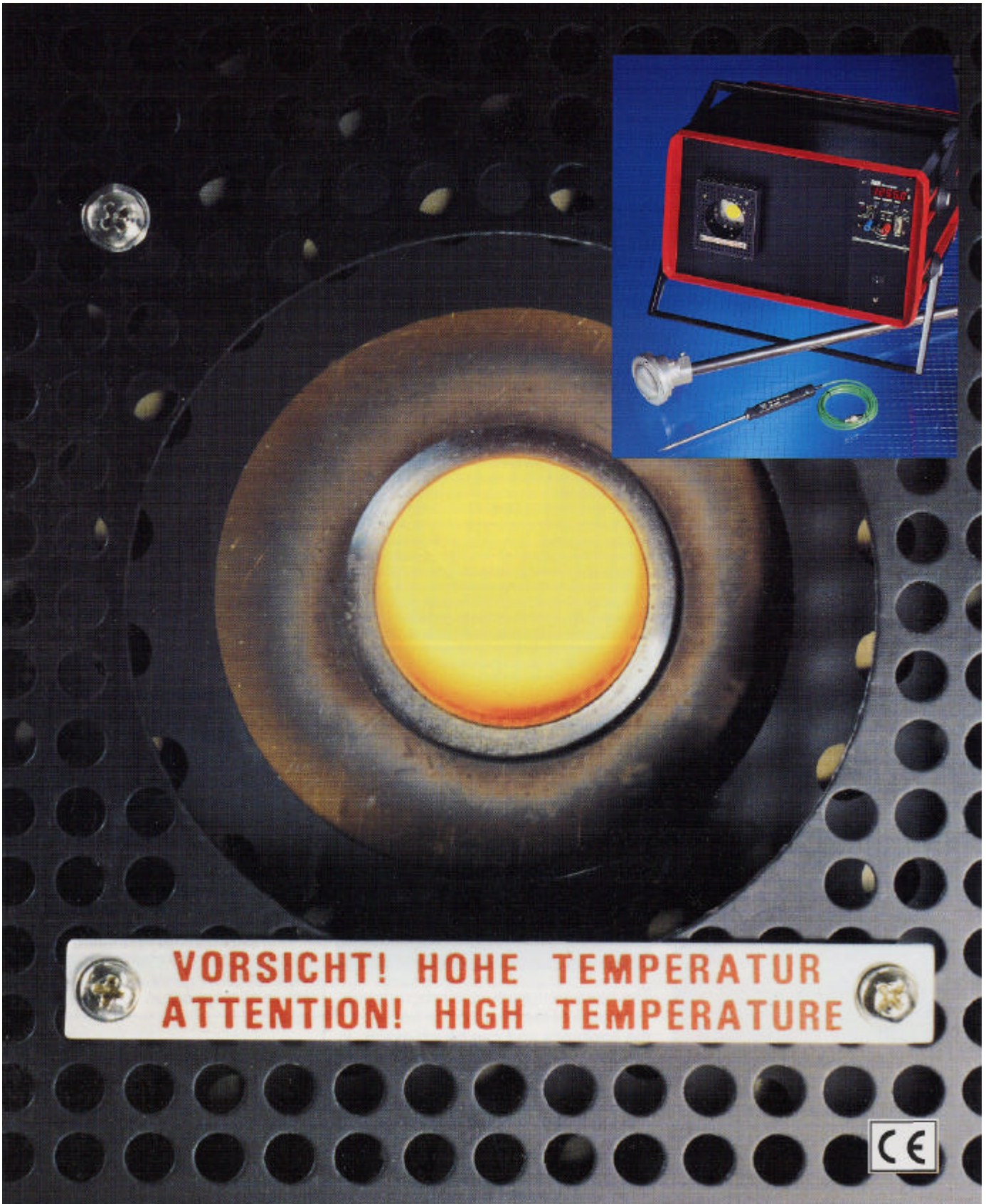




# High-Temperature Calibrators Series TP 281300



## The professional solution for all high-temperature areas

**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.**

With the TP 281300, laboratories and service technician's have a portable high-temperature calibrator for temperatures from 200 °C- 1300 °C available for the first time.

