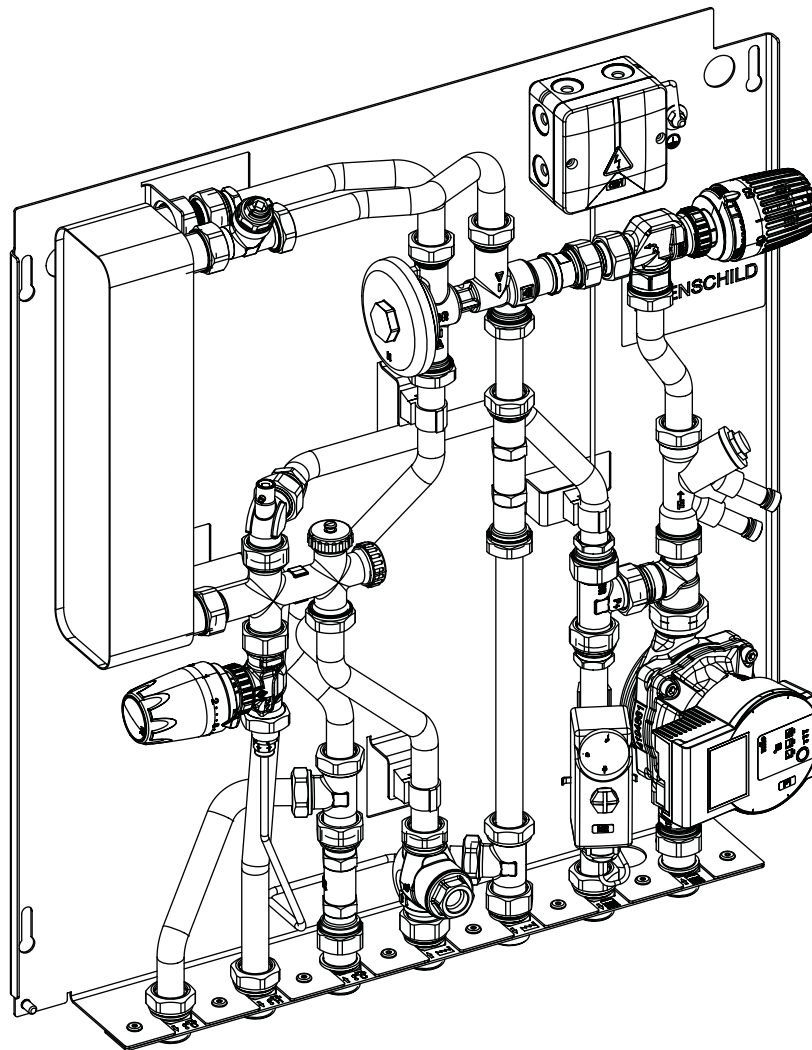


# TA-COMFORT-SLC

## Heating interface units

Installation | Operation



# Safety instructions

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To reduce risk and avoid accidents and injuries, please follow the safety instructions carefully.

## Target group

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These instructions are intended for authorised service personnel only.

Work on the heating system and the drinking water, gas and electricity networks may only be carried out by skilled service personnel or installation engineers who have been authorised by the relevant authorities.

## Regulations

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### Work on the system is covered by the following regulations

Statutory accident prevention rules.

Statutory environmental protection rules.

Accident prevention regulations issued by the Employer's Liability Insurance Association.

The applicable safety provisions contained in the following standards and norms:

DIN, EN, DVGW, TRGI, TRF, VDE and ACS standards.

ÖNORM, EN, ÖVGW-TR Gas, ÖVGW-TRF and ÖVE

SEV, SUVA, SVGW, SVTI, SWKI and VKF.

All new regulations and standards applicable at regional/national level.

### Rules when working on the system and network parameters

Isolate the system from the power supply and verify the absence of power (e.g. at the separate fuse or a main switch).

Ensure that the system cannot be switched back on.

**IMPORTANT:** Risk of scalding: Temperature of medium > 60°C

Network parameters for heating:

Max. operating temperature: 90°C

Network parameters for potable water:

Max. operating temperature: 90°C

Pressure class:

PN 10

The equipment must be installed in enclosed rooms that are protected from frost in compliance with EN 60529. Compliant protection zones must be observed during the planning and installation process EN 60520 IP rating – IP42.

**NOTE:** Nickel soldered heat exchanger can be delivered on request for tap water with higher conductivity as 500 µS or pH >9,0. It is not allowed to use copper soldered heat exchangers under those conditions.

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# Description of functions

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TA-COMFORT heating interface units supply a home with domestic hot water and heating. The domestic hot water is heated instantaneously using a stainless steel plate heat exchanger and a pressure-controlled proportional flow controller with an antibacterial coating.

## Principle of operation

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The proportional flow controller only allows the domestic hot water and heating water to flow over the plate heat exchangers while domestic hot water is being drawn off. When the draw-off ends, the valve closes to stop the flow through the heat exchanger. The proportional flow controller regulates the flow to the heating circuit (priority circuit). It closes the heating circuit completely if the draw-off is at maximum. This means that all the heating energy is made available to heat the domestic hot water.

## Notes

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If the heating supply temperature is kept constant, proportional flow control means that the same hot water temperature is reached regardless of the volumes being drawn off.

If the heating water temperature is very high or fluctuates widely, producing an expected domestic hot water temperature exceeding 60°C, scald protection should be added by installing a temperature mixing valve module (optional).

In order to guarantee thermal stability and to reduce the time taken to reach the desired domestic hot water temperature, a thermostatic circulation bypass is included in the heating interface unit.

The valve TBV-C installed in front of the home interface unit provides a stable available differential pressure for water heating.

Each unit has an integrated zone valve for hydraulic control.

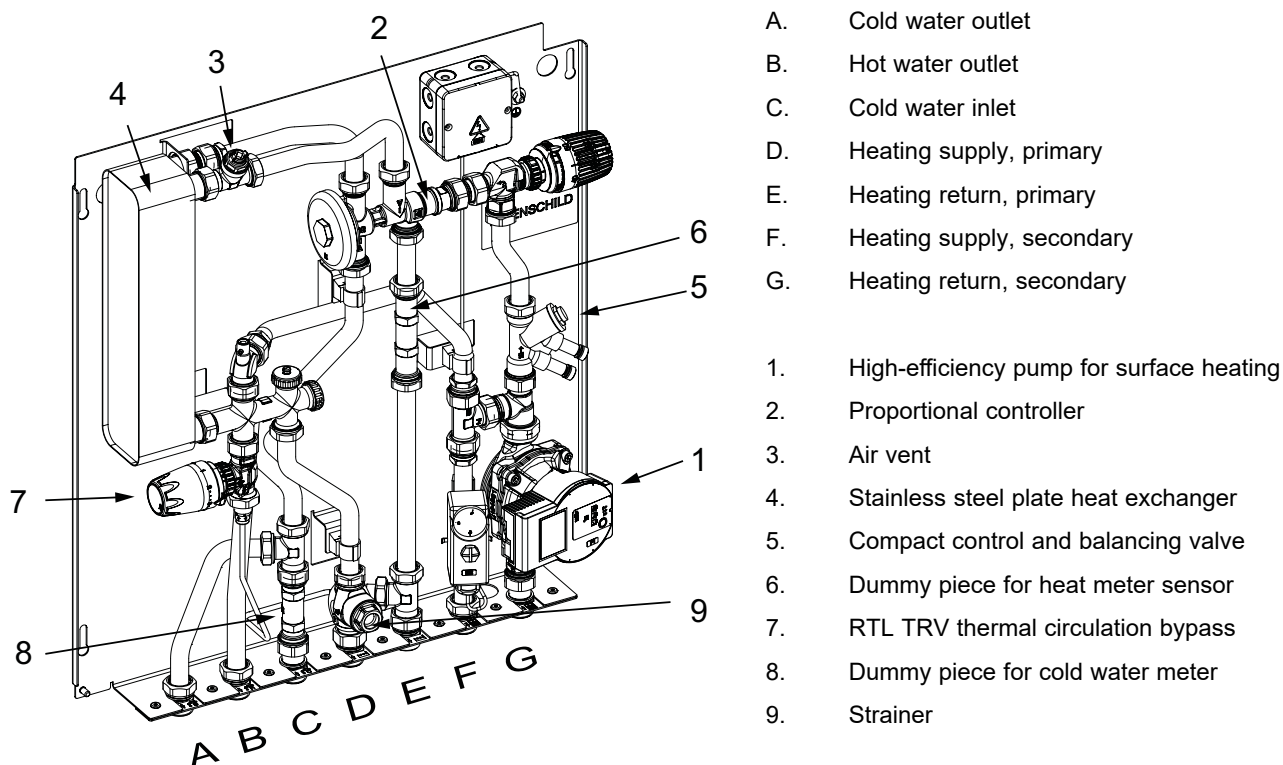
A (reference) room controller (optional) and thermal actuator (optional) can be installed to allow the domestic heating circuit to be operated separately.

