WIRELESS SENSORS TECHNOLOGY

PT100 MODBUS TEMPERATURE HEAD TRANSMITTER THM501

INSTALLATION GUIDE

IG_INHD_THM501_E02A

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PT100 TEMPERATURE HEAD TRANSMITTER THM501

INSTALLATION GUIDE

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CONNECT AND CONFIGURE THM501 TEMPERATURE HEAD TRANSMITTER

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

01

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

02

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

03

Open Tekon Configurator software.

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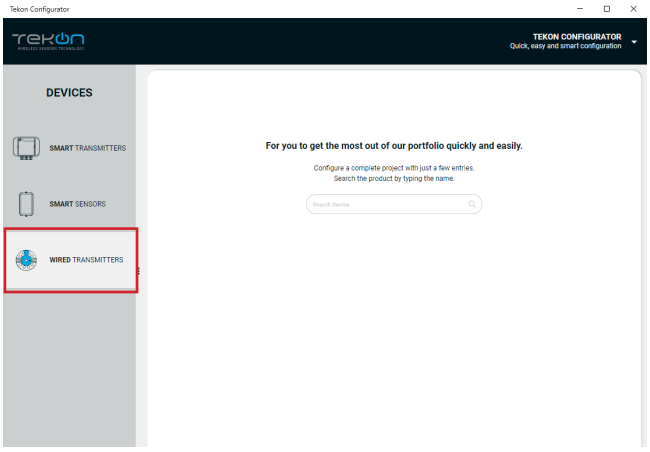
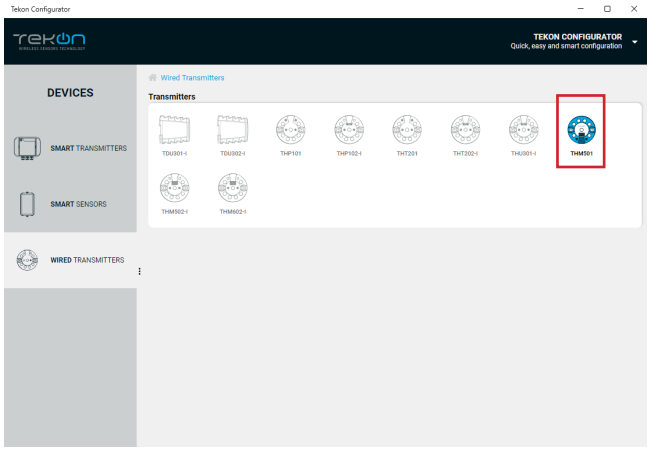
04

Open the THM501 device page.

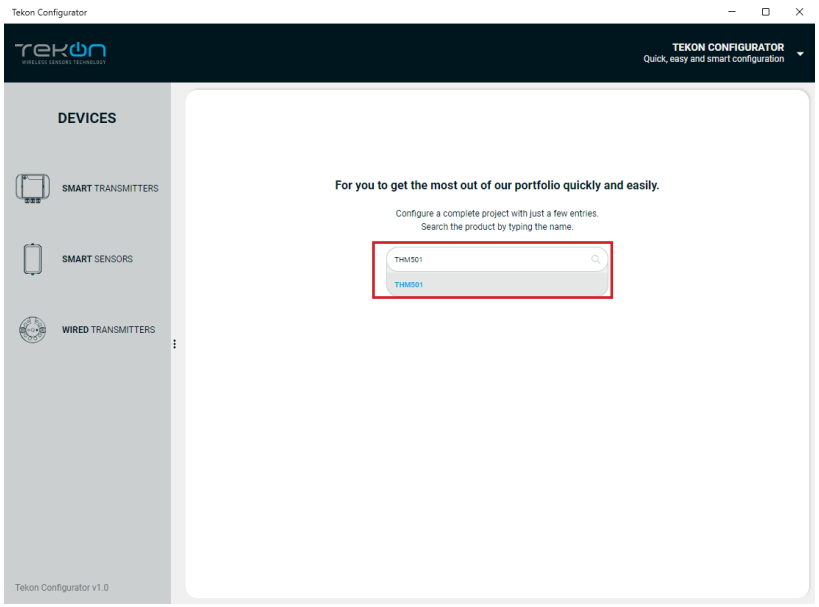
You can enter the device's page in the following ways:

1st option: Click on *"WIRED TRANSMITTERS"* in the left menu and then click on the device.





2nd option: Type the name of the device in the *"Search Device"* field on the home page and select.



