



User Manual V2.0

March 2024

Product Overview

BluLite is a Bluetooth Low Energy temperature & humidity data logger with the latest Bluetooth 5.0 technology. It can collect and record the environment's temperature & humidity. BluLite can store up to 32,000 records display data and alarm in real time on LCD screen. The logger connects to DataSuite app for Windows and FourtecLite for Android that enable manage and monitor the data as well as add a sound alarm.

The logger is a small-sized, low-weighted, easily portable and highly accurate device for wide use in the cold chain logistics, archives, labs, museums, etc.

Product application

- Food Manufacturing
- Catering, ready meal kits and hospitality
- Agriculture & aquaculture, pre & post harvesting
- Pharmaceutical manufacturing sites
- Pharmacies
- Laboratories
- Warehouse & museums
- Industrial applications
- Wholesale & retail
- Export, in land & last mile delivery transportation





Product Features

- ✓ High accuracy and stability
- ✓ Bluetooth 5.0
- ✓ Built-in highly sensitive temperature & humidity sensor
- ✓ Real-time broadcast temperature & humidity, can view the temperature & humidity in real time on the LCD
- ✓ It can store 32,000 pieces of temperature & humidity data (when the storage space is full, the first 256 pieces of data will be overwritten)
- ✓ Sound Alarm for temperature and humidity threshold when connected to DataSuite or FourtecLite
- ✓ Boomerang Report when connected to DataSuite and FourtecLite
- ✓ Automatic emails reports and Alarms when connected to DataSuite or FourtecLite

Item	Specification
Protocol standard	Bluetooth Low Energy 5. 0
Battery	620mAh /3V(replaceable)
Sampling Memory	32,000 samples
Operating temperature range	-20°C~ +60°C
Temperature detection accuracy	±0.3°C (-20~40°C), ±0. 5°C(other)
Operating Humidity range	0~90%RH
Humidity detection accuracy	±3%RH(10~90%), ±5%(other)
Battery life	1 year depending on sampling rate and operating conditions
Net weight	40g
Dimensions	86mm*48mm*12mm
Standards compliance	IP54

Product specification



Caution

- Proximity to metal objects may weaken the signal due to interference
- Make sure the logger and mobile device meet the manufacturer recommended distance on order to guarantee the accuracy of receiving
- Keep away from water and corrosive objects.

User Guides

Device Instructions

Device Buttons

Action	Instructions	Operation
Turn on ►	Long press "Play" button for 3 seconds turns the device on	The device starts display real time measurements The device records the data only when pressing "run" using FourtecLite for Andorid or DataSuite for Windows
Turn Off ■	Long press the "Stop" button for 3 seconds	Turn off the device

LCD display description





NO.	Instructions	NO.	Instructions
1	√ measurement in threshold × measurement is/was out of threshold during the current run	5	Bluetooth indication
2	 readings are saved in logger logger is on, measures are not saved. 	6	Bluetooth is communicating
3	 ↑ the measurement is higher than the maximum range ⊥ the measurement is lower than the minimum range 	7	Reading Value every 2 seconds the value switches between Temperature and Humidity reading
4	Remaining battery level	8	℃ Temperature unit % Humidity unit

Battery status displays description

Battery	Capacity
Ē	Full
Œ	Good
Œ	Medium
C	Lower (Please replace battery)



FourtecLite For Android

FourtecLite is an Android mobile application utility that enables reviewing sampling session history, configuring devices, and monitoring sampling sessions, all from an Android mobile device.

The user can connect the BluLite logger to FourtecLite application with Bluetooth.

Both efficient and user-friendly, FourtecLite is designed for different users in various processes and industries, offering flexibility and precision in data handling on the go:

- Monitor real-time data: keep track of ongoing sessions for immediate insights.
- Configure the data loggers: set up and adjust your Fourtec loggers directly from your Android device.
- Send email notifications of data abnormalities to pre-define email list.
- Define settings for each and every sensor and sync it when required with the DataSuite to keep data flow.

Download and install FourtecLite

Open play-store and install FourtecLite by Fourtec – Fourier Technologies Ltd.

Install and open the application.



