

## Instructions for Use

# Basic unit 230 V with pump module



for single room regulation of the Fonterra radiant heating and cooling systems

**Model**  
1246.1

**viaga**

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# 1 About these instructions for use

Trade mark rights exist for this document; for further information, go to [viega.com/legal](http://viega.com/legal).

## 1.1 Target groups

The information in this instruction manual is directed at the following groups of people:

- Heating and plumbing experts and trained personnel
- Qualified electricians
- Operators

Individuals without the abovementioned training or qualification are not permitted to mount, install and, if required, maintain this product. This restriction does not extend to possible operating instructions.

The installation of Viega products must take place in accordance with the general rules of engineering and the Viega instructions for use.

## 1.2 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e.g. EN) and/or in Germany (e.g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/Germany. These should serve as recommendations in the absence of corresponding national regulations. The relevant national laws, standards, regulations, directives and other technical provisions take priority over the German/European directives specified in this manual: The information herein is not binding for other countries and regions; as said above, they should be understood as a recommendation.

## 2 Product information

### 2.1 Standards and regulations

The following standards and regulations apply to Germany / Europe and are provided as a support feature.

#### Regulations from section: Disposal

Scope / Notice	Regulations
Disposal of electronic components	WEEE-Richtlinie 2012/19/EU

### 2.2 Safety advice



#### **DANGER!** **Danger due to electrical current**

An electric shock can lead to burns and serious injury and even death.

- Work on the electrics may only be carried out by trained electricians or electrical trade professionals.
- Switch off the mains voltage before carrying out work on electrical parts.
- Switch off the mains voltage before opening the casing.

### 2.3 Intended use

The basic unit is the central connection unit for all system components of the surface heating. The basic unit converts the information by the connected room thermostats to control signals for the actuators.

This function is guaranteed in combination with:

- Room thermostat model 1243 or 1244
- Actuator model 1249

## 2.4 Product description

### 2.4.1 Functions

The basic unit controls all system functions and transforms the measurements transmitted by the room thermometer into control inputs for the actuator. For the operation of the basic unit, a 230 V mains connection must be provided in the manifold cabinet.

To ensure proper functionality of the pump control, actuators with the property "closed in de-energised state " are required.

All actuators and room thermostats connected via cable are directly supplied with the required operating voltage. Additional mains connections are not required.

### Features

- Simple plugging / clamping solution
- Connections for six room thermostats (zones)
  - A total of 15 connection terminals for actuators
- Connection for the control of an external pump
- Connection for one external time switch
- Connection for room thermostats with time switch
- Heating/cooling operation switch-over via change-over contact

### System components required

For operation of individual room control with a basic unit, a corresponding number of the following components are also required:

- Room thermostats: model 1243 (analogue) or 1244 (digital)
- Actuators: Model 1249

