

PT100 MODBUS TEMPERATURE HEAD TRANSMITTER THM501



INSTALLATION GUIDE

IG_INHD_THM501_E01D

PT100 TEMPERATURE HEAD TRANSMITTER THM501

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CONNECT AND CONFIGURE THM501 TEMPERATURE HEAD TRANSMITTER

DOWNLOAD AND INSTALL "TEKON CONFIGURATOR" FREE SOFTWARE FROM TEKON ELECTRONICS WEBSITE

01

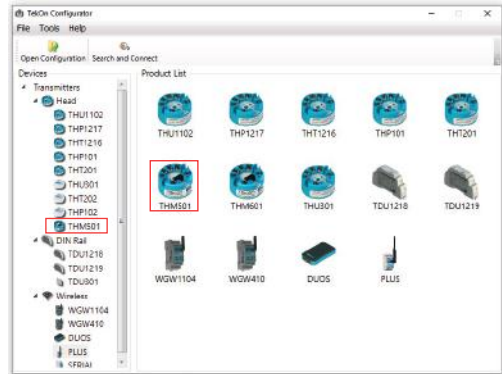
Execute **Tekon Configurator** software.



02

Select the **THM501** transmitter from the main window.

Note: if you click on the name of the product, a browser window will open on the product page on Tekon Electronics website.



03

Make sure that the equipment is connected to the power supplier.



04

Make sure that the equipment is connected with the computer through a **RS485 TO USB CONVERTER CABLE** or similar equipment.

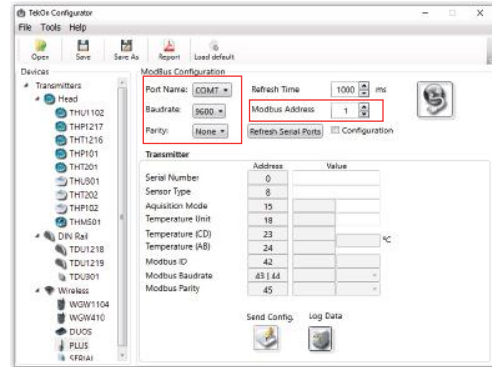


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05

Verify THM501 default configurations: Modbus Address; Baud rate; Parity; Data bits and Stop bits.

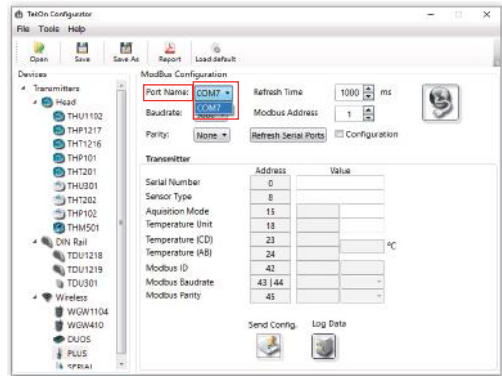


06

Select the serial port to which you have connected the THM501 transmitter.

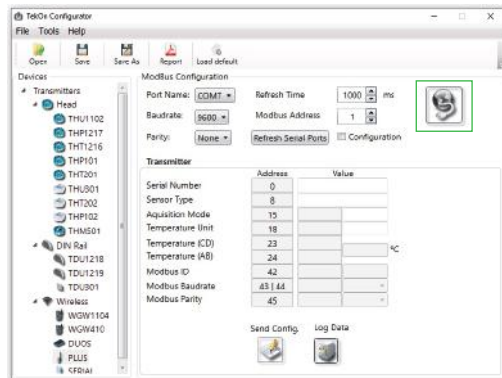


NOTE: The serial port depends on the operating system.



07

Connect to the THM501.



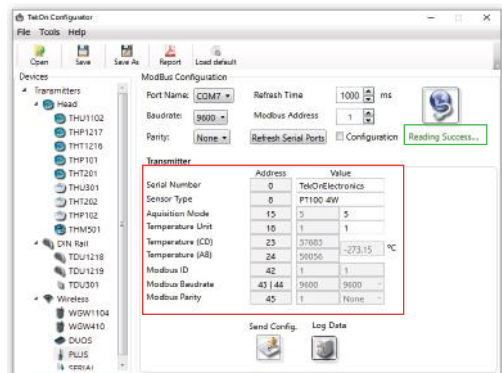
08

After successful connection, the message "Reading Success..." appear below the connection button.

The fields regarding to the transmitter variables are filled with their values.



NOTE: If you do not connect any device to the transmitter, the temperature value will be -273.15° C.



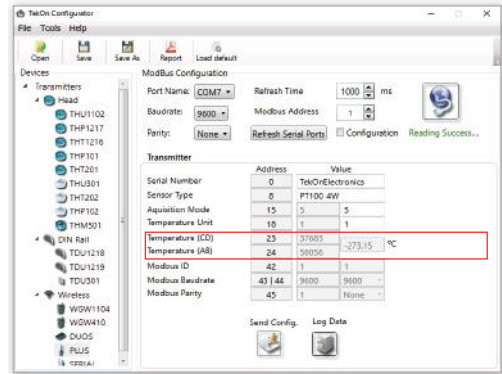
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09

Read the temperature value using the **Modbus** protocol. The value of temperature is 32-bit format and is available in register 23 accessed through the Read Holding Registers function (FC = 03).