Connect your device

1. Open the APP, and click "SCAN FOR BLE DEVICES"	2. Find your device and click "connect".	3. Wait for connection and data loading
Prove the provided and	pini BluLite Connect Avi BluLite Connect David BluLite Connect Fourtec BluLite Connect	

After connection the application will open

Important notes:

• The default name of the device is BluLite[7 last digits of ID number]. You can find the ID at the back of your device



• In case you changed the name in the settings it will appear according to the settings.



Disconnect your device

Go to BLE devices

A list of all devices will appear on screen.

Click connect/disconnect form the selected device.

6	2	8.8150
FOURTEC	David BluLit S/N : 16230034 BluLite	e stop
		G
David BluLite		DISCONNECT
	∽ Summary	
-1]1-	m ¢	BLE DEVICES



Configure device

Click setup button to set the device.

U Ten	nperature°C	Humidity %)
			80
			60
			40
			20
			0

The screen will open as in the picture on the right:

NO.	Instructions
1	Device name- The name is visible in DataSuite and FourtecLite and is used for connection and reports> It is editable – edit the text in the text box
2	Product name
3	Firmeware
4	Level of Battery
5	The units of the measurement

F	BluLite31235	
FOURTEC	BluLite	RUN
Identifi	t.t.t	
1	and Joe Butchers shipment	1
Ty	ne disits and letters in 12/	15
en	glish only	
2 Device	c BluLite	
J Pirmw	are: 2.01	
4 batter	y seven you	
Temper	ature Scale	
5 00	daius O Fah	renheit
Options		1
6 🖬 oye	ske run	
		_
Sampli	ng Rate	
Interval	i and a second sec	
	HHMM.SS]	- I
1	00:01:00	
Decord	te e stere	
0 0.0	ing time	8
0	one of the states and	_
9 Sensor	Configuration	
A	and Finited Temperature	
A Marin	nne ograv seroperatore :	B
🚇 100	ernal Digital Temperature Alarm	•
LO		н
-		
C Z	2) D (2	7
🛃 inte	emal RHN.	
O	ternal RH [5] Alarm	•
LO		н
-		-
7	5	10
10 Alert	Contact information	
-	leceiver email	_
A	ourmail@company.com	
_	20/41	-
B	totifications Interval [HH: MM:SS]	וה
1	В	_
11 (OK OK and Run	J
	Ignore Changes	
12	~	
12	Summary	
alte	m 🌣	4





-	
6	Cyclic Run The logger is in cycling mode - rewriting new measurements on old measurements when reaching the full capacity of the memory.
7	Interval The interval between samples
8	Recording time The current recorded time. When stop mode it shows the last log recorded When in run mode it shows the current recorded time.
9	Sensor Configuration A: sensor name The box is ticked by default. It shows that the sensor is activate B: turning it on, activates that alarm for this sensor C: minimum threshold for the alarm D: maximum threshold for the alarm
10	Alert contact information – Boomerang Feature A : insert your email address for email notifications *The mail is sent when the device is only B : Notification Intervals: the interval in which the alarm notification is sent Every time a user connects a logger to an Android device, an email will be sent with the alarms and an attached report to this email address.
11	A: save changes B: save changes and start run
12	Open short summary of the settings



Start/Stop recording

"Run"/"Stop" button – starts measurement recording or stops the recording.

OURTEC	David Blu S/N : 16230 BluLite	Lite ⁰³⁴	RUN	FOURTEC	David B S/N : 162 BluL	BluLite 230034 ite	STO
Time	Temperati	ure Inter	nal Hum	🔒 Tem	perature°C	(Hur	nidity %
				-		C	
				25			
				24			
				23			
				22			
				21			
				20			
				07 Dec 11:21	07	Dec 11:22	_
	^				^		
	Summary				Summ	iary	
		1	*	-th-		101	\$

Note: Once clicking "Start", historical data will be deleted.



Calibration

The device is calibrated.

However, when necessary, the BluLite device can be calibrated.

