

# Datasheet

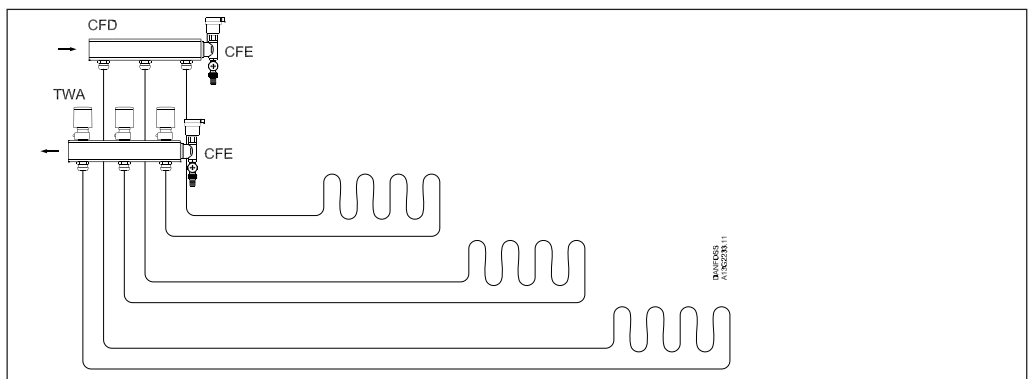
## Floor Heating manifold CFD

### Application

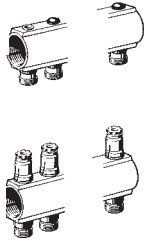
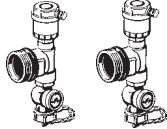


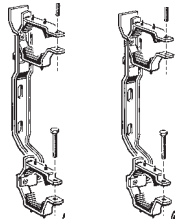



Manifold CFD is used for heat regulation in floor heating systems. CFD consists of a 5/4" manifold for flow and return, with the option of connecting up to twelve floor heating circuits. Components can be connected in series via unions. The flow is set individually for each floor heating circuit. Thermostatic valve inserts are integrated in the return manifold, which can be controlled electronically by means of thermal actuators or act as a self-acting unit by means of a remote temperature adjusters. The end sections, CFE, has an integrated automatic air-vent valve and a drain-off function.

### Layout principle

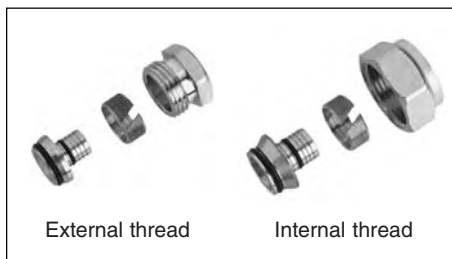


### Ordering

	Description	Type	Code no.
	Manifold 1 set	CFD 3+3 CFD 4+4 CFD 5+5 CFD 6+6 CFD 7+7 CFD 8+8 CFD 9+9 CFD 10+10 CFD 11+11 CFD 12+12	088H1003 088H1004 088H1005 088H1006 088H1007 088H1008 088H1009 088H1010 088H1011 088H1012
	End section 2 pcs.	CFE	088H1020
	Union 2 pcs.		088H1021
	Reduction piece, 2 pcs.	1 1/4 x 3/4" 1 1/4 x 1"	088H1034 088H1044
	Bracket 2 pcs		088H1022
	Thermo-actuator	TWA-NC 230 TWA-NC 24	Please refer to separate datasheet

**Compression fittings for PEX plastic tubing**

**Application**



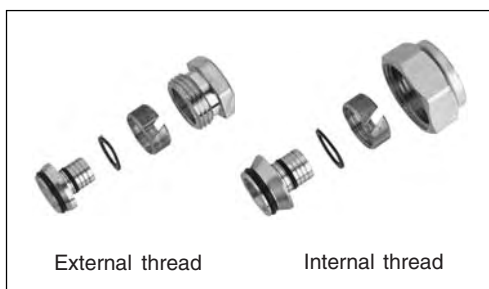
Compression fittings are for connecting Danfoss valves to circuits in heating systems only. Compression fittings are used for connecting PEX plastic tubings in accordance with DIN 16892/16893. Maximum operating pressure and temperature are given by the tubing manufacturer. However, 10 bar and 95°C must not be exceeded. One set consists of one olive, one supporting bush and one union nut.

