

# Data Logger

# **DL1000B-4G**

# **SPECIFICATION**

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Version: V1.0

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## Revision history

Revision	Release notes	Update time	Author
1.0	-		

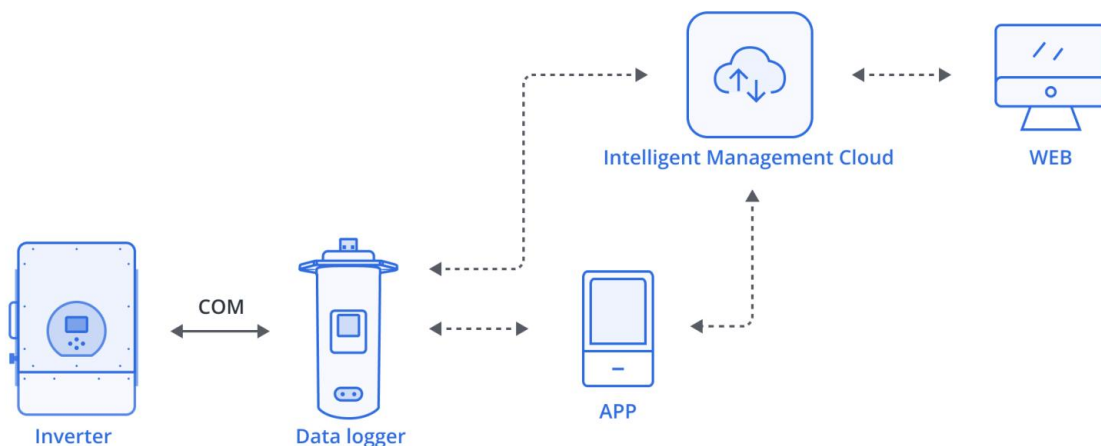
## Contents

1. Introduction .....	3
2. Features .....	3
3. Characteristics .....	4
4. Data interface description .....	5
5. Dimension information .....	6
6. Logger Status .....	7
7. Abnormal State Processing .....	8
8. External packing Information .....	9
9. Firmware Configuration .....	9
Appendix .....	10

## 1. Introduction

The DL1000B-4G data logger stick is a communication device specifically designed for collecting inverter data. It can transmit the working status and power generation status of the inverter to the Deye Cloud platform through 4G mobile network for long-term and effective monitoring of the photovoltaic power generation system, helping users manage distributed power plants at low cost and high efficiency, greatly simplifying maintenance work.

The data logger stick DL1000B-4G supports 4G mobile network and Bluetooth BLE, MODBUS command transparent transmission and custom command configuration, local/remote firmware upgrade, inverter parameter adjustment, and remote debugging. Using the local mode of the APP, the current data of the inverter can be fetched using Bluetooth BLE. After the data logger stick is disconnected from the network, the real-time data of the inverter will be continuously saved. When the network is reconnected, the saved data can be uploaded to the intelligent management cloud platform.



## 2. Features

- 1) Plug and play;
- 2) 1-minute data refresh interval;
- 3) Support App local-mode by Bluetooth;
- 4) Support remote OTA ;
- 5) Support data backfilling;
- 6) High-availability wireless design;
- 7) Encrypted transmission

### 3. Characteristics

Symbol	Parameter		
4G	AERA	EMEA	
	LTE-FDD	B1/3/5/7/8/20/28	
	LTE-TDD	B38/40/41	
	GSM	B2/3/5/8	
	Antenna	Build-in Antenna	
BLE	Protocols	BLE 4.2	
	TX power	MAX : 18dBm	
Hardware	Data Interface	USB	
	Power supply voltage	DC 5V	
	Power dissipation	3.5W	
	LED		NET LED
			COM LED
	SIM	Nano SIM	
	Operating temperature	-30°C ~ +70°C	
	Operating humidity	10%-90% (No Condensing)	
	Storage temperature range	-40°C ~ +85°C	
	Storage humidity	<40%	
	Ingress Protection	IP65	
Dimension ( W×D×H )	116.6mm×70.5mm×30.5mm		
Software	Serial communication speed	Default :9600bps	
	Data collection interval	Default :1 minute ( 1-15 mins Optional )	
	User Configuration		AT Command
			Remote Server
	OTA	Remote OTA	
Others	Real-Time control , Data backfilling		

## 4. Data interface description

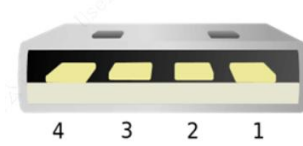


Table 2

in	Name	Type	Function
1	VCC	Power	Input Power : DC 5V ( ≥2.5W )
2	RXD	Input	3.3V TTL UART
3	TXD	Output	3.3V TTL UART
4	GND	Power	Input Power : GND

