





## TP 37 // Dry block // -55...200 °C



Type	Highlights
TP 37200E.2	<ul style="list-style-type: none"> <li>Patented control technology - time saving up to 50%</li> <li>Worldwide fastest dry block temperature calibrator</li> <li>Hybrid technology (Peltier elements and heating cartridges) for fastest cooling and heating times</li> <li>-55...200 °C - Widest temperature range with cooling and heating function on the market</li> <li>Fastest stabilization times on the market</li> <li>Patented touchscreen function</li> <li>Measuring instrument with two channels and best accuracy on the market</li> <li>DUT management with barcode scanner (accessories)</li> </ul>

Technical data				
Type	TP 37200E.2		TP 37165E.2	
Temperature range*	-55...200 °C		-35...165 °C	
Calibration volume	Ø 28 x 150 mm			
Dry block	Ext. Reference sensor	Int. Reference sensor	Ext. Reference sensor	Int. Reference sensor
Accuracy	±0.2 °C			±0.2 °C
Temperature stability	±0.005 °C	±0.010 °C	±0.005 °C	±0.010 °C
Measurement zone	Bottom 40 mm of the sleeve			

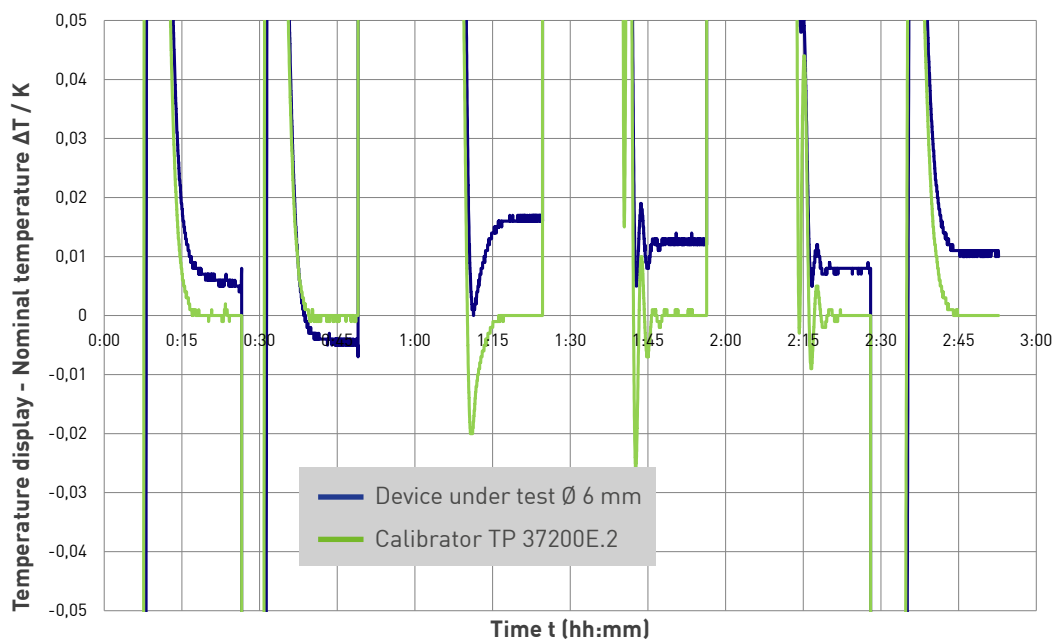
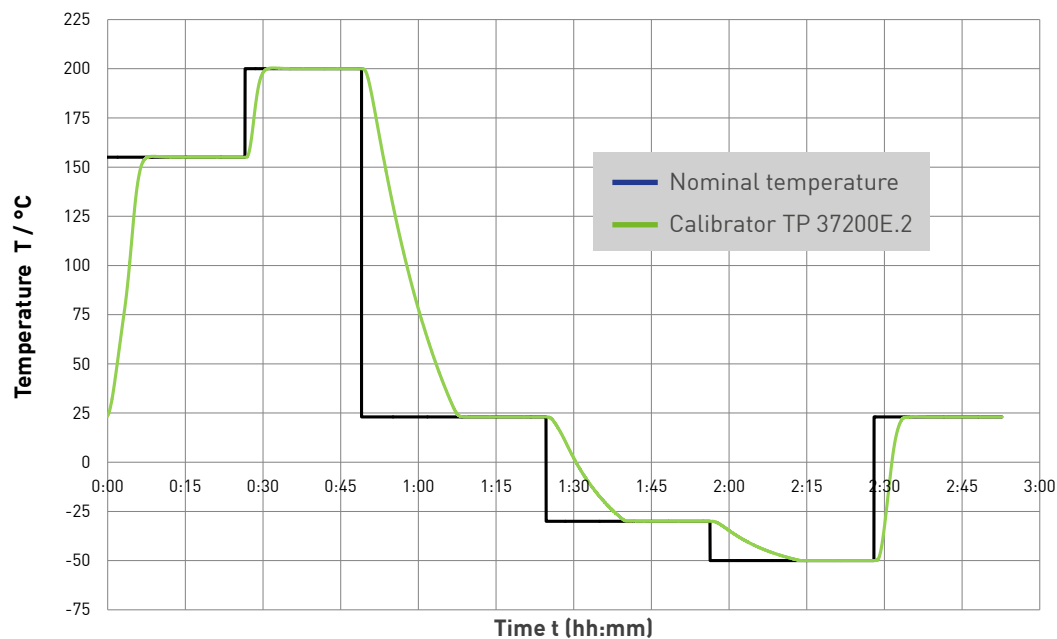
\* At an ambient temperature of 20 °C / 68 °F

