Temperature calibrator TP 37700E.2 // TP 37700E.2i

TP Premium // Dry block // Room temperature...700 °C // RT...1292 °F



Highlights

- · Best measurement uncertainties on the market
- Patented control technology Fastest stabilisation times on the market Time savings of up to 50 %
- Temperature calibrator with highest temperature range in the TP Premium Series
- Use of an extremely resilient metal alloy for long life
- · Patented touch screen function for simple and convenient operation
- · Accessories: device under test management with barcode scanner
- Available with integrated measuring instrument → TP 37700E.2i

TP Premium

The calibrators of the TP Premium series are characterised by their **unparalleled performance** and **outstanding operating comfort**. By means of the **intuitive menu structure**, all necessary inputs can be made quickly and easily. The **large touch screen** has plenty of room to display the reference, target and devices under test temperatures. At the end of a calibration process, the TP Premium provides the complete calibration certificate. The continuously growing bandwidth of supported temperature ranges supports an increasing number of temperature sensors on the market. They can be calibrated with a resolution of up to 0.001 °C / K and thus meet the highest requirements, e.g. of the food and pharmaceuticals industry.

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

SIKA OS with touch screen

- Simple operation of the temperature calibrator via the integrated 7" touch screen
 - \rightarrow Intuitive operation of the calibration functions
 - ightarrow Management of calibration data directly on the calibrator
- Clear display
 - → All important information at a glance
- Completely paperless calibration
 → Value calculation and transmission errors are excluded
- Glass surface made of multi-panel safety glass
 - → Extremely robust against damage
 - \rightarrow Easy cleaning of the surface
 - \rightarrow Suitable for use in the food industry



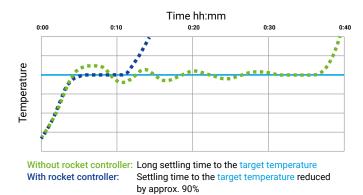


Temperature control with "rocket controller"

- Temperature regulator with model-based state control
- Special regulation algorithm based on knowledge and experience from space travel
- Unique temperature stability of < 0.001 °C / K
- Anticipatory activation of the heating and cooling elements
 - → The settling time to the target temperature is reduced by approx. 90% at each calibration point
 - $\rightarrow\,$ Time savings of up to 50% with each calibration process

WebApp - Plug and play for your temperature calibrator

- With the WebApp, ongoing or completed calibration processes can be comfortably displayed on a PC or a smart phone
- The connection is made via LAN or WLAN (via router)
- The WebApp is opened via the browser of your PC or mobile phone. Installation of drivers or software is not required
- Compatible with all current operating systems (Windows, Mac OS, Linux, iOS and Android)





Features

Automatic calibration with camera

In calibration processes for devices under test with their own temperature display, the display of the DUT must be read for each calibration point. The read value is transferred by the user to the calibrator or the calibration certificate, and the subsequent calibration point is only approached after a manual acknowledgement. For this purpose, the user must return to the calibrator at each calibration point. In some cases, this can lead to long delays if the user carries out other tasks in between. With our automatic calibration with a camera, these time-intensive intermediate steps are no longer needed:

- The patented camera system automatically creates a recording of the DUT display at each calibration point. The subsequent calibration point is approached directly afterwards
 - → No user interaction is required during the calibration process, as it is implemented automatically
 - \rightarrow All test points are approached without waiting times
- Upon completion of the entire calibration process, the user transmits the data of the created display records to the calibrator or calibration certificate
 - → During the entire calibration process, the user is free to carry out other tasks
- The visual records of the device under test display at each calibration point are saved and attached to the calibration certificate as verification





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 is connected to a temperature calibrator, and the temperatures of the DUTs are directly shown on the display of the temperature calibrator.
- 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

The TP 37700 can be operated up to 700 °C (1292 °F). For physical reasons, it achieves the best accuracy at temperatures up to 660 °C (1220 °F). For temperatures between 660 (1220 °F) and 700 °C (1292 °F) we recommend the use of a separate reference thermometer.

