



# Danfoss RAS-C2 Combi Radiator Thermostat Installation Guide

[Home](#) » [Danfoss](#) » Danfoss RAS-C2 Combi Radiator Thermostat Installation Guide 



**ENGINEERING TOMORROW**

**Radiator Thermostat RAS-C<sup>2</sup> Combi Pack / Radiator Pack**  
**BI-DIRECTIONAL VALVE WITH FLOW-SELECTABLE FEATURE**  
**INSTRUCTION**

## Contents

- [1 Installation of valve](#)
- [2 Troubleshooting](#)
- [3 RAS-C/RAS-D with push-fit](#)
- [4 Fitting the Sensor](#)
- [5 User Guide](#)
- [6 Documents / Resources](#)
  - [6.1 References](#)
- [7 Related Posts](#)

## Installation of valve

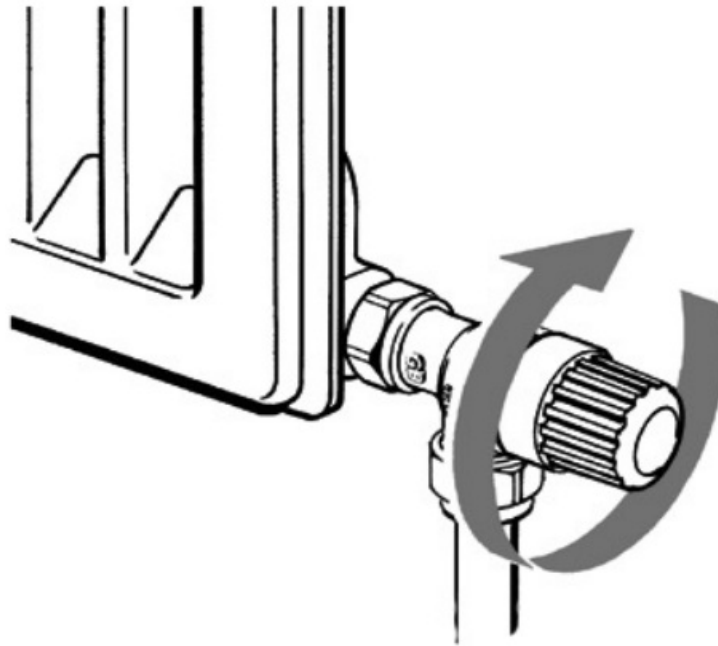
The valve is a bi-directional valve \* and can be installed horizontally or vertically in either the flow or return pipe. A built in flow direction selection feature can be used to eliminate the risk of water hammer.

## Troubleshooting

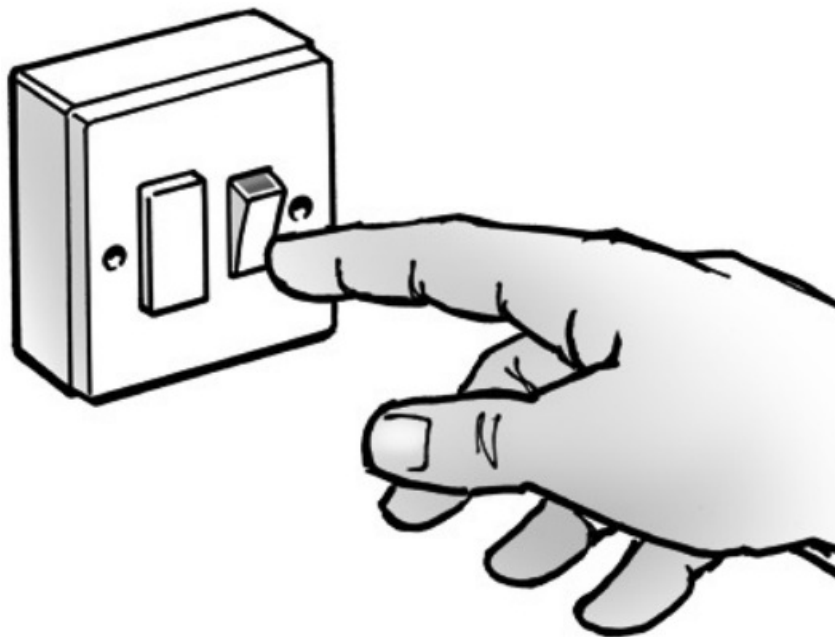
In the unlikely event of water hammer being encountered turn the setting ring (see diagram 4) to the other setting. Alternatively if commissioning the whole system, establish the flow direction through each valve using the

diagrams below. If the flow direction needs to be changed there is no need to remove the valve, simply turn the setting ring.

