INSTALLATION MANUAL

S107USB / K107USB

RS485/USB asynchronous serial converter





DOCUMENTATION

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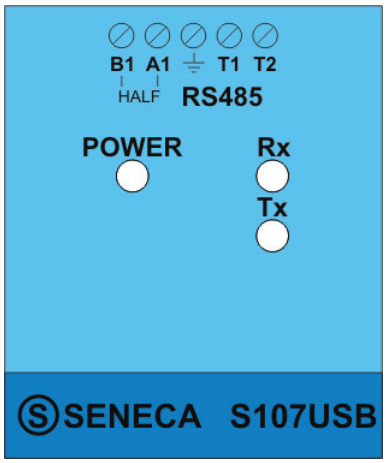
For manuals in other languages and configuration software, visit:
www.seneca.it/products/k107usb ; www.seneca.it/products/s107usb

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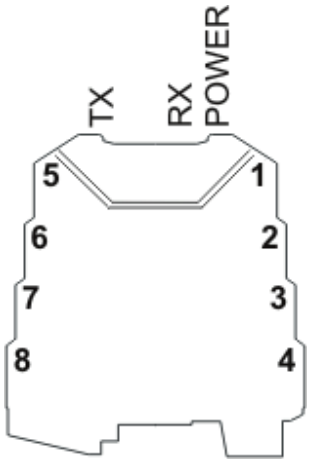
MODULE LAYOUT

Both modules have three LEDs that allow viewing the state of the instrument activity.

S107USB LED POSITION:



S107USB LED POSITION:



SIGNALS VIA LED ON FRONT PANEL

LED	STATUS	LED meaning
PWR Green	ON	The device is powered correctly
RX Red	ON flashing	It lights up every time the instrument receives data through the RS485 port
TX Red	ON flashing	It lights up every time the instrument transmits data through the RS485 port.

TROUBLESHOOTING

If problems occur with the use of the converter, check the following points:

PROBLEM	CHECK
The “POWER” LED does not come on	Check that the PC's USB socket provides for the supply of the 5 V needed to power the instrument
The “Rx” led remains on continuously	Check that the RS485 cables have not been swapped.
The received data is incorrect	Check the communication speed

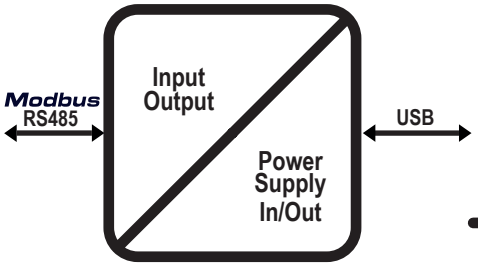
PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol ⚠ indicates conditions or actions that put the user's safety at risk. The word **ATTENTION** preceded by the symbol ⚠ indicates conditions or actions that might damage the instrument or the connected equipment. The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

	**WARNING**: The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available via QR-CODE shown on page 1.
	The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection centre authorized to recycle electrical and electronic waste.

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TECHNICAL SPECIFICATIONS

STANDARDS	**EN61000-6-4** Electromagnetic emissions, industrial environment. **EN61000-6-2** Electromagnetic immunity, industrial environment. **EN61010-1** Safety **Note UL:** use in environments with pollution degree 2 or lower. The power supply unit must be class 2.
INSULATION	 ⚠ **WARNING** the maximum working voltage between any terminal and ground must be less than 50 Vac / 75Vdc
ENVIRONMENTAL CONDITIONS	*Temperature*: -25 ÷ + 65°C (-10 - +55 °C UL) *Humidity*: 10% ÷ 90% non condensing. *Altitude:* up to 2000 m above sea level *Storage temperature:* -40 ÷ + 85° *Protection degree:* IP20.
ASSEMBLY	IEC EN60715, 35mm DIN rail in vertical position.
CONNECTIONS	5-way removable screw terminals, pitch 5 mm (S107USB) Spring-loaded terminals, conductor cross-section 0.2 ... 2.5 mm^2, stripping 8 mm (K107USB)
POWER SUPPLY	Through PC USB port.
SERIAL COMMUNICATION	RS485 through MODBUS -RTU protocol, 32 nodes maximum. Possibility of multiple connection of several S107USB or K107USB units on the same PC.
BAUDRATE	1200 bps,115200 bps.

INSTALLATION REGULATIONS

S107USB INSTALLATION REGULATIONS

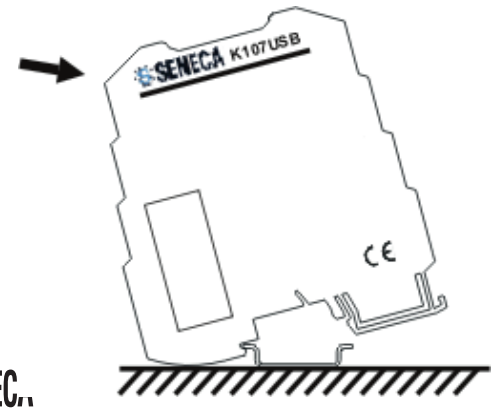
With regard to the S107USB instrument, there are no particular precautions to follow, except that of using a shielded cable for the RS485 lines for long connections or connections in noisy environments (please refer to the Electrical Connections section).

