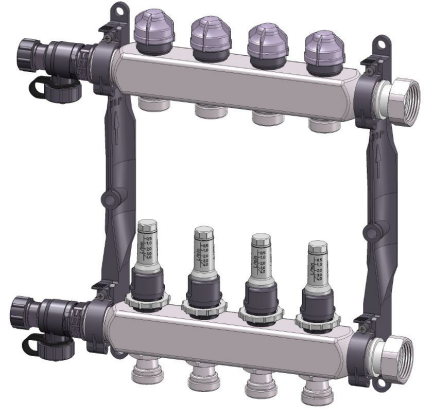


# Operating instructions



## Heating circuit manifold

### ProCalida© VA 1C

Type: ÜM DFM  
AG DFM

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## 1 About these operating instructions

These operating instructions describe the heating circuit manifold "ProCalida® VA 1C" (also referred to as "product" in these operating instructions). These operating instructions are part of the product.

- You may only use the product if you have fully read and understood these operating instructions.
- Verify that these operating instructions are always accessible for any type of work performed on or with the product.
- Pass these operating instructions as well as all other product-related documents on to all owners of the product.
- If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

These operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications.

The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

## 2 Information on safety

### 2.1 Safety messages and hazard categories

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and safety regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and safety regulations and ensure compliance with them prior to using the product.

Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.



## WARNING

WARNING indicates a potentially hazardous situation, which, if not avoided, can result in serious injury or equipment damage.

## NOTICE

NOTICE indicates a hazardous situation, which, if not avoided, can result in equipment damage.

In addition, the following symbols are used in these operating instructions:



This is the general safety alert symbol. It alerts to injury hazards or equipment damage. Comply with all safety instructions in conjunction with this symbol to help avoid possible death, injury or equipment damage.

## 2.2 Intended use

This product may only be used for the distribution of media in panel heating system and refrigeration systems in buildings in conjunction with the following media:

- Heating water as per VDI 2035
- Water/glycol mixtures with an admixture of maximum 50 %

Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.

Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

- All directives, standards and safety regulations applicable at the installation site of the product
- All conditions and data specified for the product
- The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.

When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product.

## 2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

- Distribution of drinking water

## 2.4 Qualification of personnel

Only appropriately trained persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

These persons must have sufficient technical training, knowledge and experience and be able to foresee and detect potential hazards that may be caused by using the product.

All persons working on and with the product must be fully familiar with all directives, standards and safety regulations that must be observed for performing such work.

## 2.5 Personal protective equipment

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

## 2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.

### 3 Transport and storage

The product may be damaged as a result of improper transport or storage.

## NOTICE

### **INCORRECT HANDLING**

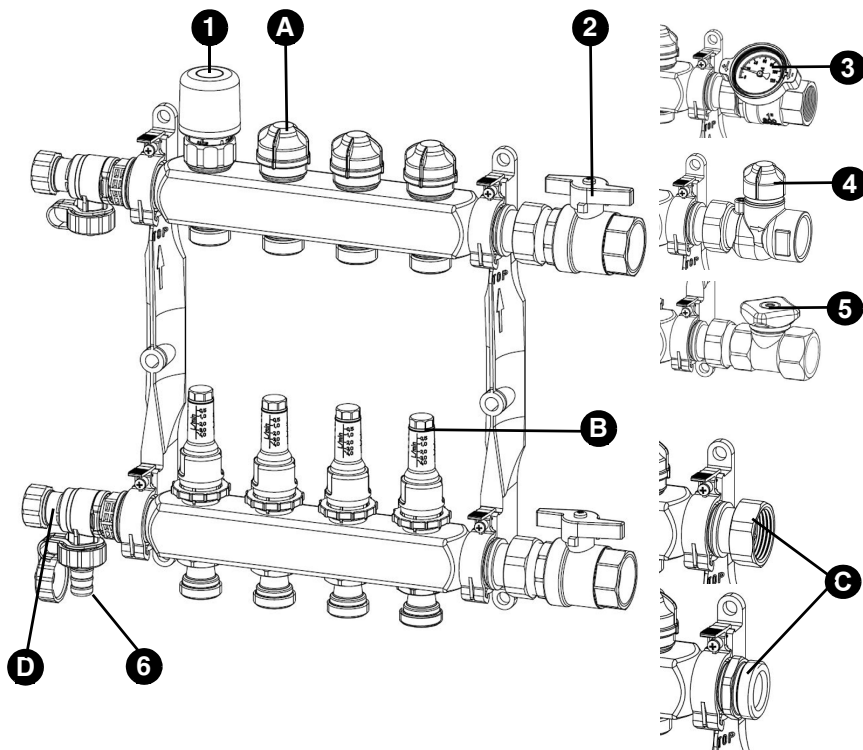
- Verify compliance with the specified ambient conditions during transport or storage of the product.
- Use the original packaging when transporting the product.
- Store the product in a clean and dry environment.
- Verify that the product is protected against shocks and impact during transport and storage.