General data		
<b>Type</b>	TP 37200E.2	TP 37165E.2
<b>Stabilization time</b> (with external reference sensor) → to $\pm 0,05^{\circ}\text{C}$ → to $\pm 0,005^{\circ}\text{C}$	From 1 min From 5 min	From 1 min From 5 min
<b>Heating time</b> → RT...Tmax → -Tmin...Tmax	9 min 12 min	14 min 16 min
<b>Cooling time</b> → RT...Tmin** → Tmax...RT	35 min (-50 °C) 18 min	13 min (-30 °C) 11 min
<b>Resolution</b>	0.1 / 0.01 / 0.001 °C	
<b>Hysteresis</b> → int. Ref. → ext. Ref.	$\pm 0.25^{\circ}\text{C}$ $\pm 0.025^{\circ}\text{C}$	
<b>Temperature units</b>	°C / °F / K [selectable]	
<b>Control sensor</b>	internal / external [selectable]	
<b>Interface</b>	Ethernet, 3 x USB	
<b>Dimensions</b> → Width → Height → Depth	210 mm 380 + 50 mm 300 mm	
<b>Weight</b>	Approx. 15 kg	Approx. 13.5 kg
<b>Power supply</b>	100...240 VAC, 50 / 60 Hz	
<b>Power consumption</b>	Approx. 555 W	Approx. 375 W
<b>Adjustable temperature range</b>	-60...200 °C	-50...165 °C
<b>Display</b>	Brilliant color touchscreen (7 inches), multi panel safety glass	
<b>Approvals</b>	   	

\*\* Cooling time to Tmin [-55 °C / -35 °C] differs

# TP 37 // Dry block // -55...200 °C

## Temperature steps TP 37200E.2 with external reference



## TP 37 // Integrated measuring instrument

<b>Technical data</b>	
<b>Optional for temperature calibrators</b>	TP 37200E.2 / TP 37165E.2*
<b>Device under test input - Resistance thermometers</b>	
<b>Number of channels</b>	2
<b>Connection</b>	4x 4 mm safety socket per channel
<b>Connection type</b>	2-, 3-, 4-wire technology
<b>Resistance range</b>	
→ Pt100	0...400 Ω
→ Pt1000	0...4000 Ω
<b>Accuracy</b>	
→ Pt100	±0.03 °C
→ Pt1000	±0.06 °C
<b>Device under test input - Thermocouple</b>	
<b>Number of channels</b>	2
<b>Connection</b>	2x thermocouple socket (Mini)
<b>Measuring range</b>	-10...100 mV
<b>Accuracy cold junction</b>	±0.3 °C
<b>Accuracy</b>	
→ Type K	±0.08 °C
→ Type J	±0.07 °C
→ Type N	±0.13 °C
→ Type E	±0.06 °C
→ Type T	±0.09 °C
→ Type R	±0.78 °C
→ Type S	±0.73 °C
<b>Standard signal input (Current)</b>	
<b>Number of channels</b>	1
<b>Connection</b>	4 mm safety socket
<b>Measuring range</b>	0...24 mA
<b>Accuracy</b>	0.01 % full scale
<b>Standard signal input (Voltage)</b>	
<b>Number of channels</b>	1
<b>Connection</b>	4 mm safety socket
<b>Measuring range</b>	0...12 VDC
<b>Accuracy</b>	0.01 % full scale
<b>Switch test</b>	
<b>Number of channels</b>	2
<b>Transmitter supply</b>	
<b>Output current</b>	Max. 24 mA
<b>Output voltage</b>	24 VDC

