

FOTEMP ASSISTANT 2 MANUAL



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INSTALLATION

Nr.	Step	Note
1	Uninstall older software version	Control Panel -> Programs and Features -> Uninstall program
2	Install FOTEMP Assistant 2	Copy the software/ZIP folder (from the Optocon CD) at the hard drive. Unzip it. Then double-click and run the file „FotempAssistent2“
3	Switch on the temperature measurement device and connect device and PC via the desired interface	
4	Install device driver if the automatic detection fails	Open the driver folder (at Optocon CD) and run the installation file according to the Windows version (32Bit or 64Bit)
5	Start FOTEMP Assistant 2 by double-clicking at the program icon	The software detects the device automatically

FEATURES

Menu bar	Subsection	Description	Sec.
Devices	Profile save	» Specified device settings can be saved with this option.	-
	Profile load	» Stored device settings can be loaded with this option.	-
	New search	» New search for devices will be initiated.	-
Edit	Module settings	» Change the limit values (analog output)	1.1
		» Change the limit values (relay output)	1.2
		» Set the average count of the values	1.3
		» Set the temperature-offset	1.4
		» Enable / disable channels	1.5
	Options - Profile	» Change profile settings	-
	Options - Log-jobs	» Settings for data logging	2.1
Diagrams	New diagram	» Graphical visualization and analysis of measured values	3.1
Log Jobs	New Job	» Logging measured values	4.1
Help	Info	» Informationen about the software	-

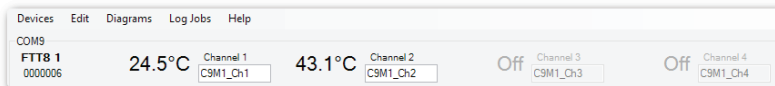


Fig. 1: Start screen of FOTEMP Assistant 2

1. MODULE SETTINGS

The window „module-settings“ shows all adjustable channel options. Not available options are greyed out.

The buttons << and >> in the top menu allow to switch between different devices or modules.

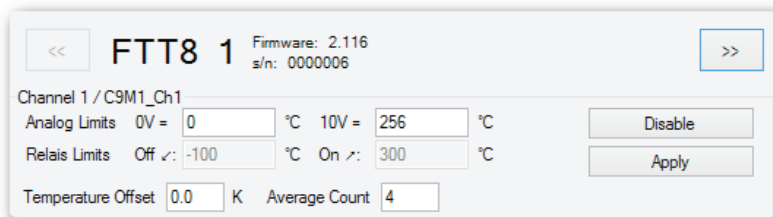



Fig. 2: Window „Module settings“

1.1 CHANGE THE LIMIT VALUES (ANALOG OUTPUT)

This option allows changing the analog-limit values according to the respective requirements (in factory-calibrated temperature range).

Changed parameters are stored in the device by clicking the button: 

1.2 CHANGE THE LIMIT VALUES (RELAY OUTPUT)

See section 1.1 - Changing the limit values
(Analog output)

1.3 SET THE AVERAGE OF THE VALUES

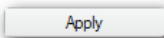
The average value specifies from which number of measured temperature values an average value is formed. The device displays the resulting value as the current temperature. (Factory value: 4)

1.4 SET THE TEMPERATURE OFFSET

The one-point calibration allows to correct temperature deviations of the device.

Note:

1. A reference-temperature value must be chosen which is as close as possible to the values which should be measured.
2. Expose the sensors for 15 minutes to the reference temperature.
3. Balance existing discrepancies with the corresponding kelvin value.
4. Save the changes by clicking the button:



Example: one-point calibration in ice water (Planned measuring range: -10°C up to $+20^{\circ}\text{C}$)

1. Fill a thermos with cold water in a ratio of water and ice cubes of 1:1. Leave the mixture for 30min and stir it shortly.
2. Put the sensor into the liquid and stir slightly for 15 minutes.
3. The device displays a value of $+1^{\circ}\text{C}$. In this case the „temperature offset“ of the relevant channel should be set to „-1“. Herewith the sensor is calibrated with the device to 0°C .

1.5 ENABLE / DISABLE CHANNELS

With FOTEMP Assistant 2 individual measurement channels of the device can be switched off by clicking on:



Disable

Note: Turned off channels will not served from the device. Therefore the measurement rate of the active channels will be rised. One channel is always activated.

2. OPTIONS

2.1 OPTIONS - LOG-JOBS: SETTINGS FOR DATA LOGGING

By clicking the section „Edit“ in the menu bar a drop down menu will opened. Select „Options“ and go ahead to the register

card „Log-Jobs“. Here the properties for data logging can be set.

Options	Description
Separate Time Column	Two column are shown. The first column contains the timestamp, the second shows the temperature value of the measurement.
Shared Time Column	All measuring series receive a common column for the timestamp.
Elapsed Time Recording	Only the period from the beginning of the record is recognized as a time stamp.

Default Reading Interval	Defining a period of time in which the measured values should be recorded.
Default Saving Interval	Defining a period of time after the recorded data has to be written into a file.
Default Logging Duration	Defining the duration over which the data should be recorded.
Logging Path	Location where recorded data should be saved.

The screenshot shows a dialog box titled "Profile" with a sub-tab "Log-Jobs". It contains the following settings:

- Excel Format of Measurement Data:**
 - Separate Time Column
 - Shared Time Column
 - Elapsed Time Recording
- Save last logging configuration
- Default Reading Interval: 00:00:04
- Default Saving Interval: 00:01:00
- Default Logging Duration: 00:00:00
- Logging Path: C:\Users\sven.gelßer\Documents\Fotemp-Assistent\Logs

A "Close" button is located at the bottom right of the dialog.