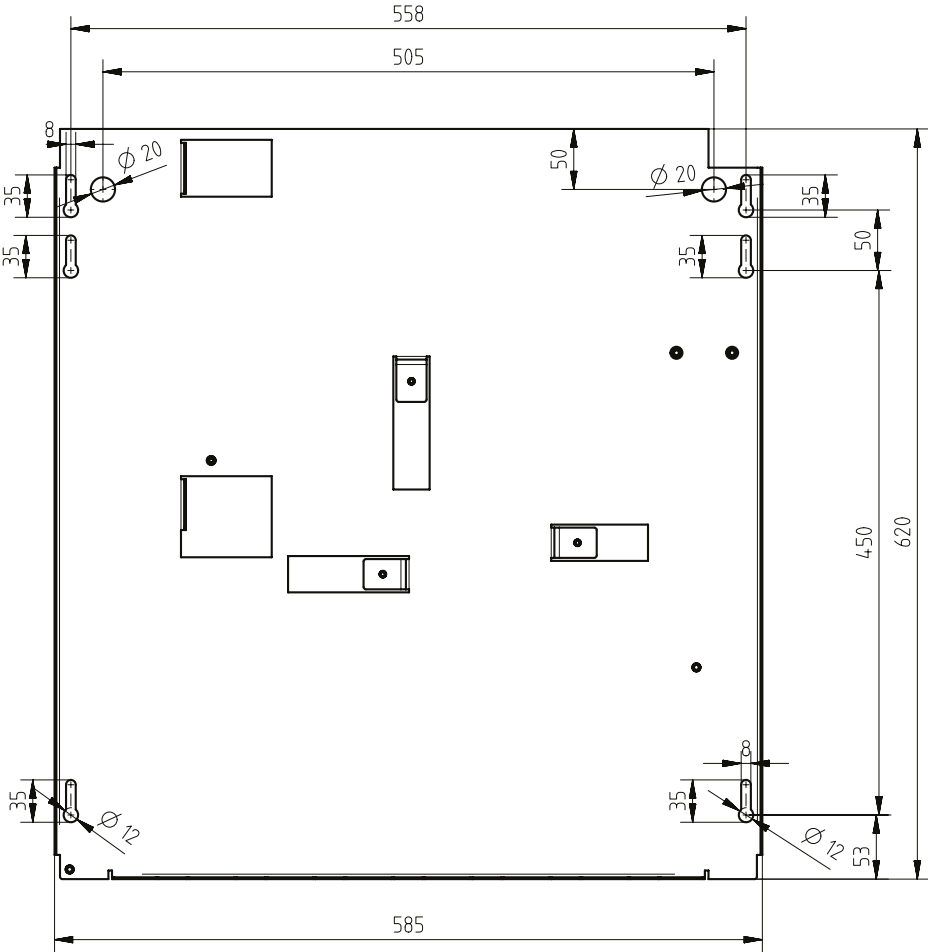
Designated pipe sections for water and heat meter installation are provided in every home unit.

See our catalogues and price list for other accessories and further options.

## Hydraulic diagram

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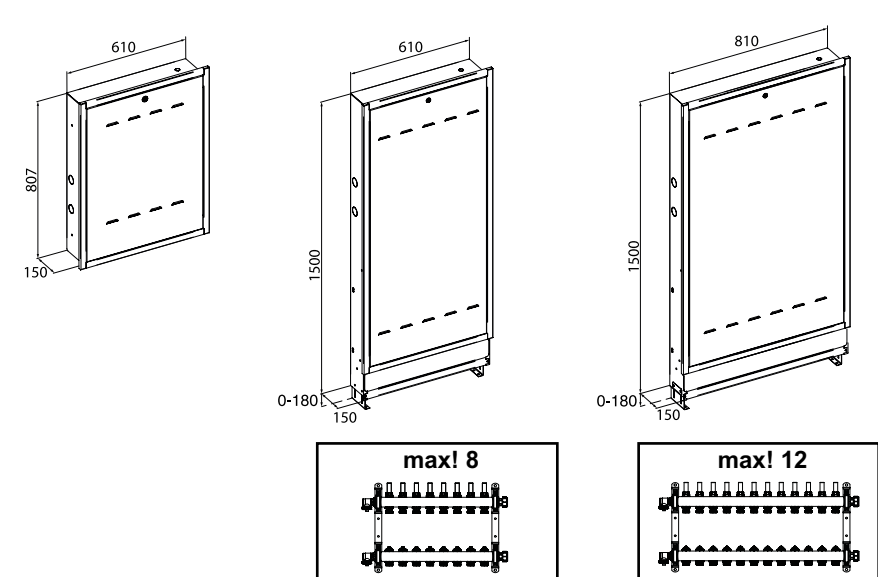




# Installation

## Installation of cabinet

Dimensions [mm]:  
The total height of the heating interface unit is 1519 mm including the cover for surface mounting.



610 807 150

610 1500 0-180 150

810 1500 0-180 150

max! 8

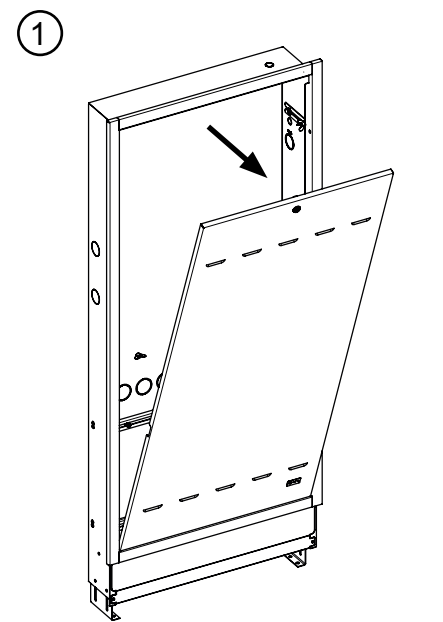
max! 12

344 030 400 24  
344 030 400 31  
344 030 400 34

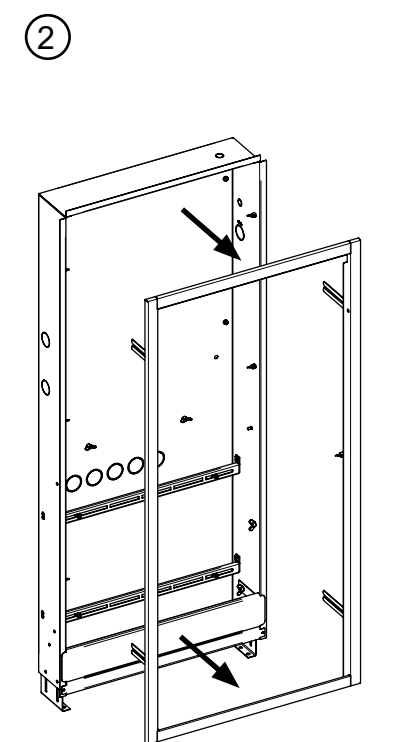
344 030 400 32  
344 030 400 33  
344 030 400 37

