Temperature Calibrators and Micro Calibration Bath

Series TP 17 000 / TP 17 000 S / TP M 000 S

SIKA Dr. Siebert & Kühn GmbH & Co. KG, Struthweg 7-9, D-34260 Kaufungen, Tel.: +49 5605 803-0, Fax: +49 5605 803-54, e-mail: info@sika.net, www.SIKA.net

The solution for service and industrial sector

Economic and safety!

Exact temperature measurement and monitoring are “musts” in applications crucial to operational safety of machinery and industrial installations.

Regular inspection of the temperature sensors used in these applications is absolutely essential for economic and technical-safety reasons and is already prescribed as obligatory in many sectors.

Temperature calibrators for applications in:

- Energy-production and energy distribution sector
- Chemical and petrochemical industry
- Pharmaceutical industry
- Food industry
- and a great deal more

The temperature calibrators and calibration bath are already a part of the standard equipment of the technician in the above listed sectors.

These compact devices are easy to transport and easy to operate and have all performance features required for “in-situ inspection”.

For inspection of:

Thermometers/SIKA industrial thermometers
Inspection is performed by comparison of the temperature measured by the test piece and the block temperature indicated by the calibrator / calibration bath.

Temperature switches/thermostats
The test piece is inserted into the block and connected to the external transducer. The switch setting respective to the switch point is signalled by reached temperature.

Resistance thermometers and thermocouples
A separate temperature measuring instrument is required for inspection. We recommend the use of our temperature measuring device TTScan. The inspection is performed by comparison of the temperature indicated on the external measuring instrument with the reference temperature of the calibrator / calibration bath.

Description:

The calibrators of series TP 17 000 and TP 17 000 S contains an electronically controlled metal block with a bore for the reception of the test piece. Adapter sleeves are used for test pieces with smaller diameter. The block is mounted in a heat isulated housing .
The micro calibration bath of serie TP M 000 S contains a tank, who is mounted in a heat isulated housing. On using different calibration liquids various calibration ranges can be covered.

Different test piece fixtures

metal block Ø 28 | metal block Ø 60 | liquid bath Ø 60

The complete electronic is located in the front of the calibrator. The required temperature is easily set on the digital controller.

The current temperature will automatically adjusted to the set value. The current temperature and set temperature are constantly shown on the 2-line, 4-digit, 7-segment LED display.

A guarantee of 5 years is grant to all TP 17 000 / TP 17 000 S / TP M 000 which are calibrated and tested at least once per year by the SIKA DKD laboratory.

SIKA Dr. Siebert & Kühn GmbH & Co. KG, Struthweg 7-9, D-34260 Kaufungen, Tel.: +49 5605 803-0, Fax: +49 5605 803-54, e-mail: info@sika.net, www.SIKA.net

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

Technical data, micro calibration bath TP M 000 S

Device type	TP M 165 S	TP M 225 S
		
Temperature range	-30 °C up to +165 °C	Ambient temperature up to +225 °C
Bath temperature control	Digital PID controller, automatic fine adjustment with softstart for fan	
Tolerance	± 0.1 °C	± 0.2 °C
Stability	± 0.05 °C	
Display		
Bath temperature display	4-digit, 2-line, 7-segment LED, 7 mm high, red and green	
Display range	-50.0 °C up to +165.0 °C	0.0 °C up to +225.0 °C
Resolution	0.1 °C	
Test piece fixture		
Tank material	Aluminium	
Tank bore	Ø 60 mm	
Tank depth	Sensor cage 150 mm (total tank depth 170 mm)	
Tank equipment	Screw cap, speed controlled magnetic stirrer, sensor basket, suction pump	
Equipment features		
Control OFF Hand control Temperature steps Gradient control Ramp functions Computer interface	Switch off of the control function Manual control of the bath temperature by hand Set point memory for 4 temperature values Programmable °C/min Programmable temperature section Serial RS 485 (incl. protocol)	
General data		
Power supply	90 ... 240 VAC, 50/60 Hz	230 VAC, ±10 %, 50/60 Hz
Power consumption	App. 400 VA	App. 1000 VA
Dimensions L x W x H	App. 210 x 380 + 50 x 300 mm	App. 147 x 330 + 70 x 270 mm
Weight	App. 12.5 kg	App. 7.5 kg
Options		
Accessories	Function cap, sensor stand, aluminium transport case, software	Function cap, sensor stand, aluminium transport case, nylon service case, software
Power supply		115 VAC, ±10 %, 50/60 Hz
Certificates	DKD-Certificates (acc. guidline DKD-R5-4), SIKA works certificate	
Engineering unit	Display of temperature in °F	

SIKA Dr. Siebert & Kühn GmbH & Co. KG, Struthweg 7-9, D-34260 Kaufungen, Tel.: +49 5605 803-0, Fax: +49 5605 803-54, e-mail: info@sika.net, www.SIKA.net

