SICK

FLOWgate500

Software Manual

Distributed By
MVC
Meter, Valve & Control
877-566-3837

Software Manual FLOWgate500 Release 2.2

Revision number: V2.2

Manufacturer:

SICK AG

Erwin-Sick-Str.1

D-79183 Waldkirch

Germany

Place of manufacture:

SICK Engineering GmbH

Bergener Ring 27

D-01458 Ottendorf-Okrilla

Germany

![SICK]

Content

1   Preface

1.1   Introduction

Most data provided by the FLOWSIC500 (like readings, logbook entries and parameters) can be accessed via the LCD display of the meter.

However, the FLOWgate500 software provides a more user friendly access to measurement data, configuration and diagnostic of the flow meter.

The FLOWgate500 software is easy to use because of its activity-oriented approach and supports all typical everyday user activities.

1.2   System requirements

The FLOWgate500 software installation requires:

- Microsoft Windows XP/Vista/7/8
- Min. 1 GHz CPU
- Min. 512 MB RAM
- About 100 MB free disk capacity (without .NET framework)
- USB- or serial interface

    Recommended minimum screen resolution: 1024 x 768 pixel, optimal screen resolution: 1368 x 768 pixel

- Microsoft .NET framework 4.0

2　Installation

2.1　Installing the USB Driver

Notice: For using the HIE-04 Infrared/USB-adapter, install the appropriate Windows driver first.
The USB driver is provided on the FLOWSIC500 product CD. If you have installed an old version of the driver, uninstall the existing HIE-04 Driver and restart the application.

1. Do not plug in the HIE-04 USB connector yet!

2. Check if the PC is 32-bit or 64-bit System Type.

    (Choose "Start", right click on "Computer", choose "Properties".

    In the opened window check System type.)

3. Change Windows permission to "Run as administrator".

4. For 64-bit System choose "Setup_64bit_en_v2.08.24.exe"

    For 32-bit System choose "Setup_32bit_en_v2.08.24.exe"

5. Follow the instructions displayed in the next dialog windows.

2.2　Installing FLOWgate500

The FLOWgate500 software is delivered with the product CD or is available at the FLOWSIC500 webpage: http://www.sick.com/flowsic500.

1. To start the installation, click on "Setup.exe".

2. Follow the instructions according to the installation wizard.

3 Connecting to the FLOWSIC500

1. Attach the HIE-04 infrared head to the FLOWSIC500.

2. Plug-in the HIE-04 USB connector.

3. Start the FLOWgate500 software.

4. To activate the FLOWSIC500 display, press a random key on the FLOWSIC500.

Notice: The display has to be active for initiating the communication with the FLOWSIC500.

→ The COM port is selected automatically. In case the automatically identified COM port ist incorrect, please correct using the drop-down menu.

3. Click "Connect".

→ The connection is being established.

5. Select the user identification.

6. Enter your password.

User identification	Default password
Guest	-
User	1111
Authorized User	2222

If you have entered an incorrect password, the input field is highlighted in red:
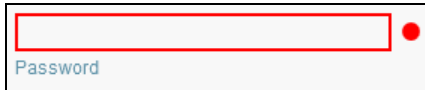
A tooltip is shown when hovering over the red bullet.

Notice: SICK highly recommends to change the password after first login to not give unauthorized persons access to the meter.

7. Click "Login".

→ The FLOWgate500 software is being started.

4   User rights

Depending on the user level being used, different functionalities are available in FLOWgate500. Some functionalities are only available when logged in as "User" or "Authorized User".

	Guest	User	Authorized User
Overview			
Read meter readings	x	x	x
View Trend Chart	x	x	x
Reset error volume	-	x	x
Commissioning			
Read parameters	-	-	x
Edit parameters	-	-	x
Parameter Modification			
Read parameters	x	x	x
Edit parameters	-	-	x
Edit display language	-	x	x
User Management	-	-	x
Export data book	-	x	x
Logbook Management			
Read logbooks	-	x	x
Export logbooks	-	x	x
Clear logbooks	-	-	x
Data Gathering			
Read archives	-	x	x
Export archives	-	x	x
Clear archives	-	-	x
Field Verification			
Record values	x	x	x
Export field verification report	x	x	x
Calibration			
Calibrate and adjust meter	-	-	x
Calibrate and adjust pressure sensor	-	-	x
Calibrate and adjust temperature sensor	-	-	x
Meter replacement			
Download/Upload device setup	-	-	x
Diagnostics			
Create diagnostics file	x	x	x
Reset event summary	-	-	x
Application settings			
Read application settings	x	x	x
Customize application settings	-	x	x