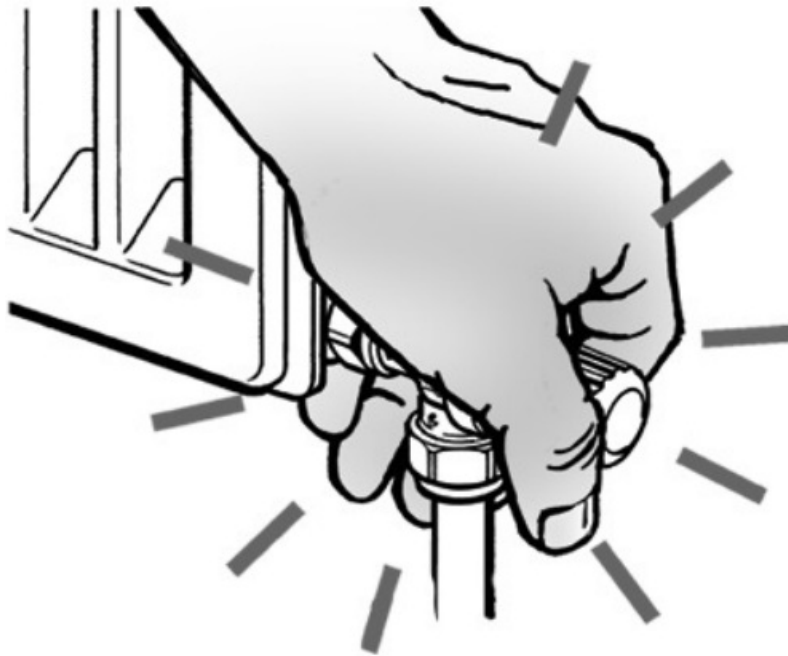
1. Close all radiator valves by turning the valve cover cap clockwise. Leave system to cool.



