



Cetetherm Micro

District heating substation for detached houses, secondary connection

Cetetherm Micro is a complete, installation-ready district heating substation for heating and hot water. It is suitable for detached houses with a secondary connection to the district heating network, or are connected to so-called local heating systems. Alfa Laval has long experience in district heating technology and has developed Cetetherm Micro with a well-considered function and simple operation. All components are readily accessible for maintenance and future servicing needs.

Good comfort

Cetetherm Micro offers fully automatic temperature control for hot water. The hot water is heated by direct exchange with high capacity. This means that the hot water is always as fresh as the incoming cold water. The room temperature is regulated with the help of thermostatic radiator valves. Integral differential pressure regulation means that good comfort is maintained throughout the year in spite of variations in the pressure of the district heating network.

Simple installation

Small dimensions, low weight, well-designed pipe routing and self-acting control equipment ensure simple installation.

Long-term reliability

Cetetherm Micro represents the very latest technology and meets very strict long-term performance specifications. The plates and all the pipes in the unit are made from acid-resistant stainless steel. All components are mutually tuned and are subjected to detailed functional testing according to Alfa Laval's ISO 9001:2000 quality assurance system.

District heating – a good form of heating

District heating is an efficient technology which meets the need for heating and hot water in a simple, convenient and reliable manner. The growth of district heating is making a positive contribution to reduced emissions of greenhouse gases. In economic terms, district heating is very competitive compared with other forms of heating.

Function

Cetetherm Micro is used with a secondary connection of detached houses to district heating systems and for connection to so-called local heating systems. In these systems, the incoming heating water from the culvert network is at a lower pressure and temperature than in the case of a primary connection to a district heating network. This means that the heating water from the culvert network is used for the radiator system in the building for heating the property. Regulation of the room temperature is via thermostatic valves on the radiators in each room.



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The transfer of heat from the district heating water to the domestic hot water system of the apartment takes place in the heat exchanger. The transfer of heat takes place via thin plates of acid-resistant stainless steel, which keep the district heating water entirely separate from the apartment's own systems.

Cetetherm Micro has self-acting temperature control for the domestic hot water. The hot water temperature is controlled by a self-acting temperature regulator. This senses and regulates the temperature of the outgoing hot water directly in the heat exchanger. The design, which was developed and patented by Alfa Laval, provides a constant hot water temperature regardless of the size and frequency of the quantities drawn off.

An easily operated, economical and long-lived heating source

Cetetherm Micro uses the heating water from the culvert network to heat both the domestic hot water (in a never-ending flow) and the water in the central heating system.

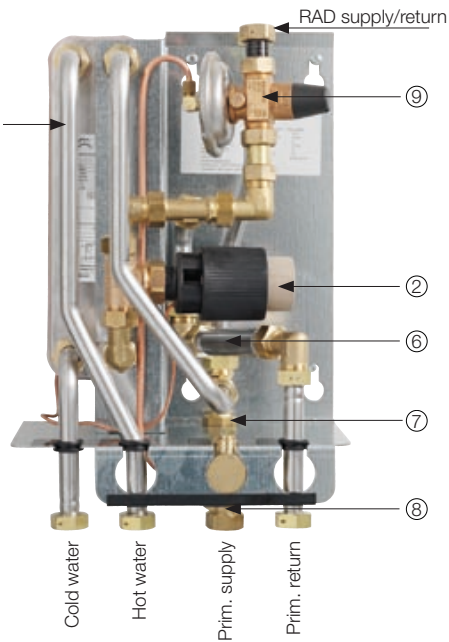
Cetetherm Micro is mounted on the wall and takes up very little space. Wherever it is positioned, the substation is quiet and discreet, requires no care or maintenance and has a very long service life. In the event of service or replacement of components becoming necessary in the future, all parts are readily accessible and capable of individual replacement.

Components

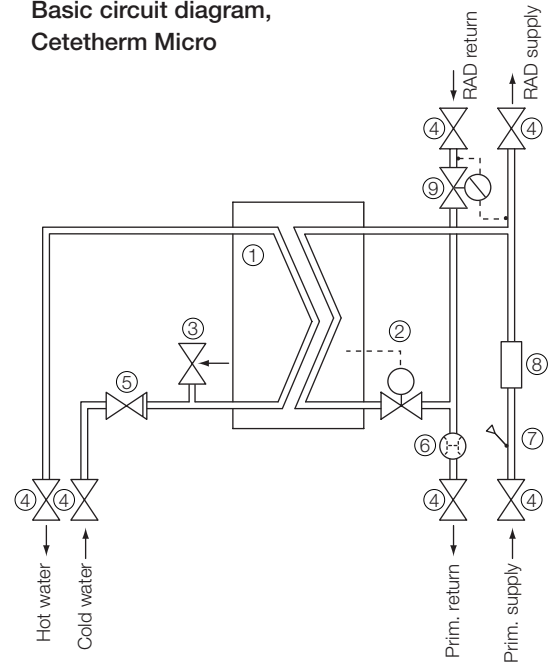
1. Heat exchanger, hot water
2. Temperature regulator, domestic hot water
3. Safety valve, cold water (accessory)
4. Shut-off valve (accessory)
5. Check valve
6. Gauge block, energy meter
7. Sensor pocket
8. Dirt filter, supply
9. Differential pressure regulator

Brass components are of desincification-resistant quality. Connection dimension for all connections: DN20, internally threaded.

Connections	Screws
District heating supply	G 3/4
District heating return	G 3/4
Heating supply	G 3/4
Heating return	G 3/4
Cold water	G 3/4
Hot Water	G 3/4



Basic circuit diagram, Cetetherm Micro



Operating data

	Heating	Hot water
Design pressure, MPa	0.6	1.0
Design temperature, °C	100	100
Safety valve opening pressure, MPa		0.9
Volume heat exchanger, l	0.45	0.48

Other

Electrical data
Noise level
Main dimensions: cover; width 305 x depth 200 x height 460 mm
Weight: 13 kg, cover 2 kg
For transport: weight 17 kg, volume 0.04 m ³

Performance at primary operating pressure, 80 kPa

	Output (kW)	Primary flow (l/s)	Actual return temp. (°C)	Secondary flow (l/s)
Design temp. program, °C				
Hot water circuit 65-25/10-50	50	0.28	21.4	0.3
Heating circuit				
60-80	12	0.14		0.14
40-60	12	0.14		0.14

Accessories



Cover



Safety valve



Shut-off valve (set of four units)

PCT00031EN 0711

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com