5 Main system bar

The main system bar is displayed in every view.
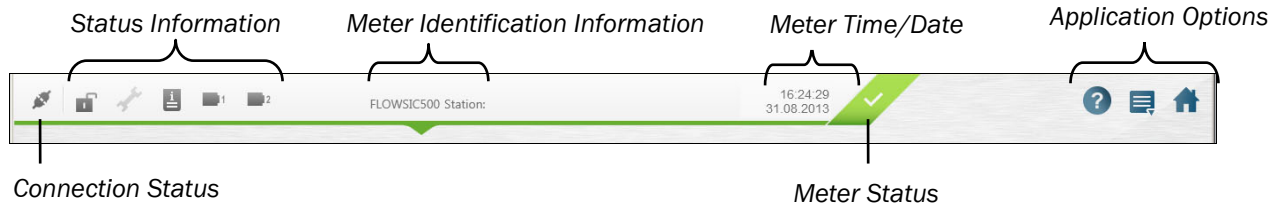
5.1 Connection status

The connection status symbol shows if the computer is connected to the FLOWSIC500.

Connection Status	
	Connected to the FLOWSIC500
	Not connected
	Connection is disrupted

▶ To reconnect, click the connection status symbol.

5.2 Status information

The status information symbols are displayed in the symbol bar on the FLOWSIC500 display.

Position of the parameter locking switch	
	Parameter locking switch open
	Parameter locking switch closed
Diagnostics status	
	The event summary contains entries
	No events occured
	To open the diagnostics view, click on the diagnostics status symbol.
Configuration mode	
	Configuration mode on
	Configuration mode off
	To start or stop the configuration mode, click on the configuration mode symbol
Battery fill level	
	Fill level battery 1
	Fill level battery 2
	If a battery symbol is blinking, the battery is empty and no longer in use.
	External power supply
	If the power supply symbol blinks, a problem with the external power supply has been detected.

5.3   Meter identification information

Shows information about the meter station, the firmware CRC and the metrology CRC.

▶   To expand the view, click the arrow symbol:
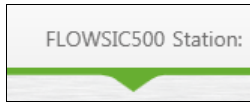
5.4   Meter time/date

Shows the current time and date of the FLOWSIC500.

5.5   Meter status

The meter status is signaled via symbols and colors.

The diagnostics view is being opened when clicking on the status symbol.

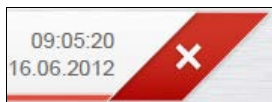- **Operation:** No errors, the meter is working properly.

- **Maintenance:** Warnings occurred, but the measuring results are still valid.

In maintenance status, the FLOWSIC500 display shows the symbol ⚠ in the symbol bar.

- **Failure:** Errors occured, the measurement results are no longer valid.

In failure status, the FLOWSIC500 display shows the symbol 📢 in the symbol bar.

- **Calibration:** The meter is working with a higher sampling rate for testing or calibration purposes, measuring results are not valid for the time being in this mode.

In this meter status the power consumption will be higher than in normal operation.

5.6   Application options

❓	Open the help file.
📝	Open the application setup.
🏠	Return to the Overview page.

6 Overview

6.1 Measurement readings

The measurement readings display the most important measuring values for the flow meter and the electronic volume conversion.

▶ To expand the view, click the arrow symbol:

The symbols used for the measurement readings can be configured: Parameter Modification > System/ User Management > Display: Symbols according to

6.2 Resetting the error volume

1. Expand the measurement readings.

2. Click on the button "Reset".

   Both error volume at base conditions and error volume at flowing conditions are reset at once.

6.3 Trend chart

▶ Open the trend chart, by clicking the arrow symbol:

▶ Possibility to show cursor information, scroll or zoom in trend chart by activating following buttons. In case function is not needed anymore please deactivate the corresponding button.

