- → Temperature calibrators
- → Pressure calibrators
- → Recalibration set
- → Hand held devices
- → CargoTemp roller
- → Simulators
- → Portable gas detectors

TEST AND CALIBRATION EQUIPMENT

Temperature calibrators

Temperature calibrators - Series TP Basic

SOLAS ISM regulation

In 1998, the International Safety Management (ISM) code was adopted by IMO and became mandatory on certain ocean going vessels. In 2002 the Safety Of Life At Sea (SOLAS), Chapter IX and the ISM code applies to all ships. Our calibration equipment (temperature calibrators and pressure calibrators) will enable ship owners and marine engineers to comply with the SOLAS regulation for maintenance standards. We advice a recalibration of the calibrator with a cycle between 1 and 2 years depending on strain.
The recalibration comprises:

- On board:
  SIKA Recalibration Set (see on the following pages)
- SIKA in house:
  Calibrator adjustment made by SIKA laboratory with certificate

Economic and safe

Exact temperature measurement and monitoring are "musts" in applications crucial to operational safety of machinery and industrial installations.
Regular inspection of the temperature sensors used in these applications is essential for economic and technical safety reasons and is already prescribed as obligatory in many sectors.
The temperature calibrators are already a part of the standard equipment of the technician in the above listed sectors.
These compact devices are easy to transport and easy to operate and have all performance features required for "in-situ inspection".

For inspection of

Thermometers / SIKA thermometers
Inspection is performed by comparison of the temperature measured by the test piece and the block temperature indicated by the calibrator / calibration bath.

Temperature switches / thermostats
The test piece is inserted into the block and connected to the external transducer. The switch setting respective to the switch point is signalled by reached temperature.

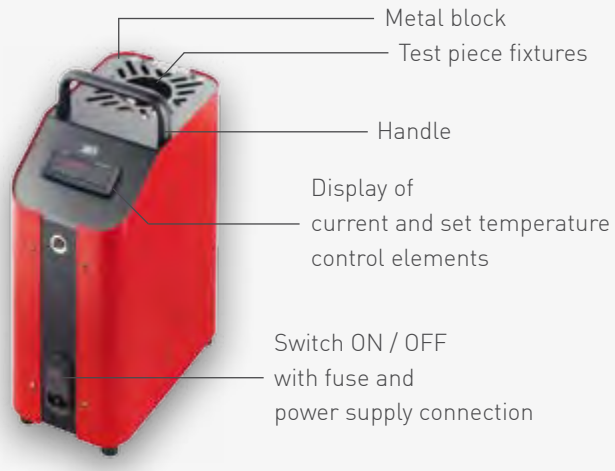
Resistance thermometers and thermocouples
The inspection is performed by comparison of the temperature indicated on the external measuring instrument with the reference temperature of the calibrator or calibration bath.

Description

The calibrators of series TP Basic contain an electrically controlled metal block with a bore for the insertion of the test piece. Adapter sleeves are used for test pieces with smaller diameter. The block is mounted in a heat insulated housing.
The complete electronic is located in the front of the calibrator.
The required temperature is easily set on the digital controller.
The current temperature will automatically be adjusted to the set value. The current temperature and set temperature are constantly shown on the 2-line, 4-digit, 7-segment LED display.

For calibration of indicators and loops, mono- and multifunction simulators are available on the following pages.

Series TP Basic



Accessoires

Technical data and order code

Type TP 17 165 M

Type TP 17 650 M

Order codes		
SIKA-Code	EP17160M281503	EP17650M281500
ISSA-Code	61.180.01	61.180.02
IMPA-Code	65 25 07	65 25 08 / 65 25 09
Type	**TP 17 165 M**	**TP 17 650 M**
Temperature range*	-35 °C up to 165 °C	Ambient temp. up to 650 °C
Block temperature control	Digital PID controller, automatic fine adjustment with softstart for fan	
Accuracy	±1 °C	±1 °C
Stability	±0.1 °C	
Block temperature display	4-digit, 2-line, 7-segment LED, 7 mm high, red and green	
Display range	-50.0 °C up to 165.0 °C	0.0 °C up to 650.0 °C
Resolution	1 °C	
Test piece fixture		
Block material	Aluminium	Brass
Block bore	Ø 28 mm	Ø 28 mm
Block depth	150 mm	
Adapter sleeves	Inside diameter between 1.5 mm and 25 mm in steps of 0.5 mm	
General data		
Power supply	100...240 VAC, 50 / 60 Hz	230 / 240 VAC, 50 / 60 Hz
Power consumption	Approx. 375 W	Approx. 1000 W
Dimensions L x W x H	Approx. 210 x 380 + 50 x 300 mm	Approx. 150 x 330 + 70 x 270 mm
Weight	Approx. 10.0 kg	Approx. 7.5 kg
Options		
Accessories	Aluminium transport case	Aluminium transport case, nylon service case
Power supply		100...115 VAC, 50 / 60 Hz 100...240 VAC, 50 / 60 Hz
Certificates	DAkkS-Certificates, SIKA works certificate	
Engineering unit	Display of temperature in °F	

