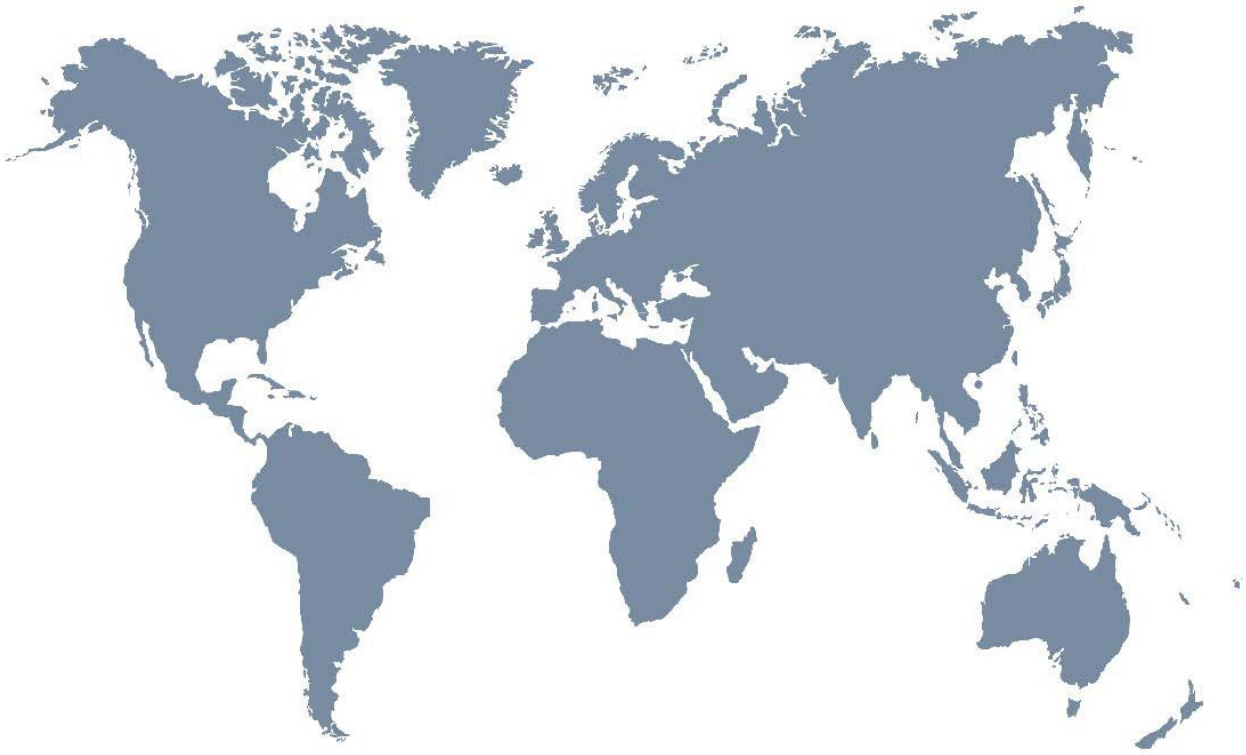
User Manual

Signal Converter and Alarm Device
SiViB 1001

370-1531-en-Rev. 1.1 202607
Translation of Original Operating Instructions

Ibis GmbH• Werner-von-Siemens-Str. 21• 64319 Pfungstadt• Germany
Tel: +49.6157.949.370• Fax: +49.6157.949.380• Email: sales.vg-ibis@hofmann-global.com
www.ibis-gmbh.de www.hofmann-global.com

We are
Hofmann.



Werner-von-Siemens Straße 21
D-64319 Pfungstadt Tel. +49 (0) 6157 949-0
Fax +49 (0) 6157 949-100
E-Mail: germany@hofmann-global.com
Web: http://www.hofmann-global.com

Keep the operating instructions for future reference!

Contents

1 General information

1.1 Manufacturer and designation

The operating instructions are an integral part of the scope of delivery and are also an important technical guide for the proper use of the system and for achieving its full functional benefits. At the same time, they represent an indispensable source of information for the user in terms of product liability, helping to protect both himself and the device from damage.

The SiViB 1001 signal converter and alarm device was developed by:

Ibis GmbH
Werner-von-Siemens Street 21
D-64319 Pfungstadt

and bears the full designation

Signal Converter and Alarm Device SiViB 1001

In the following pages, the full company name is replaced by the term “manufacturer”

1.2 Contact

Tel.: .....+49.6157.949.370
Email: .....sales.vg-ibis@hofmann-global.com
Website:.....www.hofmann-global.com

1.3 Property rights

The SiViB 1001 signal converter and alarm device is the intellectual property of Hofmann Mess- und Auswuchttechnik GmbH & Co. KG.

All rights are reserved by the manufacturer and are subject to the German copyright law “Gesetz über Urheberrecht und verwandte Schutzrechte (UG)” of 9 September 1965, as amended.

According to copyright law, competition law and the German Civil Code (Bürgerliches Gesetzbuch, BGB), reproduction is only permitted with prior written consent.

The above regulations also apply to the operating instructions.

All rights to drawings, software, and other documents, as well as any power of disposal, such as the right to copy and distribute, are held by Hofmann Mess- und Auswuchttechnik GmbH & Co. KG, even in the event of any application for property rights.

1.4 Notes on these operating instructions

1.4.1 Illustrations and drawings

Illustrations and drawings are for illustrative purposes only and do not always correspond in detail to the current version of the product

1.4.2 Options

Individual features described may be options that are not included in every version delivered. Options are marked as such in the text.

1.4.3 Signal words in safety instructions and their meanings

NOTICE used when there is a risk of damage to property or the environment.

CAUTION indicates a potentially dangerous situation. Failure to observe this warning may result in minor injuries.

WARNING indicates a potentially dangerous situation. Failure to observe this warning may result in death or serious injury.

DANGER indicates an imminent danger. Failure to observe this warning will result in death or serious injury.

1.4.4 Information symbols

INFORMATION
is used for additional information.

1. Requires you to take action.

1.4.5 Conventions in this manual

Keyboard shortcuts

Key combinations are shown *in italics*. For example, *Ctrl* + *P* means that you should hold down the Control key and press “P.” Upper- and lowercase letters do not matter.

Mouse commands

When buttons and controls need to be clicked, their labels are displayed in ***bold italics***.

Example: Select ***File*** from the menu bar and click ***Project / New Project,*** or press *Ctrl* + *N*.

Field labels

Window or field labels are printed **in bold**. Example: The **Device Access** field in the left pane.

1.5 Disposal

CAUTION

Observe national laws and regulations regarding environmental protection.

INFORMATION

Do not dispose of the device or rechargeable batteries with household waste. Use existing systems for the separate collection of devices and batteries/rechargeable batteries, or send the device to be disposed of to:
Hofmann Mess- und Auswuchttechnik GmbH & Co. KG
Werner-von-Siemens Straße 21
D-64319 Pfungstadt

2 Safety information

INFORMATION

The instructions in the operating manual are not intended to be exhaustive!

2.1 Operation of the device on machines

The device is built according to the state of the art and generally accepted safety regulations and is safe to operate.

However, using the device on machines can lead to hazardous situations, if it is not operated by trained or at least instructed personnel and/or if it is used improperly or for purposes other than those intended. These hazards may include:

- Dangers to the life and limb of the user or third parties
- Damage to the device and other property of the operator

DANGER
Danger of electric shock

Machines on which the device is to be used must be earthed. If this is not the case, life-threatening voltages may be present on the machine.

DANGER
General hazard

The machine on which the device is to be used poses a hazard if it is operated improperly or is not in proper condition. The operating company is obliged to operate the machine only when it is in perfect condition. Hazardous areas between the device and customer-owned equipment must be secured by the operating company.

DANGER
Danger of entangelement or entrapment

Arrange the cables between the machine and the device in such a way that they cannot be drawn in or entangled. Otherwise, there is a considerable risk of injury.

2.1.1 Requirements for personnel

Personnel operating power-driven work equipment must ensure that they do not endanger themselves or others through dangerous movements. The operating company may only assign work on power-driven work equipment with dangerous movements in which the device is used to personnel who are authorised to do so and

- who can carry out the work independently and safely or,
- who have received prior instruction and are supervised by a person familiar with this work

DANGER
General Hazard

Work on/with the device may only be carried out by persons who are authorised to do so on the basis of their training and qualifications. In addition, these persons must also have the authorization of the operating company.

2.2 Intended use

2.2.1 Intended use

The device is designed to convert vibration signals detected by a suitable sensor that is correctly connected to the device. The measurement ranges depend on the selected settings, as described in this manual. The measured values are checked for exceeding configurable limit values, and digital outputs are switched according to the alarm status.

Specifically, the following tasks can be performed:

- Measuring vibrations
- Monitoring of rolling bearing conditions
- Powering the sensor and conditioning the sensor signal
- Conversion of measured values into analog output signals
- Automatic triggering of alarm signals when parameterized limit values are exceeded
- Recording of vibrations over time

2.2.2 Permitted operating modes

The device is intended exclusively for the use specified in the description and designation. Operation of the device is only permitted

- if these operating instructions have been completely read and understood,
- in accordance with the procedure described in these operating instructions.

