

Installation

Required Tools

- 1) A PC with a USB port and running windows 10
- 2) A VEGAflex81 sensor
- 3) An AssetPack AP4 device
- 4) A VEGA Connect USB programming tool
- 5) [PACTware and VEGA DTM Collection](#)

NOTES

- 1) Once the AssetPack is turned on it will power the sensor for 30 minutes before going into normal operation mode, if at any time you need to re-configure the sensor, move the AssetPack Dial to the "off" position, then back to the "on" position.
- 2) There is a video of how to use the PACTware device here [How to Use PACTware](#) . It is not the same sensor, but it is a decent example of how to navigate the software when configuring the VEGAflex.

STEPS

- 1) Install PACTware and DTM on the PC, you may need to enable .net 3.5
- 2) Cut the probe to the proper size, make note of the new length in mm
 - Measure from inside of threaded collar to bottom of tank, weight should be just above the bottom of tank
- 3) Install the sensor and AssetPack in its location.
- 4) Connect wire to AssetPack show below, but leave the dial in the OFF position for now



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STEPS (continued)

- 5) Unscrew the yellow cap from the top of the VEGAflex device
- 6) Attach the black cap from the VEGA Connect tool as show in the image below

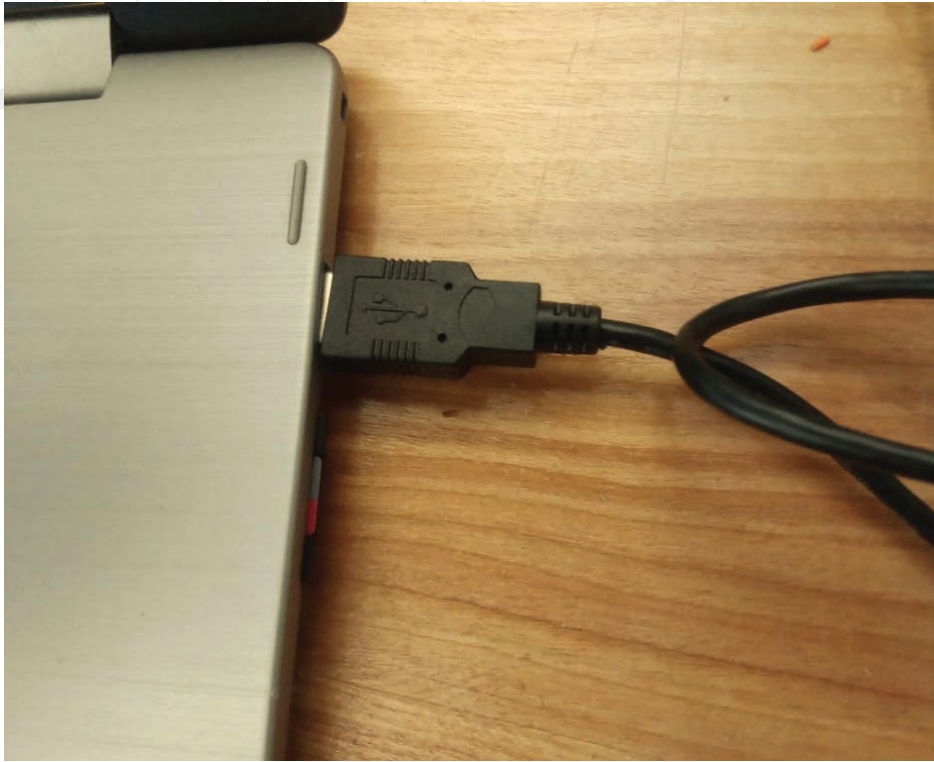


- 7) Plug the USB cable into the Connect tool cap as shown below



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- 8) Plug other end of USB cable into PC USB port