**Ordering**

Compression fitting connection	Tube dimension	Code no.	Max. work-ing press.	Test pressure	Max. flow temp.	For:
G 3/4", internal thread	12x2 mm	013G4152	10 bar	16 bar	95°C	Couplings Single entry valves, Manifold CFD, RLV-K
	13x2 mm	013G4153				
	14x2 mm	013G4154				
	15x2.5 mm	013G4155				
	16x1.5 mm	013G4157				
	16x2 mm	013G4156				
	16x2.2 mm	013G4163				
	17x2 mm	013G4162				
	18x2 mm	013G4158				
	18x2.5 mm	013G4159				
	20x2 mm	013G4160				
20x2.5 mm	013G4161					

**Compression fittings for Alupex tubing**

**Application**



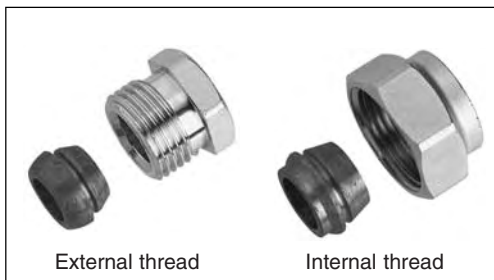
Compression fittings are for connecting Danfoss valves to circuits in heating systems only. When connecting circuits with compression fittings for Alupex tubing, always observe the maximum operating pressure and temperature which are given by the tubing manufacturer. However, 10 bar and 95°C must not be exceeded. One set consists of one olive, one supporting bush, one insulation washer and one union nut.

**Ordering**

Compression fitting connection	Tube dimension	Code no.	Max. work-ing press.	Test pressure	Max. flow temp.	For:
G 3/4", internal thread	12x2 mm	<b>013G4182</b>	10 bar	16 bar	95°C	Couplings, Single entry valves, Manifold CFD, RLV-K
	14x2 mm	<b>013G4184</b>				
	15x2.5 mm	<b>013G4185</b>				
	16x2 mm	<b>013G4186</b>				
	16x2.25 mm	<b>013G4187</b>				
	18x2 mm	<b>013G4188</b>				
	20x2 mm	<b>013G4190</b>				
	20x2.5 mm	<b>013G4191</b>				

**Compression fittings for steel and copper tubing**

**Application**



Compression fittings are for connecting Danfoss valves to circuits in heating systems only. Compression fittings are used for connecting steel and copper pipes in accordance with DIN 1786/2391.

One set consists of one olive and one union nut. It is recommended to use supporting bushes with soft pipes.

**Ordering**

Connection	Tube dimension	Code no.	Max. working press.	Test press.	Max. flow temp.	For:
G 3/4", internal thread	10 mm	013G4120	10 bar	16 bar	120°C	Single entry valves, Couplings, RLV-K, Manifold CFD
	12 mm	013G4122				
	14 mm	013G4124				
	15 mm	013G4125				
	16 mm	013G4126				
	18 mm	013G4128				

**Capacity**

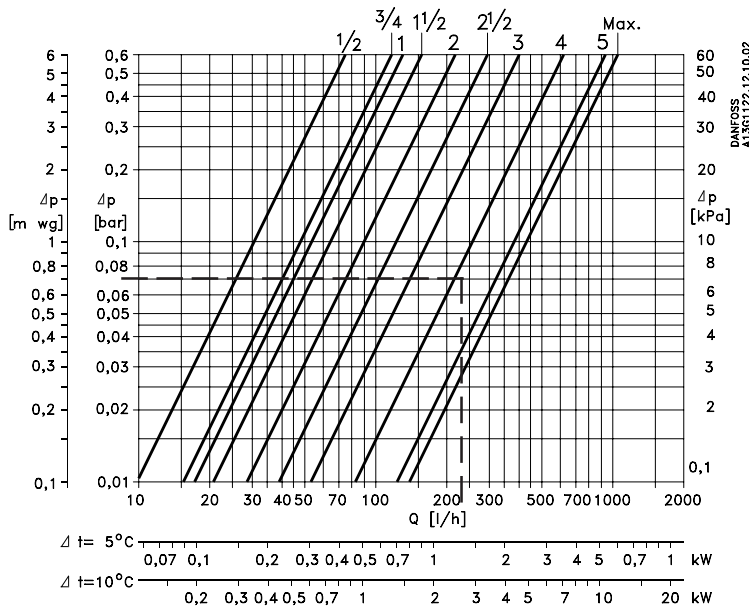
Example calculated for one heating circle:

- Room 25 m<sup>2</sup>
  - DT = 5°C
- Vater volumen for heating requirement of 50 Watts/m<sup>2</sup>

$$Q = \frac{\text{Het.requirem.} \times \text{m}^2}{\text{DT} \times \text{conversion factor}}$$

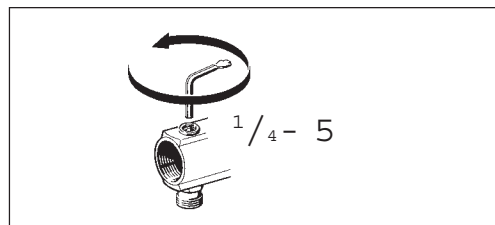
$$\frac{50 \times 25}{5 \times 1,16} = 215 \text{ l/h}$$

For 215 l/h and 8 kPa across the floor heating circuit, a setting = 4 turns is obtained.

