Application

Solar Thermal Energy

Solar control with JUMO – the most effective way to generate heat.

Solar thermal energy – the proven and highly successful method of producing thermal energy from solar energy. And an area for which JUMO has developed uncomplicated and reliable systems of a particularly high quality, to allow you to control, regulate and monitor the transfer of heat.

How to save a lot of energy, thanks to perfect temperature measurement

The JUMO temperature sensor for solar thermal energy records the most important measured quantity in heat generation – the temperature. The design is optimized in terms of fast response and minimum heat transfer errors.
A platinum temperature sensor Pt1000 is used as the standard sensor element. The standardized characteristics according to DIN 60751 ensure the sensor is easy to replace with a low measurement tolerance. This provides the basis necessary for maximum heat production.

How to stay flexible at all times with convenient control

Fully-automatic solar control is one of the most important components of a solar thermal system. Special control systems are used to ensure that the solar power unit only runs when the sun is shining. A controller connected to temperature sensors starts the circulating pump, as soon as the temperature of the heat transfer liquid in the collector exceeds a certain threshold value. The JUMO eTRON M 100 is responsible for this control and also offers many other advantages.

The advantages in a nutshell.

With solutions from JUMO that are specifically designed for solar thermal energy, you have every aspect of heat generation under your control – you increase the efficiency of your system, stay flexible and also reduce your maintenance costs.

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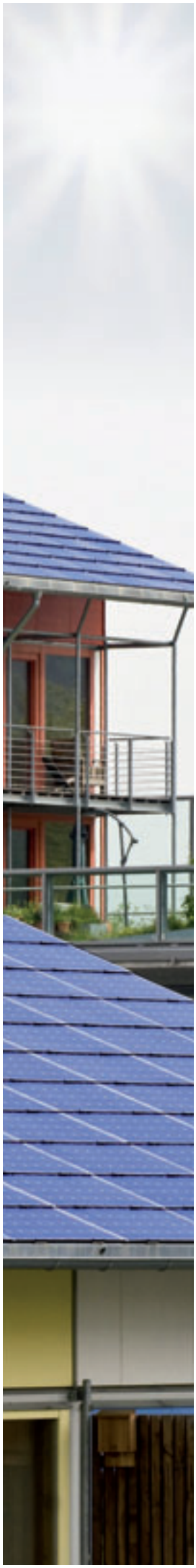
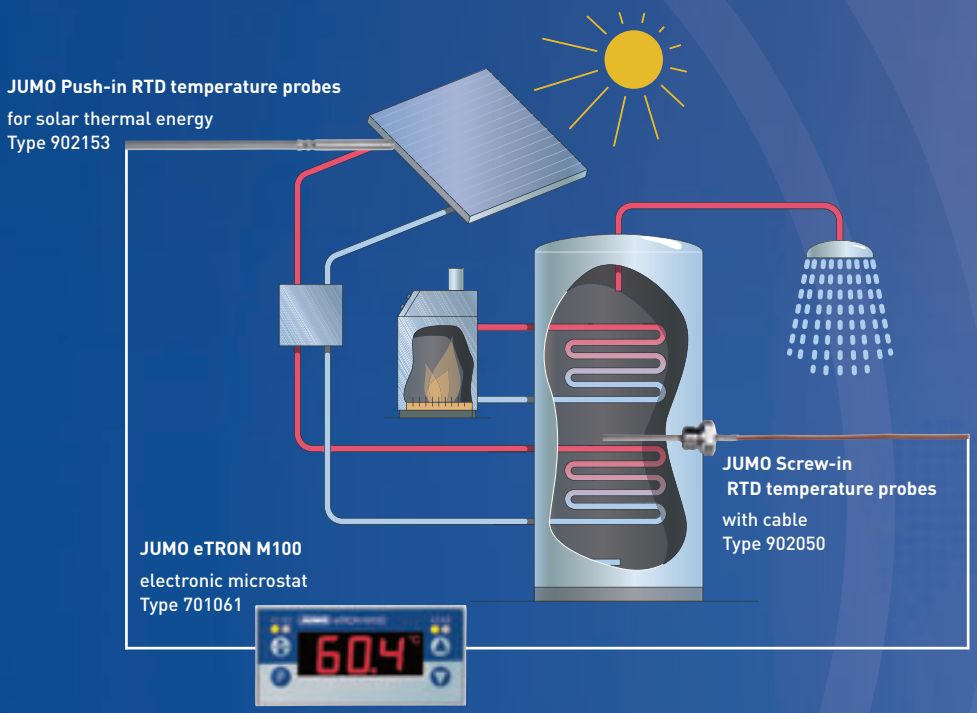
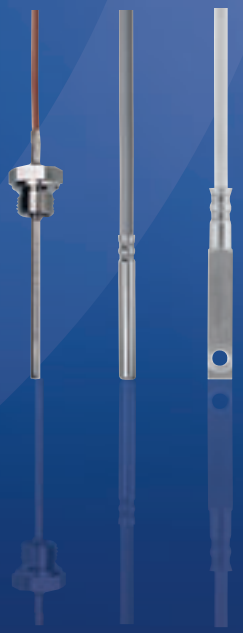




