

Temperature & Pressure

CALIBRATION SOLUTIONS



Wherever you measure

- we are there!

Product advantages & typical applications

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Why calibrate?

Temperature and pressure are among the most measured variables in technology, which is why the interest in exact and reliable measurement is particularly high.

But even the best sensor or transducer changes its characteristic properties through a wide variety of influences. This drift cannot be prevented and the display values are incorrect. These deviations can be determined by calibration and documented with a certificate. All sensors that have a significant influence on the process should be calibrated before commissioning. Often these calibrations are also specified by guidelines and standards.

Our products in the field of calibration technology have been developed and manufactured with regard to long-term reliability, highest quality and according to DAkkS requirements. Thanks to our accredited calibration laboratory, we can supplement our extensive product range with an extensive range of services.



You benefit

from our experience as manufacturer

Innovation & Tradition - The key to success

SIKA has been an integral part of calibration technology since the early 1980s. Together with PTB we have developed the guideline R5-4 for the calibration of temperature dry well calibrators. As a family business still managed by the 4th generation, we combine tradition and innovation and stand for forward-thinking trends in calibration technology.

- Innovative testing and production technologies
- Solution-oriented, responsive design department
- Continuously growing and powerful development department
- Continuous process optimization (e.g. DIN EN ISO 9001, KaiZen)
- Further development of market-driven series



OEM solutions

The right product for your assortment

There are only a few limits to the adaptation of our products. By detailed arrangements our calibrators can be adapted technically as well as optically to your wishes. This creates individual measuring instruments that match your corporate design, meet your technical requirements and fit seamlessly into your product range.

Modifications

- Temperature and pressure ranges
- Special calibration sleeves
- Programmings
- Software
- Language versions (all languages)
- Individual interface configuration
- Menu operation
- Shape / Color

Further adaptations on request

“

Many well-known manufacturers worldwide rely on SIKA calibration technology. “Made in Germany” - benefit from our know-how and let the “SIKA heart” beat in your products.



On-site expertise

In service for you worldwide

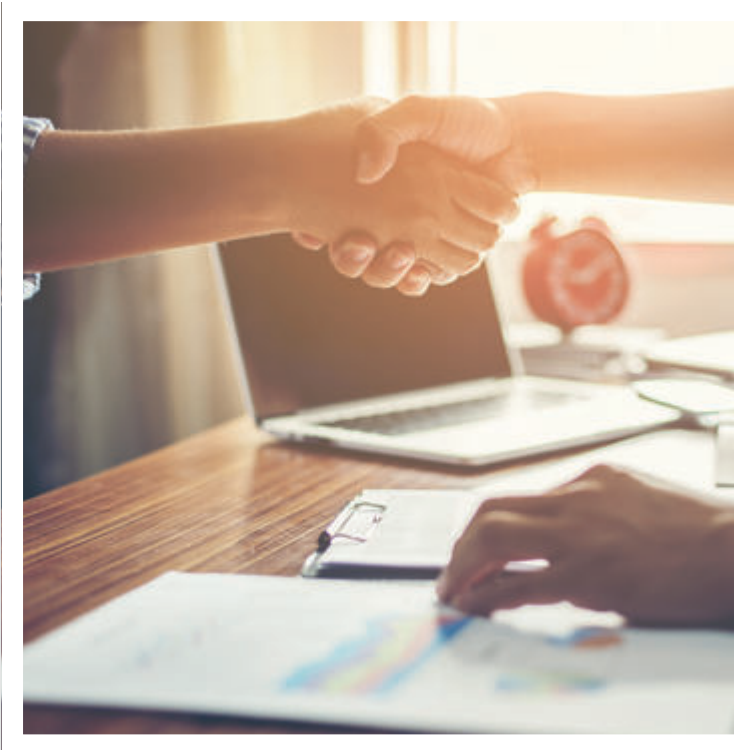
Technical sales in the field*

Personal advice on site is the foundation for a successful cooperation. That is why we have high demands on our technical sales staff operating throughout Germany: They have a technical background, comprehensive product knowledge and, with their many years of experience, stand for competent advice and extensive application knowledge.

Their proximity to customers and markets enables us to offer solutions tailored to your individual requirements. On the basis of extensive product training and the regular exchange of experience with product specialists in the office, we are able to guarantee the high quality of advice provided by our field service.

Service

- Demonstration devices and individual on-site consultation
- Recalibration and adjustment
- Certificates
- Repair and maintenance
- Free disposal of old equipment



* Available in Germany, Austria and Switzerland

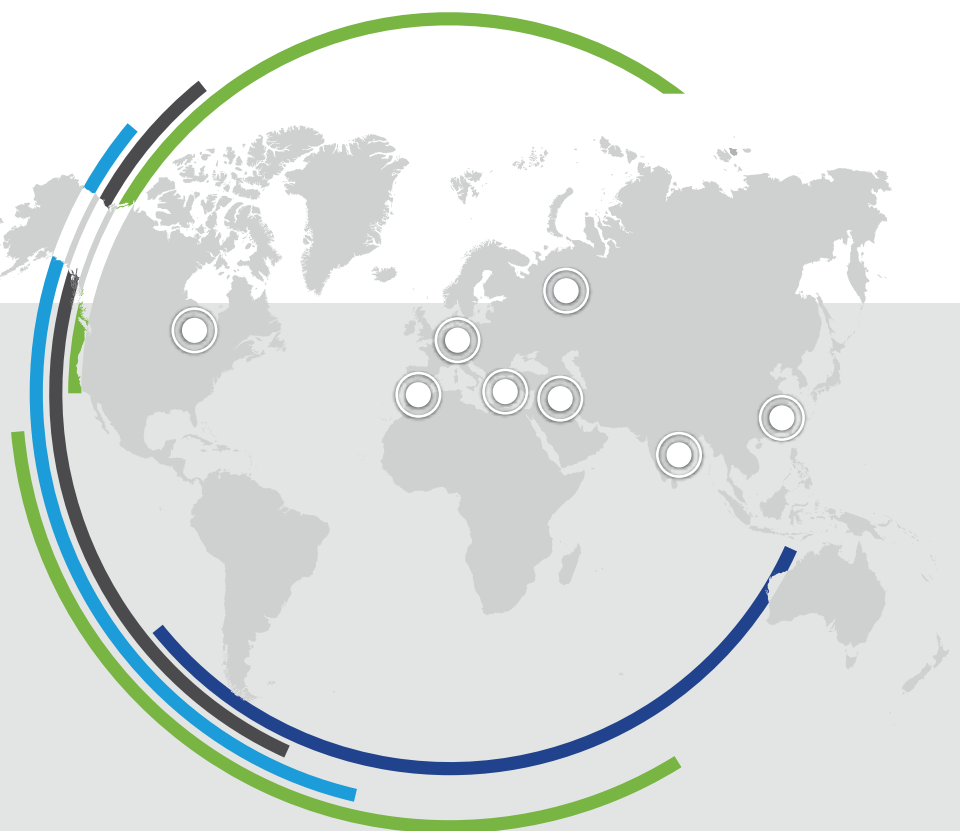
“ *With our extensive network of sales partners all over the world, we currently achieve an export quota of around 55 %.* ”

Worldwide network of sales partners

Thanks to the intensive work of our business development, our export quota has steadily increased in recent years. The insights gained into regional markets have also had a positive influence on the development of new products.

Our steadily growing dealer network enables us to offer our customers abroad a high-quality local service: Customers in the marine industry can have their calibrators recalibrated in specially set up service points. Specially certified “Calibration Service Partners” offer comprehensive service for industrial customers.

Regular workshops, training and further education at our headquarters in Kaufungen ensure a regular exchange of market-relevant know-how and knowledge of the latest product developments.



Calibration means

reliability for you and your customers

You calibrate on site - with SIKA

- The use of portable devices enables the thermometer check directly in the plant. This reduces downtime to a minimum and also eliminates the transport risk associated with laboratory dispatch.
- The on-site solution also offers a control advantage: It determines not only the measurement error from the sensor, but also that of the entire measurement chain.

“ We will be pleased to advise you on the selection of the right instrument and on the safe performance of calibration tasks in practice. ”

Increasing demands on measuring equipment

In addition to numerous guidelines and legal regulations (HACCP, FDA, EHEDG, ATEX,...), internal specifications and certifications (ISO, TÜV,...) often play a central role in every company in complying with precise measurement values. Only regularly calibrated sensors guarantee their accuracy and thus ensure long-term operational reliability. No matter whether stationary in the calibration laboratory or in the field applications directly at the measuring point, SIKA calibrators support you.

- Compliance with limit values
- Avoidance of failures and downtimes
- Minimize maintenance times
- Quality assurance and control
- Traceability and documentation
- Audit security



“ *Manufacturer-independent recalibration and maintenance of your test equipment with all our experience from over 115 years as a manufacturer for measuring instruments.* ”

We calibrate for you - recalibration at SIKA

We recalibrate your test equipment according to the DAkkS standard.

Temperature laboratory

- Accredited for the temperature range of -30...1300 °C.
- In this measuring range thermocouples, indicating temperature measuring and testing devices as well as dry-block calibrators can be calibrated.
- Resistance thermometers can be calibrated in the range of -30...960 °C.

Pressure laboratory

- The calibration laboratory for the measured variables “absolute pressure and positive pressure” for the calibration of indicating analog and digital pressure measuring instruments as well as pressure sensors with electrical output signal such as 0...10 V or 4...20 mA.
- Calibration is performed as a comparison measurement against a DAkkS reference standard piston pressure gauge with defined pressures in the range of 1...1200 bar.
- The smallest possible measurement uncertainties are 0.7 mbar, depending on the measuring range.

Laboratory for electrical quantities

- Resistors and resistance measuring instruments can be calibrated in the range of 0...2 kΩ. Depending on the resistance value, the smallest possible measurement uncertainty is 0.1 mΩ
- DC voltage measuring devices and transmitters can be calibrated in the range of 0...20 VDC with the smallest possible measurement uncertainty from 2 μV onwards.
- DC testing and measuring devices for standard signals [0]4...20 mA can be calibrated with the smallest possible measurement uncertainty starting at 0.05 μA

DAkkS
Deutsche Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Beliehene gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV
Unterzeichnerin der Multilateralen Abkommen
von EA, ILAC und IAF zur gegenseitigen Anerkennung

Akkreditierung

Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Kalibrierlaboratorium

SIKA Dr. Siebert & Kühn GmbH & Co. KG
Struthweg 7-9, 34260 Kaufungen

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Kalibrierungen in folgenden Bereichen durchzuführen:

Mechanische Messgrößen
– Druck

Thermodynamische Messgrößen
Temperaturmessgrößen
– Widerstandsthermometer
– Thermopaare, Thermoelemente
– Temperatur-Blockkalibratoren
– direktanzeigende Thermometer
– Temperaturanzeigergeräte und -simulatoren

Elektrische Messgrößen
Gleichstrom- und Niederfrequenzmessgrößen
– Gleichspannung
– Gleichstromstärke
– Gleichstromwiderstand

Registration number
D-K-19636-01-00



Temperature calibrators

Multifunction

- Easy switching between
 - Dry block function
 - Microbath function
 - Infrared function
 - Surface function

Your benefit:

- Universal application
- One multifunction calibrator can replace up to four standard instruments

Modern operating concept

- Intuitive operation of calibration functions
- Easy management of calibration data on the calibrator
- Very durable

Your benefit:

- Quick calibrator setup
- All functions at a glance

Practical accessories e.g. barcode reader

- Fast database access
- Simplification of data search

Your benefit:

- Efficient working
- Error minimization

LAN / WLAN connection

- Data exchange between calibrator and terminal (e.g. PC)
- Accessible remote access to data and processes without software driver installation (web application)

Your benefit:

- Simple calibrator setup with specific calibration tasks
- Monitoring of calibration orders no longer location-dependent



The scope of services varies depending on the model, please note the technical data.

