

## Monitoring of sterilisation temperatures



Clamp-on pipe-mounted sensor  
GTL720

## Pipe-mounted sensors GTL72x – series

### The requirements placed on us

For their water distillation plants, DEWA Engineering und Anlagenbau GmbH was looking for a suitable temperature sensor that could be used in the production of WFI (Water for Injection) water. The desired solution would eliminate the disadvantages of the previously used inline sensors, a complex installation and the associated high costs due to welding in, electropolishing and the necessary quality control, as well as the slow response.



### BENEFITS

- easy installation
- minimal mounting costs
- fast response time
- high measurement accuracy

### Using conditions

The temperature sensors should be installed in pipeline systems of stainless steel.

Then, in order to meet the quality assurance requirements, and to optimize the costs incurred in the process, for heat-up, for example, the sterilization temperature should be determined quickly and with high measurement accuracy.

### Our solutions

Pipe-mounted sensors are the simplest solution for this measuring task. However, it must be stated that simple contact sensors often have a slow response and high measuring inaccuracy.

The clamp-on sensors of the GTL7 series were especially developed by the GHM GROUP for use in the pharmacy and biotechnology sectors, as well as the food and beverage industry. For example in cleaning systems, KZE/ pasteurisation and UHT systems the sensors, which are not sensitive to vibration, can fully exploit their advantages. Thanks to the special, compact sensor design, the optimized temperature tap on the measurement tube, and the unique pipe wall correction, the measured values are quickly detected with high accuracy and relayed to a control unit (e.g. a PLC).

The temperature sensors are comprised of two parts. An easy-to-mount pipeline adapter, which with the aid of screw connections is attached on pipes ranging in size from DN10 to DN80, and a temperature sensor insert. Optionally the temperature sensor insert can also be provided with a head-mounted transmitter or a local display. The sensor is made of resistant plastic with a robust stainless steel housing. Consequently, it can be easily cleaned with chemical agents, as well as high pressure.

### The advantages

- installation without process opening
- suitable for pipes from DIN 10 to DIN 80
- precise measurement (< 0.2 % of full scale value)
- fast  $t_{90}$  response time
- stainless steel housing

### Our customer

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Distillation system from DEWA for generation of sterile water