Temperature calibrator TP 17165S
TP Solid // Dry block // -35...165 °C // -31...329 °C

TP 17165S

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.

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	
PC interface	RS485 (calibrator) to USB (PC)	
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	

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	EZTPKOFFER020
Transport case with trolley	EZTPKOFFER020TG
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

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		28 x 150	TP 17200
	Dry block	±0.2 °C	±0.36 °F	PC interface	28 x 150	TP 17200S
	Dry block	±0.2 °C	±0.36 °F	Touch screen PC interface External reference sensor Integrated measuring instrument	28 x 150	TP 37200E.2
-35 °C ... 165 °C -31 °F ... 329 °F	Dry block	±1 °C	±1.80 °F		28 x 150	TP 17165M
	Dry block	±0.4 °C	±0.72 °F		28 x 150	TP 17165
	Dry block	±0.2 °C	±0.36 °F	PC interface	28 x 150	TP 17165S
	Dry block	±0.2 °C	±0.36 °F	Touch screen PC interface External reference sensor Integrated measuring instrument	28 x 150	TP 37165E.2
	Dry block	±0.4 °C	±0.72 °F		60 x 150	TP 17166
	Dry block	±0.2 °C	±0.36 °F	PC interface	60 x 150	TP 17166S
	Calibration bath	±0.1 °C	±0.18 °F	PC interface	60 x 170	TP M165S
	Dry block Air Shield Insert Calibration bath Infrared Surface	±0.3 °C ±0.099 °C ±0.1 °C ±0.5 °C ±1 °C	±0.54 °F ±0.1782 °F ±0.18 °F ±0.9 °F ±1.88 °F	Touch screen PC interface External reference sensor Integrated measuring instrument	60 x 170	TP 3M165E.2
-10 °C ... 100 °C 14 °F ... 212 °F	Dry block	±0.05 °C	±0.09 °F	PC interface	7 x 6.5 x 150	TP 17Zero
RT ... 200 °C RT ... 392 °F	Dry block	±1 °C	±1.80 °F		18 x 150	TP 18200E
RT ... 255 °C RT ... 491 °F	Calibration bath	±0.2 °C	±0.36 °F	PC interface	60 x 170	TP M255S
	Dry block Calibration bath 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	Touch screen PC interface External reference sensor Integrated measuring instrument	60 x 170	TP 3M255E.2
RT ... 450 °C RT ... 842 °F	Dry block	±0.6 °C	±1.08 °F		60 x 150	TP 17450
	Dry block	±0.3 °C	±0.54 °F	PC interface	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	Touchscreen PC interface External reference sensor Integrated measuring instrument	60 x 150	TP 37450E.2
RT ... 650 °C RT ... 1202 °F	Dry block	±1 °C	±1.80 °F		28 x 150	TP 17650M
	Dry block	±0.8 °C	±1.44 °F		28 x 150	TP 17650
	Dry block	±0.4 °C	±0.72 °F	PC interface	28 x 150	TP 17650S
RT ... 700 °C RT ... 1292 °F	Air Shield Insert	±0.53 °C	±0.954 °F	Touchscreen PC interface External reference sensor Integrated measuring instrument	29 x 150	TP 37700E.2
RT ... 850 °C RT ... 1562 °F	Dry block	±1 °C	±1.80 °F		18 x 100	TP 18850E
400 °C ... 1300 °C 752 °F ... 2372 °F	Dry block	±2 °C	±3.6 °F	PC interface	28 x 200	TP 281300E

Subject to technical modifications and errors

Technical datasheet

01/2021

SIKA Dr. Siebert & Kühn GmbH & Co. KG
Struthweg 7-9 // 34260 Kaufungen // Germany
www.sika.net

SIKA®