

The new series of DLT-10 and DLT-11 loggers are portable electronic devices with an OLED display and a USB interface. The logger measures and records temperature and relative humidity data into its internal non-volatile memory. These devices are used for monitoring temperature and relative humidity. The logger is equipped with a built-in Swiss-made temperature and humidity sensor. In addition to the built-in sensor, the logger can support up to two external temperature sensors connected via a USB port. The logger is powered by a replaceable lithium battery, which lasts for several years depending on the usage conditions and recording interval. It connects to a computer through a USB port to set parameters and download recorded data using the free LoggerSoft software. Data stored in the logger's memory can be saved in CSV or PDF formats.

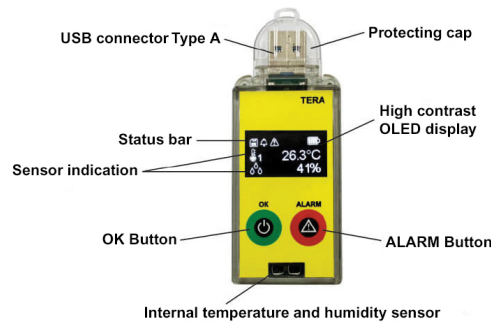
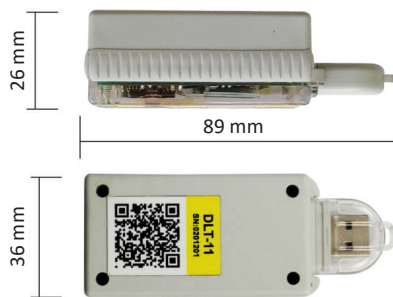
**Key Features**

- Measurement of air temperature and relative humidity
- Data recording in a user-defined mode
- Display and recording of alarm conditions
- USB interface for reading data and configuring the logger's operation mode
- Compatibility with Windows XP, 7, and 10
- Display of modes, alarms, and current sensor readings on a high-contrast OLED display
- Flexible configuration of the logger's operation mode using the free LoggerSoft software



**Design features**

Data logger is made from polycarbonate case with a standard USB connector, high-contrast OLED display and two control buttons. Logger is also supplied with a magnetic mount.



**TECHNICAL SPECIFICATIONS**

| Model   | DLT-10  | DLT-10-Pt <sup>1</sup> | DLT-10-2Pt <sup>1</sup>                                       | DLT-10-TC <sup>1</sup> | DLT-10-AT         | DLT-10-2AT  | DLT-11                                      | DLT-11-Pt <sup>1</sup>   | DLT-11-2Pt <sup>1</sup> |
|---|---|------------------------|---|------------------------|-------------------|-------------|---|--------------------------|-------------------------|
| <b>Logger Specifications</b>                                      |   |                        |   |                        |                   |             |   |                          |                         |
| Q-ty of Measuring Channels  | 1   | 2                      | 3   | 2                      | 2                 | 2           | 2   | 3                        | 4                       |
| Available channel configurations <sup>2</sup>                     | IT  | IT + ET                | IT + 2 ET   | IT + ET                | IT + 4-20 mA      | 2 x 4-20 mA | IHT   | IHT + ET                 | IHT + 2 ET              |
| Indication  | OLED 0.96', resolution is 128x64 pixels, display by pressing a button |                        |   |                        |                   |             |   |                          |                         |
| Logging Interval  | From 1 minute to 1 hour   |                        |   |                        |                   |             |   |                          |                         |
| Battery Type  | 1 battery (½ AA 3,6 V 1200 mA 14250)                                  |                        |   |                        |                   |             |   |                          |                         |
| Battery Lifespan (by regular conditions)                          | Over 5 years  |                        |   |                        |                   |             |   |                          |                         |
| Memory (readings)   | 2 621 440 (RH & Temp)   |                        |   |                        |                   |             |   |                          |                         |
| <b>Specifications of Internal Temperature Sensor</b>              |   |                        |   |                        |                   |             |   |                          |                         |
| Sensor Curve  | TMP116  |                        |   |                        |                   |             |   |                          |                         |
| Operating Temperature Range, °C                                   | -30...60  |                        |   |                        |                   |             |   |                          |                         |
| Accuracy, °C  | 0,5   |                        |   |                        |                   |             |   |                          |                         |
| Response Time, sec  | 180   |                        |   |                        |                   |             |   |                          |                         |
| <b>Specifications of Internal Humidity and Temperature Sensor</b> |   |                        |   |                        |                   |             |   |                          |                         |
| Sensor Curve  |   |                        |   |                        |                   |             |   | SHT31                    |                         |
| Operating Humidity / Temperature Range                            |   |                        |   |                        |                   |             |   | -30...60 °C / 0...100%   |                         |
| Humidity / Temperature accuracy                                   |   |                        |   |                        |                   |             |   | 0,5 °C / 3% <sup>3</sup> |                         |
| Response Time, sec  |   |                        |   |                        |                   |             |   | 180                      |                         |
| <b>Specifications of External Temperature Probe</b>               |   |                        |   |                        |                   |             |   |                          |                         |
| Sensor Curve  | Pt1000  |                        | XA (K)  |                        | 4-20 mA           |             | Pt1000                                      |                          |                         |
| Operating Temperature Range, °C                                   | -50...100, -50...250, -50...500, -100...100                           |                        | -40...250, 0...500, 0...850, 0...1250                         |                        | Set by the logger |             | -50...100, -50...250, -50...500, -100...100 |                          |                         |
| Accuracy, °C  | ± (0,4 + 0,002 x  T  <sup>4</sup> )                                   |                        | ± 2,5 (up to 375°C) or ± 0,0075 x T (over 375°C) <sup>4</sup> |                        | 0,5 %             |             | ± (0,4 + 0,002 x  T  <sup>4</sup> )         |                          |                         |
| Connection  | USB3  |                        |   |                        | By USB cable      |             | USB3  |                          |                         |