2.2.3 Prohibited use

Operation of the device is not permitted

- if the operating instructions have not been completely read and observed
- if it has been installed in a manner not described in the manual
- if the device is obviously damaged or not in proper condition
- if the environmental conditions are not suited for safe operation
- if a malfunction of the device could pose a risk to the life and limb of the user or third parties

Damage caused during improper use or maloperation is not covered by the manufacturer's warranty. The user bears the sole risk.

2.3 Obligations of the operating company

INFORMATION

The operating company is obliged by various protective laws to provide instructions for employees and to ensure safe operation of the device.

These protective laws are country-specific and differ in some respects. The operating company must consult the protective laws of their country; for Germany, for example, the following apply:

- Gewerbeordnung § 120a, paragraphs 1 and 4
- U.V.-Vorschriften "Allgemeine Vorschriften"/"Kraftbetriebene Arbeitsmittel"

2.3.1 Obligation to inform

- Personnel assigned to work with the device must have read and understood the operating instructions, in particular the chapter "Safety measures", as well as the applicable regulations before starting work.
- The operating instructions and applicable regulations must be kept in such a way that they are accessible to operating and maintenance personnel.
- In addition to the operating instructions, observe and instruct on generally applicable legal and other binding regulations on accident prevention and environmental protection!

2.3.2 Obligations of the operator

- Read and observe the operating instructions before commissioning, operation and repair!
- Observe occupational safety, professional associations' and accident prevention regulations, and in particular wear protective equipment.

2.4 Warranty and liability

The warranty and liability are based on the contractually agreed terms and conditions.

INFORMATION

Damage caused by improper or non-permissible use is not covered by the manufacturer's warranty obligations. The user bears the sole risk.

INFORMATION

Any modifications to the device without the manufacturer's knowledge and approval will void the liability and warranty claims.

2.5 Cleaning agents

Cleaning the device

- Only use special monitor cleaning agents and soft cloths or spectacle cleaning cloths!
- Wipe the surface with a slightly damp cloth.
- If necessary, rub dry with a soft cloth.

3 SiViB 1001

3.1 General description

The SiViB 1001 is a compact signal converter and monitoring module for measuring machine vibrations and rolling bearing conditions. The device operates with a compatible accelerometer and converts its signals into defined measured variables such as vibration velocity, vibration acceleration, or rolling bearing parameters. The processed measurement values are available as analog output signals (4–20 mA or 0–10 V) for transmission to controllers or monitoring systems. In addition, the SiViB 1001 features adjustable alarm outputs that reliably detect limit value violations and report them to a PLC or machine control system.

3.2 How it works

The SiViB 1001 automatically supplies the connected accelerometer with the required constant current and then evaluates the sensor signal. The incoming vibration signal is filtered, processed, and scaled in accordance with standards within the device, depending on the measured variable. For vibration velocity, the measured value is converted to an RMS value. For rolling bearing condition, the high-frequency signal is analyzed and output as a characteristic value. Finally, the device provides the calculated measured values via the analog outputs. At the same time, the SiViB 1001 monitors set limit values and activates the designated alarm outputs if they are exceeded.

4 Hardware installation

4.1 Mounting on a DIN rail

The SiViB 1001 signal converter is designed for mounting on a 35 mm DIN rail.

Installation

Place the housing on the top edge of the DIN rail and snap it onto the rail by applying light pressure downward and backward.

Removal

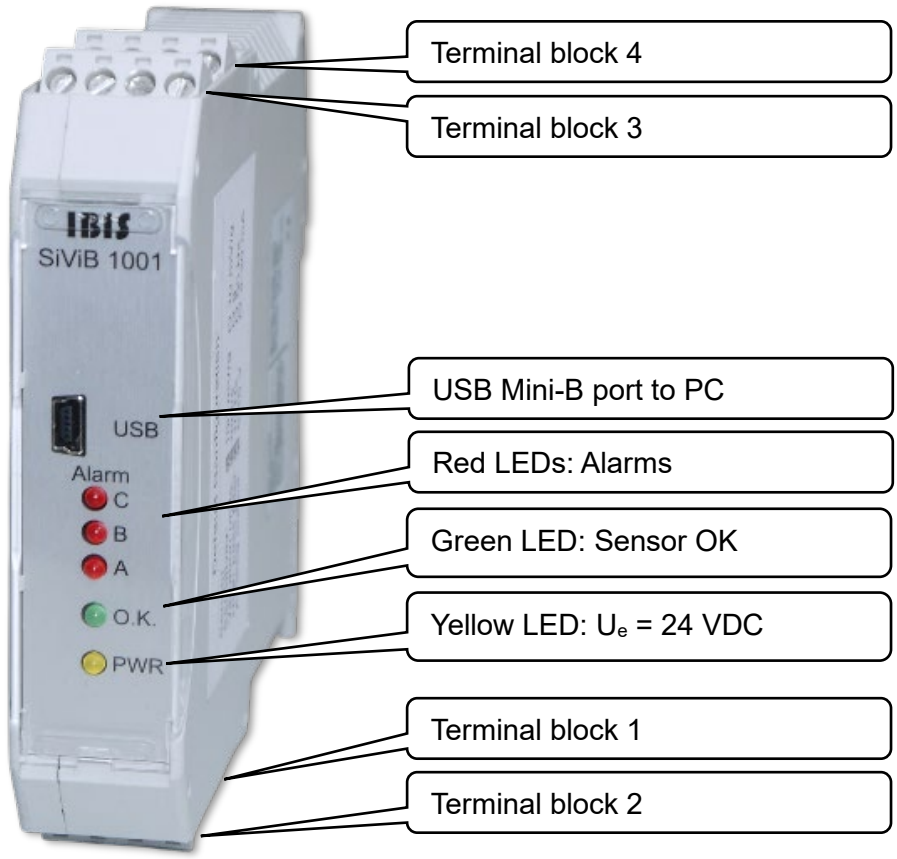
To remove the device, press the locking slider down and pull the device forward off the top-hat rail.

4.2 Terminal assignment

Connections are made to the 4 plug-in terminals according to the terminal assignment. For easier handling, the plug-in terminals can be removed from the housing.

INFORMATION

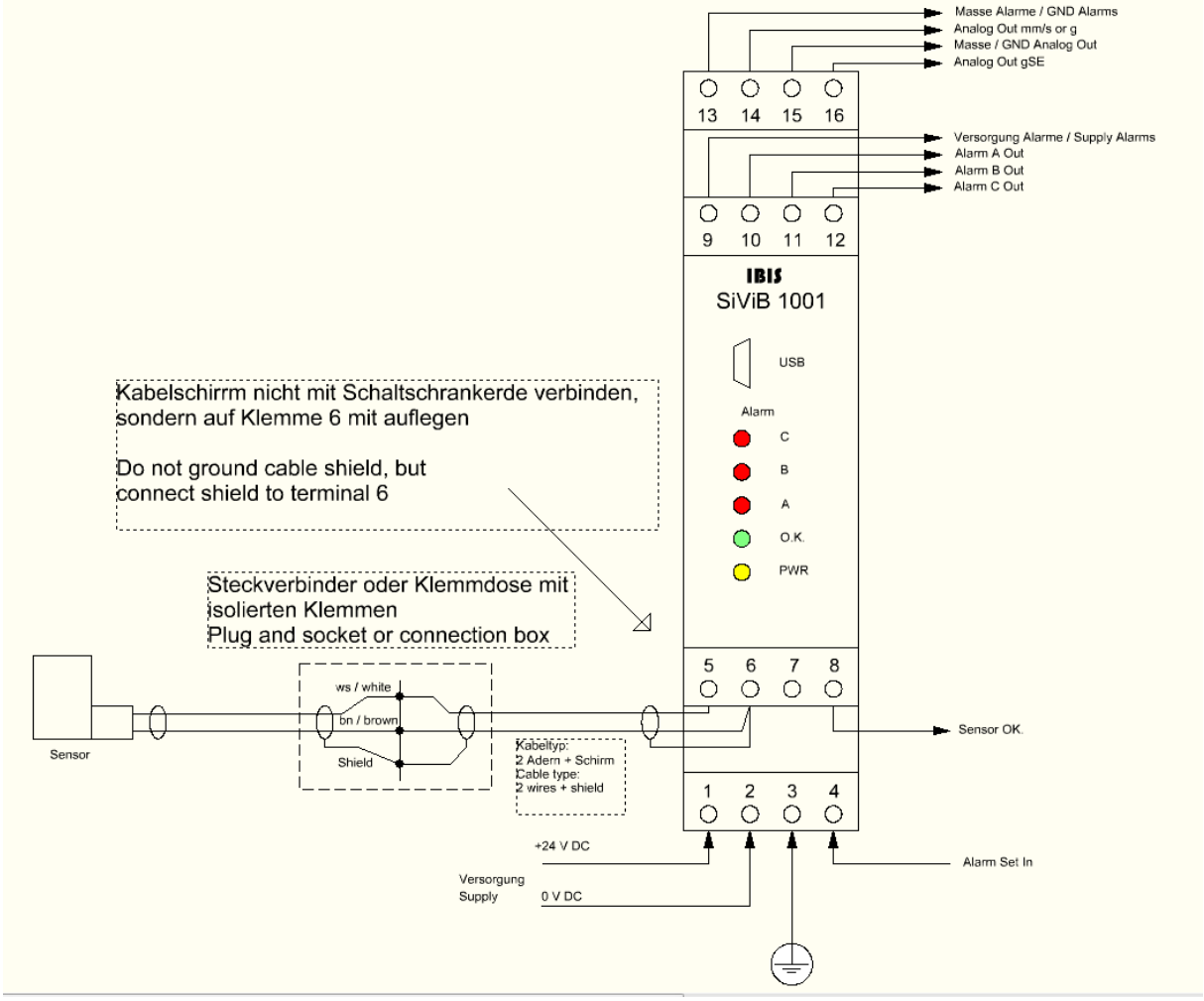
The terminal configuration of the SiViB 750 is incompatible (reversed). (See the SiViB 750 manual)



