

Efficient flow measurement and control with the ultrasonic flow meters of the PCE-TDS 200+ series

The ultrasonic flow meter PCE-TDS 200+ plays an important role in the context of the energy transition. As part of the energy transition, many countries are striving to switch from fossil fuels to renewable energies in order to reduce CO₂ emissions and ensure a sustainable energy supply. In this context, energy generation plants such as solar power plants, wind farms and new heat pumps are gaining importance.



The PCE-TDS 200+ accurately measures the flow of liquids, which is a crucial advance in various steps of power generation. For example, the device can be used to monitor the flow of cooling water in solar thermal systems or to measure the flow in heating systems.

The ultrasonic flow meter from PCE Instruments also allows the heat energy in a heating or cooling circuit to be measured. The PCE-TDS 200+ determines the flow velocity of the medium in the heating circuit and calculates the volume flow, taking into account the pipe diameter. The volume flow and the temperature difference between the supply and return flow, which are also measured by ultrasound, allow the quantity of heat to be determined.

By precisely measuring flow, the PCE-TDS 200+ supports efficient control and optimisation of power generation processes. Accurate recording of the flow enables operators to maximise the energy yield and optimise energy consumption at the same time. This helps to increase the efficiency and thus the economic viability of renewable energy plants.

The PCE-TDS 200+ uses the flexibility of a portable ultrasonic flow meter with integrated temperature measurement to cover a maximum of applications.

For the installation of the transducers, an installation aid is available that graphically displays the signal quality. In addition, it shows whether the transducers are positioned at the correct distance from each other. After entering the pipe and medium specifications, the flow velocity, the volume flow and the volume are displayed.

The particular advantage of this ultrasonic flow meter is its cost-effectiveness, flexibility and mobility. The transducers are installed quickly; in comparison, the installation effort for fixed flow meters is significantly greater due to the need to open the pipeline. In addition, this solution is pressure-resistant, leak-proof and there is no wear and tear.

The ultrasonic meter PCE-TDS 200+ is also used in power plants or the chemical industry, where even aggressive or toxic media can be tested without contact and wear.

The real-time measurements allow deviations or malfunctions to be detected quickly, which enables a timely response to minimise downtime. A data logger can also be set up to save the measurement results to a 32 GB SD card for later evaluation.



Overall, the PCE-TDS 200+ flow meter helps to improve the efficiency, sustainability and cost-effectiveness of energy generation in the context of the energy transition. Precise measurements of the flow enable optimised use of renewable energies and thus make an important contribution to achieving climate targets and a sustainable energy future.

More information can be found here:

https://www.pce-instruments.com/english/measuring-instruments/test-meters/ultrasonic-flow-meter-kat_152137.htm

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