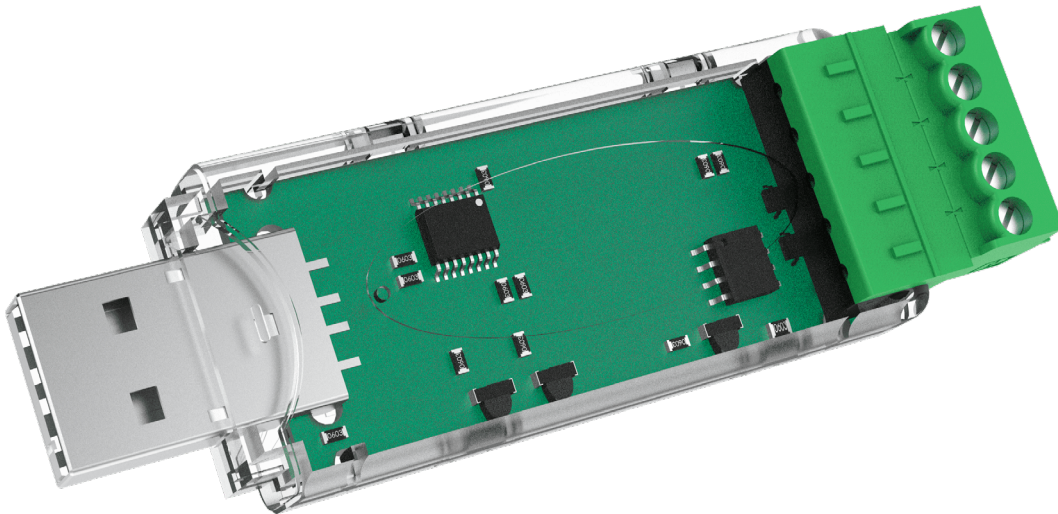


# Q-USB485



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for news, updates and downloads



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## SAFETY WARNINGS AND CAUTIONS

The following warnings and cautions must be observed to ensure personal safety and prevent damage.



**Death** or **serious injury** may result from failure to heed this warning.



It is necessary to comply with national regulations when installing and picking materials for power lines.



**Material damage** or **serious personal injury** may result from failure to heed this warning.



Repairs and modifications must be carried out only by the manufacturer. It is forbidden to open the case and make any changes to the device. Tampering with the device will invalidate the warranty.



The manufacturer **declines all responsibility** for electrical safety in the event of improper use of the equipment.



It is essential to read the entire contents of this manual before carrying out any work.



The product described in this document may only be used for the specified application. The maximum performance data and environmental conditions specified in the product data sheet must be observed. Proper transport and storage, as well as professional assembly, installation, handling and maintenance are required for the correct and safe operation of the device.



Before commissioning, make sure that:

- the maximum values for all connections are not exceeded; refer to the product data sheet;
- the connection cables are not damaged or live during wiring;
- the direction of current flow and phase rotation are correct.

During installation, ensure that a switch or circuit-breaker is near the product and easily accessible.

The unit must be uninstalled if safe operation can no longer be guaranteed (e.g. visible damage). Disconnect all connections in this case. The unit should be returned to the manufacturer or to an authorised service centre for repair.

Use under ambient conditions other than those specified, application of signals or voltages other than those specified, may cause significant deviations from the specified measurement tolerances, which may be irreversible.



**WARNING:** High-intensity magnetic fields may alter the values measured by the transformer. Avoid installation near: permanent magnets, electromagnets, or iron masses. If irregularities are detected, reposition or move the unit to a more suitable location.



Although the contents of this document have been checked for accuracy, it may contain errors or inconsistencies and we cannot guarantee its completeness or accuracy.



This document is subject to periodic revision and updating. QEED reserves the right to make changes to the product and/or its technical documentation at any time in the interests of continuous quality improvement. Always consult the latest version of the documentation available on the website:

[www.qeed.it](http://www.qeed.it)

If you find any errors or missing information in this document, please notify us by e-mail to:

[technical@qeed.it](mailto:technical@qeed.it)



Failure to observe the warnings may result in damage to the equipment or failure to operate as intended.



Disposal of waste electrical and electronic equipment (applicable in the European Union and other countries with separate collection). The symbol on the product or its packaging indicates that the product should not be treated as household waste. Instead, it will be handed over to an authorised collection point for the recycling of electrical and electronic waste. Ensuring that the product is disposed of properly will prevent potential negative effects on the environment and human health, which could otherwise be caused by inappropriate waste management of the product. Recycling materials helps to conserve natural resources. For further information, please contact your local authority, waste disposal service or the retailer from whom you purchased the product.



Please note that the information on the nameplate must be observed.





