

Data Sheet

FHM-C1, FHM-C2

Mixing Shunts for Floor Heating

Application

Mixing shunt
FHM-C1Mixing shunt
FHM-C2

A self-acting proportional regulator is used to regulate the supply temperature. The regulator ensures that the desired supply temperature to the underfloor heating system always remains constant.

A built-in check valve ensures correct flow direction. An air-vent on top and a thermometer completes the mixing shunt. An optional thermostat protects the floor against too high temperatures.

FHM-C1, FHM-C2 are equipped with a low-energy, variable speed pump (Grundfos UPM3 Auto).

The FHM-C1 and FHM-C2 compact mixing shunts can be mounted directly to the Danfoss manifold system without the use of special equipment.

By using Danfoss floor heating controls all expectations of a professional floor heating system are fulfilled.

Should water treatment be used it is essential that dosing instructions of the manufacturer are strictly observed. It is recommended that formulations containing mineral oil are avoided.

The Danfoss compact mixing shunts are used for regulation of flow and supply temperature in hydronic floor heating systems.

The compact, flexible design allows mounting the mixing shunt directly to the manifold on both left and right side, with the primary pipe connection from the side or below.

Ordering

| Product | Max. effect at sec. $\Delta t = 5K$ | Max. effect at sec. $\Delta t = 10K$ ¹⁾ | Pump type, Grundfos | Code no. |
|----------------------|-------------------------------------|--|---------------------|-----------------|
| FHM-C1 | 7 kW | 15 kW | UPM3 Auto 15-70 | 088U0094 |
| FHM-C2 (without FTC) | 7 kW | 15 kW | UPM3 Auto 15-70 | 088U0092 |

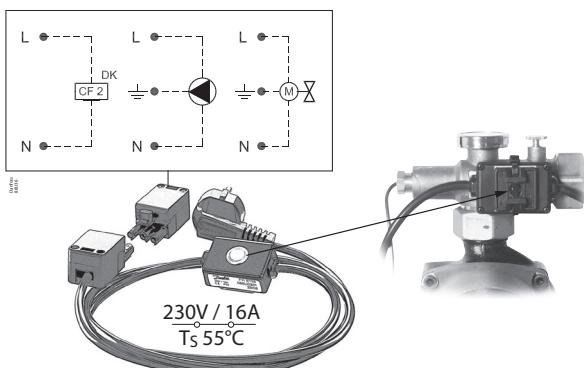
¹⁾ Max. effect at $\Delta t = 30K$ in primary (70/40) and $\Delta t = 5K$ (10K) in secondary line with heatloss 50 W/m².

Accessories

| Product | Type | Code no. |
|--|---------|-----------------|
| Thermometer 0 °C to 60 °C, Ø 35 mm | FHD-T | 088U0029 |
| Safety thermostat | FH-ST55 | 088U0301 |
| Temperature controller, 15 °C to 50 °C | FTC | 013G5081 |
| Angle fittings (set of 2 pcs.) | FHM-AF | 088U0305 |
| Insulation capsule for UPM3 pump | | 088U0075 |
| Replacement pump | UPM3 | 088U0860 |

Technical specifications

| | |
|---|---|
| Supply voltage | 230 V AC |
| Primary connection | 1/2" (DN15) |
| Max. differential pressure with Danfoss Floor Heating manifolds | 0,6 bar |
| Max. working pressure | PN10 |
| Max. flow temperature | 90 °C |
| FTC flow temperature control | 18 °C to 50 °C |
| FH-DT supply flow thermometer | 0 °C to 60 °C |
| Integrated check valve | POM / Stainless steel |
| Body, unions and other metal parts | Brass / Stainless steel |
| O-rings and seals | EPDM |
| Weight | approx. 3,5 kg to 4 kg (depending on model) |

**FH-ST55
Safety thermostat**

Electrical connection

The FH-ST safety thermostat is fixed on the tube and protects floor and system against too high temperatures, especially important for wooden floors. The FH-ST thermostat switches off the power supply of the floor heating base unit, when the temperature reaches 55 °C.

