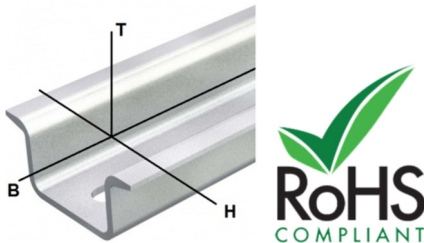




USB-RS485-Converter-Adapter

USB-RS485-Converter-Adapter-Module

The USB-RS485-Converter-Adapter-Module is an adapter. This adapter was specially designed for connecting an RS485 bus system to a PC. The adapter is powered through the USB port and features an internal resettable fuse for short circuit protection. To ensure that neither the bus participants nor the USB port are damaged, the adapter is equipped with internal circuit insulation. In addition, it offers multi-stage overvoltage protection that protects the RS485 bus system and diverts the overvoltage to PE. For details on the connection, see the image under connection principle.



Key commercial data

Packing unit	1 pc
Weight per piece (excluding packing)	60g
Weight per piece (including packing)	70g
Country of origin	Germany

Technical data mechanically

Width (W)	40mm
Height (H)	92mm
Depth (D)	62mm
Ambient temperature (operation)	0°C ... 50°C
Ambient temperature (storage/transport)	-20°C ... 70°C
Relative humidity	90% without condensation
Mounting position	any
Cable diameter shield connection	Ø3mm ... Ø12mm
Tightening torque PCB terminal PE	0,5Nm



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Technical data electric

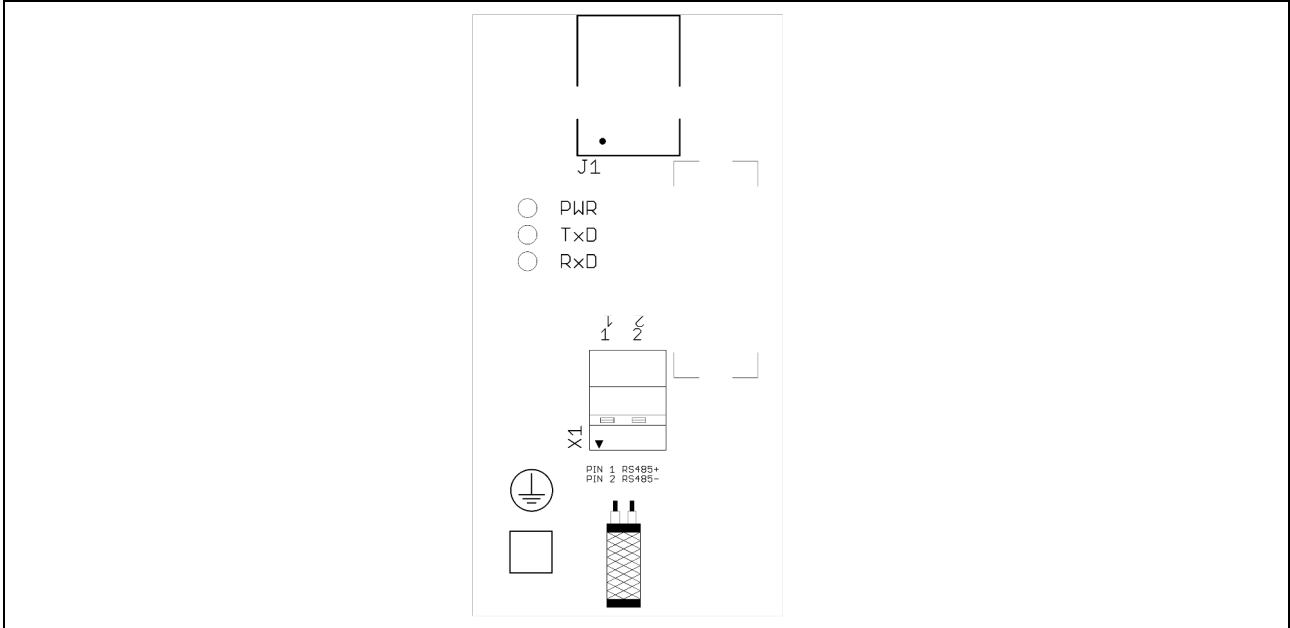
Nominal voltage U_N – Input side USB	5V DC ($\pm 5\%$)
Nominal current I_N – Input side USB	max 500mA
Protection class	IP20
Bus terminating resistor 120 Ω	Fixed integrated
Short-circuit proof – Input side USB	Yes, resettable fuse
Overvoltage protection – Output side RS485 bus	Yes, discharge via PE
Galvanic isolation between input and output	Yes, 5000Vrms
Chipset	FTDI Chip – FT232RL
RS485 bus system	2-wire
Connection data PCB terminal X1	
Connection type	Push-in spring connection
Conductor cross section solid	0,25mm ² ... 1,5mm ²
Conductor cross section flexible	0,25mm ² ... 1,5mm ²
Conductor cross section with ferrule, with/ without plastic sleeve	0,25mm ² ... 1,5mm ²
Stripping length	10mm
Connection data interface J1	
Connection type	USB 2.0 type B
Connection data PCB terminal PE	
Connection type	Screw connection
Conductor cross section solid	0,5mm ² ... 2,5mm ²
Conductor cross section with ferrule, with/ without plastic sleeve	0,5mm ² ... 2,5mm ²
Stripping length	8mm