\* See order code

# TP 37 // Dry block

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

1. Calibrator type	EP37	xx	x	x	xxxxxx
2. Linearisation	EPLIK	xx	x	x	
3. Adapter sleeve	EZ	xxxxxxxxxxxx			

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

Order code								
1. Calibrator type								
Temperature range	Function	Block [mm]	Power supply	Type				
-55...200°C	Dry block	Ø 28 x 150	110...240 V	TP 37200E.2	EP37	20	2	2815U3
-35...165°C	Dry block	Ø 28 x 150	110...240 V	TP 37165E.2	EP37	16	2	2815U3
Integrated measuring instrument								
Without								0
With								I
<b>Example order number calibrator</b>					<b>EP37</b>	<b>20</b>	<b>I</b>	<b>2 2815U3</b>

Order code								
2. Linearisation								
With linearisation					EPLIK	DB		
Reference sensor								
Internal								I00
External								E00
Test points								
Standard								0
Customised								K
<b>Example order number linearisation</b>					<b>EPLIK</b>	<b>DB</b>	<b>I</b>	<b>0</b>

Order code							
3. Adapter sleeve							
Bore holes [mm]	Function	Block [mm]	Material	Order 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				EZ15028065MS00			
2x Ø 3.5				EZ15028B02MS09			
1x Ø 3.5, 1x Ø 4.5				EZ15028F02MS80			
1x Ø 3.5, 1x Ø 6.5				EZ15028H02MS01			
1x Ø 3.5, 1x Ø 8.5				EZ15028B02MS67			
1x Ø 3.5, 1x Ø 6.5, 1x Ø 8.5, 1x Ø 10.5				EZ15028C04MS15			
Without bore holes				EZ15028000MS00			
Sleeve incl. one hole by choice				Dry block	Ø 28 x 150	Brass	Please indicate bore holes in your order
Every additional hole							
<b>Example order number adapter sleeve</b>					<b>EZ16360C04AL05</b>		

Order code	
4. Calibration certificate - Select your certificates as required*	Order number
SIKA Works calibration certificate for first function	EKTPWP1FKT
SIKA Works calibration certificate for second function	EKTPWP2FKT
DAkKS calibration certificate for first function	EKTPDAKKS1FKT
DAkKS calibration certificate for second function	EKTPDAKKS2FKT
Additional test point DAkKS calibration certificate	EKTPDAKKSZUSP
SIKA Works calibration certificate int. measuring instrument (Pt100, Type K)	EKTPWPMI1
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPWPMI2
SIKA Works calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPWPMI3
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPWPMI4
SIKA Works calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPWPMIZUS
SIKA Works calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPWPMIKOMPL
DAkKS calibration certificate int. measuring instrument (Pt100, Type K)	EKTPDAKKSMI1
DAkKS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPDAKKSMI2
DAkKS calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPDAKKSMI3
DAkKS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPDAKKSMI4
DAkKS calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPDAKKSIZUS
DAkKS calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPDAKSKOMPL

Order code	
5. Accessories	Order number
<b>Transport case</b>	
Without trolley attachment frame	EZTPKOFFER004
With trolley attachment frame	EZTPKOFFER004TG
<b>More accessories</b>	
Ext. reference sensor TF 255-3-300 (-55...255 °C)	W033P413000GX002
Ext. reference sensor TF 255-3-300 (-55...255 °C), 90° angle	W033P413000GX0WI
Network switch	XE2103
Barcode scanner	XE2102
W-LAN router	XE2101
DUT sensor for demo purposes (Pt100 3-phase) for int. measuring instrument	WMQMP31020050003
Instruction to the temperature calibrator by SIKA field service	EKTPPEINWEISUNG
Packaging for calibrator return (for example for recalibration) **	098V

\* Each calibrator comes with a standard test certificate.

\*\* Please indicate the calibrator model when ordering.