TP 37700E.2 / TP 37700E.2i					
Temperature range	Room temperature700 °C	Room temperature1292 °F			
Dimension of the calibration insert	Ø 29 x 150 mm (calibration insert easily exchangeable)				
Dry block Air Shield Insert All values determined at 660 °C (1220 °F)	External reference temperature sensor				
Display accuracy	±0.27 °C	±0.486 °F			
Temperature stability	±0.015 °C	±0.027 °F			
Temperature distribution					
→ Axial	±0.400 °C	±0.72 °F			
→ Radial	±0.020 °C	±0.036 °F			
Influence of load	±0.020 °C	±0.036 °F			
Dry block All values determined at 660 °C (1220 °F)	Internal reference temperature sensor				
Display accuracy	±0.43 °C	±0.774 °F			
Temperature stability	±0.100 °C	±0.18 °F			
Temperature distribution					
→ Axial	±0.400 °C	±0.72 °F			
→ Radial	±0.040 °C ±0.180 °C	±0.072 °F ±0.324 °F			
General data	±0.180 C	10.324 F			
Stabilisation time					
(with external reference temperature sensor)					
→ to ± 0.05 °C → to ± 0.09 °F	From 1 min				
→ to ±0.005 °C → to ±0.009 °F	From 5 min				
Heating time					
→ 20 °C690 °C → 681274 °F	19 min				
Cooling time					
→ 70030 °C → 129286 °F	85 min				
Resolution of the temperature display	0.1 / 0.01 / 0.001 °C (selectable)	0.1/0.01/0.001 °F (selectable)			
Hysteresis	±0.015 °C	±0.037 °F			
Temperature units	°C / °F / K (selectable)				
Reference temperature sensor	Internal / external (selectable)				
Interfaces	Ethernet, 3 x USB				
Connectivity	OPC UA, serial communication, HTTP. Det	tails and further possibilities on request.			
Dimensions					
→ Width	210 mm				
→ Height	330 mm + 50 mm (Handle)				
→ Depth	300 mm				
Weight	10.0 kg				
Power supply	110115 V 60 Hz / 230 V 50 Hz Protective conductor (PE) needed				
Power consumption	Approx. 1000 W				
Adjustable temperature range	0700 °C	321292 °F			
Display	Brilliant color touchscreen (7 inches), mul	ti panel safety glass			
Approvals					





The integrated measuring instrument in detail

Resistance thermometers, thermocouples and signals from temperature transmitters must be operated with an external measuring instrument which measures the output signals and displays them as temperature during the calibration. This temperature can then be compared to the set calibrator temperature. Our integrated measuring instrument assumes the tasks of an external measuring instrument. It shows the temperature directly on the calibrator display and enables the fully automatic calibration of two devices under test at the same time.

Your benefits of the integrated measuring instrument at a glance:

- Temperature sensor calibration without additional measuring instrument
- · Simultaneous calibration of several temperature sensors
- · Fully automatic calibration and certification
- · Enables the simplification of your work processes
- · Offers great time savings compared to a temperature calibrator without integrated measuring instrument

The following DUTs can be connected to the integrated measuring instrument:

- Resistance thermometer (RTD): Pt100, Pt500 and Pt1000 in 2-,3- or 4-wire circuit
- Thermocouples (TC) of the types K, J, N, E, R, T, B, S, L and U
- 0(4)...20 mA current signals from temperature transmitters (mA), with and without supply voltage
- 0...10 V voltage signals
- Temperature switch (switch) with normally open and normally closed contacts





Temperature calibrator TP 37700E.2i // Integrated measuring instrument Technical data