Standards and Regulations

Standards/regulations	EN IEC 61000-6-2: 2019
	EN 61000-6-3: 2007 +A1:2011 +AC:2012
	EN 50178: 10/97

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PIN assignment






Functionality of the device

	<p>When the connection work on the RS485 bus system is completed, the adapter can be connected to a PC (USB port) using a USB cable (not included in delivery). As soon as the adapter is connected to the PC, the power LED (PWR) should light up green. If the power LED does not light up and still does not light up after turning off the power, the device should be replaced. The two LEDs TxD and RxD light up orange/yellow when a corresponding data transfer is active.</p> <p>The USB-RS485-Converter-Adapter is compatible with the most common operating systems. For more detailed information on compatibility, please visit the chipset manufacturer's website, where you can also download the corresponding device driver.</p> <p>Manufacturer website FTDI Chip: https://ftdichip.com/products/ft232rl/#tab-drivers_tab Manufacturer website driver: https://ftdichip.com/drivers/d2xx-drivers/</p> <p>We Bachhaeubl Geraetebau assume no liability or warranty for third-party software or third-party drivers.</p>
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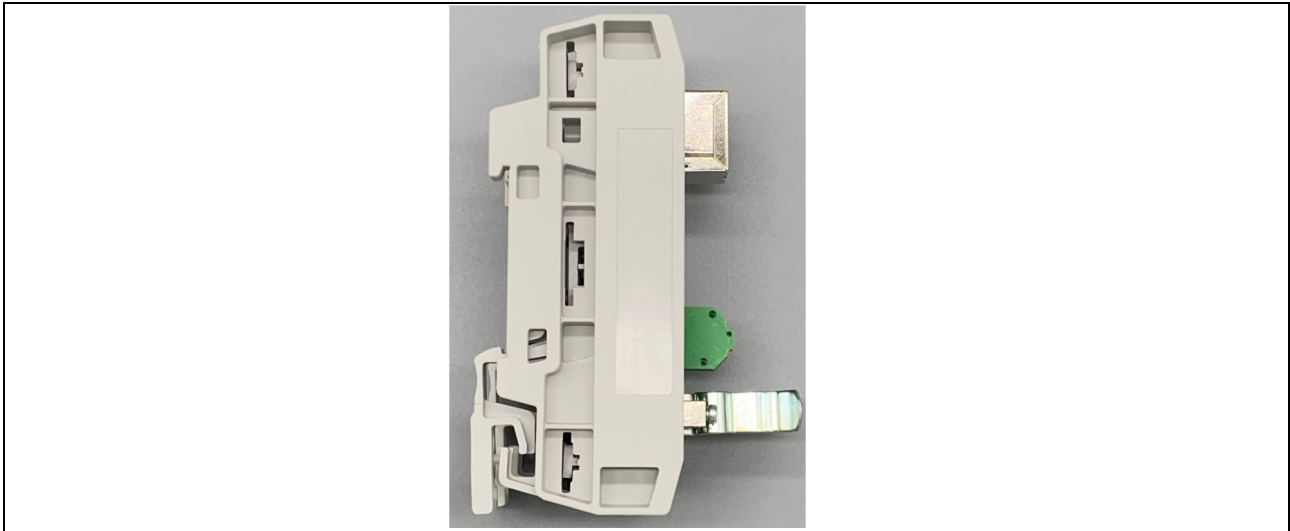
Safety regulations and installation notes

	<p>WARNING: Danger to life by electric shock!</p> <ul style="list-style-type: none">• Never carry out work when voltage is present.• Protect the device against foreign bodies penetrating it.
	<p>NOTE: Danger if used improperly!</p> <ul style="list-style-type: none">• The device is a built-in device.• The IP20 degree of protection (IEC 60529/EN 60529) of the device is intended for use in a clean and dry environment. Do not subject the device to any load that exceeds the described limits.• Observe mechanical and thermal limits.• Ensure that the primary-side wiring and secondary-side wiring are the correct size and have sufficient fuse protection.
	<ul style="list-style-type: none">• It is not permissible to open or modify the device. Do not repair the device yourself but replace it with an equivalent device. Repairs may only be carried out by the manufacturer. The manufacturer is not liable for damage resulting from violation.• The device may only be used for its intended use.

Pictures



USB-RS485-Converter-Adapter USB-RS485-Converter-Adapter-Module



Connecting principle

