

VEXVE



Termomat Solar

Installation and Operating Instructions

Termomat Solar transfers heat from solar collectors to a storage tank.

The solar heat control unit consists of the following components:

1. Flow meter, 8 l/min, for pipe size Cu 22.
2. Connection block.
3. Manometer. 16 bar.
4. Return valve. Hose connection R ½".
5. Safety valve. Pipe Cu 22. Opening pressure 6 bar.
6. Combined main valve with filter and backflow preventer.
7. Filling valve. Hose connection R ½".
8. Circulator, UPS 25-60 130.
9. Ball valve for pipe size Cu 22.
10. Electronic differential temperature control TM4 with digital display for three temperatures.
11. T1. Upper sensor for storage tank. L = 3 m. Sensor housing G ½" L = 150 mm.
12. T2. Lower sensor for storage tank. L = 5 m. Sensor housing G ½" L = 150 mm.
13. T3. Sensor for solar collector. L = 20 m. Sensor housing G ½" L = 90 mm.

Mounting Instructions

- The TERMOMAT SOLAR solar heating control unit should be fitted at an appropriate height, so that the unit and its digital display are easy to use.
- Hold the compression fittings securely when tightening them to avoid a loose connection.
- The electronic solar heating automation unit TM4 has three sensors and three sensor pockets (see separate TM4 operating instructions).
- Monopropylene glycol is recommended as collector fluid (17) to prevent rusting and corrosion of components and threads.
- Choose Expansion tank big enough for the system

Legend

Number	Component	Pcs
1	Cu 22 mm INPU	1
2	Cu 22 mm OUTPU	2
3	Termomat 4	1
4	Manometer, max. 16 bar	1
5	Flow meter, 2-8 l/min	1
6	Circulator v	1
8	Safety valve, 6 bar	1
9	Overflow pipe, 15 mm	1
10	Main valve	1
11	Stop valve	1
12	Filling valve	1
13	Return valve	1
14	Filter	1
15	Casing mounting screw M4	6
16	Mounting hole	1
17	Collector fluid container (see Fig. 2)	

Start-up

Filling the system

For optimal results, install an airing valve (19) at the highest point of the system.

1. Ensure the stop valve (11) of the pump is open.
2. Unscrew the cover of the filling valve (12). Connect the filling hose (not included) of the pump (18) to the filling valve (12). Open the valve (12).
3. Unscrew the cover of the return valve (13). Attach the return hose (not included) to the valve (13). Open the valve (13).
4. Close the main valve (10).
5. Immerse the filling and return hoses in the collector fluid container (17).
6. Use the filling pump (18) to pump at least one litre of collector fluid into the system. Start the circulator (6) according to the TM4 instructions. The pump must not run dry.
7. When collector fluid begins to flow out of the return hose, let it circulate in the system and bleed all air from the system. It is important to fill the system completely. If parallel solar collectors are used, stop valves should be installed in the system. Install the stop valves in such a way that only one route is open at a time.
8. Close the return valve (13) after bleeding the system. Open the main valve (10), so that fluid begins to circulate in the system. Let it circulate for a moment and close the main valve (10) again. Open the return valve (13), keeping it open for a couple of minutes, so that any air in the main valve can escape. Then, close the return valve (13).
9. Open the main valve (10). Monitor the flow meter (5) and ensure the system is working. If this is not the case, bleed the system more thoroughly by opening the airing valve (19) located at the highest point of the system.
10. To prevent the fluid from boiling in the summer, the filling pressure must be at least 3.5 bar. The system should be started early in the morning, late in the evening, or in cloudy weather. The temperature of the system must be below 30°C. You can increase the pressure of the system by using the filling pump (18). When the correct pressure has been reached, close the filling valve (12).
11. The system must have a static pressure of at least 3 bar, as indicated by the manometer (4). The fluid must circulate in the system, which can be verified from the flow meter (5). The flow meter (5) must be in the fully-open position. The flow must be at least 4.0 l/min.
12. The system can be stopped by switching off the power. Let the system stand for 15 minutes. Start the system by switching the power on. If the fluid does not circulate (i.e. flow = 0), the system is likely to contain air. Bleed the system according to steps 1 to 11. After bleeding the system, the static pressure must be restored to 3.5 bar with the filling pump (18). Check the value from the manometer (4).
13. The system cannot be over-pressurised during the filling stage. The system's safety valve (8) opens at 6 bar and lets out some collector fluid through the copper pipe of the safety valve (9).
14. When the system is working correctly, disconnect the hoses and screw back the front cover.

