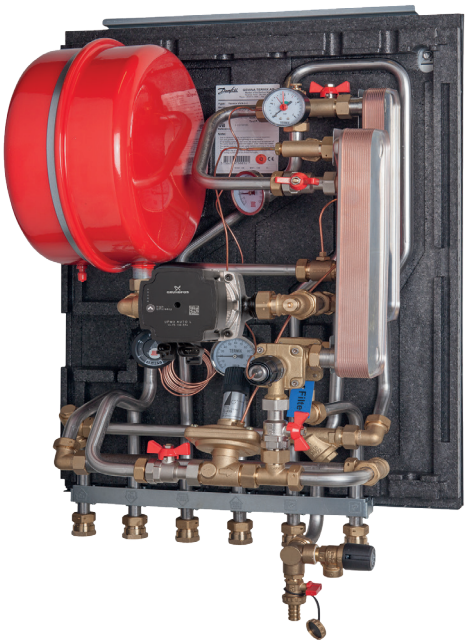
ENGINEERING TOMORROW

Fact sheet

Termix VVX-I with complete insulation

District heating substation for direct heating and instantaneous domestic hot water with flow-compensated temperature controller.



Application

The Termix VVX-I is a complete solution for hot water and space heating with optimal safety, efficient energy transfer, service-friendly construction and a compact design. The substation is used if a heat exchanger is required or on a conversion to district heating where the existing equipment is unsuitable for direct connection.

District heating (DH)

The substation is prefabricated with a differential pressure controller, fitting piece and sensor pockets for insertion of an energy meter as well as strainers.

Heating (HE)

The heating side consists of a plate heat exchanger, safety valve, manometer, drain valve, air valve, expansion vessel and circulation pump. The temperature of the heating can be controlled thermostatically or by an electronic controller with an outdoor temperature sensor. Depending on the application, different heat exchangers dimensioned for central or floor heating will be used.

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 DH water is cooled very efficiently by the heat exchanger, thereby creating an excellent operating economy. The Termix TPV 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 Termix TPV 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 VVX-I can be supplied with a built-in safety valve mounted in the cold water supply. It can also be supplied with a thermostatic circulation valve.

Construction

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

Insulation:

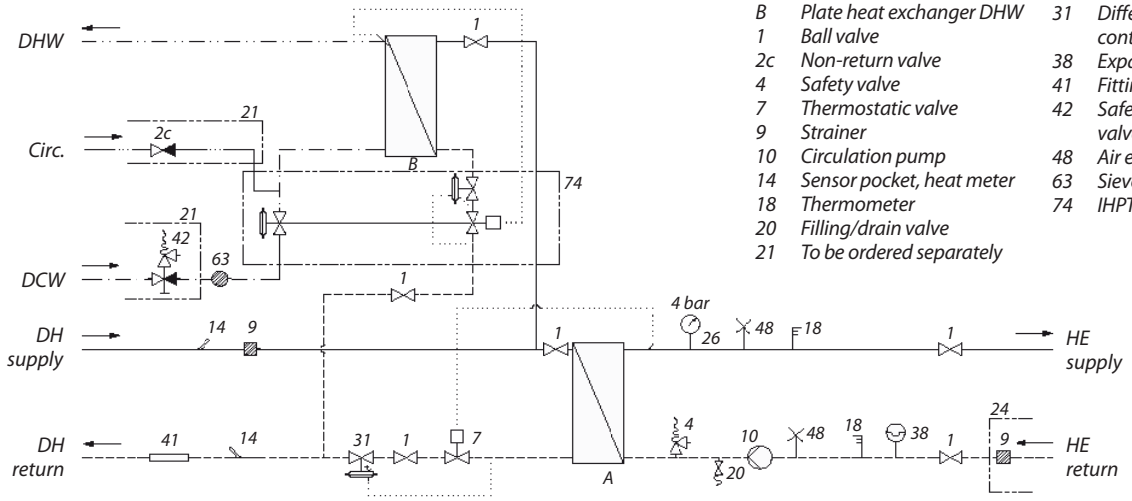
The Termix VVX-I comes complete with a fully insulated cover thus minimizing the heat loss both during tapping of domestic hot water but also when only space heating is requiered.

FEATURES AND BENEFITS

- Substation for single and multi-family houses
- Indirect heating, DHW temperature regulation with a thermostatic control valve
- Thermostatic or electronic regulation of heating (HE) temperature
- Capacity: 45 kW heating, 33-55 kW 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
- Low heat loss

ENGINEERING
TOMORROW

CIRCUIT DIAGRAM - EXAMPLES



A	Plate heat exchanger HE
B	Plate heat exchanger DHW
1	Ball valve
2c	Non-return valve
4	Safety valve
7	Thermostatic valve
9	Strainer
10	Circulation pump
14	Sensor pocket, heat meter
18	Thermometer
20	Filling/drain valve
21	To be ordered separately
26	Manometer
31	Differential pressure controller
38	Expansion vessel
41	Fitting piece, energy meter
42	Safety valve/non-return valve
48	Air escape, manual
63	Sieve
74	IHPT valve

Technical parameters:

Nominal pressure: PN 10*
DH supply temperature: Tmax = 120°C
DCW static pressure: pmin = 1 bar
Brazing material (HEX): Copper
* PN 16 versions are available on enquiry

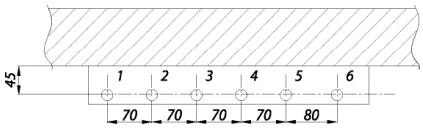
Weight incl. cover: 29 kg (incl. packing)

Insulation: Anthracity grey EPP

Dimensions (mm):
With insulation (mounted on wall variant):
H 800× W 530 × D 375

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:

All connections: G ¾" (int. thread)

Options:

- Booster pump (increases DH flow)
- Separate mixing circuit
- Safety valve (10 bar)
- Pressure compensation valve (GTU)
- Electronic controller
- Room thermostat
- Connection for circulation
- On/off zone valve

DHW: Capacity examples

Substation-Type	DHW Capacity kW	Supply/Return flow Primary °C	DHW °C	DHW Tap load l/h	Pressure loss Primary kPa*
VVX-I 1	32.3	60/19.8	10/45	23	23
	40.3	60/20.7	10/45	33	33
	36.5	70/19.1	10/50	20	20
	55	70/21.5	10/50	39	39
	32.3	55/21.9	10/45	26	26
	38	55/22.2	10/45	34	34
	32.3	60/19.6	10/45	20	20
VVX-I-2	47	60/19.6	10/45	34	34
	39.5	70/19	10/50	20	20
	59	70	10/50	34	34

*Heat meter not included

Heating: Capacity examples

Substation-Type	Heating Capacity kW	Supply/ Return flow primary °C	Heating Circuit °C	Flow rate primary l/h	dp min kPa	Flow rate secondary l/h	Residual pump head kPa
VVX-I x-1	12	70/40	60/35	353	30	418	31
	24	90/45	70/40	470	45	699	19
VVX-I x-2	19	70/40	60/35	553	30	662	52
	35	90/45	70/40	674	45	1019	30
VVX-I x-3	31	70/40	60/35	906	30	1080	41
	50	90/45	70/40	956	45	1455	25

Gemina Termix A/S · Member of the Danfoss Group · Navervej 15-17 · DK-7451 Sunds · Denmark
Tel.: +45 9714 1444 · Fax: +45 9714 1159 · mail@termix.dk · www.heating.danfoss.com