344 030 400 38

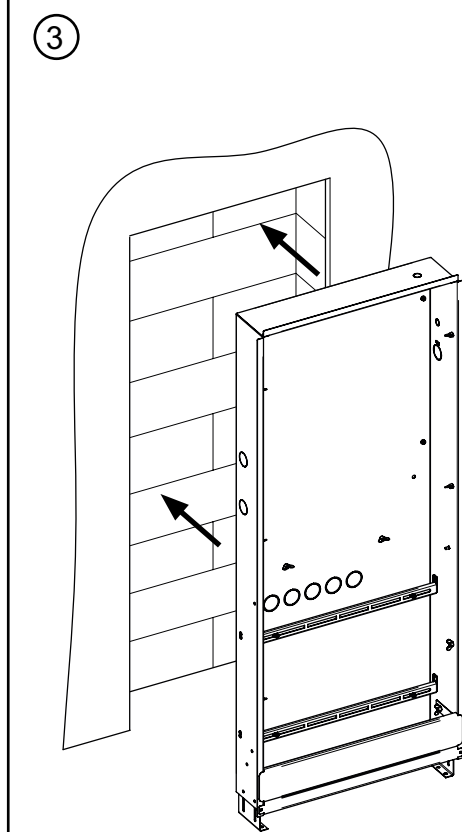
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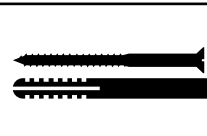



2

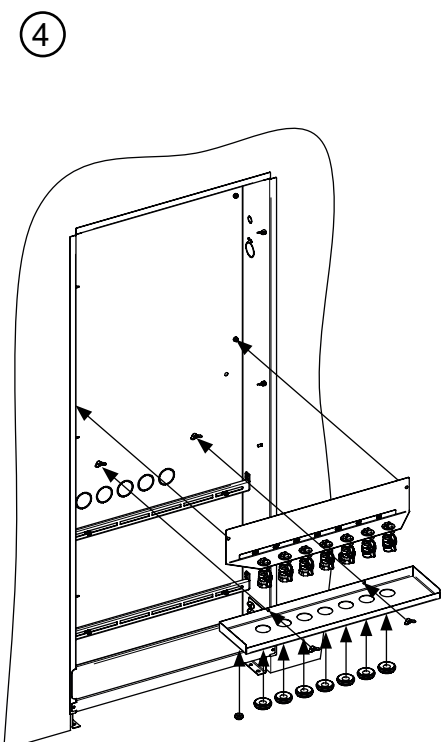


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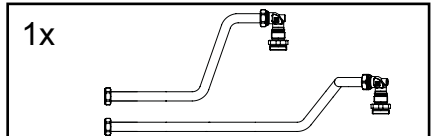




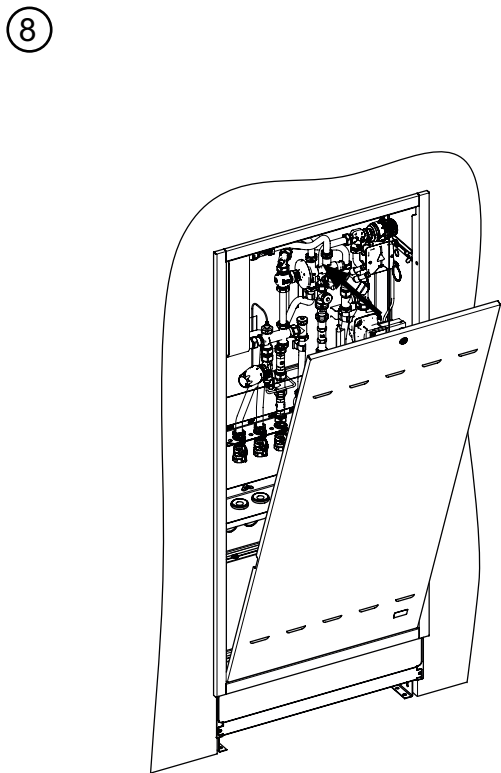
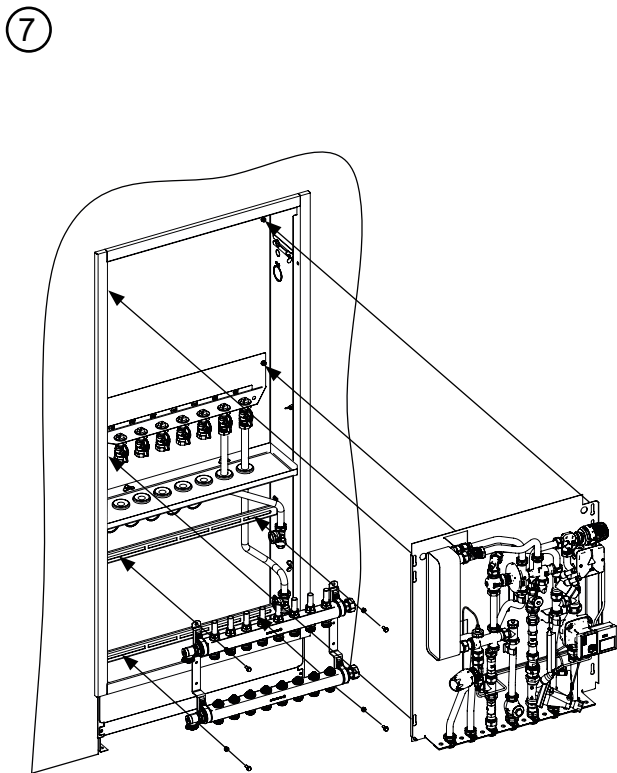
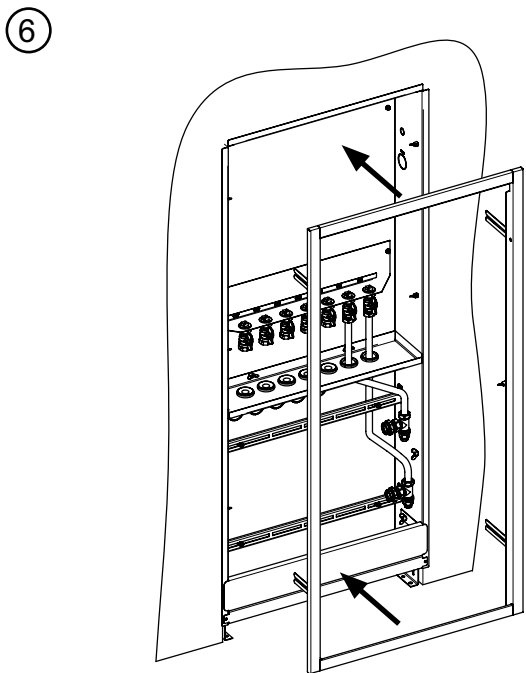
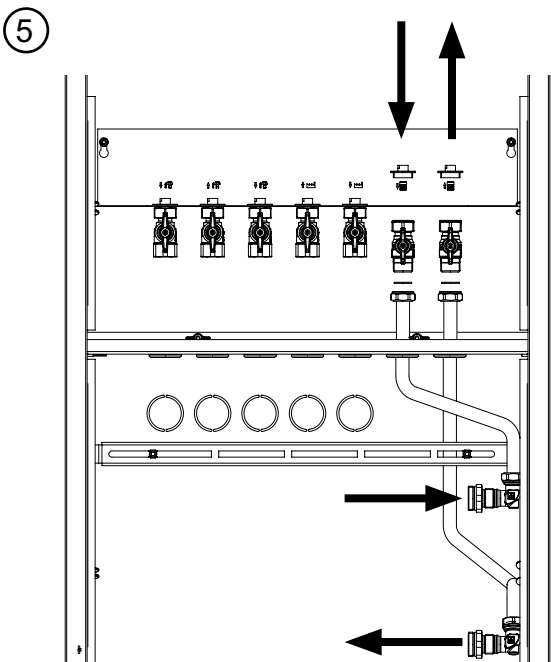
4