Flow rate trend chart

As soon as the trend chart has been opened, the software starts visualizing the actual flow rate. Maximum visible period of time: 1 hour

After the trend chart has reached the maximum period of time , the trend chart starts compressing the display between the oldest and most recently read flow rate values.

"Lower limit" and "Upper limit" show the customer specific warning limits for the flow rate.

The warning limits can be set in the "Alarm Settings" view: Parameter Modification > Alarm Settings

Pressure and temperature trend chart

▶ To open the pressure trend chart, click on the Pressure tab.

▶ To open the temperature trend chart, click on the Temperature tab.

Pressure and temperature trend chart work in the same way as the flow rate trend chart.

7 Commissioning

The Commissioning Assistant allows the initial configuration of the FLOWSIC500 device with regards to

- Identification,
- User management,
- Alarm settings,
- Communication,
- Volume conversion,
- Reset of counters, logs and archives.

Notice: It is strongly recommended to run the commissioning assistant before the device is placed into operation.

The following steps describe the walkthrough procedure in order to run the assistant. During the execution of the commissioning procedure, the following conditions are important:

- The Buttons on top of the assistant allows to navigate between the steps.
- Once steps in the assistant have been visited, the assistant allows a direct backward and forward navigation between these steps using the tab on top of each step.
- Once a step in the assistant has been left using navigation buttons or direct visiting, all current parameters are written directly to the FLOWSIC500 device.

7.1 Identification

The identification step allows to configure the device information like device tag as well as date and time of the device.

Notice: The "Measuring Point" parameter does not support Cyrillic characters.

7.2 User management

The User management step within the assistant allows the activation of users available for the device as well as the password for each individual user.

Notice: During commissioning the password for "Authorized User" must be changed. Usually, the assistant does not allow continuing to the next step. To override the change of the password, please click the "Dismiss Warning" button in order to continue to the next step.

7.3 Alarm settings

The step Alarm settings allows to adjust the limits, in which the device is running without highlighting a warning (flow rate) or an alert (pressure and temperature)

Please see also Section Warning/Alert settings for additional information.

7.4 Communication

Within this step you are able to view and change the communication settings for each connector.

- Besides reviewing the current configuration you are also able to run communication tests using test signals either for digital outputs, impulses or test flow rate.
- The Communication Test mode will be activated and deactivated immediately when clicking the button "Enable Test mode/Disable Test mode".
- When leaving the Communication step while the Communication Test mode is active you will be asked to disable the Test mode.
- Impulse settings can be reviewed and changed if necessary.

7.5   Volume conversion

The step Volume conversion enables the basic configuration of the Volume conversion functionality. To configure the conversion in a more detailed fashion, please use the function "Parameter Modification" > "Volume conversion".

7.6   Reset of logs and archives

This final step of the Commissioning Assistant allows the following features:

- Setting/Resetting the values for meter counters.
- Setting the Reverse Volume limit
- Definition of counter settings
- Clearing of logs and archives
- Reviewing and resetting the event summary

Once you are finished with the Reset operation, it is possible to create a Databook containing the current configuration. Details about the Databook can be obtained from Section "Exporting the Data Book".

8 Parameter modification

8.1 Editing parameters

Notice: Date and time can be edited without starting the configuration mode. All the other parameters can only be edited in configuration mode.

1. To edit a parameter, click the button "Configuration Mode".

   → The configuration mode is being started.

2. Edit the desired parameters.

3. To save the parameter changes, click the button "Write to device".

   To leave the "Parameter Modification" view without saving your changes, click the button "Close".

8.2 Parameters

8.2.1 Identification

The Identification view shows information on the meter.

You can edit the "Measuring point" parameter and the serial number for pressure and temperature sensor.

Notice: The "Measuring point" parameter does not support Cyrillic characters.

8.2.2 System/ User management

In the System/User Management view you can modify the display of your FLOWSIC500.

Device Date and Time

You can edit time, date and time zone of the FLOWSIC500.

Editing date, time and time zone

Notice: The time zone function corrects the actual time to the new time zone. If you would like to modify date/time and time zone, please modify the time zone first.

1. To edit the time zone, click the button "Configuration Mode".

   → The configuration mode is being started.

2. Edit the time zone.

3. To write the new time zone to the FLOWSIC500, click "Write to device".

4. Edit date and time.

   If you would like to adjust date and time to your PC, click "Synchronize with PC".