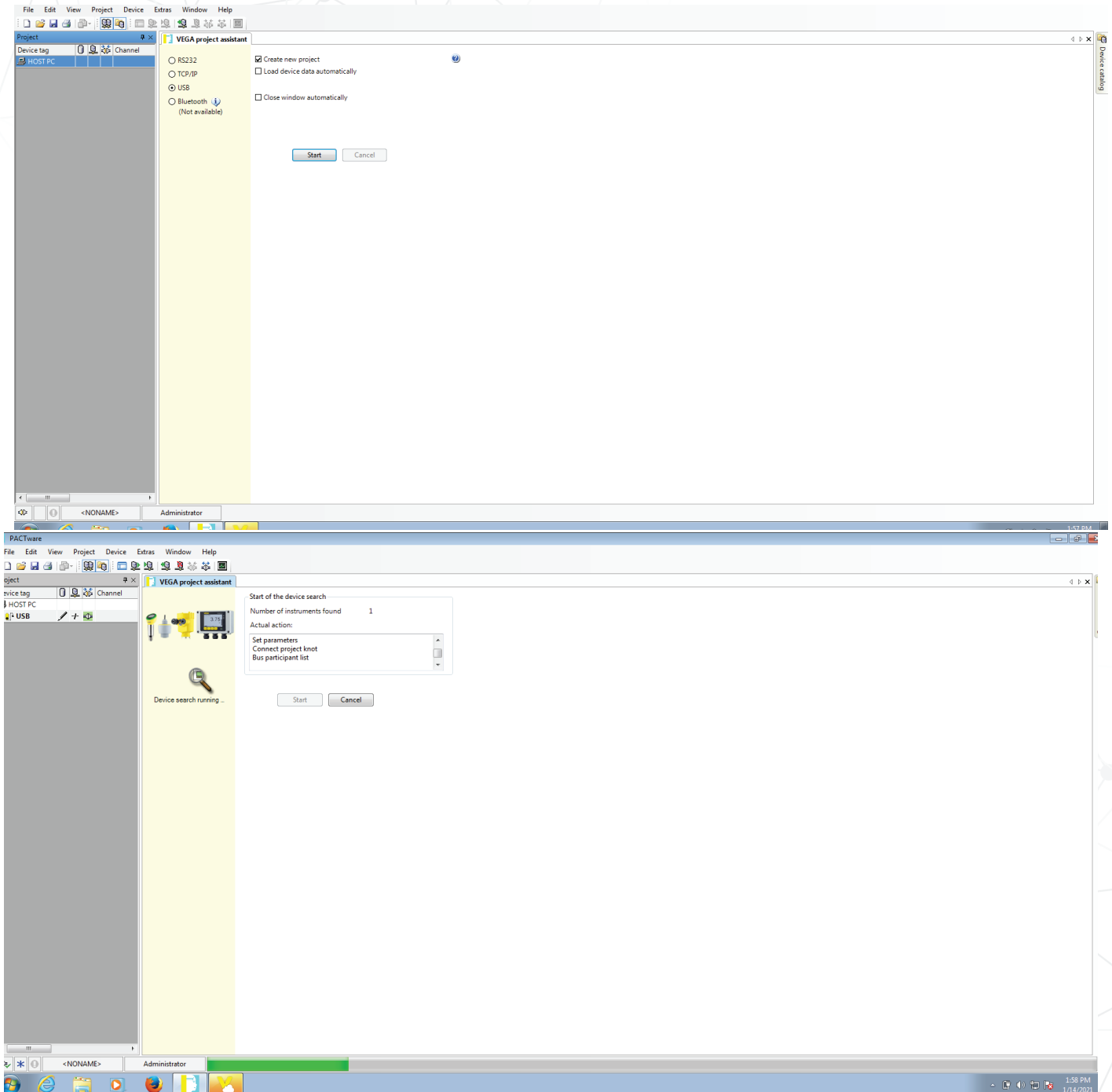


- 9) Start PACTware software

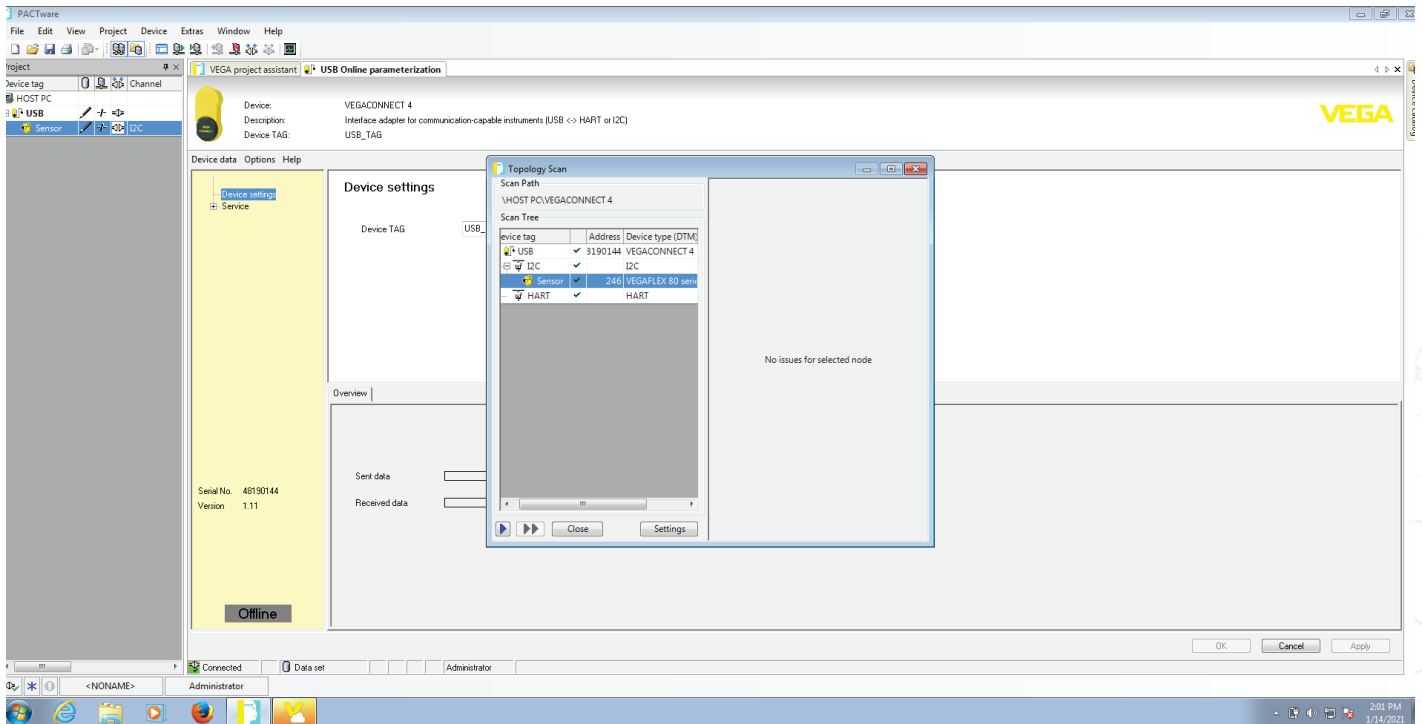
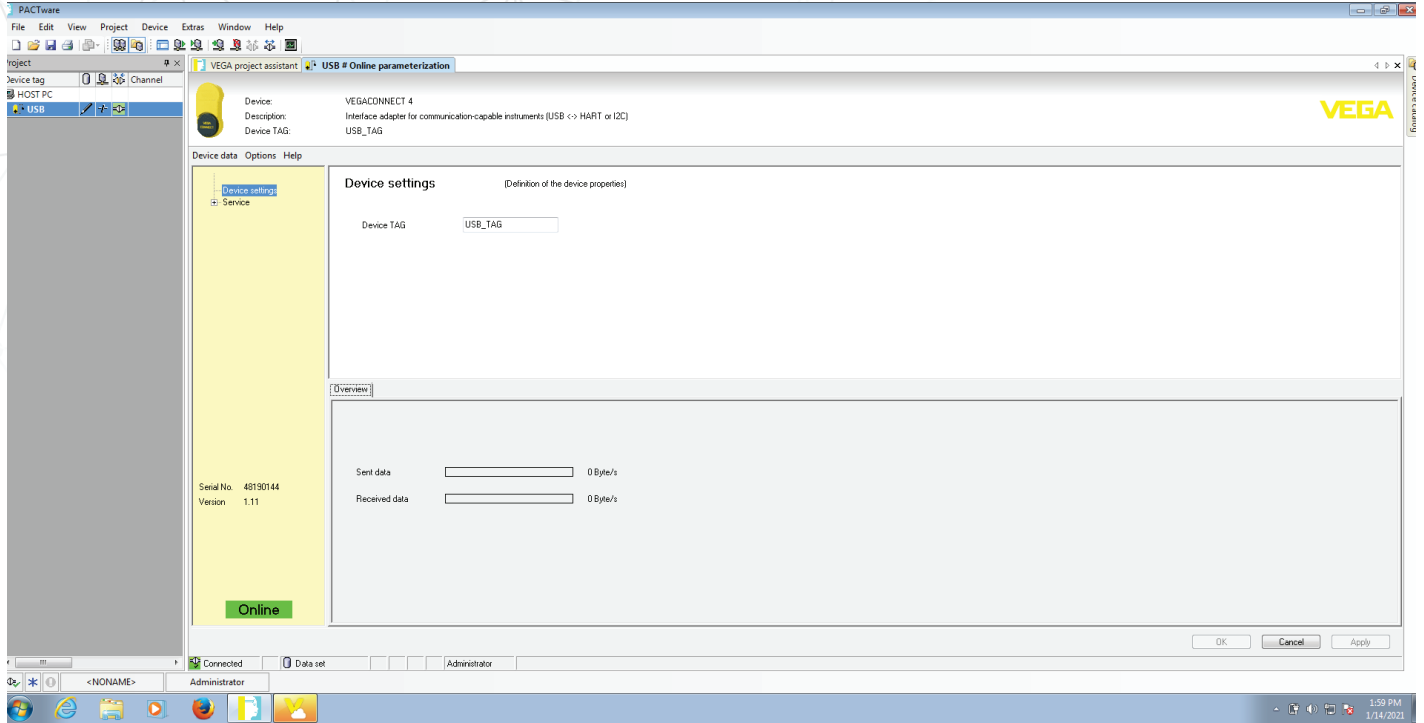
- 10) Turn AssetPack to the ON position, it will power the sensor for 30 minutes before going into normal operation mode.

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- 11) Scan for new device
 - Select 'Create new project' then Start
 - Left click 'Sensor' on left panel > 'Topology Scan' verify that device type shows VegaFlex 80 series

