

# OPERATING INSTRUCTIONS

EN

Translation of the Original

## DATA

Functional module

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## Dear customer,

Thank you for choosing a Pfeiffer Vacuum product. Your new Pfeiffer Vacuum accessory should support you in your individual application with full performance and without malfunctions. The name Pfeiffer Vacuum stands for high-quality vacuum technology, a comprehensive and complete range of top-quality products and first-class service. With this expertise, we have acquired a multitude of skills contributing to an efficient and secure implementation of our product.

Knowing that our product must not interfere with your actual work, we are convinced that our product offers you the solution that supports you in the effective and trouble-free execution of your individual application.

Please read these operating instructions before putting your product into operation for the first time. If you have any questions or suggestions, please feel free to contact [info@pfeiffer-vacuum.de](mailto:info@pfeiffer-vacuum.de).

Further operating instructions from Pfeiffer Vacuum can be found in the [Download Center](#) on our website.

## Disclaimer of liability

These operating instructions describe all models and variants of your product. Note that your product may not be equipped with all features described in this document. Pfeiffer Vacuum constantly adapts its products to the latest state of the art without prior notice. Please take into account that online operating instructions can deviate from the printed operating instructions supplied with your product.

Furthermore, Pfeiffer Vacuum assumes no responsibility or liability for damage resulting from the use of the product that contradicts its proper use or is explicitly defined as foreseeable misuse.

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We reserve the right to make changes to the technical data and information in this document.

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# 1 About this manual

**IMPORTANT**

Read carefully before use.

Keep the manual for future consultation.

## 1.1 Validity

This operating instructions is a customer document of Pfeiffer Vacuum. The operating instructions describe the functions of the named product and provide the most important information for the safe use of the device. The description is written in accordance with the valid directives. The information in this operating instructions refers to the product's current development status. The document shall remain valid provided that the customer does not make any changes to the product.

### 1.1.1 Applicable documents

OmniControl Display Control Unit	Number
OmniControl operating instructions	PT 0670 BN

You can find this document in the [Pfeiffer Vacuum Download Center](#).

## 1.2 Target group

These operating instructions are aimed at all persons performing the following activities on the product:

- Transportation
- Setup (Installation)
- Usage and operation
- Decommissioning
- Maintenance and cleaning
- Storage or disposal

The work described in this document is only permitted to be performed by persons with the appropriate technical qualifications (expert personnel) or who have received the relevant training from Pfeiffer Vacuum.

## 1.3 Conventions

### 1.3.1 Instructions in the text

Usage instructions in the document follow a general structure that is complete in itself. The required action is indicated by an individual step or multi-part action steps.

**Individual action step**

A horizontal, solid triangle indicates the only step in an action.

- This is an individual action step.

**Sequence of multi-part action steps**

The numerical list indicates an action with multiple necessary steps.

1. Step 1
2. Step 2
3. ...

### 1.3.2 Pictographs

Pictographs used in the document indicate useful information.



Note



Tip

### 1.3.3 Abbreviations

Abbreviation	Meaning in this document
AC	Alternating Current voltage
DC	Direct Current voltage
IO	Input Output (in out)
LED	Light emitting diode
PE	Protective earth (earthed conductor)
[P:xxx]	Electronic drive unit control parameters. Printed in bold as a three-digit number in square brackets. Frequently displayed in conjunction with a short description. Example: <b>[P:312]</b> software version
T	Temperature (in °C)

Tbl. 1: Abbreviations used in this document

## 2 Safety

### 2.1 General safety information

The following 4 risk levels and 1 information level are taken into account in this document.

#### **DANGER**

##### **Immediately pending danger**

Indicates an immediately pending danger that will result in death or serious injury if not observed.

- Instructions to avoid the danger situation

#### **WARNING**

##### **Potential pending danger**

Indicates a pending danger that could result in death or serious injury if not observed.

- Instructions to avoid the danger situation

#### **CAUTION**

##### **Potential pending danger**

Indicates a pending danger that could result in minor injuries if not observed.

- Instructions to avoid the danger situation

#### **NOTICE**

##### **Danger of damage to property**

Is used to highlight actions that are not associated with personal injury.

- Instructions to avoid damage to property



Notes, tips or examples indicate important information about the product or about this document.