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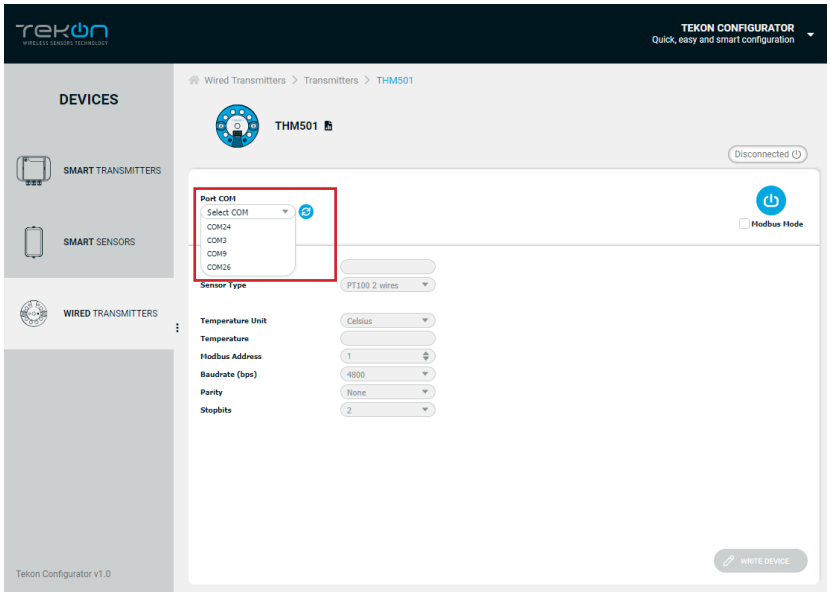
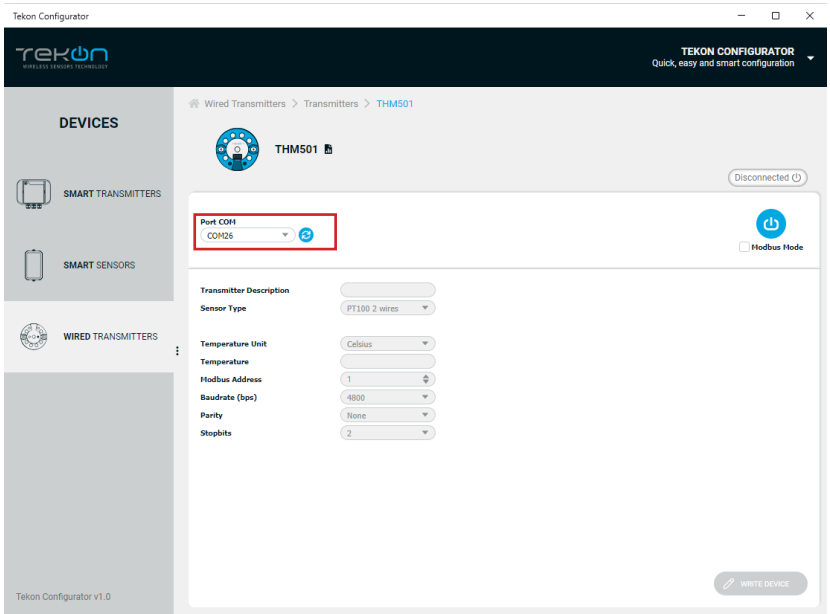
05 Load the "Port COM" corresponding to the THM501



NOTE:
If the USB cable has already been connected before opening the device page, "Port COM" will appear in the list, otherwise you need to click on the "🔄" button.

06 Select corresponding *Port COM*[2].



[2] You can check device's serial port name in "Device Manager" on Microsoft ® Windows® operating system.

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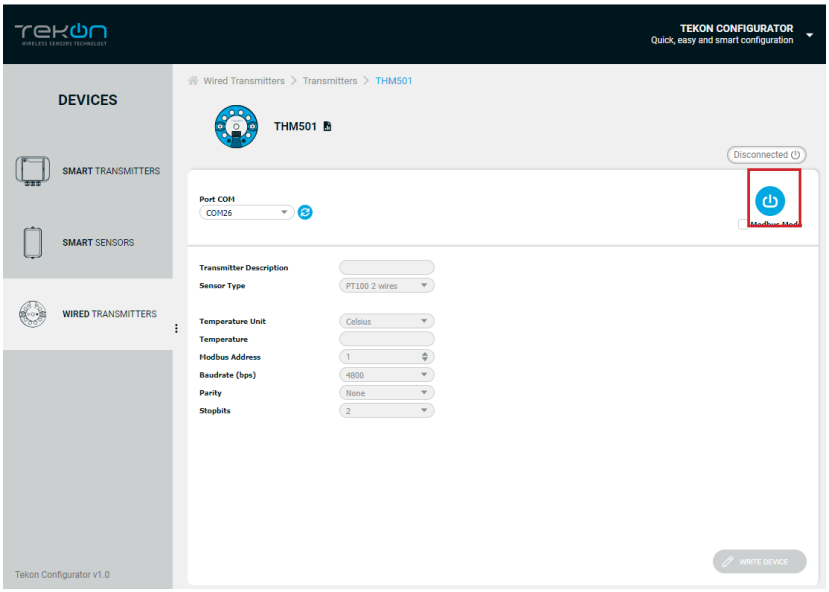
07