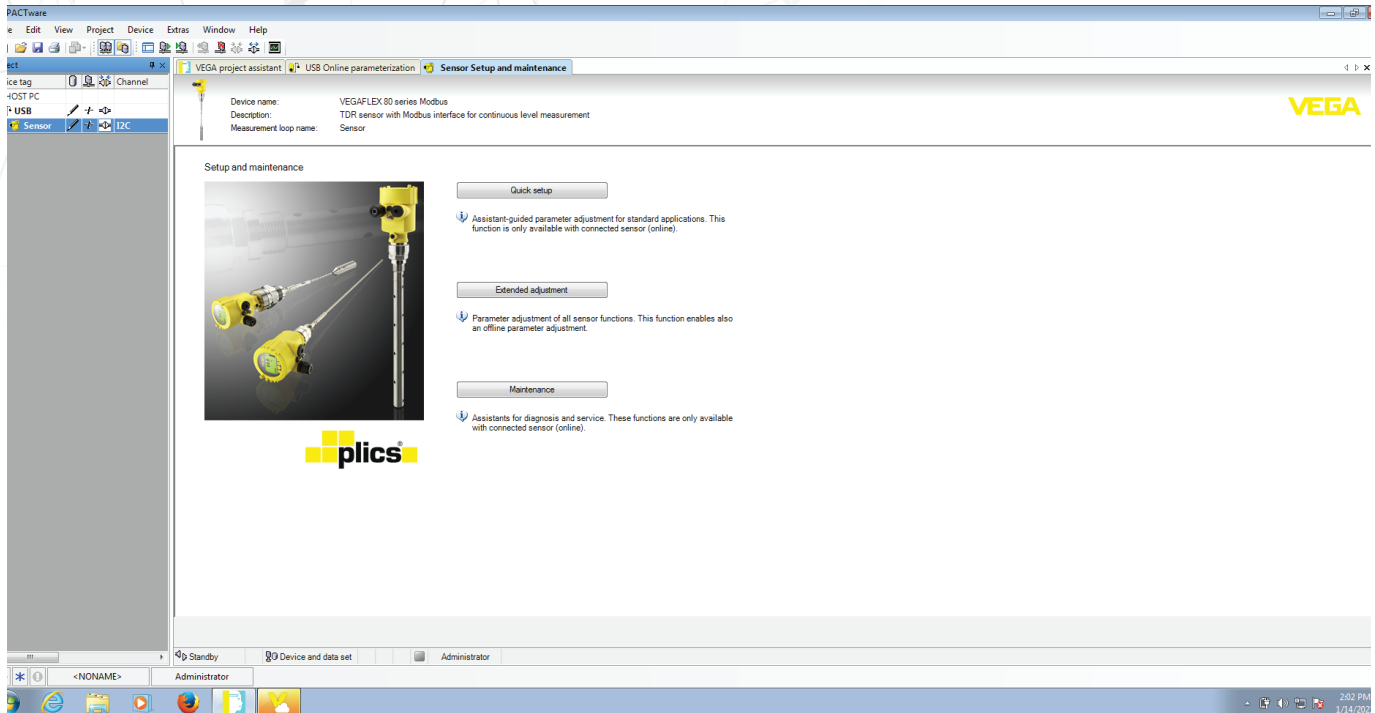


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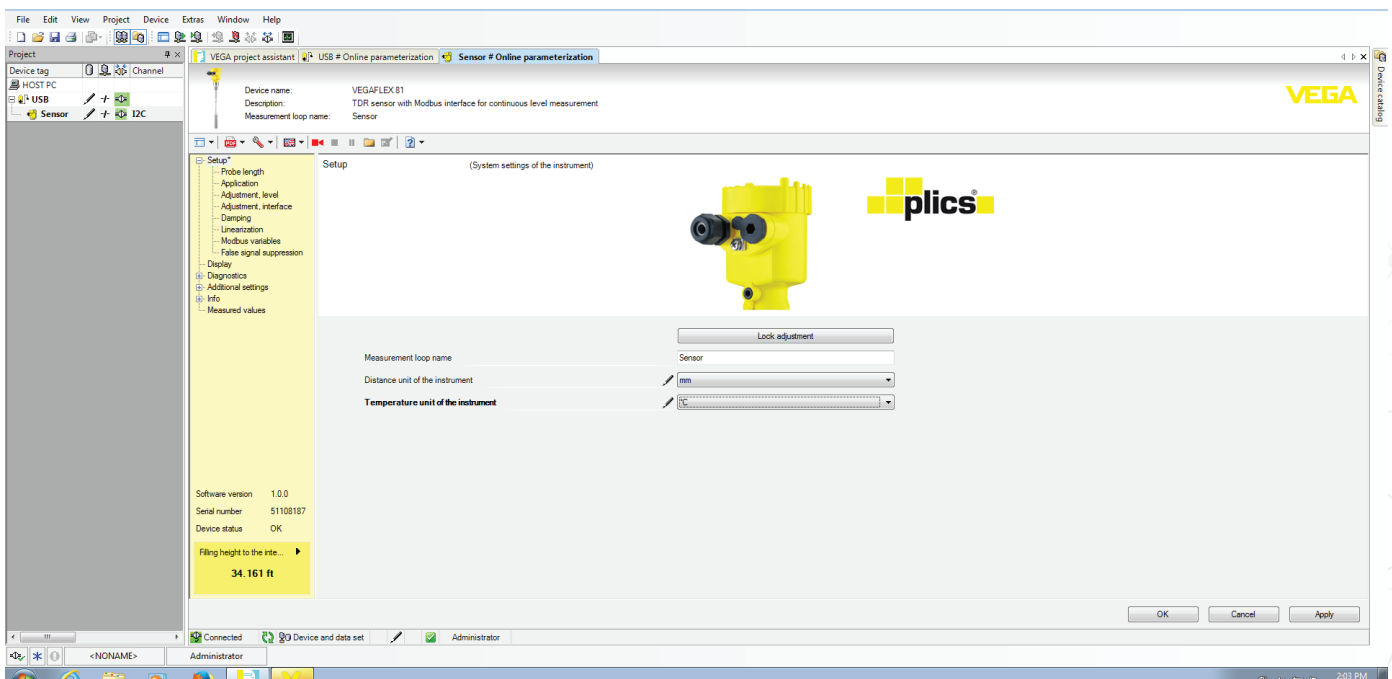