   The "Synchronize with PC" function writes date and time to the FLOWSIC500 immediately.

5. To write the modified date and time to the FLOWSIC500, click "Write to device".

Display

In this section you can edit the display language and the display switch off time.

The "Symbols according to" option allows you to adjust the symbols used on the FLOWSIC500 display to regional standards.

The "Display Test" button activates and deactivates all display segments three times. Defective display segments can thus be detected.

Counter settings

In this section you can define the number of digits as well as the resolution of the counters.

User Management

Activating users

1. Click the button "Configuration Mode".

2. To activate a new user, check the checkbox in front of the user name.

Activate	Username	Password
☑	Guest	
☑	User	••••
☐	User 2	••••

3. Click "Write to device".

   → It is now possible to log in as the new user when reconnecting to the FLOWSIC500.

Editing user passwords

1. Click the button "Configuration Mode".

2. Edit the desired password.

3. Click "Write to device".

   → The new password becomes active when connecting to the FLOWSIC500 the next time.

Power Management

Select Power mode

1. Select Power mode using the dropdown

2. Click "Write to device"

→ The new power mode is active. Please consider the check/change of the external or battery power supply using the appropriate buttons.

Notice: When clicking "Check Mains" the meter will need up to 15 minutes to display the result in the status information (see chapter 5.2 "Status information").

8.2.3 Warning/Alert settings

The warning and alert limits for the following parameters can be set in the "Warning/Alert Settings" view.

- Flow rate
- Pressure
- Temperature
- Reverse Flow Limit
- Low flow cutoff threshold

If the measured values are outside the limits, the meter switches to "Maintenance" status and a warning message is shown in the "Diagnostics" view.

Additionally, the upper and lower warning limits are displayed in the trend chart.

8.2.4 Data archive settings

- Gas hour:

  Billing hour for the daily archive and monthly archive
  Entry range: 00:00 ... 23:59
  Default: 06:00

- Gas day

  Billing day for monthly archive
  Entry range: 0 ... 28
  Default: 1

- Measurement period

  Defines the period for the measurement period archive
  Select from: 3 min, 5 min, 15 min, 30 min, 60 min
  Default: 60 min

8.2.5 Communication

The "Communication" view shows the configuration of the plug-in connectors at the FLOWSIC500.

See chapter 7.4 "Communication".

Plug-in connector 2 (A-coded)

Plug-in connector 1 (B-coded)
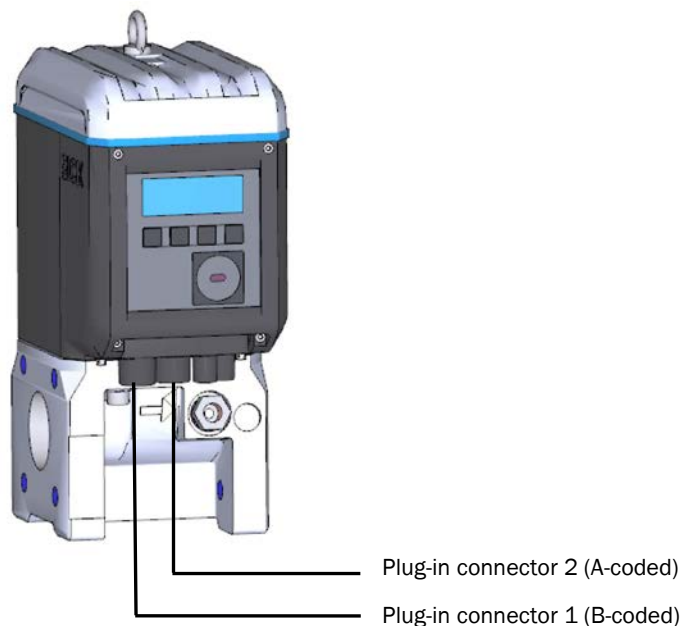
8.2.6 Volume conversion

Volume conversion

- Base pressure

  Pressure at base conditions

- Average atmospheric pressure

  Average atmospheric pressure (for relative pressure sensors)

- Base temperature

  Temperature at base conditions

- Calculation interval

  Cycle time for updating measured values (pressure, temperature), calculation of the compressibility factor K

- Pressure unit

  Unit of the pressure, used for input and display values
  Default = Standard setting according to selected unit system (SI or US), configured in accordance with the order

- Temperature unit

  Unit of the temperature, used for input and display values
  Default = Standard setting according to selected unit system (SI or US), configured in accordance with the order

- Calorific value unit

  Default = Standard setting according to selected unit system (SI or US), configured in accordance with the order

Compressibility calculation

- Compressibility calculation

  Calculation method for the compressibility factor K

- Compressibility

  Entry of the compressibiliy factor K for the method "Fix values" and if the calculation of the compressibility factor is disturbed.

