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

Models USOPTL4-2P & USOPTL4-4P

B+B SmartWorx
Powered by ADVANTECH
www.advantech-bb.com

PRODUCT FEATURES

- Connect Multiple RS-422/485 Devices to Your USB Port
- 2000 V RMS Port-to-Port Optical Isolation
- 15 KV ESD Surge Protection
- USB Port Powered or External Power
- Supports USB 2.0 (backward compatible)
- High-Retention USB Port Connectors Ensure Reliable Connection
- RS-422/485 Data Rates Up to 921.6 kbps
- LEDs Indicate Data Flow on Serial Ports
- Removable Terminal Blocks on Serial Ports Make Wiring Easy
- Automatic Configuration - Windows 2000, XP, Vista, 7(32/64 bit), 10(32/64 bit)
- 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.

The USOPTL4-2P and 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.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
USOPTL4-2P	Isolated USB to 2 Port RS-422/485 Converter
USOPTL4-4P	Isolated USB to 4 Port RS-422/485 Converter

ACCESSORIES

USBAMBM-3F - 1 m (3 ft.) USB Cable
USBAMBM-6F - 2 m (6 ft.) USB Cable (one included)
MDR-20-24 - DIN Rail Mount, 24 VDC, 1 A Power Supply

All product specifications are subject to change without notice.

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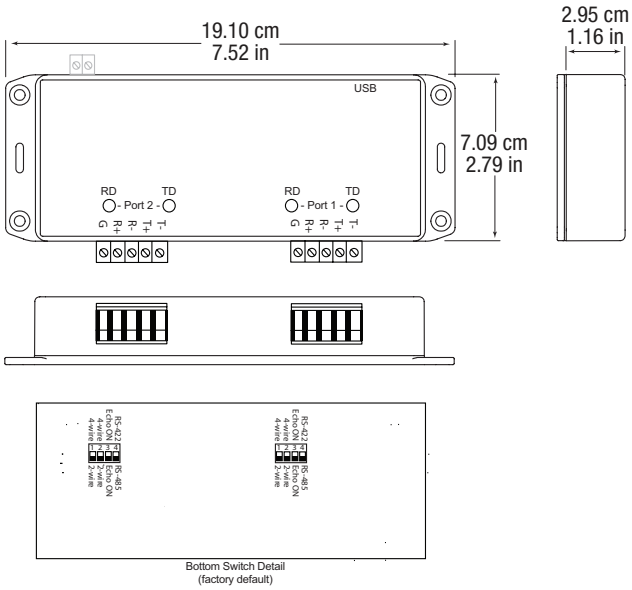
SPECIFICATIONS

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
Input Voltage	5 VDC from USB Port or 10 - 30 VDC External Power Supply
Consumption	Higher Power Device (>100 mA) USOPTL4-2P: 3 Watts, External Power Supply USOPTL4-4P: 5 Watts, External Power Supply
SOFTWARE	
Drivers - available on website	Windows 2000, XP, Vista, 7 (32/64 bit), 10 (32/64 bit)
MECHANICAL	
Dimensions, with flanges	19.10L x 7.09W x 2.95H cm (7.52L x 2.79W x 1.16H in)
Weight	2 Port: 340.2 g (0.75 lbs) 4 Port: 362.9 g (0.80 lbs)
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)
MTBF (USOPTL4-2P)	125224 hours
MTFB (USOPTL4-4P)	72749 hours
MTBF Method	Parts Count Reliability Prediction
REGULATORY	
Approvals	FCC, CE, UL

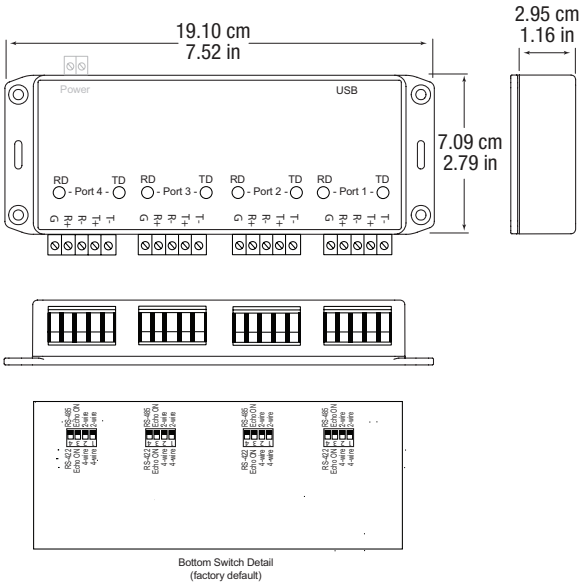
DIP SWITCH LEGEND		
Position	**OFF**	**ON**
1	RS-422	RS-485
2	Echo ON	Echo OFF
3	4-Wire	2-Wire
4	4-Wire	2-Wire
Factory default = all switches off		
TERMINAL BOARD LAYOUT		
TB Position	**Signal Name**	
1	TDA(-)	
2	TDB(+)	
3	RDA(-)	
4	RDB(+)	
5	Ground	

MECHANICAL DIAGRAM - USOPTL4-2P



Bottom Switch Detail
(factory default)

MECHANICAL DIAGRAM - USOPTL4-4P



Bottom Switch Detail
(factory default)

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