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

Temperature calibrators - Series TP 17 200

Type TP 17 200

Order codes	
SIKA-Code	EP172000281503
Type	TP 17 200
Control sensor	Internal
Dry block	
Temperature range*	-55...200 °C
Accuracy	±0.4 °C
Stability	±0.1 °C
Measurement zone	110...150 mm
Block dimensions	
→ Diameter	Ø 28 mm
→ Depth	150 mm
Display unit	
Display	2-line, 4-digit display Red / green, unit °C / °F
Display range	-60...200 °C
Resolution	0.1 °C
General data	
Dimensions	
→ Width	210 mm
→ Height	380 + 50 mm
→ Depth	300 mm
Weight	Approx. 12.5 kg
Power supply	100...240 VAC, 50 / 60 Hz
Power consumption	Approx. 555 W

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

The TP 17 200 temperature calibrator, which is also known as TP COOL, works in a temperature range from -55 to 200 °C.

Adapter Sleeves - standard configurations

Our adapter sleeves are designed for use with SIKA dry block calibrators. The sleeves are configured with various diameter bores to accomodate industry standard temperature sensors. We provide several standard configurations for quick delivery.

Standard	Dimensions
Adapter sleeves Ø 28 mm	**Bores**
	1x 3.5 mm (⅛ in.) 1x 6.5 mm (¼ in.)
	1x 3.5 mm (⅛ in.) 1x 6.5 mm (¼ in.) 1x 13.5 mm (½ in.)
	1x 3.5 mm (⅛ in.) 1x 5.0 mm (3/16 in.) 1x 6.5 mm (¼ in.) 1x 9.5 mm (⅜ in.)
	1x 3.5 mm (⅛ in.) 6x 6.5 mm (¼ in.)
	1x 3.5 mm (⅛ in.) 2x 5.0 mm (3/16 in.) 2x 6.5 mm (¼ in.) 2x 9.5 mm (⅜ in.)
	Blank sleeve

For other configurations - consult factory

Pressure calibrators

Precision pressure calibrators - series PM

Pneumatic and hydraulic pressure calibrators of series PM distinguish themselves especially by high accuracy of measurement and compact type of construction. Reference pressures of -1 up to 1000 bar can be generated in a fast and simple way. Exact adjustment of the desired pressure is carried out by a precision adjustment valve. The reference pressure is indicated via an analogue precision pressure gauge or a digital LCD.

The instruments under test are connected to the pressure output of the calibrators by a pressure hose and an adapter. For rough use on the spot the calibrators can be supplied in protection class IP68. Power is supplied by batteries or rechargable accumulators. The automatic measuring range switch of the PM series grants an optimal resolution with any application. Different measurement units can be selected by pressing a function key.

Technical data test pumps

Type	**P 40.2**	**P 60**	**P 700.3**	**P 1000.2**
Pressure medium	Air		Distilled water or hydraulic fluid	
Pressure range	Vacuum -0.95 bar Pressure 40 bar	Vacuum -0.95 bar Pressure 60 bar	With destilled water 0...700 bar With hydraulic fluid 0...700 bar	With destilled water 0...1000 bar With hydraulic fluid 0...1000 bar
Pressure connection → References → Test sample	 G¼ G¼ with quick-coupling and pressure hose (1 m)		 G¼ G¼ with quick-coupling and pressure hose (1 m)	
Adapter set	G⅛, G¼, G⅜, G½, NPT ⅛, NPT ¼, NPT ½ M12 x 1.5, M20 x 1.5 and G⅛ male, G¼ male			
Set of seals	PA Seals and O-rings			
Dimensions → Pump with pressure hose → Pump with accessories in case	 Approx. 240 x 170 x 50 mm Approx. 450 x 370 x 110 mm		 Approx. 255 x 225 x 85 mm Approx. 450 x 370 x 125 mm	
Weight → Pump with pressure hose → Pump with accessories in case	 Approx. 1.1 kg Approx. 4.2 kg		 Approx. 1.8 kg Approx. 4.8 kg	

Types P 40.2 and P 60

Types P 700.3 and P 1000.2

Digital pressure gauges

Type E2, D2

Type E2 / D2					
Accuracy (full scale)		E2 0.5 %		D2 0.1 %	
Pressure range		**Resolution**			
-1...3 bar	-14...43.5 psi	1 mbar	0.1 psi	1 mbar	0.1 psi
-1...40 bar	-14...580 psi	10 mbar	1 psi	10 mbar	1 psi
-1...60 bar	-14...870 psi	10 mbar	1 psi	10 mbar	1 psi
0...400 bar	0...5800 psi	100 mbar	1 psi	100 mbar	1 psi
0...700 bar	0...10 000 psi	100 mbar	1 psi	100 mbar	1 psi
0...1000 bar	0...14 500 psi	100 mbar	1 psi	100 mbar	1 psi