### 2.2 Safety instructions

All safety instructions in this document are based on the results of the risk assessment carried out in accordance with Low Voltage Directive 2014/35/EU. Where applicable, all life cycle phases of the product were taken into account.

#### **Risks during operation**

#### **WARNING**

##### **Danger to life due to incorrect operation**

The OmniControl and its options are not designed as safety-related controllers. Manual misuse of the OmniControl or options, or automatically executed programming of the OmniControl's auto control function may result in damage relating to materials, the environment, health, or life.

- Only use the OmniControl, options, or auto control function to control functions that will not cause damage.
- To ensure correct settings, ensure that the operating instructions are available to qualified personnel and operators.



## 2.3 Safety precautions



### Duty to provide information on potential dangers

The product holder or user is obliged to make all operating personnel aware of dangers posed by this product.

Every person who is involved in the installation, operation or maintenance of the product must read, understand and adhere to the safety-related parts of this document.



### Infringement of conformity due to modifications to the product

The Declaration of Conformity from the manufacturer is no longer valid if the operator changes the original product or installs additional equipment.

- Following the installation into a system, the operator is required to check and re-evaluate the conformity of the overall system in the context of the relevant European Directives, before commissioning that system.

### General safety precautions when handling the product

- ▶ Use only power supply packs that comply with the applicable safety regulations.
- ▶ Observe all applicable safety and accident prevention regulations.
- ▶ Check that all safety measures are observed at regular intervals.
- ▶ Recommendation: Establish a secure connection to the grounded conductor (PE); protection class I or III.
- ▶ Never disconnect plug connections during operation.
- ▶ Keep lines and cables away from hot surfaces ( $> 70\text{ °C}$ ).
- ▶ Do not carry out your own conversions or modifications on the unit.
- ▶ Observe the unit protection degree prior to installation or operation in other environments.

## 2.4 Proper use

Recording of process data on storage devices.

## 2.5 Foreseeable improper use

Improper use of the product invalidates all warranty and liability claims. Any use that is counter to the purpose of the product, whether intentional or unintentional, is regarded as improper use; in particular:

- Unauthorized installation, removal, conversion, or replacement

## 2.6 Personnel qualification

The work described in this document may only be carried out by persons who have appropriate professional qualifications and the necessary experience or who have completed the necessary training as provided by Pfeiffer Vacuum.

### Training people

1. Train the technical personnel on the product.
2. Only let personnel to be trained work with and on the product when under the supervision of trained personnel.
3. Only allow trained technical personnel to work with the product.
4. Before starting work, make sure that the commissioned personnel have read and understood these operating instructions and all applicable documents, in particular the safety, maintenance and repair information.

## 3 Product description

### 3.1 Scope of delivery

- Data option, included in control unit's scope of delivery

### 3.2 Data option

The option designated "data" is intended for the connection of a USB stick and a  $\mu$ SD card. You can record various values of the device in which the data option is installed on these storage media.

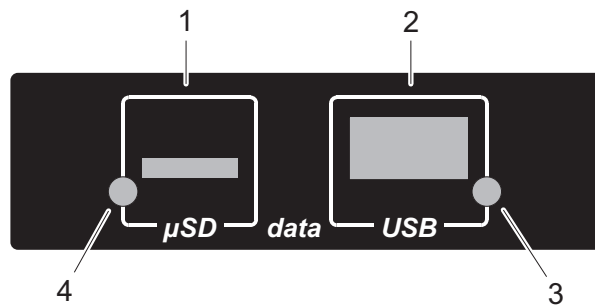


Fig. 1: Data option

- |                   |                          |
|-------------------|--------------------------|
| 1 $\mu$ SD socket | 3 LED at USB socket      |
| 2 USB socket      | 4 LED at $\mu$ SD socket |

	USB	$\mu$ SD
File system	FAT32	FAT32
Capacity	$\leq 32$ GB	$\leq 32$ GB

Tbl. 2: Storage media requirements



#### Priorities among storage media

When using both storage media at the same time, the USB stick has priority over the  $\mu$ SD card.

### 3.3 Operating mode display via LED

LEDs indicate important operating states. A differentiated error and warning display is possible in case of operations with the Pfeiffer Vacuum display and control panel.

The data interface has its own LED operating mode display.