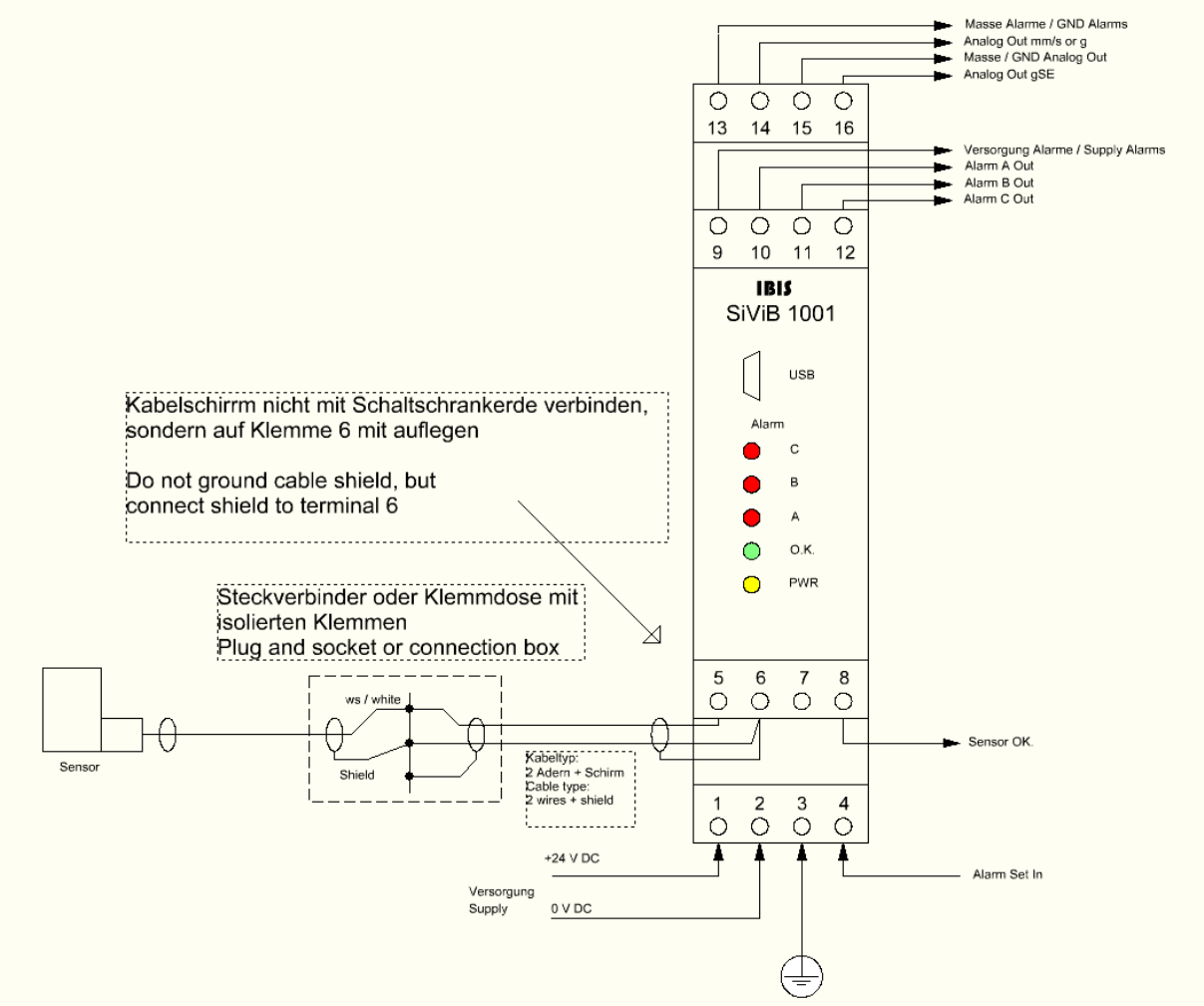
Pin	Block	Designation
1	1	+24 VDC
2	1	Ground 24 VDC
3	1	Ground
4	1	Input limit value (max. 24 VDC)
5	2	Sensor signal
6	2	Sensor ground
7	2	Ground
8	2	Sensor OK.
9	3	Operating voltage for alarms (max. 24 VDC)
10	3	Alarm output A
11	3	Alarm output B
12	3	Alarm output C
13	4	Alarm ground
14	4	Analog output [mm/s_{rms}] or [g_{peak}]; 4–20 mA or 0–10 V
15	4	Ground for analog outputs

16	4	Analog output [gSE] 4–20 mA or 0–10 V

4.3 Wiring diagram for sensors with 2-wire cable



4.4 Wiring diagram for sensors with 1-wire cable



5 Hardware configuration and commissioning

5.1 Factory settings

Upon delivery, the device is configured as follows:

- Measured variables: Vibration velocity v_{eff} [mm/s] and rolling bearing characteristic gSE (information sheet on the gSE value available upon request)
- Sensor sensitivity 100 mV/g
- Analog outputs 0 – 10 volts

5.2 Opening the housing

The housing must be opened for various basic configurations

1. To do this, disconnect all terminal blocks.

2. Remove the DIN rail mount on the bottom. To do this, pry the small spring out of the opening in the metal part. Remove the retaining plate.

3. The housing halves are held together by a few locking pins. Carefully pry these open with a screwdriver.

4. Remove the side panel.

5.2.1 Sensor sensitivity

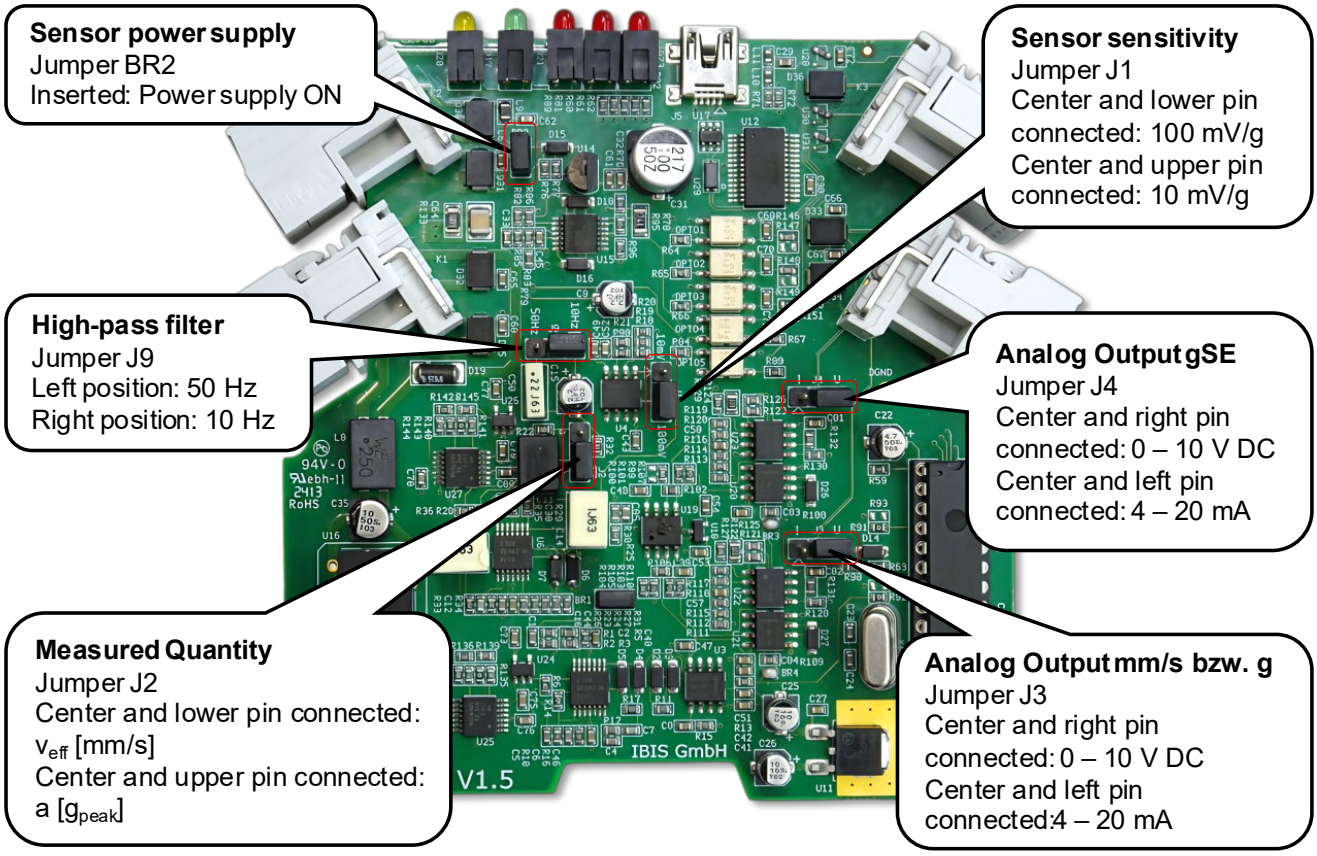
The SiViB 1001 is configured by default for sensors with a sensitivity of 100 mV/g. If you wish to connect sensors with 10 mV/g, the J1 jumper inside the device must be reconfigured.

