DATA SHEET

PH232T485Y11P

RS-232, RS-485 and RS-422 Converter, Repeater and Isolator

IPEX
(IP Electronix)
18 December 2023

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1. INTRODUCTION

IP Electronix PH232T485Y11P is an industrial RS-232, RS-485 and RS-422 Converter, Repeater and Isolator. It has two sides, in one side there are RS-232, RS-485 and RS-422 signals such as in another side, so you can use it as a converter to convert (RS-232 to RS-485) or (RS-232 to RS-422) or (RS-485 to RS-422) bi-directionally. As well as, you can use PH232T485Y11P as a RS-232, RS-485 or RS-422 Repeater and isolator.

Since RS-485 is a Half-Duplex standard, switching between Transmit and Receive is done automatically and further signals (such as RTS) are not required. **PH232T485Y11P** supports Point-to-Point and Point-to-Multi Point Party Line network topologies.

There are 3kV Optical and Electrical isolations have between two sides, thus using this device in an industrial bus, can be very effective in eliminating electrically and electromagnetically noises.

Protection against Surge, ESD and EMI is considered in its design, so, **PH232T485Y11P** is good for industrial usage and is useful for Industrial Automation, Telecommunications, SCADA Systems, DCS Systems and …

2. SERIAL INTERFACE (RS-232)

- **Serial Standard**: EIA RS-232 Standard
- **RS-232 Signal:** TxD, RxD, GND;
- **Baud Rate Type:** Auto Switching Baud Rate;
- **Baud Rates:** 1200 to 921600 bps;
- **Data Bits:** 7, 8;
- **Stop Bits:** 1, 1.5, 2;
- **Parity:** None, Even, Odd, Space, Mark;
- **Flow Control:** RTS/CTS, XON/XOFF;
- **Connector:** 10 Pin Terminal Connector for each side;
- **Maximum Communication Distance:** 15m;
- **Flow Control:** RTS/CTS, XON/XOFF.

3. SERIAL INTERFACE (RS-485)

- **Serial Standard:** EIA RS-485 Standard;
- **RS-485:** Asynchronous Half-Duplex 2-Wire;
- **RS-485 Signal:** Data+, Data-, GND;
- **RS-485 Data Direction Control:** ADDC (Automatic Data Direction Control);
- **Network Topology:** Supports Point-to-Point and Multi-Drop Configuration;
- **Transmission Medium:** Twisted Pair Cable or Shielded Wire;
- **Protocol:** Differential 2-Wire Half-Duplex RS-485;
- **Maximum Communication Distance:** 1200m (4000 feet);
- **Loading:** RS-485 Side Supports up to 32 Nodes;
- **Plug & Play:** Online Module Insertion and Removal;
- **Transient Suppression** on RS-485 Communication Lines;
- **Connector:** Phoenix Standard Green Terminal Block on RS-485 side.

4. SERIAL INTERFACE (RS-422)

- **Serial Standard:** EIA RS-422 Standard;
- **RS-422:** Asynchronous Full-Duplex 4-Wire;
- **RS-422 Signal:** TX+, TX-, RX+, RX-, GND;
- **Network Topology:** Supports Point-to-Point and Multi-Drop Configuration;
- **Transmission Medium:** Twisted Pair Cable or Shielded Wire;
- **Protocol:** Differential 4-Wire Full-Duplex RS-422;
- **Maximum Communication Distance:** 1200m (4000 feet);
- **Loading:** RS-422 Side Supports up to 32 Nodes;
- **Plug & Play:** Online Module Insertion and Removal;
- **Transient Suppression** on RS-422 Communication Lines;
- **Connector:** Phoenix Standard Green Terminal Block on RS-422 side.

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5. PROTECTION

- **Isolation Protection:** 3kV Instantaneous, 500V DC Continuous;
- **Surge Protection:** Embedded 1500W Surge Protection;
- **Magnetic Isolation:** 1.5 kV Built-in;
- **ESD Protection:** 15 kV Built-in.

6. GENERAL SPECIFICATIONS

- Power **(Green)** LED Indicator;
- Transmit **(Blue)** LED Indicator;
- Receive **(Yellow)** LED Indicator;
- **Guarantee Period:** 1 Year;
- **Warranty Period:** 5 years.

7. POWER SUPPLY

- **Power Supply Input Voltage:** +9VDC to +48VDC;
- **Power Consumption:** ~ 1.8W (Max.).

8. PHYSICAL CHARACTERISTICS (THE DEVICE ONLY)

- **Housing:** Plastic;
- **Weight:** 185g;
- **Dimensions:** 26mm x 71.6mm x 122 mm (1.03in x 2.8in x 4.82in).

9. PHYSICAL CHARACTERISTICS (IN THE BOX)

- **Housing:** Carton;
- **Weight:** 430g;
- **Dimensions:** 200mm x 135mm x 65mm (7.87in x 5.31in x 2.56in).

10. ENVIRONMENTAL LIMITS

- **Operating Temperature:** -10°C to +70°C (+14°F to +158°F);
- **Operating Humidity:** 5% to 95% RH;
- **Storage Temperature:** -40°C to +85°C (-40°F to +185°F).

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