Temperature calibrator TP 17165S

TP Solid // Dry block // -35...165 °C // -31...329 °C

TP 17165S

Highlights

- Very easy operation with 4-button control and integrated reference temperature sensor
- PC interface with connection cable to USB for use with SIKA calibration software
- Low weight and stable handle for easy transport
- Optional accessory: Transport case with or without trolley
- Qualified for SIKA Gold Service
- Particularly suitable for simple and fast calibrations, even below the ambient temperature and in the upper range up to above the often important temperatures such as 121 °C (249.8 °F) and 131 °C (267.8 °F)

TP Solid

With the temperature calibrators of the TP Solid series, the main focus is on **flexibility**: In addition to **dry block calibrators**, they also include **calibration baths**, with which almost any temperature sensor can be calibrated irrespective of its shape. Both can be operated **easily and intuitively**. When being used as fluid bath calibrator, the temperature sensors are directly immersed into the calibration liquid. This creates a direct temperature link between the calibrator and the devices under test without insulating air gap. All TP Solid temperature calibrators are additionally equipped with a **serial interface for computer-assisted monitoring** of the calibration process. This flexibility in combination with the easy operation make the TP Solid series ideal for **use in machinery and plant engineering**.

SIKA temperature calibrators

Temperature calibrators are used for the verification of the functionality and calibration of temperature measuring devices and temperature sensors. As the sole German manufacturer of these devices, we develop and produce our "Made in Germany" temperature calibrators with a special focus on **long-term reliability** and **utmost accuracy** in combination with **easy operation**. We can rely on more than 40 years of experience in doing this: SIKA's **first dry block temperature calibrator** was launched all the way back in 1980.

Every SIKA temperature calibrator is meticulously tested for **accuracy** and **stability**. This is attested by our standard calibration certificate, which we issue with every temperature calibrator, or by means of an optional DAkkS calibration certificate [German accreditation body]. This is to guarantee that you receive a **perfect product** which can be traced back to national and international temperature measurement standards.

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Features

Easy operation

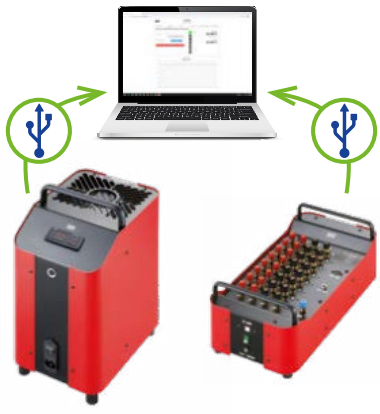
- The TP 17165S can be operated with only four buttons: Two arrow buttons for setting the target temperature, one button for confirmation and one return button
- Thus, temperatures can be set as easily as, for example, in the air conditioning system in your car
- Any operational errors can be nearly excluded. You do not need any specifically trained staff or time-consuming briefings

Different dimensions of the calibration insert available

- Our TP 17165S temperature calibrator features a small calibration insert with a diameter of 28 mm
- The small calibration insert is ideally suited for quickly running up temperatures and calibrating 1 to 5 conventional temperature sensors at the same time.
- Another version with a calibration insert of Ø 60 mm and an otherwise equal design is also available → **TP 17166S**
- The large calibration insert takes a bit longer until it reaches the temperature, but is able to calibrate 1 to 20 conventional temperature sensors at the same time
- We will be happy to help you select the ideal calibration insert for your application

TT-Scan multi-channel measuring instrument

- To calibrate devices under test that do not have their own temperature display, you need to connect them to a measuring instrument
- This is done by our TT-Scan multi-channel measuring instrument: With this instrument, you can calibrate up to eight DUTs without a display unit of their own
- The TT-Scan and the temperature calibrator are connected to a PC or laptop on which the temperatures of the DUTs are output via our PC software and evaluated.
- Compatible with DUTs with all common signals: Resistance thermometer, thermocouple and current signals
- The simultaneous calibration of several DUTs enables great time savings



SIKA Gold Service

SIKA Gold Service provides a comprehensive service package for the regular recalibration of your temperature calibrator. You will benefit from exclusive savings and discounts as well as special promotions reserved to SIKA Gold Service members.

