

Isolated USB 2 or 4 Port RS-422/485 Converters

Models BB-USOPTL4-2P & BB-USOPTL4-4P

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FEATURES

- Connect multiple RS-422/485 devices to your USB port
- 2000 V optical isolation; 15 KV ESD surge protection
- RS-422/485 data rates up to 921.6 kbps
- USB: 12 Mbps, USB 2.0 (backward compatible)
- USB port-power or external source (power supply not included, sold separately)
- High retention USB ports hold connections securely
- Removable serial terminal blocks for easy wiring
- USB cable included

Connect RS-422 and RS-485 (2-wire and 4-wire) devices to a USB port and gain 2000 V RMS isolation from voltage spikes and ground loops.

Universal Serial Bus (USB) has become the connectivity workhorse of today's PCs, replacing the familiar serial ports. However, many commercial and industrial devices still use the RS-422/485 interface. To connect these devices to modern PCs and provide protection from electrical transients, you need a simple and reliable conversion solution.

Models BB-USOPTL4-2P and BB-USOPTL4-4P offer this solution and are great for any application that requires long range or multi-drop capabilities. Both models offer a high retention USB interface, removable terminal blocks on the serial side and have LED's to indicate data flow. Simply plug the converter into an available USB port on your computer or USB hub and install the drivers (available for download from website). The device will show up as additional COM ports in the Windows Device Manager, which are fully compatible with your Windows applications. A one meter USB cable is included.

Powering options included USB port-powering or an external power source (power supply not included, sold separately).

ORDERING INFORMATION

| MODEL NUMBER | DESCRIPTION | NUMBER OF PORTS |
|----------------------|--------------------------------------|-----------------|
| BB-USOPTL4-2P | Isolated USB to RS-422/485 Converter | 2 |
| BB-USOPTL4-4P | Isolated USB to RS-422/485 Converter | 4 |

ACCESSORIES – sold separately

BB-USBAMB-3F - USB Cable, 1 m (3 ft)
BB-USBAMB-6F - USB Cable, 2 m (6 ft) *(one included)*
BB-MDR-20-24 - Power Supply, 24 VDC, 1 A, DIN Rail Mount
BB-TBKT1 - Replacement Terminal Block - 2-position, 5.08mm, 8A, 30
BB-TBKT2 - Replacement Terminal Block - 5-position, 5.08mm, 8A, 30

All product specifications are subject to change without notice.
USOPTL4-2P & USOPTL4-4P_0919ds

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SPECIFICATIONS

| SERIAL TECHNOLOGY | |
|------------------------|---|
| RS-422/485 Connectors | Removable Terminal Blocks |
| RS-422/485 Data Rate | 921.6 kbps (maximum) |
| Isolation | 2000 V (Port-to-Port) Optical |
| Surge Protection | 15 KV ESD |
| USB TECHNOLOGY | |
| Connector | USB Type B Female, High Retention Withdrawal > 15 N |
| Standard | 1.1 and 2.0 Compatible |
| Data Rate | 12 Mbps |
| POWER | |
| Source | USB Port or External Source (not included, sold separately) |
| Input Voltage | 5 VDC from USB Port or 10 - 30 VDC External Power Supply |
| Consumption | Higher Power Device (>100 mA) BB-USOPTL4-2P: 3 Watts, External Power Supply BB-USOPTL4-4P: 5 Watts, External Power Supply |
| SOFTWARE | |
| Drivers | Windows 2000, XP, Vista, 7 (32/64 bit), 10 (32/64 bit) |
| - available on website | |

DIP SWITCH LEGEND

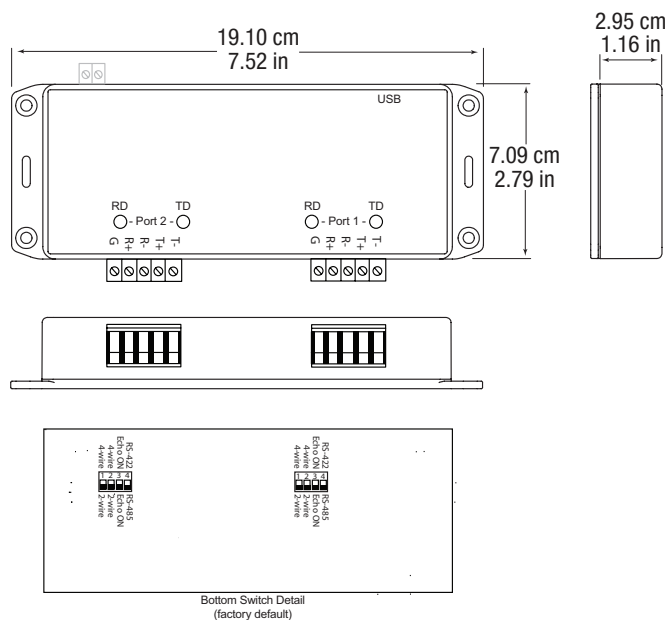
| Position | OFF | ON |
|----------|---------|----------|
| 1 | RS-422 | RS-485 |
| 2 | Echo ON | Echo OFF |
| 3 | 4-Wire | 2-Wire |
| 4 | 4-Wire | 2-Wire |

