



NEP50xx USB option & data

visualisation (Application notes)



This document describes how to visualise NEP50xx USB sensor data using variety of methods and their sensor configurations.



This document describes following scenarios.

1. Simple Free-Flow data using a terminal software (with auto wipe and Auto single/range).

- 2. Simple Free-Flow data using NEP50xx windows app (with auto wipe and Auto single/range).
- 3. Advance Polled data including statistical parameters using a NEP50xx windows app (With manual wipe and single/auto range).
- 4. Simple Free-Flow data using Android app (with auto wipe and Auto single/range).



1. <u>Simple Free-Flow data using a terminal software (with auto wipe and Auto single/range).</u>

Mode of operation- Sensor is configured to output measurement data from power up. Also user may select auto wipe and single or auto range features.

Please Download "RealTerm terminal software" or similar software.

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To download RealTerm software please use this link "https://realterm.sourceforge.io/index.html#downloads_Download"



Selecting measurement ranging method. (Please select and press buttons in sequence as shown in red)

🖳 OEM Ca	libration - T	urbidity	y sensor /SN-	104234/Firmware-C2-0027	7 - Turb					
Disc	connect	/	Advance	•	Import from file Export to file	Import from sensor	Export to sensor and Save	Save calibration		
General	General Sensor Stage OutPut Stage Wiper Control Internal_Sensors 3									
Sensor	Sensor calibrations. Sensor operating parameters Sensor stage compensations. Sensor stage live data									
⊂ Rang ⊂ SF	ge Calibration T Operating I LOW NTU	Range © M	Single	e range 1 ⊙ High N U . Auto	Set	live data	Wipe(clean optics))		
	Range tra NTU	nsition s	ettings NTU	Auto R	ange	raw 0		Statistical data Sample acquisition time = 0 Number of samples = 0		
	0 ·	• To	4997 - NTU	Use Low range	from calibration	NTU O		Median = 0 Avg = 0		
	5003 ·	То	9995 -	Use Medium range	Udid	0		Min = 0 Max = 0		
	10005	• To	3000 -	Use High range						
Please note that for the accurate operation of auto range require an multipoint calibration for each range at or near transition points.										
Auto range operation mode Range selection is decided using current range value. 										





OEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb							
Disconnect Ad	vance	 Import from file 	Export to file	Import from Export to sensor and Save	5	Save calibration	
General Sensor Stage OutPu	t Stage Wiper Controll Inte	mal_Sensors					
Output_Stage	1						
OutPut Controll Analog Update rate 200 Analogue Analogue	Freeflow Digital Polled Digital Please select "3.6V_Serial" for USB cotions.	M Type 6V_Serial 👻 RS232, Bluethooth and	SDI12		4	Set	
Analogue Out BAW setup	Digital Polled MODBUS	SDI12					
Data Interval	Second	2			Set 3		
Communication settings 9600,8,N,1 -		-					
Output Sentence #,Sensor_ID,NTU	•						

Selecting the wiping method if available in your sensor. (Please select and press buttons in sequence as shown in red)

🖁 OEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb								
Disconnect Advance	 Import from file Export to file 	Import from sensor and Save	Save calibration					
General Sensor Stage OutPut Stage Wiper Control	Internal_Sensors		3					
Wiping mode Set Basic Motor Controls Single_direction_Wipe Wiper Timeout 30 Wipe On PowerUp Wiping Options Wiper Option OR Autowipe(in seconds 60000max) OFF	SET 1 Power On Raw Output(Analoge out) Analoge RAW out value during sensor startup. 3809	2	Testing Basic Motor Controls Single_direction_Wipe					

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2. <u>Simple Free-Flow data using NEP50xx windows app (with auto wipe and Auto single/range).</u>

Mode of operation- Sensor is configured to output measurement data from power up. Also user may select auto wipe and single or auto range features.

To download USB NEP5000 V4.exe software please use this link <u>"</u> <u>http://download.observator.com/files/Software/NEP50xx/USB%20NEP5000%20V4.exe</u>"

Use following settings.

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Select the correct COM port using "device manager"



Selecting measurement ranging method. (Please select and press buttons in sequence as shown in red)

🖳 OEM Cal	libration - T	urbidity	/ sensor /Sl	N-104234/Firmware-C2-002	7 - Turb						
Disc	connect	A	dvance	•	Import from file to file	Import fro sensor	m Export to sensor and Save	Save calibration			
General Sensor Stage OutPut Stage Wiper Controll Internal_Sensors 3											
Sensor	calibrations.	Sensor	operating p	arameters Sensor stage com	pensations. Sensor stage li	ve data					
- Rang - SE	e Calibration I Operating F LOW NTU	Bange M	Sing edium NTU	e range 1	Set 2	live data	data Wipe(clean o	optics)			
	- Range trar	nsition se	ettings	Auto R	lange	RAW	0	Statistical data			
	NTU		NTU		Auto populate		-	Number of samples = 0			
	0 -	То	4997	 Use Low range 	from	NTU	0	Median = 0			
	NTU		NTU		data	mo	·	Avg = 0			
	5003 -	То	9995	 Use Medium range 			0	Min = 0			
	NTU		NTU					Max = 0			
	10005 -	• То	3000	 Use High range 							
Please note that for the accurate operation of auto range require an multipoint calibration for each range at or near transition points. Auto range operation mode											



Selecting the output method. (Please select and press buttons in sequence as shown in red)

POEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb							
Disconnect Advance	▼ Import Export to file Import from Export to and Se	sensor ave 5 Save calibration					
General Sensor Stage OutPut Stage Wiper Controll In	temal_Sensors						
Output_Stage 1 OutPut Controll Analog Update rate 200 Analogue Poled Digital Please select 3.6V_Serial	COM Type SDI12 3.6V_Serial for R5232, Bluethooth and	4 Set					
Analogue Out _RAW_setup Digital Polled MODBU	s SDI12 2	Set 3					
Communication settings 9600.8.N.1 Output Sentence #.Sensor_ID.NTU							

Selecting the wiping method if available in your sensor. (Please select and press buttons in sequence as shown in red)

🖳 OEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb									
Disconnect Advance	✓ Import from file Export to file	Import from Export to sensor and Save	Save calibration						
General Sensor Stage OutPut Stage Wiper Controll	Internal_Sensors		3						
Wiping mode Set Basic Motor Controls Single_direction_Wipe Wiper Timeout 30 Wipe On PowerUp Wiping Options Wiper Option OR Autowipe(in seconds 60000max) OFF	SET 1 Power On Raw Output(Analoge out) Analoge RAW out value during sensor startup. 3809	2	Testing Basic Motor Controls Single_direction_Wipe • Test						

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3. <u>Advance Polled data including statistical parameters using a NEP50xx</u> <u>windows app (With manual wipe and single/auto range).</u>



<u>4.</u> Simple Free-Flow data using Android app (with auto wipe and Auto single/range).

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