<sup>1</sup> - External temperature probe is supplied separately  
<sup>2</sup> - ET - external temperature probe, IT - internal temperature sensor, IHT - internal RH and temperature sensor  
<sup>3</sup> - relative humidity accuracy is 3% (10...90%), ≥ 4% (0...10% and 90...100%)  
<sup>4</sup> - T - operating temperature range



## Settings

Logger settings are customized by the LoggerSoft software, that allows the user to change logger settings, read and store data. LoggerSoft is available to **DOWNLOAD FOR FREE** here: [ao-tera.com/img/common/content/files/LoggerSoft\\_UA.zip](http://ao-tera.com/img/common/content/files/LoggerSoft_UA.zip).







### CONTROLLING THE CURRENT LOGGER STATE BY OK & ALARMS BUTTONS



| Buttons   | Action   | Description                                  |
|---|--|--|
|  | Quick press <b>OK</b> (less 1 sec)                                   | Displays main window                         |
|  | Two quick press <b>OK</b> (a pause between pressing is up to .5 sec) | Displays ALARM window                        |
|  | Long press <b>OK</b> (5 sec)   | Displays service inform window               |
|  | Long simultaneous press <b>OK &amp; ALARM</b> (5 sec)                | Turning on archiving (first press)           |
|  | Quick press <b>OK</b> , then long press <b>ALARM</b>                 | Turning ON / OFF (all the following presses) |





## Status

The main window (pic. 3) has a status bar, that contains the following icons:

-  Archiving is in progress
-  ALARM is ON
-  ALARM is present
-  Archiving / ALARM launch delay (after archiving launch)
-  Archiving launch in certain time
-  Manual archivation launch

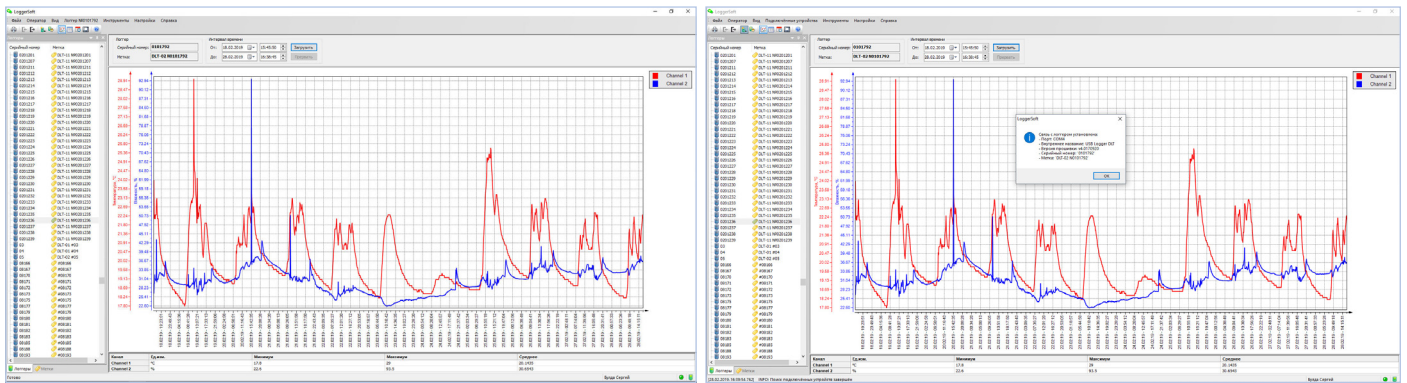
Regardless operation mode it also indicates battery charge  in status bar. When battery charge less than 12%, the icon turns into . Bellow of the status bar it indicates measurement of the available channels.