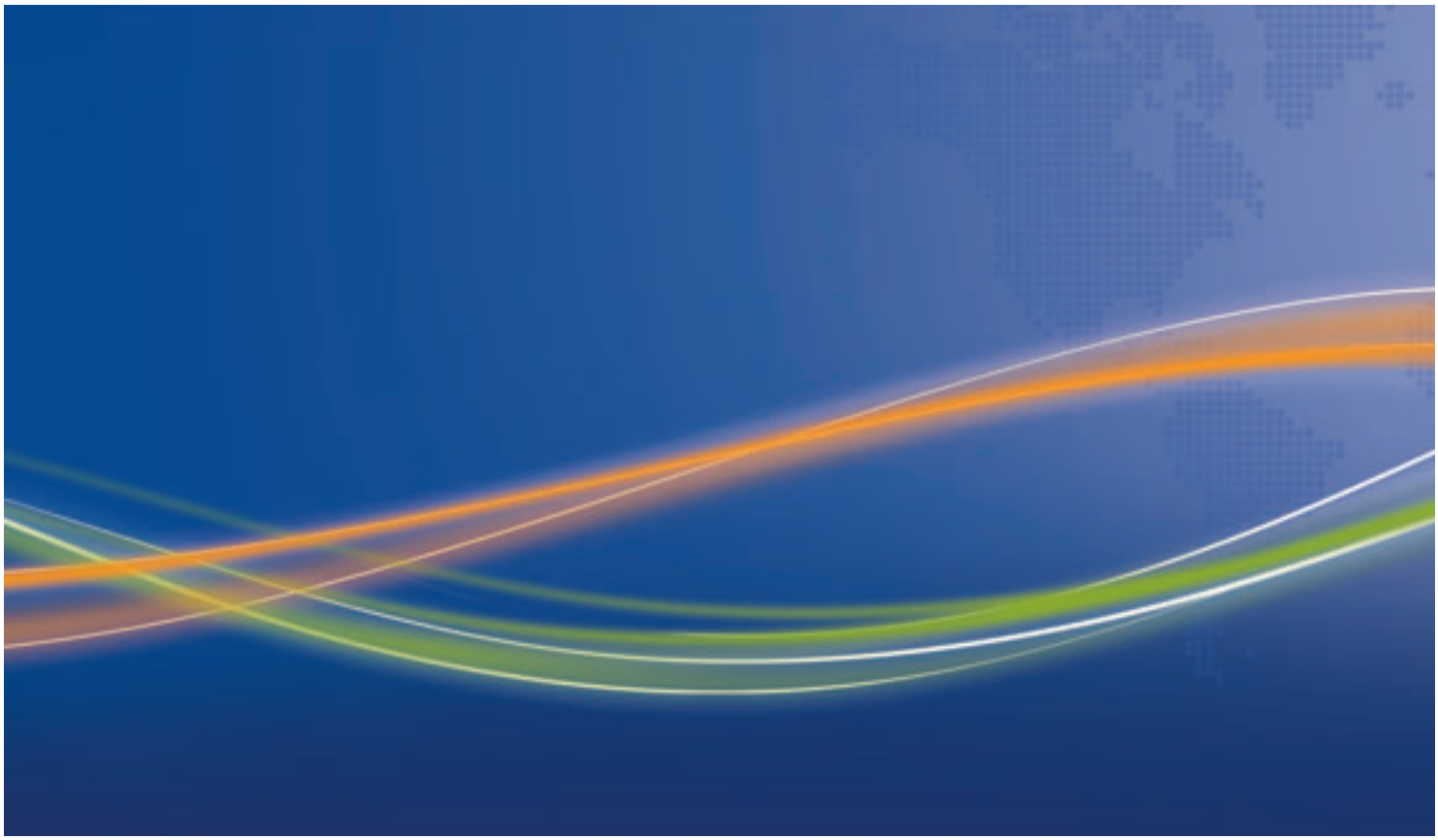
JUMO RTD temperature probes for solar thermal energy



Temperature sensors are important parts of the solar thermal system and are often underestimated. They must be temperature-resistant, leak-proof and longterm stable, must withstand extremely adverse operating conditions on the roof and return reliable measurement results for the service life of the solar system, which may be 20 years or more. For guaranteed results, use of the platinum temperature sensor Pt1000 is recommended. Due to the high nominal value used, the lead resistance of the connecting cable has minimal effect on the temperature measurement. While the sun's potential may be free, the source of economical and high-quality solar sensors is JUMO. JUMO has been recognized as a high-quality supplier of solar thermal energy sensors for many years. JUMO RTD temperature probes have proven their effectiveness in practical applications a million times over.
The same applies to the small system for private houses and to the large professional plants.

JUMO eTRON M100

The JUMO eTRON M100 is an electronic microstat suitable for connecting to RTD temperature probes Pt 100, Pt 1000.
The temperature of the collector is recorded by the first measurement input. The second measurement input records the temperature of the reservoir, thereby monitoring the difference in temperature. The measurement values and parameters are shown on a three-digit backlit display. A maximum of four relays are available and their switching states are indicated by yellow LEDs. Further options are an RS485 interface, a real-time clock and a data logger.
Screw terminals on the back are used for the electrical connection. The instrument is operated and parameterized by four buttons. A setup program and a PC interface are available for easy parameterization on the PC and evaluation of the data logger.



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