- You will save 33% in the recalibration of your temperature calibrator
- You will receive a 10% discount on any repairs that may become necessary
- You will receive preferential invitations to product presentations, symposia, practice days and exclusive training offers

Register now and benefit from the SIKA Gold Service: gold-service.sika.net

Technical data

TP 17165S		
Temperature range	-35...165 °C at ambient temperature 20 °C	-31...329 °F at ambient temperature 68 °F
Dimension of the calibration insert	Ø 28 x 150 mm (calibration insert easily exchangeable)	
Dry block		
Display accuracy	±0.2 °C	±0.45 °F
Temperature stability	±0.05 °C	±0.09 °F
Resolution of the temperature display	0.01 °C between -9.99...99.99 °C, else 0.1 °C	0.01 °F between -9,99...99.99 °F, else 0.1 °F
Reference temperature sensor	internal, fixed installation	
Interface	RS485 (calibrator) to USB (PC)	
Connectivity	MODBUS	
Dimensions		
→ Width → Height → Depth	210 mm 380 + 50 mm (Handle) 300 mm	
Weight	Approx. 10 kg	
Power supply	100...240 VAC, 50 / 60 Hz	
Power consumption	Approx. 375 W	
Display		
Display	2-line, 4-digit digital display red / green, unit °C / °F	
Approvals		

Article numbers

To order a complete calibrator, you need two article numbers:

1. Calibrator
2. Calibration insert

In addition, depending on your individual calibration requirements, you can order additional calibration inserts, necessary certificates and other accessories.

1. Calibrator					
Temperature range		**Function**	**Calibration insert [mm]**	**Power supply**	**Article number**
-35…165 °C	-31…329 °F	Dry block	Ø 28 x 150	100…240 V	EP17160S281503

2. Calibration insert				
Bore holes [mm]	**Function**	**Calibration insert [mm]**	**Material**	**Article number**
1x Ø 3.5, 1x Ø 6.5, 1x Ø 13.5	Dry block	Ø 28 x 150	Brass	EZ15028B03MS17
1x Ø 6.5	Dry block	Ø 28 x 150	Brass	EZ15028065MS00
2x Ø 3.5	Dry block	Ø 28 x 150	Brass	EZ15028B02MS09
1x Ø 3.5, 1x Ø 4.5	Dry block	Ø 28 x 150	Brass	EZ15028F02MS80
1x Ø 3.5, 1x Ø 6.5	Dry block	Ø 28 x 150	Brass	EZ15028H02MS01
1x Ø 3.5, 1x Ø 8.5	Dry block	Ø 28 x 150	Brass	EZ15028B02MS67
1x Ø 3.5, 1x Ø 6.5, 1x Ø 8.5, 1x Ø 10.5	Dry block	Ø 28 x 150	Brass	EZ15028C04MS15
Without bore holes	Dry block	Ø 28 x 150	Brass	EZ15028000MS00
Calibration insert incl. 1 bore hole of choice	Dry block	Ø 28 x 150	Brass	Please indicate bore holes in the order
Each additional bore hole	Dry block	Ø 28 x 150	Brass	

3. Calibration certificate - Select your calibration certificates as needed Each calibrator is already delivered with a standard calibration certificate (6 test points).	Article number
SIKA works calibration certificate (similar to standard calibration certificate + marking on the calibrator)	EKTPWP1FKT
DAkkS calibration certificate (3 test points + measurement uncertainty determination)	EKTPDAKKS1FKT
Each additional test point DAkkS calibration certificate	EKTPDAKKSZUSP
SIKA Gold Service works calibration certificate	EKTPGOLDWP
SIKA Gold Service DAkkS	EKTPGOLDDAKKS

4. Accessories	Article number
Transport case without trolley	EZTPKOFFER20
Transport case with trolley	EZTPKOFFER20TG
PC software (without TT-Scan)	EZ999999999971
PC software (with TT-Scan)	EZ380000000001
PC connection cable: temperature calibrator (RS485) to USB	EZ170000000002

Overview of SIKA temperature calibrators

Our series: Basic. Solid. Premium.

- **Dry block calibrators** of the **TP Basic** series impress with their **uncomplicated operation** and **high cost-effectiveness**. They are particularly suitable for use on ships or in industrial applications.
- Equipped with a **PC interface**, the **dry block calibrators** and **calibration baths** of the **TP Solid** series cover a wide temperature range with high accuracy.
- For the highest demands on accuracy and flexibility: The dry-block and multi-function temperature calibrators of the **TP Premium** series represent the pinnacle of our technical development. Equipped with an **integrated touch screen**, a **PC interface**, an **external reference sensor** and **integrated measuring instrument**, this series offers **extreme accuracies** for **all calibration tasks**.

