

Installation instructions for contractors

VIESMANN


Divicon

Heating circuit distributor


Divicon



Safety instructions

 Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained

 **Danger**
This symbol warns against the risk of injury.

Note
Details identified by the word "Note" contain additional information.

!
Please note
This symbol warns against the risk of material losses and environmental pollution.

Target group

These instructions are exclusively intended for qualified contractors.


- Work on gas installations may only be carried out by a registered gas fitter.
- Work on electrical equipment may only be carried out by a qualified electrician.

Safety instructions (cont.)

Regulations to be observed

- National installation regulations
- Statutory regulations for the prevention of accidents
- Statutory regulations for environmental protection
- Codes of practice of the relevant trade associations
- Relevant country-specific safety regulations

Working on the system

- Where gas is used as the fuel, close the main gas shut-off valve and safeguard it against unintentional reopening.
 - Isolate the system from the power supply, e.g. by removing the separate fuse or by means of a mains isolator, and check that it is no longer live.
 - Safeguard the system against reconnection.
 - Wear suitable personal protective equipment when carrying out any work.
-  **Danger**
Hot surfaces and fluids can lead to burns or scalding.
- Before maintenance and service work, switch off the appliance and let it cool down.
 - Never touch hot surfaces on the boiler, burner, flue system or pipework.

Safety instructions (cont.)

- ! **Please note**
Electronic assemblies can be damaged by electrostatic discharge.
Prior to commencing work, touch earthed objects such as heating or water pipes to discharge static loads.

Repair work

- ! **Please note**
Repairing components that fulfil a safety function can compromise the safe operation of the system.
Replace faulty components only with genuine Viessmann spare parts.

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Disposal of packaging

Please dispose of packaging waste in line with statutory regulations.

Symbols

Sym- bol	Meaning
	Reference to other document containing further information
	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
	Warning of material losses and environmental pollution
	Live electrical area
	Pay particular attention.
	<ul style="list-style-type: none"> ■ Component must audibly click into place. or ■ Acoustic signal
	<ul style="list-style-type: none"> ■ Fit new component. or ■ In conjunction with a tool: Clean the surface.
	Dispose of component correctly.
	Dispose of component at a suitable collection point. Do not dispose of component in domestic waste.

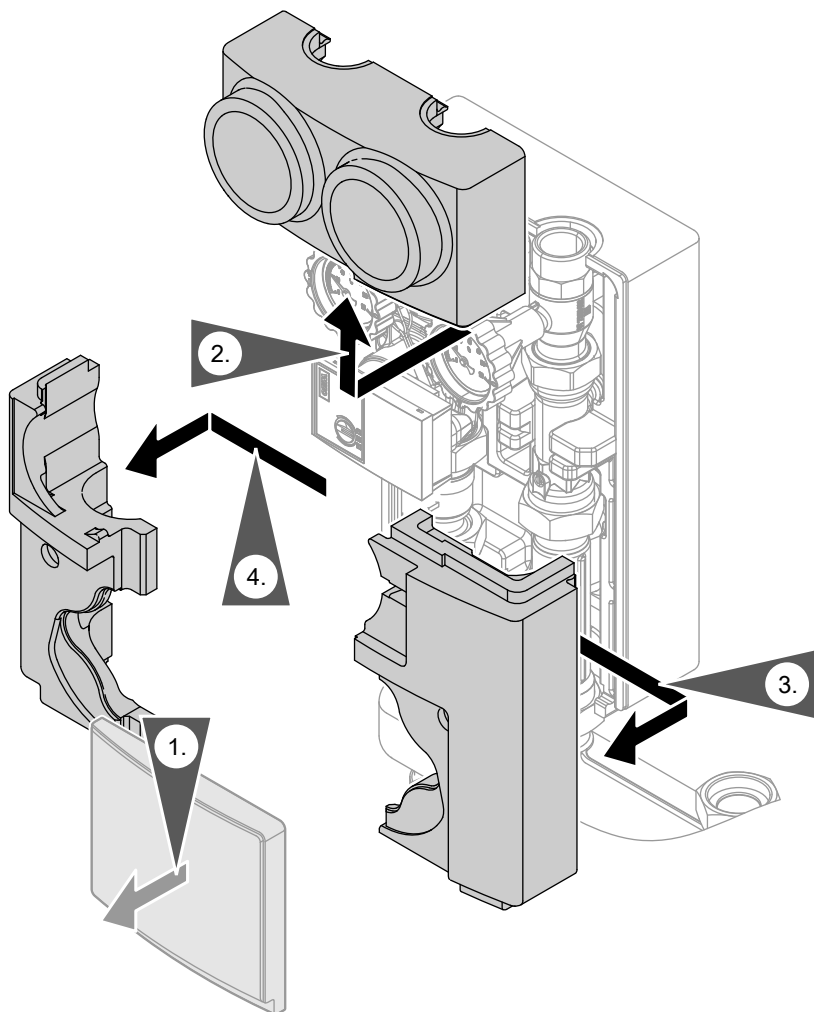
Spare parts lists

Information about spare parts can be found at www.viessmann.com/etapp or in the Viessmann spare part app.