Status control

→ Model-based multi-variables control system with predictive temperature control

Your benefit:

→ Fastest stabilization times on the market
→ Unique control stability in the mK range

Calibration tasks

→ Creation of calibration tasks that can be reused at any time

Your benefit:

→ Efficient working
→ Simplified handling, even for complex calibration procedures

Bootloader

→ Allows software extensions of the calibrator

Your benefit:

→ Simple software updates on site
→ Future security

Overview of functions

Series	TP Basic	TP Solid	TP Premium
Dry block	✓	✓	✓
Micro calibration bath		✓	✓
Multifunctionality			✓
Resolution	0.1...1 °C	0.01...1 °C	0.001...0.01 °C
Accuracy	0.4...1 °C	0.2...2 °C	0.1 °C...0.3 °C
Internal reference sensor	✓	✓	✓
PC interface		✓	✓
External reference sensor			✓
Integrated measuring instrument			✓

Temperature calibrators

The series



TP Basic

Sophisticated technology - easy handling

Efficiency and portability characterize the temperature calibrators of the TP Basic series. This series consists of dry-block calibrators that cover a wide temperature range and are used on site. Designed to ensure convenient calibration of temperature sensors, they impress with their simple operation and the sophisticated use of various automated functions. The optimum thermal coupling from the block to the test piece is achieved by a precisely matched transition sleeve. This sleeve can be manufactured according to customer specifications and thus enables the simultaneous calibration of a wide range of temperature sensors.

TP Solid

Higher accuracies and special designs

Flexibility is at the forefront of the TP Solid series of temperature calibrators: In addition to dry-block calibrators with the highest accuracy, there are also microcalibration baths with which almost any temperature sensor can be checked regardless of its shape. Both offer a simple and intuitive operation as well as quick access to extensive functions. Here you will also find suitable products for calibrating zero point and high temperature.



Multifunction (TP Premium) → Dry block - Microbath - Infrared - Surface





TP Premium

Fastest calibration and hybrid technology

Optimum performance, superior ease of use and multiple calibration functions characterize the calibrators of the TP Premium series. With the help of the intuitive menu structure, all necessary entries can be made quickly and easily, whether on a colored, graphic-capable display or the generous touch screen. A constantly growing range of supported temperature ranges covers more and more temperature sensors on the market. These can be calibrated with a resolution of up to 0.001 °C and thus meet the highest demands, e.g. in the food and pharmaceutical industries. The extensive accessory program of the TP Premium series allows time-saving calibration setups.

- Patented control technology (time saving up to 50 %)
- World's fastest dry-block temperature calibrators
- Hybrid technology (Peltier elements and heating cartridges)
- Wide temperature range with cooling and heating function on the market
- Fastest stabilization times on the market
- Patented touch screen functionality
- Gauge management with barcode scanner (accessory)
- Stability up to 0.001 °C

50 % faster

Experience and knowledge from space travel make the innovative temperature calibrators of the TP Premium series the fastest and temperature-stable calibrators on the market. They are equipped with a temperature controller based on a completely new operating principle. In contrast to the functionality of conventional calibrators, the properties of the test object are modelled virtually here. Due to a special control algorithm, a significantly shorter calibration time and a temperature stability in the millikelvin range, unique for portable calibrators, are achieved.

"Time is money" - the advantages for the user are obvious: Shorter calibration times mean shorter machine downtimes. Depending on the production process, considerable cost savings are possible by using TP Premium calibrators.

- Reduction of waiting times before reaching the thermal balance from approx. 30 minutes to 25 to 15 minutes.
- Energy savings over the service life of a temperature calibrator of up to 5 MWh.
- Reliable achievement of the thermal equilibrium, so that unnecessary calibration uncertainties are avoided.



Pressure calibrators

Regulation

- Ultra-fine thread pitch
- Stepless pressure generation
- Tool-free switching between vacuum and overpressure

Your benefit:

- Precise and simple regulation in the mbar range

Pneumatic or hydraulic

- Pneumatic test pumps for Low and medium pressure range
- Hydraulic test pumps for Medium and high pressure range
- Oil-free up to 1000 bar



The scope of services varies depending on the model, please note the technical data.



Reference pressure gauge

- Temperature compensated measuring cells and electronics
- Up to 13 unit characters
- Measuring ranges between -1...2500 bar

Your advantage:

- Suitable reference pressure gauges for almost all required measuring ranges



Overview pressure generation

Function	Type	Pressure range	Air	Oil	Water
Hand test pump	P 4	-0,3...4 bar	✓		
	P 40.2	-0,95...40 bar	✓		
	P 60	-0,95...60 bar	✓		
	P 700.3	0...700 bar		✓	✓
	P 1000.2	0...1000 bar		✓	✓
Table-top test pump	P 700 T	0...700 bar		✓	
	P 700.G2	0...700 bar		✓	
	P 700.GW	0...700 bar			✓
	P 1000.G	0...1000 bar		✓	
	P 1000.GW	0...1000 bar			✓
	P 1400.G	0...1400 bar		✓	

Manual pressure generation

- Smooth-running pressure generation thanks to ergonomic handles
- Operation without additional power supply

Your advantages:

- Immediate on-site use

Pressure calibrators =

Test pumps + reference pressure gauge

Pressure calibration is the comparison between the displayed values of a pressure measuring device and the display values of a pressure standard whose accuracy is known. Often the device to be tested cannot be removed from the running process. To avoid long downtimes, the calibration is carried out on site. For a prescribed function test or for accuracy control, the test item is connected to the hand test pump or table test pump, e.g. by means of a pressure hose. Digital pressure gauges with highest precision serve as compact reference instruments.

SIKA offers you a complete range of pressure calibrators for a wide variety of applications, enabling you to efficiently perform virtually any test and calibration task.



“ With the right combination of pressure generation and reference pressure gauge, on-site calibrations can be carried out very quickly and cost-effectively in everyday use. ”

Basic

For beginners and professionals

Whether to supplement your existing equipment or as an introduction to pressure calibration, each test pump includes a suitable pressure hose in the Basic version. The hoses of the hydraulic pumps are equipped with a self-sealing quick coupling.

Solid

Well equipped for use in the field

The Solid full version is available in a sturdy transport case for all common connection threads inch, conical or metric adapters as well as a suitable sealing kit. Depending on the pump, the case also offers space for up to two pressure references*.



* Reference pressure gauges are available separately as required.

Test pumps

Hand test pumps and table-top units

Requirements for pressure sources

Essential requirements for manual pressure generation are:

- Simple adaptation of test specimens
- Uncomplicated and easy pressure build-up
- Maintenance-free operation

These aspects were of course taken into account and optimally implemented in the design of our test pumps.

The test pumps

Air, water or oil are used as pressure media. Air is the ideal test medium, especially in areas of application where the test object is not wetted or no aggressive or ionizing substances may be used. Depending on the desired pressure range, you have the choice between the mobile hand pumps or the portable table devices when it comes to stationary use. In contrast to complex and sensitive plate scales, the table-top test pumps do not have to take gravity or complicated alignment into account, as a direct comparison measurement is carried out. Another advantage of all models is the one-handed operation with handle, lever or



spindle, which also makes frequently occurring test runs ergonomic.

Pneumatic

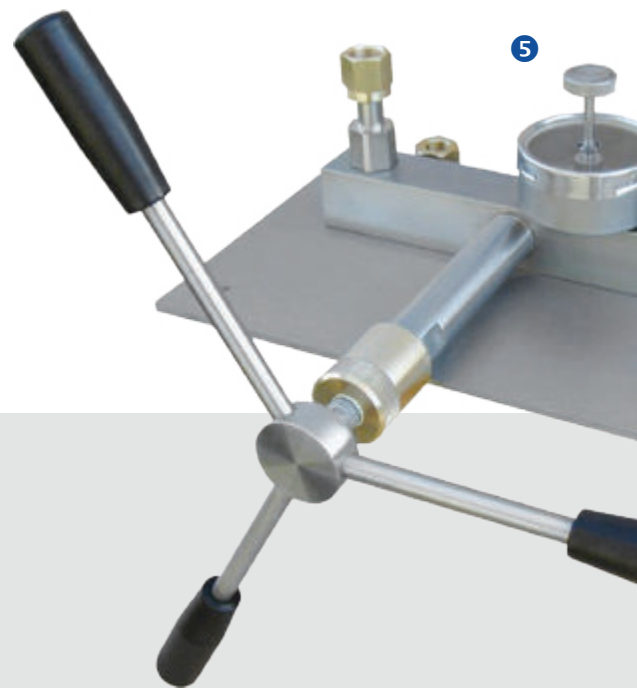
The pneumatic test pumps by SIKA meet requirements that other suppliers can often only cover with several pumps.

- 1 The pressure build-up in the medium pressure range up to 60 bar by means of a handle is unique.
- 2 The integrated negative pressure generation enables working in the vacuum range up to -950 mbar. The change from overpressure to negative pressure generation takes place without additional tool directly with a change-over valve.
- 3 For precise adjustment in the low mbar range, a large volume control valve with ultra-fine thread pitch is used, thus enabling settings in the precision pressure range.
- 4 Dirt trap (accessory) - prevents the transfer of the smallest dirt particles and moisture from a test specimen to the pump (up to 35 bar).

Hydraulic

The easy-to-operate hydraulic test pumps have been specially developed for the medium to high pressure range.

A built-in reservoir 5 serves as a receptacle for the hydraulic fluid. Depending on the version, pressures from 700 bar up to 1400 bar can be generated.



Reference pressure gauges

Digital pressure gauges or hand-held measuring instruments

The reference pressure gauges

Digital pressure gauges are particularly well suited for both stationary and mobile measurement and display of pressures. Its use as a pressure reference makes it easy to check, set and calibrate other pressure measuring devices directly on site. The high accuracy in signal acquisition is achieved by powerful measuring cells with electronic linearization of the characteristic curve. The right instruments are available for extensive measuring tasks.

Advantages at a glance

- Accurate and reliable measurement
- High operational readiness
- Easy and fatigue-free reading with illuminated display
- Very well suited for difficult on-site use
- Uncomplicated use, simple installation
- Added value through additional functions
- Ex versions

Direct mounting or built-in version

The compact, handy design proves itself in daily use. Large diameters of up to 250 mm, as is usual with precision manometers, are a thing of the past.

The small space requirement simplifies direct installation. If necessary, installation versions for front mounting in control cabinets or operating panels are available.





Energy supply industry

- Maintenance / Servicing
- Compliance with safety limits for temperatures and pressures
- Compliance with operating times and downtimes
- Process documentation



At home in your



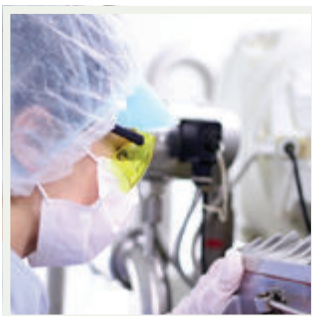
Medical engineering

- Maintaining sterile temperatures
- Climate control
- Plant engineering



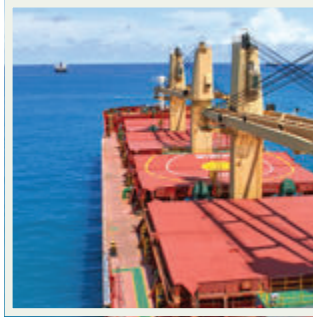
Food

- Adherence to product quality
- Check complete measuring chain
- Hygiene control



Pharmaceuticals & chemicals

- Process monitoring
- Temperature zone testing
- System cleaning



Marine sector

- Exhaust gas temperature monitoring
- Cooling water monitoring
- Condition monitoring
- Recalibration on board

industry!



