ADPT-1RJ-TB

POWER OVER MODBUS (POM) ADAPTER - RJ45 SOCKET TO TERMINAL BLOCK

Mounting and operating instructions

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SAFETY AND PRECAUTIONS

Read all the information, the datasheet, Modbus map, mounting and operating instructions and study the wiring and connection diagram before working with the product. For personal and equipment safety, and for optimum product performance, make sure you entirely understand the contents before installing, using, or maintaining this product.

For safety and licensing (CE) reasons, unauthorised conversion and / or modifications of the product are inadmissible.

The product should not be exposed to abnormal conditions, such as extreme temperatures, direct sunlight or vibrations. Long-term exposure to chemical vapours in high concentration can affect the product performance. Make sure the work environment is as dry as possible; avoid condensation.

All installations shall comply with local health and safety regulations and local electrical standards and approved codes. This product can only be installed by an engineer or a technician who has expert knowledge of the product and safety precautions.

Avoid contacts with energised electrical parts. Always disconnect the power supply before connecting, servicing or repairing the product.

Always verify that you apply appropriate power supply to the product and use appropriate wire size and characteristics. Make sure that all the screws and nuts are well tightened and fuses (if any) are fitted well.

Recycling of equipment and packaging should be taken into consideration and these should be disposed of in accordance with local and national legislation / regulations.

In case there are any questions that are not answered, please contact your technical support or consult a professional.

ADPT-1RJ-TB | MODBUS RTU ADAPTER - RJ45 SOCKET TO TERMINAL BLOCK

SENTERA
C O N T R O L S

PRODUCT DESCRIPTION

ADPT-1RJ-TB is an adapter for converting Power over Modbus (PoM) from RJ45 to a regular terminal block. PoM is the Sentera standard for distribution of Modbus RTU communication and 24 VDC supply voltage via a single RJ45 connector. The ADPT-1RJ-TB adapter facilitates interconnecting Sentera devices with PoM to devices with regular terminal blocks.

ARTICLE CODE

Article code	Supply voltage
ADPT-1RJ-TB	24 VDC (PoM)

INTENDED AREA OF USE

- Facilitate interconnecting of Sentera devices with RJ45 connector to devices with terminal blocks
- For indoor use only!

TECHNICAL DATA

- One RJ45 connector for standard UTP networks
- One pluggable 4-pins terminal block (for V+, A, /B, and GND connection)
- Left LED in RJ45 connector as indication that there is 24 VDC power supply.
- Protection class: IP 30 (EN 60529)
- Operating ambient conditions:
  - ▶ Temperature: -20 ºC to 70 ºC
  - ▶ Rel. humidity: 5 – 90 % rH (non-condensing)
- Storage temperature : -35 ºC to 70 ºC
- Box material : ABS plastic
- Box color : black

STANDARDS

- EMC directive 2014/30/EU:
- Low Voltage Directive 2014/35/EU
  - ▶ EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
- WEEE 2012/19/EU
- RoHs Directive 2011/65/EU:

CE

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WIRING AND CONNECTIONS

Wiring and connections	
RJ45 Sentera Modbus	
Pin 1	Supply voltage, 24 VDC
Pin 2	Supply voltage, 24 VDC
Pin 3	Modbus RTU communication, signal A
Pin 4	Modbus RTU communication, signal A
Pin 5	Modbus RTU communication, signal /B
Pin 6	Modbus RTU communication, signal /B
Pin 7	Supply voltage, ground
Pin 8	Supply voltage, ground

RJ45 socket	Terminal block
GND / A /B +24 VDC	1 2 3 4

Terminal block		
Pin 1	V+	Supply voltage, 24 VDC
Pin 2	A	Modbus RTU communication, signal A
Pin 3	/B	Modbus RTU communication, signal /B
Pin 4	GND	Supply voltage, ground
Connections		Screened, foil-shielded, twisted-pair (S/FTP) cable

MOUNTING INSTRUCTIONS IN STEPS

1. First, connect the 4-pins terminal block. If there is power (pin V+ and GND are connected to a power supply), ensure that the left LED of the RJ45 connector is ON!

2. Then plug the cable into the RJ45 connector.

VERIFICATION OF INSTALLATION INSTRUCTIONS

⚠ **ATTENTION**

Please be careful with the connection of the terminal block especially with the V+ and GND wires! When 24 VDC supply voltage is connected, the left LED of the RJ45 connector must light up. The reversed connection may damage the connected devices in Modbus network.

TRANSPORT AND STORAGE

Avoid shocks and extreme conditions; stock in original packing.

WARRANTY AND RESTRICTIONS

This warranty runs for two years from the delivery date for manufacturing defect. Any modification or alteration to the product releases the manufacturer from all responsibility. The manufacturer bears no responsibility for any misprint or mistake in this data, and modification or improvement to the product can be made at any time after date of publication.

MAINTENANCE

In normal conditions this product is maintenance-free. If soiled, clean with a dry or damp cloth. In case of heavy pollution, clean with a non-aggressive product. In these circumstances the unit should be disconnected from the supply. Pay attention that no fluids enter the unit. Only reconnect it to the supply when it is completely dry.