**Failure to follow these instructions can result in equipment damage.**

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## 4 Product description

### 4.1 Overview



#### standard version

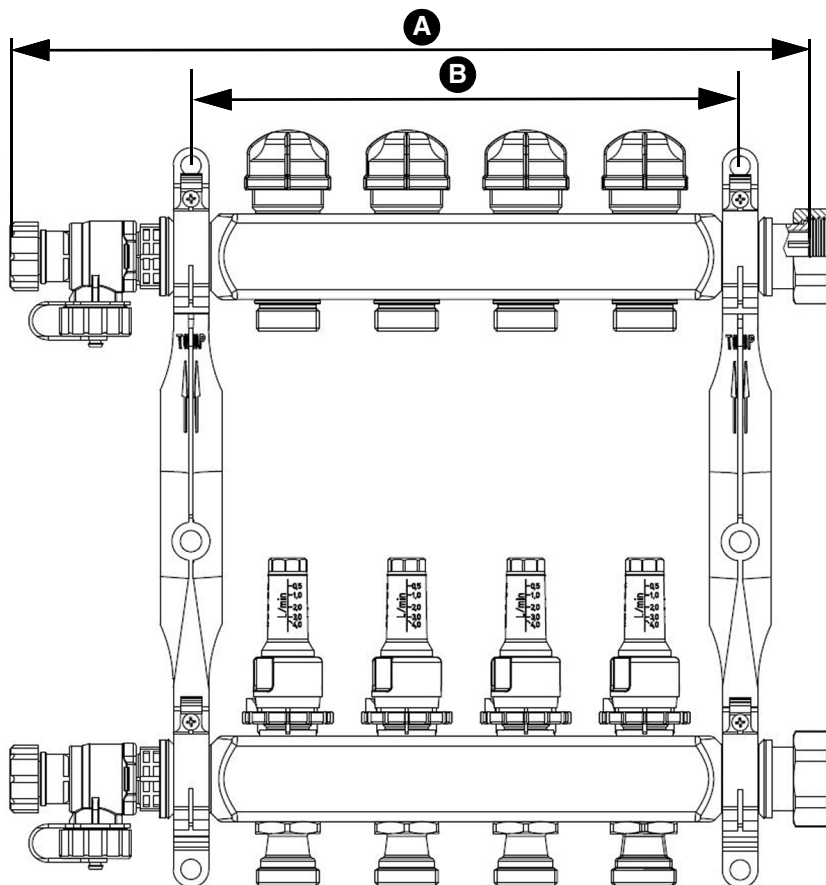
- A. Stroke valve
- B. Flow meter
- C. Union nut G1 or male thread G1 (depending on version)
- D. Filling, drain and vent valve

#### Accessories (optional)

- 1. Actuator
- 2. Ball valve G1
- 3. Ball valve with thermometer
- 4. Return valve G1
- 5. Fine control valve G1 for flow
- 6. Hose connector

## 4.2 Dimensions

Heating circuit	2	3	4	5	6	7	8	9	10	11	12
Distance A	236	286	336	386	436	486	536	586	636	686	736
Distance B	130	180	230	280	330	380	430	480	530	580	630