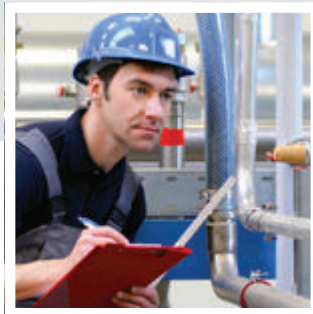
Your Branch

- For precise pressure and temperature measurement
- For a longer lifetime of your machines and plants
- For your process documentation



Automotive

- Maintenance of test benches
- Sensor testing of vulcanization systems



Calibration service

- On-site calibration
- Laboratory use

Energy supply industry

Power generation & district heating

Recommended products

- Temperature calibrators
 - TP Basic dry block calibrator for temperatures up to 850 °C
 - TP Solid micro calibration bath for temperatures up to 225 °C
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar
 - Hydraulic hand test pumps and pressure generators for pressures up to 1400 bar
 - Digital reference pressure gauges with data logger



“ The compact and transportable temperature and pressure calibrators can also be used comfortably in difficult places. ”



Application examples

- Maintenance and servicing of safety temperature limiter
- Compliance with safety limits for exhaust gas temperature measurement
- Heating and cooling water monitoring
- Testing of pressures in steam pipes
- Compliance with operating times and downtimes
- Process documentation

Food

Processing, storage & transport

Recommended products

- Temperature calibrators
 - TP Premium dry block calibrator for temperatures from -55 °C up to 650 °C, with hygienic touch display
 - TP Premium micro calibration bath for special shapes and custom sensors for temperatures from -35 °C up to 165 °C
 - Special adapter sleeve for aseptic sensors
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar
 - Hydraulic hand test pumps and pressure generators for pressures up to 700 bar
 - Digital reference pressure gauges with data logger



“ Aseptic sensors can also be fully accommodated in our special dry-block calibration sleeve thanks to the unique stepped bore. Due to the even temperature distribution, measuring errors are avoided!

”



Application examples

- Hygiene monitoring in cooking lines, filling plants and packaging lines
- Check measuring chain
- Documentation and compliance with consistent product quality
- Compliance with safety limits in temperature-critical areas
- Reduction of maintenance periods and downtimes
- Cold chain monitoring

Pharmaceuticals & chemicals

Production & laboratory applications

Recommended products

- Temperature calibrators
 - TP Premium dry block calibrator for temperatures from -55 °C up to 200 °C, with hygienic touch display and patented control technology
 - TP Premium multifunction bath inclusive infrared and surface function and customer-specific linearization
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar
 - Hydraulic hand test pumps and pressure generators for pressures up to 700 bar
 - Digital reference pressure gauges with data logger, intrinsically safe

Application examples

- Hygiene monitoring, filling plants and packaging lines
- Check measuring chain
- Documentation and compliance with consistent product quality
- Process monitoring
- Temperature zone testing
- Plant cleaning

“ Check every sensor in your system with only one calibrator! Multifunctional calibrators with dry block, microbath, infrared and surface function.

”



Medical engineering

Production, research & development

Recommended products

- Temperature calibrators
 - TP Premium dry block calibrator for temperatures from -55 °C up to 200 °C, with hygienic touch display and patented control technology
 - TP Premium multifunction bath for special shapes and custom sensors, incl. infrared and surface function and stability up to 0.001 °C
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar
 - Hydraulic hand test pumps and pressure generators up to 1000 bar for on-site and laboratory use
 - Digital reference pressure gauge with data logger and highest accuracy

Application examples

- Compliance with quality standards, guidelines and certifications
- Calibration within the scope of GDP (Good Distribution Practice)
- Temperature monitoring in freezers/chambers, ovens and heating cabinets
- Temperature maintenance and monitoring in sterilization equipment, cleaning and disinfection systems
- Climate control
- Plant construction and maintenance
- Process documentation

“ *Faster validation processes by simultaneous calibration of up to 57 probes with highest accuracy.* ”



Automotive

Production & quality assurance

Recommended products

- Temperature calibrators
 - TP Basic Dry block calibrator for temperatures up to 850 °C,
 - TP Premium Dry block calibrator for temperatures from -55 °C up to 650 °C, with hygienic touch display
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar
 - Hydraulic hand test pumps and pressure generators up to 1400 bar

Application examples

- Temperature measurement in test benches
- Temperature and pressure monitoring in vulcanization plants
- Documentation and compliance with consistent product quality
- Reduction of maintenance and downtimes
- Process monitoring

“ Save time during quality inspection thanks to automated calibration. You just program your test points - the rest is done by the calibrator! ”



Marine sector

Measuring & monitoring on board

Recommended products

- Temperature calibrators
 - TP 17650M dry block calibrator for temperatures up to 650 °C, compact design for on-site use
 - TP 17165M dry block calibrator for temperatures from -35 °C up to 165 °C
- Pressure calibrators
 - Pneumatic hand test pumps for pressures up to 60 bar, light and compact for mobile use
 - Hydraulic hand test pumps and pressure generators up to 1000 bar
- Recalibration set
 - Digital hand-held calibrator
 - Digital reference pressure gauge
 - Temperature reference sensor

Application examples

- Exhaust gas temperature measurement
- Temperature monitoring in the engine, e.g. cylinder oil and cooling water
- Turbocharger/charge air Temperature & pressure monitoring
- Maintenance and servicing of mobile and stationary measuring instruments
- Hold temperature monitoring and documentation
- Compliance with limit values for emissions and international maintenance and safety standards (SOLAS, ISM,...)

“ Easy handling even under harsh environmental conditions. ”

”



SIKA[®]

SIKA[®]

K32S

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Out

ACHTUNG! HOHE TEMPERATUR
ATTENTION! HIGH TEMPERATURE
高温注意



Technical data

Temperature calibrators

→ TP Premium	
• TP3M	30
• TP37	32
→ TP Solid	
• TP17	44
• TP17 / 28	46
• TPM	48
→ TP Basic	
• TP17	50
• TP17 Marine	52
• TP18	54
→ Accessories	55

Pressure calibrators

→ Pneumatic hand test pumps	
• P40.2 / P60	62
• P4	63
→ Hydraulic hand test pumps	
• P700.3 / P1000.2	64
→ Hydraulic table top test pumps	
• P700T / P700G / P1000G / P1400G	65
→ Digital reference pressure gauges	
• Type E2 / D2 / C2	66
• Type D-Ex / L-Ex	68
• Type J	70
• Type P	72
→ Accessories	74

For any questions
or comprehensive
technical consulting,
please contact:

Sales Department

Phone: (262) 886-2695

Email: info@sika-usa.com

TP 3M // Multifunction // -35...255 °C



TP 3M165E.2

BEST
SELLER



TP 3M165E.2 Stainless steel case

BEST
SELLER

Type	Highlights	Order code
TP 3M165E.2	<ul style="list-style-type: none"> Patented control technology - time saving up to 50% High calibration volume Fastest stabilisation times on the market Patented touchscreen function Management of device under test with barcode scanner (Accessories) Optional with stainless steel case (for pharmaceutical and food industry) 	EP3M1626015U3 XE2102 EP3M1626015U3SS

Technical data

Type	TP 3M165E.2	TP 3M255E
Control sensor	(internal / external)	
Hysteresis	±0.25 °C / ±0.025 °C (internal / external)	
Temperature range*	-35...165 °C -25...150 °C (at surface calibration)	RT...255 °C RT...200 °C (at surface calibration)
Micro calibration bath		
Accuracy	±0.1 °C	±0.2 °C
Stability	±0.010 °C / ±0.005 °C (internal / external)	±0.05 °C (internal)
Measurement zone	110...150 mm	
Dry block		
Accuracy	±0.3 °C	±0.3 °C
Stability	±0.010 °C / ±0.005 °C (internal / external)	±0.05 °C (internal)
Measurement zone	123...163 mm	
Infrared		
Accuracy	±0.5 °C	±0.5 °C
Stability	±0.020 °C / ±0.020 °C (internal / external)	±0.05 °C (internal)
Measurement zone	110 mm	
Surface		
Accuracy	±1 °C	±1 °C
Stability	±0.150 °C (external)	±0.2 °C (external)
Measurement zone	Surface	

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

Transition times*		TP 3M165E.2	TP 3M255E
Cooling time	→ RT...-30 °C**	40 min (Dry block) 65 min (Micro calibration bath)	105 min (Dry block) 78 min (Micro calibration bath)
	→ Tmax...RT	24 min (Dry block) 25 min (Micro calibration bath)	
Heating time	→ RT...Tmax	32 min (Dry block) 50 min (Micro calibration bath)	23 min (Dry block) 105 min (Micro calibration bath)
	→ -35 °C...165 °C	37 min (Dry block) 56 min (Micro calibration bath)	
Stabilisation time			
With ext. reference	→ to ±0.05 °C	From 5 min	
	→ to ±0.005 °C	From 10 min	
General data			
Type		TP 3M165E.2	TP 3M255E
Interface		Ethernet, 3 x USB	
Calibrator dimensions	→ Width, 210 mm	→ Height, 380 + 50 mm	→ Depth, 300 mm
Block dimensions	→ Diameter	Ø 60 mm	
	→ Depth	170 mm	
Weight		Approx. 13 kg	Approx. 8,5 kg
Power supply		100...240 VAC, 50 / 60 Hz	
Power consumption		Approx. 375 W	Approx. 1000 W
Display unit			
Display		Brilliant Color-Touchscreen (7"), multi panel safety glass, viewing angle 120...140° Brightness 400 cd / m², Unit °C / °F / K	
Display range		-50...165 °C	0...255 °C
Resolution		0.1/0.01/0.001 °C / °F / K	

TP 3M // Multifunction // -35...255 °C

Order code			
Type		TP 3M165E.2	TP 3M255E
Internal measuring instrument	→ Without	EP3M16026015U3	EP3M250E6015U3
	→ With	EP3M16M26015U3	

Equipment for requested type with separate order code

Equipment	Example → EPLIK	DB	I	00	0
Linearisation					
With Linearisation	EPLIK				
Function					
Dry block		DB			
Micro calibration bath		LI			
Tub insert		TI			
Infrared		IR			
Surface***		SU			
Reference sensor					
Internal			I		
External			E		
Adjustment to medium					
No medium****				00	
Water (2...95 °C)				01	
Silicone oil 10 cSt (-35...155 °C)				10	
Silicone oil 20 cSt (7...220 °C)				20	
Silicone oil 50 cSt (50...270 °C)				50	
Customised medium				99	
Test points					
Standard					0
Customised					K

* Further information on transition times on request, all data refer to tests with new devices

** Cooling time to Tmin (-35 °C) differs

*** Only with ext. reference sensor

**** No medium = Dry block, infrared, surface





TP 37 // Dry block // -55...200 °C



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

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			

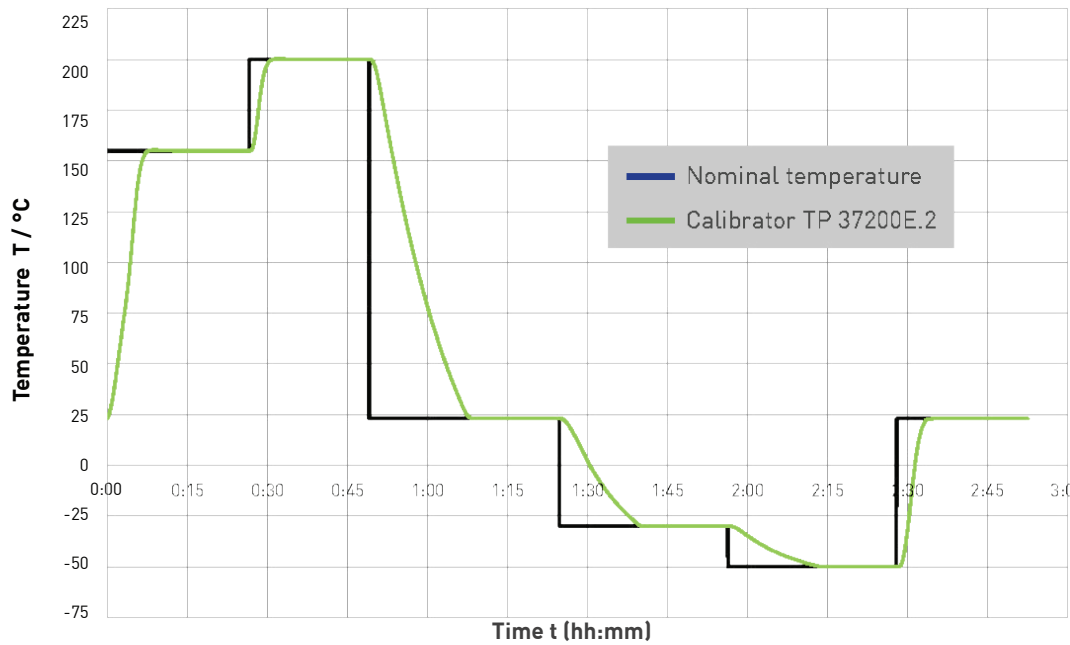
* At an ambient temperature of 20 °C / 68 °F