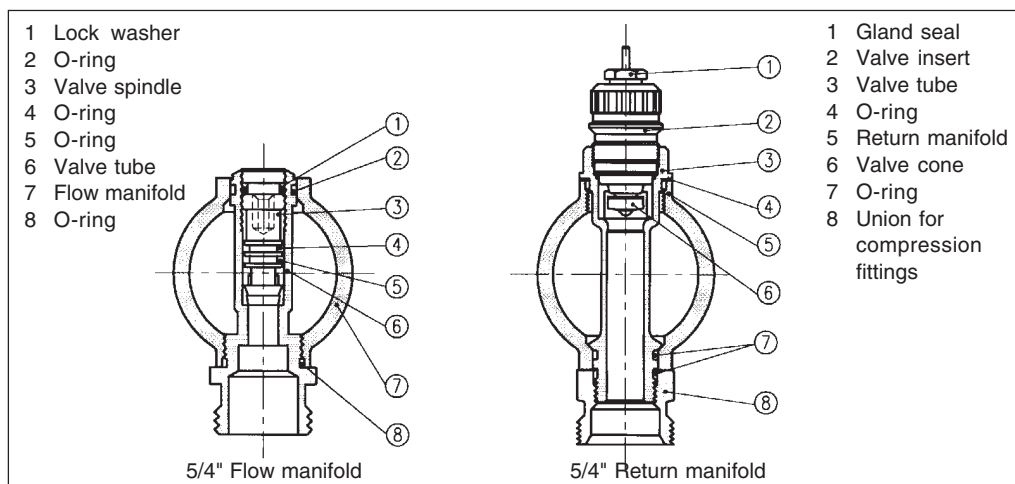


The diagram shows the capacities of each heating circuit for different settings of the flow manifold.

The figures 1/2-3/4 etc. above the diagram indicate how many turns of the key are required to obtain the correct water volume (count from closed position onwards).



Design



Materials in contact with water

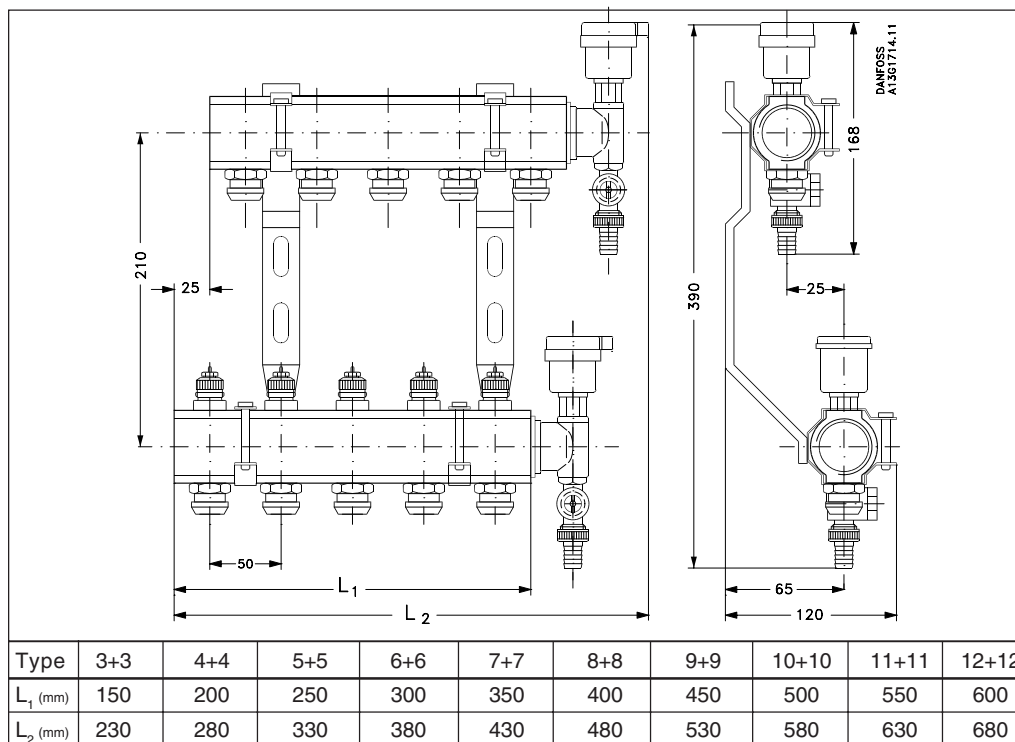
Manifolds, valves, unions	Ms 63/58
O-rings	NBR
Valve cone	NBR
Air vent	Ms 58/ NBR/PP

Operation conditions

Max. differential pressure	0.6 bar
Max. working pressure	10 bar <sup>1)</sup>
Max. flow temperature	90°C <sup>1)</sup>

<sup>1)</sup> Max. working pressure and flow temperature in accordance with tube supplier guidelines. However, the 10 bar and 90°C values are not to be exceeded.

Dimensions



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