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12) Select Extended Adjustment

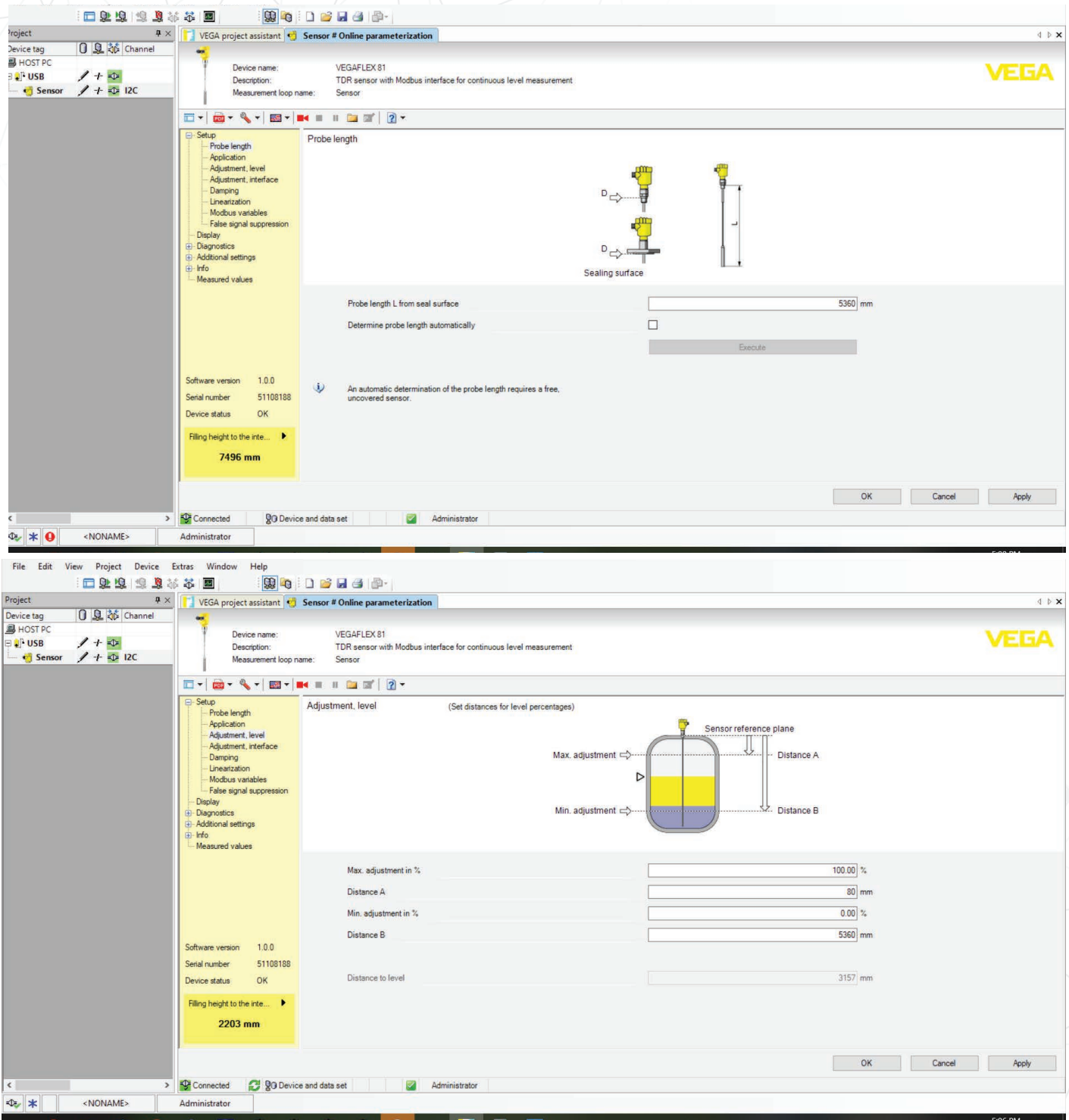


13) Select Setup on the configuration tree, then set Distance Units to "mm" and Temperature Unit to "C"