## 2.4.2 Overview and description of component

### Scope of delivery

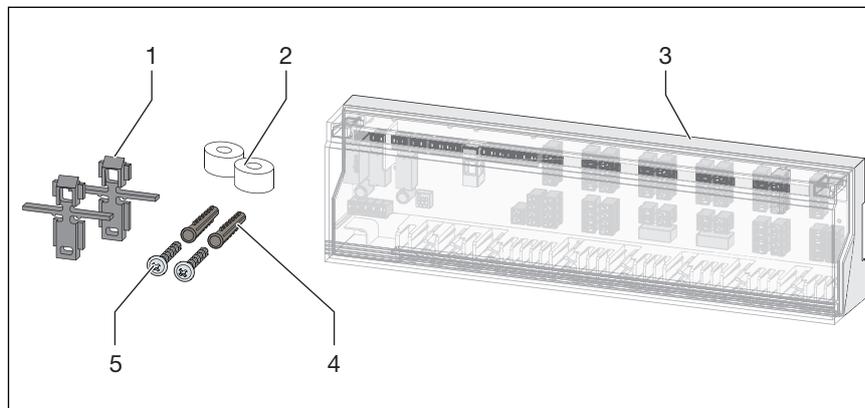


Fig. 1: Scope of delivery of the basic unit

- 1 Holding clips
- 2 Spacer
- 3 Basic unit
- 4 Dowel
- 5 Screws

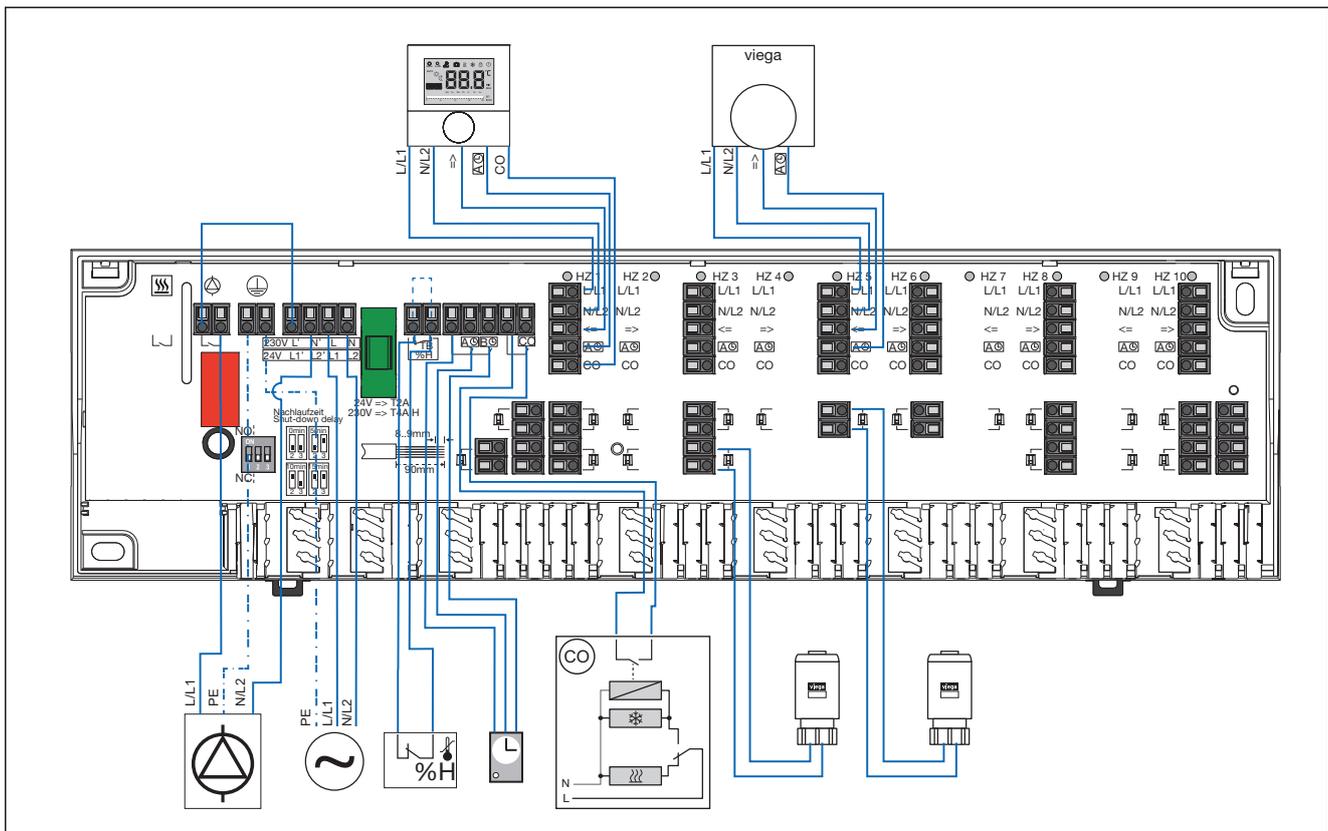
## 2.4.3 Technical data

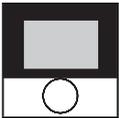
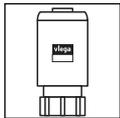
Operating voltage	230 V AC $\pm 10\%$ , 50 Hz
Power consumption	max. 50 VA
Fuse	T4AH
Number of heating zones / controllers	6
Maximum number of actuators	15
Direction of operation	Controller-dependent: <ul style="list-style-type: none"> <li>■ closed in de-energised state (NC)</li> <li>■ open in de-energised state (NO)</li> </ul>
Ambient temperature	0–50 °C
Storage temperature range	-20–70 °C
Relative humidity – non-condensing	$\leq 80\%$
Protection class	II
IP Code	IP 20
Dimensions (H x L x D)	90 x 326.5 x 52 mm
CE conformity	in accordance with EN 60730