5.2.2 Switching measurement units

The measured variable "vibration velocity" can be switched from v_{eff}[mm/s] to a [g_{peak}] (jumper J2)

5.2.3 Switching analog outputs

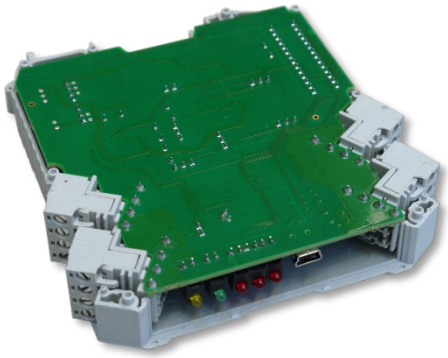
The analog outputs can be switched from 2–10 V DC to 4–20 mA (jumpers J3 and J4)



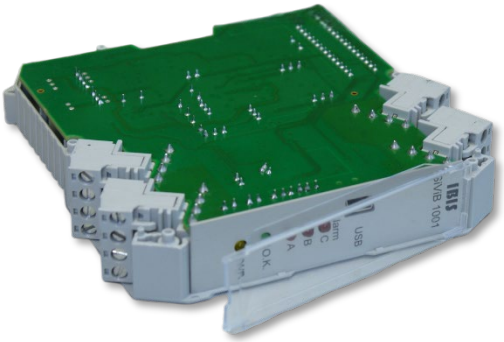
5.2.4 Closing the housing

After the hardware has been configured and the necessary adjustments for the measurement have been made, the device must be reassembled. Particular attention must be paid to how the circuit board is inserted into the housing shells.

As a guideline, the reassembly can be described as follows:



Place the terminal blocks into the large housing shell. The underside of the circuit board faces upward.



The aluminum plate must be positioned correctly relative to the USB port and the LEDs. The transparent cover is inserted with the pins facing upward.

The flat housing shell must be placed on the side where the board’s USB Mini-B port is located.

The case can then be fully snapped together.

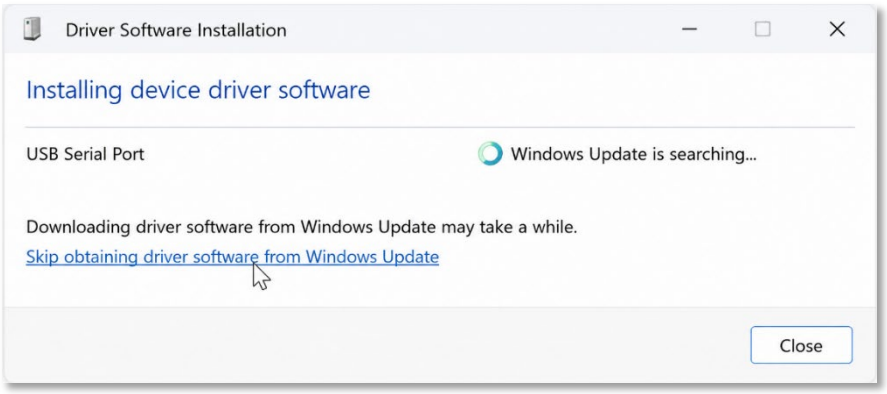
5.3 Connecting the device to the PC

A standard USB cable is used to connect the SiViB 1001 to the PC. The cable has a USB-A connector on the PC side and a USB-Mini connector on the SiViB side.

When connecting the device to the PC for the first time, the device should be powered on. The PC will then recognize a new device via “plug and play” and install the driver automatically. A virtual COM port is set up during this process.

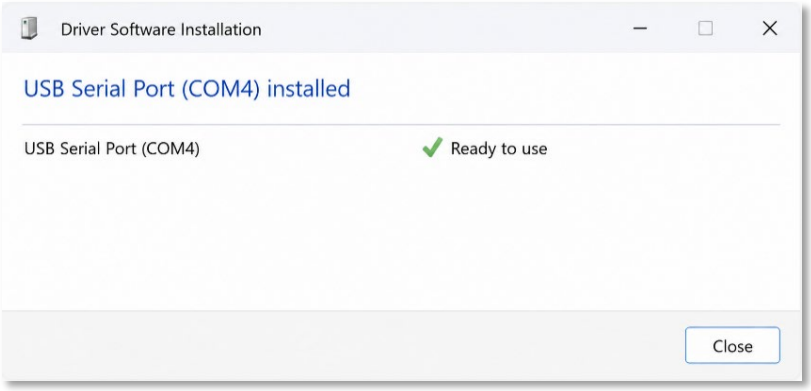
If Windows cannot find a suitable driver, or if you do not have an internet connection, you can also manually select the driver from your installation media.

To do this, click "***Skip obtaining driver software from Windows Update***".



Navigate to the location of the driver files on the Ibis website under: ***PRODUCTS\Vibration monitoring modules\Vibration and rolling bearing monitor Type SiViB\To the data sheets & software downloads\Type SiViB 1001\USB-COM Driver*** and install them manually.

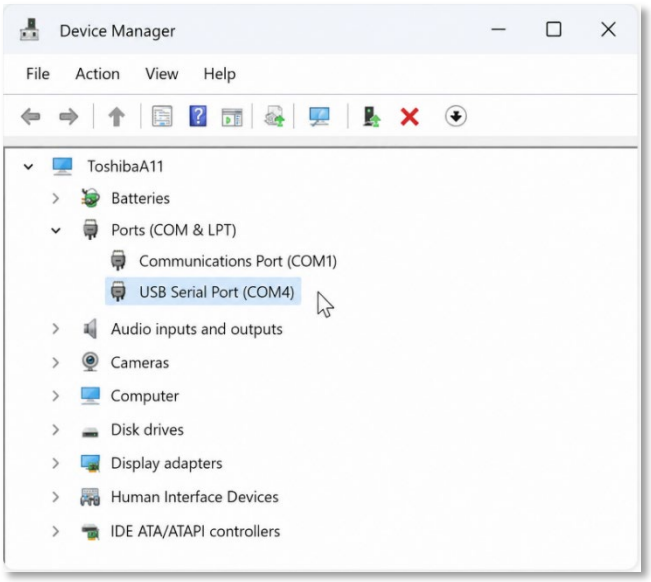
If the driver installation was successful, you should receive a message similar to the one shown in the following figure:

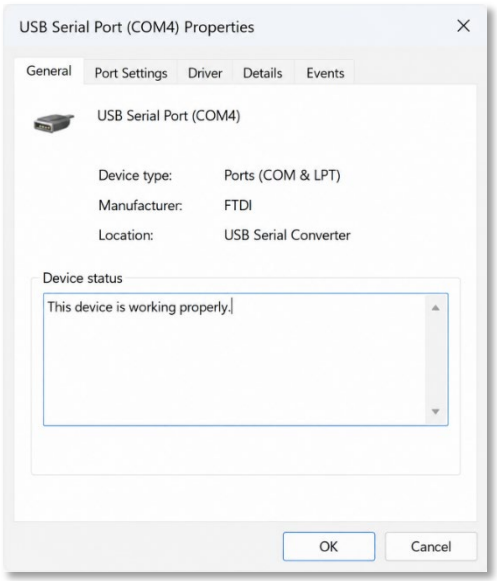


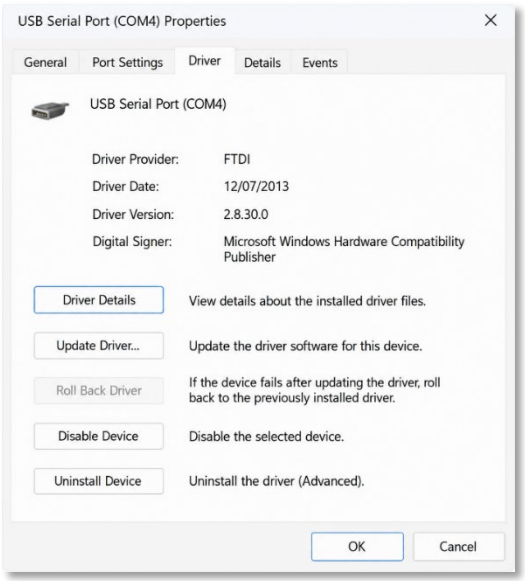
The displayed COM port must then be selected when starting the SiViB Control software.

If you encounter problems during driver installation, you can check the driver installation in the Windows Control Panel, Device Manager, and correct it if necessary.

The following figures show the status after a successful installation.







