

Fact sheet

Termix VMTD-F-I-FI

Direct substation for flats and single family houses



Application

The Termix VMTD-F-I-FI is a complete solution with a built-in water heater and a differential pressure controlled heating system. Termix VMTD-F-I-FI is applicable for single family houses and for decentralized systems.

District heating (DH)

The substation is prefabricated with a differential pressure controller, a fitting piece and a sensor pocket for insertion of a heat meter as well as strainer and ball valves. The display of the heat meter is to be mounted next to the station.

Heating (HE)

The heating circuit is designed for direct generation of heat. The differential pressure controller sets the optimum operation conditions for radiator thermostatic valves enabling individual temperature control in each room. In order to enable a time-depending temperature control program, a zone valve with actuator and a room thermostat can be included as an option.

Domestic hot water (DHW)

The domestic hot water is prepared in the heat exchanger and the temperature is regulated with a flow-compensated temperature controller with integrated dif-

ferential pressure controller. The DH water is cooled very efficiently by the heat exchanger, thereby creating an excellent operating economy. The Danfoss IHPT valve ensures a stable domestic hot water temperature by varying loads, varying supply temperatures and by high and varying differential pressure without the need for re-adjusting the valve. This protects the heat exchanger against overheating and lime scale formation. Furthermore the IHPT valve has an integrated idle temperature controller, which keeps the house supply line warm. This shortens the waiting periods during summer when the heating system is in reduced operation, which is ideal where high comfort is requested.

Options

The Termix VMTD-F-I-FI can be supplied with built-in non-return valve and a safety valve mounted in the cold water supply. It can also be supplied with a connection for circulation (to be mounted underneath the station).

Construction

All pipes are made of stainless steel. The connections are made by nuts and gaskets.

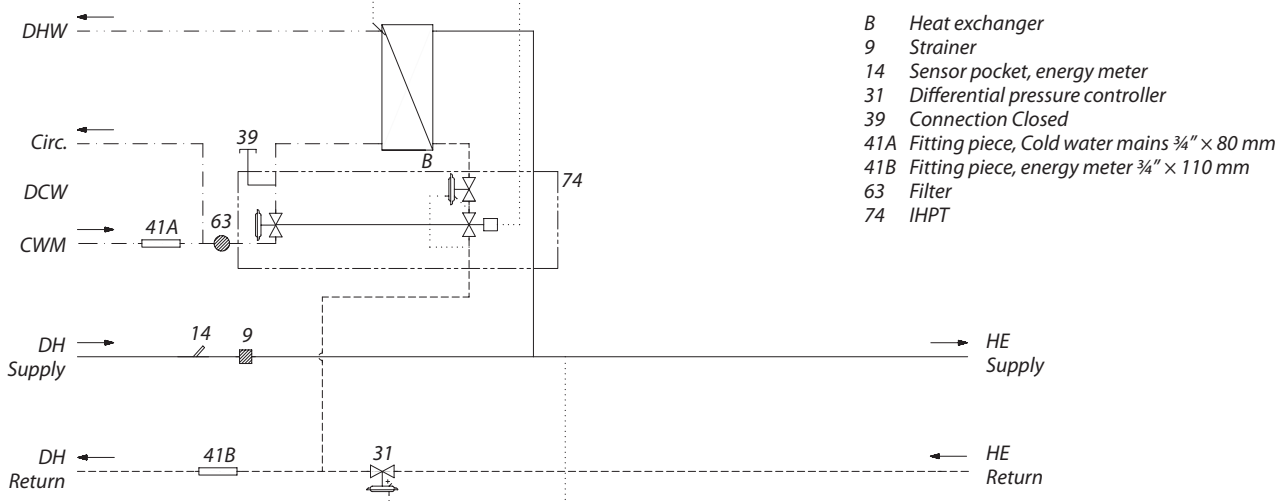
Insulation

The Termix VMTD-F-I-FI comes complete with a fully insulated cover thus minimizing the heat loss both during tapping of domestic hot water but also when only space heating is required.

FEATURES AND BENEFITS

- Substation for DH and decentralized systems
- Direct heating with differential pressure controller
- DHW flow-compensated temperature controller
- Capacity: 33 – 59 kW for DHW, 15 – 19 kW for HE
- DHW in sufficient quantity
- Operates independently of differential pressure and flow temperature
- Minimum space required for installation
- Pipes and plate heat exchanger made of stainless steel
- Minimized risk of lime scale and bacteria formation
- Optimum temperature regulation up to DH supply temperature 100 °C
- Low heat loss

CIRCUIT DIAGRAM - EXAMPLE



Technical parameters:

Nominal pressure: PN 16
 DH supply temperature: $T_{max} = 120$ °C
 DCW static pressure: $p_{min} = 1$ bar
 Brazing material (HEX): Copper

Weight incl. insulation: 20 kg
 (incl. packing)

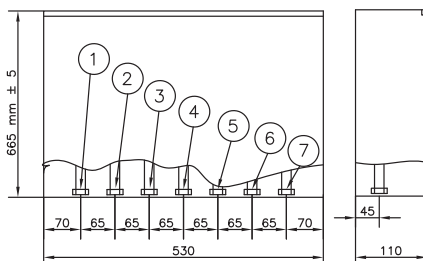
Insulation cover: Anthracite grey
 EPP

Dimensions (mm):

With insulation (mounted on wall variant)
 H 800 × W 540 × D 242 mm
 Without cover:
 H 745 × W 528 × D 110 mm

Connections:

- 1 District heating (DH) supply
- 2 District heating (DH) return
- 3 Cold water mains (CWM)
- 4 Domestic cold water (DCW)
- 5 Domestic hot water (DHW)
- 6 Heating (HE) supply
- 7 Heating (HE) return



Connections sizes:

DH + HE: G $\frac{3}{4}"$ (int. thread)
 DCW + DHW: G $\frac{3}{4}"$ (int. thread)

Options:

- Mounting rail with ball valves
- Safety valve and non-return valve (10 bar)
- Thermostatic circulation set
- Pressure compensation valve (GTU)
- Room thermostat
- Zone valve with actuator
- Connection for hot water circulation
- Hot water circulation pump (mounted outside the unit)
- Thermometer
- Ball valves

DHW: CAPACITY EXAMPLES

Substation type	DHW Capacity kW	Supply flow Primary °C	Return flow primary °C	DHW °C	Pressure loss Primary kPa*	DHW Tap load l/min
VMTD-F-I-FI-1	32,3	60	19	10/45	22	13,3
	40,3	60	20	10/45	32	16,6
	36,5	70	18	10/50	20	13,2
	55,0	70	21	10/50	39	19,8
VMTD-F-I-FI-2	32,3	55	19	10/45	22	13,3
	38,0	55	20	10/45	30	15,7
	32,3	60	16	10/45	18	13,3
	47,0	60	18	10/45	32	19,4
	39,5	70	16	10/50	20	14,3
	59,0	70	19	10/50	33	21,3

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