Functions		
Type	E2 / D2	
Adjustment options		
Linearisation	via adapter	
Tare / Zero	✓	
Selectable units		
Pressure	bar, mbar, kPa, MPa, PSI, kg/cm², mH_2O, inH_2O	
Features		
Measuring inputs	1 x direct	
Display / Representation		
Multi-functional LCD	4 ½ digit	
Bargraph	✓	
Illumination	✓	
Display filter	✓	
Min / max value	✓	
Measuring rate		
Standard	10 ms	
Peak / Fast	10 ms	
Process connection		
Connection options	G¼	
Material	1.4404	
Medium temperature	-20...80 °C	-4...176 °F
For aggressive media	✓	
Housing		
Degree of protection	IP67 (front) / IP67	
Dimension	Ø 80 mm T=30 mm H=100 mm	
Material	Zinc casting	
Operating temperature	0...50 °C	32...122 °F
Weight	540 g	1.2 lbs.
Power		
Auto-off function	✓	
Battery type	2x 1.5 V AA	
Battery operation	1500 h	
Certificates (optional)		
DAkkS certificate		
SIKA works certificate		

Combinations

	Reference E2 (0.5% FS)	Reference D2 (0.1% FS)
 **P 40.2**	**PM 40.2 E2** (40 bar) 0.5 % FS	**PM 40.2 D2** (40 bar) 0.1 % FS
 **P 60**	**PM 60 E2** (60 bar) 0.5 % FS	**PM 60 D2** (60 bar) 0.1 % FS
 **P 700.3**	**PM 700.3 E2** (400 bar) 0.5 % FS (700 bar) 0.5 % FS	**PM 700.3 D2** (400 bar) 0.1 % FS (700 bar) 0.1 % FS
 **P 1000.2**	**PM 1000.2 E2** (1000 bar) 0.5 % FS	**PM 1000.2 D2** (1000 bar) 0.1 % FS

All hand-held pressure pumps and reference gauges can be combined for different measuring ranges, resolutions and accuracy classes, as outlined above.

Ex Please ask separately for EX-proof.

Type		SIKA Order code	ISSA-Code	IMPA-Code
Pressure pumps				
P 40.2 (pneumatic)		EPPM0400BL0000	61.241.50	65 16 31
P 60 (pneumatic)		EPPM0600BL0000	61.241.51	65 16 32
P 700.3 (hydraulic)		EPPM7000BL0003	61.241.52	65 16 33
P 1000 .2 (hydraulic)		EPPM1K0BL0000		65 16 34
References				
E2 (40)	Measuring range -1...40 bar	EME8REF-E2-0040	61.241.80	65 16 35
E2 (60)	Measuring range -1...60 bar	EME8REF-E2-0060		
E2 (400)	Measuring range 0...400 bar	EME8REF-E2-0400	61.241.81	65 16 36
E2 (700)	Measuring range 0...700 bar	EME8REF-E2-0700		
E2 (1000)	Measuring range 0...1000 bar	EME8REF-E2-1000		
D2 (40)	Measuring range -1...40 bar	EME8REF-D2-0040	61.241.82	65 16 37
D2 (60)	Measuring range -1...60 bar	EME8REF-D2-0060	61.241.83	65 16 38
D2 (400)	Measuring range 0...400 bar	EME8REF-D2-0400	61.241.84	65 16 39
D2 (700)	Measuring range 0...700 bar	EME8REF-D2-0700	61.241.85	65 16 40
D2 (1000)	Measuring range 0...1000 bar	EME8REF-D2-1000	61.241.86	65 16 41

Recalibration set
for temperature and pressure calibrators

All your calibration equipment always available on board!

With dry block temperature calibrators of the TP Basic series and the pressure calibrators of the PM series, the vessel have necessary calibrated test equipment according to SOLAS and DNV on board. According to these regulations the test equipment for temperature and pressure must be recalibrated. Because of this we are able to offer our SIKA recalibration set. Including a reference thermometer MH 3710 for standard calibration requirements or MH 3750 for highest accuracy requirements. With the high temperature probe TF 650-6-300, you can measure the actual accuracy of the dry block calibrator. For precision pressure measurement we offer the SIKA pressure reference type D2. We deliver the complete equipment in a robust case including all necessary certificates.

Benefits

The advantage is that the test equipment doesn't have to be returned to SIKA. It can be left on board and the crew can make the recalibration on their own. Checking the recalibration set is very easy because only the small case has to be returned once a year.

Procedures

Recalibration of temperature calibrators is done with recalibration instrument type MH 3710 or MH 3750 and temperature sensor type TF 650-6-300. Recalibration of pressure calibrators is done with recalibration instrument type D2. Every calibrator has to be calibrated to 4 measuring points. The recalibration set measures the temperatures of the heating block or the pressure of the pressure calibrator and you have to place the measured values on record.

Temperature reference MH

in combination with Temperature Sensor TF

Measuring input:	Pt100
Measuring range:	-50.00...650.0 °C
Resolution up to:	0.1 °C
Miscellaneous:	Min. / max.-memory, hold function, auto-off

MH 3710 (Standard-Set)

- Accuracy 0.3 % full scale

MH 3750 (Premium-Set)

- Integrated alarm and data logger function
- User-specific characteristic curve of sensor
- Real-time clock with day, month and year
- Measured value memory 16384
- Accuracy < ±0.2 °C

Sensor TF 650-6-300

High-precision temperature sensor suitable for MH 3710 and MH 3750 long-time temperature stable

Measuring range:	-50...650 °C
Sensor:	Stainless steel Tube D = 6 mm, L = 300 mm
Cable / Handle:	Silicone cable (1 m) with 4-pin Mini-DIN-plug

Pressure reference type D2

High-precision digital manometer with versatile pressure measuring instrument.