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

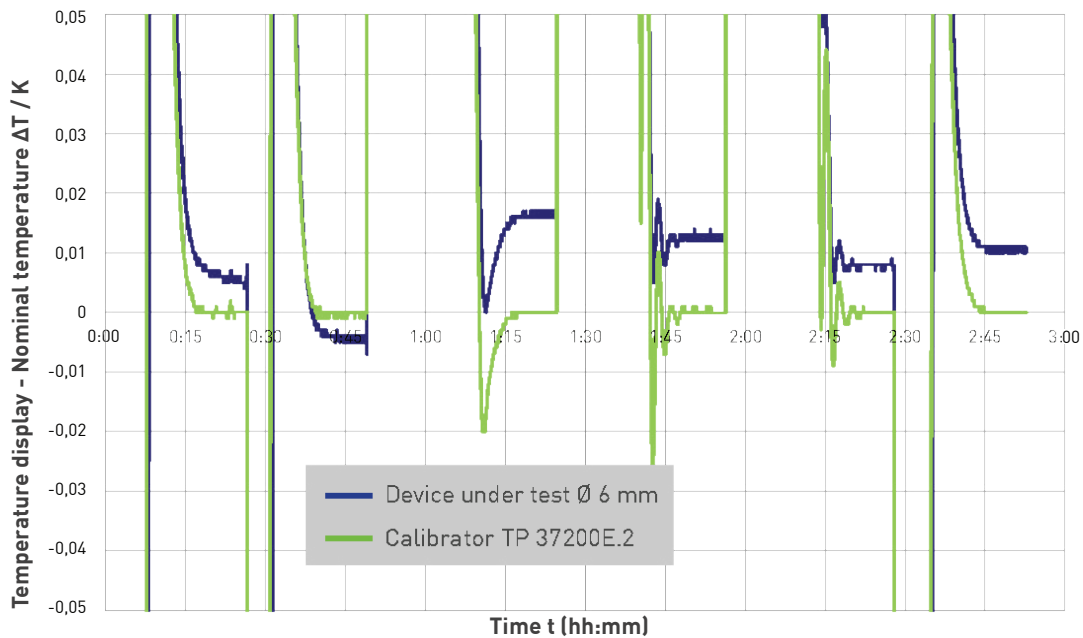
** Cooling time to Tmin [-55 °C / -35 °C] differs

TP 37 // Dry block // -55...200 °C

Temperature steps TP 37200E.2 with external reference



Temperaturstufen TP37200E.2 mit externer Referenz



TP 37 // Integrated measuring instrument

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

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
-35...165°C	Dry block	Ø 28 x 150	110...240 V	TP 37165E.2
Integrated measuring instrument				
Without				0
With				I
Example order number calibrator				EP37 20 I 2 2815U3

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

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				
Example order number adapter sleeve				EZ16360C04AL05

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)	EKTPWP1M1
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPWP1M2
SIKA Works calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPWP1M3
SIKA Works calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPWP1M4
SIKA Works calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPWP1MIZUS
SIKA Works calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPWP1MKOMPL
DAkkS calibration certificate int. measuring instrument (Pt100, Type K)	EKTPDAKKS1M1
DAkkS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J)	EKTPDAKKS1M2
DAkkS calibration certificate int. measuring instrument (Pt100, Type K, mA, V)	EKTPDAKKS1M3
DAkkS calibration certificate int. measuring instrument (Pt100, Pt1000 Type K, Type J, mA, V)	EKTPDAKKS1M4
DAkkS calibration certificate each additional measuring input of your choice (Pt 500, Pt1000, Type J/N/E/T/R/S, mA, V)	EKTPDAKKS1MIZUS
DAkkS calibration certificate complete (Pt100, Pt 500, Pt1000, Type K/J/N/E/T/R/S, mA, V)	EKTPDAKKS1KOMPL

Order code	
5. Accessories	Order number
Transport case	
Without trolley attachment frame	EZTPKOFFER004
With trolley attachment frame	EZTPKOFFER004TG
More accessories	
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	EKTPEINWEISUNG
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









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

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

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

* See order code

TP 37 // Dry block // multifunction

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

1. Calibrator type

EP37	xx	x	x	xxxxxx
------	----	---	---	--------
2. Linearization

EPLIK	xx	x	x
-------	----	---	---
3. Adapter sleeve

EZxxxxxxxxxxxx

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" style="width: 100%; text-align: center;"> <tr><td>EP37</td><td>45</td><td>2</td><td>6015U3</td></tr> </table>					EP37	45	2	6015U3
EP37	45	2	6015U3					
Integrated measuring instrument								
Without								
With								
<table border="1" style="width: 100%; text-align: center;"> <tr><td>0</td></tr> <tr><td>I</td></tr> </table>					0	I		
0								
I								
Example order number calibrator								
EP37 45 I 2 6015U3								

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

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	EZ17260B02AL06OF
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
Example order number adapter sleeve				
EZ15260B00AL23F				

* Only with external reference sensor

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)	EKTPDAKKSIMIZUS
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
Transport case	
Without trolley attachment frame	EZTPKOFFER003
With trolley attachment frame	EZTPKOFFER003TG
More accessories	
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	EKTPPEINWEISUNG
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.

TP 17 // Dry block // -55...650 °C



TP 17200S



TP 17650S

Technical data					
Type	TP 17200S	TP 17165S	TP 17166S	TP 17450S	TP 17650S
Control sensor	internal				
Temperature range*	-55...200 °C	-35...165 °C	-35...165 °C	RT...450 °C	RT...650 °C
Dry block					
Accuracy	±0.2 °C	±0.2 °C	±0.2 °C	±0.3 °C	±0.4 °C
Stability	±0.05 °C	±0.05 °C	±0.05 °C	±0.05 °C	±0.05 °C
Measurement zone	110...150 mm				
Display unit					
Display	2-line, 4-digit display red / green, unit °C / °F				
Display range	-60...200 °C	-50...165 °C	-50...165 °C	0...450 °C	0...650 °C
Resolution	0.01 °C between -9.99...99.99 °C, else 0.1 °C			0.01 °C between RT...99.99 °C, else 0.1 °C	

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

General data					
Type	TP 17200S	TP 17165S	TP 17166S	TP 17450S	TP 17650S
Interface	RS485, RS232 or USB (optional)				
Calibrator dimensions					
→ Width	210 mm	210 mm	210 mm	150 mm	
→ Height	380 + 50 mm	380 + 50 mm	380 + 50 mm	330 + 70 mm	
→ Depth	300 mm	300 mm	300 mm	270 mm	
Block dimensions					
→ Diameter	Ø 28 mm	Ø 28 mm	Ø 60 mm	Ø 60 mm	Ø 28 mm
→ Depth	150 mm	150 mm	150 mm	150 mm	150 mm
Weight	Approx. 12.5 kg	Approx. 10 kg	Approx. 7.5 kg		
Power supply					
→ Standard	100...240 VAC, 50 / 60 Hz			230...240 VAC, 50 / 60 Hz	230...240 VAC, 50 / 60 Hz,
→ Optional					100...115 VAC, 50 / 60 Hz 100...230 VAC, 50 / 60 Hz
Power consumption	Approx. 555 W	Approx. 375 W		Approx. 2000 W	Approx. 1000 W

Order code					
Type	TP 17200S	TP 17165S	TP 17166S	TP 17450S	TP 17650S
	EP17200S281503	EP17160S281503	EP17160S601503	EP17450S601500	EP17650S281500

Options	Order code
Type	TP 17650S
Power supply	
→ 100...115 V	EP17650S281502
→ 100...240 V	EP17650S281503

TP 17 and TP 28 // Special versions // -10...1300 °C



Technical data		
Type	TP 17ZERO	TP 281300E
Control sensor	internal	
Temperature range*	-10...100 °C	400...1300 °C
Dry block		
Accuracy	±0.05 °C at 0 °C	±2 °C
Stability	±0.05 °C at 0 °C	±0.5 °C
Measurement zone	110...150 mm	bei 200 mm
Display unit		
Display	1-line, 4-digit display red, unit °C (°F optional)	2-line, 4-digit display red / green, unit °C / °F
Display range	-10...100 °C	0...1300 °C
Resolution	0.1 °C	1 °C

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

General data		
Type	TP 17ZERO	TP 281300E
Interface		RS485, RS232 or USB (optional)
Calibrator dimensions		
→ Width	150 mm	510 mm
→ Height	330 + 70 mm	290 mm
→ Depth	270 mm	415 + 100 mm
Block dimensions		
→ Diameter	7 drillings with Ø 6,5 mm	Ø 28 mm
→ Depth	150 mm	200 mm
Weight	Approx. 7 kg	Approx. 17,5 kg
Power supply	100...240 VAC, 50 / 60 Hz	230...240 VAC, 50 / 60 Hz,
Power consumption	Approx. 225 W	Approx. 1000 W

Order code		
Type	TP 17ZERO	TP 281300E
	EP171000B71503	EP28138E000003

Temperature → Calibration → Temperature Calibrators → TP Solid

TP M // Micro calibration bath // -35...255 °C



Technical data

Type	TP M165S	TP M255S
Control sensor	internal	
Temperature range*	-35...165 °C	RT...255 °C
Micro calibration bath		
Accuracy	±0.1 °C	±0.2 °C
Stability	±0.05 °C	±0.05 °C
Measurement zone	110...150 mm	
Display unit		
Display	2-line, 4-digit display red / green, unit °C / °F	
Display range	-50...165 °C	0...255 °C
Resolution	0.01 °C between -9.99...99.99 °C, else 0.1 °C	

General data		
Type	TP M165S	TP M255S
Interface	RS485, RS232 or USB (optional)	
Calibrator dimensions		
→ Width	210 mm	150 mm
→ Height	380 + 50 mm	330 + 70 mm
→ Depth	300 mm	270 mm
Block dimensions		
→ Diameter	Ø 60 mm	
→ Depth	170 mm	
Weight	Approx. 12.5 kg	Approx. 7.5 kg
Power supply		
→ Standard	100...240 VAC, 50 / 60 Hz	230...240 VAC, 50 / 60 Hz,
→ Optional		100...115 VAC, 50 / 60 Hz
		100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 375 W	Approx. 1000 W

Order code		
Type	TP M165S	TP M255S
	EPMB160S601503	EPMB250S601500

Equipment for requested type with separate order code

Equipment	Example → EPLIK	LI	I	01	0
Linearisation					
With linearization	EPLIK				
Function					
Micro calibration bath		LI			
Tub insert		TI			
Reference sensor					
Internal			I		
Adjustment to medium					
Water (2...95 °C)				01	
Silicone oil 10 cSt (-35...155 °C)				10	
Silicone oil 20 cSt (7...220 °C)				20	
Silicone oil 50 cSt (50...270 °C)				50	
Test points					
Standard					0
Customized					K

Options	Order code
Type	TP M255S
Power supply	
→ 100...115 V	EPMB250S601502
→ 100...240 V	EPMB250S601503