1x



# Installation



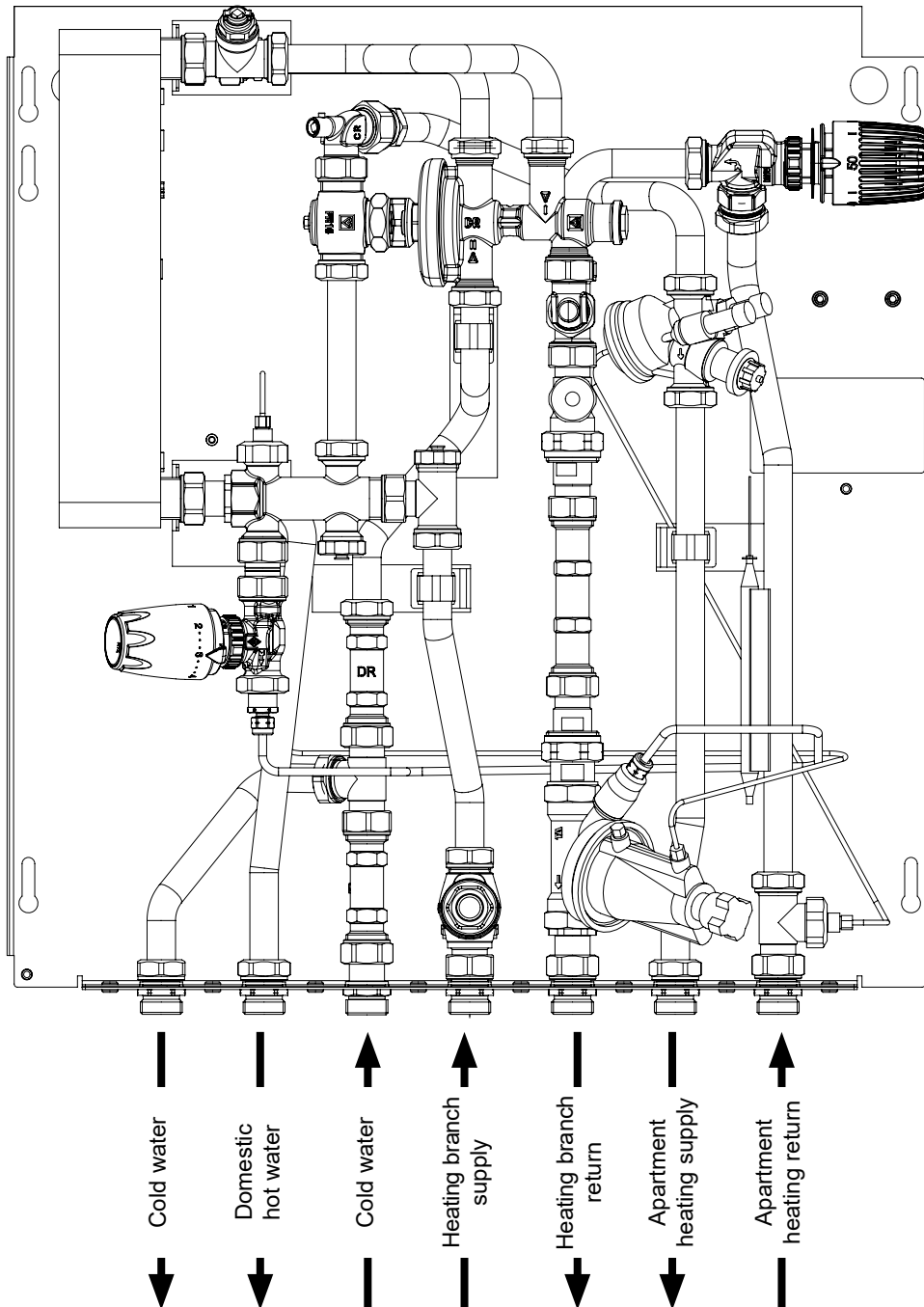
## Flushing and filling

Before being filled, the system must be carefully flushed.

All connections must be checked and tightened if necessary.

After tightening, screwed joints must be securely locked with a counter nut.

When the system has been filled, the heating interface unit must be vented and the heating system topped up if necessary.





# Connections

## Heat meter installation

The heat meter must not be installed until the overall heating system has been flushed. TA-COMFORT heating interface units are supplied with a dummy pipe section for the heat meter, which must be removed before the heat meter can be installed. Due to the universal dummy piece heat meters with 1" thread and 190 mm length, as well as those with 110 mm and 3/4" connection, can be installed.

## Procedure

Close all shut-off valves "A" (on mounting bracket).  
Reduce the system pressure by opening the vents "B".  
Undo the screwed joints on pipe section "C".

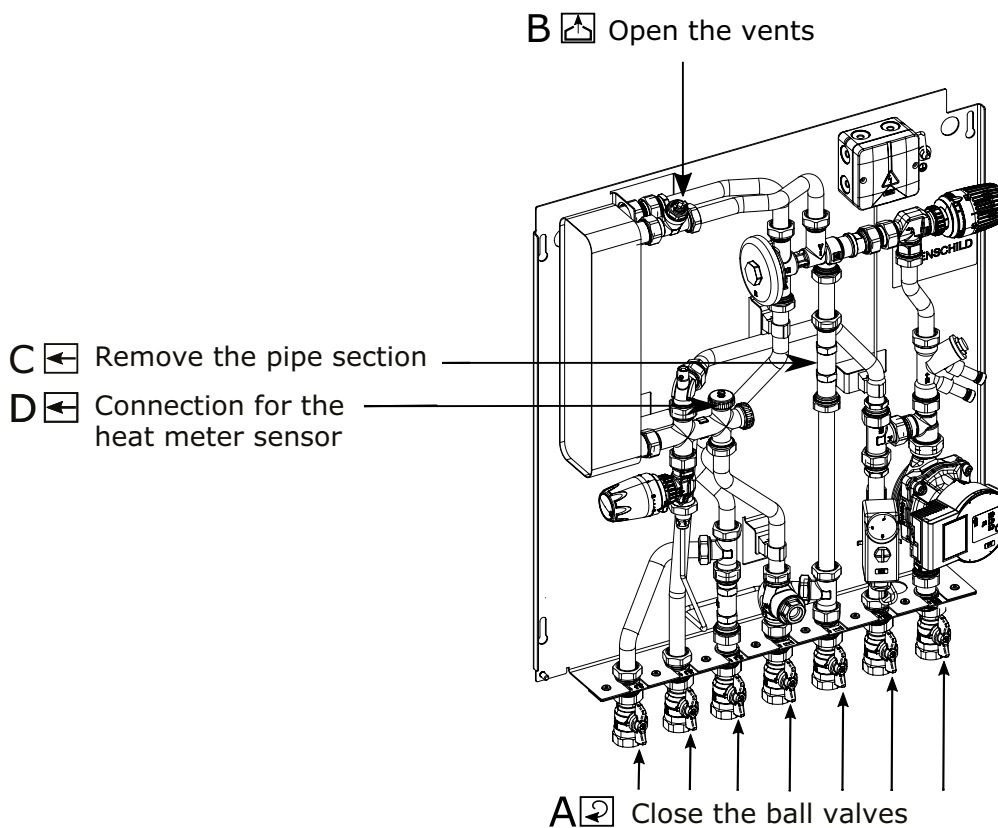
**!** Water may escape.