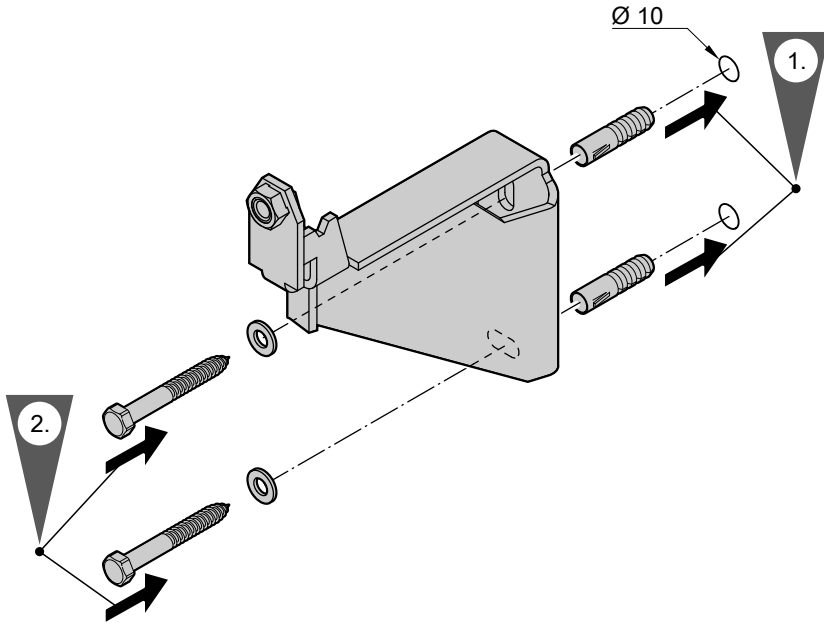
Preparing for installation

Removing the thermal insulation

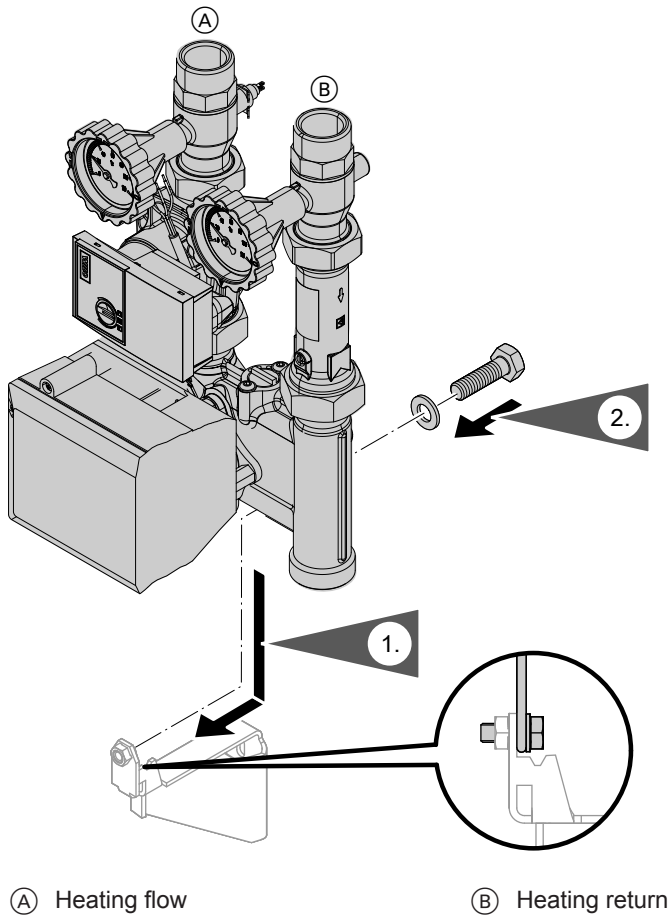


Wall mounting

Fitting a single module (without manifold)

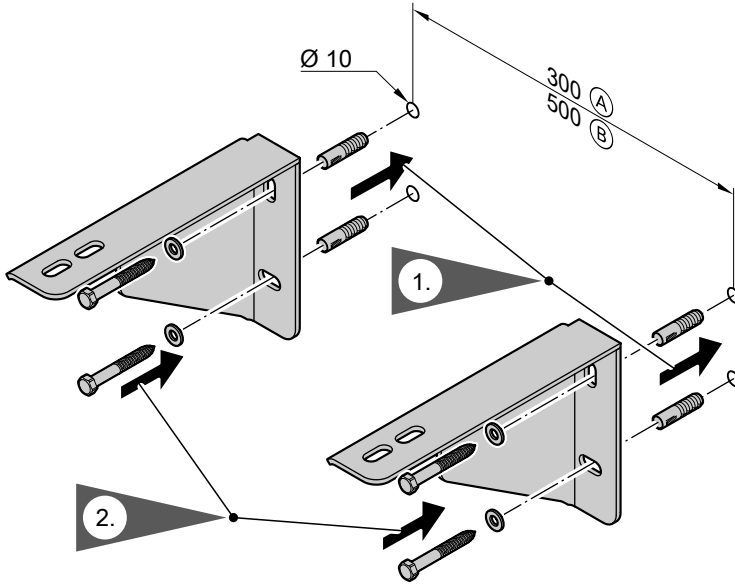


Wall mounting (cont.)



Wall mounting (cont.)

Fitting several modules with manifold (accessories)

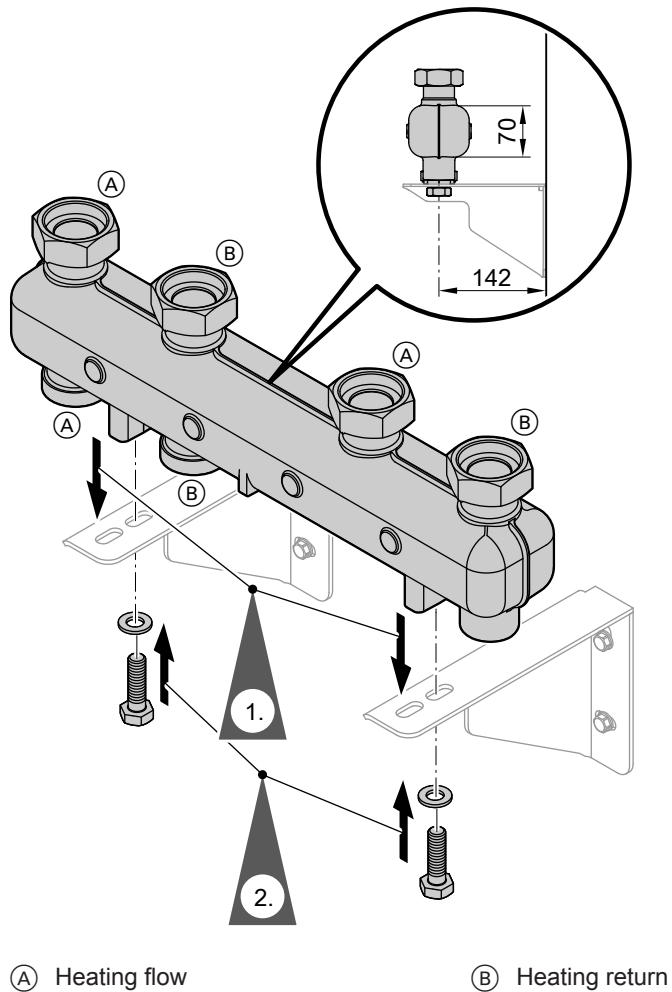


(A) Manifold for 2 Divicons

(B) Manifold for 3 Divicons

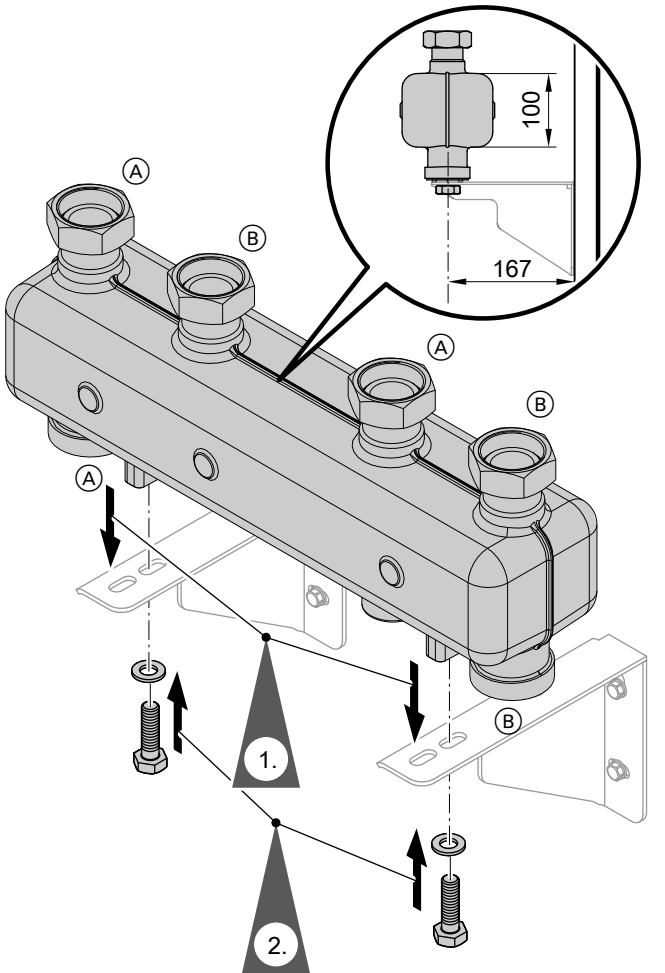
Wall mounting (cont.)

Manifold (H = 70 mm) for 2 Divicons



Wall mounting (cont.)