6 Installation of the SiViB Control Software

6.1 Requirements

Computer specifications

- Pentium processor or equivalent
- 4 GB RAM
- Hard drive: at least 500 MB free
- CD-ROM or DVD drive (if necessary) for software installation
- At least 1 serial port or USB port
- Graphics resolution: min. 800 x 600; 256 colors

Operating system

The SiViB 1000 Control software runs on Windows® XP, Windows® Vista, Windows® 7, Windows® 10, Windows® 11 (including 64-bit).

Software

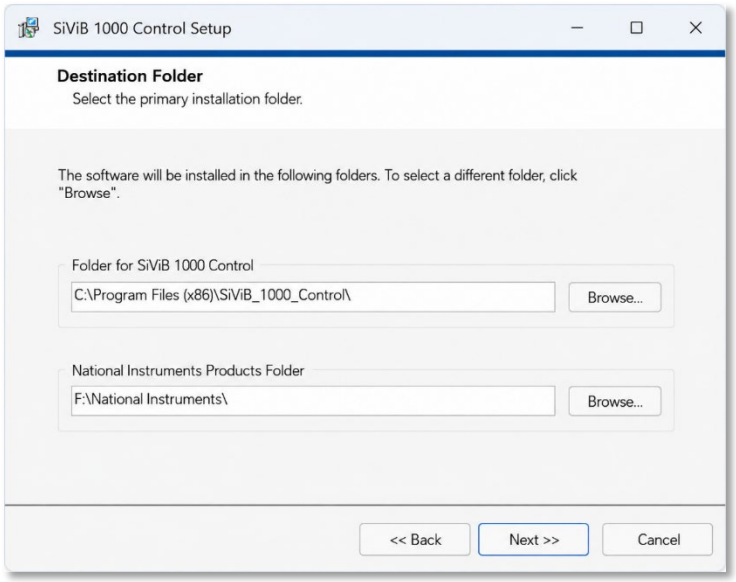
- Microsoft® .NET Framework 3.5

Typically, newer versions of the .NET Framework are already installed on the PC, which are not sufficiently backward compatible. Therefore, .NET 3.5 must be installed explicitly in addition.

6.2 Installation

To install the SiViB Control software, proceed as follows:

1. Go to the Ibis homepage. To download the file, follow this path: ***PRODUCTS\Vibration monitoring modules\Vibration and rolling bearing monitor Type SiViB\To the data sheets & software downloads\Type SiViB 1001/Software SiViB 1001***. Download the .zip file and extract it completely. You will find ***setup.exe*** under ***SiViB_1000_Control\SiViB 1000 Control_2_0_5_1\SiViB_Control_Installer\Volume***. Run this file.
   Note the installation directories as specified in the default settings. If you wish to install the software in a different location, you can change the paths here.

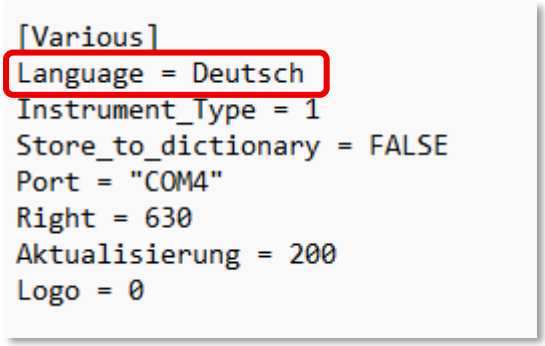


2. Click ***Next*** to proceed with the installation.

Once the installation is complete, the program can be launched.

6.3 Setting the software language

Once the software is installed on the PC, its language can be changed. To do this, navigate to the installation directory of the software. Click on the ***SiViB_1000_Control*** folder and open the file ***Settings.ini***.



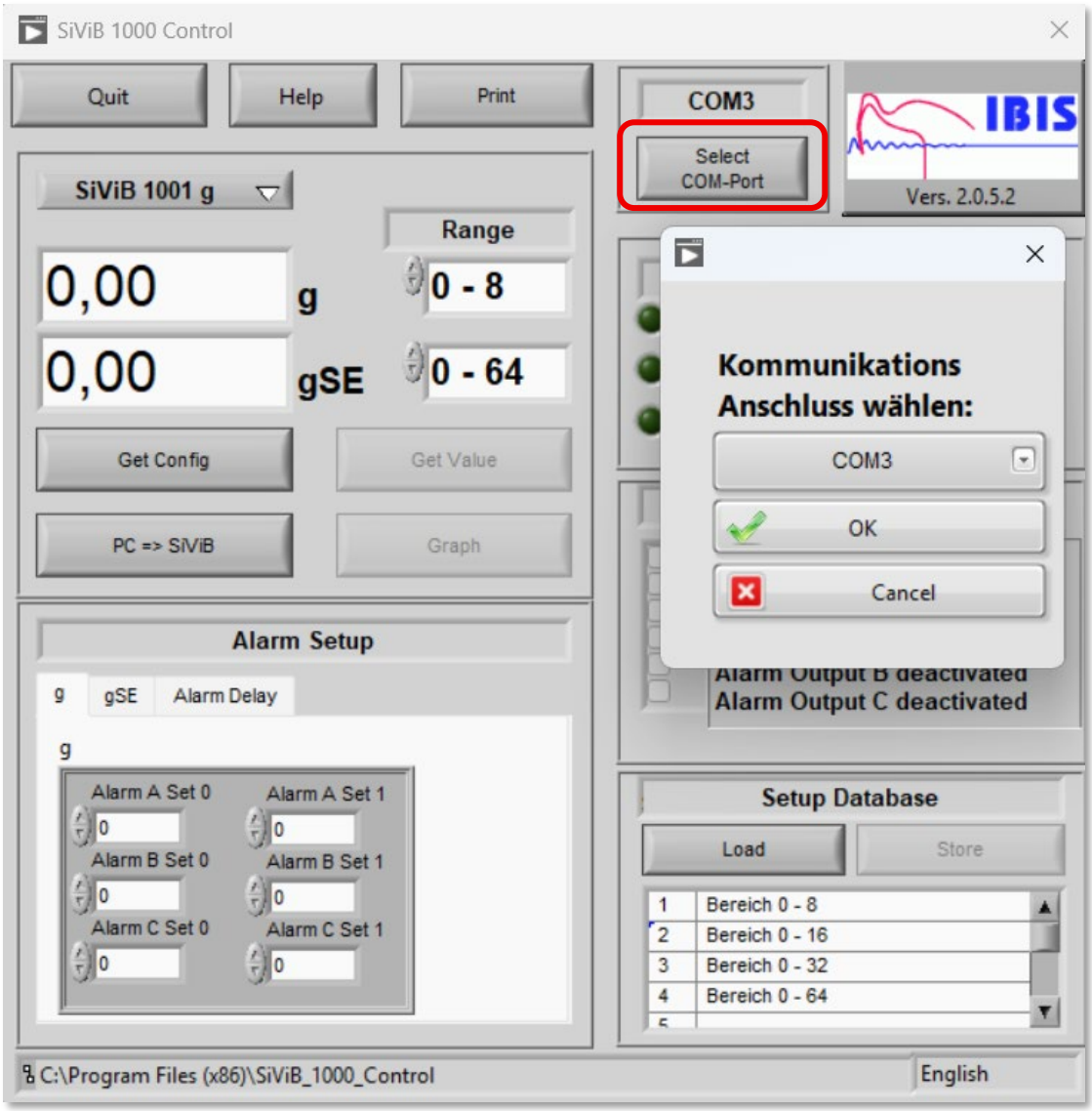
In the field marked in red, different languages can then be entered. Only replace the word “Deutsch”.

The following languages can be set:

Target language	**Input**	**What the line should look like**
German	*Deutsch*	`Language = Deutsch`
English	*English*	`Language = English`
French	*French*	`Language = French`
Spanish	*Spanish*	`Language = Spanish`

6.4 Starting the SiViB Control Software

Click ***Start, All Programs, SiViB 1000 Control, SiViB Control***.