## 5. Dimension information

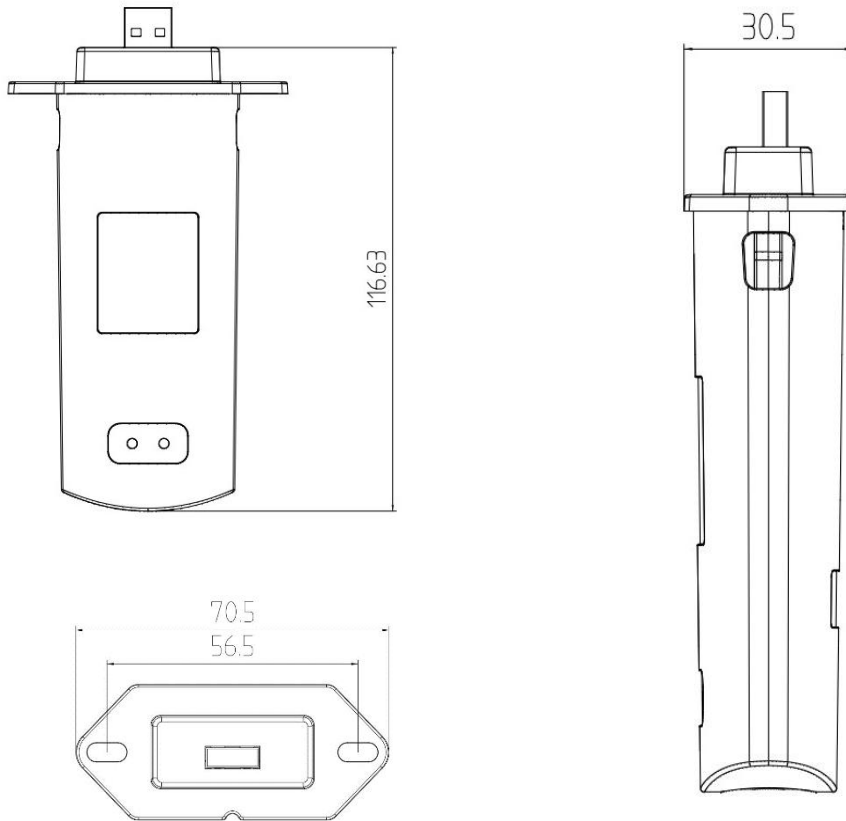


Table 3 (Unit : millimeters)



## 6. Logger Status

The normal operation status of the stick logger, when router connected to the network normally:

1. Connection to the server succeeded: NET blue light keeps on after the logger powered on.
2. Connection to the device succeeded: COM blue light keeps on.

Lights	Implication	Status Description(Both lights are red/blue lights)	
NET	Communication status with server	Light off	The device is not running
		Blue light on	Connection to the cloud server succeeded.
		Blue light flashing	Connecting to cloud server (duration less than 30s) or logger OTA.
		Blue light flashing slowly	Connecting to base station (duration less than 1 minute).
		Red light on	Connection error.
COM	Communication status with inverter	Light off	Communication with the device failed.
		Blue light on	Communication to the device succeeded.
		Blue light flashing	sub-device OTA running.
		Blue light flash slowly	Power On
		Red light on	Communication error
NET+ COM	Restore the factory settings	Net blue light flashing, and COM blue light flashing	Restoring factory settings.

Notes: 1. Flashing : LED flashes at 10Hz ;

2. Flashing slowly : LED flashes at 1Hz.

## 7. Abnormal State Processing

If the data on platform is abnormal when the stick logger is running, please check the table below and according to the status of indicator lights to complete a simple troubleshooting. If it still can not be resolved or indicator lights status do not show in the table below, please contact Customer Support.

NET	COM	Description	Possible Reason	Recommended Process
Red light flashing slowly	Any	Communication between data logger and cloud abnormal	1. SIM card not installed or not installed properly;	1. Check if the SIM card is installed 2. If already installed, remove the SIM and reinstall it 3. Contact customer service
Red light on	Any	Communication between data logger and cloud abnormal	1. SIM card has no signal, weak signal strength, or no data usage	1. Contact the operator to resolve; 2. Check if the SIM card tariff and data usage are normal
Any	Red light flashing slowly	Communication between data logger and inverter abnormal	1. Loose connection with inverter 2. Electromagnetic interference causes data transmission error	1. Check connection between data logger and inverter, unplug and reinstall 2. Long press Reboot button for 5s to reboot data logger 3. Check if there are high power electrical appliances nearby
Any	Red light on	Communication between data logger and inverter abnormal	1. Loose connection with inverter 2. Communication rate between inverter and data logger does not match	1. Check connection between data logger and inverter, unplug and reinstall 2. Check if inverter's communication rate matches data logger 3. Long press Reboot button for 5s to reboot data logger

Notes: 1. Flashing slowly : LED flashes at 1Hz.

2. Please using the following table query after power-on for 2mins at least.

## 8. External packing Information

Packing Box Size (W×D×H) : 169mm×82mm×41 mm

### Label Information

Type	Content
Product Label	Name: Deye Data Logger Model: DL1000B-WIFI Input: DC 5V 1.5W CE certification, etc. Ningbo Deye Inverter Technology CO., Ltd.
SN Label	SN QR Code、SN、PWD
Material No.	10010400000051

## 9. Firmware Configuration

Default Configuratio	
Domain name	eu1-fwupgrade.deyecloud.com us1-fwupgrade.deyecloud.com

## Appendix

### Packing List

	<b>Mount</b>	<b>Notices</b>
Deye Data Logge	1	--
Screw	2	--
Data Logger Quick Guide	1	--