LED status	Display	Meaning
Off		No storage device detected
Green illuminated		Storage device detected and ready to record
Green flashing		Storage device recording
Red illuminated		Storage device not ready to record (e.g., faulty or full)
Red flashing		Storage device detected but not ready to record because another storage device is selected

Tbl. 3: Behavior and meaning of the LED of the USB and  $\mu$ SD socket

### 3.4 Data recording

A control unit with installed data option saves operating data in a "record\_001.csv" file. With each new recording, a new file is created with a corresponding incremented file name (e.g., "record\_002.csv") so that no existing records on the storage device are overwritten.

record_001.csv							1
The internal test.							2
RS485:1.312	FW Version	10177					3
			RS485:1.309	RS485:1.310	RS485:1.316	RS485:1.330	4
		s	[Hz]	[A]	[W]	[°C]	
		0	0	0	0	24	5
		1	0	0	0	24	
		2	0	0	0	24	
		3	0	0	0	24	
		4	0	0	0	24	
		5	0	0	0	24	
		6	0	0	0	24	
		7	0	0	0	24	
		8	0	0	0	24	
		9	0	0	0	24	
		10	0	0	0	24	
		11	0	0	0	24	
		12	0	0	0	24	
		13	6	2,039999	48	24	
		14	13	2,079999	49	24	
		15	26	2,139999	50	24	
		16	34	2,169999	51	24	

**Fig. 2: Example record\_001.csv file**

- |                                |                   |
|--------------------------------|-------------------|
| 1 File name                    | 4 Data objects    |
| 2 Additional information       | 5 Measured values |
| 3 Static data on the recording |                   |

#### Record process data

- As required, define the objects you wish to record using the unit in which the data option is installed.



#### Reading out the data objects to be recorded

The selected objects are saved in a "config.csv" file, which the control unit reads out when you insert the storage device. If a "config.csv" file is already present on the storage device, the unit will overwrite it when beginning a new recording or when changing the objects to be recorded.

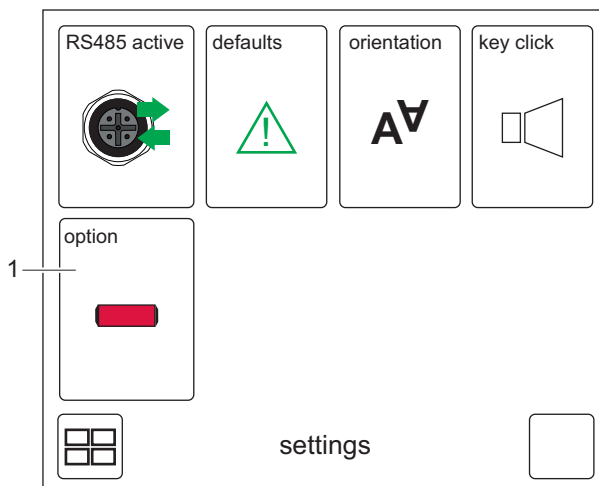
## 4 Operation with the OmniControl

### ⚠ WARNING

#### Danger to life due to incorrect operation

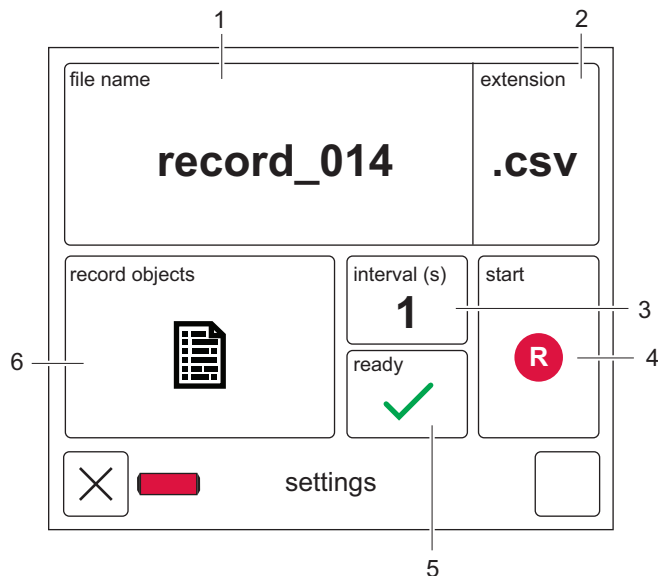
The OmniControl and its options are not designed as safety-related controllers. Manual misuse of the OmniControl or options, or automatically executed programming of the OmniControl's auto control function may result in damage relating to materials, the environment, health, or life.