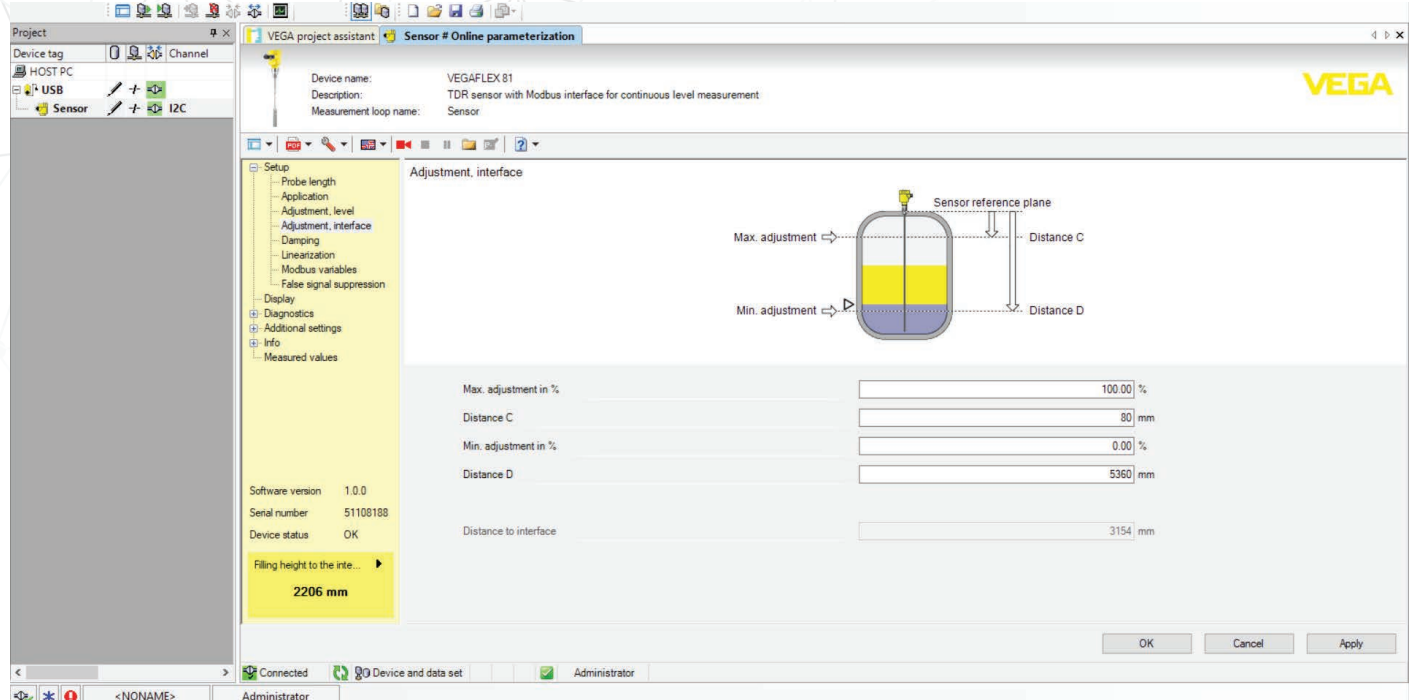


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- 14) Set probe length on the configuration tree and enter the value recorded from Step 1
- 15) Adjustment Level - Distance B and Adjustment Interface – Distance B needs to be set to value from Step 1