Remove the pipe section, position the heat meter and tighten.

**!** Observe the direction of the flow. (Do not forget the seals.)

Remove the brass plug "D" and screw in and seal the supply sensor for the heat meter.

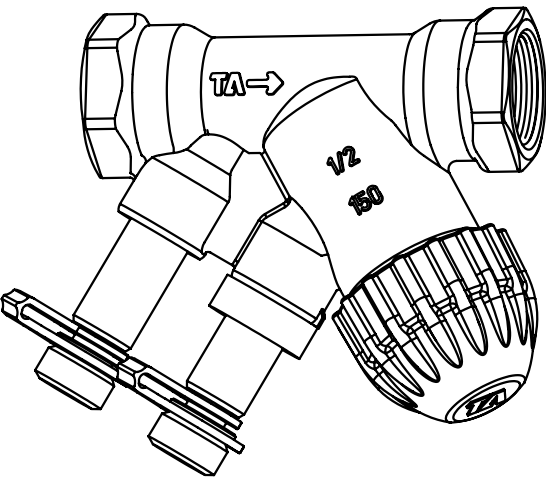
When finished with the previous step, open the shut-off valves and use the vents to vent the system. Check for leaks.




# Equipment and components

## Zone valve - TBV-C

(Surface heating version)

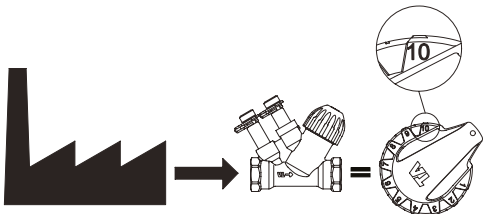


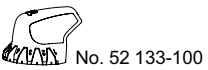

 Position	Kv
	TBV-C NF DN 15
1	0,22
2	0,33
3	0,45
4	0,50
5	0,60
6	0,82
7	0,99
8	1,1
9	1,4
10	1,8

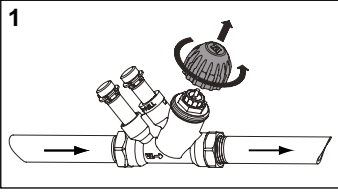
-20°C – +120°C

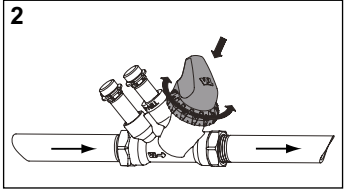
PN 16  
(max. 16 bar)

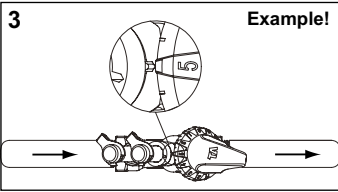
Max Δp:  
30 kPa = 0,3 bar



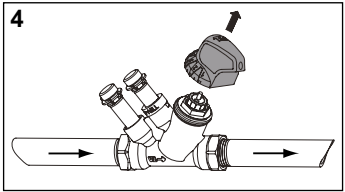


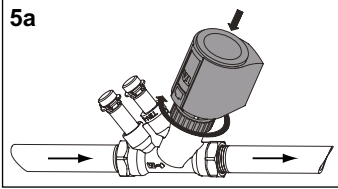
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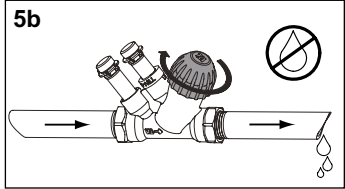
2

3

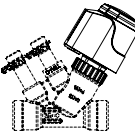
Example!

4

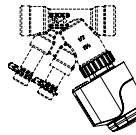
5a

5b

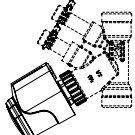
### TBV-C + EMO T:



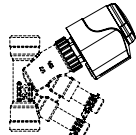
IP54



IP54



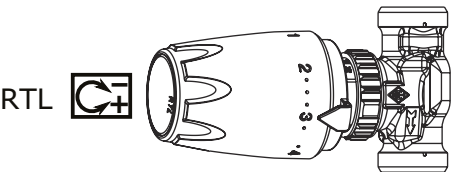
IP54



IP54

## RTL TRV thermostatic circulation bypass

The thermostatic circulation bypass ensures that heated tap water can be provided without any delay. The reserve temperature is infinitely adjustable using the temperature scale of 0 - 50°C.



# Equipment and components

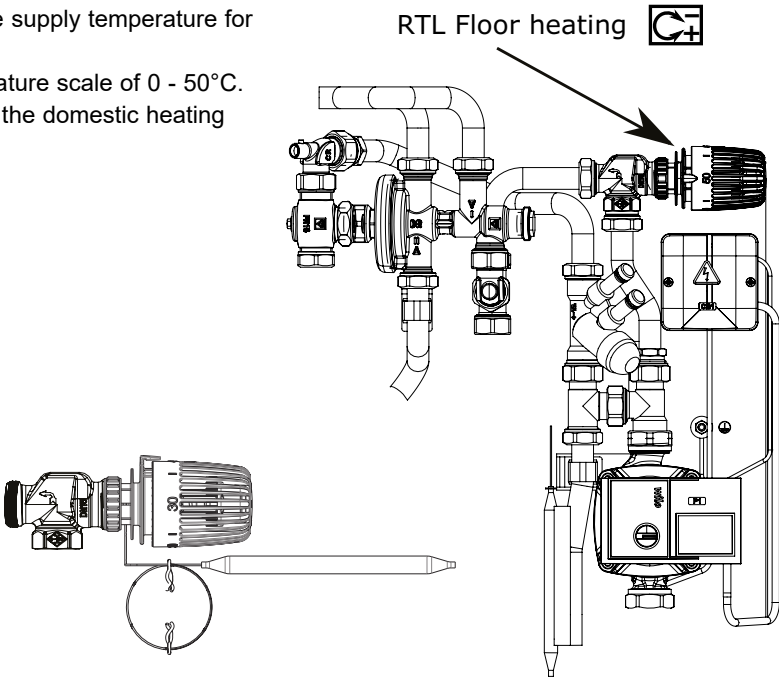
## Control of the supply temperature for surface heating

The thermostatic head K with contact sensor regulates the supply temperature for the floor heating.

The desired value is infinitely adjustable using the temperature scale of 0 - 50°C. This control valve does not replace hydraulic balancing of the domestic heating circuit and the heating interface unit.

Setting thermostatic head K with contact sensor

Thermostatic head setting	Supply temperature of mixed heating circuit
20	~ 20°C
30	~ 30°C
40	~ 40°C
50	~ 50°C



## Optional components

### Heating circuit manifold for domestic heating circuit

A heating circuit manifold is used in combination with a bigger cover. Manifolds are available for 2-12 domestic heating circuits. A volume flow limiter with a display, return adjustment cap and manual vent plug 1/2" is supplied as standard.

#### Settings

Supply volume flow limiter: 30 - 300 l/h

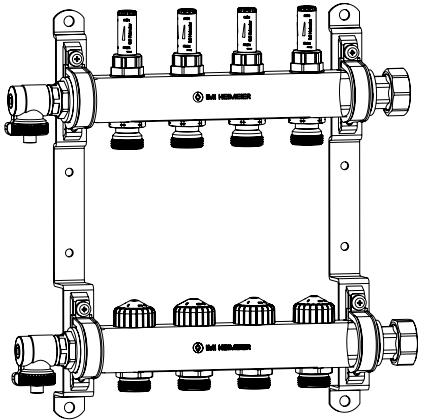
#### Integration

with the domestic heating circuits: G3/4 Eurocone

with an actuator: M30x1,5

Axial dimension of the connections: 50 mm

! See page 15 charts showing residual head and pressure drop.

