ACCES I/O PRODUCTS, INC.

FEATURES

- RoHS compliant, single-port serial communications adapter for USB 2.0 or 3.0
- Supports multi-drop RS-485 protocol
- Includes type FT232R UART with 128-byte receive/256-byte transmit FIFO buffers
- Speeds up to 3Mbps asynchronous
- Supports 7 or 8 data bits, 1 or 2 stop bits, and odd / even / mark / space / no parity
- ±15kV ESD Protection (IEC 6100) on RS-485 signals
- All required power drawn from host USB port, no external power adapter required
- Compact, industrial, metal backshell
- Operating temperature of -40˚ to +85˚C
- Supported for use in Windows CE

FACTORY OPTION

- -TERM   Adds RC Termination

APPLICATIONS

- Scales
- Data entry terminals
- Data acquisition and automation modules
- Transportation

FUNCTIONAL DESCRIPTION

The USB-485-IND is a rugged industrial serial communications adapter designed for use in demanding real-world applications such as transportation, military embedded control systems, remote data acquisition, mobile, and more. This intelligent module provides a cost-effective solution for transferring high-speed asynchronous serial data over USB. The adapter provides easy connectivity between the computer and standard communication ports or remote serial devices. No PC reconfiguration, assignment of IRQs, or jumper settings required. The adapter will be recognized as a USB to Serial Adapter and install in the system as a standard COM port.

ACCESSORIES

The module is available with an optional screw terminal adapter board model ADAP9 to break out signals for ease of connection.

SOFTWARE

The USB-485-IND is a plug-and-play device using the built in OS drivers which allows quick connect or disconnect without having to fumble with locating driver media whenever you need an RS-485 port. The USB-485-IND is supported for use in most USB supported operating systems and includes a free Linux and Windows compatible software package. The software package includes sample programs and source code in C#, Delphi, Visual Basic, and Visual C++ for Windows.

SPECIFICATIONS

Communications Interface

Serial Port: RS-485
Connector: DB-9 Male
Character Length: 7 or 8 bits
Parity: Even, odd, mark, space or none
Stop Interval: 1 or 2 bits
Serial Data Rates: 300bps up to 3Mbps asynchronous
In/Output Voltage: ±14V
Receiver Input Sens.:   ±200mV
Termination: 120Ω w/0.01µF capacitor (TERM Factory Option)
Bias: Transceiver lines via 10kΩ
ESD Protection: ±15kV on all signal pins

Bus Type   USB 2.0 Full-Speed
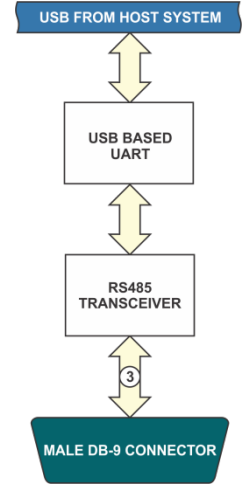   USB 3.0 Compatible

Environmental

Operating Temp: -40° to +85°C
Storage Temp: -65° to +150°C
Humidity: 5% to 95%, non-condensing
Power Required: 5VDC at ~11mA with no load
Cable Length: 6 feet
Backshell Dim.:   1.236" x 0.657" x 2.094"
                        (31.4mm x 16.7mm x 53.2mm)
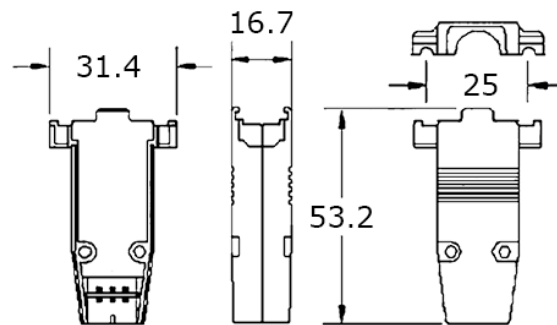
Ordering Guide   USB-485-IND   USB to RS-485 industrial serial adapter
                        USB-485-IND-TERM   As above, but with termination

BLOCK DIAGRAM

PIN	DB9M
1	-TX/RX
2	+TX/RX
3	-TX/RX
4	
5	GND
6	
7	
8	
9	+TX/RX

Pinout Table

Units: mm±0.5

Backshell Drawing