By switching off the power supply of the floor heating base unit, the actuators (NC) will close

automatically and the floor heating system is protected.

The FH-ST55 can also be connected to a pump or a zone valve.

Note! The electrical installation must be carried out by an authorized installer only (230 V DC).

| | |
|----------------------|-----------------|
| Code no. | 088U0301 |
| Shut-off temperature | 55 °C |
| Switch difference | 4 K |
| Classification | IP 40 (mounted) |

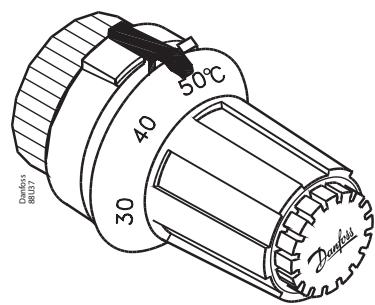
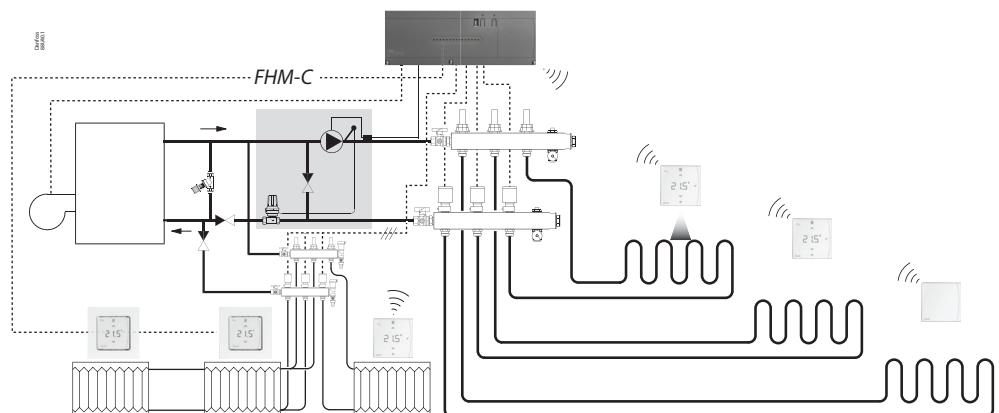
**FTC
Temperature controller**

FTC is a self-acting thermostatic sensor used for flow temperature control of floor heating.

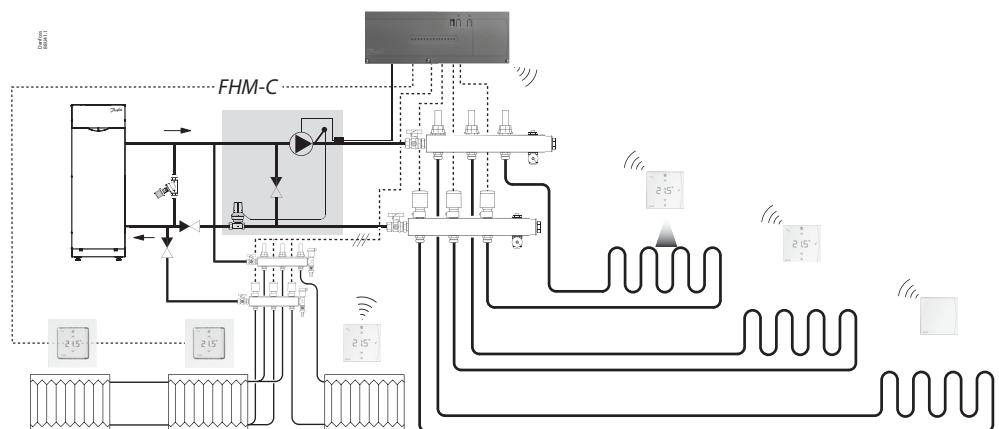
The water temperature is measured by a surface sensor. The snap-lock connector of the sensor element secures a firm connection to the valve.