Connection 4 mm safety socket, 4 per channel Connection type 2, 3, 4 wire technology Resistance range 0, 4000 > Pt1000 0, 4000 Accuracy 0, 4000 > Pt100 0, 4000 Accuracy 0, 4000 > Pt100 ±0.03 °C ±0.054 °F > Pt100 ±0.06 °C ±0.010 °F > N100 ±0.06 °C ±0.010 °F > N100 ±0.08 °C ±0.010 °F > N1000 ±0.08 °C ±0.017 °F Device under test inputs - Thermocouple 2 Number of channels 2 Connection 2x thermocouple socket (mini) Measuring range 10.017 °C ±0.0124 °F - Type K ±0.08 °C ±0.144 °F - Type K ±0.08 °C ±0.140 °F > Type E ±0.08 °C	Device under test inputs - Resistance thermometers		
Connection type 2, 3, 4, 4wire technology Resistance range	Number of channels		
Connection type 2, 3, 4, 4wire technology Resistance range	Connection	4 mm safety socket, 4 per channel	
Resistance range 0.400 Ω → Pr100 0.400 Ω → Pr100 0.400 Ω → Pr100 0.03 °C ±0.054 °F → Pr100 ±0.03 °C ±0.054 °F → Pr100 ±0.03 °C ±0.054 °F → Pr100 ±0.03 °C ±0.056 °F → Pr100 ±0.06 °C ±0.016 °F → Pr100 ±0.06 °C ±0.016 °F → Pr100 ±0.08 °C ±0.014 °F → NI500 ±0.04 °C ±0.072 °F Device under test inputs - Thermocouple 2 Connection Accuracy ±0.04 °C ±0.014 °F Connection 2x thermocouple socket (mini) Consection Accuracy ±0.017 °C ±0.054 °F Accuracy ±0.017 °C ±0.024 °F Accuracy ±0.017 °C ±0.024 °F Accuracy ±0.017 °C ±0.0126 °F → Type K ±0.017 °C ±0.0126 °F → Type F ±0.017 °C ±0.0126 °F → Type R ±0.07 °C ±0.0180 °F	Connection type		
→ P1100 0.400 0 → P1100 0.4000 0 Accuracy 0.03 °C 0.054 °F → P1100 ±0.03 °C ±0.054 °F → P1100 ±0.05 °C ±0.216 °F → P1100 ±0.06 °C ±0.108 °F → P1100 ±0.06 °C ±0.108 °F → P1100 ±0.02 °C ±0.104 °F → N1100 ±0.08 °C ±0.104 °F → N1100 ±0.08 °C ±0.014 °F → N1100 ±0.08 °C ±0.014 °F → N1100 ±0.04 °C ±0.014 °F → N1100 ±0.3 °C ±0.054 °F Accuracy di uncton ±0.08 °C ±0.056 °F → Type K ±0.08 °C ±0.056 °F → Type K ±0.08 °C ±0.08 °F → Type K ±0.08 °C ±0.0168 °F → Type K ±0.08 °C ±0.025 °F <			
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⇒ P1100±0.03 °C±0.054 °F⇒ P1500±0.05 °C±0.108 °F→ N100±0.06 °C±0.036 °F→ N100±0.08 °C±0.036 °F→ N1000±0.08 °C±0.04 °C⇒ N1000±0.04 °C±0.072 °FDevice under test inputs - ThermocoupleVNumber of channels2ConnectionAccuracy10100 mVAccuracy old junctionAccuracy→ Type K±0.08 °C±0.144 °F→ Type J±0.08 °C±0.144 °F→ Type J±0.08 °C±0.144 °F→ Type J±0.08 °C±0.144 °F→ Type J±0.07 °C±0.126 °F→ Type J±0.07 °C±0.126 °F→ Type S±0.07 °C±0.134 °F→ Type S±0.07 °C±1.314 °F→ Type S±0.07 °C±1.314 °F→ Type S±0.07 °C±1.314 °F→ Type S±0.73 °C±1.314 °F→ Type S±0.73 °C±1.314 °F→ Type S±0.73 °C±1.314 °F→ Type S±0.07 °C±0.9 °FStandard signal input (Current)Number of channels1Connection4 mm safety socketMeasuring range0.12 VDCConnection4 mm safety socketMeasuring range0.12 VDCConnec	→ Pt1000	04000 Ω	
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→ Type T ±0.09 °C ±0.162 °F → Type R ±0.78 °C ±1.404 °F → Type S ±0.73 °C ±1.314 °F → Type B ±0.5 °C ±0.9 °F Standard signal input (Current) Number of channels 1 Connection Measuring range 024 mA Accuracy 0.01 % of range Standard signal input (Voltage) Vumber of channels 1 Connection Measuring range 0.01 % of range Standard signal input (Voltage) Vumber of channels 1 Connection Measuring range 012 VDC Accuracy 0.01 % of range Switch test 2 Transmitter supply Output current Max. 24 mA Output voltage 24 VDC General technical data 24 VDC			
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→ Type S±0.73 °C±1.314 °F→ Type B±0.5 °C±0.9 °FStandard signal input (Current)INumber of channels1Connection4 mm safety socketMeasuring range024 mAAccuracy0.01 % of rangeStandard signal input (Voltage)INumber of channels1Connection4 mm safety socketMeasuring range024 mAAccuracy0.01 % of rangeStandard signal input (Voltage)INumber of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch testINumber of channels2Transmitter supply2Output currentMax. 24 mAOutput voltage24 VDCGeneral technical data			
→ Type B±0.5 °C±0.9 °FStandard signal input (Current)1Number of channels1Connection4 mm safety socketMeasuring range024 mAAccuracy0.01 % of rangeStandard signal input (Voltage)1Number of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch test1Number of channels2Transmitter supplyMax. 24 mAOutput currentMax. 24 mAOutput voltage24 VDCGeneral technical data			
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Measuring range024 mAAccuracy0.01 % of rangeStandard signal input (Voltage)1Number of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch test2Number of channels2Transmitter supplyMax. 24 mAOutput currentMax. 24 mAOutput voltage24 VDCGeneral technical data2	Number of channels	1	
Accuracy0.01 % of rangeStandard signal input (Voltage)Number of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch test2Number of channels2Transmitter supplyQutput currentOutput voltageMax. 24 mAOutput voltage24 VDC	Connection	4 mm safety socket	
Standard signal input (Voltage)Number of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch test2Number of channels2Transmitter supplyMax. 24 mAOutput currentMax. 24 mAOutput voltage24 VDCGeneral technical data	Measuring range	024 mA	
Number of channels1Connection4 mm safety socketMeasuring range012 VDCAccuracy0.01 % of rangeSwitch test2Number of channels2Transmitter supplyUtput currentOutput currentMax. 24 mAOutput voltage24 VDCGeneral technical data	Accuracy	0.01 % of range	
Connection 4 mm safety socket Measuring range 012 VDC Accuracy 0.01 % of range Switch test 2 Number of channels 2 Transmitter supply Max. 24 mA Output voltage 24 VDC General technical data	Standard signal input (Voltage)		
Measuring range012 VDCAccuracy0.01 % of rangeSwitch test2Number of channels2Transmitter supplyVOutput currentMax. 24 mAOutput voltage24 VDCGeneral technical data	Number of channels	1	
Accuracy 0.01 % of range Switch test 2 Number of channels 2 Transmitter supply 0utput current Output current Max. 24 mA Output voltage 24 VDC General technical data 24 VDC	Connection	4 mm safety socket	
Switch test Number of channels 2 Transmitter supply Output current Max. 24 mA Output voltage 24 VDC General technical data	Measuring range	012 VDC	
Number of channels 2 Transmitter supply 0utput current Output voltage Max. 24 mA Output voltage 24 VDC General technical data	Accuracy	0.01 % of range	
Transmitter supply Output current Max. 24 mA Output voltage 24 VDC General technical data Context of the second se	Switch test		
Output current Max. 24 mA Output voltage 24 VDC General technical data Control of the second	Number of channels	2	
Output voltage 24 VDC General technical data 24 VDC	Transmitter supply		
General technical data	Output current	Max. 24 mA	
General technical data	Output voltage	24 VDC	
Annual drift of all measuring inputs Max. 30% of accuracy	General technical data	and the second secon	
	Annual drift of all measuring inputs	Max. 30% of accuracy	