- µC based with internal EEPROM
- DMS pressure cell
- Pressure- and temperature tested
- Min. / max.-memory, hold function, auto-off

Pressure ranges	-1....40 bar / 0.01 -1....60 bar / 0.01 0...400 bar / 0.1 0...700 bar / 0.1 0...1000 bar / 0.1
Accuracy	< ±0.1 % full scale
Temperature range	0...50 °C
Degree of protection	IP67

Recalibration Set

Recalibration Set

Pressure Reference D2

Temperature Reference Sensor TF650-6-300

Temperature Hand Held Instrument
MH 3710 / MH 3750

	Range	Accuracy	Model		SIKA Code	ISSA-Code
Standard recalibration set						
Set 1	650 °C	0.3% FS	Hand held instrument Temperature reference sensor Certificate temperature (2 points)	MH 3710 TF 650-6-300	EME8RCS-SET012	61.241.61
	40 bar	0.1% FS	Pressure reference Certificate pressure (2 points)	Ref D2 (40)		
			Transport case	GKK 3600-RCS		
Set 2	650 °C	0.3% FS	Hand held instrument Temperature reference sensor Certificate temperature (2 points)	MH 3710 TF 650-6-300	EME8RCS-SET022	61.241.62
	700 bar	0.1% FS	Pressure reference Certificate pressure (2 points)	Ref D2 (700)		
			Transport case	GKK 3600-RCS		
Premium recalibration set						
Set 3	650 °C	0.03% FS	Hand held instrument Temperature reference sensor Special linearisation Certificate temperature (4 points)	MH 3750 TF 650-6-300	EME8RCS-SET032	61.241.63
	40 bar	0.1% FS	Pressure reference Certificate pressure (2 points)	Ref D2 (40)		
			Transport case	GKK 3600-RCS		
Set 4	650 °C	0.03% FS	Hand held instrument Temperature reference sensor Special linearisation Certificate temperature (4 points)	MH 3750 TF 650-6-300	EME8RCS-SET042	61.241.64
	700 bar	0.1% FS	Pressure reference Certificate pressure (2 points)	Ref D2 (700)		
			Transport case	GKK 3600-RCS		

