



## PULSE LINKS

# TR-4C TONE RECEIVER

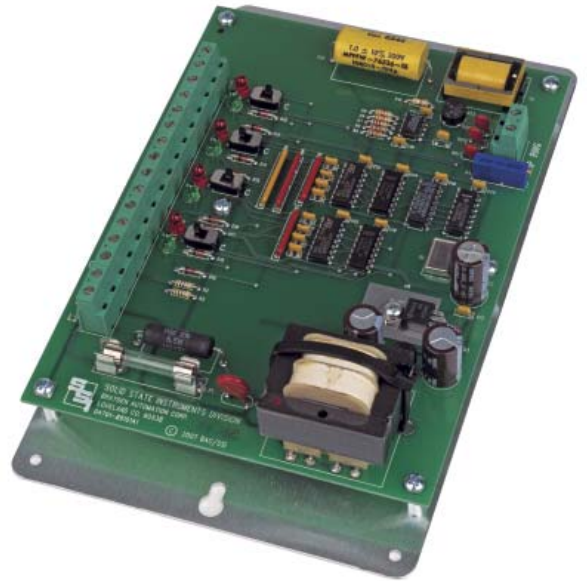
## DESCRIPTION

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 solid-state relay outputs. Several TR-4C receivers may be used with only one TT-4C transmitter if 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 isolation 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 strip is a EURO type offering excellent electrical insulation. MOV Transient suppression for the solid-state relay output contacts is provided internally.



### FUNCTIONAL SUMMARY

	IN	OUT
#	4	4
TYPE	DTMF from TT-4C	2 or 3 Wire
FORM		A or C

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## SPECIFICATIONS

### ELECTRICAL

Power Input:	120, 208-277 VAC. Burden: 4 VA at 120 VAC
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 solid state relays rated at 250 VAC/VDC @ 350mA MAX, 2 amps break, 5 amps carry. The maximum power rating of the contacts is 50 VA. Factory fused at 1/4 amp (3AG).
Contact On-State Resistance:	5.0 ohms maximum, 3.4 ohms typical
Insulation Resistance:	50 megohms typical
Operate and Release Time:	Turn On: 5 milliseconds maximum Turn Off: 3 milliseconds maximum
Input/Output Isolation Voltage:	2500 Vrms

### MECHANICAL

Mounting:	Any position. Mounted on aluminum base plate with mounting tabs
Size:	5.50" wide, 7.50" long, 2.00" 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
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