TP 17 // Dry block // -55...650 °C



TP 17200



TP 17650

Technical data

Type	TP 17200	TP 17165	TP 17166	TP 17450	TP 17650
Control sensor	internal				
Temperature range*	-55...200 °C	-35...165 °C	-35...165 °C	RT...450 °C	RT...650 °C
Dry block					
Accuracy	±0.4 °C	±0.4 °C	±0.4 °C	±0.6 °C	±0.8 °C
Stability	±0.1 °C	±0.1 °C	±0.1 °C	±0.1 °C	±0.1 °C
Measurement zone	110...150 mm				
Display unit					
Display	2-line, 4-digit display red / green, unit °C / °F				
Display range	-60...200 °C	-50...165 °C	-50...165 °C	0...450 °C	0...650 °C
Resolution	0.1 °C				

General data					
Type	TP 17200	TP 17165	TP 17166	TP 17450	TP 17650
Calibrator dimensions					
→ Width	150 mm	210 mm		150 mm	150 mm
→ Height	330 + 70 mm	380 + 50 mm		330 + 70 mm	330 + 70 mm
→ Depth	270 mm	300 mm		270 mm	270 mm
Block dimensions					
→ Diameter	Ø 28 mm		Ø 60 mm	Ø 60 mm	Ø 28 mm
→ Depth	150 mm		150 mm	150 mm	150 mm
Weight	Approx. 12.5 kg	Approx. 10 kg		Approx. 7.5 kg	
Power supply					
→ Standard	100...240 VAC, 50 / 60 Hz		230...240 VAC, 50 / 60 Hz		230...240 VAC, 50 / 60 Hz
→ Optional					100...115 VAC, 50 / 60 Hz 100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 555 W	Approx. 375 W		Approx. 2000 W	Approx. 1000 W

Order code					
Type	TP 17200	TP 17165	TP 17166	TP 17450	TP 17650
	EP172000281503	EP171600281503	EP171600601503	EP174500601500	EP176500281500

Options	Order code
Type	TP 17650
Power supply	
→ 100...115 V	EP176500281502
→ 100...240 V	EP176500281503

TP 17 // Dry block // -35...650 °C




TP 17165M



TP 17650M

Technical data

Type	TP 17165M	TP 17650M
Control sensor	internal	
Temperature range*	-35...165 °C	RT...650 °C
Dry block		
Accuracy	±1 °C	±1 °C
Stability	±0.1 °C	±0.1 °C
Measurement zone	110...150 mm	
Display unit		
Display	2-line, 4-digit display red / green, unit °C / °F	
Display range	-50...165 °C	0...650 °C
Resolution	1 °C	
Approvals		
		

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

General data		
Type	TP 17165M	TP 17650M
Calibrator dimensions		
→ Width	150 mm	150 mm
→ Height	330 + 70 mm	330 + 70 mm
→ Depth	270 mm	270 mm
Block dimensions		
→ Diameter	Ø 28 mm	Ø 28 mm
→ Depth	150 mm	150 mm
Weight	Approx. 10 kg	Approx. 7.5 kg
Power supply		
→ Standard	100...240 VAC, 50 / 60 Hz	230...240 VAC, 50 / 60 Hz
→ Optional		100...115 VAC, 50 / 60 Hz 100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 375 W	Approx. 1000 W

Order code		
Type	TP 17165M	TP 17650M
	EP17160M281503	EP17650M281500

Options	Order code
Type	TP 17650M
Power supply	
→ 100...115 V	EP17650M281502
→ 100...240 V	EP17650M281503

TP 18 // Special versions // Room temperature (RT)...850 °C



TP 18200E



TP 18850E

Technical data

Type	TP 18200E	TP 18850E
Control sensor	internal	
Temperature range*	RT...200 °C	RT...850 °C
Dry block		
Accuracy	±1 °C	±1 °C
Stability	±0.1 °C	±0.1 °C
Measurement zone	60...100 mm	
Display unit		
Display	2-line, 4-digit display red / green, unit °C / °F	
Display range	0...200 °C	0...850 °C
Resolution	1 °C	

General data

Type	TP 18200E	TP 18850E
Calibrator dimensions		
→ Width	220 mm	330 mm (handles + 70 mm)
→ Height	96 mm	270 mm
→ Depth	230 mm (handle + 50 mm)	150 mm
Block dimensions		
→ Diameter	Ø 18 mm	
→ Depth	100 mm	
Weight	Approx. 4 kg	Approx. 14 kg
Power supply		
→ Standard	230...240 VAC, 50 / 60 Hz,	230...240 VAC, 50 / 60 Hz
→ Optional	100...115 VAC, 50 / 60 Hz	
Power consumption	Approx. 200 W	Approx. 2000 W

Order code

Type	TP 18200E	TP 18850E
	EP18200E181000	EP18850E18100

Options

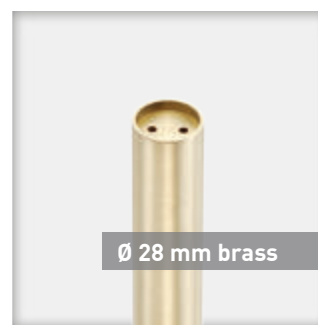
Order code


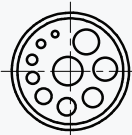


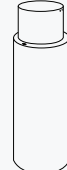
Type	TP 18200E
Power supply	→ 100...115 V EP18200E181002

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

ACCESSORIES

Accessories // Adapter sleeves // Measuring inserts



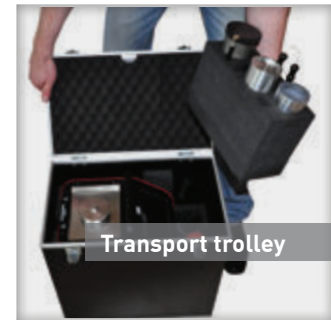
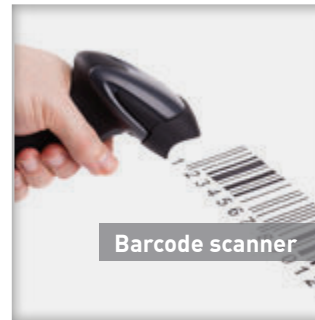
Accessories	Order code		
Adapter sleeve (including one drilling)	Calibrators with dry block function	According configuration	
More drillings	Custom	According configuration	
Black body sleeve for calibration of infrared thermometers	Ø 60 x 150mm and Ø 60 x 170mm	EZ15060B03AL41IR	
Tub insert for micro calibration bath	Ø 60 x 170 mm	EZTPMBEK000000	
Adapter sleeve for surface temperature sensors	Calibrators with block dimensions 170 mm (depth)	EZ20460B03AL050F	

Accessories // Adapter sleeves // Standard configuration

Series	TP M / TP 3M / TP 17	TP 17 / TP 37 / TP 38	
Dimensions	Ø 60 mm x 170 mm	Ø 28 mm x 150 mm	
Material	Aluminum	Brass	
Drillings		Ordercode	
1x 3.5 mm (1/8") 1x 6.5 mm (1/4")	SleeveDB60170-A EZ16360B02AL69	SleeveDB28150-A EZ15028H02MS01	
1x 3.5 mm (1/8") 1x 6.5 mm (1/4") 1x 13.5 mm (1/2")	SleeveDB60170-B EZ16360B02AL69	SleeveDB28150-B EZ15028B03MS17	
1x 3.5 mm (1/8") 1x 5.0 mm (9/16") 1x 6.5 mm (1/4") 1x 9.5 mm (3/8")	SleeveDB60170-C EZ16360C04AL46	SleeveDB28150-C EZ15028G04MS44	
1x 3.5 mm (1/8") 6x 6.5 mm (1/4")	SleeveDB60170-D EZ16360C07AL44	SleeveDB28150-D EZ15028D07MS22	
1x 3.5 mm (1/8") 2x 5.0 mm (9/16") 2x 6.5 mm (1/4") 2x 9.5 mm (3/8")	SleeveDB60170-E EZ16360C07AL45	SleeveDB28150-E EZ15028G07MS43	
No drillings	SleeveDB60170-F EZ16360000AL00	SleeveDB28150-X EZ15028000MS00	

* Customer designed sleeves are available, at request

Accessories // Certificates // Recalibration



Certificates	Order code
SIKA-Works calibration certificate 1st function	EKTPWP1FKT
SIKA-Works calibration certificate 2nd function	EKTPWP2FKT
SIKA-Works calibration certificate 3rd function	EKTPWP3FKT
SIKA-Works calibration certificate 4th function	EKTPWP4FKT
DAkkS calibration certificate 1st function	EKTPDAKKS1FKT
DAkkS calibration certificate 2nd function	EKTPDAKKS2FKT
DAkkS calibration certificate 3rd function	EKTPDAKKS3FKT
DAkkS calibration certificate 4th function	EKTPDAKKS4FKT
Additional test point DAkkS-Certificate	EKTPDAKKSZUSP
SIKA-Works calibration certificate for calibrator and measuring inputs	EKTPWPMINST
DAkkS - Certificate for calibrator and measuring inputs	EKTPDAKKSMINST
NIST - Certificate for calibrator and measuring inputs	TP-NIST Cert

Recalibration	Order code
Document of pre-adjustment values (block) re-calibration (each function)	EKTPEW
Adjustment (block) re-calibration (each function)	EKTPJUSTAGE
Adjustment TT Scan and adjustment internal measuring instrument	EKTPJUSTAGESCAN

Accessories	For type	Order code
Transport		
Transport case	TP 17650	EZTPKOFFER002
	TP 17450, TPM 255	EZTPKOFFER003
	TP 17165, TP 17200, TP37 165, TP 37200	EZTPKOFFER004
	TP M165, TP 17166, TP 3M165	EZTPKOFFER005
	TP 37700	EZTPKOFFER006
	TP 18200	EZ999999990001
	TP 281300	EZ999999990006
	TP 18850	EZ999999990005
Transport case with trolley attachment frame	TP 17650	EZTPKOFFER002TG
	TP 17450, TPM 255	EZTPKOFFER003TG
	TP 17165, TP 17200, TP37 165, TP 37200	EZTPKOFFER004TG
	TP M165, TP 17166, TP 3M165	EZTPKOFFER005TG
	TP 37700	EZTPKOFFER006TG
Transport bag	TP 17000	XE2193
PC		
PC software (without TT-Scan)	TP 17200S, TP 17165S, TP 17166S, TP M165S, TP M255S, TP 17450S, TP 17650S, TP 281300E	EZ999999999971
PC software (with TT-Scan)	TP 17200S, TP 17165S, TP 17166S, TP M165S, TP M255S, TP 17450S, TP 17650S, TP 281300E	EZ380000000001
Converter RS485 to USB	TP 17200S, TP 17165S, TP 17166S, TP M165S, TP M255S, TP 17450S, TP 17650S, TP 281300E, TP 38165, TP38650	EZ170000000002
Converter RS232 to USB	TP 38165, TP 38650	EZ380000000002
Barcode scanner	TP 37200, TP 37165, TP 3M165, TP 3M255	XE2102
Wifi router	TP 37200, TP 37165, TP 3M165, TP 3M255	XE2101
Calibration		
Tripod	TP M165, TP M255	EZTPMSG0000000
Calibration liquid - Silicone oil 50 cSt (50...270 °C)	Calibrators with micro calibration bath fuction	EZSÖ0500000000
Calibration liquid - Silicone oil 20 cSt (7...220 °C)	Calibrators with micro calibration bath fuction	EZSÖ0200000000
Calibration liquid - Silicone oil 10 cSt (-35...155 °C)	Calibrators with micro calibration bath fuction	EZSÖ0100000000
Calibration liquid (Silicone oil), 5 cSt (-40...123°C)	Calibrators with micro calibration bath fuction	EZSÖ0050000000
Ext. reference sensor TFEE 255-3-300 (-55...255 °C)	TP 38165	W033P413000XX002

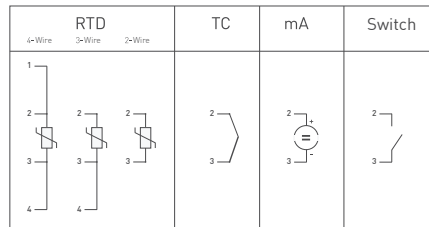
Accessories // Measuring instrument // TT-Scan



