USB-T-21CFR LCD
21CFR Compatible
Temperature Data Logger with LCD Screen

- -35 to +80°C (-31 to +176°F) measurement range
- Stores over 16,000 readings
- EasyLog 21CFR software available as a free download
- Logging rates between 10 seconds and 12 hours
- High contrast LCD, with two and a half digit temperature display function
- Immediate, delayed and push-to-start logging
- User-programmable alarm thresholds
- Use as part of a 21CFR Part 11 compliant system

This standalone data logger measures and stores more than 16,000 temperature readings over a -35 to +80°C (-31 to +176°F) range with a resolution of 0.5°C (1°F).

The user can easily set up the logger and view downloaded data by plugging the data logger into a PC's USB port and using the free EasyLog 21CFR software. Data can then be graphed, printed and exported to other applications for detailed analysis. The encrypted data has full audit tracking to comply with the requirements of 21CFR Part 11.

The high contrast LCD can show a variety of temperature information. At the touch of a button, the user can cycle between the current, maximum and minimum stored values for temperature.

The data logger is supplied with a lithium metal battery which gives three years' logging life. The logger is protected against ingress from water and dust to IP67 standard when the cap is fitted.

SPECIFICATIONS

Measurement range	-35 to +80°C (-31 to +176°F)
Internal resolution	0.5°C (1°F)
Accuracy (overall error)	±1°C (±2°F)
Logging rate	User selectable between 10 seconds & 12 hours
Operating temperature range	-35 to +80°C (-31 to +176°F)
Battery Life	3 years (at 25°C and 1 minute logging rate, LCD on)
Readings	16,378
Dimensions	120 x 25 x 22mm (4.72 x 0.98 x 0.86")

ACCESSORIES

BAT 3V6 1/2AA	Replacement battery

INCLUDED IN THE BOX

BAT 3V6 1/2AA	Battery
EL-LCD WALL BRACKET	Mounting Bracket

CALIBRATION CERTIFICATES NOW AVAILABLE

FilesThruTheAir now offers a Traceable Calibration Certificate Service on Temperature Data Loggers. Using reference equipment which has been calibrated by a UKAS/NIST accredited laboratory and using apparatus traceable to national or international standards. For more information, please see **www.filesthruthreair.com**.

EasyLog 21CFR

STORE DATA IN COMPLIANCE WITH THE REGULATIONS OF 21CFR PART 11

Easy to install and use, FilesThruTheAir EasyLog 21CFR software is compatible with all latest versions of Windows (7, 8 & 10 - both 32-bit & 64-bit) and is available as a free download from www.filesthrutheair.com. All data collected from the logger and associated audit trails are stored in an encrypted format which cannot be edited.

CONTROL YOUR LOGGER

Users can configure their loggers with the following parameters:

- Logger name
- Temperature measurement parameter (°C or °F)
- Logging rate (user selectable between 10 seconds and 12 hours)
- High and low alarms for temperature
- Immediate, delayed and push-to-start logging mode

Once users have recorded data, the built-in graphing software allows them to graph and annotate their data, or export it to Excel, PDF or jpeg formats.

CONTROL YOUR DATA

EasyLog 21CFR software ensures digital security and compliance:

- Assign individual users with specific permissions
- Full software & session data audit trails
- Receive email alerts for failed log in attempts
- Digital signatures added to all reports
- Add comments to specific readings
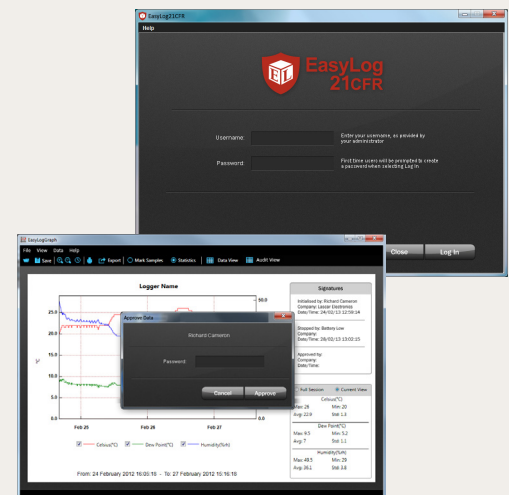
For more information, and to download the latest version of the software free of charge, visit **www.filesthrutheair.com**

www.filesthrutheair.com   +44 (0)1425 651111   info@filesthrutheair.com

FilesThruTheAir™ is a trademark of Corintech Ltd.