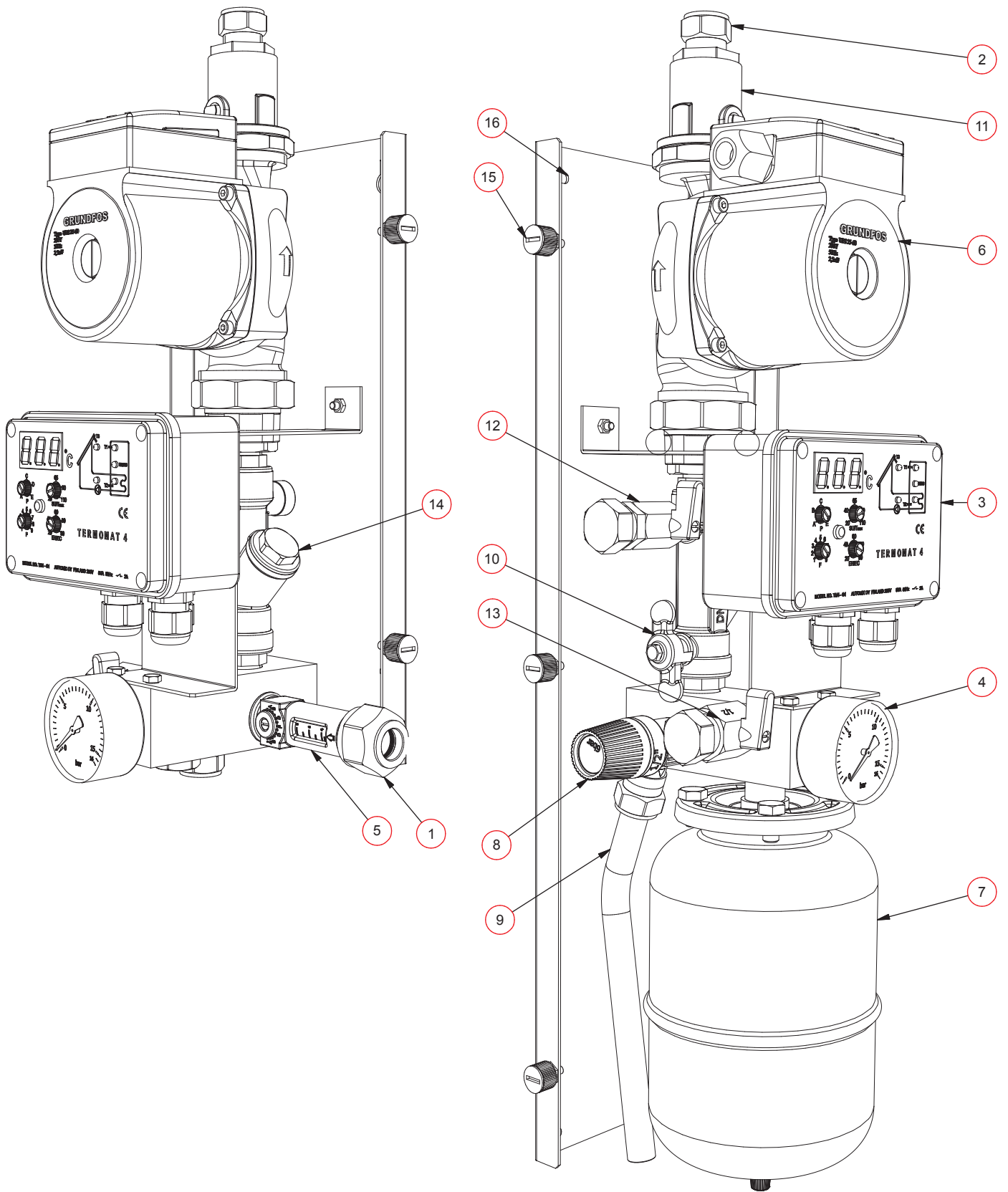
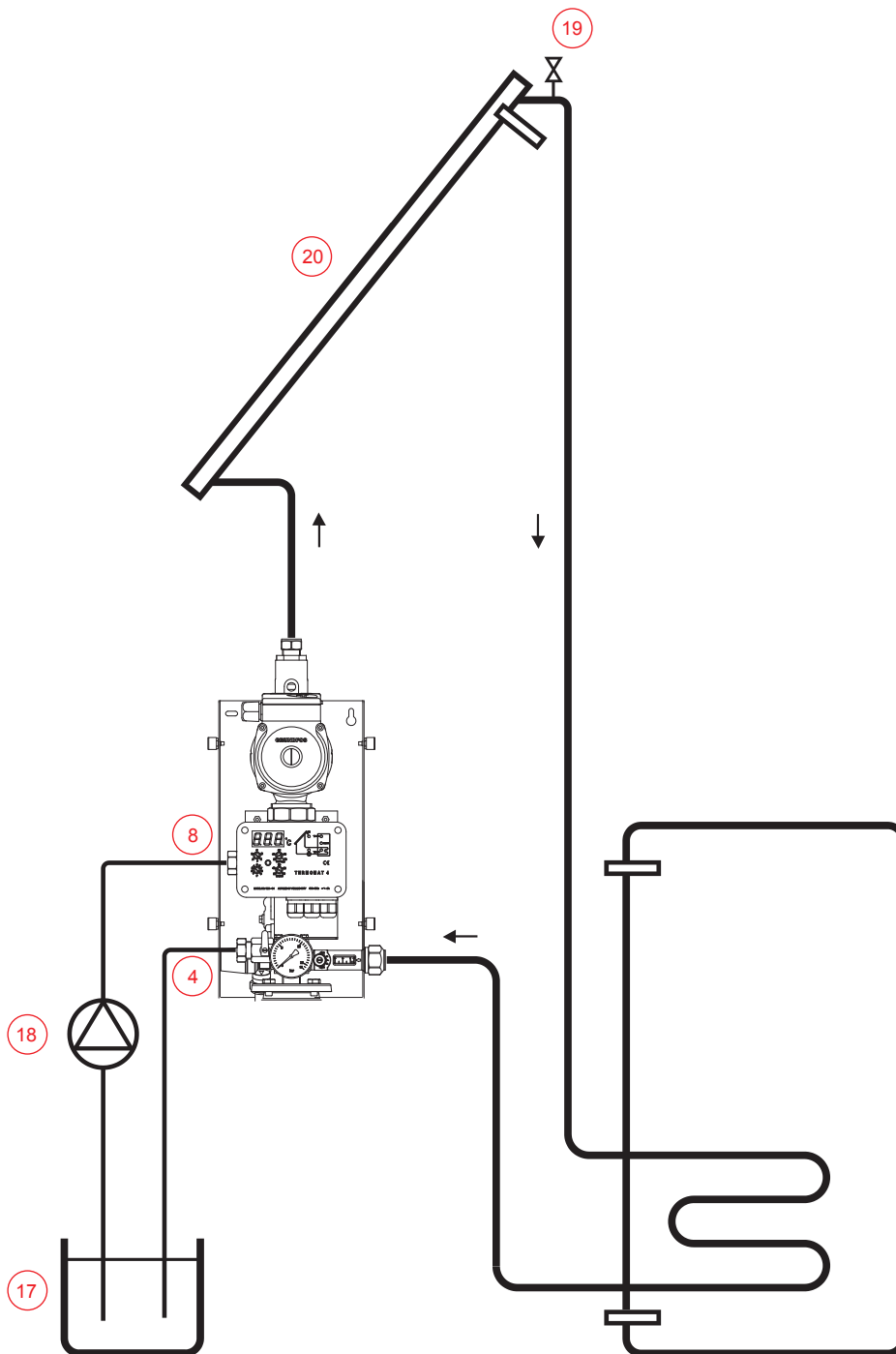


Image 1



© Šfj

05/2011

VEXVE

Pajakatu 11
38200 Sastamala

Puh. 010 7340 700
Fax. 018 44 52 316

vexve.controls@vexve.fi
www.vexve.fi ©