

# BB-USOPTL4DR BB-USOPTL4DR-2

## Isolated USB to RS-422/485 Converters



### Features

- USB-serial conversion; Adds a COM port to your PC
- 3000 Volts optical isolation; 15 kV ESD protection
- RS-422/485 data rates up to 921.6 kbps
- DIN rail mount (panel mount option)
- USB bus powered - no power supply required
- High retention USB port
- USB cable included

### Specifications

#### Serial Technology

- **RS-485 2-Wire** Data A(-), Data B(+), Ground
- **RS-485 4-Wire** TDA(-), TDB(+), RDA(-), RDB(+), Ground
- **Connector** Removable terminal block/s, 12 to 28 AWG
- **Data Rate** Up to 921.6 Kbps
- **Isolation** 3000 V optical isolation
- **Surge Protection** 15 KV ESD

#### USB Technology

- **USB Compatibility** 2.0 (backward compatible)
- **USB Data Rate** 12 Mbps
- **Connector** Type B female, high retention (15 Newtons / 1.5kg-force withdrawal)
- **Windows O/S** 2000, XP, Vista, 7 (32/64 bit), 8 (32/64 bit), 10 (32/64 bit)

#### Power

- **Source** USB port
- **Input Voltage** 5 V<sub>DC</sub>
- **Consumption** ~2.5 W (high power device, draws >500 mA)

#### Mechanical

- **Dimensions** 97.0 x 119.0 x 31.0 mm
- **Enclosure** DIN rail mountable, plastic
- **Weight** 222.3 g with USB cable

#### Environmental

- **Operating Temperature** 0 to +70 °C
- **Storage Temperature** -40 to +85 °C
- **Operating Humidity** 0 to 95%, non-condensing

#### Meantime Between Failures (MTBF)

- **BB-USOPTL4DR** 184556 hours
- **BB-USOPTL4DR-2** 79551 hours
- **MTBF Calc. Method** Parts Count Reliability Prediction

#### Regulatory

- **FCC Class B, CISPR Class B (EN55022)**  
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference

- (2) This device must accept any interference that may cause undesired operation
- **CE - Directives** 2014/30/EC - Electromagnetic Compatibility  
2011/65/EU amended by 2015/863/EU – Reduction of Hazardous Substances Directive (RoHS)  
2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)
- **CE - Standards** EN 55032: Class B - Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements  
EN 55024 - Information Technology Equipment - Immunity Characteristics  
EN 61000-6-1 - Generic Immunity for Residential, Commercial, Light-Industrial Environments  
EN 61000-6-3 A1 - Generic Emissions for Residential, Commercial, Light-Industrial Environments (Class B)

### Ordering Information

- **BB-USOPTL4DR** Isolated USB to RS-422/485 Converter, 1 port
- **BB-USOPTL4DR-2** Isolated USB to RS-422/485 Converter, 2 port

#### Accessories – sold separately

- **BB-USBAMB-3F** 1 m USB cable (one included)
- **BB-TB5P508SR-2PK** Optional terminal block with strain relief, 2 pack
- **BB-7466** Standard terminal block replacement (unit ships with one or two, factory installed, depending on model number.)
- **BB-TBKT2** Replacement Terminal Block - 5-position, 5.08mm, 8A, 30

### Dimensions

Unit: mm

