



# High-Temperature Calibrators

## Series TP 28 000 HT

**SIKA**<sup>®</sup>  
founded 1901  
Dr. Siebert & Kühn GmbH & Co. KG



# SIKA High-Temperature Calibrators, Series TP 28 000 HT

## The professional solution for all high temperatures

Economic, safe, reliable and high quality working at temperatures up to 1300 °C. Inaccurate temperature measurement reduces product quality, increases the risk of faults and leads to an increase in energy consumption.

Temperature sensors which are used in high-temperature zones in particular are subjected to drift the longer they are used. Impurities from the surrounding, often aggressive, atmosphere reduce the service life and impair the accuracy of the sensors.

Only regular calibration of the sensors provides information on the difference between the actual and the measured temperature and thus makes the specific drift visible. In sensor production, tolerances of thermocouples and resistance thermometers for high-temperature ranges can only be determined or documented exactly by calibration.

### No more burnt fingers! 1300 °C portable.

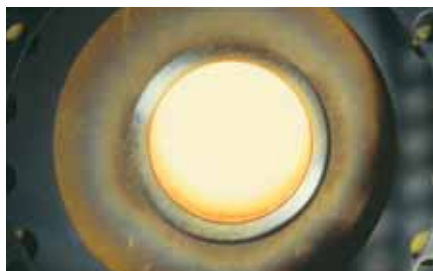
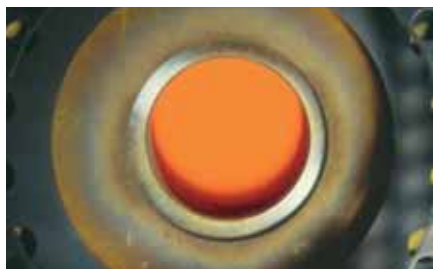
For the first time, the TP 28 000 HT series enables laboratories and service technicians to carry a high-temperature calibrator for temperatures up to 1300 °C with them. The heating block consisting of a high-temperature alloy can be heated in 0.5 K steps to 1300 °C. Ceramic fibre insulation ensures that the housing remains lukewarm, even where the interior remains hot for a long time.



### Inspection equipment monitoring acc. DIN ISO 9000 ff

The high-temperature calibrators can be supplied optionally with a certificate from the German Calibration Service (DKD) or a SIKA works test certificate. This shows that the appliances, as required by DIN ISO 9002 "quality assurance element - control of inspection, measuring and test equipment", are recognized and confirmed by national standards.

### SIKA-thermal technology

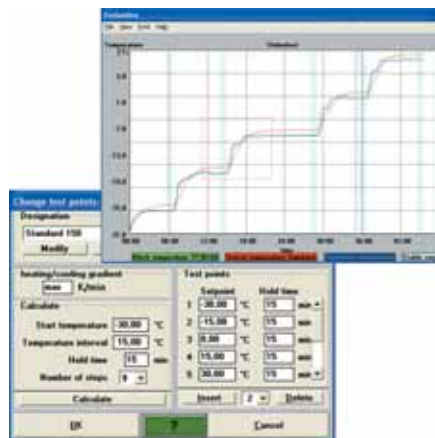


Heating block at 900, 1100 and 1300°C

### Operating

The block temperature is programmed by means of the keys on the front of the appliance and can be set exactly to 0.1 K. The 4 1/2 digit display shows the block temperature and alternatively the temperature measured by the test piece. The switchable measuring input enables calibration of up to 6 different types of sensors as well as temperature switches and thermostats.

The test piece is inserted in a 200 mm deep hole with a diameter of 18 mm and/or 28 mm. The optimum thermal coupling (heating block to test piece) is achieved by means of adapter sleeves specific to sensor diameter.



### Interface and software

The calibrators are supplied fitted with a standard digital interface (RS 232 C). Analog outputs for block and test piece temperatures are options.

The TP 28 000 HT SIKA calibrators can be controlled by an external computer via the RS 232 C interface. In combination with our calibration and test software appliances the TP 28 000 HT series are particularly efficient for use in development, production, quality assurance and after-sales service.

Static and dynamic calibration and test routines as well as static evaluations of serial tests can be easily and quickly programmed using the menu and can be carried out automatically.




During test operations the data of block and sensor temperature as well as the switching points of temperature detectors are transmitted continuously via the RS 232 C interface. Our software package can be used to display the data in table and graphic form.

We can also supply tailor-made documentation in the form of works test certificates or calibration certificates.

The saved test data can be transmitted to higher-level quality data management systems (QDMS).

In this way, delivery and production quality can be rapidly monitored or increased.

## Technical data

Device type	TP 28 850 E	TP 28 850	TP 28 1300
			
Temperature range	Ambient temperature up to 850 °C		400 °C to 1300 °C
Tolerance	± 0.5 °C		± 2 °C
Stability	± 0.05 °C		± 0.5 °C
Resolution	0.01 °C (up to 200 °C) 0.1 °C (200 °C to 850 °C)	0.1 °C	0.5 °C
<b>Display</b>			
Block temperature display	2-line LCD, 16 digits	4½-digit, 1-line LED, 14 mm high	
Electronic display	Block and set temperature	Block temperature or test piece temperature	
Unit	°C / °F (optional)		
Devices	Membrane keyboard	Keyboard and rotary switch	
<b>Test piece fixture</b>			
Block material	High-temperature alloy / ceramics		
Block bore	18 mm or 28 mm	28 mm	
Block depth	100 mm or 200 mm	200 mm	
Adapter sleeves	Inside diameter between 1.5 mm and 15.5 mm in steps of 0.5 mm (up to 25 mm only for Ø block bore 28)		
<b>Equipment features</b>			
Interface	Serial RS 232C incl. protocol		
Integrated measuring instruments	—	Pt 100 / 2- or 3-wire acc. to DIN EN 60751: 1996 NiCr-NiAl, type K acc. to DIN EN 60584-1: 1996 Pt 10 % Rh-Pt, type S acc. to DIN EN 60584-1: 1996 Pt 13 % Rh-Pt, type R acc. to DIN EN 60584-1: 1996 Pt 30 % Rh-Pt 6 % Rh, type B, DIN EN 60584-1: 1996 Fe-CuNi, type J acc. to DIN EN 60584-1: 1996 Temperature switches and / or thermostats Norm signal 0 (4)...20 mA (option) Customer specific measuring inputs (option)	
<b>General Data</b>			
Power supply	230 V, 50/60 Hz		
Power consumption	Approx. 2000 VA	Approx. 1000 VA	
Dimensions (D x W x H)	410 x 290 x 415 (515) mm	510 x 290 x 415 mm	
Weight	Approx. 16 kg	Approx. 25 kg	
<b>Options</b>			
Accessories	Service and transport case, robust aluminium version		
SIKA calibration and test software	Step tests, calibration runs, ramp functions		
Certificates	DKD-certificate acc. to DKD-R5-4, SIKA works certificate		
Other units	Temperature display °F		

# Our Production and Sales Range



Flow Measurement Equipment



Axial Turbine Flow Sensor



Flow Switches



Pressure Gauges and Pressure Sensors



Industrial Thermometers



Electronic Digital Thermometer, Dial Thermometer



Measuring Instruments



Temperature Sensors



Calibrators, DKD-Laboratory

## Your able partner for measurement and control

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 founded 1901  
 Dr. Siebert & Kühn GmbH & Co. KG

...measurement...control...calibration

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Subject to technical modification