Scanner unit TT-Scan

Properties

Possibilities to connect



Version

Scanner device with precision measuring instrument

Measuring inputs

Switchable
For up to 8 sensors
Sensor type free configurable

General data

Power supply

230 VAC $\pm 10\%$, 50/60 Hz via adapter

Power consumption

Approx. 10 W

Dimensions (D x W x H)

200 x 140 + 40 x 380 mm

7.87 x 5.51 + 1.57 x 14.96 in

Weight

Approx. 2.5 kg

Approx. 5.51 lbs

Equipment features

32 x 4 mm/1.26 x 0.16 in connections free of thermal voltage

External cold junction available
Serial USB data interface, incl. USB data cable

Options

Aluminum transport case, test & calibration software, DAkkS certificate
SIKA works certificate, external calibration reference sensors

Accessories // Measuring instrument // TT-Scan // Measuring inputs

	Version	Measuring range		Tolerance	
Resistance thermometer EN 60751					
Pt100 Pt500 Pt1000	2-, 3-, 4-wire	-90.00 °C...850.00 °C	-130.00 °F...1562.0 °F	±0.005 % full scale ±0.01 °C	±0.005 % full scale ±0.02 °F

Connection possibility through 4 mm connections free of thermal voltage

Thermocouples according to DIN EN 60584 / DIN 43710					
Type K	NiCr-NiAl	-90.00...999.99 °C 1000.0...1370.0 °C	-130.00...1831.9 °F 1832.0...2498.0 °F	±0.007 % full scale ±0.01 °C ±0.005 % full scale ±0.1 °C	±0.007 % full scale ±0.02 °F ±0.005 % full scale ±0.18 °F
Type J	FeCu-Ni	-90.00...900.00 °C	-130.00...1652.0 °F	±0.005 % full scale ±0.01 °C	±0.005 % full scale ±0.02 °F
Type N	NiCrSi - NiSiMg	-90.00...999.99 °C 1000.0...1370.0 °C	-130.00...1831.98 °F 1832.0...2498.0 °F	±0.007 % full scale ±0.01 °C ±0.005 % full scale ±0.1 °C	±0.007 % full scale ±0.02 °F ±0.005 % full scale ±0.18 °F
Type E	NiCr-CuNi	-90.00...700.00 °C	-130.00...1292.0 °F	±0.005 % full scale ±0.01 °C	±0.005 % full scale ±0.02 °F
Type R	Pt13Rh - Pt	0.00...999.99 °C 1000.0...1760.0 °C	32.00...1831.9 °F 1832.0...3200.0 °F	±0.05 % full scale ±0.01 °C ±0.03 % full scale ±0.1 °C	±0.05 % full scale ±0.02 °F ±0.03 % full scale ±0.18 °F
Type T	Cu-CuNi	-90.00...400.00 °C	-90.00...400.00 °F	±0.01 % full scale ±0.01 °C	±0.01 % full scale ±0.02 °F
Type B	Pt30Rh-Pt6Rh	0.00...999.99 °C 1000.0...1820.0 °C	32.00...1831.98 °F 1832.0...3308.0 °F	±0.05 % full scale ±0.01 °C ±0.03 % full scale ±0.1 °C	±0.05 % full scale ±0.02 °F ±0.03 % full scale ±0.18 °F
Type S	Pt10Rh-Pt	0.00...999.99 °C 1000.0...1760.0 °C	32.00...1831.98 °F 1832.0...3200.0 °F	±0.05 % full scale ±0.01 °C ±0.03 % full scale ±0.1 °C	±0.05 % full scale ±0.02 °F ±0.03 % full scale ±0.18 °F
Type L	Fe-CuNi	-90.00...900.00 °C	-130.00...1652.0 °F	±0.005 % full scale ±0.01 °C	±0.005 % full scale ±0.02 °F
Type U	Cu-CuNi	90.00...600.00 °C	194.00...1112.0 °F	±0.01 % full scale ±0.01 °C	±0.01 % full scale ±0.02 °F

Automatic comparison point compensation between 0 °C/32 °F and 60 °C/140 °F

Accuracy of the comparison point Pt100 DIN class A

Possibility of connection through 4 mm/0.16 in connections free of thermal voltage

Standard signal input					
Current (switchable)	mA	0(4)...20 mA		±0.015 % full scale ±0.01 mA	

Transmitter supply 24 VDC, $I_{max} = 30$ mA,

Possibility of connection through 4 mm/0.16 in connections free of thermal voltage

Temperature switch

Automatic detection of an edge change, determining the hysteresis,

Independent detection normally closed / normally open

Potential-free input contacts ($U_{max} = 5$ V, $I_{max} = 1$ mA)

Possibility of connection through 4 mm/0.16 in connections free of thermal voltage

Calibration reference sensor connection

Pt100	4-wire	-90.00...850.00 °C	-90.00...850.00 °F	±0.005 % full scale ±0.01 °C	±0.005 % full scale ±0.02 °F
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Polynomial correctable through internal parameters or through external EEPROM inside the sensor

Possibility of connection through 7-pin built-in socket

Multi channel measuring instrument	Order code
8-channel measuring instrument	ET3849U0308003
SIKA-Works calibration certificate measuring inputs	EKTSCAN00000W
DAkS-Certificate measuring inputs	EKTSCAN00000D
PC-Software (Block + measuring inputs)	EZ38000000001
Reference sensor TFEE 255-3-300 (-55...255 °C)	W033P413000XX002
Reference sensor TFEE 650-3-300 (-35...650 °C)	W034P413000XX002
Sensor specific linearization TFEE	EKTTEE-LIN0000
SIKA-Works certificate TF or TFEE	EKTMK0000000W
DAkS-Certificate for TF or TFEE (-30...500°C)	EKTMK0000000D

Pneumatic // -0.95...60 bar



P40.2 Basic



P60 Solid

Your Advantages

Type	P40.2	P60
	<ul style="list-style-type: none"> • Testing, adjustment and calibration of all types of pressure gauges • 3 in 1: vacuum, low pressure and medium pressure calibration • Exact adjustment in the mbar range thanks to ultra-fine thread pitch and large volume control valve • Tool-free change between positive pressure and vacuum generation 	<ul style="list-style-type: none"> • Like P40.2 • Single pneumatic hand pressure pump up to 60 bar

Technical Data

Type	P40.2	P60
Pressure ranges → Negative pressure → Positive pressure	-0.95 bar 40 bar	-0.95 bar 60 bar
Pressure medium	Air	
Connections		
Reference pressure gauge	G $\frac{1}{4}$	
Test sample	G $\frac{1}{4}$ with quick coupling and pressure hose (1 m)	
Basic		
Dimensions	Approx. 240 x 170 x 50 mm	
Weight	Approx. 1.1 kg	
Solid		
Dimensions (case)	Approx. 450 x 370 x 110 mm	
Weight	Approx. 4.2 kg	
+ Adapter kit	Chrome-plated brass, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, $\frac{1}{8}$ NPT, $\frac{1}{4}$ NPT, $\frac{1}{2}$ NPT, M12 x 1.5, M20 x 1.5, G $\frac{1}{8}$, G $\frac{1}{4}$	
+ Seal kit	PA flat gaskets and O-rings	

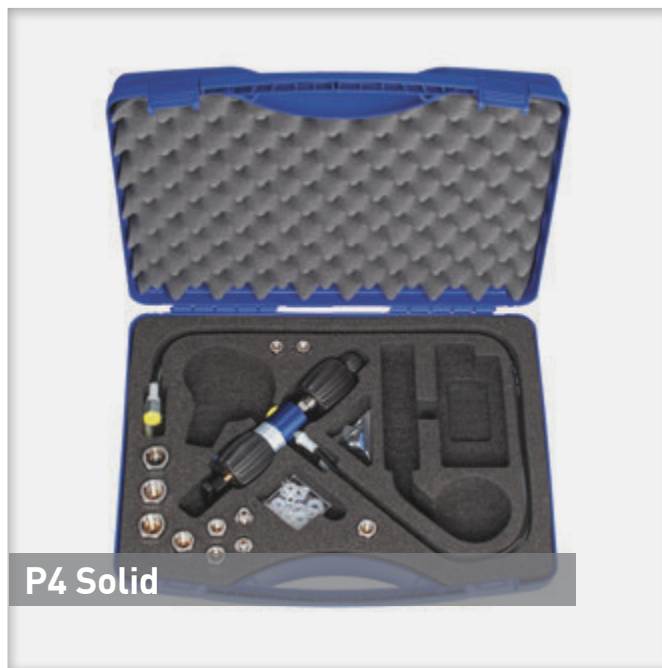
Order code

Type	Version	Order number
P40.2	Basic	EPPM040EBL0000
	Solid (incl. case and adapter)	EPPM0400BL0000
P60	Basic	EPPM060EBL0000
	Solid (incl. case and adapter)	EPPM0600BL0000

Pneumatic // -0.3...4 bar



P4 Basic



P4 Solid

Your advantages

Type	P4
	<ul style="list-style-type: none"> • Testing, adjustment and calibration of all types of pressure gauges • Long-term stable measurements without pressure loss due to hermetically sealable vacuum chamber • Precise adjustment in the mbar range thanks to ultra-fine thread pitch and large volume control valve • Tool-free change between overpressure and vacuum generation • Smallest mobile hand test pump on the market

Technical data

Type	P4
Pressure ranges → Negative pressure → Positive pressure	-0.3 bar (depending on test sample /reference) 4 bar
Pressure medium	Air
Connections	
Reference pressure gauge	G $\frac{1}{4}$ female thread with PA hose (2 x 1 m)
Test sample	G $\frac{1}{4}$ with quick coupling and pressure hose (1 m)
Basic	
Dimensions	Approx. 225 x \varnothing 55 mm
Weight	Approx. 980 g
Solid	
Dimensions (case)	Approx. 450 x 370 x 110 mm
Weight	Approx. 4.2 kg
+ Adapter kit	Chrome-plated brass, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, $\frac{1}{8}$ NPT, $\frac{1}{4}$ NPT, $\frac{1}{2}$ NPT, M12 x 1.5, M20 x 1.5, G $\frac{1}{8}$, G $\frac{1}{4}$
+ Seal kit	PA flat gaskets and O-rings

Order code

Type	Version	Order number
P4	Basic	EPPM004EBL0000
	Solid (incl. case and adapter)	EPPM004OBL0000

Hydraulic // 0...1000 bar



P700.3 Basic



P1000.2 Solid

Your advantages

Type	P700.3 / P1000.2
	<ul style="list-style-type: none"> • Testing, adjustment and calibration of all types of pressure gauges • Precise adjustment thanks to ultra-fine thread pitch and large volume control valve • High pressure generation with minimum effort • Large calibration volume (300 ml)

Technical data

Type	P700.3	P1000.2
Pressure range	0...700 bar	0...1000 bar
Pressure medium	Demineralized water or hydraulic oil	
Connections		
Reference pressure gauge	G $\frac{1}{4}$	
Test sample	G $\frac{1}{4}$ with quick coupling and pressure hose (1 m)	G $\frac{1}{4}$ with quick coupling and high pressure hose (1 m)
Basic		
Dimensions	Approx. 255 x 225 x 85 mm	
Weight	Approx. 1,7 kg	Approx. 1,9 kg
Solid		
Dimensions (case)	Approx. 450 x 370 x 125 mm	
Weight	Approx. 4,8 kg	Approx. 5 kg
+ Adapter kit	Stainless steel, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, $\frac{1}{8}$ NPT, $\frac{1}{4}$ NPT, $\frac{1}{2}$ NPT, M12 x 1.5, M20 x 1.5, G $\frac{1}{8}$, G $\frac{1}{4}$	
+ Seal kit	PA flat gaskets and O-rings	

Order code

Type	Version	Order number
P700.3	Basic	EPPM700EBL0000
	Solid (incl. case and adapter)	EPPM7000BL0000
P1000.2	Basic	EPPM1K0EBL0002
	Solid (incl. case and adapter)	EPPM1K00BL0002