Article numbers

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

- 1. Calibrator
- 2. Linearisation
- 3. 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	Integrated measuring instrument	Article number	
Room temperature700 °C	RT1292 °F	Dry block	Ø 29 x 150	110240 V	Without	EP3770 0 22915U3	
Room temperature700 °C	RT1292 °F	Dry block	Ø 29 x 150	110240 V	With	EP3770 I 22915U3	

Notice: Every "linearisation" article number with 13 digits starts with "EK1", while the following letters ("short designation") indicate the selected calibration function. You may also select several functions of one category. Please indicate the calibration functions in alphabetical order and fill in any possibly remaining positions with "0".

2. Linearisation											
Calibration functi	on		Calibratio	on insert / o	calibration	medium	Reference	e temperatu	ire sensor	Short de	signation
Dry block			Air Shield	Air Shield Insert			external			A	
			Cylindrica	Cylindrical calibration insert			internal			С	
Example article n	Example article number linearisation										
Function:		1	2	2 3 4 5			6	7	8	9	10
Article number:	EK1	Α	0	0	0	0	0	0	0	0	0

3. Calibration insert				
Bore holes [mm]	Function	Calibration insert [mm]	Material	Article number
Air Shield Insert incl. 1 bore hole of choice	Air Shield Insert	Ø 29 x 150	Copper-Alu	Please indicate bore
Calibration insert incl. 1 bore hole of choice	Dry block	Ø 29 x 150	Copper-Alu	holes in the order