Technical data, temperature calibrators TP 17 000

Device type	TP 17 165	TP 17 450	TP 17 650
			
Temperature range	-30 °C up to +165 °C	Ambient temp. up to +450 °C	Ambient temp. up to +650 °C
Block temperature control	Digital PID controller, automatic fine adjustment with softstart for fan		
Tolerance	± 0.4 °C	± 0.6 °C	± 0.8 °C
Stability	± 0.1 °C		
Display			
Block temperature display	4-digit, 2-line, 7-segment LED, 7 mm high, red and green		
Display range	-50.0 °C up to +165.0 °C	0.0 °C up to +450.0 °C	0.0 °C up to +650.0 °C
Resolution	0.1 °C		
Test piece fixture			
Block material	Aluminium		Brass
Block bore	Ø 28 mm	Ø 60 mm	Ø 28 mm
Block depth	150 mm		
Adapter sleeves	Inside diameter between 1.5 mm and 25 mm in steps of 0.5 mm	Inside diameter between 1.5 mm and 55 mm in steps of 0.5 mm	Inside diameter between 1.5 mm and 25 mm in steps of 0.5 mm
Equipment features			
Control OFF Hand control	Switch off of the control function Manual control of the block temperature by hand		
General data			
Power supply	90 ... 240 VAC, 50/60 Hz	230 VAC, ±10 %, 50/60 Hz	230 VAC, ±10 %, 50/60 Hz
Power consumption	App. 400 VA	App. 2000 VA	App. 1000 VA
Dimensions L x W x H	App. 210 x 380 + 50 x 300 mm	App. 150 x 330 + 70 x 270 mm	
Weight	App. 10.0 kg	App. 7.5 kg	
Options			
Accessories	Aluminium transport case	Aluminium transport case, nylon service case	
Power supply			115 VAC, ±10 %, 50/60 Hz
Certificates	DKD-Certificates (acc. guidline DKD-R5-4), SIKA works certificate		
Engineering unit	Display of temperature in °F		

SIKA Dr. Siebert & Kühn GmbH & Co. KG, Struthweg 7-9, D-34260 Kaufungen, Tel.: +49 5605 803-0, Fax: +49 5605 803-54, e-mail: info@sika.net, www.SIKA.net

Technical data, temperature calibrators TP 17 000 S

Device type	TP 17 165 S	TP 17 450 S	TP 17 650 S
			
Temperature range	-30 °C up to +165 °C	Ambient temp. up to +450 °C	Ambient temp. up to +650 °C
Block temperature control	Digital PID controller, automatic fine adjustment with softstart for fan		
Tolerance	± 0.2 °C	± 0.3 °C	± 0.4 °C
Stability	± 0.05 °C		
Display			
Block temperature display	4-digit, 2-line, 7-segment LED, 7 mm high, red and green		
Display range	-50.0 °C up to +165.0 °C	0.0 °C up to +450.0 °C	0.0 °C up to +650.0 °C
Resolution	0.1 °C		
Test piece fixture			
Block material	Aluminium		Brass
Block bore	Ø 28 mm	Ø 60 mm	Ø 28 mm
Block depth	150 mm		
Adapter sleeves	Inside diameter between 1.5 mm and 25 mm in steps of 0.5 mm	Inside diameter between 1.5 mm and 55 mm in steps of 0.5 mm	Inside diameter between 1.5 mm and 25 mm in steps of 0.5 mm
Equipment features			
Control OFF	Switch off of the control function		
Hand control	Manual control of the block temperature by hand		
Temperature steps	Set point memory for 4 temperature values		
Gradient control	Programmable °C/min		
Ramp functions	Programmable temperature section		
Computer interface	Serial RS 485 (incl. protocol)		
General data			
Power supply	90 ... 240 VAC, 50/60 Hz	230 VAC, ±10 %, 50/60 Hz	230 VAC, ±10 %, 50/60 Hz
Power consumption	App. 400 VA	App. 2000 VA	App. 1000 VA
Dimensions L x W x H	App. 210 x 380 + 50 x 300 mm	App. 150 x 330 + 70 x 270 mm	
Weight	App. 10.0 kg	App. 7.5 kg	
Options			
Accessories	Aluminium transport case, software	Aluminium transport case, nylon service case, software	
Power supply			115 VAC, ±10 %, 50/60 Hz
Certificates	DKD-Certificates (acc. guidline DKD-R5-4), SIKA works certificate		
Engineering unit	Display of temperature in °F		

SIKA Dr. Siebert & Kühn GmbH & Co. KG, Struthweg 7-9, D-34260 Kaufungen, Tel.: +49 5605 803-0, Fax: +49 5605 803-54, e-mail: info@sika.net, www.SIKA.net