

Fact sheet

# Termix VMTD-MIX-IE

Direct heating substation for direct heating with mixing loop and instantaneous domestic hot water with flow compensated temperature controller.



## Application

The Termix VMTD MIX - IE is a complete solution with built - in water heater and heating system with differential pressure control and mixing loop. The Termix VMTD MIX - IE is applicable for single - family houses and for decentralized systems in multi - family houses.

## District heating (DH)

The substation is prefabricated with a differential pressure controller, fitting piece and sensor pockets for insertion of a heat meter as well as strainer and ball valves. Furthermore the substation is delivered with a weather compensated mixing loop including pump, controls and non - return valve.

## Heating (HE)

The heating circuit is designed for direct connection. The weather compensated mixing loop creates a suitable temperature level e.g. for underfloor heating and ensures optimum control and monitoring of the heating system. Regardless of the weather outside, the heating system is continuously adjusted according to the selected parameters, thus preventing overconsumption.

## Domestic hot water (DHW)

The domestic hot water is prepared in the heat exchanger and the temperature is regulated with a thermostatic and flow-compensated controller with integrated differential pressure controller. The heat exchanger offers superb heat extraction of the DH water, thereby creating an excellent operating economy. The Danfoss IHPT valve insures 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 substation can be supplied with a built-in non - return valve and safety valve fitted in the cold water supply.

## Insulation

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

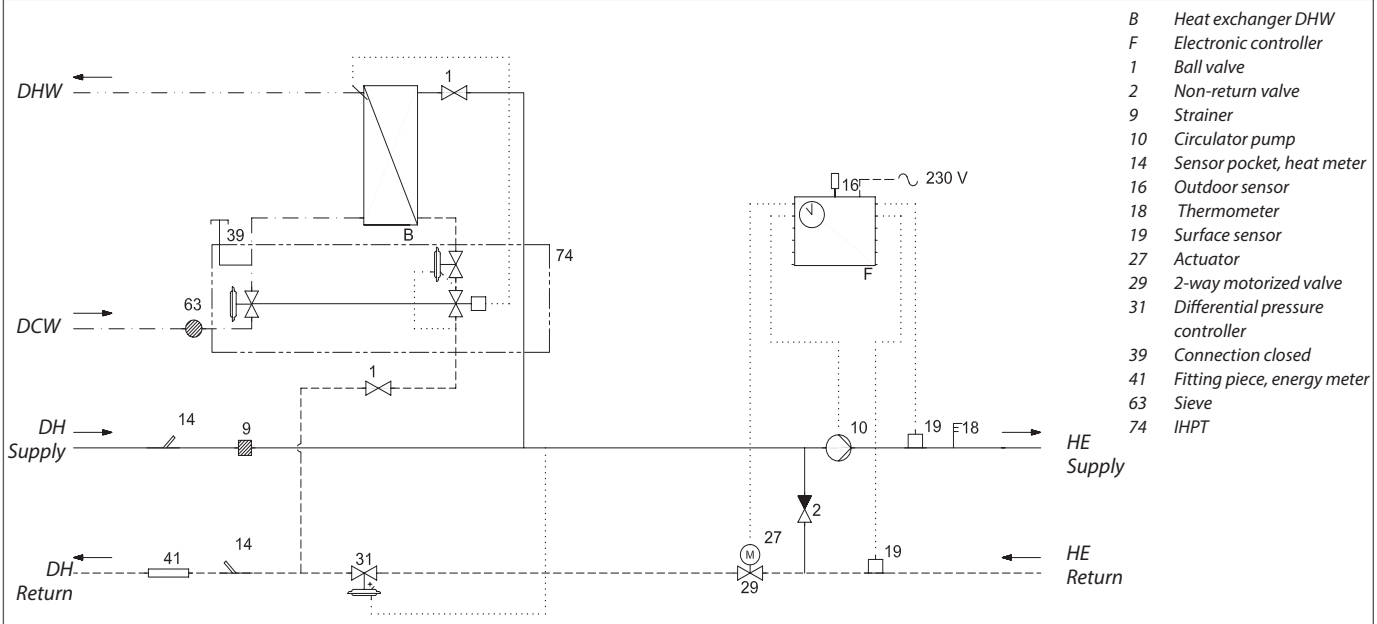
## Construction

All pipes are made of stainless steel. The connections are made by nuts and gaskets. The Termix VMTD MIX -IE 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 thermostatic and flow compensated temperature controller
- Capacity: 33 – 59 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
- Complete insulation ensures minimal heat loss

CIRCUIT DIAGRAM - EXAMPLE



- B Heat exchanger DHW
- F Electronic controller
- 1 Ball valve
- 2 Non-return valve
- 9 Strainer
- 10 Circulator pump
- 14 Sensor pocket, heat meter
- 16 Outdoor sensor
- 18 Thermometer
- 19 Surface sensor
- 27 Actuator
- 29 2-way motorized valve
- 31 Differential pressure controller
- 39 Connection closed
- 41 Fitting piece, energy meter
- 63 Sieve
- 74 IHPT

**Technical parameters:**

Nominal pressure: PN 10  
 DH supply temperature:  $T_{max} = 110\text{ }^{\circ}\text{C}$   
 DCW static pressure:  $P_{min} = 1,0\text{ bar}$   
 Brazing material (HEX): Copper

**Weight incl. cover:**

**Cover:** 25 kg  
 White-lacquered steel sheet

**Insulation:**

**Insulation cover:** EPP  $\lambda\ 0.039$   
 Anthracite grey EPP

**Dimensions (mm):**

Without cover: H 800 x W 530 x D 375  
 With cover: H 800 x W 540 x D 430

**Connections:**

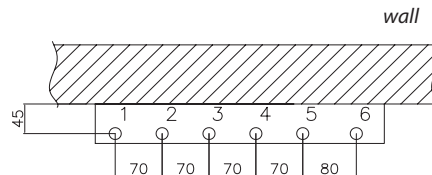
1. District heating (DH) supply
2. District heating (DH) return
3. Heating (HE) supply
4. Heating (HE) return
5. Domestic hot water (DHW)
6. Domestic cold water (DCW)

**Connections sizes:**

DH + HE: G 3/4" (int. thread)  
 DCW + DHW: G 3/4" (int. thread)

**Options:**

- White - lacquered steel cover
- Safety valve and non - return valve (10 bar)
- Pressure equalizer GTU



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 MIX-IE-1	32,3	60	19,8	10/45	23	13,3
	40,3	60	20,7	10/45	33	16,6
	36,5	70	19,1	10/50	20	13,2
	55	70	21,5	10/50	39	19,8
VMTD MIX-IE-2	32,3	55	21,9	10/45	26	13,3
	38	55	22,2	10/45	34	15,7
	32,3	60	19,6	10/45	20	13,3
	47	60	19,6	10/45	34	19,4
	39,5	70	19,0	10/50	20	14,3
	59	70	19,2	10/50	34	21,3

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