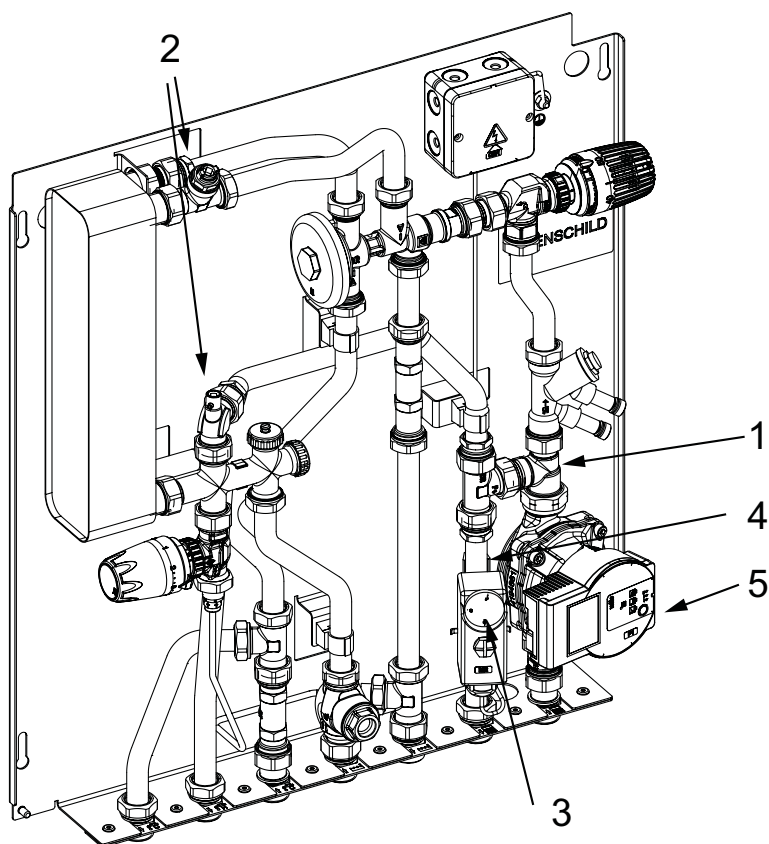


# TA-COMFORT-SLC for surface heating

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## Control loop for surface heating

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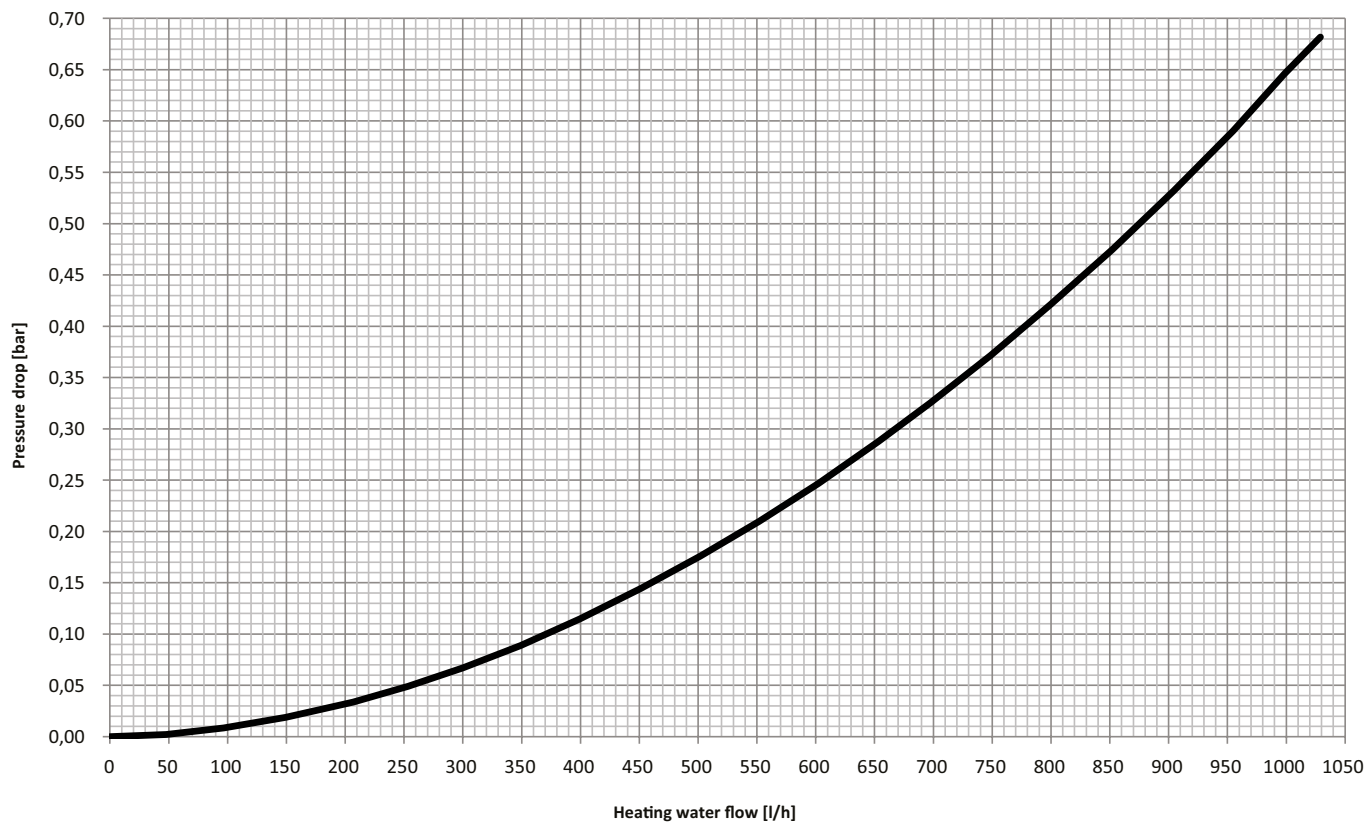
1. Primary bypass and injection circuit
2. Air vent
3. Security contact thermostat
4. Contact sensor for supply temperature regulation
5. Heating circuit pump