Certificates

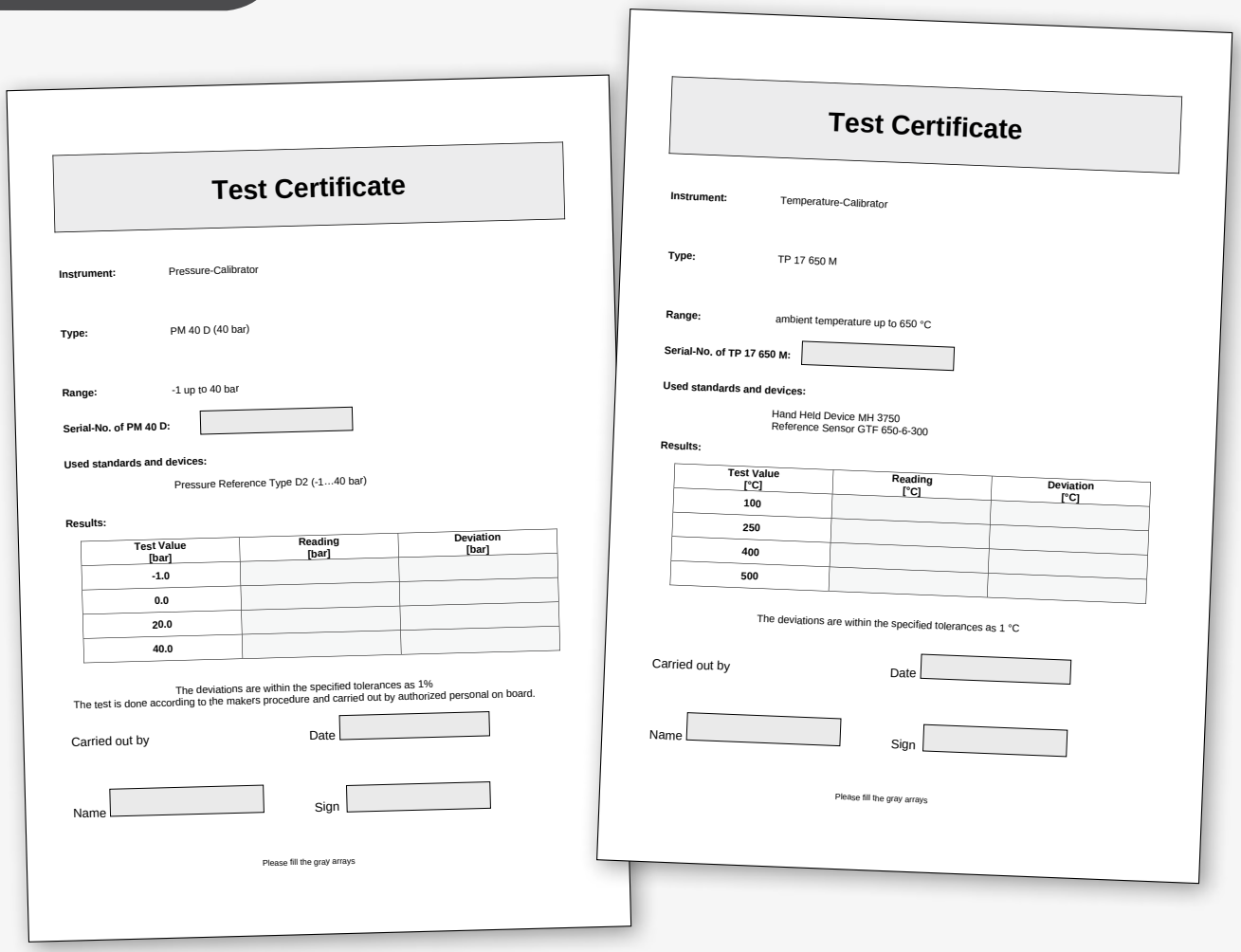
SIKA certificates

SIKA will issue all necessary certificates so that you are able to fulfill the official requirements.

Your own test certificates

You will get an easy form to fill in your recalibration results

Examples



Hand held devices

Series MH - for temperature

The handy and reliable instruments of the MH range are used for measuring and recording temperature. The MH range is very flexible and is equally suitable for simple measurements and special applications.

Sensors and probes

The high accuracy of the signal detection and processing is achieved by means of powerful sensors with electronic linearisation of the characteristic curve. The correct probes are available for a wide range of measuring tasks.

Operating comfort

The innovative design of the attractive housing and the advanced technology make the sensors comfortable to operate. In mobile use, all functions can be selected and carried out easily by pressing the buttons. The membrane keypad guarantees protection against dust and moisture.

Multi-function display

As well as MIN / MAX values, hold function and the selected unit of measurement, various calculation values, such as temperature differential, can also be shown on the multi-function display.

Inputs

Automatic sensor recognition through standard DIN socket provides a plug-&-play solution that is easy to install.

Data storage (log functions)

Some instruments in the MH range can store data. The integrated memory records up to 16 384 measurement values. The date and time is automatically added to the values. A real time clock is integrated for this purpose.

Two **log functions** are available:

- In the STORE mode, data is transferred by means of pressing a button and 99 records can be stored. The values stored are shown directly on the display.
- In CYCLE operation, values are recorded automatically at a pre-programmed interval. 9999 or 16 384 records can be stored. The stored values are shown on a PC.

Outputs

Extensive alarm functions via the display, freely scalable standard signal output and buzzer and TTL interface.

PC-Interface

To transfer the measurement values and stored values to a PC, the majority of the MH instruments are fitted with a serial interface.
The EBS 20 M software packages are available with extensive recorder and display functions, as is the SOFT 3050 for evaluation of the logged and alarm values. Process sequences can then be monitored and analysed clearly using the measurement procedures recorded and visualised, and all data can be exported into standard programs (e.g. Microsoft Excel).

Alarm and time displays

A visual and acoustic warning signal indicates when measurements exceed or fall below a programmed alarm point. Transmission via PC is also possible. All data can be displayed with the year and date, thanks to the real time clock.

User-defined characteristic curve MH 3750

With this function, customer-specific curves can be used, alongside the standard calculation of the resistance / temperature characteristic curve in compliance with EN 60751.

The MH 3750 has a very high accuracy of measurement. In order to be able to exploit this high degree of accuracy, appropriate high-quality temperature sensors must be used. Various standard classes of accuracy are available for this purpose.

For applications that require a very high degree of accuracy which is higher than the accuracy of the sensor itself, it is recommended that the sensor be calibrated to the MH 3750 by means of a user-defined characteristic curve.

Series MH - for temperature

MH 175 / **MH** 3710

MH 3750 / **MH** 1150

Order code						
SIKA-Code	EME8GMH1750000	EME8GMH3710000	EME8GMH3750000	EME8GMH1150000	EME8GMH3210000	EME8GMH3250000
ISSA-Code	61.176.10	61.176.11	61.176.12	61.176.13	61.176.15	61.176.17
IMPA-Code	65 18 11		65 18 12			65 18 13
Technical data						
Type	**MH 175**	**MH 3710**	**MH 3750**	**MH 1150**	**MH 3210**	**MH 3250**
Inputs	1	1	1	1	1	2
Measurement input	Pt1000	Pt100	Pt100	TC-K	TC-K / J / S / T / N	TC-K / J / S / T / N
Measuring ranges	-70.0...199.9 °C	-199.99...199.99 °C 200.0...850.0 °C		-50...1150 °C	-199.9...199.9 °C 200...1750 °C	
Resolution	0.1 °C	0.01 °C / 0.1 °C autorange		1 °C	0.1 °C / 1 °C	0.1 °C / 1 °C
Units	°C	°C / °F		°C	°C / °F	°C / °F
Display	3 ½ -digit	2 x 4 ½ -digit		3 ½ -digit	2 x 4 ½ -digit	2 x 4 ½ -digit
Linearisation	Offset / Slope	Offset / Slope	Offset / Slope 50 supporting points	Offset / Slope	Offset	Offset
Log Function			✓			✓