2. Start boiler/heating.

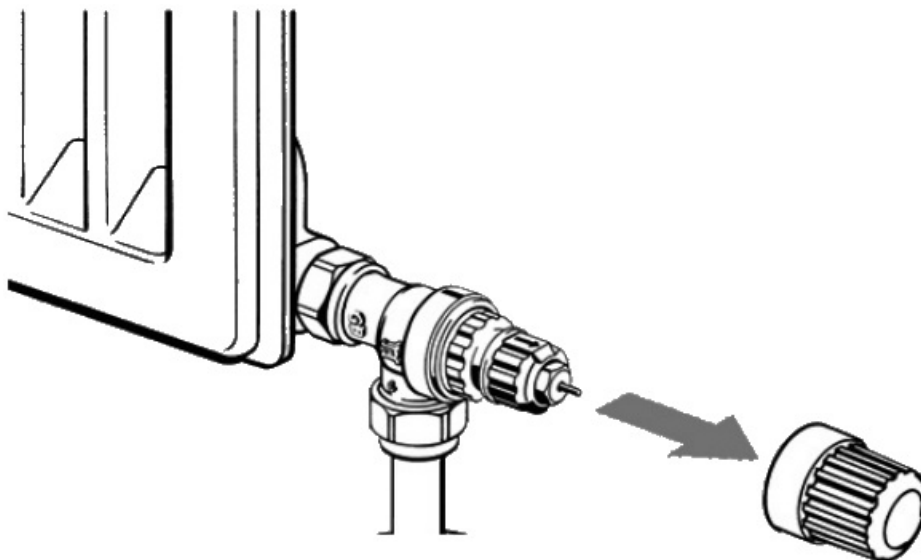


3. Open one valve and determine flow direction. Which pipe heats first?

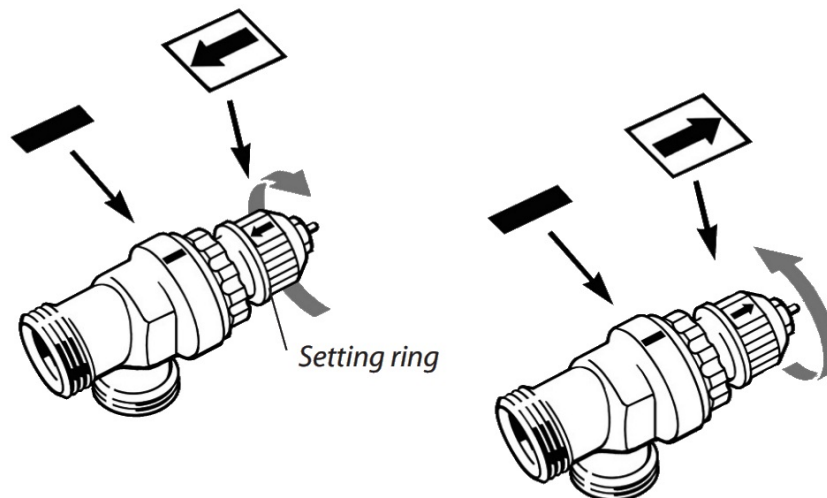


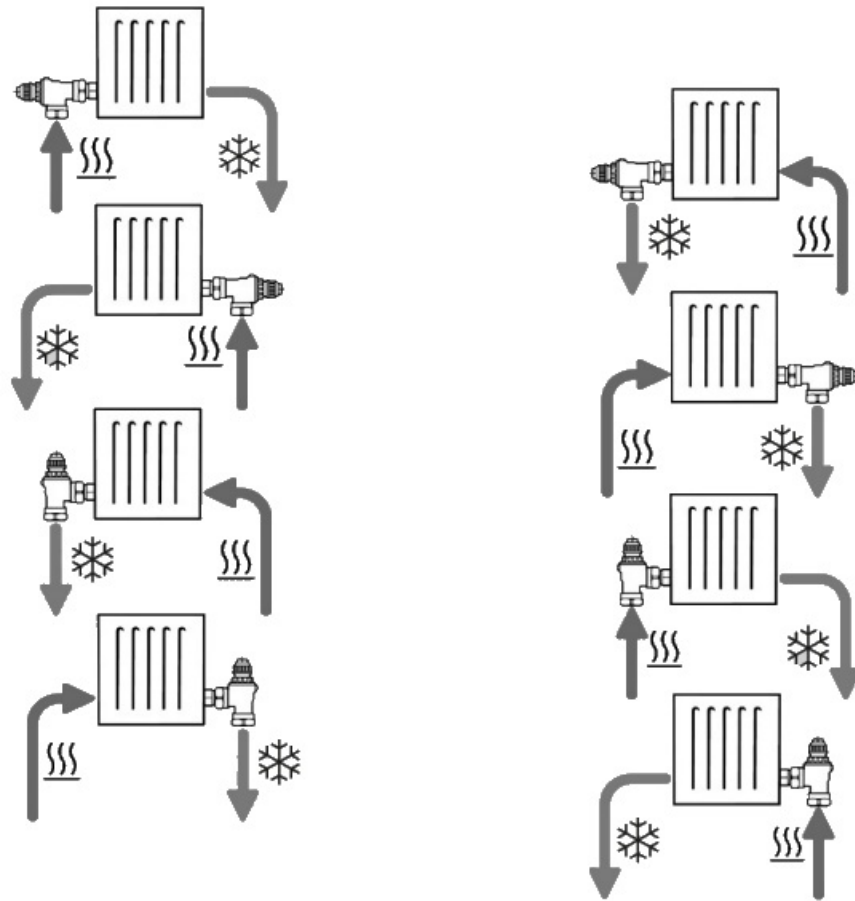
**Keymark reference:**

This package contains sensor 013G6040, valve 013G6281 (15mm) or valve 013G6283 (8/10 mm)