# Charts

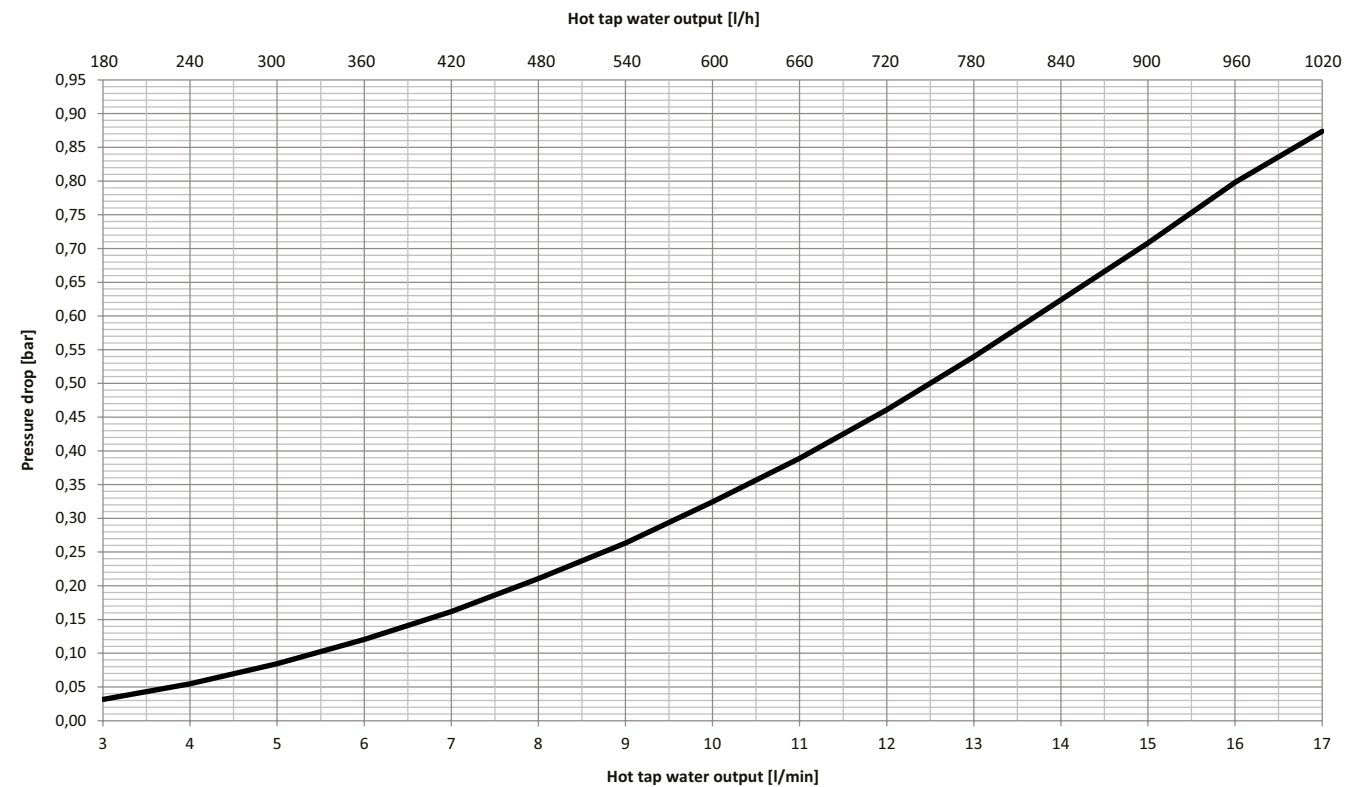
## Available differential pressure, pressure drop and temperatures

Must be taken into account when sizing the domestic heating circuits.

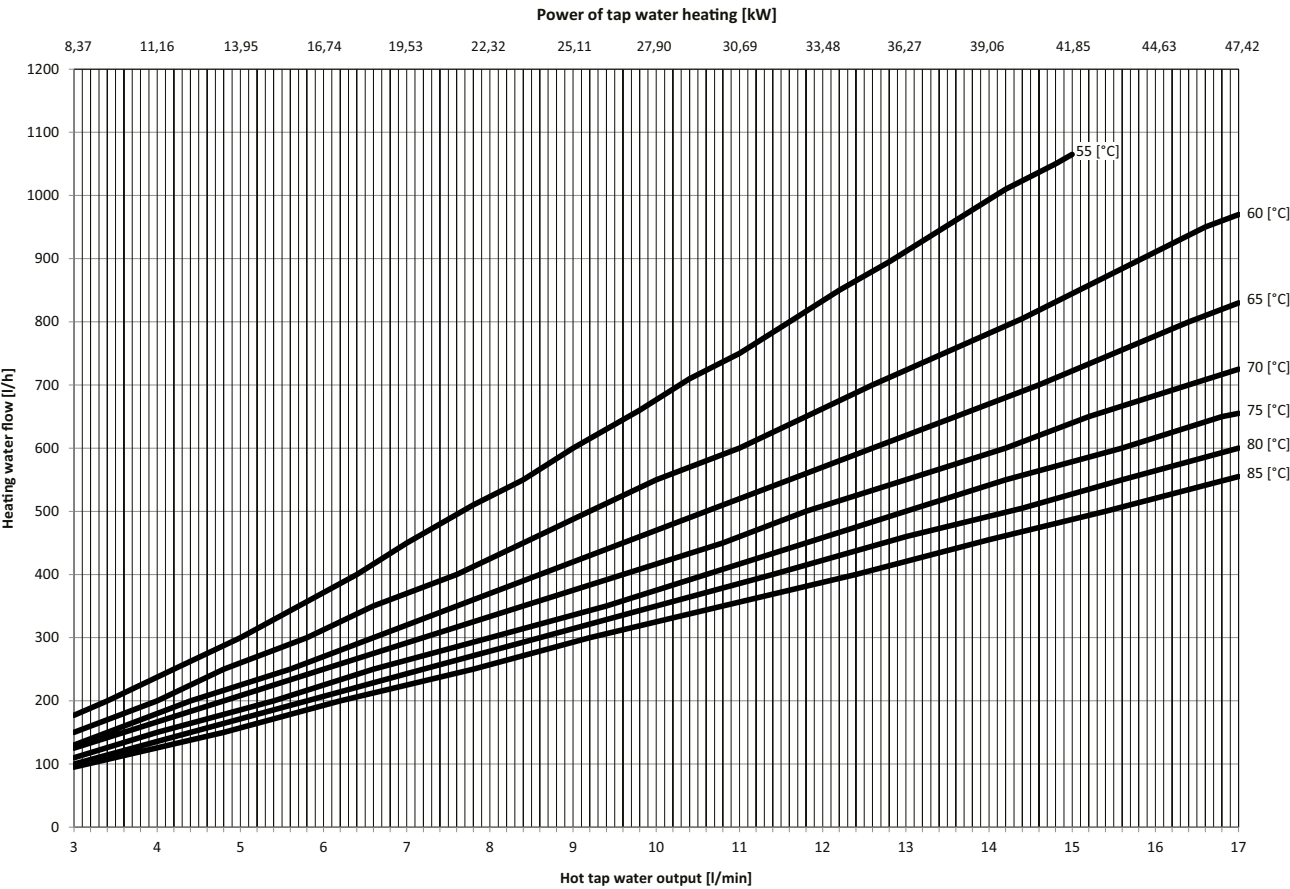
Pressure drop heating side during draw off