Manifold (H = 100 mm) for 2 Divicons

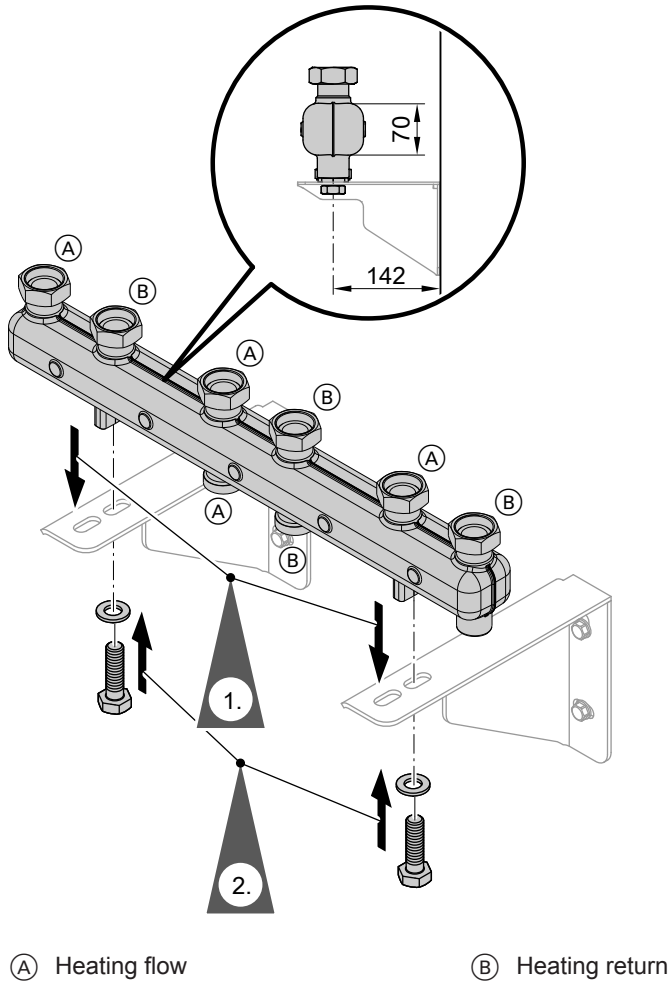


(A) Heating flow

(B) Heating return

Wall mounting (cont.)

Manifold (H = 70 mm) for 3 Divicons

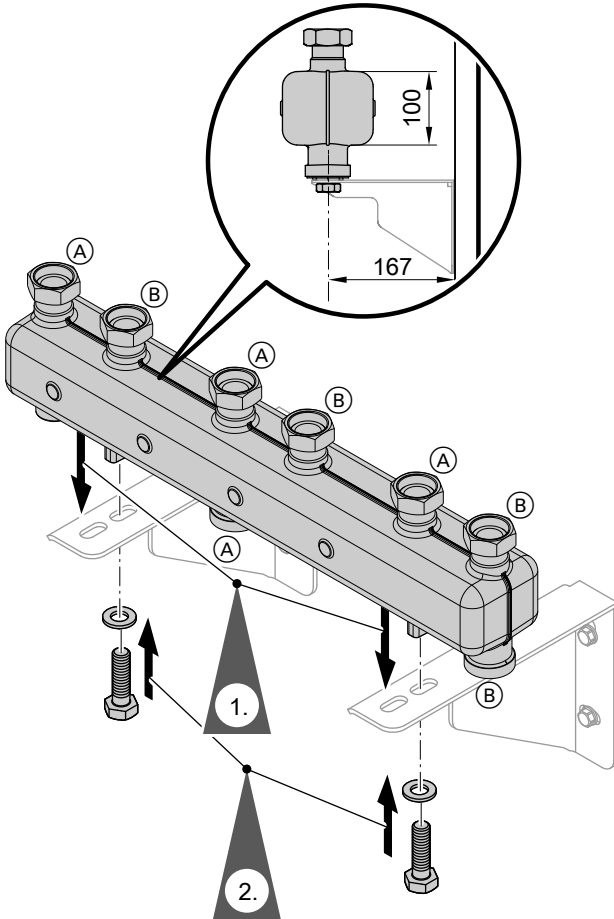


(A) Heating flow

(B) Heating return

Wall mounting (cont.)