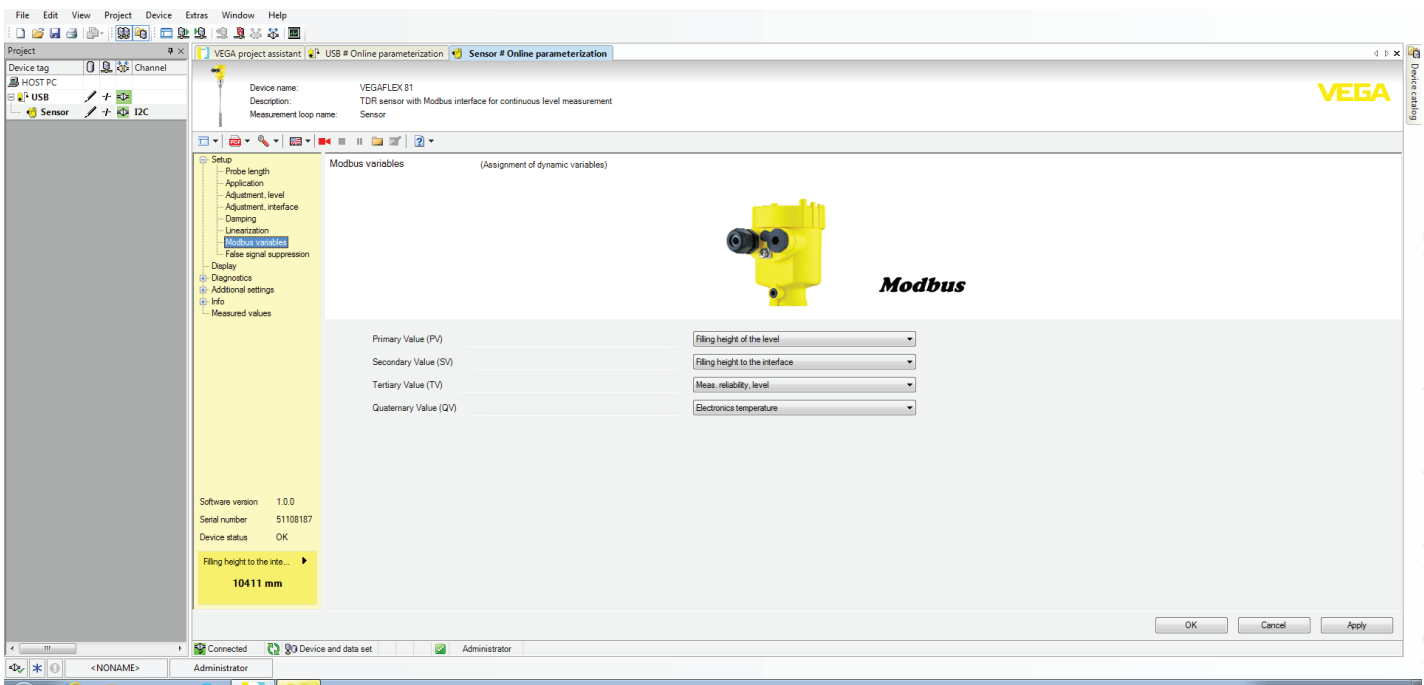


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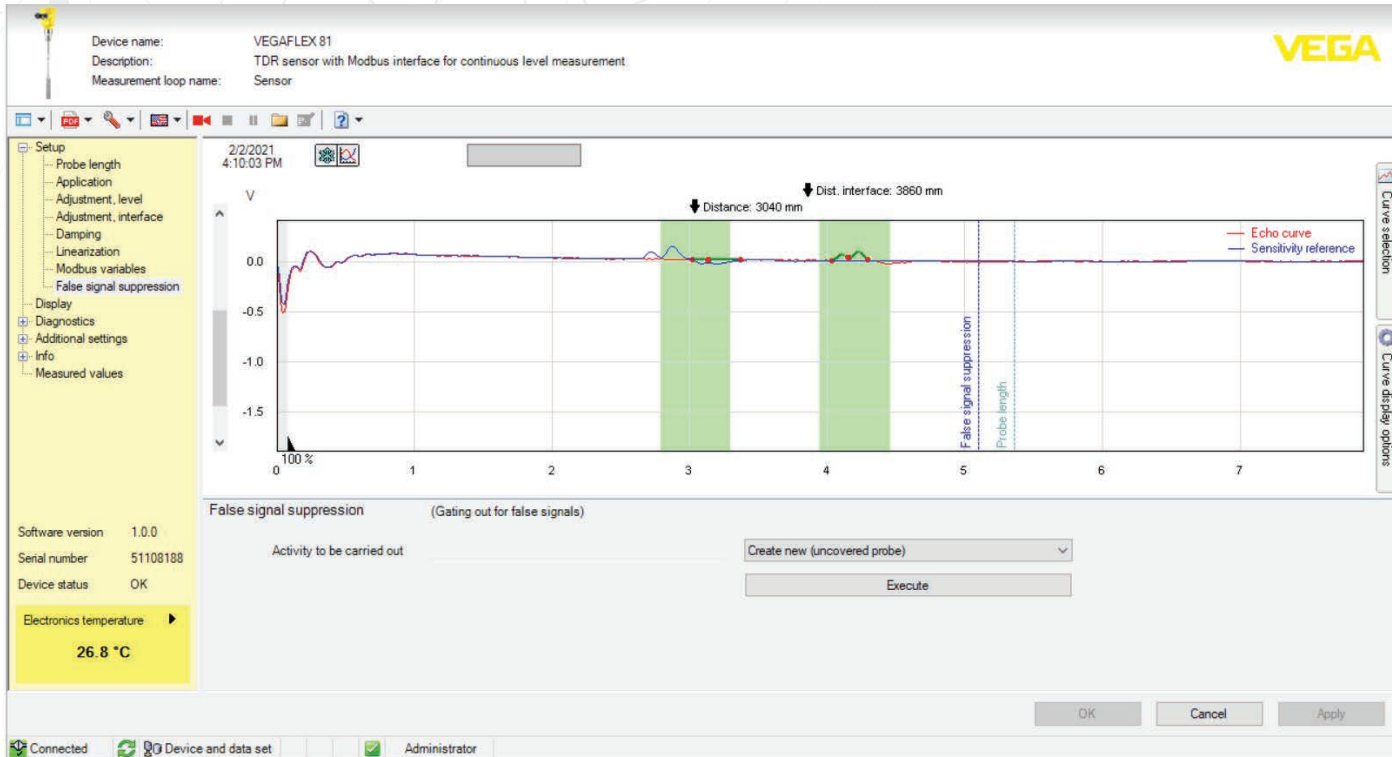
16) Select Modbus Variables on the configuration tree, then set the following:

- PV should be set to Filling Height of the Level
- SV should be set to Filling Height of the Interface
- TV should be set to Meas. Reliability, level
- QV should be set to Electronics Temperature



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- 17) Select false signal suppression on the configuration tree
 - Select covered probe
 - i. Use distance NOT distance interface. Set 5-10mm higher than Distance (in this specific instance Create New covered probe. Set distance at 3045-3050mm