Replacement values

- Replacement pressure

  Fixed value/default value for the operating pressure.
  The entry value is used as fixed value for configuration as TZ-conversion and as default value if the pressure measurement is disturbed.

- Replacement temperature

  Fixed value/default value for the operating temperature.
  The entry value is used as default value if the temperature measurement is disturbed.

- Replacement compressibility factor

  Fixed value/default value for the compressibility factor K.
  The entry value is used as default value for the compressibilty factor for calculation method "Fix values" or if the compressibility factor calculation is disturbed.

8.3 Exporting the Data Book

Notice: A print of the data book is also included in delivery.

▶ Click the "Data book" button in the "Parameter modification" view to export a list of all metrologically and most relevant customer parameters.

▶ The Data Book can be printed or saved as PDF.

Data book - SICK FLOWSIC500
- Overview on important metrology relevant parameter –

Identification

Device	FLOWSIC500	Firmware version	2.00.05
Device Type	Ultrasonic meter	Firmware CRC	hx9F99
Device Key	FL5-1B02A1E1A1X1A1C2A3A3C3AXXX	Metrology CRC	hxB31D
Serial Number	13058127	Adjust CRC	hx8BC3
Manufacturer	SICK	Document created	8/22/2013 5:01 PM
Nominal Diameter	DN50/2"	Document created with	FLOWgate500

Parameter

	Unit	Value	Changed Value	Date of change Signature
Identification				
Firmware version	-	2.00.05		
Firmware CRC	-	hx9F99		
Metrology CRC	-	hxB31D		

9 Logbook management

9.1 Logbook types

- **Event log:**

  Shows all events since the logbook has been cleared.
  Maximum number of logbook entries: 1000
  If the maximum number of entries is reached, no more events can be saved. The FLOWSIC500 switches to "Failure" status.

- **Parameter log:**

  Shows all parameter changes since the logbook has been cleared.
  Maximum number of logbook entries: 250
  If the maximum number of entries is reached, the software overwrites the oldest entries.

- **Metrology log:**

  Shows all changes of metrologically relevant parameters which have been modified with the parameter locking switch closed since the logbook has been cleared.
  The metrology log can only be cleared if the parameter locking switch is open.
  Maximum number of logbook entries: 100
  If the maximum number of entries is reached, no more metrologically relevant parameter changes can be saved. The FLOWSIC500 switches to "Maintenance" status.

9.2 Logbook management

- **Export:** The "Export" button exports the logbook entries as CSV-file.
- **Copy:** Copies selected entries. Hold the Ctrl key to select several entries with the mouse.

  You can paste the copied entries to an Excel file, for example.

- **Refresh**: The "Refresh" button reloads the logbook.
- **Clear:** The "Clear" button deletes all logbook entries in the currently opened logbook.

9.2.1 Exporting logbooks as a CSV-file

1. Open the desired logbook.

2. Click the "Export" button.

3. Save the CSV-file.

---

10 Data gathering

10.1 Data archives

- **Daily archive:**

  The daily archive saves meter readings and data at the defined gas hour time (default: 06:00 AM).
  The gas hour can be configured: Parameter Modification > Data Archive Settings.

- **Monthly archive:**

  The monthly archive saves meter readings and data at the defined gas day (default: 1st day of month).
  The gas day can be configured: Parameter Modification > Data Archive Settings.

- **Measurement period archive:**

  The measurement period archive saves meter readings and data after the measuring period elapses (default: 60 min).
  The measurement period can be configured: Parameter Modification > Data Archive Settings.

  For details on the data archives, see Technical Bulletin "Data Registration".

Notice: It is possible to download archive data for a defined time frame only.

