The **ISOUSB485** module is an isolated USB to RS485 serial converter used in half-duplex communication networks. On one side it provides an USB 2.0 interface based on the FT232RL chipset from FTDI and an insulated RS485 interface on the other side. The USB port supplies the power and a DC/DC converter supplies the insulated section.

The device is primarily intended for the configuration and command of the Westline motor controllers in the **SmartDRIVE** family and provides a half-duplex connection up to 1.25 Mbaud.

The USB port driver is available on the FTDI website.

Features

- Power supply derived from the USB port
- Galvanic isolation up to 1K volt
- Baudrate up to 1.25 Mbaud
- Linux compatible
- Cost effective

Applications

- General RS485 applications
- **SmartDRIVE** based multi-axis motor control applications
- Westline ATB networks
- Special machines

Technical specifications

Power supply (via USB) .... 5 V$_{DC}$ ±10% / 200 mA max.
Power consumption .... 1 W max.
Operating temperature .... −10 — 50 °C
Weight.. 22 g

USB Interface

Compatibility .... USB 2.0 Full Speed
Class .... CDC (RS-232)
Baudrate .... 1250000 Baud
Connector type .... Type-B USB receptacle

RS485 Interface

Data rate .... 1250000 Baud
Protocol .... half-duplex
L+ line .... high for logic 1, low for logic 0
L- line .... low for logic 1, high for logic 0
Termination resistor* .... not installed
Connector** .... Phoenix Contact #1843622 (MCV 1,5/4-G-3,5)
5 V$_{DC}$ output .... 100 mA max.

* available on request
** pair with Phoenix Contact # 1840382 (MC1,5/4-ST-3,5)

Mechanical data (mm)
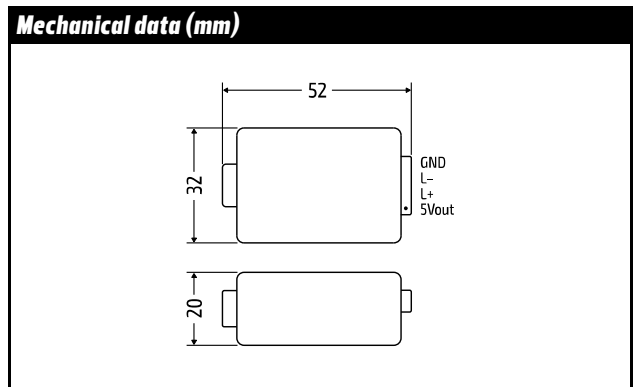
External connections

The **ISOUSB485** module embeds a Phoenix Contact 4-pole male header for the RS485 interface and a Type-B USB receptacle for power supply and host connectivity.

4-pole header	Function
1	5 V$_{DC}$ power supply output, 100 mA max.
2	RS485 L+ (high for logic 1, low for logic 0)
3	RS485 L- (low for logic 1, high for logic 0)
9	Ground

Related products

RDB9-2.4G	Radio to RS485 ATB protocol converter
USBRF-2.4G	Radio to USB ATB protocol converter
SmartDRIVE-S3	200W Intelligent Stepper Motor Controller
SmartDRIVE-S6	400W Intelligent Stepper Motor Controller
SmartDRIVE-S10	800W Intelligent Stepper Motor Controller

Ordering codes

ISOUSB485	Standard model