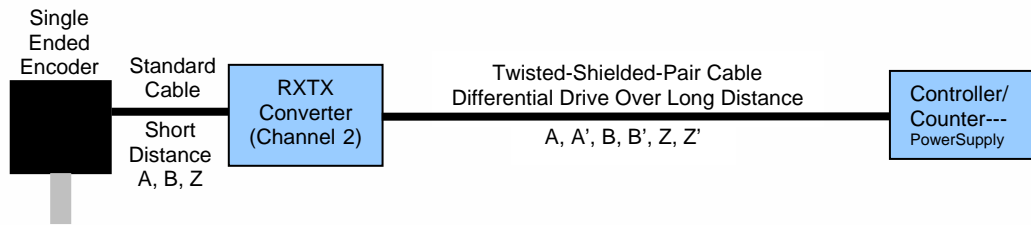


## RXTX - Single Ended Encoder to Differential Receiver



### Application Guide

The illustration above utilizes Channel 2 of an RXTX Converter to convert the encoder's single-ended signals (open collector, pull-up, or push-pull) to complimentary-differential signals (which are recommended for signal transmission over long distances).

Note: Refer to the RXTX Converter connection diagram for the correct signal, power, and shield wiring to the terminal blocks (P1 and P2).

#### Suggestions:

- Mount the RX/TX Converter as close as possible to the encoder in order to minimize the single-ended cable length, thereby reducing susceptibility to noise.
- If transmitting encoder signals a long distance, provide a LOW CAPACITANCE, TWISTED-SHIELDED PAIR CABLE between the RX/TX Converter and the Controller/Counter. It should be noted that this application requires that the Controller/Counter be designed to receive differential signals.
- Terminate cable shields/drain wires to the RXTX Converter input/output (P1-2/P2-2) case terminals. The case terminals are connected to the RXTX housing. If, for some reason, it is not desirable to connect the shields to the housing, then connect the input and output shield/drain wires together.

**CAUTION:** The bare shield conductors and drain wires must be electrically insulated from the circuit board and components by a non-conductive sleeve (such as heat-shrink tubing used in cable termination assemblies).

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