10.2 Export CFX-File

With the button "Export CFX" the meter data can be saved in standardized CFX-File format.
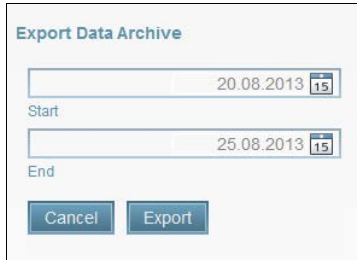
10.3 Archive management

See chapter 9.2 "Logbook management".

10.4 Exporting archives

Exporting archives as a CSV-File

1. Open the desired archive.

2. Define the export period:

   Default: Oldest and newest entry

3. Click "Export".

4. Save the CSV-File.

   You can open the CSV file in MS Excel (see chapter 9.2.1).

11 Field verification

Field verification allows the recording of various metering values to identify performance and integrity without stopping the operation process mode. Results can be saved as CSV for subsequent analysis e.g. comparison against reference metering systems.

- **Define values**

  Allows you to select, which values shall be recorded. The selection differs between uncorrected meters and corrected meters with EVC functionality.

☑ Vm	☑ Vb	☐ P	☑ T	☑ C	☑ K	☑ Q	☑ Qb

- **Record current value:**

  Records the current values of the parameters you have selected.
  The order of the columns can be changed, sort the columns by drag & drop.

- **Record 00:00:00:**

  Record: Records the average current values of the parameters you have selected every second until you click on the "Stop 00:00:00" button.

12 Calibration

The calibration wizard guides you through the calibration process.

For detailed instructions see document "E_86770: Calibration Instructions for the Ultrasonic Gas Flow Meter FLOWSIC500".

Notice: To calibrate the FLOWSIC500, make sure that the parameter locking switch is open.

12.1 Meter calibration

Calibration

1. Check the flow status:

🟩	The meter ist ready for calibration.
🟧	Warnings occurred that prevent calibration. Click the yellow square to open the diagnostics view for further instructions.
🟥	Errors occurred that prevent calibration. Click the red square to open the diagnostics view for further instructions.

Notice: The case of an error of the pressure/temperature sensor, the replacement values need to be set accordingly to the calibration. This can be done by clicking on the button "Replacement Values".

2. Click the button "Activate calibration mode".

→ The calibration mode is being started. In calibration mode, the message "CALIBRATION MODE" blinks on the main display (volume counter) with the now active meter factor for the calibration (set at the factory). Test pulses with a maximum possible frequency of 2 kHz at 120% Qmax are output at the digital switching output 1.

→ It is possbible to reset meter adjustment coefficents before starting a meter calibration. Coefficients should not be deleted in case a meter testing (without calibration) should be performed.

Notice: On startup of meter calibration the calculated coefficients are overwritten with values from the device. Once valid measuring points are entered the display of calculated values are refreshed with valid calculation results.

→ Furthermore, during calibration mode being active, an extended logging starts, which can be displayed via the panel "Trend Chart" → "Diagnose Log". The logging can be exported to a CSV-File using the "Export" button. Once the calibration mode is switched off, the diagnose stops and continues once the calibration mode is switched on again. When leaving the calibration page, the diagnose log gets cleared.

Adjustment

1. By default the "auto adjust method" is selected. But also constant or polynomial adjustment and entering correction coefficients can be chosen by the user.


2. Enter by double clicking a sufficient number of test flow rates and the deviation to the reference meters in %. The software calculates the coefficients for the correction automatically.

Buttons for adding, deleting or clearing flow rate data:

	Adds one line above the selected line.
	Deletes selected line.
	Clears all entries.