Article numbers

4. 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 certificate + marking on the calibrator), 1st calibrator function	EKTPWP1FKT
SIKA works calibration certificate (similar to standard certificate + marking on the calibrator), 2nd calibrator function	EKTPWP2FKT
SIKA Gold Service works calibration certificate	EKTPGOLDWP
SIKA Gold Service DAkkS	EKTPGOLDDAKKS
DAkkS calibration certificate (3 test points + measurement uncertainty determination) for 1st calibrator function	EKTPDAKKS1FKT
DAkkS calibration certificate (3 test points + measurement uncertainty determination) for 2nd calibrator function	EKTPDAKKS2FKT
Each additional test point DAkkS calibration certificate	EKTPDAKKSZUSP
SIKA works calibration certificate integrated measuring instrument (Pt100, type K)	EKTPWPMI1
SIKA works calibration certificate integrated measuring instrument (Pt100, Pt1000 type K, type J)	EKTPWPMI2
SIKA works calibration certificate integrated measuring instrument (Pt100, type K, mA, V)	EKTPWPMI3
SIKA works calibration certificate integrated measuring instrument (Pt100, Pt1000 type K, type J, mA, V)	EKTPWPMI4
SIKA works calibration certificate for each additional measurement input of your choice (Pt500, Pt1000, type J/N/E/T/R/S, mA, V)	EKTPWPMIZUS
SIKA works calibration certificate complete (Pt100, Pt500, Pt1000, type K/J/N/E/T/R/S, mA, V)	EKTPWPMIKOMPL
DAkkS calibration certificate integrated measuring instrument (Pt100, type K)	EKTPDAKKSMI1
DAkkS calibration certificate integrated measuring instrument (Pt100, Pt1000 type K, type J)	EKTPDAKKSMI2
DAkkS calibration certificate integrated measuring instrument (Pt100, type K, mA, V)	EKTPDAKKSMI3
DAkkS calibration certificate integrated measuring instrument (Pt100, Pt1000 type K, type J, mA, V)	EKTPDAKKSMI4
DAkkS calibration certificate for each additional measurement input of your choice (Pt500, Pt1000, type J/N/E/T/R/S, mA, V)	EKTPDAKKSMIZUS
DAkkS calibration certificate complete (Pt100, Pt500, Pt1000, type K/J/N/E/T/R/S, mA, V)	EKTPDAKKSKOMPL

5. Accessories	Article number
Transport case without trolley	EZTPKOFFER20
Transport case with trolley	EZTPKOFFER20TG
External reference temperature sensor TF 700-4.5-300 (5700 °C / 411292 °F), straight	W454P413000GX0R2
Network switch	XE2103
Barcode scanner	XE2102
W-LAN router	XE2101
DUT temperature sensor for demo purposes (Pt100 3-phase) for integrated measuring instrument	WMQMP31020050003
Bore hole divider for 3 x Ø 3 mm sensors from Ø 9 mm bore hole	XE2194
Instruction in the temperature calibrator by SIKA field service	EKTPEINWEISUNG
Frame packaging for return of calibrator (e.g. for recalibration) Please indicate the calibrator model when ordering.	098V



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]	Туре
	Dry block	±0.4 °C	±0.72 °F	TP Basic	28 x 150	TP 17200
-55 °C 200 °C -67 °F 392 °F	Dry block	±0.2 °C	±0.36 °F	TP Solid	28 x 150	TP 17200S
-07 F 392 F	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
	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
-35 °C 165 °C -31 °F 329 °F	Dry block ext. Dry block int. Air Shield Insert Calibration bath	±0.2 °C ±0.3 °C ±0.099 °C ±0.1 °C	±0.36 °F ±0.54 °F ±0.1782 °F ±0.18 °F	TP Premium	60 x 170	TP 3M165E.2
	Infrared Surface	±0.5 °C ±1 °C	±0.9 °F ±1.88 °F			
-30 °C 165 °C	Dry block	±0.4 °C	±0.72 °F	TP Basic	60 x 150	TP 17166
-22 °F 329 °F	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
	Calibration bath	±0.2 °C	±0.36 °F	TP Solid	60 x 170	TP M255S
RT 255 °C RT 491 °F	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 ±0.35 °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
	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
RT 450 °C RT 842 °F	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
	Dry block	±1 °C	±1.8 °F	TP Basic	28 x 150	TP 17650M
RT 650 °C	Dry block	±0.8 °C	±1.44 °F	TP Basic	28 x 150	TP 17650
RT 1202 °F	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

Subject to technical modifications and errors