Temperature sensors

Pt1000 measurement sensor for MH 175

Type	Range	L [mm]	D [mm]	SIKA Order code	ISSA-Code	IMPA-Code
Standard sensor GTF 175 (Fig. 1)	-70...200 °C	100	3	EME8GTF175000G	61.178.01	651815
Spike sensor GES 175 (Fig. 2)	-70...200 °C	100	3	EME8GES175000G	61.178.02	651816
Surface sensor GOF 175 (Fig. 3)	-70...200 °C	100	3 (head = 4)	EME8GOF175000G	61.178.03	651817
Air / gas sensor GLF 175 (Fig. 6)	-70...200 °C	100	3 (head = 6)	EME8GLF175000G	61.178.04	651818

Pt100 measurement sensor for MH 3710 and MH 3750

Type	Range	L [mm]	D [mm]	SIKA Order code	ISSA-Code	IMPA-Code
Standard sensor GTF 401 (Fig. 1)	-50...400 °C	150	3	EME8GTF401000G	61.178.10	651821
Spike sensor GES 401 (Fig. 2)	-50...400 °C	150	3	EME8GES401000G	61.178.11	651822
Surface sensor GOF 401 (Fig. 3)	-50...400 °C	300	3 (head = 4)	EME8GOF401000G	61.178.12	651823
Air / gas sensor GLF 401 (Fig. 6)	-50...400 °C	100	3 (head = 4)	EME8GLF401000G	61.178.13	651824

NiCr-Ni measurement sensor for MH 1150, MH 3210 and MH 3250

Type	Range	L [mm]	D [mm]	SIKA Order code	ISSA-Code	IMPA-Code
Standard sensor GTF 900 (Fig. 1)	-65...1000 °C	130	3	EME8GTF900000G	61.178.15	651826
Spike sensor GES 900 (Fig. 2)	-65...1000 °C	130	3	EME8GES900000G	61.178.16	651827
Inconel sensor GTF 1200/300 (Fig. 1)	-65...1150 °C	300	3	EME8GTF120030G	61.178.20	651828
Surface sensor GOF 130 CU (Fig. 4)	-65...500 °C	130	3 (head = 4)	EME8GOF130CU0G	61.178.30	651830
Surface sensor GOF 130 (Fig. 5)	-65...900 °C	130	8	EME8GOF130000G	61.178.35	651831
Air / gas sensor GLF 130 (Fig. 6)	-65...600 °C	130	3 (head = 6)	EME8GLF130000G	61.178.40	651832

For non-contact temperature measurement

Types MiniTemp 400 / SemiTemp 512 / MaxiTemp 570

Order code			
SIKA-Code	EME8ETIR400000	EME8ETIR512000	EME8ETIR570000
ISSA-Code		61.175.32	61.175.34
Type	**MiniTemp 400**	**SemiTemp 512**	**MaxiTemp 570**
Temperature range	-20...330 °C	-35...1000 °C	-35...1000 °C
Resolution	0.1		0.1
Accuracy <500 °C >500 °C	±2 % .of rdg. +2 °C)	±(2 % of rdg. +2 °C) ±(3 % of rdg. +1 °C)	±(2 % of rdg..+2 °C) ±(3 % of rdg.+1 °C)
Optical resolution	8	30	50
Emissivity	Fix 0.95	Adjustable 0.10...1.00	Adjustable 0.10...1.00
Spectral range	8...14 µm		
Laser pointer	1	2	2
Alarm		Acustical high / low	Acustical high / low
TC connection			Type K
Datastore			100
PC connection			USB
Power supply	9 V		
LCD lightning	✓	✓	✓
°C / °F switchable	✓	✓	✓
Bargraph display			✓
Scan / Hold / Auto OFF	✓	✓	✓
Permanent measuring (Lock)		✓	✓
Low Bat. indication	✓	✓	✓
MIN / MAX store	✓	Max	✓
AVA / DIF function			✓
Accessories (incl.)	Battery	Battery	Battery, TC-K, stand stand base, software, USB cabel, transport case