- ▶ Only use the OmniControl, options, or auto control function to control functions that will not cause damage.
- ▶ To ensure correct settings, ensure that the operating instructions are available to qualified personnel and operators.



**Fig. 3: Example device settings, OmniControl 001 Mobile**

1 Installed option (option)

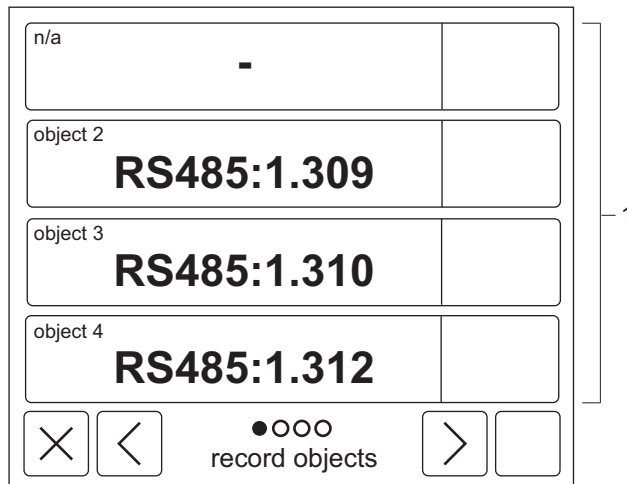


**Fig. 4: Example data in device settings**

- |                      |                                 |
|----------------------|---------------------------------|
| 1 File name          | 4 Start/stop recording (start)  |
| 2 Extension          | 5 Status (ready)                |
| 3 Recording interval | 6 Data objects (record objects) |

**Data in device settings**

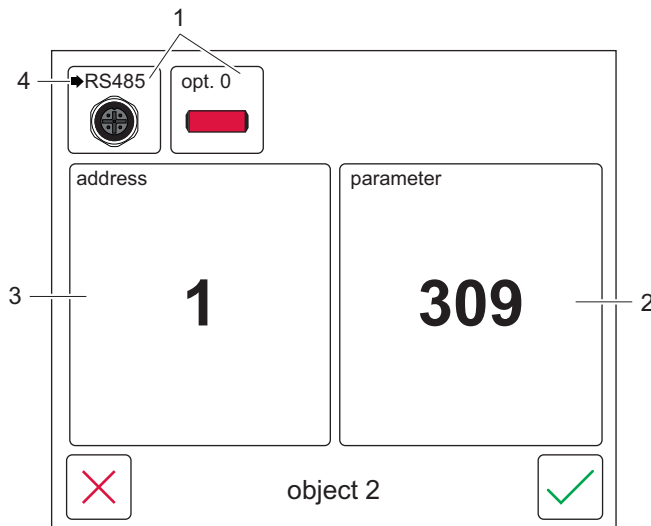
- File name: File name of the next/current recording (automatically assigned based on the files already on the storage device)
- Extension: Shows the file extension (fixed)
- Recording interval: Recording interval, between 1 and 3600 seconds
- Start/stop recording: Start or stop a recording
- Status (ready/not ready): Indicates the status of the storage device
- Data objects (record objects): Definition of data objects

**Fig. 5: Example data objects**

1 Data objects (object)

**Data objects**

- Data objects (object): Definition of data objects to be recorded (editable) read from "config.csv"

**Fig. 6: Example configuration of a data object**

- |                     |                   |
|---------------------|-------------------|
| 1 Sources           | 3 Device address  |
| 2 Control parameter | 4 Selected source |

**Configure data objects**

- ▶ Select up to 16 objects to be recorded.
- ▶ Select the object source.
- ▶ Select the recording interval by clicking on a data object tile:
  - once: Records static values that are only recorded at the beginning of a recording
  - cyclic: Records values at a defined interval





## VACUUM SOLUTIONS FROM A SINGLE SOURCE

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, technological perfection, competent advice and reliable service.

## COMPLETE RANGE OF PRODUCTS

From a single component to complex systems:

We are the only supplier of vacuum technology that provides a complete product portfolio.

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