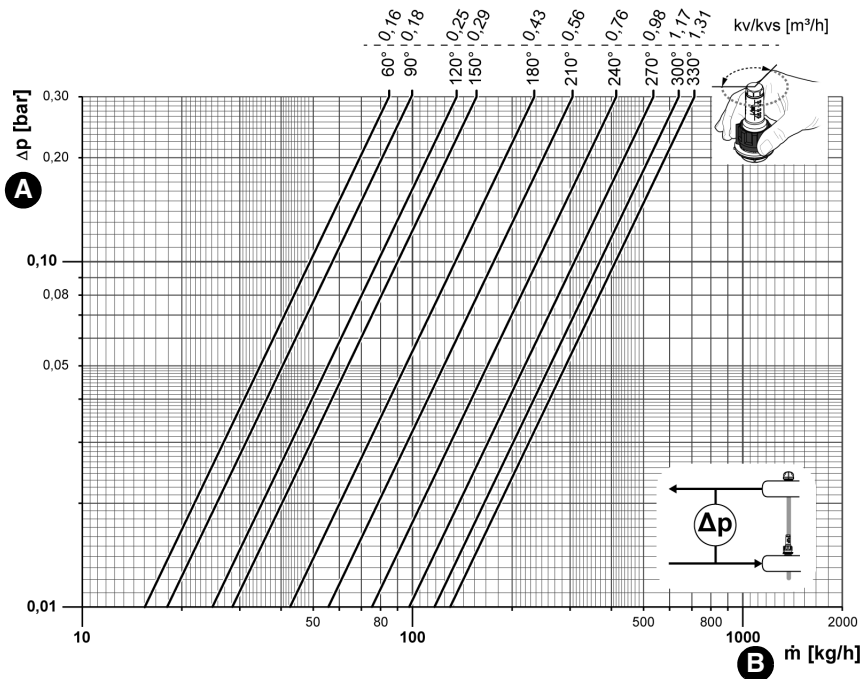




## 4.3 Technical data

Parameter	Value
Main connection	G1 with union nut or G1 male thread
Heating circuit connection	G <sup>3</sup> / <sub>4</sub> eurocone
Operating temperature and pressure	Maximum 90 °C at 3 bar Maximum 80 °C at 4 bar Maximum 70 °C at 5 bar Maximum 60 °C at 6 bar
Flow coefficient Kvs flow/return valve	1.35 m <sup>3</sup> /h
Available sizes	2 to 12 heating circuits

## 4.4 Charts

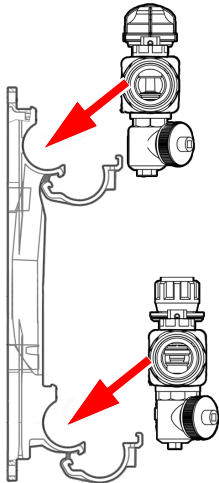


## 5 Mounting

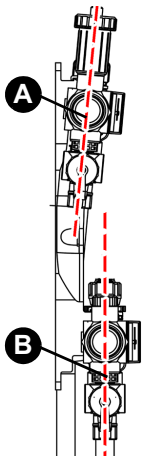
The product is mounted in a manifold cabinet, surface-mounted or concealed cabinet, to the wall.

If you install the product in an existing system, observe the information in chapter “Retrofitting the product” on page 13.

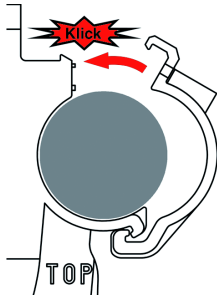
### 5.1 Mounting the product



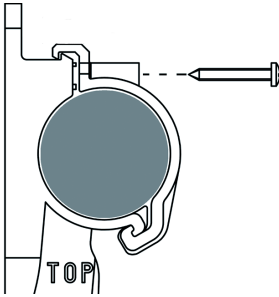
1. Place the manifold into the bracket.



- ⇒ Verify that the upper manifold A is slightly tilted and manifold B is straight.



2. Click-fit the clip towards the top (must snap in).



3. Fixate the clip with a screw.

## 5.2 Retrofitting the product



### WARNING

#### HOT LIQUID

Water in heating systems is under high pressure and can have temperatures of more than 100 °C.

- Verify that the heating water has cooled down before opening the system and mounting the product.
- Verify that the system has been unpressurised and drained before mounting the product.

**Failure to follow these instructions can result in death, serious injury or equipment damage.**

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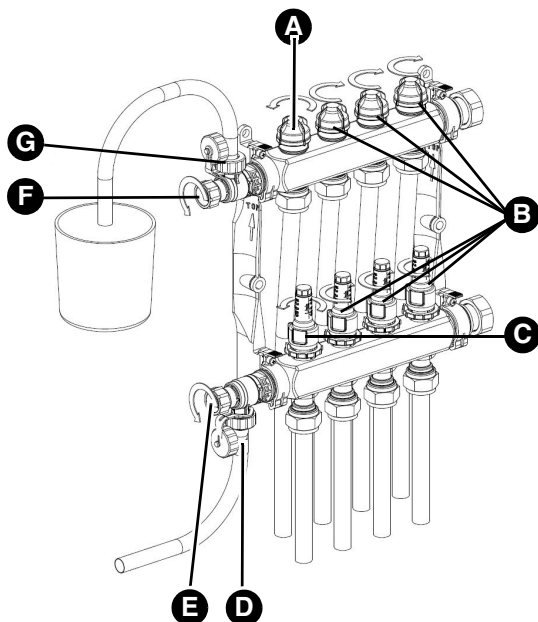
⇒ Verify that the liquid in the system and the application area of the product are compatible.