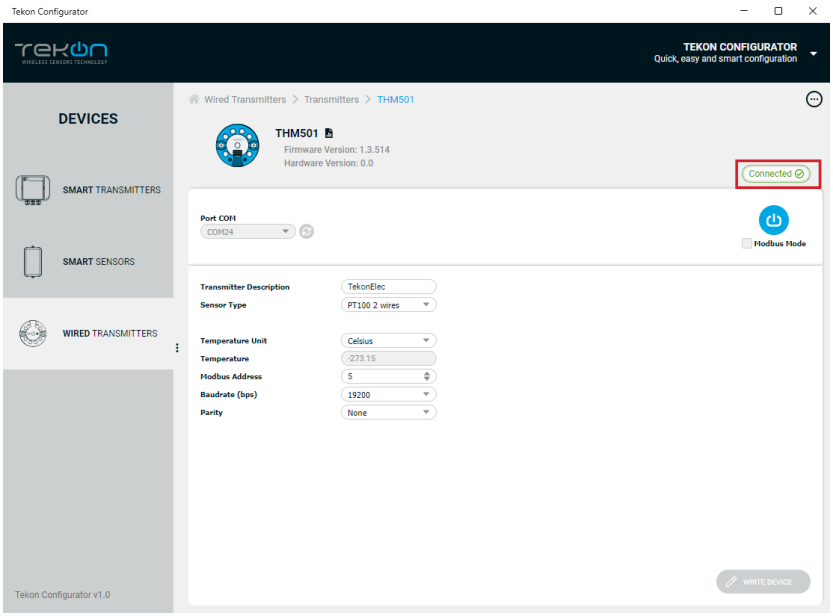
Click on *Connect* (⏻) button.



NOTE:
You have a 10 seconds window to entry in configuration mode after conect the power plug.

08

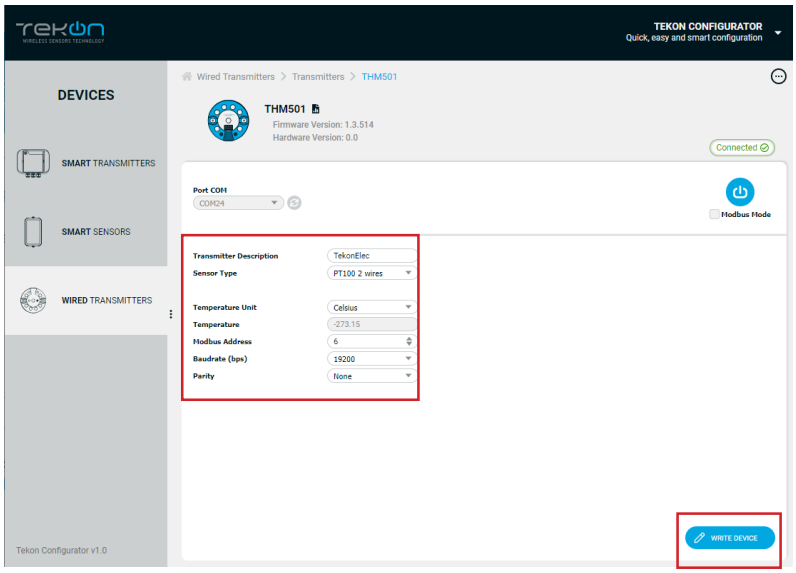
The software will connect to the device.



NOTE:
If the software is unable to connect to the device, the Connection Failed ⓘ status is displayed. If it hasn't connected, go back to the previous steps and check the port COM.

09

In configuration mode you can set Transmiter Description, Sensor Type, Temperature Unit, Modbus Address, Baudrate(bps) and Parity.
To save the values click on "WRITE DEVICE".



