

RX/TX Repeater



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Features

The RX/TX Repeater retransmits signals from an encoder output, in order to drive signals over a longer distance with reduced noise and distortion free waveforms. The input is equipped with a Differential Line Receiver, and a Differential Line Driver. It takes the differential signals (A, A', B, B', Z, Z'), squares the signals up, and then repeats the signals at the outputs.

Benefits are greater immunity from electrical noise, signal distortion, and interference, especially with long cable runs. The output signal can be 5 VDC or an amplitude equivalent to Vcc.

Applications

- Repeat differential signals for data transmission over long distances.
- To properly terminate differential signals to eliminate/reduce signal distortions.
- Increase output current drive capability in order to drive multiple receivers.

Ordering Information

(Specify stock # when ordering)

Differential = A,A', B,B', Z,Z'
Single Ended = A, B, Z

Stock #	INPUT	OUTPUT
	Differential Line Receiver- MAX 3095	Differential Line Driver 7272
100020-13	5 V	5V
100020-14	5 V	Vcc ²
100020-15	6-12V	5V
100020-16	6-12V	Vcc ²
100020-17	13-24V	5V
100020-18	13-24V	Vcc ²

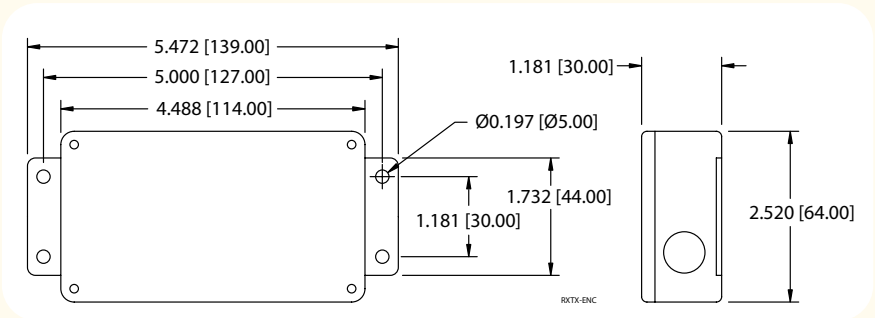
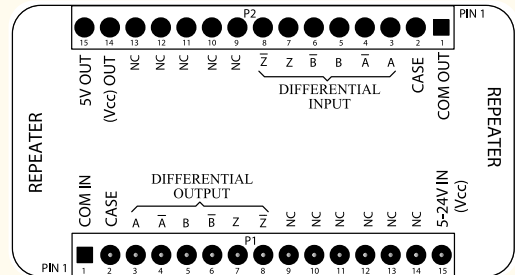
Notes:
1. Vcc should range between 5-24 VDC.
2. Outputs will be equivalent to voltage applied to Vcc (Pin P1-15).

Specifications

Supply Source (Vcc)5 to 24 VDC
Current Consumption20 mA max (plus encoder and output load requirements)
Max FrequencyUp to 1 MHz
EnclosureIP54 (dust proof)
Earth CircuitGrounded to Case
Input Voltage24 VDC Max Diff
Output Voltage5 VDC or Vcc
Output Current30 mA/Channel Max

NOTES UNLESS OTHERWISE SPECIFIED

1. TERMINATE CABLE SHIELD/DRAIN WIRES TO THE CASE TERMINAL OF P1 AND P2, IF APPLICABLE. BARE CONDUCTORS MUST BE ELECTRICALLY INSULATED FROM THE CIRCUIT BOARD WITH A NONCONDUCTIVE SLEEVE SUCH AS HEAT SHRINK TUBING.
2. RECOMMENDED CABLE FOR DIFFERENTIAL/ COMPLEMENTARY ENCODER SIGNALS: LOW CAPACITANCE, TWISTED-SHIELDED PAIR: SEE ACCESSORIES SECTION FOR 4XXC CABLES/CONNECTORS. 4XXC CABLES MUST HAVE OUTER INSULATION STRIPPED OFF IN ORDER TO FIT THROUGH CABLE ENTRY GLANDS.
3. SEE CONFIGURATION ORDERING GUIDE FOR INPUT/OUTPUT VOLTAGE PER THE SELECTED RXTX MODEL NUMBER
4. P2-14 (Vcc) or P2-15 (5V) CAN BE USED TO POWER ENCODER.
5. P1-15 (5-24VDC IN (Vcc)) IS FOR CUSTOMER SUPPLIED POWER TO OPERATE RXTX.



All dimensions are in inches with a tolerance of ±0.005" or ±0.01" unless otherwise specified
Metric dimensions are given in brackets (mm)