



# Sensor

**FTC**

## Description

The flow temperature control (FTC) is used to regulate and maintain flow temperature for hydronic floor or radiator heating systems. The FTC is a self-acting thermostatic sensor that can be combined with underfloor heating mixing shunts (FHM-CX) and two-way valve body types RA-N and RA-C.

The water temperature is measured by a surface sensor, which is mounted directly on the pipe using a strip (included with the product). RA-click connection of the sensor element enables quick and secure connection to the valve without the need for tools.

## Features & benefits

- Regulate and maintain flow temperature
- Temperature setting scale with different temperature settings to cover all heat losses
- 15 – 50 °C settings and fits floor heating systems
- 35 – 70 °C settings and fits radiator systems
- 2-meter capillary tube
- RA-click connection
- Tool free installation

## Ordering

### Product code numbers

Sensor Type	Description	Setting range	Capillary tube Length	Code number
FTC	Flow temperature controller	35 – 70 °C	0 – 2 meter	013G5080
FTC	Flow temperature controller	15 – 50 °C	0 – 2 meter	013G5081

*Max ambient temperature 65°C*

Valve body	Connection	$k_{vs}$	Code number
RA-N 10, straight	G 3/8"	0.65 m <sup>3</sup> /h	013G0032
RA-N 15, straight	G 1/2"	0.90 m <sup>3</sup> /h	013G0034
RA-N 20, straight	G 3/4"	1.40 m <sup>3</sup> /h	013G0036
RA-C 15, straight	G 3/4"	1.20 m <sup>3</sup> /h	013G3094
RA-C 20, straight	G 1"	3.30 m <sup>3</sup> /h	013G3096
FHM-C1	G 1/2"	2.60 m <sup>3</sup> /h	088U0094

## Product details

### General data

Table: Technical specifications

FTC with valve body	$k_v$ m <sup>3</sup> /h* at a P-band of K				Max. pressure			Max. temperature	
	2	4	6	8	PN	$\Delta p$	Test	Flow	Ambient
RA-N 10	0.18	0.34	0.46	0.56	10 bar	0.6 bar	16 bar	120 °C	65 °C
RA-N 15	0.22	0.44	0.62	0.73					
RA-N 20	0.32	0.62	0.88	1.04					
RA-C 15	0.40	0.71	0.90	1.03					
RA-C 20	1.06	1.94	2.45	2.75					
FHM-C1	0.52	0.95	1.25	1.55				90 °C	

\*  $k_v$  - value stated at setting N. Xp between 2 K and 8 K.

### System requirements

#### System Principles

Figure: Floor heating system

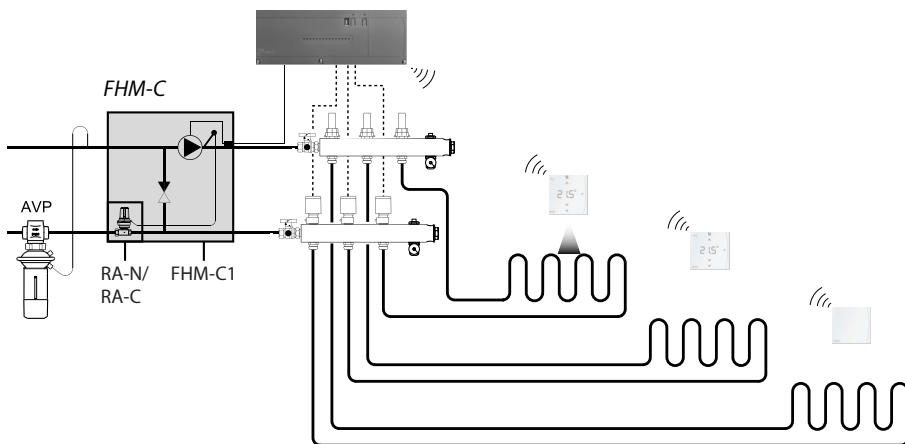
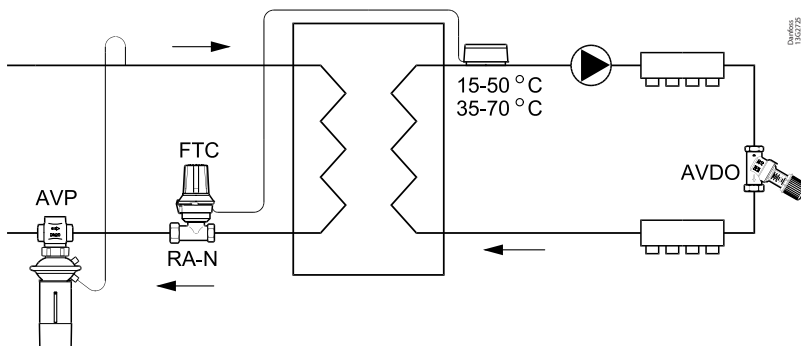
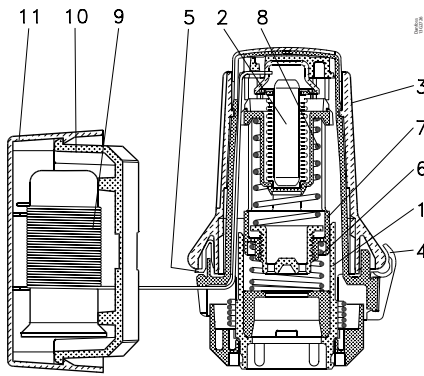