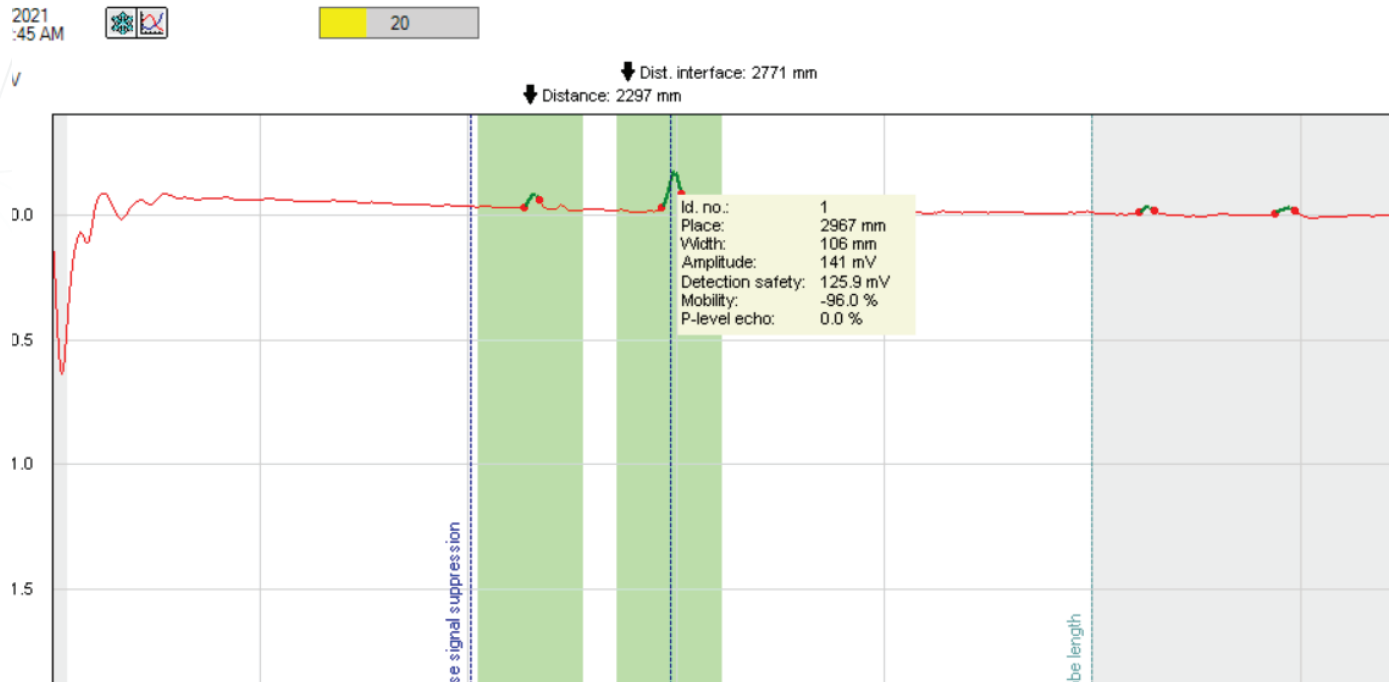


- 18) Press Apply to Save the changes to the Sensor

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20) Verify Amplitude mV reading, modify special parameter 34 if needed. You must login to service mode. Select the wrench, password is 'sw'

- Upper layer thickness won't detect properly if special parameter 34 is too high. Must be lower than Amplitude mV reading on Dist. Interface echo.



Device name: VEGAFLEX 81
Description: TDR sensor with Modbus interface for continuous level measurement
Measurement loop name: Sensor

VEGA

False signal suppression

Display

Diagnostics

Echo curve

Measured value memory

Simulation

Status signals

Device memory

Function test

Additional settings

Date/Time

Reset

Scaling, level

Scaling, interface

RS485 interface

Modbus

Levelmaster

Sensor element type

Special parameters

Laboratory parameter

Info

software version 1.0.0

serial number 51108189

device status OK

Filling height of the level

2010 mm

(22) Measurement via probe end tracking Application-dependent

(23) Probe end tracking: Use the dielectric constant determined by the sensor? ☒

(24) Dielectric constant, medium 1.000

(25) Probe end tracking: Min. echo amplitude for change-over 3 mV

(26) Probe end tracking: echo measurement Positive probe end

(27) Dynamic false signal suppression On

(28) Reference echo measurement Off

(29) Sump detection Off

(30) Sensor element type Standard probe

(31) Cable breakage detection/Probe loss Application-dependent

(33) Assessment echo mobility On

(34) Max. amplitude, interface: Switching over to level 60 mV

(35) Selection interface echo Largest echo

(36) Temperature offset, steam compensation 0.0 °C

(37) Echo detection threshold probe end positive 20 mV

(38) Echo detection threshold probe end negative -20 mV

OK Cancel Apply

Testing / Confirmation Steps

- 21) If three separate echoes are detected change special parameter 35 to 'Largest echo'
- 22) Leave sensor powered for the remainder of the 30 minutes, you should get some readings during that time, then compare the readings to the first AssetPack report in the portal to make sure the numbers look the same.
- 23) Close the PACTware GUI
- 24) Unplug the VEGA Connect from the Computer
- 25) Unplug the VEGA Connect from the black puck on the sensor
- 26) Remove the Black puck from the sensor
- 27) Replace the Yellow Cover on the VEGA sensor

FINAL STEP

Call Pedigree Technologies installation support with the information listed below to confirm and finalize the installation.

701-499-0022

You will be prompted for the following information during the set up process

- Device IMEI
- Name of Asset (ex. Goosneck 51)
- Make and Model
- SN/VIN #
- License plate #