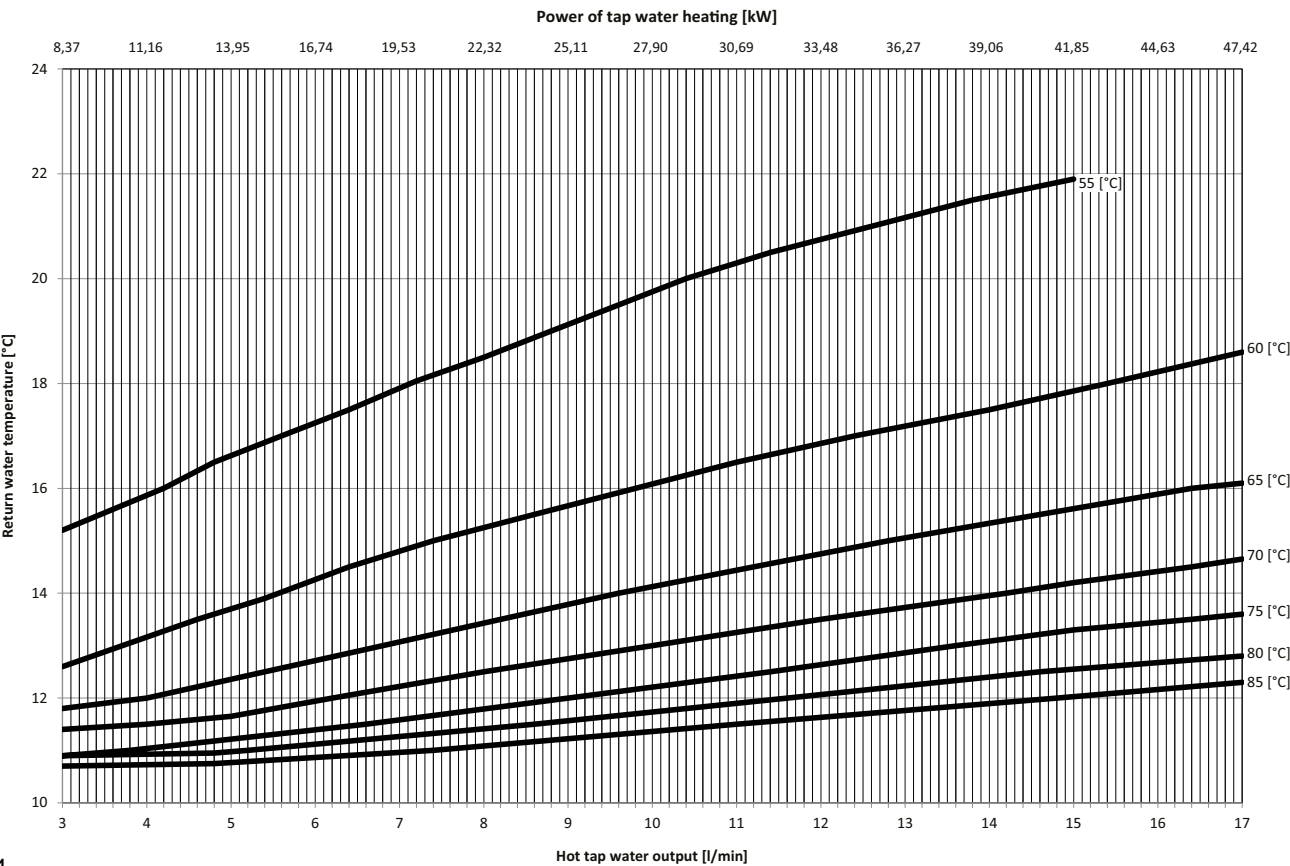
Pressure drop tap water side during draw off



Hot water tapping 10/50 [°C]



Drinking water heating 10/50 [°C]

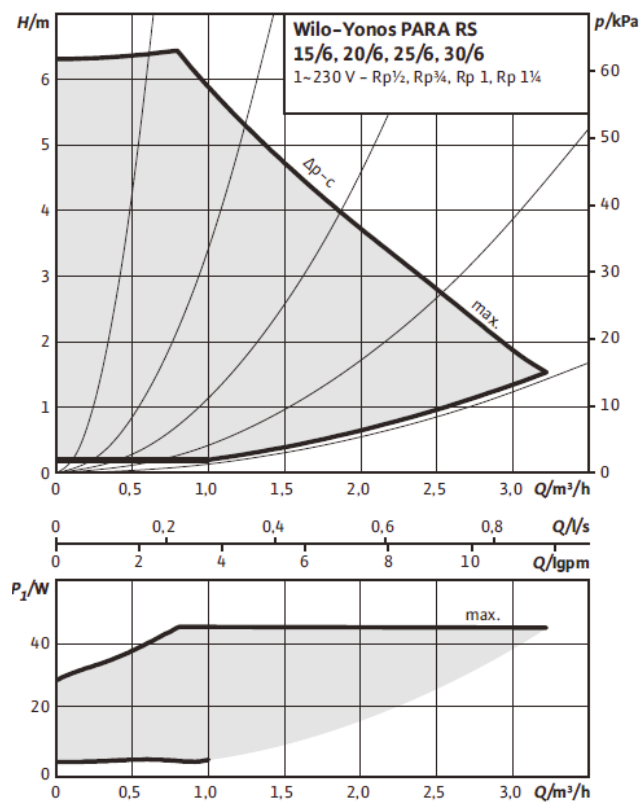


# Charts

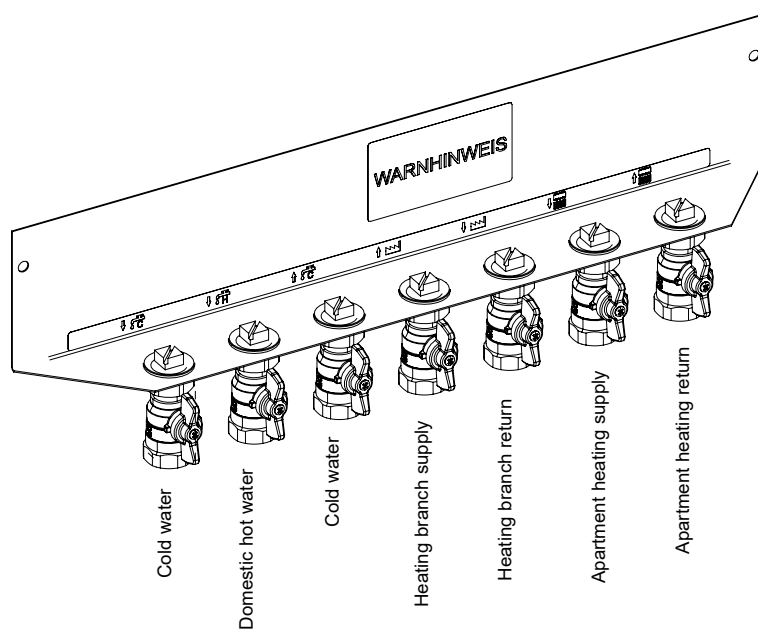
## Available differential pressure for the surface heating with standard pump

Must be taken into account when sizing the surface heating circuits.

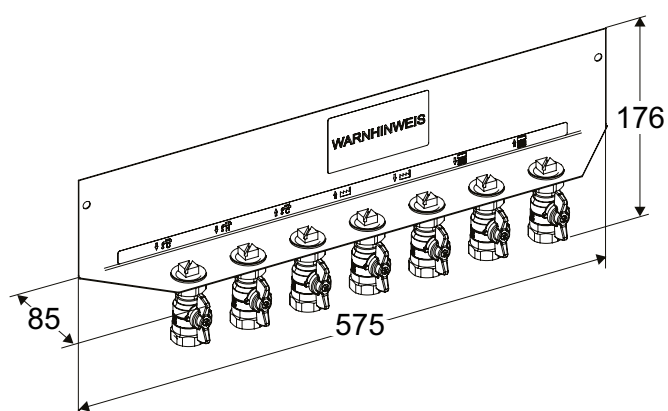
Tolerances of each curve according to EN 1151-1:2006



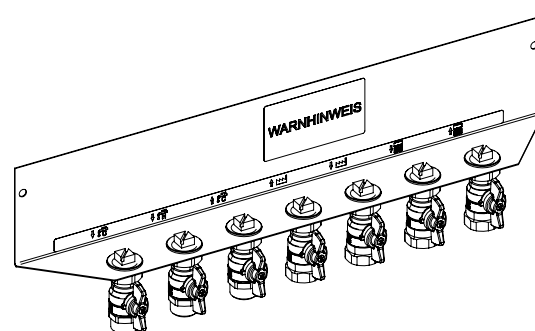
# Mounting rail TA-COMFORT-SLC



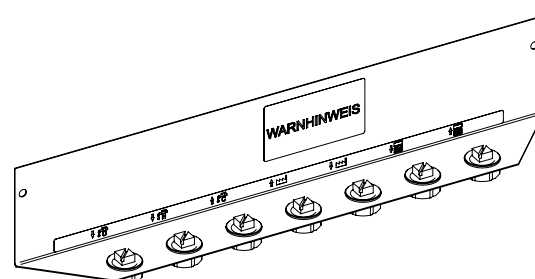
## Dimensions of mounting rail



7 x Rp3/4



3 x G3/4 + 4 x Rp3/4



7 x plugs

*We reserve the right to introduce technical alterations without prior notice.*