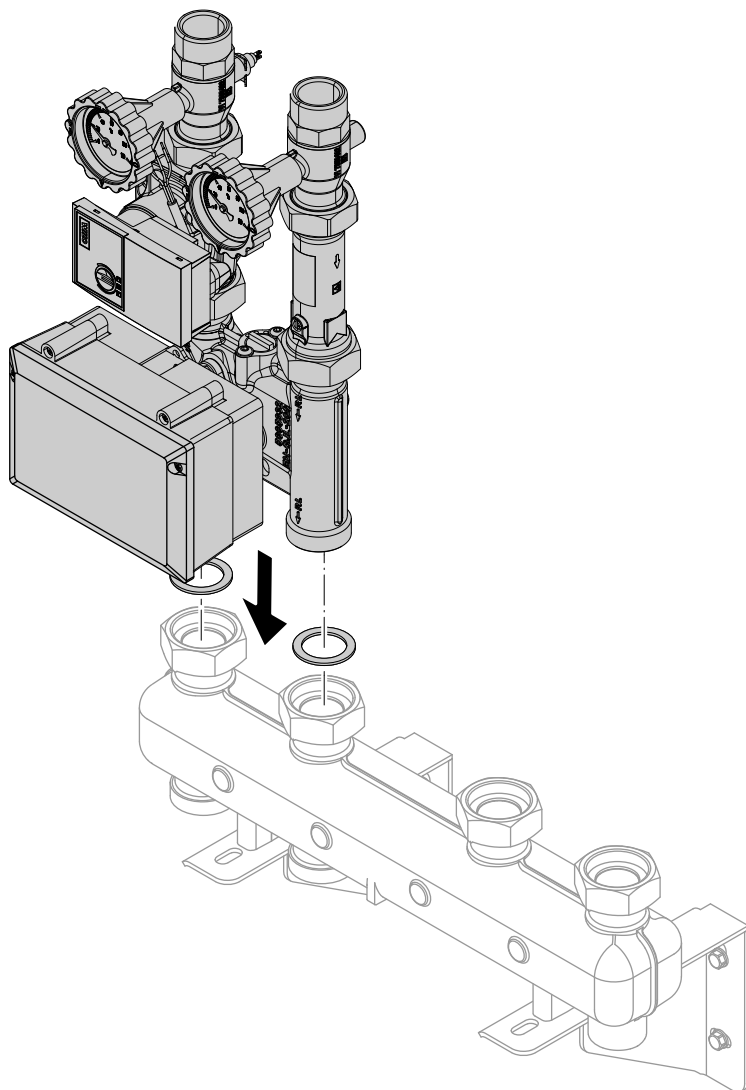
Manifold (H = 100 mm) for 3 Divicons



(A) Heating flow

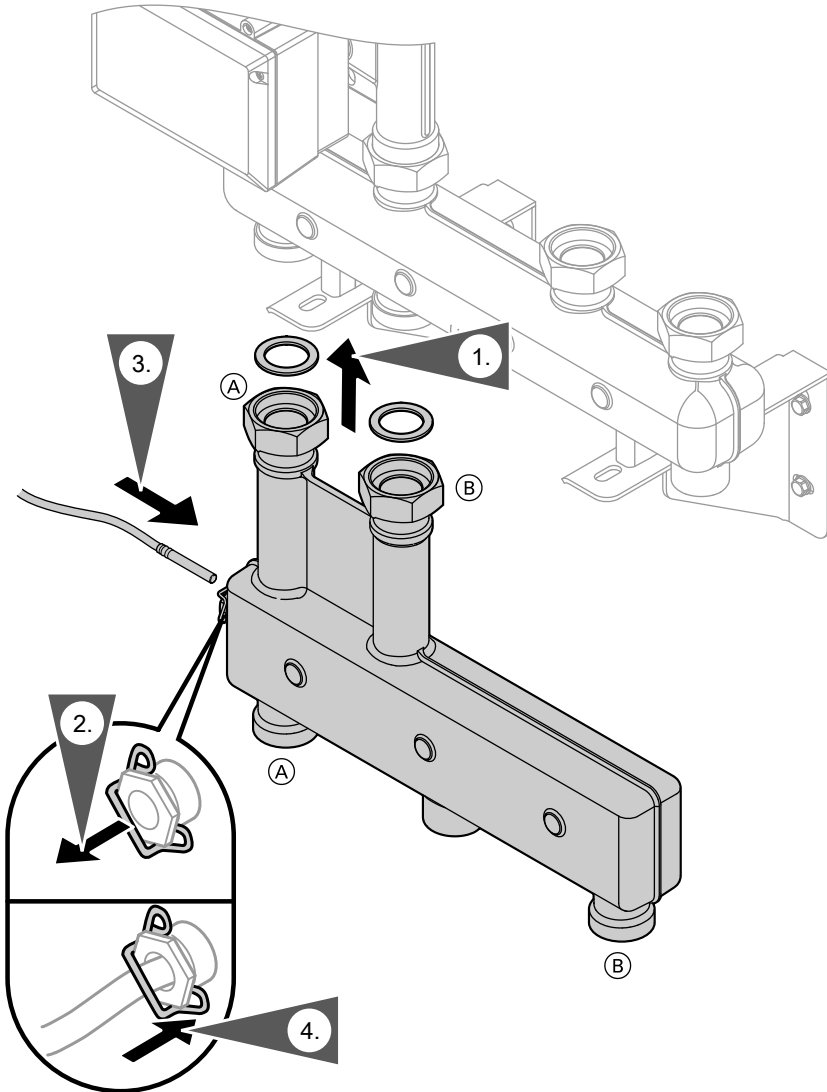
(B) Heating return

Wall mounting (cont.)



Wall mounting (cont.)

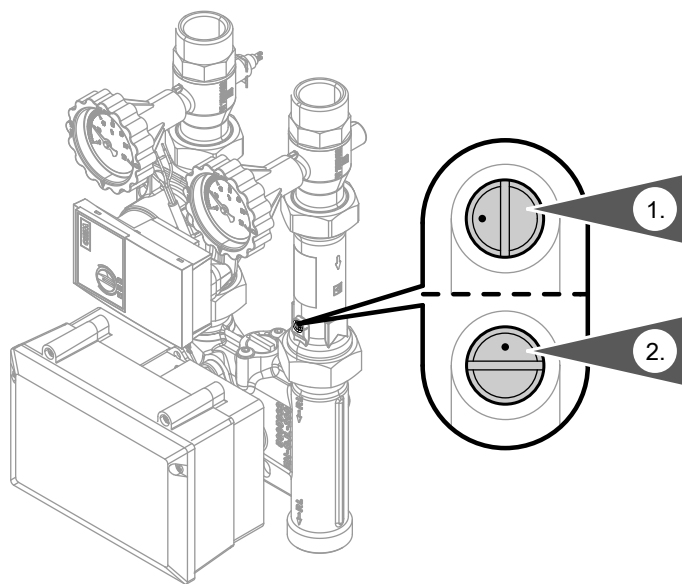
Low loss header (if supplied)



(A) Heating flow

(B) Heating return

Filling the system



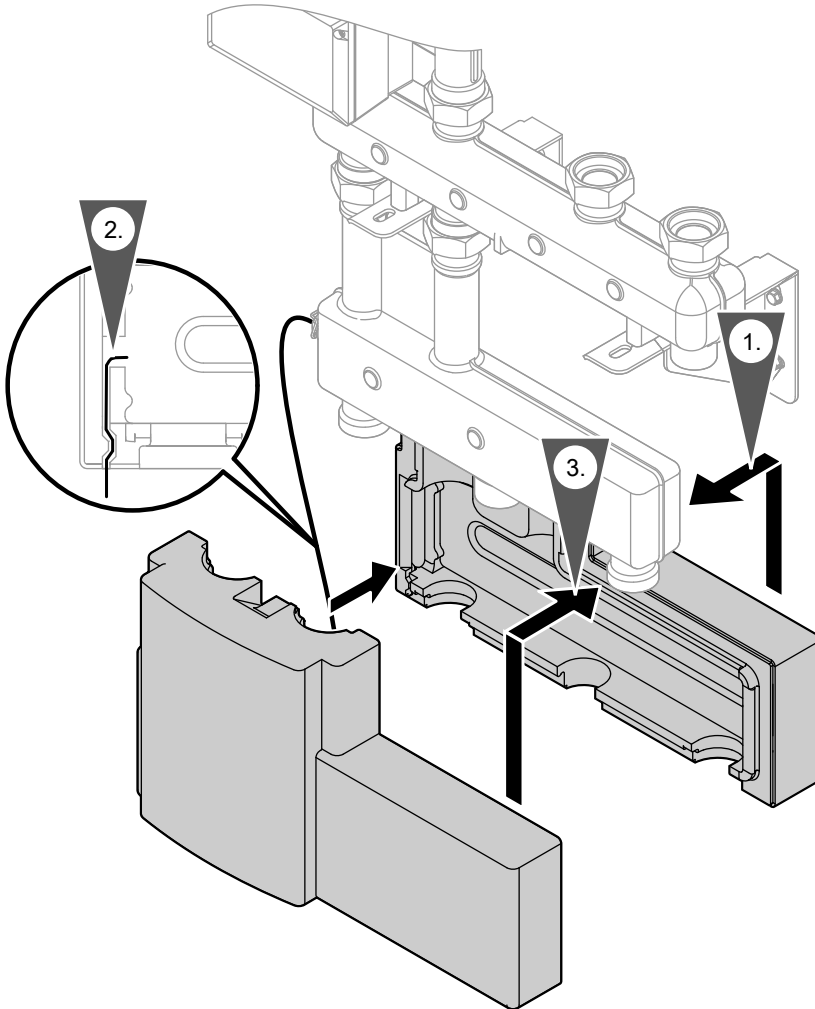
1. For filling (with heating water), open the check valve in the heating return by positioning the slot of the screw in the vertical position.
2. For operation, position the slot of the screw in the horizontal position.

Note

Observe the marking on the adjusting screw.