Temperature range (RT=Room temperature)	Function	Accuracy		Features	Block dimensions [Ø mm x depth mm]	Type
-55 °C ... 200 °C -67 °F ... 392 °F	Dry block	±0.4 °C	±0.72 °F	TP Basic	28 x 150	TP 17200
	Dry block	±0.2 °C	±0.36 °F	TP Solid	28 x 150	TP 17200S
	Dry block	±0.2 °C	±0.36 °F	TP Premium	28 x 150	TP 37200E.2
-35 °C ... 155 °C -31 °F ... 311 °F	Calibration bath	±0.1 °C	±0.18 °F	TP Solid	60 x 170	TP M165S
-35 °C ... 165 °C -31 °F ... 329 °F	Dry block	±1 °C	±1.80 °F	TP Basic	28 x 150	TP 17165M
	Dry block	±0.4 °C	±0.72 °F	TP Basic	28 x 150	TP 17165
	Dry block	±0.2 °C	±0.36 °F	TP Solid	28 x 150	TP 17165S
	Dry block	±0.2 °C	±0.36 °F	TP Premium	28 x 150	TP 37165E.2
	Dry block ext. Dry block int. Air Shield Insert Calibration bath Infrared Surface	±0.2 °C ±0.3 °C ±0.099 °C ±0.1 °C ±0.5 °C ±1 °C	±0.36 °F ±0.54 °F ±0.1782 °F ±0.18 °F ±0.9 °F ±1.88 °F	TP Premium	60 x 170	TP 3M165E.2
-30 °C ... 165 °C -22 °F ... 329 °F	Dry block	±0.4 °C	±0.72 °F	TP Basic	60 x 150	TP 17166
	Dry block	±0.2 °C	±0.36 °F	TP Solid	60 x 150	TP 17166S
-10 °C ... 100 °C 14 °F ... 212 °F	Dry block	±0.05 °C	±0.09 °F	TP Solid	7 x 6.5 x 150	TP 17Zero
RT ... 200 °C RT ... 392 °F	Dry block	±1 °C	±1.80 °F	TP Basic	18 x 150	TP 18200E
RT ... 255 °C RT ... 491 °F	Calibration bath	±0.2 °C	±0.36 °F	TP Solid	60 x 170	TP M255S
	Dry block ext. Dry block int. Air Shield Insert Calibration bath, tub insert, ext. Calibration bath, tub insert, int. Calibration bath, direct filling, ext. Calibration bath, direct filling, int. Infrared Surface	±0.25 °C ±0.5 °C ±0.08 °C ±0.35 °C ±0.53 °C ±0.18 °C ±0.46 °C ±0.5 °C ±1°C	±0.45 °F ±0.9 °F ±0.144 °F ±0.63 °F ±0.954 °F ±0.324 °F ±0.828 °F ±0.9 °F ±1.8 °F	TP Premium	60 x 170	TP 3M255E.2
RT ... 450 °C RT ... 842 °F	Dry block	±0.6 °C	±1.08 °F	TP Basic	60 x 150	TP 17450
	Dry block	±0.3 °C	±0.54 °F	TP Solid	60 x 150	TP 17450S
	Dry block Air Shield Insert Infrared Surface	±0.3 °C ±0.2 °C ±0.5 °C ±1 °C	±0.54 °F ±0.36 °F ±0.9 °F ±1.8 °F	TP Premium	60 x 150	TP 37450E.2
RT ... 650 °C RT ... 1202 °F	Dry block	±1 °C	±1.8 °F	TP Basic	28 x 150	TP 17650M
	Dry block	±0.8 °C	±1.44 °F	TP Basic	28 x 150	TP 17650
	Dry block	±0.4 °C	±0.72 °F	TP Solid	28 x 150	TP 17650S
RT ... 700 °C RT ... 1292 °F	Dry block Air Shield Insert	±0.43 °C ±0.27 °C	±0.744 °F ±0.486 °F	TP Premium	29 x 150	TP 37700E.2
RT ... 850 °C RT ... 1562 °F	Dry block	±1 °C	±1.8 °F	TP Basic	18 x 100	TP 18850E
400 °C ... 1300 °C 752 °F ... 2372 °F	Dry block	±2 °C	±3.6 °F	TP Solid	28 x 200	TP 281300E

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