Figure: Heat exchanger in Radiator heating or Floor heating system



## Design

Figure: FTC



1. Socket
2. Bellows
3. Setting dial
4. Reference mark
5. Limiter
6. "Reset" spring
7. Spindle
8. Safety spring
9. Capillary tube
10. Console
11. Remote sensor housing

## Capacity

Capacity, FTC with RA-N

Figure: FTC sensor with RA-N 10 valve

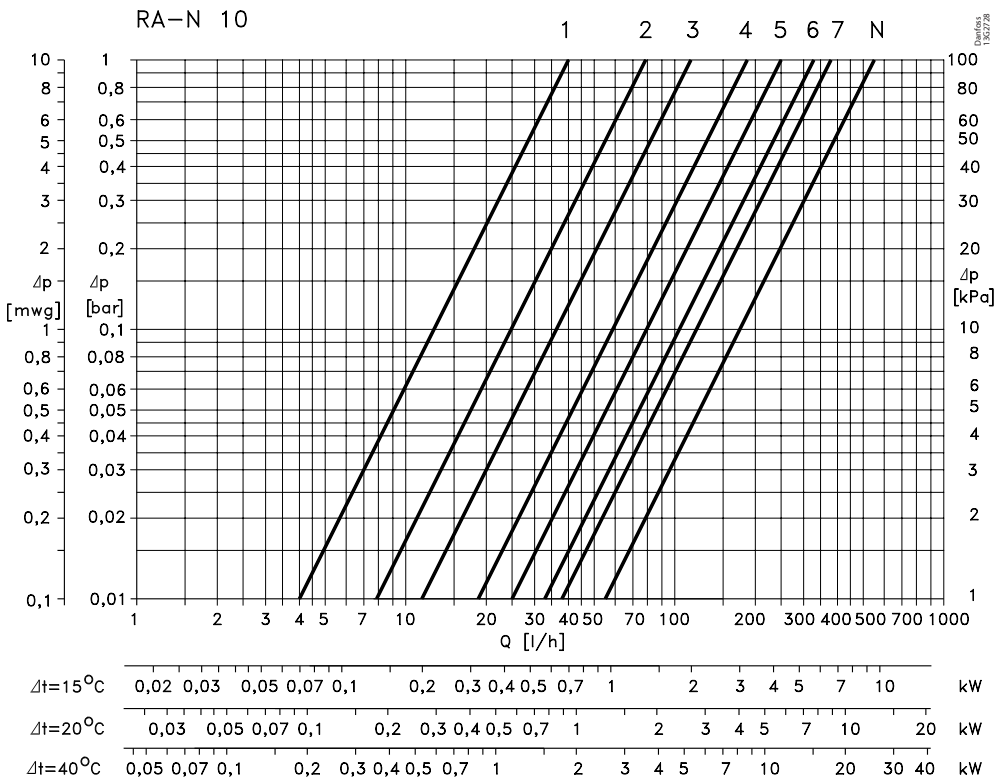