Go to setup, and scroll down to "Sensor Calibration" section

Turn on the switch:



Enter the password "1234" and then press "Done":





If the BluLite device is already calibrated, the "Reset Calibration" button appears, press on it

FOURTE	BluLite30323 s/N : 16230323 BluLite	RUN
>	Receiver email ophirm@fourieredu.com 21/45	
Sens	sor Calibration Calibrate	
Int	ternal Humidity Calibration	
	OK OK and Run Ignore Changes	
	Summary	
	Setup	*

Insert two reference points and two reading points respectively, then press "Send":

FOURTEC	BluLite3 S/N : 162 BluLi	30323 30323 ite	RUN
Sensor C	alibration	Calibrate	•
Interna Mi Point# Point#	Il Humidity Ca nimum : 0 %, Ma Referen ce 1 1 50 0 2 3 40 0	libration aximum : 100 % Logger Value 2 40 4 30 5 Sen	
C	OK C	DK and Run	
4]]+	111	¢ Setup	*

Then the device is ready to use.





DataSuite For Windows

Download and Install

Go to https://fourtec.com/download-center/ download DataSuite software.

Then install it on the computer and follow the wizard instructions.

Connect your device

Click on the bluetooth icon, a window opens with a list of bluetooth devices it detects Select the device you want to connect and then click on "add device"



The logger will appear on the main screen in map/sensor view.

It is possible to connect a few BLE devices at the same time.

Important note: There is a limit of 4 active BluLite devices at the same time due to Windows and BlueTooth limitations. Further info can be found below in the next chapter.



Disconnect/Connect and Deactivate/Activate

Right click on the BluLite icon on your mapview.

If the device is not connected the following menu appears:

Connect Activate Deactivate	2	Remove
Activate Deactivate		Connect
Deactivate		Activate
		Deactivate

If the device is connected the following menu appears:

	1	
	3	Display Data
		Download Data
		Cancel Download
		Calibration +
		Setup
		Stop
		Run
		Remove
1		Connect
		Activate
		Deactivate

Instructions:

- Activate –activate the logger in DataSuite. It is possible to see online data ٠ measurements. The software supports up to 4 activated loggers. If there are already other 4 activated loggers, mind that you need to deactivate one of them first.
- Deactivate The logger is recognized by DataSuite but there is no real time data from the logger. Select Deactivate when the logger is active and you may want to activate another logger. After deactivation the logger stays on the map view.
- Connect -. Select when you want to establish connection between DataSuite and the logger.
- Remove unpair the logger from your device. Disconnect DataSuite from the logger and removes it from the map view.

Important note: when launching DataSuite, it connects automatically to loggers that are activated in the software. If connection fails, BluLite might be out of range or off. When an activated BluLite comes to range or on, it will connect automatically after a short while.



Sensors' Tool tip

Active and not Running - Icon is colored and the reading is displayed



Active and Running - icon is colored and the progress bar is active



Deactive – icon is greyed.

BluLite Serial Number: 16231235 BluLite31235 Battery Level: 99%



Configure device

Right click on the BluLite icon then select setup

<u> </u>	
Display Data	
Download Data	
Cancel Download	
Calibration +	
Setup	
Stop v3	
Run	
Remove	
Connect	
Activate	
Deactivate	

The setup has 3 tabs for configuration properties, sensors and boomerang report.

At the bottom of the window you can find:

- OK and Run Save the changes and start a run.
- OK Save changes in the device.
- Close Exit without changes.

Properties

Properties	Sensors	Boomerang Report		
Identifiers SN:		16231235		
Comment:	1	BluLite31235		
Device:	2	BluLite		
Firmware:	3	2.01		
Battery level:	4	99%		
Temperature Scale	,			
● °C ○ °F	5			
Sampling Kate	6	00:00:10 (hh:mm:ss)		
Recording time:	7	1.21:30:40 [(days) hh:mm:ss]		



NO.	Instructions
1	Device name- The name is visible in DataSuite and FourtecLite and is used for connection and reports> It is editable – edit the text in the text box
2	Product name
3	Firmeware
4	Level of Battery
5	The units of the measurement
6	Interval The interval between samples
7	Recording time The current recorded time. When stop mode it shows the last log recorded When in run mode it shows the current recorded time.