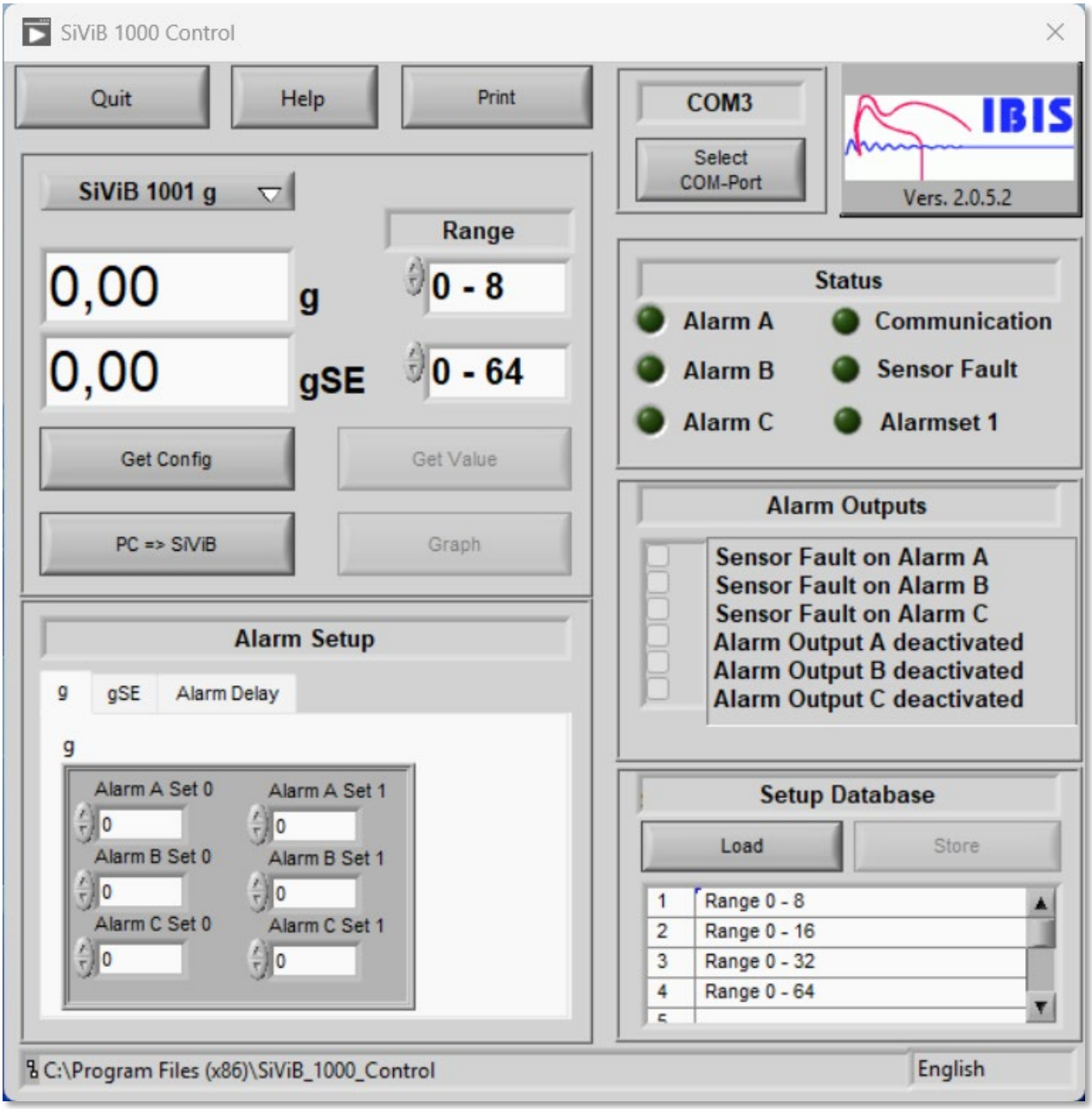
Select the communication port (COM port) to which the device is connected. If you do not know the correct port, you can determine it by trial and error. The Windows Device Manager may also help you identify the COM port (*see 5.3 below*).

First, select the type of connected device. The software can configure SiViB 1000 and SiViB 1001 devices.

For SiViB 1001 devices, the measurement channel for vibration can be set via a hardware jumper to either vibration velocity [mm/s] or vibration acceleration [g]. Please select the device type according to the hardware setting. Details on the hardware configuration can be found in Section *5.2*.

7 Software configuration of the device

7.1 Software basics



7.1.1 Reading the configuration

As a first step, it is recommended to read the current configuration from the device into the PC. To do this, click ***Get Config***. A brief flash of the Communication status indicator indicates activity. The currently set measurement ranges and alarm settings are displayed.

7.1.2 Analog outputs

The analog outputs are based on the recorded vibration measurement values and are proportional to one another. The voltage or current value at the analog output depends on the measurement value and the selected measurement range.

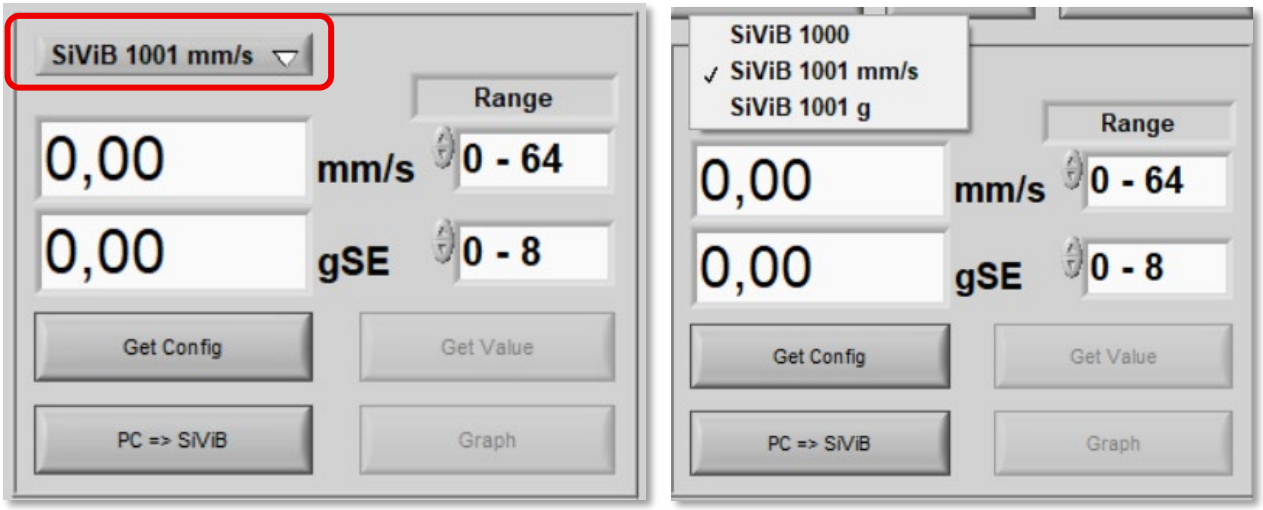
The following table lists the possible measurement range end values. When an end value is reached, the respective maximum value is output at the analog output: I_{max} = 20 mA (current output) or U_{max} = 10 V (voltage output).

Vibration velocity [mm/s_{eff}]	**Vibration acceleration [g_{peak}]**	**Rolling bearing characteristic gSE**
0 – 8	0 – 1	0 – 8
0 – 16	0 – 2	0 – 16
0–32	0 – 4	0 – 32
0 – 64	0 – 8	0 – 64

7.1.3 Setting the measurement parameter

The measured variable must be adjusted in two places to ensure it is measured correctly. First, the hardware configuration must be changed, and second, the measured variable must be adjusted in the software.
As described in Section 5.2.2 and the figure below, jumper J2 can be set to v or a. To measure v_{eff}[mm/s], jumper J2 must be connected to the lower pin and the middle pin. To measure a_{peak} [g], the jumper must be placed on the top pin and the middle pin.

In the software, click on the ***SiViB 1001 mm/s*** field to select between the measurement units v_{eff} in mm/s and a_{peak} in g.



INFORMATION

The hardware and software must be set to the same measurement parameter so that the SiViB 1001 can correctly record and process the measured values.

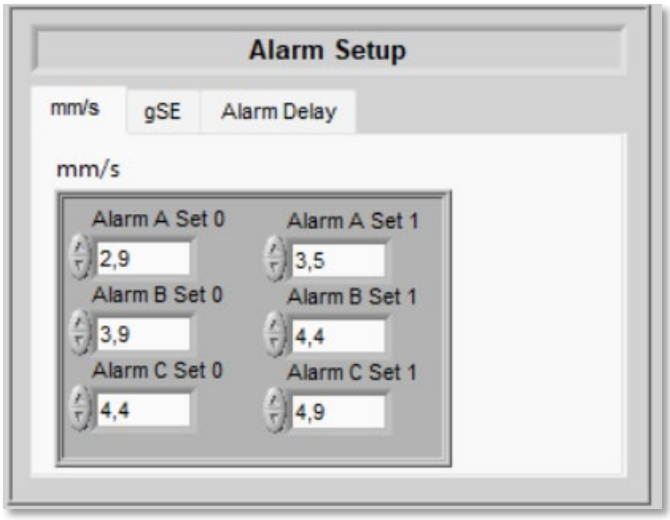
7.2 Setting the measurement ranges

The measurement ranges are set using selection fields, separate for each measurement variable. If the measurement variable mm/s is selected, then measurement ranges for v and gSE can be set, and if the measurement variable g is selected, then the measurement ranges for a and gSE can be set.

To change **the settings,** click in the **measurement range display field** or use the **control element** to the left of it.

Select appropriate measurement ranges based on the expected maximum values for each monitoring task.

7.3 Setting the alarms



7.3.1 Limit value set (Alarm set)

The SiViB 1001 has two “limit value sets,” meaning two sets of three limit values (**Set 0** & **Set 1**). The two limit value sets can be applied under different operating conditions for the machine being monitored. For example, a distinction can be made between idle and machining, or roughing and finishing. The SiViB must receive information from the machine control system regarding which limit value set is to be used. The “Limit Value Set” input is provided for this purpose. Switching between limit value sets occurs virtually without delay (in the range of milliseconds), ensuring no “gap” in monitoring.

If switching between limit value sets is not desired, the second limit value set can be ignored. The “Limit Value Set” input must then not be connected. If the “Limit Value Set” input is not connected, limit value set 0 is active.

The status of the Limit Set input can be read in the **Status** field on the **Alarm Set 1** indicator light.