While the settings are being written, the following icon will be displayed next to the "*WRITE DEVICE*" button [ ]

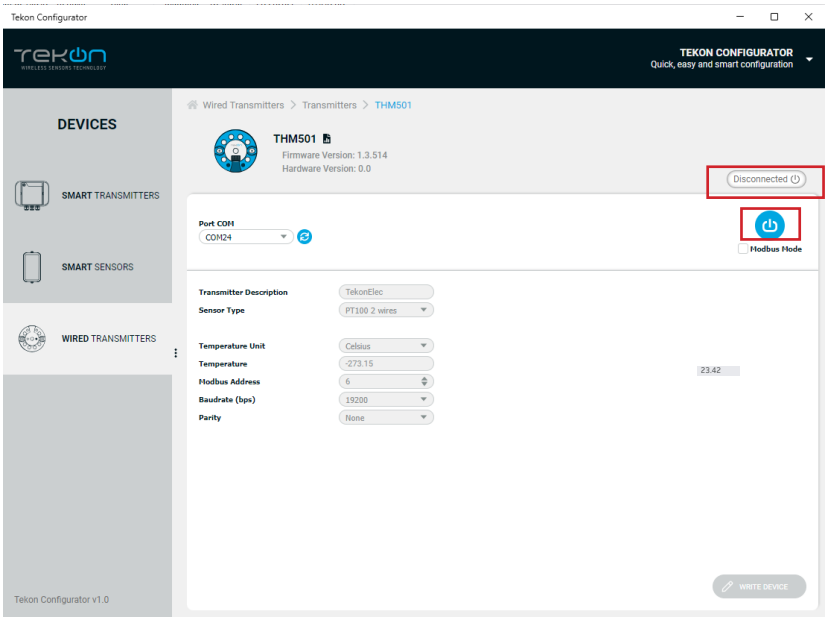
If the changes to the device have been written, the following symbol will appear [ ]

If not, the following symbol will appear [ ],try again and check that the device is connected correctly.

NOTE:
The "WRITE DEVICE" button will only be active when there is a change to one of the editable fields, if there is no change it will be disabled.

10

Click on the button [ ] to exit *configuration mode* and return the device to normal operating mode.



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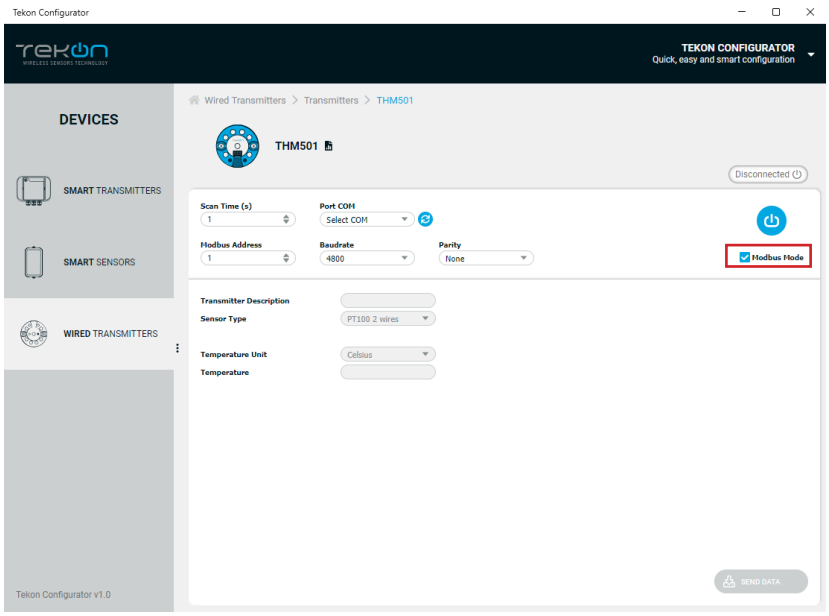
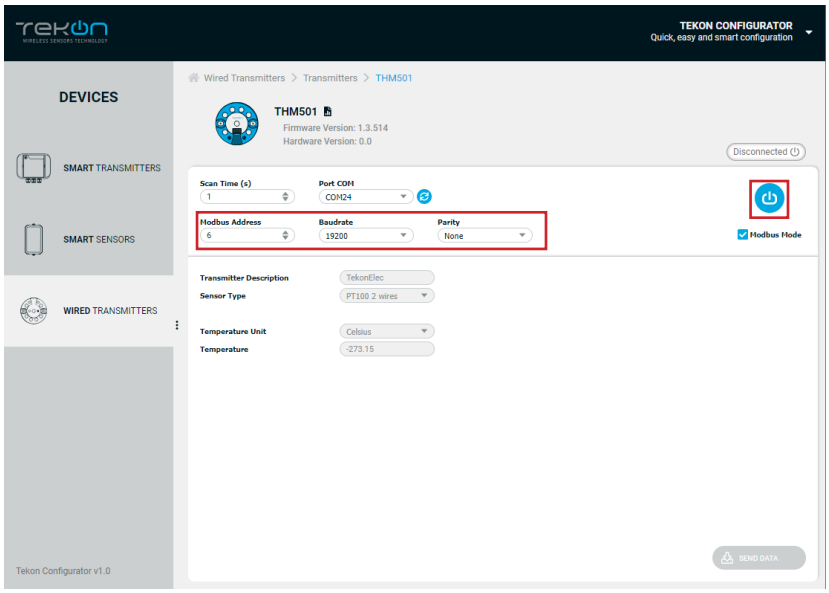
Modbus Mode

