y, and Z) or 2-Wire Form A (K and Y) format. While the most common usage of the TR-4C is for energy pulses, it can receive any four Form A or Form C sets of contacts sent by the TT-4C tone transmitter.

The input to the TR-4C tone receiver is via either a twisted wire pair or a leased dedicated telephone line. The operation of the phone line may be either directly dedicated or through a one or more central office exchanges. The TR-4C will directly drive up to 1/2 mile of twisted wire pair without additional amplification. The TR-4C accepts tone input levels of -40 dbm to +3 dbm with the normal input being a -11 dbm level.

The frequencies received by the TR-4C are quartz crystal-controlled and never need adjustment. The TR-4C receiver has 4 “dry” (no voltage present) non-bounce Form C mercury-wetted relay outputs. Several TR-4C receivers may be used with only one TT-4C transmitter which it is desirable to deliver a meter’s pulse information to multiple locations not close to each other. The TR-4C’s tone signal input is through a 600 ohm transformer which meets the FCC Section 68 telephone equipment requirements.

Bright high-output red, and green LEDs indicate the output status of each of the four “energy” pulse 3-wire relays. A yellow LED shows the status of the transmitted signal into the TR-4C at all times making system checking easy without additional test equipment. When two or more events occur at the transmitter at the same time, the TR-4C will replicate the timing without a transmission sequence timing distortion. The input and output terminal strips are color-coded for error-free wiring. Transient suppressors for the mercury-wetted relay output contacts are built in.
TR-4C SPECIFICATIONS

**ELECTRICAL**

Power Input: 120 VAC, 208-277 VAC
Burden: 4 VA at 120VAC

Signal Input: DTMF tone signal from a TT-4C using a telephone leased line or a twisted wire pair should be between -40 dbm to +3 dbm. The input signal level may be adjusted by means of a variable resistor on the TR-4C.

Output: Four sets of dry “Form C” (K, Y, & Z) for energy pulses. The contacts are mercury-wetted “no-bounce” relays rated at 500VDC or 350VAC, 2 amps break, 5 amps carry. The maximum power rating of the contacts is 100VA. Factory fused at 1/2 amp. (3AG)

Contact Resistance: 50 milliohms maximum, 12 to 14 ohms typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 4 to 8 milliseconds typical

**MECHANICAL**

Mounting: Within 30 degrees of vertical. Mounted on aluminum base plate with mounting tabs

Size: 5.50 inches wide, 7.50 inches long, 2.00 inches high

Weight: 1.5 pounds

**TEMPERATURE**

Temperature Range: -38° C to +70° C, -36.4° F to +158° F

Humidity: 0 to 98% non-condensing

**OPTIONS**

Input Voltages: Contact Factory