If you select a different measurement range, the new configuration must be transferred to the SiViB using the ***PC =>SiViB*** button to complete the process. Otherwise, the change you made is not saved and will be lost when the program is closed. If you also wish to change the alarm (limit value) settings in the new measurement range, you can enter your desired alarm settings immediately after selecting the new measurement range. Pressing the ***PC =>SiViB*** button then transfers both the alarm settings and the measurement range to the SiViB 1001.

7.3.2 Setting alarms (Limit values)

Please note that different alarm values can be set for the individual measurement ranges. Therefore, first select the required measurement range (see above).

To set the alarm values (thresholds), use the mouse to select the controls next to the display, or click in the digital display and then enter the value using the keyboard.

The measured values for vibration and rolling bearing parameter both affect the alarm outputs simultaneously. This can be viewed as a logical OR circuit. Thus, for example, output A switches on if either the vibration or the rolling bearing parameter exceeds the value set for alarm A.

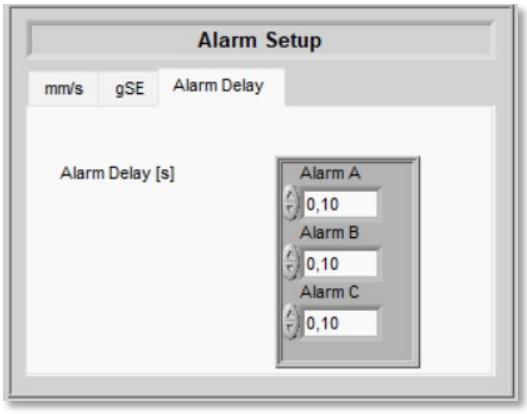
Repeat the above steps for the other limit values, as necessary.

INFORMATION

The new limit values have not yet been transferred to the SiViB measurement electronics and are therefore not yet active! Finalize the changes by clicking ***PC => SiViB*** to transfer the settings to SiViB.

Once the changes have been transferred to SiViB, they are stored there in non-volatile memory. This means that the settings are retained even after a power failure.

7.3.3 Alarm delay



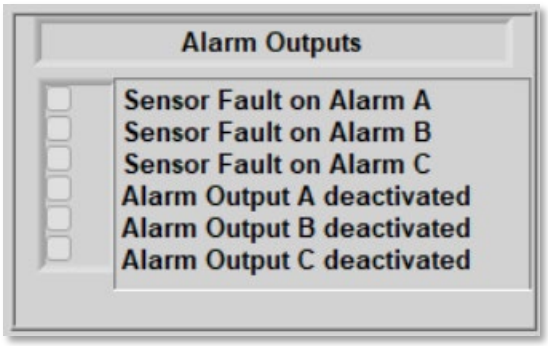
In many cases, it is desirable that brief exceedances of limit values do not immediately trigger an alarm. For this purpose, you can set an alarm delay. This means that the limit value must be exceeded continuously for at least the duration of the set delay before the alarm is triggered.

In the **Alarm Setup** field, click the ***Alarm Delay*** tab. Set the desired alarm delay there.

INFORMATION

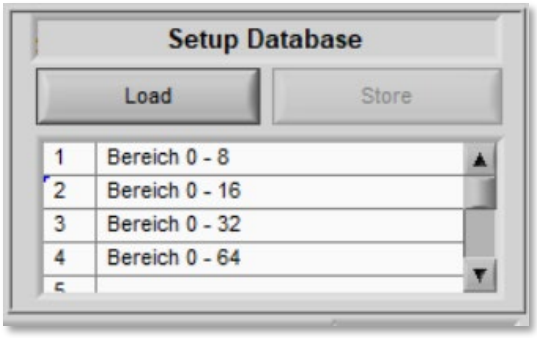
Do not set the alarm delay to 0, as otherwise the alarm outputs will not signal.

7.3.4 Alarm outputs



In the **Alarm Outputs** field, you can configure additional settings regarding the behavior of the alarm outputs. On the one hand, a sensor error can trigger Alarm A, B, or C; on the other hand, Alarm Outputs A, B, and C can each be set to inactive, i.e., disabled.

7.4 Settings database



7.4.1 Save configuration

You can save up to 50 configured settings of the software on your PC for reuse, e.g., for the identical configuration of multiple SiViB devices.

After you have configured everything, select the desired storage location, enter a name for the data set, and click ***Store***.

However, a distinction must be made between the different measured variables. Ideally, configurations for v_{eff}[mm/s] and a_{peak}[g] are each saved in the settings database.

7.4.2 Load configuration

You can retrieve and load saved configurations from the database.

Select the desired configuration by name or storage location number, then click ***Load***.

8 Operation of the measurement system

During operation, the device converts the signals from the accelerometer into analog DC voltage or DC current values. The output values range from 0 volts (or 4 mA) when the input signal is 0, to 10 volts (or 20 mA) when the input signal is at the upper limit of the measurement range.

Output values above 10 volts (or 20 mA) indicate an overload and are therefore invalid.

A cable break between the sensor and the SiViB 1001 signal converter is detected by the sensor check and indicated by the Sensor OK LED (on the SiViB) going out. A Sensor OK signal is present at terminal 8 when the device and sensor are operational. In the event of a sensor error, the output is in the logical 0 state; during normal operation (Sensor OK), it is in the logical 1 state with a 24 V output signal.

A cable break between the SiViB 1001 and the downstream evaluation electronics can be detected when using the current output at values below 4 mA.

8.1 Calculation of measured values in scaled units

Formulas for measured values in “engineering units”:

Measuring range	Output 0 – 10 volts	Output 4 – 20 mA
0 – 1	Value = Voltage in volts / 10	Value = (Current in mA - 4) / 16
0 – 2	Value = voltage in volts / 5	Value = (Current in mA - 4) / 8
0 – 4	Value = Voltage in volts / 2.5	Value = (Current in mA - 4) / 4
0 – 8	Value = Voltage in volts / 1.25	Value = (Current in mA - 4) / 2
0 – 16	Value = Voltage in volts * 1.6	Value = (Current in mA - 4)
0 – 32	Value = Voltage in volts * 3.2	Value = (Current in mA - 4) * 2
0 – 64	Value = Voltage in volts * 6.4	Value = (Current in mA - 4) * 4

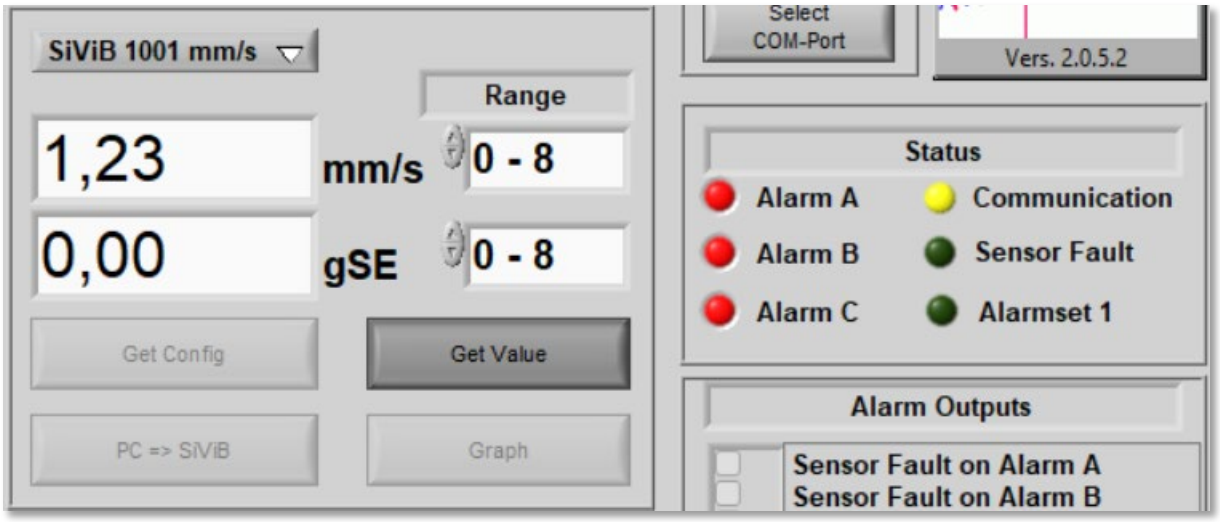
The set alarm values are continuously monitored for exceedances, and the corresponding alarm output is activated if necessary. If an alarm delay is set, the current measured value must remain continuously above the alarm threshold for at least the duration of the delay before the output switches.

INFORMATION

The measured values for vibration and rolling bearing parameter both affect the alarm outputs simultaneously. This can be viewed as a logical OR circuit. Thus, for example, output A switches if either the vibration or the rolling bearing parameter exceeds the value set for alarm A.