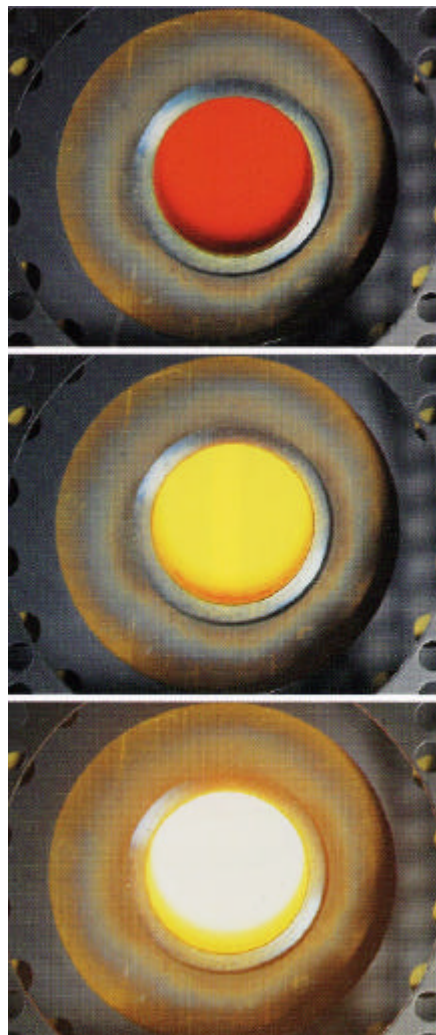
The heating block, consisting of a high-temperature alloy, can be heated in 0.5 K steps to 1300 °C. Ceramic fibre insulation ensures that the housing remains lukewarm and can be held in the hand, even where the interior remains hot for a long time.



**Control of inspection, measuring and test equipment in accordance with 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

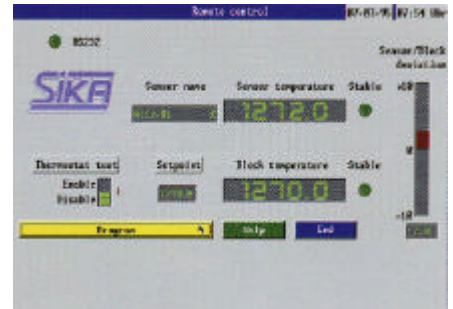


Heating block at 900, 1100 and 1300 °C

### Operating

The block temperature is programmed by means of the keys on the front of the appliance and can be set exactly to 0.5 K. The 4 1/2 digit display shows the block temperature and alternatively the temperature measured by the test piece. The switchable feeler 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 28 mm. The optimum thermal coupling (heating block to test piece) is achieved by means of adapter sleeves specific to sensor diameter.



### Interface and hardware

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

The TP 28 1300 SIKA calibrators can be controlled by an external computer (via the RS 232 C interface). In combination with our calibration and test software appliances in the TP 281300 series are a particularly efficient for use in development, production, quality assurance and after-sales service.

Static and dynamic calibration and test routines, and also 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 from the block and the sensor temperatures and 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 the form of tables and graphs.

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

<b>Temperature</b>	
Temperature range	200°C to 1300°C
Tolerance	±2K
Stability	±0,5
<b>Display</b>	
Type	LED, 4 1/2 digit, 14 mm high
Range /Resolution	0-1300°C/0,5K
Measuring value	Temperature heating block or test piece (switchable)
<b>Heating block</b>	
Material	High temperature alloy
Regulation	Processor controlled PID controller
Reference Sensor	Pt 10%Rh-Pt, Type S
<b>Test piece holder (mech./electr.)</b>	
Block bore	Diameter 28 mm, depth 200 mm
Adapter sleeves	3,5 to 24 mm (internal diameter) in 0,5 mm steps
Sensor types (electrical)	Pt 100/2-or3-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 Pt30% Rh-Pt 6% Rh. Type B acc. to DIN EN 60584-1: 1996 Fe-CuNi, Type J acc. to DIN EN 60584-1: 1996 Measurement transmitter 0(4) ... 20 mA Temperature switches or thermostats
<b>Safety measures</b>	
Sensor breakage	Heating voltage is switched off
Thermal trip protection	2 independant thermal trips (1315 °C and 1 330 °C)
Interfaces	
Digital Interface	RS 232 C (incl. interface protocol)
<b>Options</b>	
Software	
SIKA calibration and test software for controlling the unit via external computer (PC), including:	- Programmable ramp function and temperature cycles - Testing of temperature switches - Certificate with client data, graphic and tabular preparation of test data
<b>Certificates</b>	
	DKD-certificate / SIKA works certificate
Power supply / Power consumption	230 V, 50 Hz, option : 11 5 V, 50 Hz / approx. 1 000 VA
Dimensions	L=480 W=280 H = 410
Weight	approx. 25 kg