-  Temperature channel
-  Relative humidity channel

## PC connection

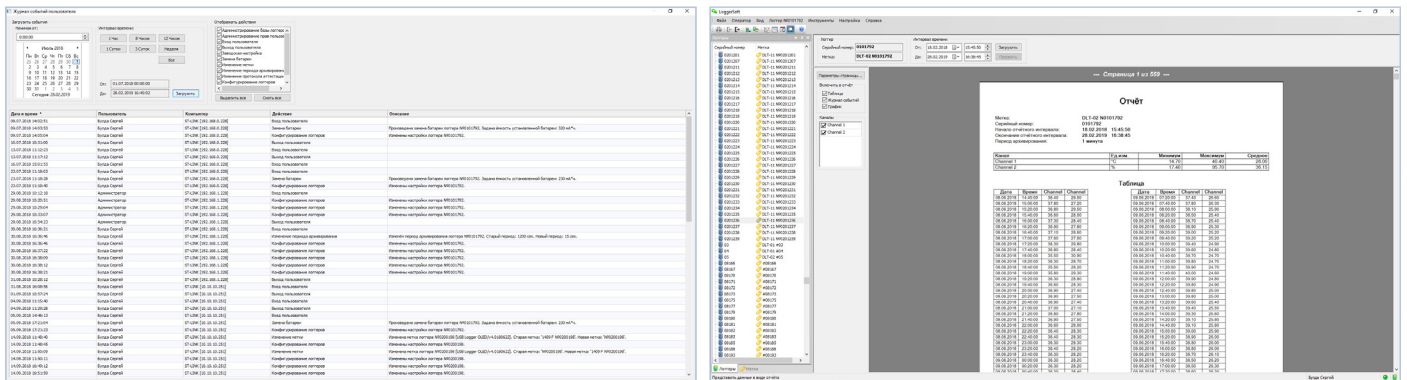
The logger can be connected to PC with one of two modes:

- **FLASH MEMORY** mode generates a report as a PDF or CSV file, that may be saved to PC. Report time generating is approximately 30 seconds.
- **COM-PORT** mode allows the user to customize logger's settings, view and store data, using LoggerSoft software. For COM-PORT mode it requires to press OK button during 5 seconds after PC connection.



LoggerSoft is the software used to operate Data Loggers powered by TERA Ukraine. This software offers a range of functionalities, including the ability to customize logger settings, access event logs and archives, view and analyze data, and generate reports. All data collected by the logger is stored in a database and can be easily accessed and analyzed at any time.

One of the notable features of LoggerSoft is its flexible system for managing user access rights, which allows for different permission levels for staff members. It also supports operation within a local network, enabling simultaneous access to data for multiple users. LoggerSoft is optimized to run on Windows 10. You can download the software for free here: [ao-tera.com/img/common/content/files/LoggerSoft\\_UA.zip](http://ao-tera.com/img/common/content/files/LoggerSoft_UA.zip).



### Key Features

- Reading and saving logger’s settings
- Reading data saved in the logger’s memory
- Viewing archives for specific time periods
- Automatic or manual graphic scaling for each axis
- Viewing humidity and temperature measurements in table or graphic format
- Printing graphics, tables, and reports
- Accessing and viewing the logger’s event log
- Accessing and viewing the user’s event log
- Setting the archive period
- Configuring humidity and temperature ranges for alarm triggers
- Selecting the data recording mode: **CYCLICAL** or **UNTIL MEMORY FILL**
- Choosing the report format: CSV or PDF
- Setting options for archiving launch:
  - Immediate after pressing the button
  - With a delay after pressing the button
  - Immediate after configuration
  - With a delay after configuration
  - At a specific time
- Precomputing the remaining time of the logger’s operation until the battery needs to be changed
- Local network support for multiple users
- Searching for connected loggers
- Viewing and setting information related to the metrological attestation of the connected logger

The system requirements for LoggerSoft software are as follows:

- CPU: 1 GHz or faster
- Memory: 512 MB RAM or more
- Free space for program files: 50 MB or more
- Free space for the database: 4 GB or more