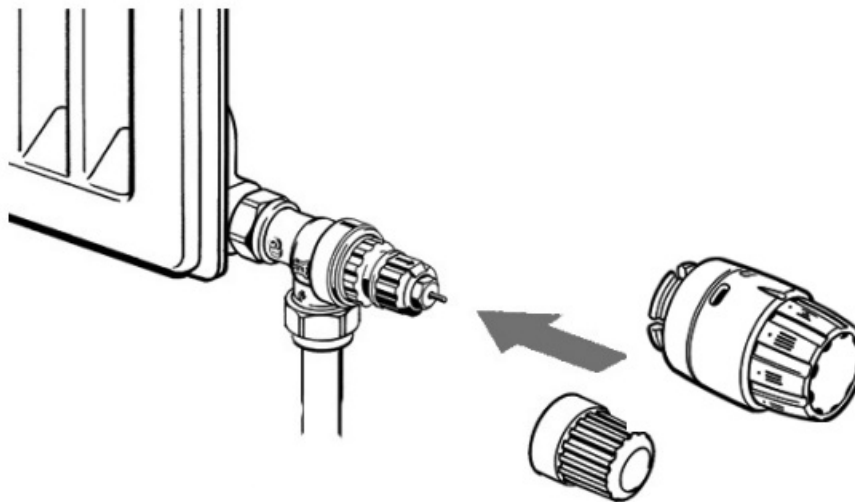


4. Remove cap and turn setting ring according to the drawings – the setting ring is turned by hand only.





5. Repeat step 3 and 4 until all valves have been set correctly. Sensor may now be fitted or the valve cap temporarily refitted.

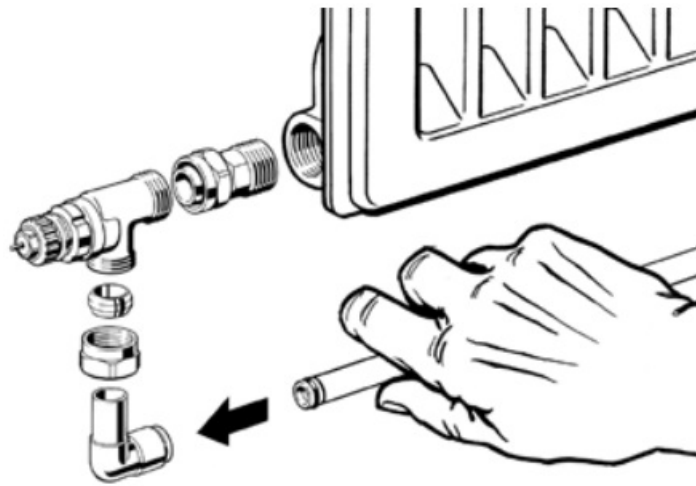


\* Maximum pressure drop should not exceed 0.45 bar

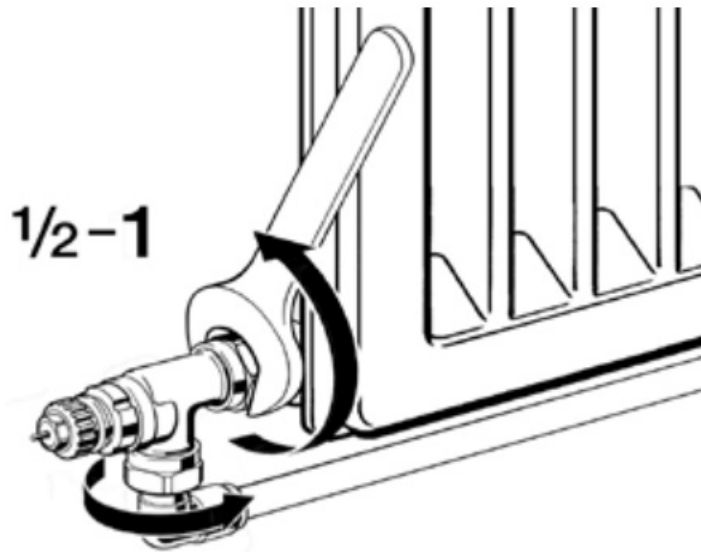
## RAS-C/RAS-D with push-fit

### Mounting

1. Ensure the pipe is pushed to the pipe stop in the elbow.



2. **IMPORTANT:** Both nuts have to be tightened. It is good practice to check the fitting before use: pull the pipe back to check it is secure.