### Pump control

Switching capacity	2 A, 200 VA inductive
Switch-on delay	2 min
Overtravel time fixed	2 min
Pump protective function	every 14 days for one minute

### Connection diagram



Symbol	Meaning	Symbol	Meaning
	Digital room thermostat		Pump
	Analogue room thermostat		Actuator

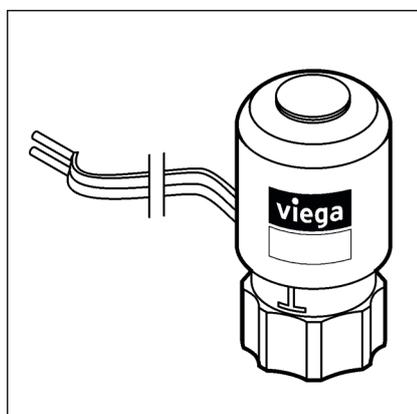
Symbol	Meaning	Symbol	Meaning
	Temperature limiter/dew point sensor		Change-over heating/cooling
	Voltage source		System clock
	Cooling		Heating

## 2.4.4 Accessories

### Actuator

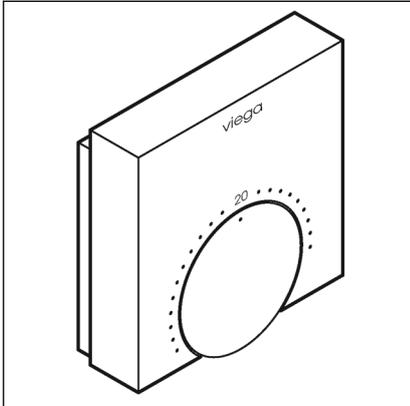
Electrically operated actuator for opening and closing the control valve.

**Actuator "normally closed", 230 V – model 1249**



**Room thermostat**

Transfers the necessary measurements to control the heating circuits to the basic unit via a cable connection.



**Room thermostat, analogue 230 V – model 1243**



**Room thermostat, digital 230 V with electronic weekly timer – model 1244**

## 3 Handling

### 3.1 Transport and storage

Observe the following with transport and storage:

- Avoid heavy blows and vibrations.
- Store components in a clean and dry place.
- Do not remove the components from the packaging until immediately before use.



#### **NOTICE!**

Replace defective components, do not repair.

### 3.2 Preconditions for mounting

Provide a 230 V mains connection on site close to the heating circuit manifold for operation of the basic unit.

### 3.3 Assembly

#### 3.3.1 Assembly sequence

### 3.3.2 Mounting the basic unit

#### Mounting preparation

- The manifold and actuators have been mounted.
- The power supply for the basic unit has been prepared.
- The room thermostats have been mounted and connected.

Required tools and materials:

- Power drill
- Masonry drill  $\varnothing$  6 mm or metal drill  $\varnothing$  3 mm for installation on the distributor cabinet rear panel
- screwdriver
- Two plugs 6 x 30 mm and screws for wall installation (scope of delivery)
- Cables in sufficient length for connecting the room thermostats



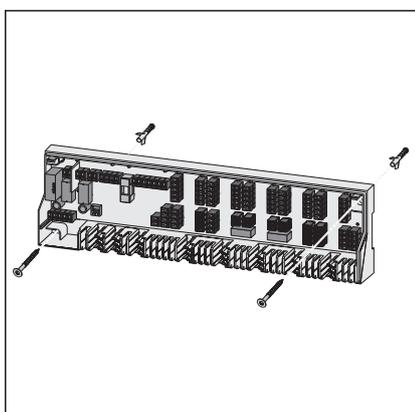
#### NOTICE!

The installation position must be in direct vicinity of the manifold.

#### Wall mounting / mounting on a rear wall



- Use a screwdriver to loosen the housing cover at the two locking points and remove.



- Mark and make the bore holes.

#### ➤ Wall mounting:

Use the supplied screws and dowels to mount the base station to the wall.