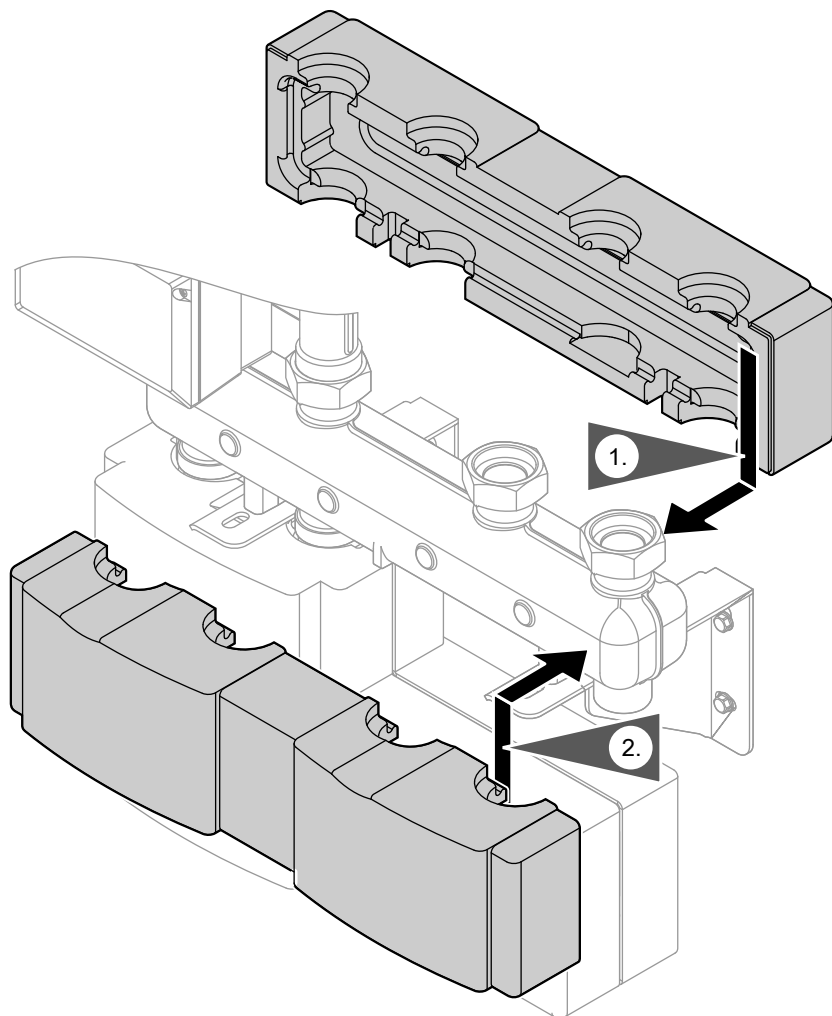
Fitting the thermal insulation

Low loss header (if supplied)



Fitting the thermal insulation (cont.)

Manifold

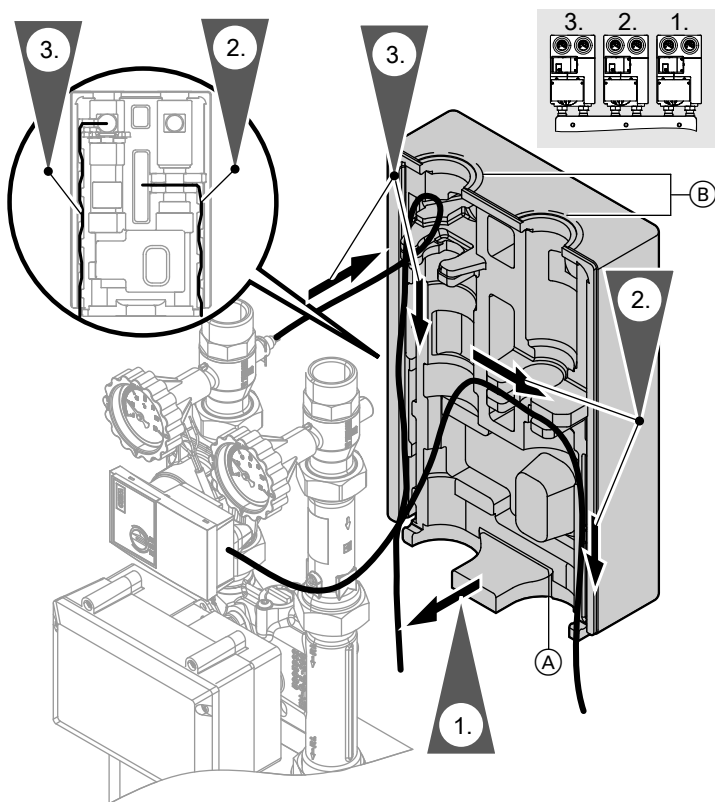


Fitting the thermal insulation (cont.)

Divicon with mixer

Note

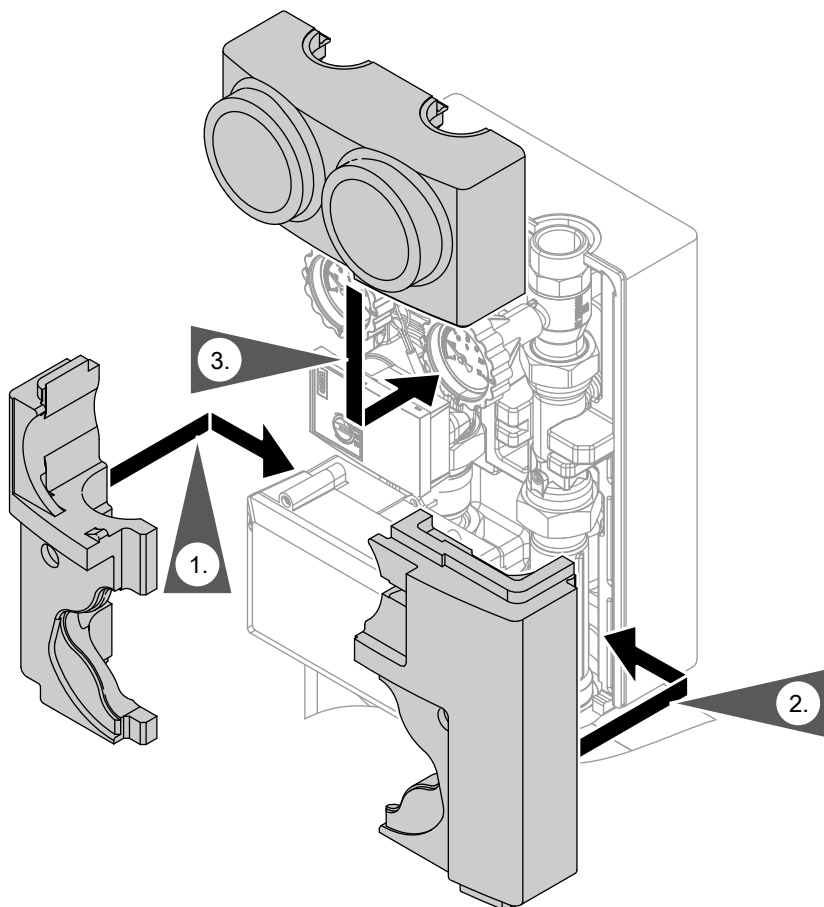
With several Divicons, first fit the thermal insulation on the right-hand Divicon. For the remaining Divicons, fit the insulation from right to left



(A) Cut off if fitting a single module to the wall.

(B) Cut out the thermal insulation if connecting with a union nut.

Fitting the thermal insulation (cont.)

