

Temperature calibrator TP 18850E

TP Basic // Dry block // Room temperature...850 °C // RT...1562°F



TP 18850E



Highlights

- Very easy operation with 4-button control and integrated reference temperature sensor
- Use of an extremely resilient metal alloy for long life
- Stable bow handle for easy transport
- Optional accessory: Transport case
- Qualified for SIKA Gold Service
- Especially suitable for the calibration of resistance thermometers over the entire standardized temperature range up to 850 °C (1562 °F)

TP Basic

The temperature calibrators of the TP Basic series are characterised by their **efficiency and portability**. The series consists of dry block calibrators covering a wide temperature range and are used on site, e.g. in **marine applications**.

The easy operation, the integrated internal reference temperature sensor and the dry block calibration function ensure an **extremely easy calibration process**.

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 18850E 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



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 18850E | |
|--|---|
| Temperature range | Room temperature...850 °C Room temperature...1562 °F |
| Dimension of the calibration insert | Ø 18 x 100 mm (calibration insert easily exchangeable) |
| Dry block | |
| Accuracy | ±1 °C ±1.8 °F |
| Temperature stability | ±0.1 °C ±0.18 °F |
| Resolution of the temperature display | 1 °C 1 °F |
| Reference temperature sensor | internal, fixed installation |
| Dimensions | |
| → Width | 330 mm + 70 mm (Handle) |
| → Height | 270 mm |
| → Depth | 150 mm |
| Weight | Approx. 14 kg |
| Power supply | 230...240 VAC, 50 / 60 Hz |
| Power consumption | Approx. 2000 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 |
| Room temperature...850 °C | RT...1562 °F | Dry block | Ø 18 x 100 | 230 V | EP18850E181000 |

| 2. Calibration insert | | | | | |
|--|--|-----------|-------------------------|------------|---|
| Bore holes | | Function | Calibration insert [mm] | Material | Article number |
| Calibration insert incl. 1 bore hole of choice | | Dry block | Ø 18 x 100 | Copper-Alu | Please indicate bore holes in the order |
| Each additional bore hole | | Dry block | Ø 18 x 100 | Copper-Alu | |

| 3. Calibration certificate - Select your calibration certificates as needed | | Article number |
|--|--|----------------|
| Each calibrator is already delivered with a standard calibration certificate (6 test points). | | |
| 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 | EZ99999990005 |

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 ±0.07 °C ±0.1 °C ±0.5 °C ±1 °C | ±0.36 °F ±0.54 °F ±0.126 °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 |
| | 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 | ±0.43 °C | ±0.744 °F | TP Premium | 29 x 150 | TP 37700E.2 | |
| | Air Shield Insert | ±0.27 °C | ±0.486 °F | | | | |
| 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