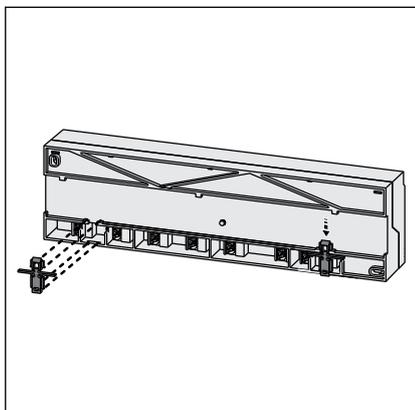
#### ➤ Assembly in manifold cabinet:

Mount the basic unit using self-tapping screws (not included in the scope of delivery) directly on to the rear wall of the manifold cabinet.

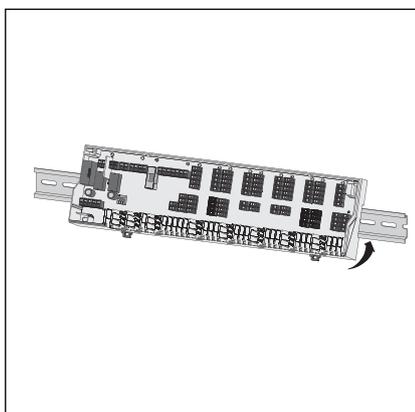
**INFO! To guarantee safe fixing, for each assembly position use the white spacer from the scope of delivery.**

- Align the basic unit and tighten the screws hand-tight.

### Assembly on top-hat rail (not included in the scope of delivery)



- Fasten the two holding clips (scope of delivery) at the rear of the base station.



- Mount the top-hat rail to the wall.
- Use the holding clips to fasten the base station to the top-hat rail.

## 3.4 Commissioning

### Connecting components



Connect all external components such as actuators or room thermostats according to the connection plan. All terminals are clearly marked in the connection diagram and on the circuit board of the basic unit.

#### 3.4.1 Making the electrical connection



#### **DANGER!** Danger due to electrical current

An electric shock can lead to burns and serious injury and even death.

- Only allow electrical work to be carried out by qualified electricians.
- Always de-energise the connection cable before work is commenced.

### Connect the device to the mains

Requirements:

- A 230 V mains connection is available on site.
- The connection cable is de-energised.
- Connect the 230 V mains connection cable to the labelled terminals on the basic unit, see connection diagram.

**NOTICE! Use a cable with a cross-section of 1.5 mm<sup>2</sup>.**

- ◇ The basic unit is connected.

## 3.5 Care tips

To clean, use a soft, dry, solvent-free cloth.

## 3.6 Troubleshooting

Check the fuse, replace if necessary



### **DANGER!** **Risk of electric shock from 230 V voltage!**

Risk of electric shock when working at the open casing or at cable inlets.

- Switch off the mains voltage before carrying out work on electrical parts.

The fuse protects the basic unit from overvoltage from the mains. If the control behaves differently than expected during operation, first check the device fuse.

Requirement:

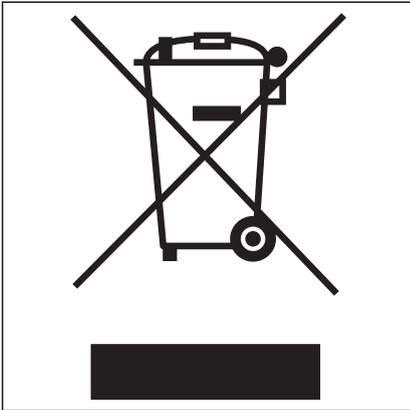
- The basic unit is disconnected from the mains.
- Use a screwdriver to loosen the housing cover at the two locking points and remove.
- Remove the existing device fuse. If the wire in the fuse is broken, replace the fuse with a new one.

Fuse type: T4AH

- Refit the housing cover of the basic unit.
- Re-establish the connection to the mains.

### 3.7 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.



Electronic components and batteries must not be put in the domestic waste but must be disposed of appropriately in conformity with the applicable directives, see ↗ *'Regulations from section: Disposal' on page 4.*



**Viega GmbH & Co. KG**  
service-technik@viega.de  
viega.com

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