## TP 37 // Dry block & multifunction // Room Temperature...450 °C



TP 37450E.2









TP 37450E.2i

Typ	Highlights
TP37450E.2	<ul style="list-style-type: none"> <li>• Fastest cooling times - time and cost savings thanks to a new, patented fan concept</li> <li>• Large calibration volume of Ø 60 x 150 mm for simultaneous calibration of numerous test pieces</li> <li>• Widest temperature range up to 450 °C in the middle temperature segment</li> <li>• Fastest stabilization times on the market</li> <li>• Patented touchscreen function</li> <li>• The only multifunctional calibrator in this temperature range on the market</li> <li>• Measuring instrument with two channels and best accuracies on the market</li> <li>• DUT management with barcode scanner (accessories)</li> </ul>

Technical data		
Type	TP 37450E.2	
Temperature range*	Room temperature...450 °C	
Calibration volume	Ø 60 x 150 mm	
Dry block Air Shield Insert	Ext. Reference sensor	
Display accuracy	±0.2 °C	
Temperature stability	±0.010 °C	
Temperature distribution		
→ Axial	±0.100 °C	
→ Radial	±0.070 °C	
Influence if load	±0.050 °C	
Homogeneous temperature zone	Bottom 40 mm of the sleeve	
Dry Block	Ext. Reference sensor	Int. Reference sensor
Display accuracy	±0.3 °C	±0.4 °C
Temperature stability	±0.010 °C	±0.030 °C
Temperature distribution		
→ Axial	±0.300 °C	±0.300 °C
→ Radial	±0.080 °C	±0.080 °C
Influence of load	±0.050 °C	±0.150 °C
Homogeneous temperature zone	Bottom 40 mm of the sleeve	

\* At ambient temperature 20 °C / 68 °F

Infrared calibration	Ext. Reference sensor	Int. Reference sensor
Display accuracy	±0.5 °C	±0.5 °C
Temperature stability	±0.030 °C	±0.100 °C
Emission factor	1	
Surface calibration	Ext. Reference sensor	
Display accuracy	±1 °C	
Temperature stability	±0.250 °C	

General data	
Type	TP 37450E.2
Stabilization time (with external reference) → to ±0.05°C → to ±0.005°C	From 1 min From 5 min
Heating time → RT...Tmax -10 °C	17 min
Cooling time → Tmax...RT +10 °C	36 min
Resolution	01. / 0.01 / 0.001 °C (selectable)
Hysteresis	±0.020 °C
Temperature units	°C / °F / K (selectable)
Control sensor	internal / external (selectable)
Interface	Ethernet, 3 x USB
Dimensions → Width → Height → Depth	210 mm 330 mm 300 mm
Weight	11 kg
Power supply	100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 1000 W
Adjustable temperature range	0...450 °C
Display	Brilliant color touchscreen (7 inches), multi panel safety glass
Approvals	
     	



## TP 37 // Integrated measuring instrument

<b>Technical Data</b>	
<b>Optional for temperature calibrators</b>	TP 37450E.2i*
<b>Test pieces inputs - Resistance thermometer</b>	
<b>Number of channels</b>	2
<b>Connection</b>	4x 4 mm safety socket per channel
<b>Connection type</b>	2-, 3-, 4-wire technology
<b>Resistance range</b>	
→ Pt100	0...400 Ω
→ Pt1000	0...4000 Ω
<b>Accuracy</b>	
→ Pt100	±0.03 °C
→ Pt1000	±0.06 °C
<b>Device under test input - Thermocouple</b>	
<b>Number of channels</b>	2
<b>Connection</b>	2x thermocouple socket (Mini)
<b>Measuring range</b>	-10...100 mV
<b>Accuracy cold junction</b>	±0.3 °C
<b>Accuracy</b>	
→ Type K	±0.08 °C
→ Type J	±0.07 °C
→ Type N	±0.13 °C
→ Type E	±0.06 °C
→ Type T	±0.09 °C
→ Type R	±0.78 °C
→ Type S	±0.73 °C
<b>Standard signal input (Current)</b>	
<b>Number of channels</b>	1
<b>Connection</b>	4 mm safety socket
<b>Measuring range</b>	0...24 mA
<b>Accuracy</b>	0.01 % full scale
<b>Standard signal input (Voltage)</b>	
<b>Number of channels</b>	1
<b>Connection</b>	4 mm safety socket
<b>Measuring range</b>	0...12 VDC
<b>Accuracy</b>	0.01 % full scale
<b>Switch test</b>	
<b>Number of channels</b>	2
<b>Transmitter supply</b>	
<b>Output current</b>	Max. 24 mA
<b>Output voltage</b>	24 VDC

\* See order code



## TP 37 // Dry block // multifunction

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

1. Calibrator type	<b>EP37</b> xx x x xxxxxx
2. Linearisation	<b>EPLIK</b> xx x x
3. Adapter sleeve	<b>EZ</b> xxxxxxxxxxxx