DISPLAY STATUS INDICATION

The USB-T-21CFR LCD features a high contrast LCD which shows logged temperature values using seven segment numbers, along with annunciators. The LCD can also show information regarding the logging status.

The LCD shows three different recorded readings, which can be cycled through using the built-in push button. The most recent logged temperature, maximum logged temperature and minimum logged temperature can be displayed.

Maximum logged value symbol

Negative symbol

Minimum logged value symbol

Reading

Temperature scale
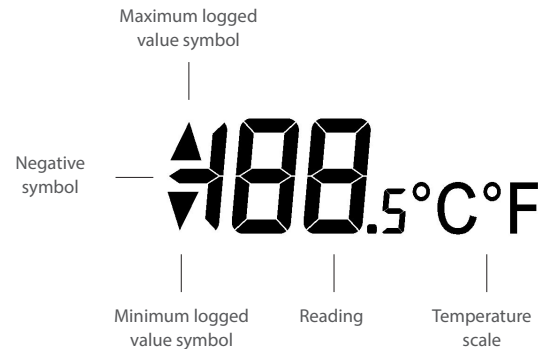
Display	Logger Status	Explanation
dS	Delayed Start	This is shown when the logger is set to start at a specific date and time. If the logger is set to 'LCD off' or 'LCD on for 30 seconds' mode, then this will only be shown after the button is pressed. Otherwise the display will remain blank
PS	Push to Start	This is shown when the logger is set up for 'Push to Start' logging
log	Logging	This is shown when the logger is running in 'LCD off' mode, and the button is pressed. The display clears again after three seconds
- - -	Stopped	If the logger has not been set to log and the button is pressed, three dashes are displayed for a few seconds

LED STATUS INDICATION

The USB-T-21CFR LCD features two LEDs:

▪ The first LED flashes red to indicate that the USB-T-21CFR LCD is in an alarm condition. It will flash when the logged temperature has exceeded a Low or High alarm level.

▪ The second LED flashes green to indicate that the USB-T-21CFR LCD is not in an alarm condition.

Using EasyLog 21CFR it is possible to set the alarm to remain active even if the reading has returned to normal, in which case the alarm LED will continue to flash red. This 'Hold' feature in the software ensures the user is notified that at some point an alarm level has been exceeded, without needing to download the data.

Hold is enabled by default, and can be turned off via the control software. The red LED will then only flash whilst the logger is in an alarm condition. When the temperature returns to normal, the green LED will flash.

	Green single flash (every 10 seconds) The data logger is not currently logging, but is primed to start at a later date and time (delayed start)
	Green single flash (every 20 seconds) The data logger is currently logging. No alarm
	Green single flash (every 30 seconds) The data logger is full and has stopped logging. No alarm
	Green double flash (every 20 seconds) The data logger is currently logging. Low alarm
	Red single flash (every 10 seconds) The data logger is full and has stopped logging. Low alarm
	Red single flash (every 20 seconds) The data logger is currently logging. High alarm
	Red double flash (every 10 seconds) The data logger is full and has stopped logging. High alarm
	Red double flash (every 20 seconds) The battery is running low. Data logging will continue until the battery voltage drops below 2.8V
	Red/Green single flash (every 20 seconds) The battery is running low. Data logging will continue until the battery voltage drops below 2.8V
	No LEDs flash The data logger is stopped, the battery is empty or there is no battery

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BATTERY INFORMATION

Replacement

We recommend that you replace the battery annually, or prior to logging critical data. Only use 3.6V ½AA lithium metal batteries. The data logger does not lose its stored readings when the battery is discharged or replaced; however, the data logging process will stop and will not resume until the battery is replaced and the logger restarted by the EasyLog 21CFR Software.

Before replacing the battery, remove the data logger from the PC. Please note that leaving the data logger plugged into the USB port for extended periods will cause some of the battery capacity to be lost.

Passivation

If left unused for extended periods of time lithium metal batteries, including those used in the EasyLog range of data loggers, naturally form a non-conductive internal layer preventing them from self-discharge and effectively increasing their shelf life. When first installed in the data logger, this may cause a momentary drop in the battery voltage (the Transient Minimum Voltage) as the internal layer is broken down, resulting in the data logger resetting. Inserting the batteries in the data logger and leaving it connected to a PC for about 30 seconds will remove this layer. After this, remove and re-install the batteries to reset the data logger. Overall battery life will not be affected.

WARNING

Handle lithium metal batteries carefully, observe warnings on battery casing. Dispose of in accordance with local regulations.