Figure: FTC sensor with RA-N 15 valve

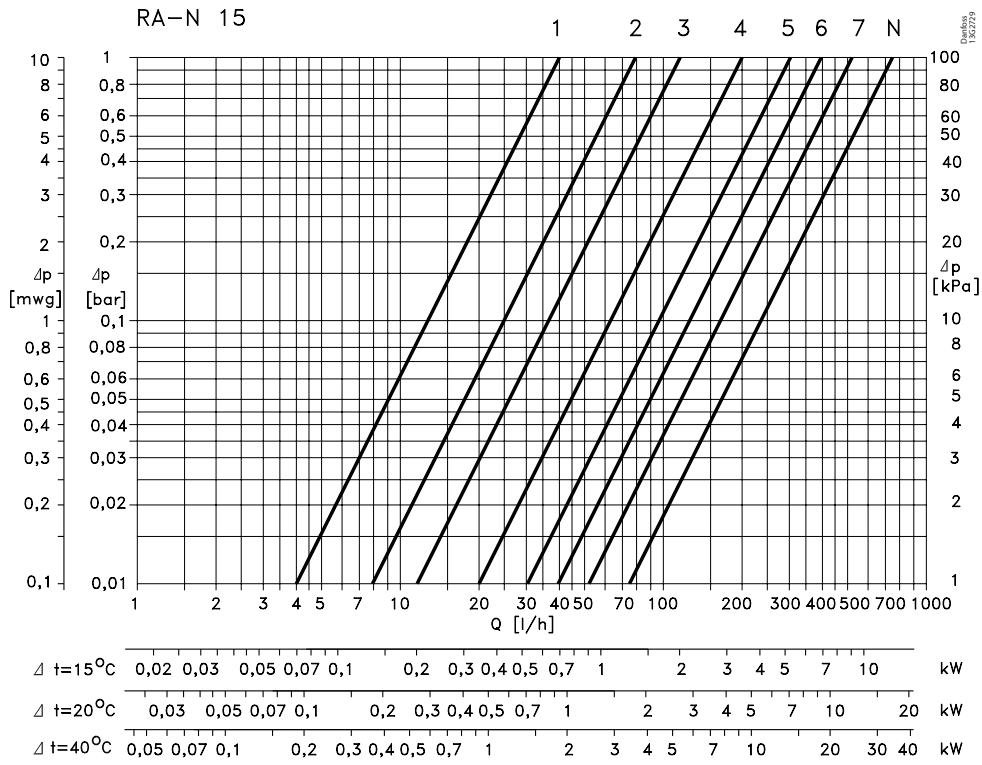
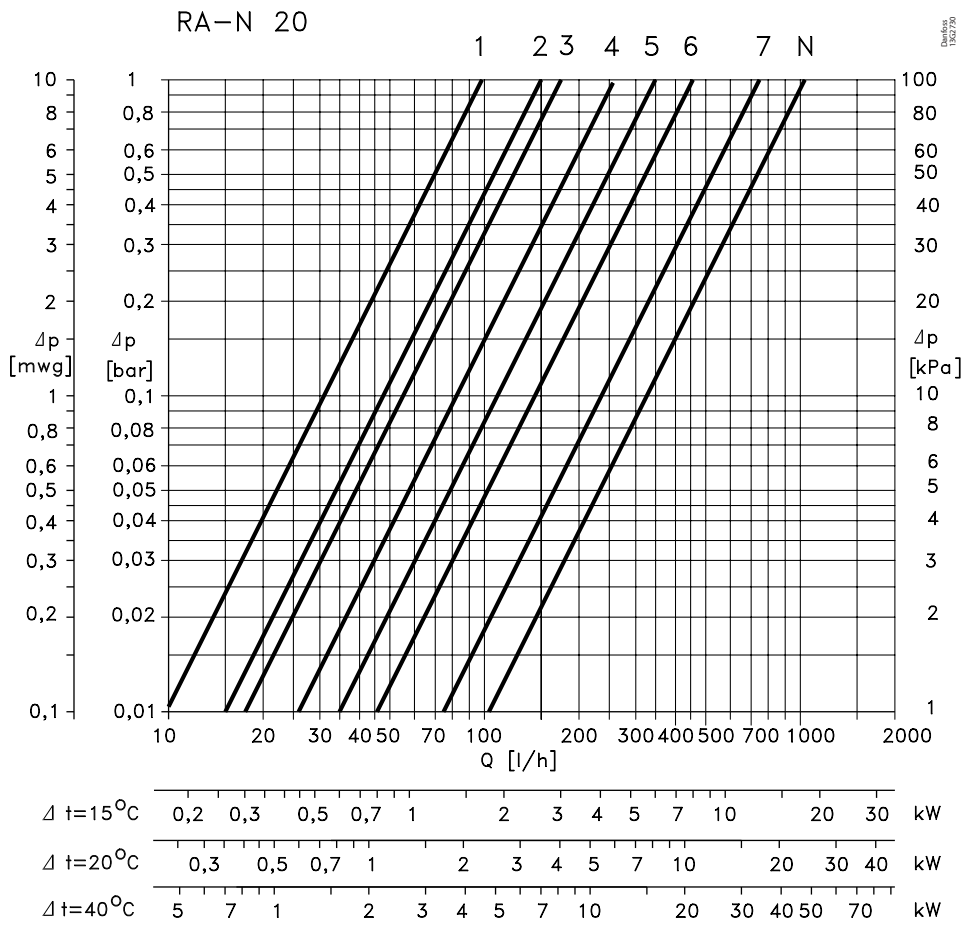
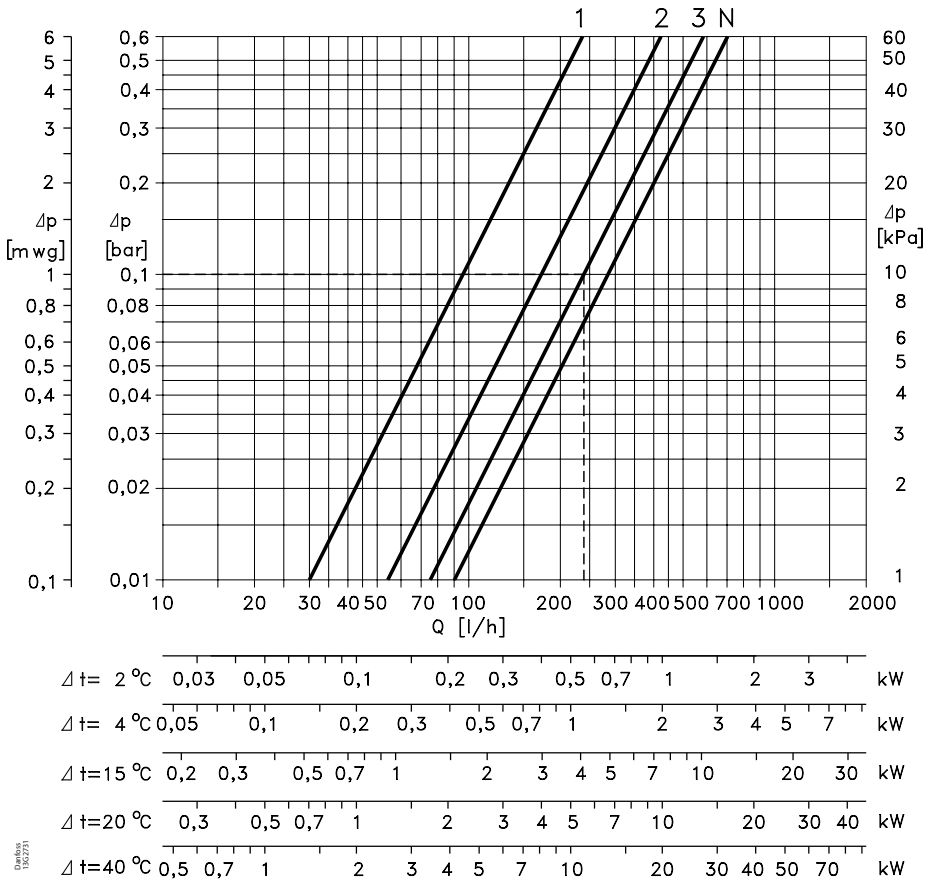