When the system has cooled down and unpressurised, you can mount the product.

1. Drain the system.
2. Flush the lines of the system.
3. Mount the product as described in chapter "Mounting the product".

## 6 Commissioning

### 6.1 Commissioning the product



1. Connect a hose to the drain valve (D and G).
2. Open the hand wheel (E and F) for filling and flushing.
3. Open the return valve (A) of the first heating circuit.
4. Slightly open the flow valve (C) of the first heating circuit.
5. Close all other valves (B).
6. Fill the heating circuit with a maximum of 5 bar and flush it.
7. Fully open the flow valve (C) as soon as water flows into the heating circuit.
8. Close the flow valve and the return valve of the filled heating circuit.
9. Repeat this procedure for all other heating circuits.

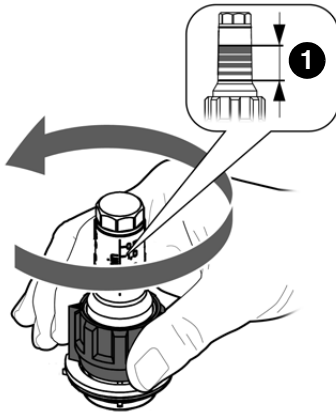
After you have filled all heating circuits:

10. Close the hand wheel (E and F).
11. Vent the system by rotating the outlet (G) by 180° at the drain valve and open the hand wheel (F).

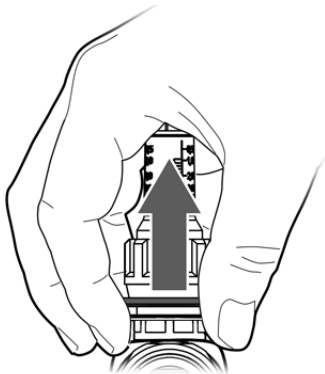
## 6.2 Performing the pressure test and the function test

1. Perform a pressure test with 6 bar.
  - The system pressure must remain constant for at least two hours (maximum pressure drop 0.2 bar)
2. Perform a leak test after the two hours have passed.
3. Fill the system with water until the operating pressure is reached.

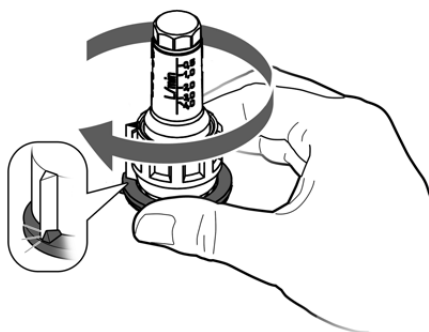
## 6.3 Adjusting the flow valves



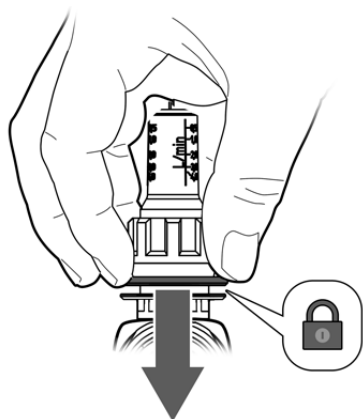
1. Open the flow valve until the calculated water volume is indicated at the flow meter (1).



2. Pull the ring up to unlock.



3. Turn the ring all the way to the mechanical stop of the flow valve.



4. Push the ring down to lock.



## 7 Maintenance

The product is maintenance-free.

## 8 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer or by qualified persons.

## 9 Decommissioning, disposal

Dispose of the product in compliance with all applicable directives, standards and safety regulations.

1. Dismount the product (see chapter "Mounting", reverse sequence of steps).
2. Dispose of the product.

### 9.1 Returning the device

Get in touch with us before returning your product.

## 10 Warranty

See our terms and conditions at [www.afriso.com](http://www.afriso.com) or your purchase contract for information on warranty.

## 11 Spare parts and accessories

## Product

Product designation	Part no.	Figure
Heating circuit manifold "ProCalida® VA 1C" with union nut G1	86402	
	86403	
	86404	
	86405	
	86406	
	86407	
	86408	
	86409	
	86410	
	86411	
	86412	
	Heating circuit manifold "ProCalida® VA 1C" with male thread G1	
86703		
86704		
86705		
86706		
86707		
86708		
86709		
86710		
86711		
86712		