3. View of error curves in chart

    Click the "Chart"-Button. Same as in the trend chart cursor information, scrolling and zooming can be activated.
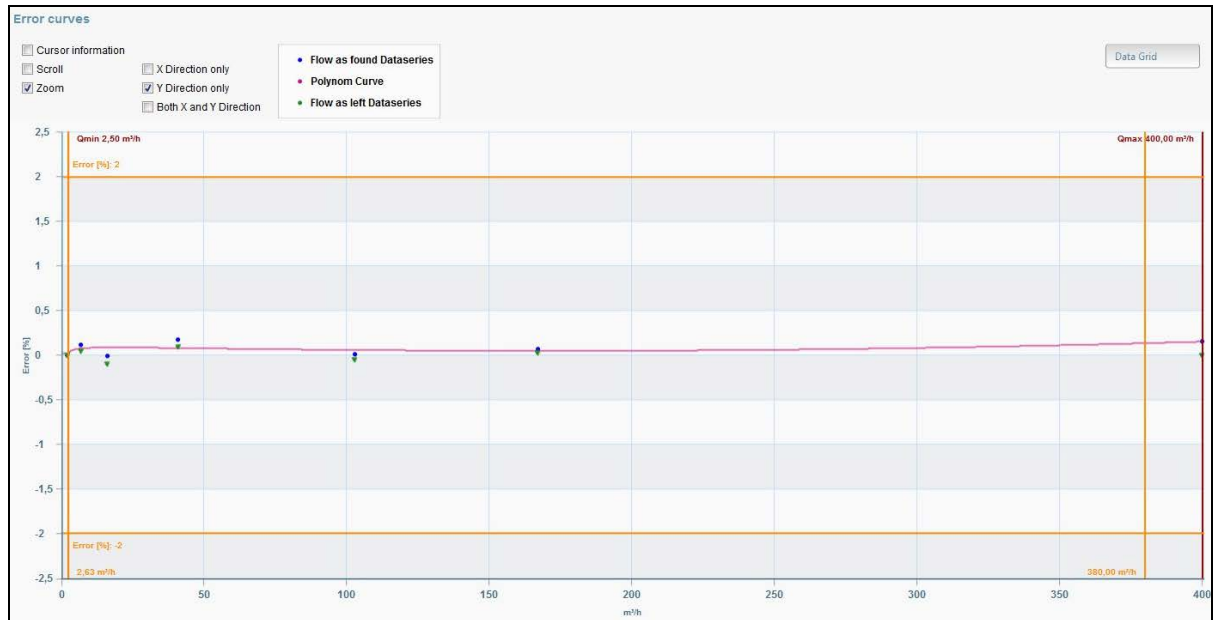
4. Check if all conditions for adjustment have been met.

▶	Conditions for adjustment have been met. Example: ▶ Enter valid test points
▷	Conditions for adjustment have not been met. Example: ▷ Enter valid test points

5. To write the calibration information to the FLOWSIC500, click the "Adjust" button.

    →   The calibration coefficients are written to the FLOWSIC500.

    If the adjustment has been successful, the following message is displayed:
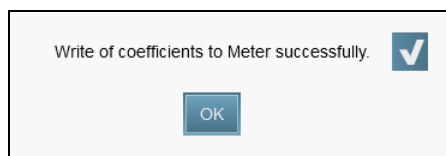
    Once the calibration information is written to the device, the adjustment table and "Adjust" button get locked against modification. In order to re-run a calibration, please leave and restart the calibration wizard again.

Verifying the calibration result (optional)

1. To verify your calibration result, enter a number of test flow rates in the "Verification" section.
   Recommended: At least one test flow rate

   → The software calculates the expected deviation.

2. Enter the deviation as left.

   Notice: FLOWgate500 calculates the deviation as left once a verification point meets the following conditions:

   - The verification point flow value is equal or higher than Q_{min}
   - The verification point flow value is equal or lower than Q_{max}

   If one of the above mentioned conditions is not met, the calculation of deviation as left is not executed. As a result, the output is "n.def.".

Creating a calibration report

3. To create a calibration report, click "Report".

4. Enter the description data (optional input) and click "OK".

   → The report is being created.

   To leave the calibration wizard without creating a report, click "Close".

SICK

Flow calibration report - FLOWSIC500

Identification

Device	FLOWSIC500	Firmware version	2.01.03
Device Type	Ultrasonic Meter	Firmware CRC	0x93C4
Device Key	FL5-2B02B1E1A1X2A1E3A1A3B1B3XX	Metrology CRC	0xEB34
Serial Number	14218110	Adjust CRC	0x15F6
Manufacturer	SICK	Document created	01.01.2000 02:09
Nominal Diameter	DN80/3"	Document created with	FLOWgate500 2.2 2.1.5435.21491

