DATA SHEET

PH232Y11

RS-232/TTL UART REPEATER & ISOLATOR

IPEX

(IP Electronix)

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1. INTRODUCTION

IPEX PH232Y11 is a Bi-Directional RS-232/TTL UART Repeater and Isolator and Amplifier. It works with Baud-Rate from 300bps to 230400bps. This device adds up to 3kV optical and electrical insulation between the two RS-232 sides, which eliminates noise from the RS-232 path. Also, if a length of more than 15m is required for the RS-232 line, by adding one PH232Y11, the length of the RS-232 cable can be increased up to at least 30m, i.e., 15m meters on each side. Also, due to having the TTL ports, PH232Y11 can be connected directly to a microcontroller system.

Protection against Surge, ESD and EMI is considered in its design and also there is 3kV Electrical and Optical insulation between RS-232/TTL UART sides.

PH232Y11 is designed for industrial usage and is useful for Industrial Automation, Telecommunications, SCADA Systems, DCS Systems and …

2. SERIAL INTERFACE (RS-232 and TTL UART)

- **Serial Standard**: EIA RS-232 Standard;
- **RS-232 Signal (Full Handshake Support):** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND;
- **TTL UART:** Supports TTL TxD, RxD signals, useful to directly connect to a Microcontroller;
- **Baud Rate Type:** Auto Switching Baud Rate;
- **Baud Rates:** 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400 bps;
- **Data Bits:** 7, 8;
- **Stop Bits:** 1, 1.5, 2;
- **Parity:** None, Even, Odd, Space, Mark;
- **Flow Control:** RTS/CTS, XON/XOFF;
- **Connector:** DB9 Female (DCE) for RS-232 and 3 Pin Terminal Connector for TTL UART;
- **Maximum Communication Distance:** 30m (15m each side).

3. 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.

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4. GENERAL SPECIFICATIONS

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

5. POWER SUPPLY

- **Power Supply Input Voltage:** +8VDC to +48VDC;
- **Power Consumption:** ~ 1.2W (Max.).

6. 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.

7. PHYSICAL CHARACTERISTICS (IN THE BOX)

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

8. 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).