Features:

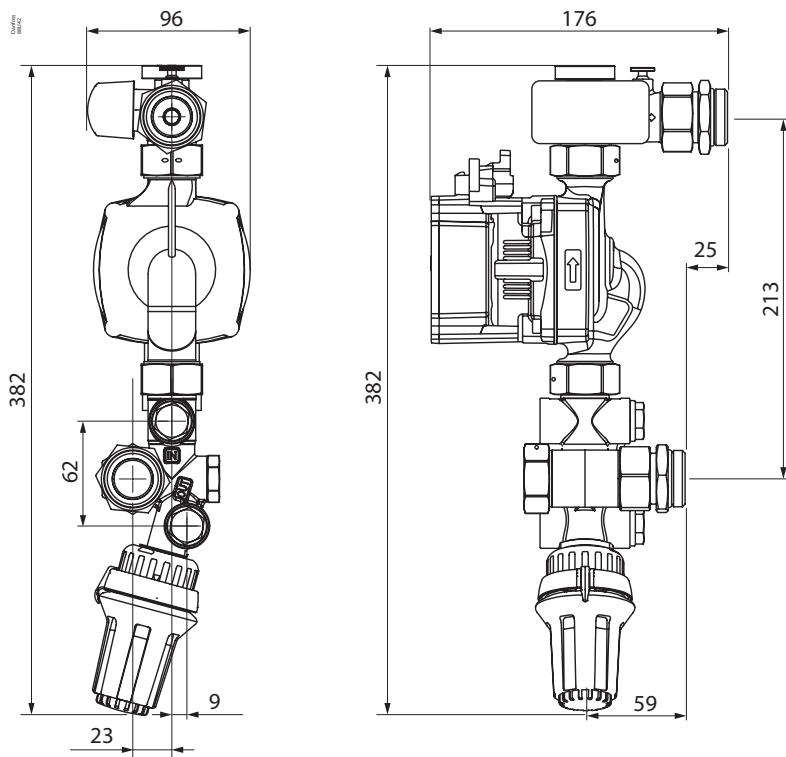
- Closes on rising sensor temperature.
- Temperature range: 15 °C to 50 °C


System


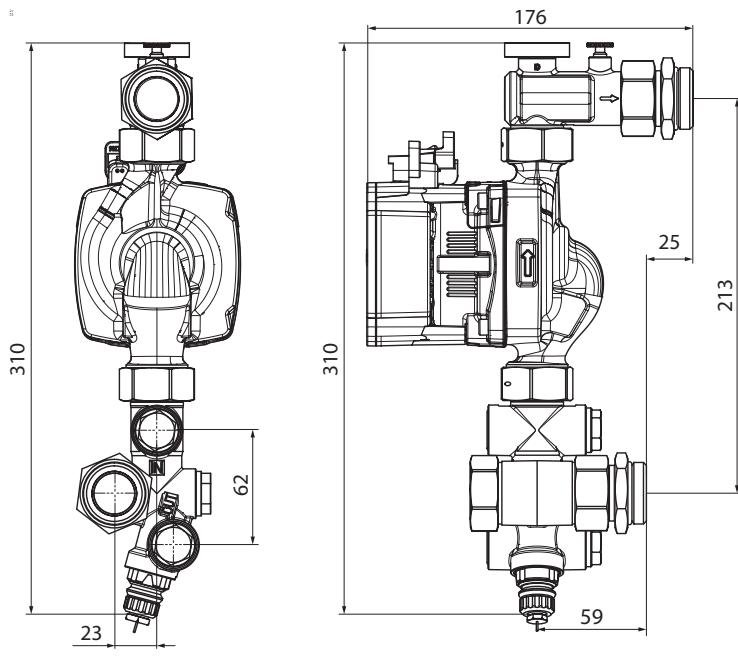
Combined floor heating system with boiler



Combined floor heating system with heat pump

Dimensions

FHM-C1



FHM-C2

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