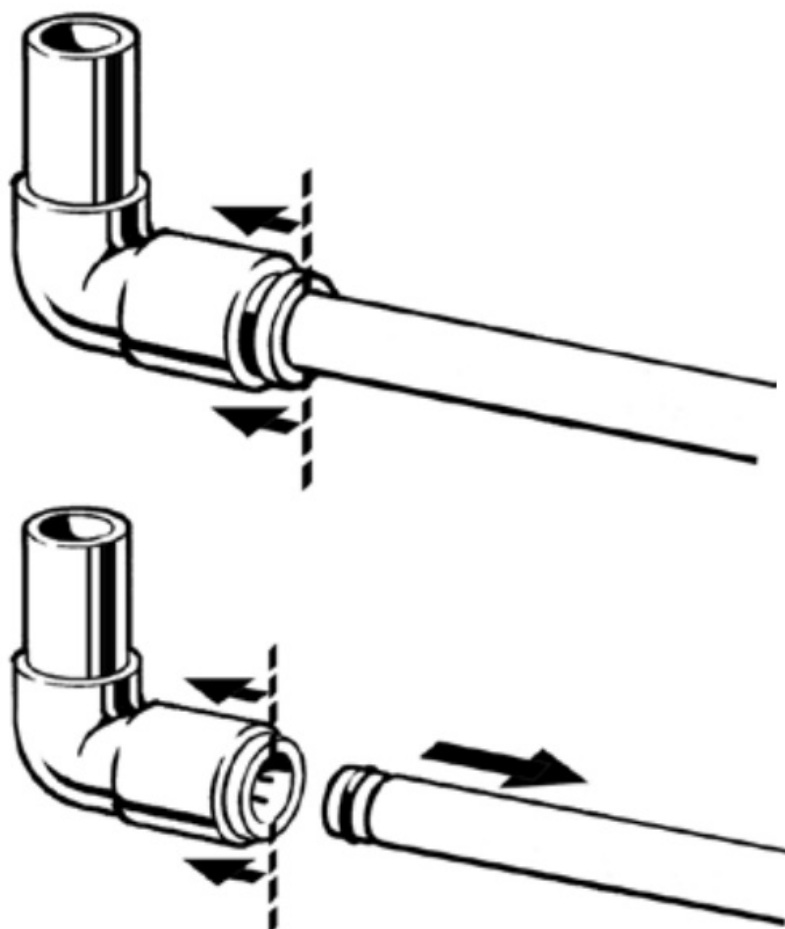


### Dismounting

**IMPORTANT:** Ensure system is depressurised before removing fitting.

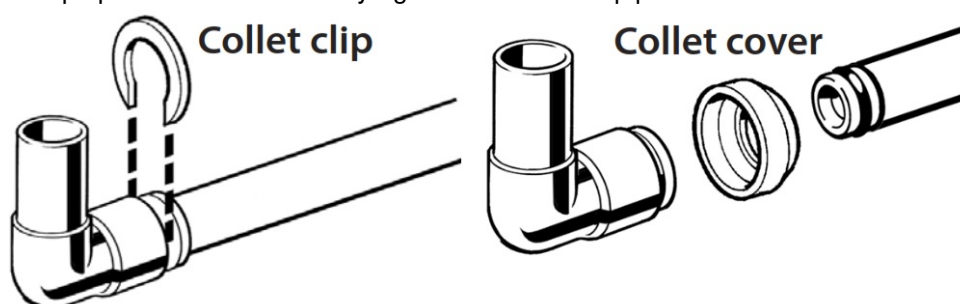
Push in collet squarely against face of fitting.

With the collet held in this position, the pipe can be pulled out. The fitting can then be re-used.



#### Collet cover and collet clip

Collet covers or collet clips provide added security against unintended pipe disconnection.



Code No 013G4913 (10 pcs)

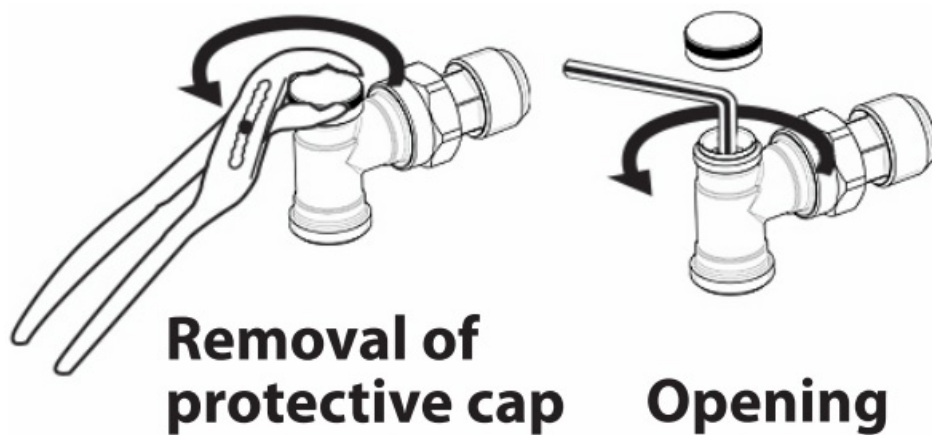
Code No 013G4912 (10 pcs)

#### Cutting the pipes

1. Cut the pipe square ensuring that it is free from score marks and burs. For plastic pipe we recommend the use of a plastic pipe cutter, do not use a hacksaw
2. For plastic pipes, it is essential that a pipe insert is used. This must be of the same make as the pipe. It is important to ensure that all internal burs are removed from the pipe end prior to fitting the insert. Do not use any lubricant.