Check "Modbus Mode"



12

Check that the settings for: Modbus Address, Baudrate and Parity, are the same as those defined in configuration mode.
To conect click on



NOTE:
Performance a power cycle, disconnecting the power plug and connecting again.
You have a 10 secons window to entry in configuration mode.

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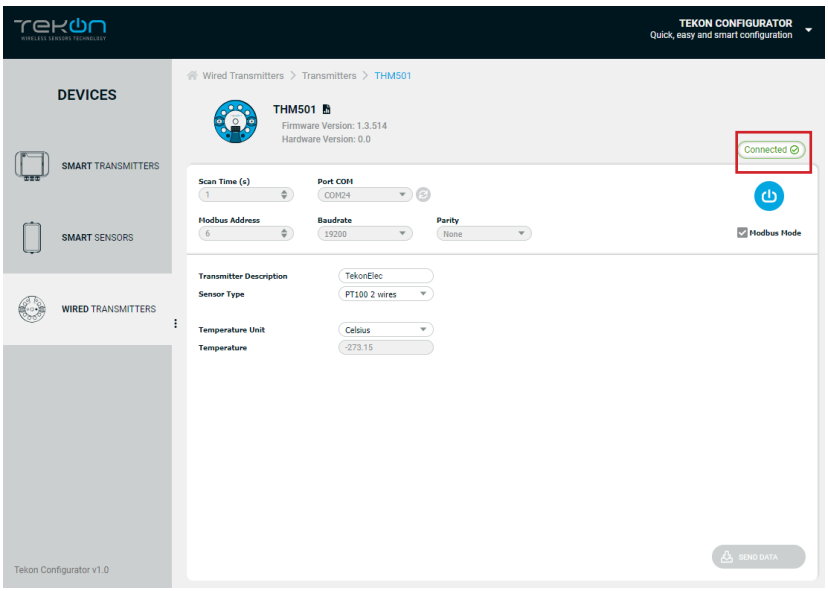
When the software connects to the device, the "*Connected*" message will be displayed.



NOTE:
If the software is unable to connect to the device, the Connection Failed status is displayed. If it hasn't connected, go back to the previous steps and check the port COM.

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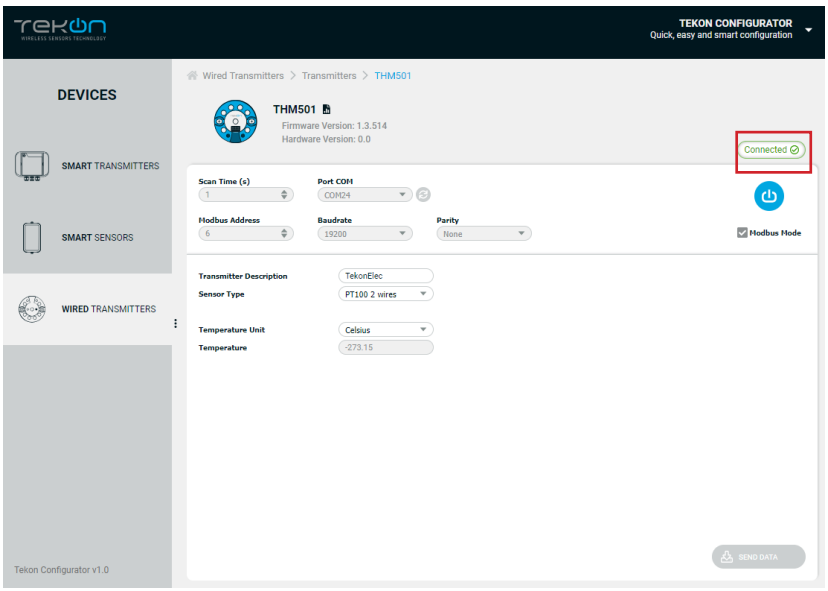
Read the temperature value using the Modbus protocol. The value of temperature is 32-bit format and is available in register 23 accessed through the Read Holding Registers function (FC = 03).



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

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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)	

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