Hydraulic // 0...1400 bar



P700.T Basic



P700.G / P1000.G Basic

Your advantages

Type	P700.T	P700.G2 / P700.GW / P1000.GW / P1400.G
	<ul style="list-style-type: none"> • Simultaneous calibration of several test samples thanks to large tank volume • Fast pressure generation with low effort 	<ul style="list-style-type: none"> • Oil-free pressure generation up to 1000 bar • Simple and fast pressure generation with smooth-running spindle

Technical data


Type	P700.T	P700.G2	P700.GW	P1000.GW	P1400.G
Version	Lever pump	Spindle pump			
Pressure range	0...700 bar	0...700 bar	0...700 bar	0...1000 bar	0...1400 bar
Pressure medium	Hydraulic oil		Demineralized water		Hydraulic oil
Connections					
Reference pressure gauge	G $\frac{1}{4}$	G $\frac{3}{8}$ left, G $\frac{1}{4}$, G $\frac{1}{2}$			
Test sample	G $\frac{1}{4}$ with quick coupling and pressure hose (1 m)	G $\frac{3}{8}$ left, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{8}$			
Basic					
Dimensions	Approx. 500 x 110 x 160 mm	Approx. 340 x 225 x 130 mm			
Weight	Approx. 5.6 kg	Approx. 9.9 kg			
Solid					
Dimensions (case)	Approx. 575 x 470 x 230 mm	Approx. 450 x 370 x 150 mm			
Weight	Approx. 10.2 kg	Approx. 12.6 kg			
+ Adapter kit	Stainless steel, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{3}{8}$, G $\frac{1}{2}$, $\frac{1}{8}$ NPT, $\frac{1}{4}$ NPT, $\frac{1}{2}$ NPT, M12 x 1.5, M20 x 1.5, G $\frac{1}{8}$, G $\frac{1}{4}$				
+ Seal kit	PA flat gaskets and O-rings				

Order code

Type	Version		Order number
P700T	Lever pump	Basic	EPPT700E000020
		Solid (incl. case and adapter)	EPPT7000000020
P700.G2	Spindle pump	Basic	E8PG700E000020
		Solid (incl. case and adapter)	E8PG7000000020
P700.GW		Basic	E8PG700E000010
		Solid (incl. case and adapter)	E8PG7000000010
P1000.GW		Basic	E8PG1K0E000010
		Solid (incl. case and adapter)	E8PG1K00000010
P1400.G		Basic	E8PG1K4E000020
		Solid (incl. case and adapter)	E8PG1K40000020

-1...1000 bar



Your advantages			
Type	E2 / D2 / C2		
	<ul style="list-style-type: none"> • Suitable for aggressive media • Illuminated display • Robust and compact design with edge protection 		
Technical data			
Type	E2	D2	C2
Pressure ranges	Between -1...1000 bar		
Accuracy (full scale)	0.5 %	0.1 %	0.05 %
Adjustment options			
Linearisation	Via adapter		
Tare / Zero	✓		
Selectable units			
Pressure	bar, mbar, kPa, MPa, PSI, kg/cm ² , mH ₂ O, inH ₂ O		
Features			
Measuring inputs	1 x direct		
Display			
Display	Multi-functional LCD, 4 1/2 digit, with illumination		
Functions	Bargraph, display filter, min / max value		
Measuring rate			
Standard	10 ms		
Peak	10 ms		
Process connection			
Thread	G1/4		
Material	Stainless steel 1.4404		
Medium temperature	-20...80 °C		
For aggressive media	✓		
General data			
Type	E2 / D2 / C2		
Housing		Power supply	
Degree of protection	IP67	Auto-off function	✓
Dimension	Ø 80 mm, T=30 mm H=100 mm	Battery type	2x 1,5 V AA
Material	Zinc casting	Battery operation	1500 h
Operating temperature	0...50 °C		
Weight	540 g		
Approvals		Certificate (optional)	
 DNV GL type approval Certificate No. TAA00001CJ NIST Certificate		DAkkS certificate Workscertificate PM-NIST Cert	

Order code				
Type	Accuracy (full scale)	Pressure range	Resolution	Order number
E2	0.5 %	-1...3 bar	1 mbar	EME8REF-E2-0003
		-1...5 bar	1 mbar	EME8REF-E2-0005
		-1...10 bar	1 mbar	EME8REF-E2-0010
		-1...20 bar	1 mbar	EME8REF-E2-0020
		-1...40 bar	10 mbar	EME8REF-E2-0040
		-1...60 bar	10 mbar	EME8REF-E2-0060
		0...100 bar	10 mbar	EME8REF-E2-0100
		0...160 bar	10 mbar	EME8REF-E2-0160
		0...250 bar	100 mbar	EME8REF-E2-0250
		0...400 bar	100 mbar	EME8REF-E2-0400
		0...700 bar	100 mbar	EME8REF-E2-0700
		0...1000 bar	100 mbar	EME8REF-E2-1000
D2	0.1 %	-1...3 bar	1 mbar	EME8REF-D2-0003
		-1...5 bar	1 mbar	EME8REF-D2-0005
		-1...10 bar	1 mbar	EME8REF-D2-0010
		-1...20 bar	1 mbar	EME8REF-D2-0020
		-1...40 bar	10 mbar	EME8REF-D2-0040
		-1...60 bar	10 mbar	EME8REF-D2-0060
		0...100 bar	10 mbar	EME8REF-D2-0100
		0...160 bar	10 mbar	EME8REF-D2-0160
		0...250 bar	100 mbar	EME8REF-D2-0250
		0...400 bar	100 mbar	EME8REF-D2-0400
		0...700 bar	100 mbar	EME8REF-D2-0700
		0...1000 bar	100 mbar	EME8REF-D2-1000
C2	0.05 %	-1...10 bar	1 mbar	EME8REF-C2-0010
		-1...20 bar	1 mbar	EME8REF-C2-0020
		-1...40 bar	10 mbar	EME8REF-C2-0040
		-1...60 bar	10 mbar	EME8REF-C2-0060
		0...100 bar	10 mbar	EME8REF-C2-0100
		0...160 bar	10 mbar	EME8REF-C2-0160
		0...250 bar	100 mbar	EME8REF-C2-0250
		0...400 bar	100 mbar	EME8REF-C2-0400
		0...700 bar	100 mbar	EME8REF-C2-0700
		0...1000 bar	100 mbar	EME8REF-C2-1000

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Type		Order number
E2	Accuracy 0,5 %, pressure range -1...3 bar, resolution 1 mbar	EME8REF-E2-0003
	Accuracy 0,5 %, pressure range -1...40 bar, resolution 10 mbar	EME8REF-E2-0040
	Accuracy 0,5 %, pressure range 0...700 bar, resolution 100 mbar	EME8REF-E2-0700
	Accuracy 0,5 %, pressure range 0...1000 bar, resolution 100 mbar	EME8REF-E2-1000
D2	Accuracy 0,1 %, pressure range -1...3 bar, resolution 1 mbar	EME8REF-D2-0003
	Accuracy 0,1 %, pressure range -1...40 bar, resolution 10 mbar	EME8REF-D2-0040
	Accuracy 0,1 %, pressure range 0...700 bar, resolution 100 mbar	EME8REF-D2-0700
	Accuracy 0,1 %, pressure range 0...1000 bar, resolution 100 mbar	EME8REF-D2-1000

-1...1000 bar




Your advantages

Type	D-Ex	L-Ex
	<ul style="list-style-type: none"> • For use in potentially explosive atmospheres • Suitable for aggressive media • Oil- and grease-free version available • Robust and compact design with edge protection 	<ul style="list-style-type: none"> • Like D-Ex • Additional PC interface for direct data transfer • Higher accuracy

Technical data

Type	D-Ex	L-Ex
Pressure ranges	Between -1...700 bar	Between -1...1000 bar
Accuracy (full scale)	0.1 %	0.05 %
Adjustment options		
Tare / Zero	✓	
Selectable units		
Pressure	bar, mbar, hPa, kPa, MPa, PSI, kp/cm ²	bar, mbar, hPa, kPa, MPa, PSI, mmHg, inHg, cmH ₂ O, mH ₂ O, inH ₂ O, ftH ₂ O, Kp/cm ²
Features		
Measuring inputs	1 x direct	1 x direct
Oil- and grease-free version (optional)	✓ (< 200 bar)	
PC connection		RS 485
Display		
Display	Multi-functional LCD, 4 digit	Multi-functional LCD, 5 digit
Min / Max value	✓	✓
Measuring rate		
Standard	500 ms	
Process connection		
Thread	G $\frac{1}{4}$ / H16 UNF	G $\frac{1}{4}$
Material	Stainless steel 1.0718 zinc-plated / Stainless steel 1.4435	Stainless steel 1.4435
Medium temperature	0...50 °C	0...50 °C
For aggressive media	✓	✓

General data		
Type	D-Ex	L-Ex
Housing		
Degree of protection	IP65	IP65 (Front) / IP54
Dimension	Ø 70 mm, T=30 mm H=100 mm	Ø 80 mm, T=40 mm H=120 mm
Material	ABS plastic	ABS plastic
Operating temperature	0...50 °C	0...50 °C
Weight	130 g	210 g
Power supply		
Auto-off function	✓	✓
Battery type	1x 3 VCR	1x 3 VCR
Battery operation	1000 h	2000 h
Approvals		
	Ex II 1G EEx ia II C T5/T6	Ex II 2G Ex ia II C T6
Certificates (optional)		
DAkkS certificate Works certificate NIST certificate		

Order code			
Type	Accuracy (full scale)	Resolution	Order number
D-Ex	0.1 %	1 mbar	EME8REF-D-EX03
		10 mbar	EME8REF-D-EX30
		10 mbar	EME8REF-D-EX60
		100 mbar	EME8REF-D-EX300
		200 mbar	EME8REF-D-EX700
		L-Ex	0.05 %
1 mbar	EME8REF--01EL-5		
1 mbar	EME8REF-03EL-5		
10 mbar	EME8REF-02EL-5		
50 mbar	EME8REF-04EL-5		
100 mbar	EME8REF-07EL-5		
100 mbar	EME8REF-10EL-5		

-1...2000 bar



J

Your advantages

Type

J

- Suitable for aggressive media
- For relative pressure and vacuum
- Data logger and PC interface for direct data transfer

Technical data

Type

J

Pressure ranges

Between 0...500 mbar and between -1...2000 bar

Accuracy (full scale)

Max. 0.1 %

Adjustment options

Linearisation

6 points

Tare / Zero

✓

Selectable units

Pressure

bar, mbar, hPa, kPa, MPa, PSI, mmHg, inHg, cmH₂O, mH₂O, inH₂O, kg/cm²

Temperature

°C, °F

Features

Measuring inputs

1 x direct

PC interface

USB (B)

Data memory

Number of memory

660 000 values (auto)

Recording interval

1 s...10 h

Recording duration

1 min...1000 h

Data sets

Pressure / Temperature

Display

Display

Multi-functional LCD, 4 digit, with illumination

Functions

Bargraph, display filter, min / max values

Measuring rate

Standard

100 ms

Process connection

Thread

G½

Material

Stainless steel 1.4542

Medium temperature

-10...70 °C

For aggressive media

✓



General data	
Type	J
Housing	
Degree of protection	IP65 (front) / IP40
Dimension	86 x 86 mm, T=40 mm H=135 mm
Material	Aluminum
Operating temperature	-10...70 °C
Weight	900 g
Power	
Auto-off function	✓
Battery type	internal accu
Ext. power	USB
Battery operation	2000 h
Certificate (optional)	
DAkkS certificate	
Works certificate	
NIST certificate	