Figure: FTC sensor with RA-N 20 valve

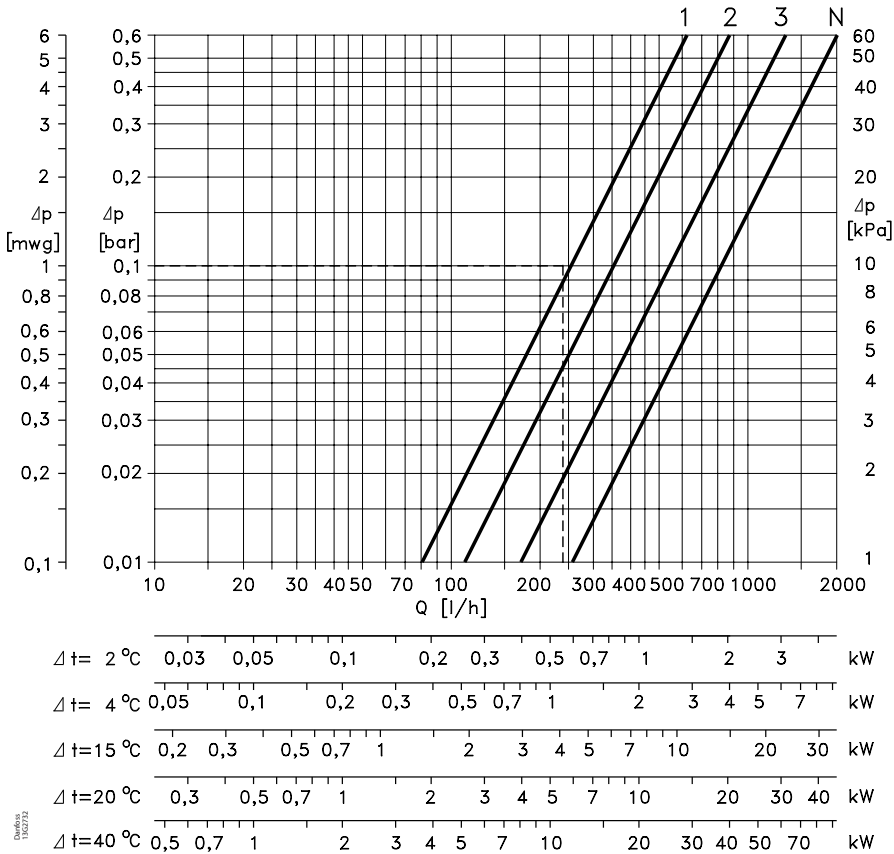


**Capacity, FTC with RA-C**

**Figure: FTC sensor with RA-C 15 valve**

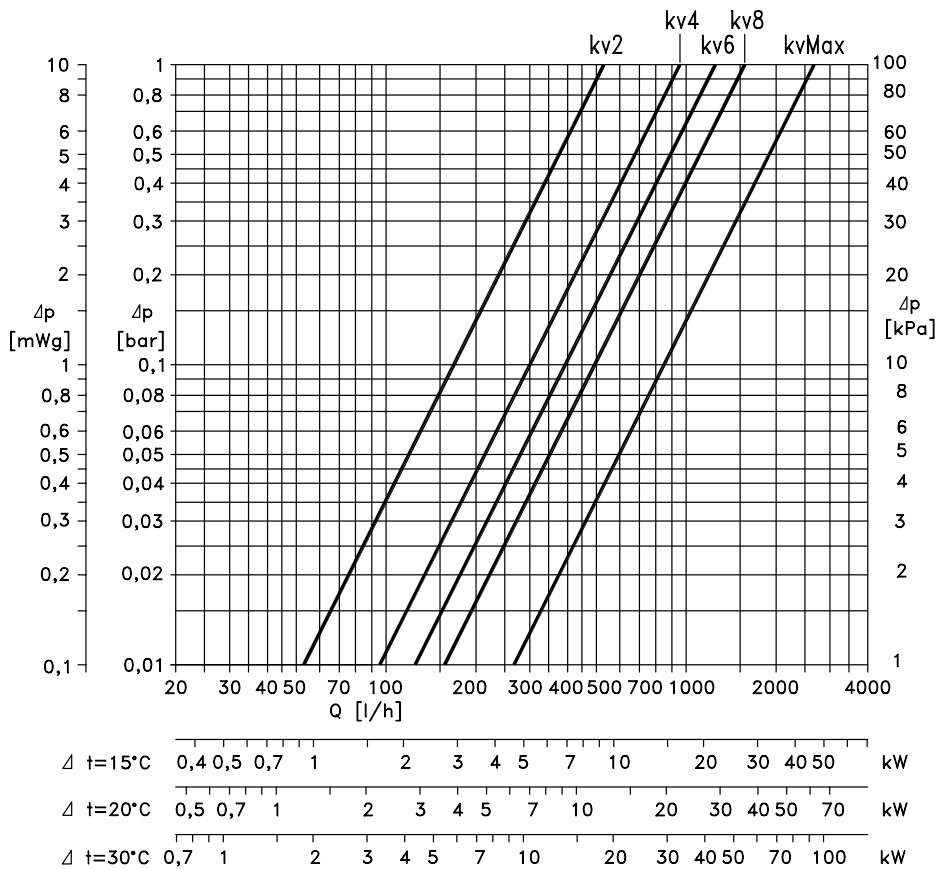


**Figure: FTC sensor with RA-C 20 valve**



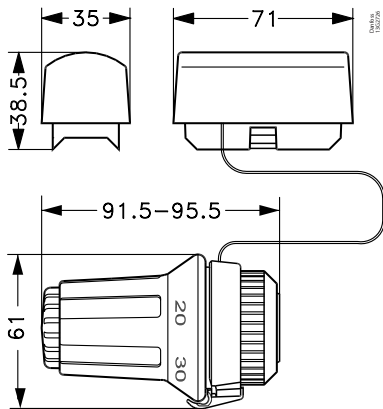
### Capacity, FTC with FHM-C1

Figure: FTC sensor with Floor heating mixing shunt FHM-C1



### Dimensions

Figure: FTC



All dimensions are in mm.

## Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Export Control Declaration	<a href="#">Mixing shunt</a>	Danfoss	

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