SIKA®

Including products with:

TEMPERATURE CALIBRATORS →

For industry and service

Good reasons for a calibration

- Maintain consistently high product quality
- Meet industry standards and legal regulations
- Optimize processes and boost productivity
- Avoid unscheduled downtime

Temperature sensors are subject to mechanical, thermal and chemical stress. This results in a drift the longer the sensors are in use. Only the regular calibration of the sensors provides information on the difference between the actual temperature and the measured temperature and makes the specific drift visible. In measuring tasks, readings are often taken without regard to the fact that every display value contains an error. These measured errors are probably still negligible in private applications, but in industrial applications even the smallest inaccuracy can lead to production errors, for instance.

Calibration with SIKA

Dry block calibrators and micro calibration baths are used to check and calibrate a wide range of temperature measuring instruments and temperature sensors. Mechanical, electro-mechanical or electronic measurement equipment can be checked with ease. The following can be tested directly:

- Contact-based immersion or surface temperature sensors
- Sensors with special shapes and sizes
- Non-contact infrared instruments and thermal imaging cameras

The compact and robust SIKA instruments are easy to transport, simple to use and offer all the features required for the specific test. Our instruments are already standard in many development, research and testing labs, testing and inspection departments and in the production and manufacturing sector.

Temperature calibrator requirements

Calibration task and operation locations

A temperature calibrator needs to meet a wide range of requirements: as a portable device, it has to cope with frequently changing operation locations in the test bay or in production, while being equally suitable for stationary use in the measuring workshop and testing and inspection laboratory. For this reason, the instruments must be lightweight and handy for quick and easy use on site. The weight and size are determining factors here. Furthermore, instrument durability also plays an important role.

Temperature range

Temperature sensors should be calibrated at the temperature point at which they are used. This means that the temperature calibrator must be able to cover the process temperatures of the temperature sensor under calibration and, in particular, generate the main test points. SIKA offers several temperature calibrators to cover the range from -55 °C to 1300 °C.

Efficiency and flexibility

The time and personnel required to perform the calibration task is a key index for gauging efficiency. The more efficiently things are done, the faster the return on investment in a temperature calibrator. Intuitive operation with clear displays that provide all the necessary information at a glance, along with the calibration volume and the associated re-cooling and cooling times, primarily determine the speed of the calibration. Another time-saver: a large-diameter test item holder that enables several temperature sensors to be calibrated simultaneously.

Reliable system accuracy

Various tests and measurement uncertainty appraisals as defined in the guidelines of the German Calibration Service (DAkkS) are performed during the production of SIKA calibrators. The measurement results are documented in comprehensive examination reports, thereby ensuring a reliable, high degree of system accuracy.

Traceability

Instruments and measuring equipment become worn from constant use. It is unavoidable that equipment ages and measured values drift as a result. Regular inspection with a factory calibration standard is absolutely essential and can be performed easily with a SIKA temperature calibrator as the calibration standard.

Services

Experienced and professional consultants visit you directly on site with demo instruments, thereby ensuring you receive top-quality customer care. Furthermore, SIKA also offers a wide array of services which can generally only be performed efficiently by the manufacturer, such as recalibration, adjustments and repairs. This increases the availability of the temperature calibrators and cuts cost.
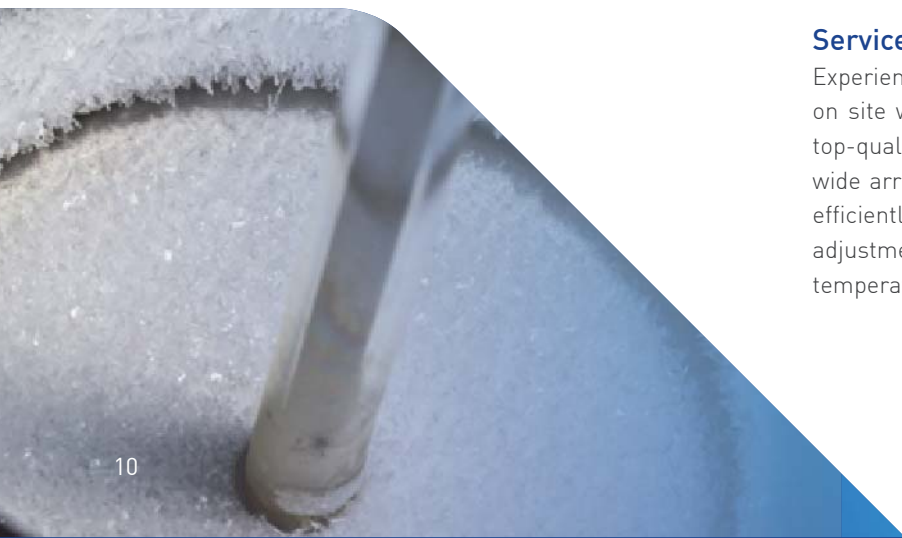
TP M 165 S-U

Type TP M 165 S-U

Scope of delivery

- Test certificate
- Mains cable
- Insert exchange tool
- Operating manual
- Sensor basket, suction pump, transport cover
- Magnetic stirrer with magnet lifter
- Sensor lid with 5 silicone plugs
- External calibration reference sensor TF 255-3-300

Optional accessories

- Transport case
- Adapter sleeve
- Tube insert
- Infrared calibration sleeve
- Surface calibration sleeve
- PC software
- PC cable
- DAkkS certificate
- Works certificate

Technical data	
Type	TP M 165 S-U
Control sensor	Switchable internal / external
Micro Bath	
Temperature range	-35...165 °C
Tolerance	±0.1 °C
Stability	±0.05 °C
Measurement zone	110...150 mm
Dry block	
Temperature range	-35...165 °C
Tolerance	±0.3 °C
Stability	±0.05 °C
Measurement zone	123...163 mm
Infrared	
Temperature range	-35...165 °C
Tolerance	±0.5 °C
Stability	±0.05 °C
Measurement zone	110 mm
Surface	
Temperature range	-25...150 °C
Tolerance	±1 °C
Stability	±0.2 °C
Measurement zone	
Block	
	Ø 60 mm / depth 170 mm
Display	
Display	2-line, 4-digit display Red / green, unit °C (°F optional)
Display range	-50...165 °C
Resolution	0.01 °C in the range of -9.99...99.99 °C, else 0.1 °C
General data	
Dimensions	
→ Width	210 mm
→ Height	380 + 50 mm
→ Depth	300 mm
Weight	Approx. 12.5 kg
Power supply	100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 400 VA