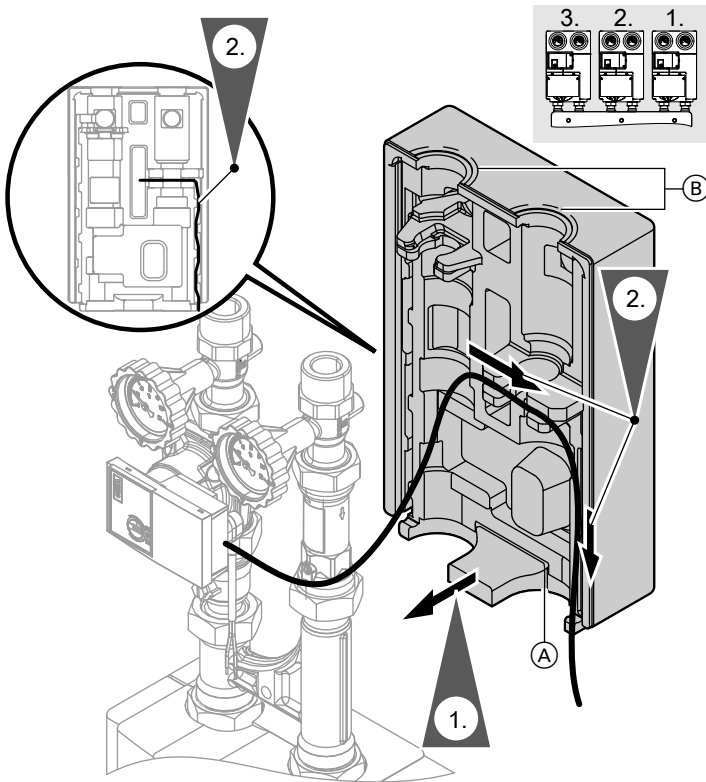


Divicon without mixer

Note

With several Divicons, first fit the thermal insulation on the right-hand Divicon. For the remaining Divicons, fit the insulation from right to left

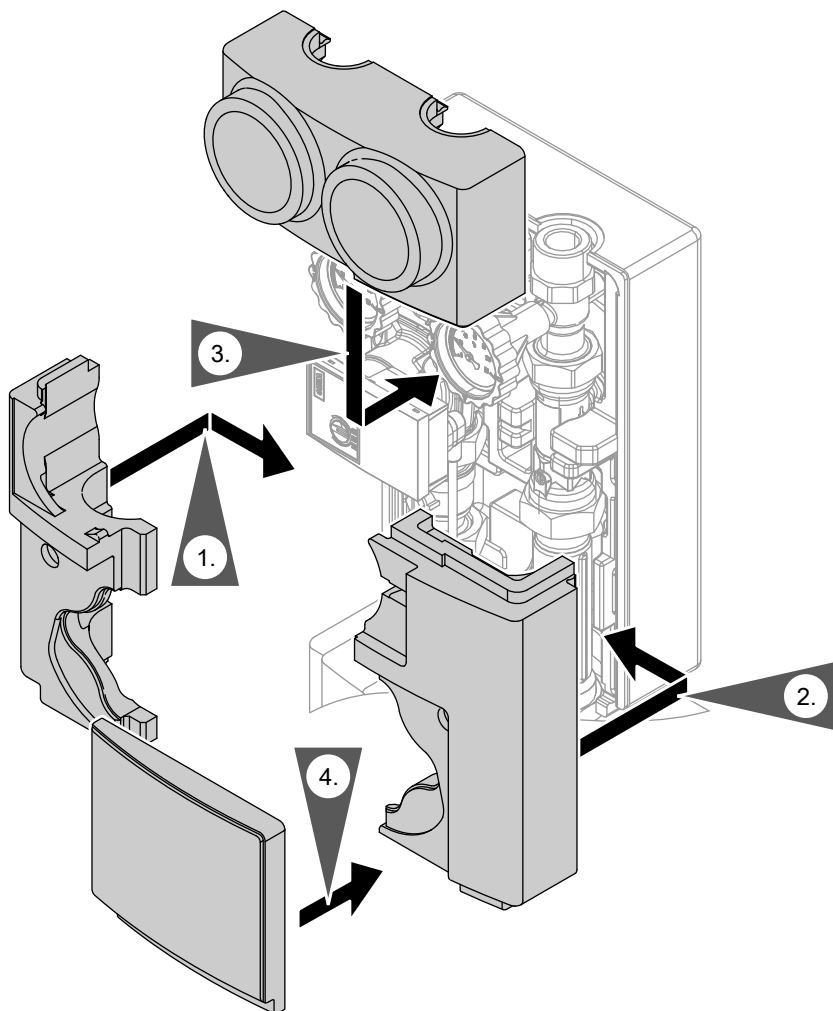
Fitting the thermal insulation (cont.)



(A) Cut off if fitting a single module to the wall.

(B) Cut out the thermal insulation if connecting with a union nut.

Fitting the thermal insulation (cont.)

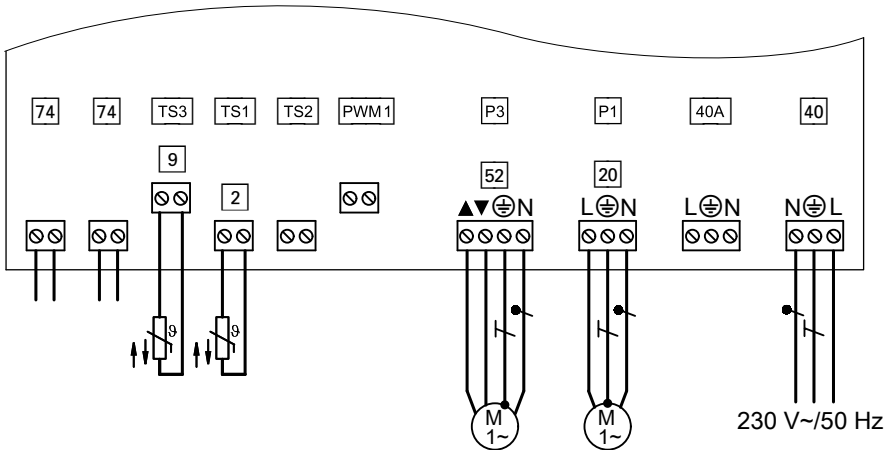


Extension kit with mixer PCB

Note

Bundle individual wires from the connecting cables directly below the plugs. Secure with cable ties.

Overview of electrical connections



Plug 230 V~

P1 20 Heating circuit pump

P3 52 Mixer motor

40 Power supply

40A Power supply for accessories

LV connections

PWM1 No function

TS1 2 Flow temperature sensor

TS2 No function

TS3 9 Temperature sensor, low loss header

74 PlusBus



Please note

Electronic assemblies can be damaged by electrostatic discharge.

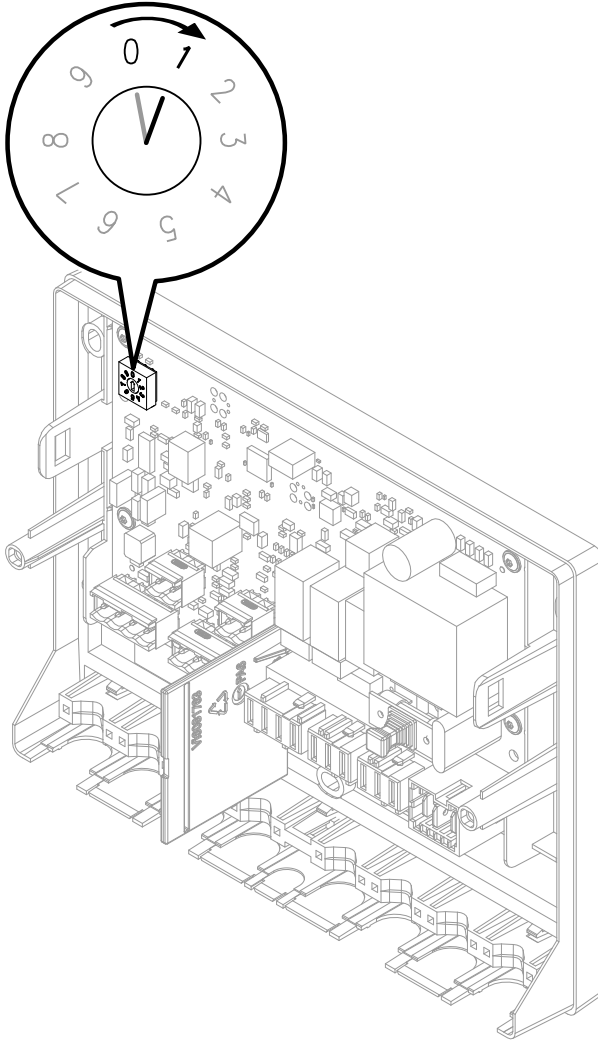
Prior to commencing any work, touch earthed objects such as heating or water pipes to discharge static loads.