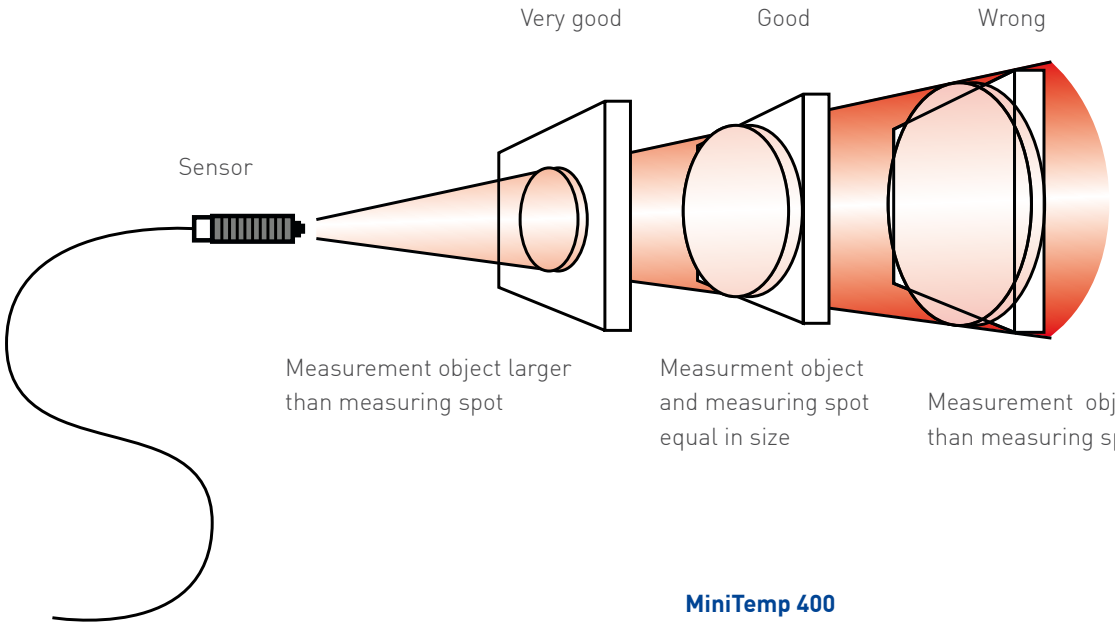
Measuring spots

Hand-held infrared measuring instruments measure the surface temperature of an opaque object.
The instrument's optics detect emitted, reflected, and transmitted energy, which is collected and focused onto a detector.

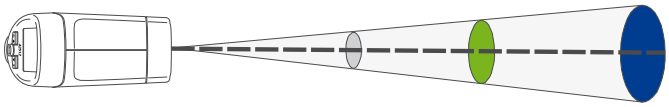
The electronics translate this information into a temperature measurement and display the temperature. The laser pointer is only used as an pointing device.

To measure a temperature, the hand-held measuring instrument is simply aimed at an object and the measurement activated. Here, the distance and associated spot size is to be observed.

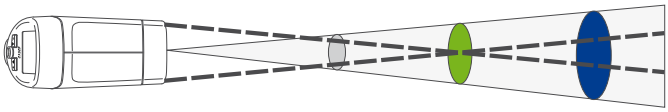
The measuring spot size increases as the distance from the object to be measured increases. The ratio between distance and measuring spot size is represented as optical resolution. The higher the optical resolution, the smaller the measuring spot size is with the same distance.



MiniTemp 400



SemiTemp 512



MaxiTemp 570

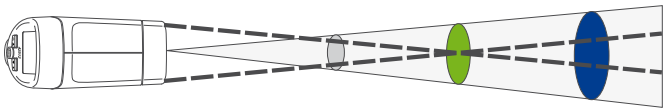


Table of total Emissivity

To ensure a correct setting of the emission factor in the infrared temperature measurement, please visit **emissivity.sika.net** and download a table of total Emissivity.

CargoTemp Roller

More safety by manual temperature monitoring of bulk cargo

CargoTemp Roller

Mobile temperature monitoring in your cargo holds!

- Easy to handle
- Cable with depth indication
- Large integrated LC display
- Comes in a sturdy plastic suitcase

Why is temperature monitoring important?

Many products are self-heating and / or self-igniting as bulk cargo. This autonomous process may lead to the cargo destroying itself, if measures to counteract are not taken in time.

Which products are affected?

- Raw materials such as tobacco, cocoa, cotton and jute
- Oleiferous goods such as seeds and nuts
- All products that can be grouped under the umbrella term 'oil cake', such as expeller, pellets and extractions, as well as
- Aluminium powder, ores and coals

As a basic principle, all goods falling under the IMDG Code, chapter 2.4 class 4.2, should be temperature monitored, in order to detect the incipient self-heating process in time.

SIKA Order code	ISSA-Code	IMPA-Code
ETCTP000350004	61.232.00	65 25 20
Technical Data		
Measurement Input	Pt1000 / 2-wire	
Cable length	35 m	
Cable design	Temperature proofed, braided FEP cable, with 6 marks every 5 meters for depth indication, tension = 50 N	
Measuring probe	Length = 100 mm, Ø = 20 mm, weight = 200 g	
Measurement input	Pt1000 / 2-wire	
Measuring range	-40.0...150.0 °C	
Resolution	0.1 °C	
Accuracy	±0.5 % full scale ±1 digit	
Display	3 ½ digit LCD, 18 mm high	
Measuring rate	3 sec.	
Power supply	Maintenance-free battery	
Battery life time	Expected 10 years	
Housing	Robust PP-plastic, blue / black, with handle	
Housing size	Ø approx. 210 mm, depth approx. 95 mm, handle approx. 45 mm	
Degree of protection	IP40	
Accessories	Portable ABS-plastic case with foam inlay Case dimensions 394 x 294 x 106 mm	
Weight	Approx. 2 kg incl. case	