Specification	
Copper pipe	According to BS2871 Part 1 / BS EN1057. Max. temp 92°C, Max. pressure 3 bar
Plastic pipes:	According to BS7291. Max. temp. 92°C. Max. pressure 3bar

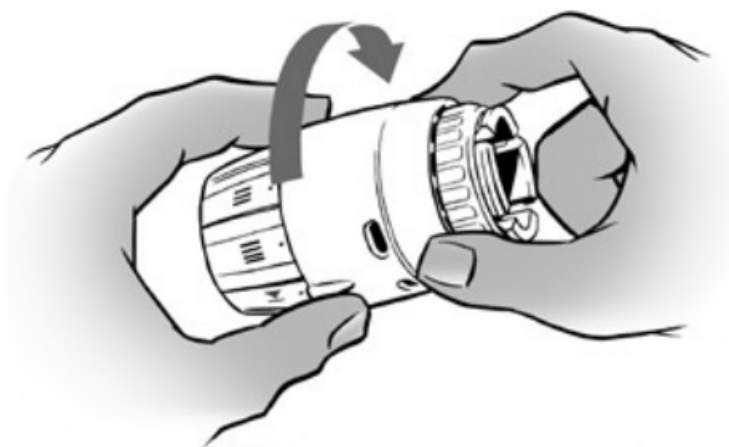
**Lockshield valve (type RLV-D) is only included in codes 013G6007**



## Fitting the Sensor

### Installation Guide

1. Remove cap from valve and turn sensor to 
2. Make sure union nut is turned loosely up towards the sensor body until it is only slightly free of the lower part of the sensor body.

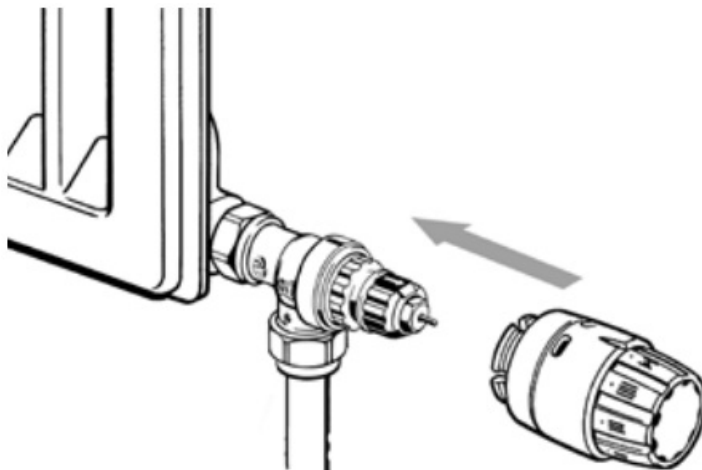


3. Press the sensor firmly onto the valve.

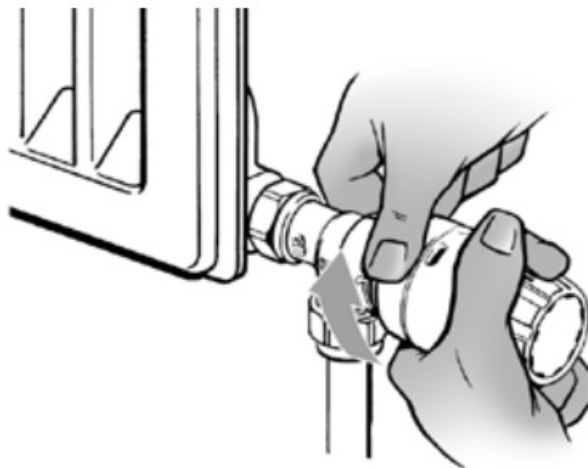
Sensor horizontal:

ensuring that the scale pointer is at top.