The temperature value is in the **Double32 CD AB** formation type.

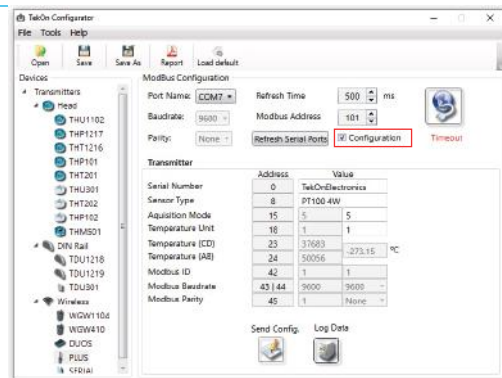


10

To edit the transmitter configurations, it is necessary to select the configuration mode.

Select the checkbox before **“Configuration”**.

NOTE:
The transmitter will be in Timeout, when you select the checkbox.



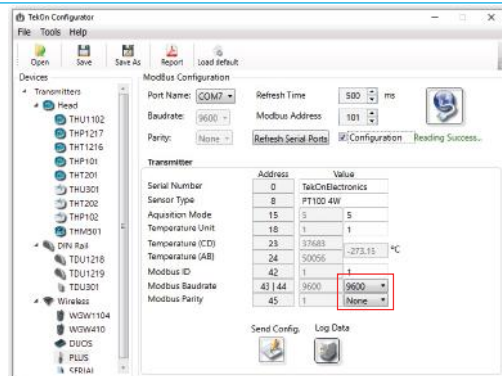
11

Perform a power cycle, disconnecting the power plug and connecting again.

You have a 10 seconds window to entry in configuration mode.

12

If you succeed, the **Modbus ID**, **Modbus Baudrate**, **Modbus Parity** fields will be able to be edited.



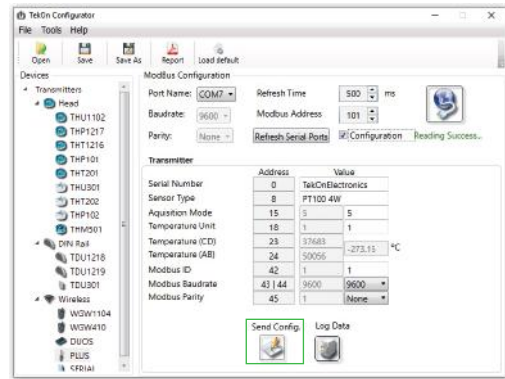
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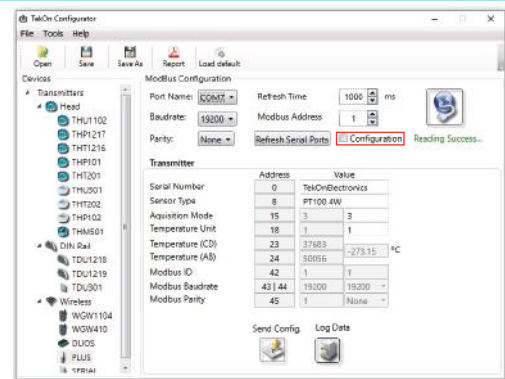
To validate the changes in configuration mode, you have to click in the **Send Config** button.

You must proceed this way to any single change.



14

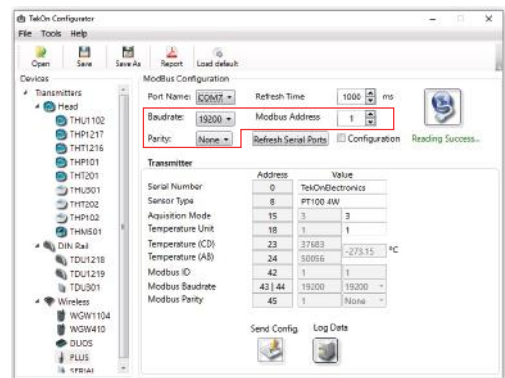
To exit **Configuration Mode**, unmark the checkbox behind.



15

Update the **Baudrate**, **Modbus Address** and **Parity** to the values that you have changed in **Configuration Mode** and perform a power cycle again.

The changes will be enable when the message **“Reading Success...”** appears below the Connection button.



MODBUS TABLE (HOLDING REGISTERS)

Description	Address	Type	Values
Acquisition mode configuration	15	UINT16	3 - PT100 2W 4 - PT100 3W 5 - PT100 4W
Temperature format configuration	18	UINT16	1 - °C 2 - °F 3 - K
Temperature value	23	DOUBLE32 (CD AB)	

TEKON ELECTRONICS
a brand of Bresimar Automação S.A.

Quinta do Simão
3800-230 Aveiro
PORTUGAL

P.: +351 234 303 320
M.: +351 933 033 250
E.: sales@tekonelectronics.com