Simulators

Universal mono- and multifunction calibrators

Types UC TC.2 / UC mAV.2 / UC RTD.2

Universal monofunction calibrator - series UC

- Digital, menu driven value adjustment, 6 keys and navigator
- Background-lit, graphic LC-display, 160 x 160 pixel
- Step-, ramp-, cycle-, HOLD- and scaling functions
- Serial USB PC interface (type mini B)
- Power supply via 4 x 1.5 V batteries (AA type)
- Dimensions approx. 160 x 85 x 45 mm
- Weight approx. 300 g

Type MC 50.2

Universal multifunction calibrator - series MC

- Digital, menu driven value adjustment, 22 keys and navigator
- Background-lit, graphic LC-display, 240 x 320 pixel
- Step-, ramp-, cycle-, HOLD- and scaling functions
- Serial USB PC interface (type B)
- Power supply via internal accumulator incl. power pack (230 VAC)
- Dimensions approx. 210 x 110 x 50 mm
- Weight approx. 900 g

Order code				
	EME8AOUCRTD020	EME8AOUC0TC020	EME8AOUCMAV020	EME8AOMC050200
	UC RTD.2	**UC TC.2**	**UC mAV.2**	**MC 50.2**
Signals → TC Types		J, K, T, R, S, B, C, U, L, N, E		J, K, T, R, S, B, U, L, N, E
→ RTD	Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000, Cu10, Cu50			Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000 ,Cu10, Cu50
→ Ω	Resistance 0...400 Ω, 0...3500 Ω			Resistance 0...400 Ω, 0...4000 Ω
→ mA			Current 0(4)...20 mA, 25 mA	Current 0(4)...20mA, 25 mA
→ mV		Voltage -10...100 mV		Voltage 0...100 mV
→ V			Voltage 0...10 V, 25 V, 50 V	Voltage 0...10 V, 25 V, 50 V
→ Hz				1...20 kHz
Features	Data logging function via flash memory for 10000 measured values. Graphic and tabular display of measured values			
Accuracy	±0.012 % of rdg. +K	±0.020 % of rdg. +K	±0.015 % of rdg. +K	±0.017 % of rdg. +K
Resolution	0.01 °C or 0.01 °F and 1...10 mΩ	0.1 °C or 0.1 °F and 1 µV	0.1 mA or 0.1 V	6 digits

SIKA Calibration Service Points

We support you worldwide

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

Our steadily growing dealer network has enabled us to provide our foreign customers with high-quality onsite service: in our specially built service points, we can let marine customers recalibrate their calibrators. Special certified "Calibration Service Partners" offer comprehensive service for our industrial customers.

Portable gas detectors

PS 200

NEW SOLAS REGULATION XI-1/7
valid from July 2016

Type PS 200

A robust and accurate portable gas detector, the Personal Surveyor (Type PS 200) provides unrivalled protection in confined space applications with audible and visual alarms in the event of exposure to flammable or toxic gases.
Detecting and displaying up to 4 gases simultaneously, PS 200 is suitable for a host of applications in a variety of industries.
Pre-entry checking can be carried out with the internal sampling pump, and diffusion operation ensuring maximum battery life in confined spaces.

Features

- Simple 1-button operation
- Measures up to 4 gases (LEL / O_2 / CO / H_2S)
- Audible, visual and vibrating alarms
- Internal pump
- Lightweight
- Sensor integrity checking
- Robust construction
- Ease of maintenance

Accessories supplied with the instrument

- Instrument charging / comms clip
- Universal charging adaptor (Mains - USB)
- User handbook (CD-ROM)
- Quick operating instructions
- 3 m tubing c/w quick connect (pumped only)

Technical data			
Measuring Ranges	0...100 % LEL 0...25 % Oxygen (O_2) 0...100 ppm Hydrogen Sulphine (H_2S) 0...1000 ppm Carbon Monoxide (CO)		
Display	Green and red LCD backlit display		
Resolution	LEL	0...100 %	1 %
	Oxygen	0...25 %	0,1 %
	H_2S	0...100 ppm	1 ppm
	Carbon Monoxide	0...1000 ppm	1 ppm
Alarms	Highly visible flashing LED's, piercing 95 dB audible		
Sampling system	Internal sampling pump (optional: diffusion operation)		
Weight	230 g		
Dimensions	121 x 59 x 32 mm		
Degree of protection	IP67		
Enclosure	High impact rubberized polycarbonate case		
Drop test	3 m (10 ft)		
Power supply	Lithium Ion rechargeable battery		
Battery life	Run Time >14 hrs. (>8 hrs. pumped) Charging time <4 hrs.		
Environment	Temperature limits -20...50 °C Humidity: 0...95 % R.H. non-condensing		
Warranty	2 years		
Certification	IEC Ex d ia d IIC T4 GB ATEX Ex II 2 G Ex ia d IIC T4 UL913 Class 1 Groups A, B, C, D CSA Class 1 Groups A, B, C, D* MED CE		

Not available in all countries, please inquire.