Note

Apply strain relief to on-site cables. Seal any unnecessary apertures with cable grommets (not cut open).

Extension kit with mixer PCB (cont.)

Rotary switch S1



If several mixer extension kits are being connected, set rotary switch S1.

Extension kit with mixer PCB (cont.)

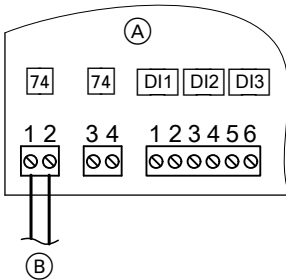
Set the rotary switch on each extension kit to a consecutive number:

- Heating circuit with mixer M2: Rotary switch to 1
- Heating circuit with mixer M3: Rotary switch to 2
- Heating circuit with mixer M4: Rotary switch to 3

Note

If additional EM-P1 extensions are connected, always set the subscriber numbers for the EM-P1 extensions to consecutive numbers after the mixer extension kits.

Connecting the PlusBus to the heat generator control unit



- (A) Extension
- (B) PlusBus to heat generator

Note

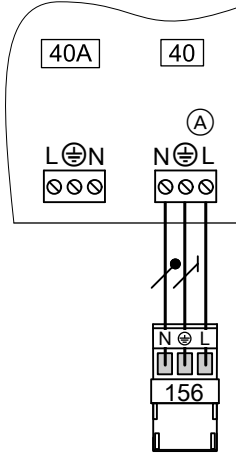
If making the connection to the heat generator with an external plug for the bus connection, connect the wires directly.



Heat generator installation and service instructions

Power supply

Power supply at heat generator



Example: Power supply with plug 156

- A Extension (electronics module)
- 40 Power supply
- 40A Power supply for further accessories
- 156 Plug for heat generator accessories power supply

Connect the power cable to the extension.

Route the power cable to the heat generator and connect to plug 156.

Observe the fuse protection of the contact (output) on the heat generator.

If the power supply is connected to another accessory, use plug 40A provided.



Heat generator installation and service instructions



Danger

Incorrect core assignment can result in serious injury and damage to the appliance.

Do not interchange cores "L" and "N".

If there is no plug 156 at the heat generator:

- Use a separate power supply. See the following chapter.

Or

-



Heat generator installation and service instructions

Separate power supply

If the power supply for the extension is **not** made at the heat generator.

Extension kit with mixer PCB (cont.)



Danger

Incorrect electrical installations can lead to serious injury from electrical current and result in appliance damage.

Connect the power supply and implement all safety measures (e.g. RCD circuit) in accordance with the following regulations:

- IEC 60364-4-41
- VDE regulations
- TAR medium voltage VDE-AR-N-4110
- Connection conditions of the local grid operator



Danger

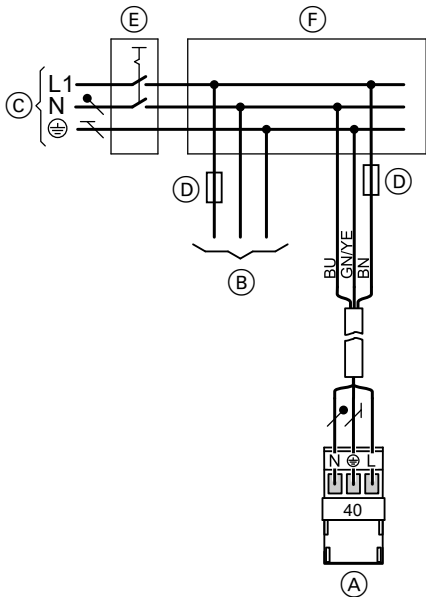
The absence of system component earthing can lead to serious injury from electric current if an electrical fault occurs.

The appliance and pipework must be connected to the equipotential bonding of the building.

Isolators for non-earthed conductors

- The mains isolator (if installed) must simultaneously isolate from the mains all non-earthed conductors with a minimum contact separation of 3 mm.
- If **no** mains isolator is installed, isolate all non-earthed conductors from the power supply by the upstream circuit breaker with a minimum contact separation of 3 mm.

Extension kit with mixer PCB (cont.)



- (A) Power supply for extension (electronics module)
- (B) Power supply for heat generator
- (C) Power supply 1/N/PE, 230 V/50 Hz
- (D) Fuse (max. 16 A)
- (E) Mains isolator, 2-pole, on site
- (F) Junction box (on site)

Connect the power supply in accordance with the diagram.

If the power supply to the appliance is connected with a flexible power cable, ensure that the live conductors are pulled taut before the earth conductor in the event of strain relief failure. The length of the earth conductor wire will depend on the design.



Danger

Incorrect core assignment can result in serious injury and damage to the appliance. Never interchange cores "L" and "N".



Please note

Incorrect phase sequence can cause damage to the appliance. Ensure phase equality with the heat generator power supply.

Colour coding to IEC 60757

BN Brown

BU Blue

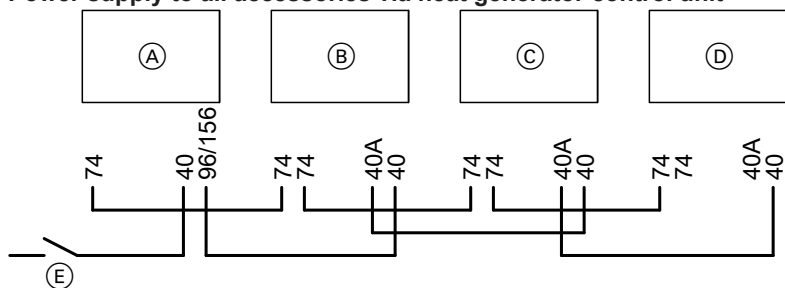
GNYE Green/yellow

Extension kit with mixer PCB (cont.)

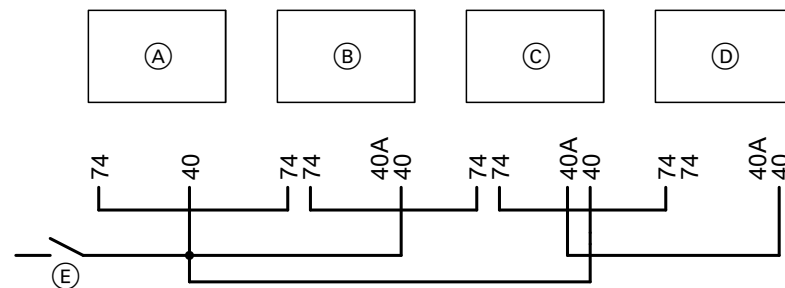
Connecting several accessories

Power supply and PlusBus connection

Power supply to all accessories via heat generator control unit



Some accessories with direct power supply



- (A) Heat generator control unit
- (B) Mixer extension kit for heating circuit with mixer M2 (electronics module)
- (C) Mixer extension kit for heating circuit with mixer M3 (electronics module)
- (D) Further accessories
- (E) ON/OFF switch
- | |
|----|
| 40 |
| 74 |

 (A) Power supply PlusBus

Extension kit with mixer PCB (cont.)