8.2 Live display of measured values

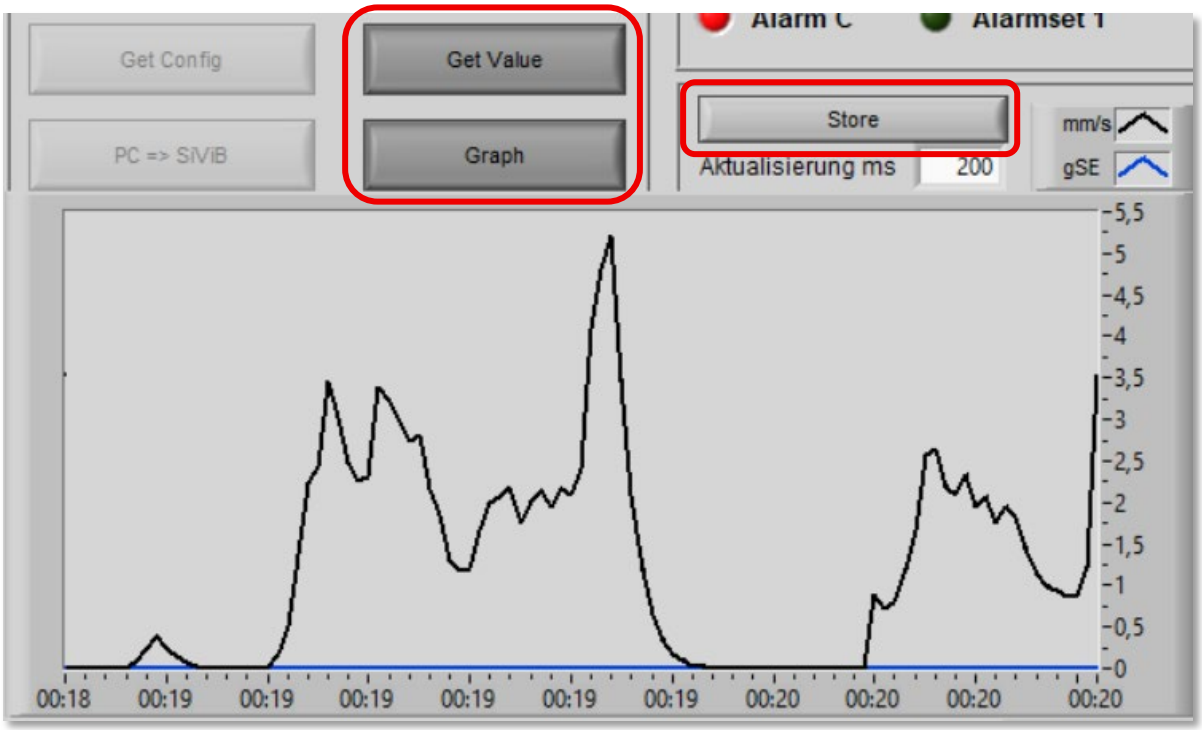
The ***Get Value*** button activates the transmission of current values from the device to the PC.



The current values can be read in the digital display.

Graphical display

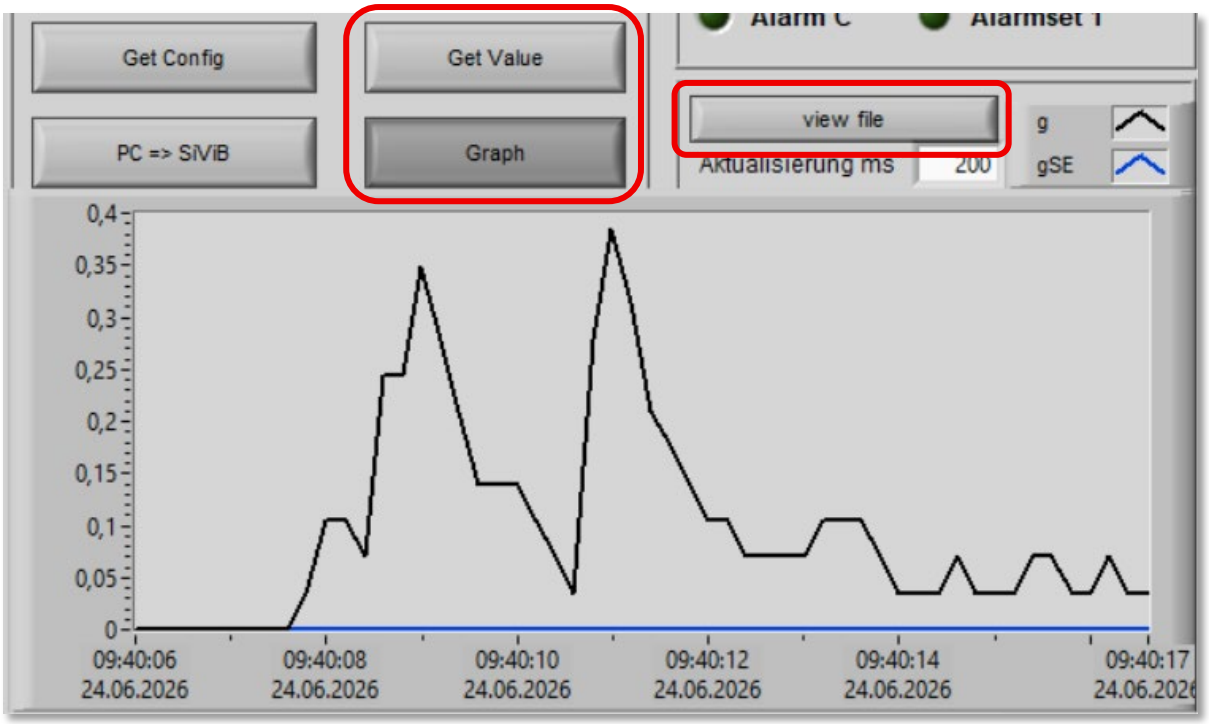
In many cases, it is desirable to observe the trend of measured values, for example during a machining cycle. You can use the graphical display for this purpose. To do so, activate the ***Graph*** button while values are being retrieved:



The displayed values can also be saved to a file. To do this, click the ***Store*** button and enter a file name.

The values are written to an ASCII file along with the date and time. This file can be read using standard programs such as Microsoft Excel or WordPad.

SiViB Control also offers the option to display these files. If you press the ***Graph*** button while ***Get Value*** is disabled, you can then open the file by pressing ***view file*** and selecting the desired file.



9 Technical data

Measured variables:	Vibration velocity v_{eff} and rolling bearing condition gSE, switchable to: Vibration acceleration g_{peak} and rolling bearing condition gSE
Design:	IP20 housing for control cabinet installation; Top-hat rail mounting on 35 mm rail; 16 plug-in screw terminals Dimensions 22.5 x 110 x 115 mm (WxHxD)
Sensor input:	1 input for accelerometer with constant current supply, Sensitivity 10 or 100 mV/g (configurable via jumper) Constant current supply 4 mA
Outputs:	2 outputs: 0 – 10 V for vibration velocity v_{eff} [mm/s] or vibration acceleration a_{peak} [g] switchable to 4 – 20 mA for vibration velocity v_{eff} [mm/s] or vibration acceleration a_{peak} [g] 0 – 10 V for rolling bearing characteristic gSE switchable to 4–20 mA for rolling bearing parameter gSE
Output load capacity:	Current output: max. 600 ohms load resistance; Voltage output: 2 kOhm internal resistance
Power supply:	24 VDC; approx. 50 mA (18 to 30 volts), Residual ripple max. 100 mV
Measuring ranges:	Vibration velocity: 0 – 8 / 16 / 32 / 64 mm/s_{rms} Vibration acceleration: 0 – 1 / 2 / 4 / 8 g a_{peak} Rolling bearing parameter: 0 – 8 / 16 / 32 / 64 gSE
Frequency ranges:	10 Hz – 1 kHz for vibration velocity v_{eff} or vibration acceleration g_{peak} or 50 Hz – 1 kHz (order option) 5 kHz – 50 kHz for rolling bearing characteristic

Models and ordering options

Model	Description	Order number
SiViB 1001-00	1 input for 100 mV/g or 10 mV/g accelerometer 3 alarm outputs 4–20 mA or 0–10 VDC 2 analog outputs for vibration velocity/acceleration and rolling bearing parameter 4–20 mA or 0–10 VDC Vibration frequency range 10 Hz – 1 kHz	960-000011 SIV1001.00
SiViB 1001-01	1 input for accelerometer 100 mV/g or 10 mV/g 3 alarm outputs 4 – 20 mA or 0 – 10 VDC 2 analog outputs for vibration velocity/acceleration and rolling bearing parameter 4–20 mA or 0–10 VDC Vibration frequency range **50 Hz** – 1 kHz	960-000017 SIV1001.01
SiViB 1001-02	1 input for accelerometer 100 mV/g or 10 mV/g 3 alarm outputs 4 – 20 mA **(inverted)** or 0 – 10 VDC **(inverted)** 2 analog outputs for vibration velocity/acceleration and rolling bearing parameters: 4–20 mA or 0–10 VDC Vibration frequency range 10 Hz – 1 kHz	960-000018 SIV1001.02
Compatible accelerometers (e.g.):		
AE100.942.080	Accelerometer with 100 mV/g sensitivity	960-000422
AI100.011.015	Accelerometer with 100 mV/g sensitivity	960-000048
AI10.011.015	Accelerometer with 10 mV/g sensitivity	960-000101

Data sheets for the accelerometers can be found on our website at www.ibis-gmbh.de.

For your notes:

We are

Hofmann.

Hofmann Mess- und Auswuchttechnik GmbH & Co. KG

American Hofmann Corporation

Hofmann Global do Brasil Ltd.

Hofmann Precision Balancing Ltd.

Ibis GmbH

deineMaschine GmbH

Intelligent Balancing Solutions

Advanced Vibration Monitoring

Overspeed Testing Systems