## PRODUCT OVERVIEW

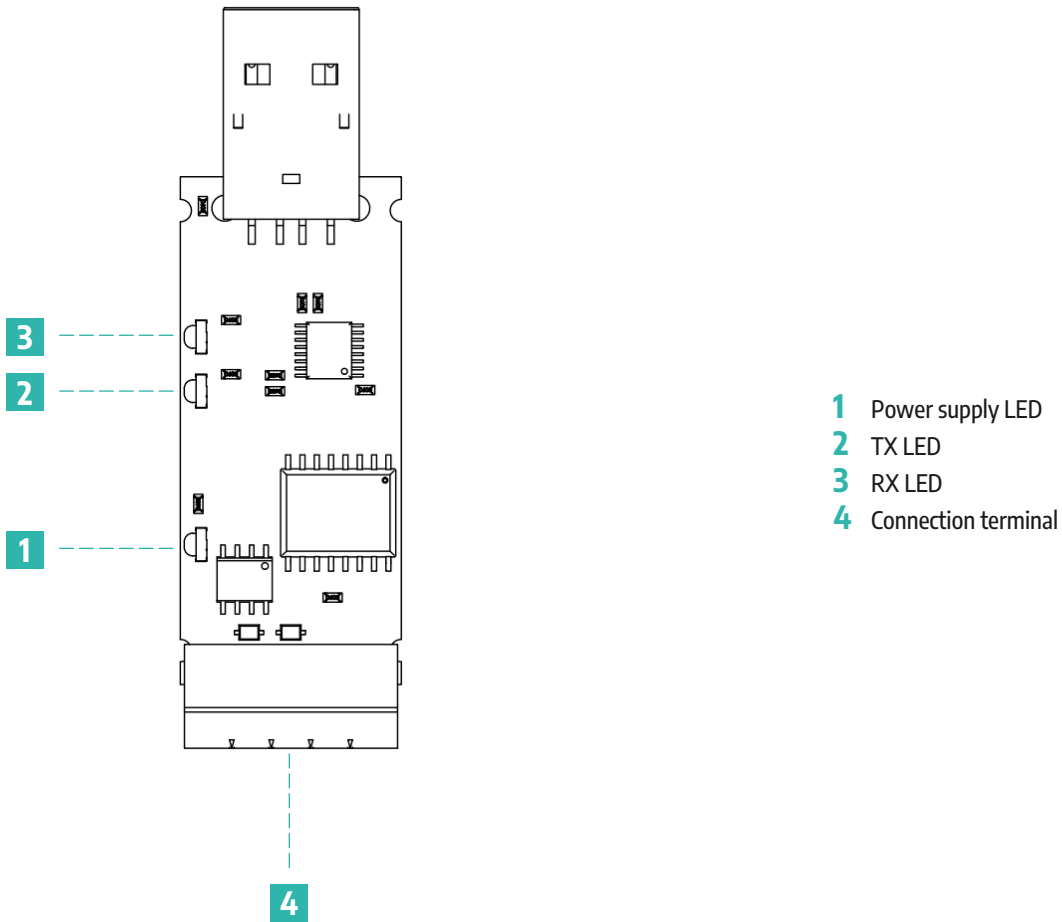
The Q-USB485 is a 5kV isolated serial converter based on the FTDI USB chip.

Ease of use is ensured by Windows certified drivers that download automatically when the PC is connected to the network.

The Q-USB485 provides a secure connection to any Modbus RTU device via RS485.

### Features

- 500kbit/sec max baud rate
- Max. common mode voltage (A+ / B-, inputs - outputs), -60V/+60V
- Removable connectors
- Status LEDs: TX, RX, power supply





## TECHNICAL SPECIFICATION

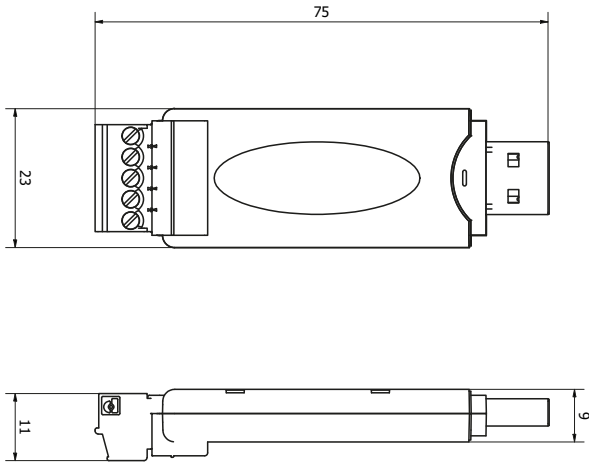

### Electrical characteristics

Rated voltage	5V @100mA from PC
Connection mode	USB

### Communication characteristics

Interface type	RS485 Serial interface
Protocol	Modbus RTU
Baudrate	500 kbit/s max
Addresses	1÷247

### General data

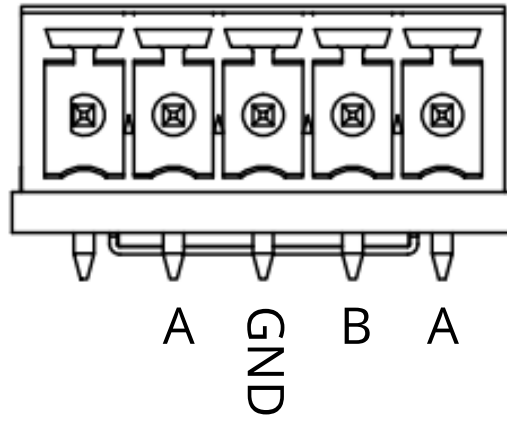
Working temperature	-15÷60° C
Storage temperature	-40÷85° C
Relative humidity	5÷95% not condensing
Elevation	Up to 2000 m a.s.l.
Protection degree	IP20
Measurements	75 x 23 x 11 mm 
Weight	100 g
Terminal cable cross-section	0.05 ÷ 1.5 mm <sup>2</sup> (30 ÷ 14 AWG)
Approvals and certifications	EN 61000-6-4 / EN 64000-6-2 / EN 61010-1 / EN 60742 

### Order codes

Product	Q-USB485
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## CONNECTIONS



**Figure 1:** Connection pinout