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

Order code									
1. Calibrator type									
Temperature range	Function	Block	Power supply	Type					
RT...450°C	Multifunction	Ø 60 x 150 mm	110...240 V	TP 37450E.2					
<table border="1"> <tr> <td>EP37</td> <td>45</td> <td>2</td> <td colspan="2">6015U3</td> </tr> </table>					EP37	45	2	6015U3	
EP37	45	2	6015U3						
Integrated measuring instrument									
Without				0					
With				I					
<b>Example order number calibrator</b>									
<b>EP37 45 I 2 6015U3</b>									

Order code				
2. Linearisation				
With linearisation				EPLIK
Function				
Dry block (Air Shield Insert)*				AS
Dry block				DB
Infrared				IR
Surface calibration*				SU
Reference sensor				
Internal				I
External				E
Test points				
Standard				0
Customised				K
<b>Example order number linearisation</b>				
<b>EPLIK AS I 0</b>				

Order code				
3. Adapter sleeve				
Bore holes [mm]	Function	Block [mm]	Material	Order number
1x Ø 3.5, 1x Ø 6.5, 1x Ø 8.5, 1x Ø 10.5	Dry block	Ø 60 x 150	Aluminium	EZ15060D04AL78
2x Ø 3.5, 2x Ø 4.5, 2x Ø 6.5, 2x Ø 8.5, 2x 10.5	Dry block	Ø 60 x 150	Aluminium	EZ15060D10AL79
2x Ø 3.5, 1x Ø 4.5, 1x Ø 5.0, 1x Ø 5.5, 1x Ø 6.5, 1x Ø 8.5, 1x Ø 9.0, 1x Ø 9.5, 1x Ø 10.5	Dry block	Ø 60 x 150	Aluminium	EZ15060D12AL81
Black body sleeve	Infrared	Ø 60 x 150	Aluminium	EZ15060B03AL41IR
Adapter sleeve for calibration of surface sensors	Surface	Ø 60 x 150	Aluminium	EZ17260B02AL060F
Without bore holes (Air Shield Insert)	Dry block	Ø 60 x 150	Aluminium	EZ15260B00AL23F
Air Shield Insert incl. 1 hole by choice	Air Shield Insert	Ø 60 x 150	Aluminium	Please indicate bore holes in your order
<b>Example order number adapter sleeve</b>				
<b>EZ15260B00AL23F</b>				

\* Only with external reference sensor

Order code	
<b>4. Calibration certificate - Select your certificates as required*</b>	<b>Order number</b>
SIKA Works calibration certificate for first function	EKTPWP1FKT
SIKA Works calibration certificate for second function	EKTPWP2FKT
DAkKS calibration certificate for first function	EKTPDAKKS1FKT
DAkKS calibration certificate for second function	EKTPDAKKS2FKT
Additional test point DAkKS calibration certificate	EKTPDAKKSZUSP
SIKA Works calibration certificate int. measuring instrument (Pt100, Type K)	EKTPWPMI1
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPWPMI2
SIKA Works calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPWPMI3
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPWPMI4
SIKA Works calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPWPMIZUS
SIKA Works calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPWPMIKOMPL
DAkKS calibration certificate int. measuring instrument (Pt100, Type K)	EKTPDAKKSMI1
DAkKS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPDAKKSMI2
DAkKS calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPDAKKSMI3
DAkKS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPDAKKSMI4
DAkKS calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPDAKKSIZUS
DAkKS calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPDAKSKOMPL

Order code	
<b>5. Accessories</b>	<b>Order number</b>
<b>Transport case</b>	
Without trolley attachment frame	EZTPKOFFER003
With trolley attachment frame	EZTPKOFFER003TG
<b>More accessories</b>	
Ext. reference sensor TF 450-4.5-300 (RT...450 °C), straight design	W454P413000GX0A2
Network switch	XE2103
Barcode scanner	XE2102
W-LAN router	XE2101
DUT sensor for demo purposes (Pt100 3-wire) for int. measuring instrument	WMQMP31020050003
Bore divider for 3 x Ø 3 mm sensors from Ø 9 mm bore hole	XE2194
Spare part extension spring for Air Shield Insert	XE2267
Instruction to the temperature calibrator by SIKA field service	EKTPEINWEISUNG
Frame packaging for calibrator return (for example for recalibration) **	098V

\* Each calibrator comes with a standard test certificate.

\*\* Please indicate the calibrator model when ordering.