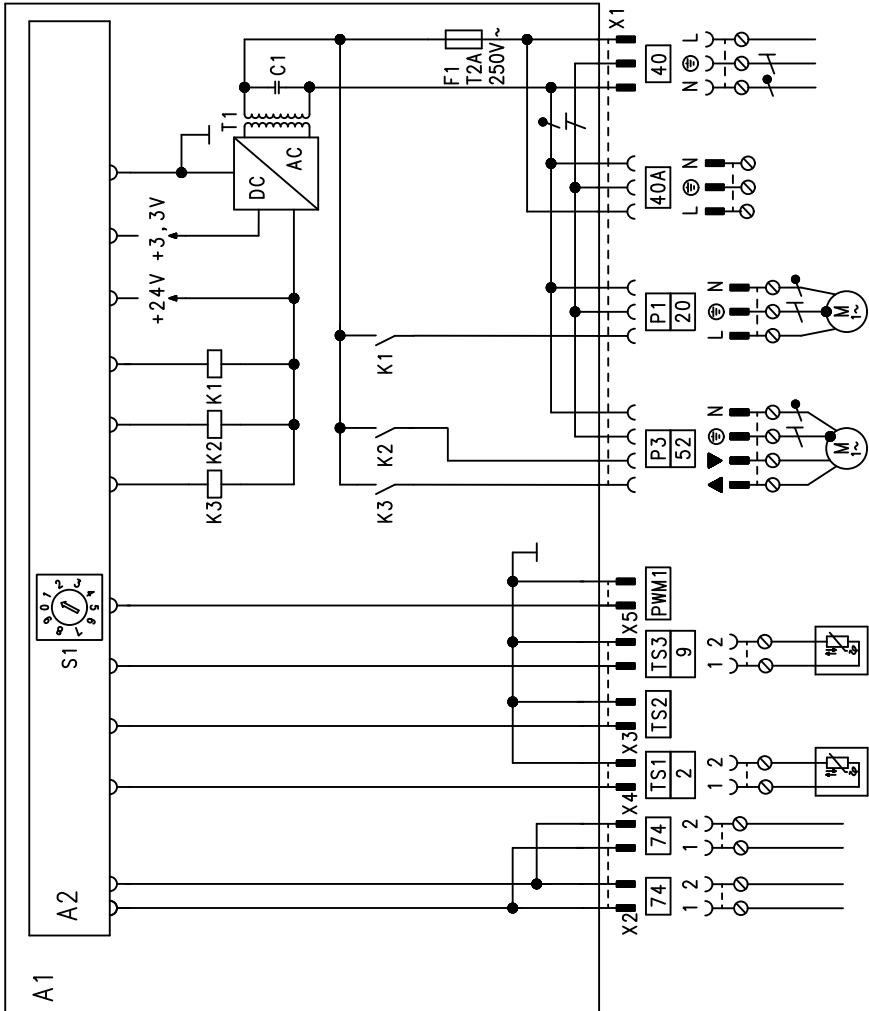
- In the following circumstances, use the contact (output) of the accessories only to switch an on-site relay:
An actuator with a higher power demand than the fuse rating required for the accessories, e.g. a circulation pump, is connected to the contact (output) of the accessories.
- In the following circumstances, connect one or more accessories directly to the mains supply via an ON/OFF switch:
The max. permissible total current of the heat generator control unit is exceeded.

Note

*In this event, the accessories concerned **cannot** be isolated with the ON/OFF switch on the control unit.*

Extension kit with mixer PCB (cont.)

Connection and wiring diagram



- A1 Mixer extension kit, ADIO control unit
- A2 PCB
- F1 Fuse
- S1 Rotary switch

Extension kit with mixer PCB (cont.)

230 V~ plugs

P1 20 Heating circuit pump

P3 52 Mixer motor

40 Power supply 230 V/50 Hz

40A Power supply for accessories

TS2 No function

TS3 9 Low loss header temperature sensor (separate accessories)


74 PlusBus connection for connecting to the heat generator and another accessory

LV plugs

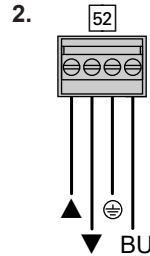
PWM1 No function

TS1 2 Flow temperature sensor

Changing the rotational direction (if required)

-  **Danger**
An electric shock can be life threatening.
Before opening the boiler, disconnect it from the mains voltage, e.g. at the fuse or mains isolator.

Remove the casing cover (see chapter "Overview of electrical connections").



Switch cores BK ▲ and BK ▼ on plug 52.

- Refit the casing cover.
- Check the rotational direction.

Specification

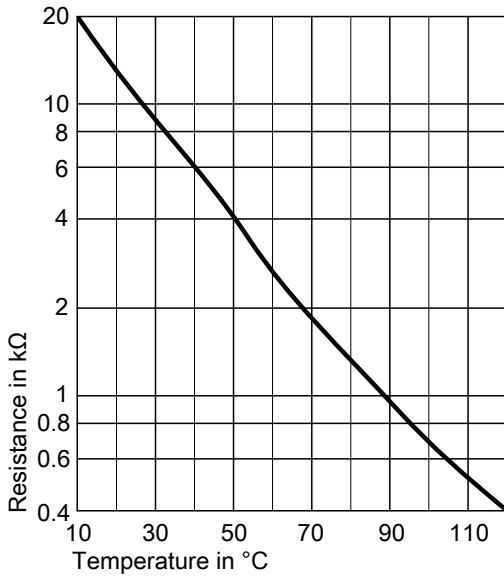
Rated voltage	230 V~
Rated frequency	50 Hz
Rated current	2 A
Power consumption	5.5 W
Protection class	I
IP rating	IP 20 D to EN 60 529; ensure through design/installation.
Permissible ambient temperature	
■ During operation	0 to +40 °C
■ During storage and transport	-20 to +65 °C
Rated relay output breaking capacity	
■ Heating circuit pump	1 A 230 V~
■ Mixer motor	0.1 A 230 V~

Flow temperature sensor/low loss header temperature sensor (separate accessories)

Sensor type	NTC 10 kΩ, at 25 °C
IP rating	IP 53 to EN 60529; ensure through design/installation.
Permissible ambient temperature	
■ Operation	0 to +120 °C
■ Storage and transport	-20 °C to +70 °C

Specification (cont.)

Curve



Declaration of conformity for extension kit

We, Viessmann Climate Solutions SE, D-35108 Allendorf, declare as sole responsible body that the named product complies with the European directives and supplementary national requirements in terms of its design and operational characteristics. Viessmann Climate Solutions SE, D-35108 Allendorf, hereby declares that the radio equipment type of the named product is in compliance with Directive 2014/53/EU.

Using the serial number, the full Declaration of Conformity can be found on the following website:

www.viessmann.co.uk/eu-conformity





Viessmann Climate Solutions SE
35108 Allendorf / Germany
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com



Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

5836498 Subject to technical modifications.