

Fact sheet

# Termix VMTD-F-I

Direct substation for flats and single family houses



## Application

The Termix VMTD-F-I is a complete solution with built-in water heater and a differential pressure controlled heating system. Termix VMTD-F-I 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 sensor pockets for insertion of a heat meter as well as strainer and ball valves.

## Heating (HE)

The heating circuit is designed for direct generation of heat. The differential pressure control sets the optimum operation conditions for radiator thermostatic valves in order to enable individual temperature control in each room. In order to enable a time-dependent 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 differential pressure controller. The heat exchanger cools out the DH water very efficiently, thereby creating an excellent operating economy. The Danfoss IHPT valve ensures a stable hot water temperature by varying loads, supply temperatures and by high and varying differential pressure without the need for readjusting 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 can be supplied with built-in non-return valve and safety valve mounted in the cold water supply. It can also be supplied with a thermostatic circulation valve and built in circulation pump.

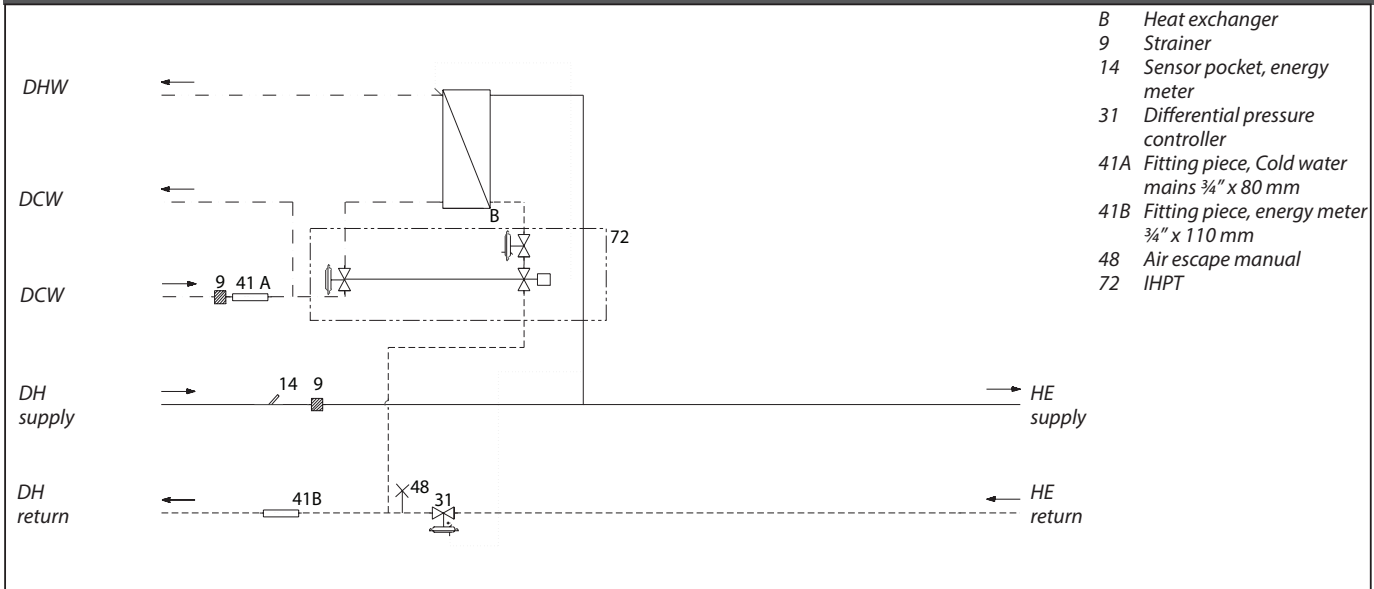
## Construction

All pipes are made of stainless steel. The connections are made by nuts and gaskets. The Termix VMTD-F-I can be delivered with white-lacquered steel cover in modern design.

## FEATURES AND BENEFITS

- Substation for DH and decentralized systems
- Direct heating with differential pressure controller
- DHW flow-compensated temperature controller
- Capacity: 33 - 55 kW for DHW
- 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

CIRCUIT DIAGRAM - EXAMPLE



**Technical parameters:**

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

**Weight incl. cover:** 20 kg (incl. packing)

**Cover:** White-lacquered steel sheet

**Dimensions (mm):**

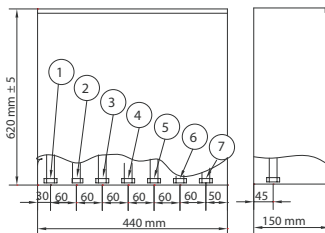
Without cover (including ball valves)  
 H 620 x W 440 x D 150  
 With cover (built-in wall variant)  
 H 810 x W 610 x D 150  
 With cover (mounted on wall variant)  
 H 650 x W 540 x D 190

**Connections:**

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

**Options:**

- Mounting rail with ball valves
- White-lacquered stainless steel cover (built in)
- White-lacquered stainless steel cover (on the wall)
- Safety valve and non-return valve (10 bar)
- Safety valve with thermostatic circulation set
- Thermostatic circulation set
- Pressure compensation valve (GTU)
- Room thermostat
- Zone valve with actuator
- Return temperature limiter
- Connection for circulation
- Circulation pump
- Thermometer
- Ball valves



DHW: CAPACITY EXAMPLES, 10 °C / 50 °C

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-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	70	21	10/50	39	19,8
VMTD-F-I-2	32,3	55	19	10/45	22	13,3
	38	55	20	10/45	30	15,7
	32,3	60	16	10/45	18	13,3
	47	60	18	10/45	32	19,4
	39,5	70	16	10/50	20	14,3
	59	70	19	10/50	33	21,3

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