Fig. 3: Log-Jobs-register card

3. DIAGRAM

3.1 GRAPHICAL VISUALIZATION AND ANALYSIS OF MEASURED VALUES

The menu „Diagram“ allows a graphical visualization of the temperature values in correlation with time.

After selecting the drop down menu „New diagram“ a new window will be opened.
Now the desired channels can be marked

and inserted/removed into/out of the diagram by using the buttons

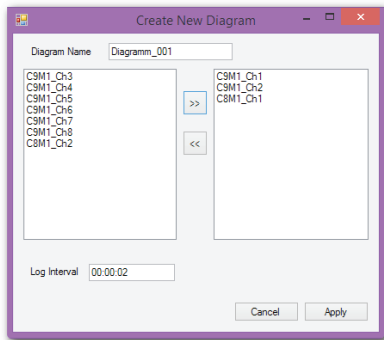
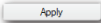


Fig. 4: Window „Create new diagram“

After using the Button  the diagram will be generated.

At the main window of FOTEMP Assistant 2 a preview window will appear included all key data of the diagram.

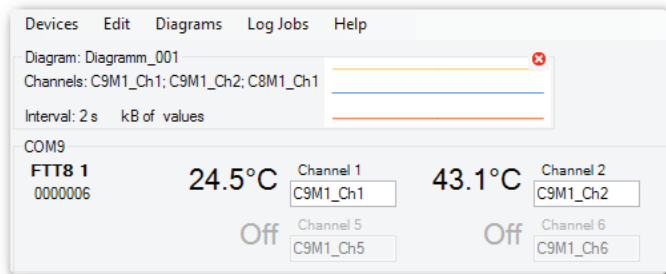


Fig. 5: Section from FOTEMP Assistant 2 main window with displayed graph.

A double-click at the chart opens the presentation. Alternatively it can be opened by clicking the section „diagram“ at the menu bar.

Controlling the diagram	Explanation
Pressing left mouse button	Moving displayed area
Pressing Shift-key + mouse-scroll wheel	Move displayed area temporarily
Pressing Ctrl-key + mouse-scroll wheel	Zoom in and out
Pressing Ctrl-key + double click with the left mouse key into the diagram	Return to standard view

Information for adjustment options and navigation within the diagram:

Options	Description
Scroll	Shows the current values of the last minutes.
Fixed Range	Shows all values and the diagramm will be compressed with all new incoming values.
Min. / Max.	Adjust the diagram area from the x-axis manually.
Lock Y-Axis	Adjust the diagram area from the y-axis manually by using the fields Min. / Max. (Default: automatic adjustment)

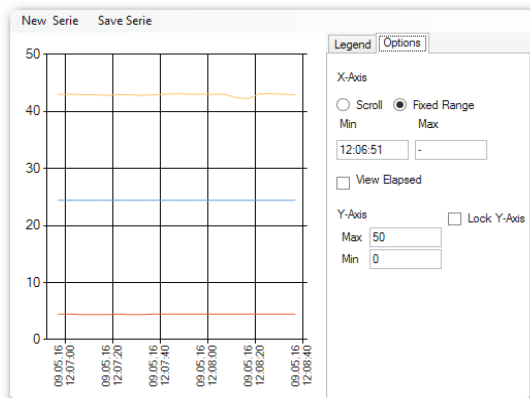


Fig. 6: Section from diagram window with individual adjustable parameters

4. DATA LOGGING

4.1 LOGGING MEASURED VALUES

FOTEMP Assistant 2 allows monitoring and logging measured temperature values. A logging process can be started by clicking at the section „Log-Jobs“ on the menu bar and by choosing „New Log-Job“.

At the new opened window „Create new Log-Job“ select now the desired channels from which the values should be recorded and logged.

(See section 3.1)

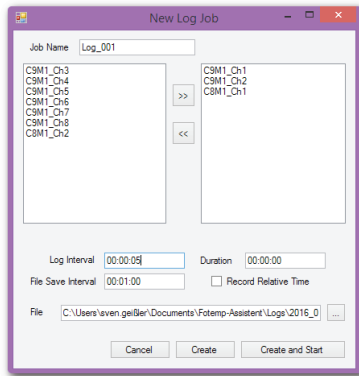




Fig. 7: „Create new Log Job“

Title	Description
Job Name	Defining a name
Log Interval	Selecting in which time intervals the measured temperatures should be logged.
File Save Interval	Time intervals for saving data Important: The save interval must always be greater than the log interval.
Duration	Entire period of time of data logging Note: If the value is set to 00:00:00, FOTEMP Assistant 2 will start logging until the process will be stopped manually.
File	Saving path for logged values
File format	Three file formats are possible: *.xlsx; *.csv; *.txt For using other formats please change the file ending.

Note: If the excel file is opened while logging, values will not be written into the file until the spreadsheet is closed again.

Symbol	Description
	Instant start of the logging process
	Create a Log-Job which can be stopped manually

After pressing one of the two buttons a new log-job segment will appear at the main window of FOTEMP Assistant 2.

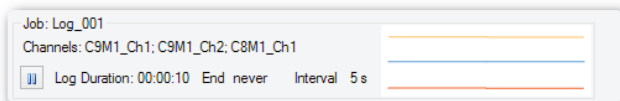





Fig.. 8: Log-job segment at the main window

Symbol	Description
	Start data logging
	Pause/stop data logging
	If data logging is stopped, with this icon the log job can be deleted

Note: Only if all log-jobs are paused or deleted the application can be terminated. For each log-job a diagram of the record is created. Via the menu section „Diagram“ or by a double click on the diagram visualization at the main window, the diagram can be opened.



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