Order code						
Type	Accuracy (full scale)					
J	0.2%	EME8AE	JT			
	0.1%	EME8AE	JU			
Certificate						
Without certificate					0	
SIT certificate					Z	
Vacuum/Relative						
Relative pressure						R
Vacuum						V
Pressure range	Resolution					
0...100 mbar	0.1 mbar					00B1
0...250 mbar	0.1 mbar					0B25
0...500 mbar	0.1 mbar					00B5
(-1)/0...1 bar	1 mbar					001B
(-1)/0...2.5 bar	1 mbar					02B5
(-1)/0...5 bar	1 mbar					005B
(-1)/0...10 bar	10 mbar					010B
(-1)/0...20 bar	10 mbar					020B
(-1)/0...40 bar	10 mbar					040B
(-1)/0...60 bar	10 mbar					060B
0...100 bar	100 mbar					100B
0...250 bar	100 mbar					250B
0...350 bar	100 mbar					350B
0...500 bar	100 mbar					500B
0...700 bar	100 mbar					700B
0...1000 bar	1 bar					1KB0
0...1500 bar	1 bar					1KB5
0...2000 bar	1 bar					2KB0
Customer-specific measuring range*						XXXX
Interface						
USB						S
Example order number		EME8AE	JT	0	R	00B1 S

-1...2500 bar



P



P built-in version

Your advantages

Type	P
	<ul style="list-style-type: none"> • Suitable for aggressive media • For relative pressure and vacuum • PC interface for direct data transfer

Technical data

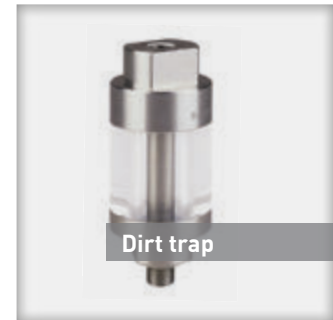
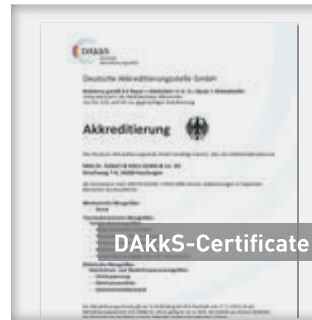
Type	P
Pressure ranges	Between 0...500 mbar and between -1...2500 bar
Accuracy (full scale)	0.2 %, 0.5 % or 0.05 %
Adjustment options	
Linearization	6 point
Tare / Zero	✓
Selectable units	
Pressure	bar, mbar, kPa, MPa, PSI
Features	
Measuring inputs	1 x direct
PC interface (optional)	RS232
Built-in version (optional)	✓
Display	
Display	Multi-functional LCD, 4 digit (0.5 % / 0.2 %), 5 digit (0.05 % / 0.025 %)
Functions	Bargraph, display filter, min / max values
Measuring rate	
Standard	100 ms
Process connection	
Thread	G½
Material	Stainless steel 1.4542
Medium temperature	0...50 °C
For aggressive media	✓

General data	
Type	P
Housing	
Degree of protection	IP65 (front) / IP40
Dimension	86 x 86 mm, T=40 mm H=135 mm
Material	Aluminium
Operating temperature	0...50 °C
Weight	900 g
Power	
Auto-off function	✓
Battery type	2 x 1,5 V AAA
Ext. power	24 VDC
Battery operation	8000 h
Certificate (optional)	
DAkkS certificate	
Works certificate	
NIST certificate	

Order code						
Type	Accuracy (full scale)					
P	0.5 %		EME8AE	PG		
	0.2 %		EME8AE	B2		
	0.05 %		EME8AE	LD		
Certificate						
Without certificate					0	
SIT certificate					Z	
Vacuum/Relative						
Relative pressure					R	
Vacuum					V	
Pressure range	Resolution	0.5 %	0.2 %	0.05 %		
0...500 mbar		1 mbar	0.1 mbar	0.1 mbar		00B5
(-1)/0...1 bar		1 mbar	1 mbar	0.1 mbar		001B
(-1)/0...2.5 bar		1 mbar	1 mbar	0.5 mbar		02B5
(-1)/0...5 bar		1 mbar	1 mbar	0.5 mbar		005B
(-1)/0...10 bar		10 mbar	10 mbar	1 mbar		010B
(-1)/0...20 bar		10 mbar	10 mbar	2 mbar		020B
(-1)/0...40 bar		10 mbar	10 mbar	5 mbar		040B
(-1)/0...60 bar		10 mbar	10 mbar	5 mbar		060B
0...100 bar		100 mbar	100 mbar	10 mbar		100B
0...250 bar		100 mbar	100 mbar	20 mbar		250B
0...350 bar		100 mbar	100 mbar	50 mbar		350B
0...500 bar		100 mbar	100 mbar	50 mbar		500B
0...700 bar		100 mbar	100 mbar	50 mbar		700B
0...1000 bar		1 bar	1 bar	100 mbar		1KB0
0...1500 bar		1 bar	1 bar	200 mbar		1KB5
0...2000 bar		1 bar	1 bar	500 mbar		2KB0
0...2500 bar		1 bar	1 bar			2KB5
Customer-specific measuring range*						XXXX
Interface						
Without					0	
RS 232					S	
Example order number				EME8AE	PG	0 R 00B5 0

* Further measuring ranges on request.

Accessoires // Test pumps // Digital pressure gauges



For pneumatic test pumps		Order code
Hose	Polyamid, 1 m, chromed cap nut G $\frac{1}{4}$ (female)	EPPM040SCHLA01
DIN adapter set	Chromed brass, 11 adapter, G $\frac{1}{4}$ (female) - xxx	EPPM040ADAPT01
DIN single adapter	Chromed brass, lasered, G $\frac{1}{4}$ (male) -xxx	
	G $\frac{1}{4}$ A - G $\frac{1}{8}$ I	FHP011
	G $\frac{1}{4}$ A - G $\frac{3}{8}$ I	FHP012
	G $\frac{1}{4}$ A - G $\frac{1}{2}$ I	FHP013
	G $\frac{1}{4}$ A - NPT $\frac{1}{8}$ I	FHP014
	G $\frac{1}{4}$ A - NPT $\frac{1}{4}$ I	FHP015
	G $\frac{1}{4}$ A - NPT $\frac{1}{2}$ I	FHP016
	G $\frac{1}{4}$ A - M12 x 1,5 I	FHP017
	G $\frac{1}{4}$ A - M20 x 1,5 I	FHP018
	G $\frac{1}{4}$ A - G $\frac{1}{8}$ A	FHP019
	G $\frac{1}{4}$ A - G $\frac{1}{4}$ A	FHP020
	G $\frac{1}{4}$ A - G $\frac{1}{4}$ I	FHP021
DIN seal set for DIN adapter	Different o-rings and thread tape seals in plastic box	EPPM040DICHT01
Reducing adapter P40 adapter set	Chromed brass, G $\frac{1}{4}$ (male) - G $\frac{1}{8}$ (female)	EPPM040ADAPP40
Dirt trap	Up to max. 35 bar	EME81DT6001000
Service kit seal set P40.2/ P60	Internal main piston and valve seals	EPPM040DICHT02
Fine adjust/ release valve	Complete valve system	EPPM040REGVE01
Replacement valve P40.2/ P60	Inlet and outlet valve incl. seals for replacement	EPPM040VENTIL01
Case blue P4	SIKA logo, foam lining and rigid foam inlay	XHP 180
Case blue P40.2/ P60	SIKA logo, foam lining and rigid foam inlay	EPPM040KOFFE01
Case grey P40.2/ P60	Neutral version, foam lining and rigid foam inlay	EPPM040KOFFE02
Rotary union	Brass G $\frac{1}{4}$ (male) - G $\frac{1}{2}$ (female)	EPPM040WIRBEL01

For hydraulic test pumps		Order code
Hose	Polyamide, 1 m, MiniMess®, chromed cap nut MM1620 (female)	XHP104
High pressure hose P1000.2	Chromed cap nut with 2 adapters G $\frac{1}{4}$ (male) - G $\frac{1}{4}$ (female)	EME8HP10000000
Pressure gauge connection	MiniMess®, bulk head, chromed steel, MM1620 (male) - G $\frac{1}{4}$ (female)	XHP103
Testpoint	MiniMess®, coupling, chromed steel MM1620 (male) - G $\frac{1}{4}$ (male)	XHP214
Rotary union	MiniMess® direct connection, chromed steel M1620 (female) - G $\frac{1}{4}$ (female)	EME81620I-G14I
DIN adapter set	Stainless steel, 11 adapter, G $\frac{1}{4}$ (male) - xxx	EPPM700ADAPT01
DIN single adapter	Stainless steel, lasered, G $\frac{1}{4}$ (male) - xxx	
	G $\frac{1}{4}$ A - G $\frac{1}{8}$ I	FHP033
	G $\frac{1}{4}$ A - G $\frac{3}{8}$ I	FHP034
	G $\frac{1}{4}$ A - G $\frac{1}{2}$ I	FHP035
	G $\frac{1}{4}$ A - NPT $\frac{1}{8}$ I	FHP022
	G $\frac{1}{4}$ A - NPT $\frac{1}{4}$ I	FHP036
	G $\frac{1}{4}$ A - NPT $\frac{1}{2}$ I	FHP023
	G $\frac{1}{4}$ A - NPT $\frac{3}{8}$ I	FHP024
	G $\frac{1}{4}$ A - M12 x 1,5 I	FHP037
	G $\frac{1}{4}$ A - M20 x 1,5 I	FHP038
	G $\frac{1}{4}$ A - G $\frac{1}{8}$ A	FHP039
	G $\frac{1}{4}$ A - G $\frac{1}{4}$ A	FHP040
	G $\frac{1}{4}$ A - G $\frac{1}{4}$ I	FHP041
DIN seal set for DIN adapter	Different o-rings and thread tape seals in plastic box	EPPM040DICHT01
Cone seal Ref. P, Q, R, J	>1500 bar	EME8AECON0000
Hydraulic oil	plastic bottle, 0.25 litre	EZHÖ0100000000
Case blue P700.3 / P1000.2	SIKA logo, foam lining and rigid foam inlay	XHP 212

For digital pressure gauges		Order code
All types	DAkkS certificate (10 measuring points)	EKDRUCK000000D
	SIKA works certificate (10 measuring points)	EKDRUCK000000W
	NIST certificate	PM-NIST Cert
Type P	RS 232 C cable	EME8AEQCCABLE0
	Linearisation type P (0.05%): accuracy 0.025 % full scale (from \geq 10 bar)	On request
Type P / J	Software calibration (PresKal)	EME8AEPCSW0000
	Software monitoring (DEMO)	EME8AESWTDEMKA
Type J	Software Datalogger (Analyzer Light)	EME8AESWANALLI
Type L-Ex / E-Ex / D-Ex	Oil and greasefree version up to max. 200 bar, 60 °C	On request

SIKA Headquater

SIKA Dr. Siebert & Kühn GmbH & Co. KG
Struthweg 7-9
34260 Kaufungen / Germany
Phone +49 5605 803-0
Fax +49 5605 803-555
email: info@sika.net
www.sika.net

techniCAL
expanding possibilities
866-327-8731
www.techniCAL-sys.com



SIKA®

SIKA Worldwide

SIKA Austria

Phone +43 1865 2627
Fax +43 1865 2627
email: holzer@sika.net
www.sika-messtechnik.at

SIKA USA Inc.

Phone +1 262 886-2695
Fax +1 262 898-0101
email: info@sika-usa.com
www.sika-usa.com

SIKA Indonesia

Phone +62 21 829-4230
Fax +62 21 829-8464
email: sika.ind@gmail.com
www.sika.net

SIKA Instruments Ltd. UK

Phone +44 1908 320265
email: thomas@sika-instruments.co.uk
www.sika.net

SIKA Greater China

Phone +86 10 6417 6123
Fax +86 10 6416 5123
email: info@sika-china.com.cn
www.sika-china.com.cn

SIKA Philippines

Phone +63 998 8288722
email: sika@rwkc.de
www.sika.net

SIKA France s.a.r.l.

Phone +33 140 3808-08
Fax +33 140 3423-90
email: sika.fr@wanadoo.fr
www.sika.net

SIKA Korea Ltd.

Phone +82 31 243 1035
Fax +82 31 243 1066
email: peter@sika-korea.com
www.sika-korea.com