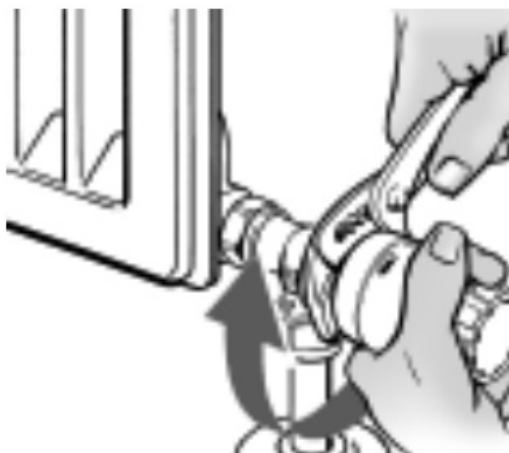
Sensor vertical: ensuring that the scale pointer is at the front.



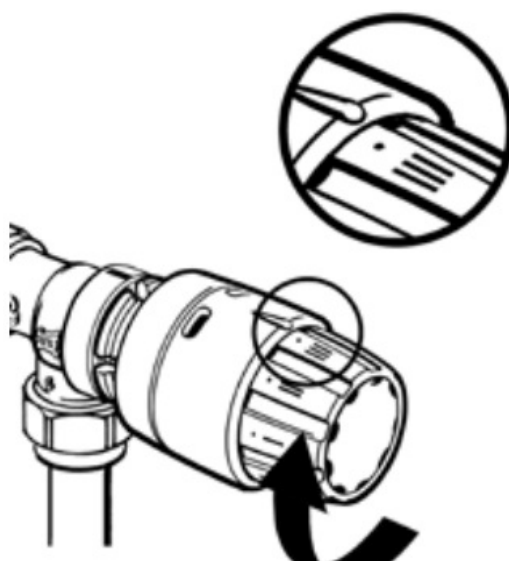
4. Whilst holding the sensor firmly on the valve secure connection by turning union nut clock-wise by hand.



5. Whilst still holding the sensor firmly on the valve, tighten the grey union nut to 5Nm, using parrot nose pliers.



6. Set desired room temperature.



### Removing the Sensor

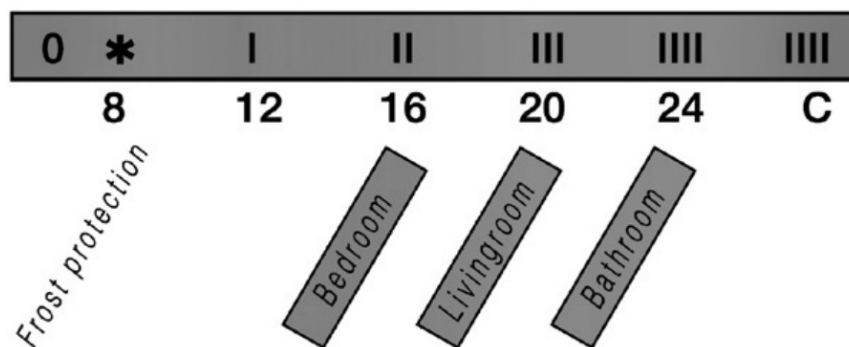
Turn the sensor to max. position . Turn union nut anticlockwise to release locking mechanism (4). The sensor can now be separated from the valve.

### User Guide

#### Setting the desired room temperatures

The desired room temperature is set by turning the head. The temperatures obtained are approximately:





### Do not cover the thermostat

The thermostat opens and closes as determined by the temperature around it. Therefore the sensor must never be hidden behind thick curtains, furniture, etc. Alternatively a thermostat with remote sensor should be used.

### Positive SHUT-OFF feature:

The head can be turned past the \* setting (a slight resistance will be felt) to setting "0" at which point the water flow is shut off completely. After also shutting the lockshield valve the radiator may be drained and removed for maintenance and decoration purposes.



© Danfoss Climate Solutions | 01/2024  
AN325831496588en-GB0401 (013R9677)

## Documents / Resources

	<p><a href="#">Danfoss RAS-C2 Combi Radiator Thermostat</a> [pdf] Installation Guide</p> <p>RAS-C2, RA-FS, 013G6040, 013G6281, 013G6283, RAS-C2 Combi Radiator Thermostat, Combi Radiator Thermostat, Radiator Thermostat, Thermostat</p>
--	---

## References

- [User Manual](#)