<u>Sensors</u>

Setup for BluLite: 16231235				x
Protecties Sensors Boomerang Report				1
A ✓ Temperature [°C]				
B ☑ Alarm C 22 - D 27	[°C]			
✓ Internal RH [%]				
Alarm 75 - 80	[%]			
OK and Ru	n	ОК	Close	





NO.	Instructions
1	Sensor Configuration A: sensor name The box is ticked by default. It shows that the sensor is activate B: turning it on, activates that alarm for this sensor C: minimum threshold for the alarm D: maximum threshold for the alarm

Boomerang Report

_		
S	etup for BluLite: 16231	235
	Properties Sen Settings 1	Isors Boomerang Report
	Temperature Units	● °C ○ °F
	Generated by:	FOURIER\Hedva
	Comment:	BluLite31235
2	Email Contacts Add Contacts	A
	Characters remaining:	
	118	
	Custom Email:	в
		OK and Run OK Close

Properties Se	insors Boomerang Report	
Settings		
Include Boomerang	g Report	
Temperature Units	● °C ○ °F	
Generated by:	FOURIER\Hedva	
Comment:	BluLite31235	
- 40		
Email Contacts		
Email Contacts Add Contacts	yourmail@company.com	
Email Contacts Add Contacts	3 yourmail@company.com yourmai	
Email Contacts Add Contacts Characters remaining:	a yourmail@company.com yourmaa	
Email Contacts Add Contacts Characters remaining: 97	a yourmail@company.com	
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Email Contacts Add Contacts :haracters remaining: 97 :ustom Email:	yourmail@company.com	
Email Contacts Add Contacts Characters remaining: 97	yourmail@company.com	
Email Contacts Add Contacts Characters remaining: 97 Sustom Email:	yourmail@company.com	
Email Contacts Add Contacts Iharacters remaining 97 Sustom Email:	yourmail@company.com yourmail	



NO.	Instructions
1	Settings General information about the sensor that will appear in the report
2	 Email Contacts A: Add contacts from your contacts list. B: write an email address you C: click + to add the email to the list of contacts for the Boomerang report.

Start/Stop recording



On the map view, Right click on the device icon, click "run"/"stop" to start or stop the recording of the device.

Display Data

Right click on the device icon, select display data. The data stored in the logger is downloaded to the software and displayed in a graph. The graph is updated as long as the logger is connected.



ph Table Statistics		
20.0	Comment:BluLite31235 S/N:16231235	
26.2		
201		-44
26.1 -		125
36		-43.0
20	R	-42
25.9		-45
20.0		-425
25.8		42.5
		-42
25.7		
-15		-41.5
25.6 -		
		-41
25.5 -		<u>_</u>
		-40.5
25.4 -		<u>_</u>
		-40
25.3 -		<u> </u>
		- 39.5
25.2 -		- 39.25
/03/24 16:49:48 20/03/24 16:50:00	20/03/24 16:50:50 Internal RH (41 70%)	20/03/24 16:51:18
	Alarm Nasa	

Download Data

Download data downloads the data in the current run or last run on device and saves it on your pc.

Calibration

The device is calibrated.

However, when necessary, the BluLite device can be calibrated.

Right click on the device on map-view and select:

Display Data	
Download Data	
Cancel Download	
Calibration +	Calibrate
Setup	Reset Calibration
Stop	
Run	
Remove	
Connect	
Activate	
Deactivate	

Entre your password (the default password is 1234)



Password	×	
Enter password to enable this feature		
Password :		
OK Cancel Change Password		

Select the sensor and send calibration

Calibration
Sensor Sensor: Internal RH Sensor: Internal RH Sensor: Internal RH Sensor: Sensor: Sensor: Sensor: 16231235 Buttes 1235 Battery Level: 99% Version: 2.01 Temperature: 25.40°C Internal RH: 46.00%
3 Calibration Reference Value Logger Value Point #1: A 33 B 33 C Copy Point #2 67 67 Copy
4 Send Calibration 5 Reset Calibration 6 Close

NO.	Instructions
1	In case the logger has more than 1 sensor, please select the relevant sensor for calibration
2	Information about the logger
3	Calibration A: the relevant reference point B: the current value of the logger C: If you are performing an online calibration e.g. using a calibrator, the logger displays the value to be calibrated, press the Copy button to copy the real value to the Logger Value text box.