FLOWSIC500 Flow Calibration

Test Facility	---	Calibration Date	25.11.2014 11:34
Calibration Range	---	Qmin	2,5 m³/h
Customer	---	Qmax	400,0 m³/h
Meter Factor	14400,000 Imp/m³	Test Pressure	bar(a)
Meter Factor Calib.	14400,000 Imp/m³	Test Temperature	°C
Type of Calibration	optimized adjust method	Test Gas	---

Correction Coefficients

A-2	A-1	A0	A1	A2
0	-2,0956E-1	+1,0922E-1	-6,9431E-4	+1,9956E-6

Calibration

Item	Qi/Qmax MUT*	Qi [m³/h] MUT*	Dev. as found [%]	Dev. as left [%]
1	0,005	2,015	0,00	0,00
2	0,017	6,806	0,12	0,04
3	0,040	16,012	-0,01	-0,10
4	0,102	40,962	0,17	0,09
5	0,257	102,931	0,01	-0,05
6	0,418	167,044	0,06	0,02
7	1,000	400,073	0,15	0,00

12.2 Pressure sensor calibration

1. To start the calibration click on the button "Activate calibration mode".

2. Click the "Record current value" button to record the current pressure value or record the pressure over a certain time frame by clicking the "Record 00:00:00" button.

3. Record a sufficient number of pressure values.

4. Enter the reference pressure values in the P_{ref} column.

   → The deviation is calculated automatically.

5. Click "Adjust".

   → FLOWgate calculates the calibration offset and the calibration factor automatically.

Reset the pressure sensor calibration to factory default:

1. Click the ⚙ icon to start the configuration mode.

2. Click the "Factory Default" button.

3. Click "OK".

   → The pressure sensor calibration is reset to factory default.

Creating a calibration report

1. To create a calibration report, click "Report".

2. Enter the description data (optional input) and click "OK".

   → The report is being created.

   To leave the calibration wizard without creating a report, click "Close".

12.3 Temperature sensor calibration

▶ Calibrate the temperature sensor in the same way as the pressure sensor.

13 Meter replacement

The meter replacement view allows you to back-up your customer specific data. Before replacing a meter, you can download the device setup with all customer specific configuration data.

1. Open the view "Meter replacement".

2. Click the button "Read from device".

3. Save the setup file.

4. After the new meter has been installed, click on "Write to device".

5. Select the meter exchange file and confirm the upload.

6. To download a report that lists all transferred data, click "Report".

    → The report is being created.

    To finish without a report, click "Close".

14 Diagnostics

14.1 Current status

The current status shows all events that are currently active on the FLOWSIC500.

	Information
🟠	Warning
🔴	Error

14.2 Event summary

The event summary shows all events that occurred since the last time the event summary has been reset.
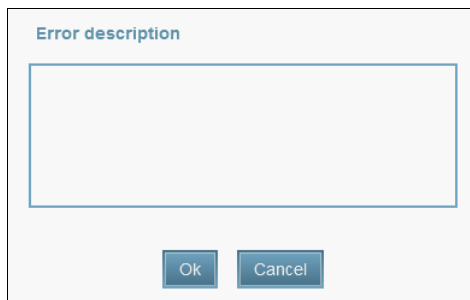
14.3 Generating a diagnostics file

The diagnostics file is a specific data set that helps SICK to support on your FLOWSIC500 flow meter.

▶ If any errors occurred that you cannot fix yourself, create a diagnostics file and send it to SICK.

1. Click the "Generate diagnostics file" button.

   → The FLOWgate500 creates a diagnostics file. This takes about 8 minutes.

2. Enter the error description.

Error description

[Ok] [Cancel]

3. Save the diagnostics file.

4. Send the diagnostics file to SICK: pa-support@sick.de

15 Application setup

The application setup allows you to customize the FLOWgate500 software.

▶ Click the button [icon] to enter the application setup.

- **Software information:**

  Shows the release version of your FLOWgate500 software.

Software Information	
	2.2
Software Version	
	2.2.5435.21510
Software Assembly Version	

- **Location:**

  Allows you to edit the software language.
  Activate the selected language and restart the FLOWgate500 software.

  Restart FLOWgate500 to activate new settings? [?]

  Cancel   Restart

- **Basic settings:**

  Allows you to define which folder is used for the export of reports and parameter settings per default.

  ▶ After installation the setting for the exporting reports and parameter settings is set to
  C:\Users\Public\Documents\FLOWgate500