Factory default = all switches off

TERMINAL BOARD LAYOUT

| TB Position | Signal Name |
|-------------|-------------|
| 1 | TDA(-) |
| 2 | TDB(+) |
| 3 | RDA(-) |
| 4 | RDB(+) |
| 5 | Ground |

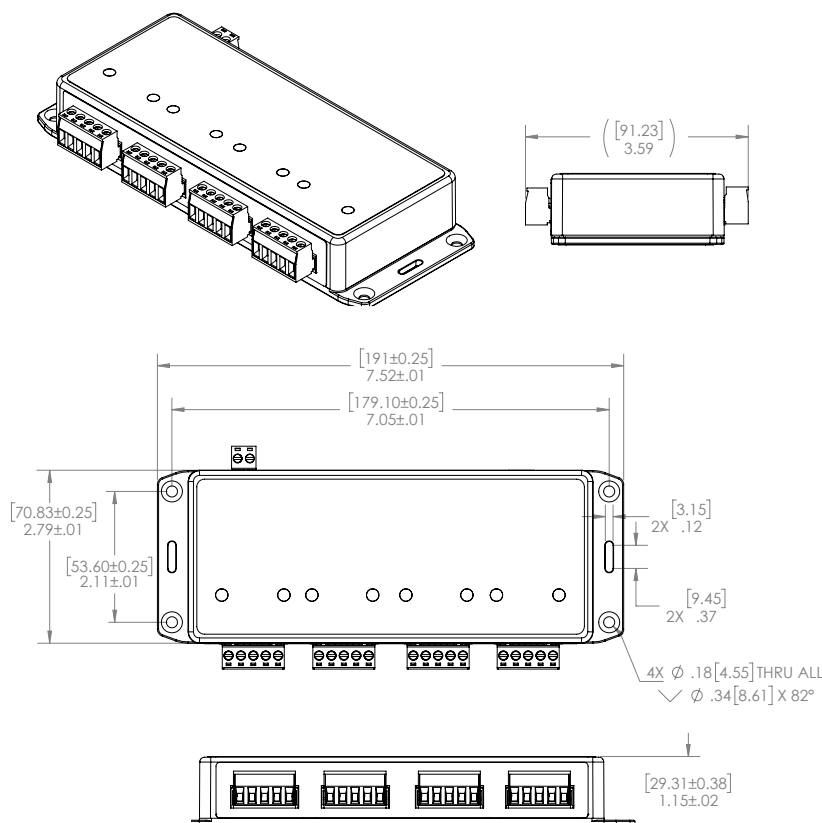
MECHANICAL DIAGRAM – BB-USOPTL4-2P



SPECIFICATIONS – continued

| MECHANICAL | |
|----------------------------------|--|
| Dimensions, with flanges | 19.10L x 7.09W x 2.93H cm (7.52L x 2.79W x 1.15H in) |
| Weight | 2 Port: 340.2 g (0.75 lb) 4 Port: 362.9 g (0.80 lb) |
| ENVIRONMENTAL | |
| Operating Temperature | 0 to +70 °C (+32 to +158 °F) |
| Storage Temperature | -40 to +85 °C (-40 to +185 °F) |
| Operating Humidity | 0 to 95% (Non-condensing) |
| MEANTIME BETWEEN FAILURES (MTBF) | |
| MTBF (BB-USOPTL4-2P) | 125224 hours |
| MTBF (BB-USOPTL4-4P) | 72749 hours |
| MTBF Method | MIL 217F Parts Count Reliability Prediction |
| REGULATORY | |
| Approvals | FCC, UL |

MECHANICAL DIAGRAM – BB-USOPTL4-4P



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