HT111

Plate Heat Exchanger

Overview

The plate heat exchanger module tends to demonstrate the function and behavior of a plate heat exchanger in operation. The unit must be connected to the heat exchanger supply unit using couplings to operate.



Specifications

- The module is ideally suited for investigating the functioning and behavior of a plate heat exchanger in operation.
- The unit is connected to heat exchanger supply unit using quick-release couplings.
- The plate heat exchanger is made up of ten profiled plates with water flowing through the spaces between them.
- The plates are soldered in such a way that two separate flow channels are formed.
- The flow channels are one cold flow channel and one hot flow channel, in an alternating arrangement. Part of the thermal energy of the hot water is transferred to the cold water.
- Flow regulation valves on the supply unit are used to adjust the flow rates of hot and cold water.
- The supply hose can be reconnected using quick-release couplings, allowing the flow direction to be reversed.
- The supply hose allows cross parallel flow or counter flow operation.

BEDO ® reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program

- The temperature sensors for measuring the inlet and outlet temperature are located in the heat exchanger supply unit.
- Temperature curves are plotted and displayed graphically.
- The measured values can be recorded and processed using data acquisition software in the heat exchanger supply unit.
- The mean heat transfer coefficient is calculated as a characteristic variable.
- Hot and cold water is supplied from heat exchanger supply unit.

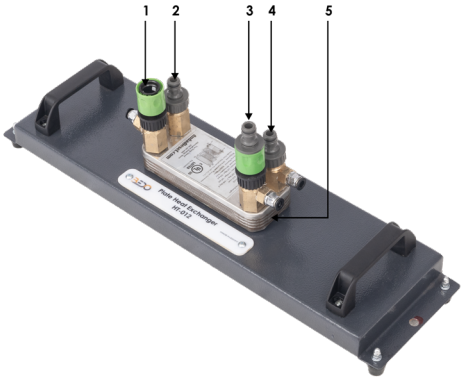
Experiments

- Function and behavior during operation of a plate heat exchanger
- Plotting temperature curves:
  - » in parallel flow operation
  - » in counterflow operation
- Calculation of mean heat transfer coefficient
- Comparison with other heat exchanger types

Technical Data

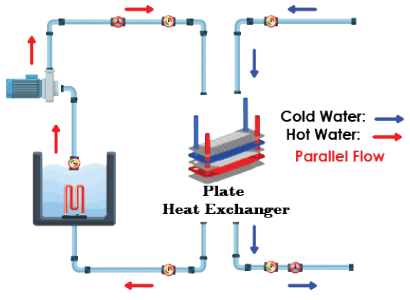
- Heat exchanger area: 0.12 m²
- Maximum temperature: 225 °C / 430 °F
- Operating pressure: 1.0 MPa / 165 psi
- Testing pressure: 2.0 MPa / 330 psi
- Plate material: 304 stainless steel
- Brazing material: 99.9% copper
- Refrigerant: All refrigerants except ammonia
- Number of plates: 10

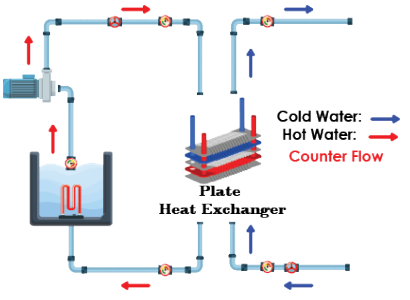
Component



1	Cold water outlet
2	Cold water inlet
3	Hot water outlet
4	Hot water inlet
5	Plates

Schematics





Scope of Delivery

- Plate Heat Exchanger (HT111)

Required for Operation

- Heat Exchanger supply unit (HT109).

BEDO ® reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program