K107USB INSTALLATION REGULATIONS

The module has been designed for vertical installation on a DIN 46277 rail. Avoid mounting modules over heat-generating equipment. Installation in the bottom part of the electrical panel is recommended.
For long connections or in noisy environments, use a shielded cable for the RS485 line (refer to the Electrical Connections section)

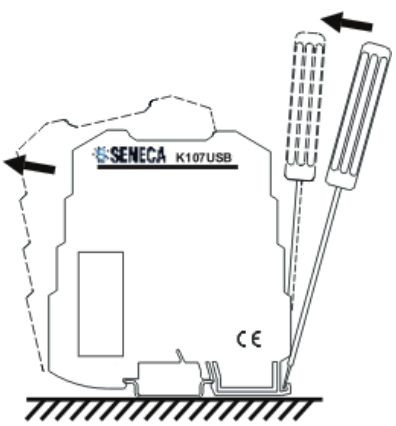
Insertion in the DIN rail

1. Hook the module in the upper part of the rail.
2. Press the module down.



Removal from the rail DIN

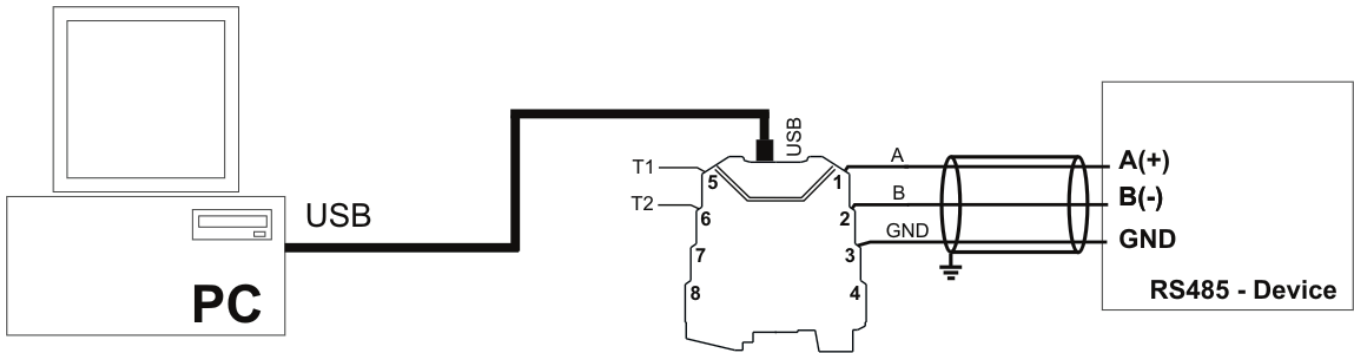
1. Lever with a screwdriver (as shown)
2. Rotate the module upwards.



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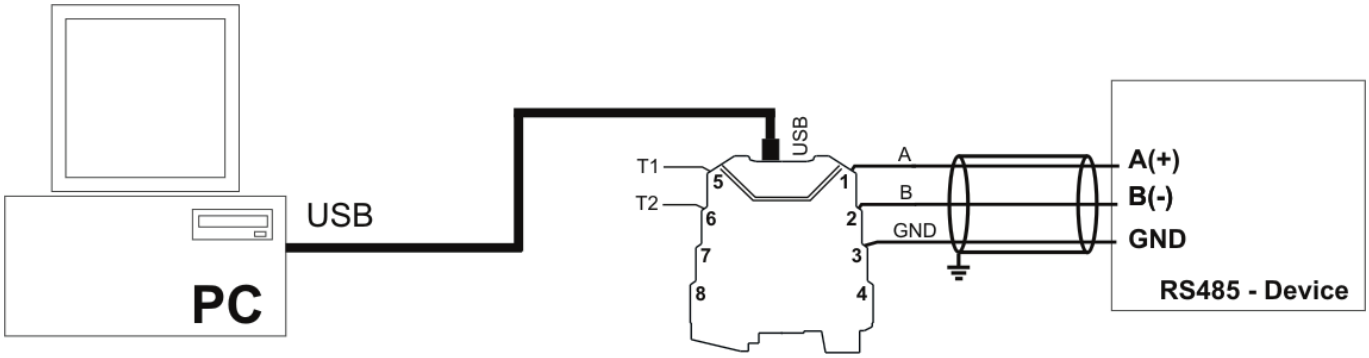
ELECTRICAL CONNECTIONS

S107USB: the electrical connections of the S107USB are shown below:



By inserting an external jumper between terminals T1 and T2, the terminator of the RS485 line is enabled.
We also recommend to use a shielded cable for the RS485 line, in particular if long connections are to be made or in noisy environments.

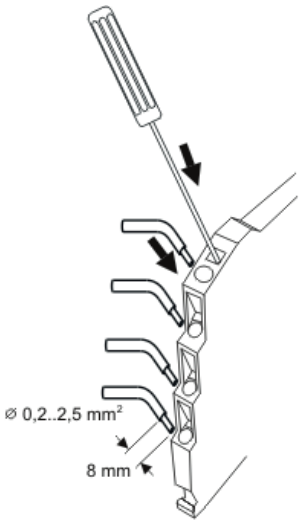
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Terminal connections:

The module has spring-loaded terminals as electrical connections.
To make the connections refer to the following instructions:
1 - Strip the cables by 0.8mm
2 - Insert a flat-blade screwdriver into the square hole and press it until the locking spring of the cable opens.
3 - Insert the cable into the round hole
4 - Remove the screwdriver and check that the cable is firmly fixed in the terminal



CONTACT INFORMATION

Technical support	support@seneca.it	Product information	sales@seneca.it

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